

**JOINT GSMFC & ASMFC ARTIFICIAL REEF SUBCOMMITTEE  
MINUTES**

**Tuesday, March 1 and Wednesday, March 2, 2011  
St. Petersburg, Florida**

APPROVED BY:  
  
COMMITTEE CHAIRMAN

**Chairman Mike Meier** called the meeting to order at 8:30 a.m. The meeting began with introductions of the members and guests. The following were in attendance:

**ASMFC Members**

Hugh Carberry, NJ DWF, Port Republic, NJ  
Jon Dodrill, FL FWC, Tallahassee, FL  
Jim Francesconi, NC DMF, Morehead City, NC  
Bill Horn, FL FWC, Tallahassee, FL  
Bob Martore, SC DNR, Charleston, SC  
Mike Meier, VA MRC, Newport News, VA  
Jeff Mericle, GA DNR, Brunswick, GA  
Mark Rousseau, MA DMR, Gloucester, MA  
Dale Shively, TX PWD, Austin, TX  
Jeff Tinsman, DE DWF, Dover, DE  
Erik Zlokovitz, MD DNR, Annapolis, MA

**GSMFC Members**

Kevin Anson, AL DCNR, Gulf Shores, AL  
Michael Bailey, NOAA, St. Petersburg, FL  
Jon Dodrill, FL FWC, Tallahassee, FL  
Doug Peter, LA DWF, Baton Rouge, LA  
Kate Winters, BOEMRE, New Orleans, LA

**Staff**

James Ballard, GSMFC, Ocean Springs, MS  
Alyce Catchot, GSMFC, Ocean Springs, MS

**Others**

Larry Beggs, Reef Innovations/Reef Ball Foundation, Sarasota, FL  
Steve Bortone, GOM Fishery Management Council, Tampa, FL  
Vaughan Douglas, US FWS, Hadley, MA  
Sean Keenan, FL FWC, St. Petersburg, FL  
Charles Mangio, Pinellas County Artificial Reef Program, St. Petersburg, FL  
Madeleine McNamara, US Coast Guard, Eighth District, New Orleans, LA  
Steve Meyers, NOAA Fisheries, Silver Springs, MD  
Keith Mille, FL FWC, Tallahassee, FL  
Tim Mullane, American Marine Group, LLC, Philadelphia, PA  
Alex Roberts, Hillsborough County EPC, Tampa, FL  
Phil Rubin, Hernando County Port Authority, Brooksville, FL  
Brooke Shipley, TXPWD, Dickinson, TX  
John Stevely, University of Florida, Palmetto, FL  
Laura Thorne, Hillsborough County EPC, Tampa, FL

**Update on the ex-Arthur W. Radford Project in the Mid Atlantic – Jeff Tinsman**

**Tinsman** presented a PowerPoint presentation entitled ‘Reefing the Radford, 2003-2011’. **Tinsman** reported on the three-state effort of New Jersey, Delaware and Maryland to turn the Arthur W. Radford, a 563-foot decommissioned Navy Destroyer, into an artificial reef. **Tinsman** reported that certain criteria are considered when selecting a vessel as a candidate for reefing. 1.) The location of the vessel is very important and needs to be in a home region so that frequent visits to the ship can be made to monitor the progress. 2.) A vessel that has already been designated for reefing by the Navy should be chosen. 3.) An application is eligible for review only if it meets the mandatory requirement to include a copy of a valid Section 404 permit issued by the U.S. Army Corps of Engineers for the artificial reefing project. The applicant must also provide a written statement from the state's coastal zone management agency that the proposed reefing is consistent with the state's coastal zone management plan. Detailed information on the reef site must also be included. 4.) When selecting a ship for reefing, the choice should be objective and not emotional. This allows for an un-biased evaluation based on a ship’s true merit as a reefing candidate. 5.) Modern vessels are preferable as artificial reefs, due to the presence of PCBs on Navy vessels built prior to 1978. 6.) Local, trusted marine contractors who are experienced in preparing vessels for reefing is very important. 7.) Before the vessel is offered for reefing, it should be toured. 8.) The vessel’s recyclable assets should be identified and their values estimated. 9.) Allowing for the passage of time in the budget is also important. The process for the Arthur W. Radford Project began in 2003 and will not be completed until possibly May, 2011.

<u>Arthur W. Radford application timeline</u>	
2003	Navy designated the Radford for reefing
2004-2006	NJ and DE jointly permitted deeper sites
2006	NJ, DE, and contractor toured the Radford
Jan., 2008	Navy ITB for the Radford sent to states
	a. Visited vessel with contractors
	b. Letter of interest from three state’s Governors
	c. Advertised for marine contractors
	d. Completed Navy application
	e. Selected successful bidder
	f. Anti-fouling paint dry docking question
Apr. 25, 2008	Submitted application to Navy
<u>Navy consideration of application (25 months)</u>	
Aug., 2008	Supplemental questionnaire from Navy
Oct., 2008	Final response to questions
Feb., 2009	“Best and Final” application
Mar., 2009	NOAA stimulus proposal (shovel ready)
Apr., 2009	NOAA stimulus rejection
Jul-Nov., 2009	Navy considers transfer decision
Sept., 2009	EPA informed of Navy transfer decision
Dec., 2009	EPA identifies a Point of Contact for project
Dec., 2009	EPA sent PCB Sampling Plan
Apr., 2010	Transfer Agreement Signed – Navy and Delaware
June, 2010	Notice to proceed issued by Navy

June, 2010	Work begins on the Radford
Sept., 2010	Open House for crew members of the Arthur W. Radford
Oct., 2010	“Kickoff” Meeting with EPA

**T. Mullane** commented that one of the problems on the project was that the EPA wanted to see consistency in their ship process so that everyone is adhering to the same standards. However, **Mullane** explained that those standards surpassed any standards that he has in his best management practices.

Unfortunately, the targeted timeframe for sinking the Radford before November 1<sup>st</sup> was missed. **Mullane** pointed out that an important lesson that should be learned when sinking a vessel is to do it while weather conditions are favorable. Weather conditions increasingly deteriorate by November. **Mullane** reported that the ship will probably be sunk in May. At this time, additional PCB samplings are still being done.

**M. Meier** suggested developing a standard reefing plan that outlines procedures that need to be done, and present it to the EPA for their approval. This should alleviate further problems on future projects.

**Meier** asked **Tinsman** if he was creating a monitoring plan. **Tinsman** replied that he is committed to a five-year monitoring plan. **Meier** then suggested that monitoring be done on how well the aluminum holds up.

**J. Francesconi** asked **Tinsman** what each state’s financial contribution to the project was. **Tinsman** replied that DE and NJ each contributed \$200,000, and Maryland’s contribution was \$40,000.

**B. Martore** asked **Mullane** how they were able to keep the costs of the operation so low. **Mullane** explained that the project was a major recycling effort. Metal prices are at an all-time high and metals from the ship are being removed and recycled.

**Meier** asked about the location of the ship. **Tinsman** stated that it is in Federal waters, east of Delaware, 28-30 miles off the coast of Maryland.

**K. Mille** asked about the payment schedule and what percentage of funds, if any, is being withheld. **Tinsman** replied that \$300,000 is being withheld. The Navy designed the payment schedule, which proposed quarterly payments for each state.

**Tinsman** gave a PowerPoint presentation entitled “Special Management Funds and Wallop-Breaux Funding. To Use the Latter, You Must Have the Former”.

● Special Management Zones and Wallop-Breaux Funding

▪ Reef Rescue Letter – Six Questions

1. Are the objectives of the New Jersey Reef Program consistent with the mission of the Wallop-Breaux program?
2. What are the rules concerning Wallop-Breaux funding, when an unintended use (potting) precludes an intended use (angling)?

3. Is it the responsibility of the state agency to insure that the intended use is protected?
  4. Do the impacted New Jersey anglers have recourse through the USFWS?
  5. What actions will USFWS take if conflicts continue?
  6. Can a reef site developed with Wallop-Breaux funds be split between recreational and commercial users?
- USFWS Response from Dr. John Organ
    1. New Jersey's reef program objectives are consistent with the mission of Wallop-Breaux funding.
    2. Commercial use of the reefs can not interfere with the purpose for which the land is managed. (*Federal Aid in Fish and Federal Aid in Wildlife Restoration Act-50 CFR 80.14, Part 80 Administrative Requirements*).
    3. New Jersey may not allow activities which interfere with grant objectives
    4. The USFWS has the ultimate responsibility to ensure that grant objectives are met.
    5. A "range" of corrective measures is available to USFWS.
    6. Because commercial fishing is not an approved activity, partitioning a reef site does not solve the problem.

July, 2008 Conference Call-USFWS, DE DFW and NJ DFGW

1. At this time, development of ocean sites with the Army Corps of Engineers permits and approved by USFWS in the state's most recent 5-year renewal may continue to be developed.
2. No new sites may be developed until the permit holder has "control" of commercial activity on those sites.
3. Special Management Zone (SMZ) designation through the MAFMC, limiting gear types, is considered sufficient control.
4. Should state reef programs fail to secure SMZ status for all ocean sites, USFWS may terminate funding for future development of ocean sites or may require that states reimburse them for past development activities.
5. The issue of control of the use of reef sites in state waters and Wallop-Breaux funding is the same, but the mechanism is different (state legislation).

Delaware House Bill 270

- House Bill 270 passed the Delaware General Assembly and was signed by Governor Markel in April, 2010.
- "The Department of Natural Resources is granted authority to restrict or define by regulation the type of fishing activities permitted within the geographic boundaries of the artificial reef sites within Delaware Bay and within Delaware's territorial sea".

Draft Proposed Regulation

- Amend Regulation #3536: Fish Pot Regulations
- Add Section 5.0:
 

"It shall be unlawful to take or attempt to take any finfish within the geographic boundaries of any artificial reef site under Delaware jurisdiction by any method other than hook and line and spear. The coordinates of Delaware permitted reef sites are defined in U.S. Army



Corps permit CENAO-OP-R-200500059-1 and any subsequent permits issued and are depicted on NOAA charts 12304 and 12214.”

- A public hearing will be held on March 24, 2011 and if signed by the Department Secretary, the regulation will be advertised and become effective in May, 2011.

Request for SMZ status through Black Sea Bass Plan – MAFMC

1. NJ and DE have made two presentations to the MAFMC Ecosystem Committee in 2007.
2. The subject was referred to the Demersal Committee for their consideration (Jack Travelstead, Chairman).
3. Decision-making process unclear.
4. June/August timeframe being considered.
5. What other states are interested in participation?

Update on the Lionfish Invasion – James Ballard

**Ballard** stated that **James Morris** from NOAA was to have given a presentation, but could not attend the meeting. **Morris** is willing to do a webinar on his new research, and the research was incorporated into **Ballard's** presentation. **Ballard** informed everyone that if they were interested in seeing the research, he could provide them with the link.

**Ballard** gave a PowerPoint Presentation entitled “The Perfect Marine Invader – Lionfish (*Pterois volitans*)”. Like most members of the Family Scorpaenidae, Lionfish have a venom defense. They have sharp spines on their dorsal, ventral, and anal fins that contain apocrine-type venom glands covered with integumentary sheath. The venom has been found to cause cardiovascular, neuromuscular, and cytolytic effects ranging from mild reactions such as swelling, to extreme pain and paralysis in upper and lower extremities. The venom degrades very quickly with heat, so the main treatment is to run the affected area under hot water.

**Ballard** pointed out that the majority of the invasive Lionfish species is made up of the “Red Lionfish”. This is the first non-native marine fish to become established in the waters of the western north Atlantic, the Caribbean, and now the Gulf of Mexico. The first reported sightings of the Lionfish were in 1992; however, there have been unconfirmed reports dating back to 1985. The believed cause of introduction was the pet trade, but that can not be confirmed. In 2000, Lionfish sightings were reported along the U.S. East Coast and Bermuda. In 2005, sightings were reported in the Bahamas. In 2009, the first sighting in the Gulf of Mexico in Tampa, Florida was reported. This confirmed that the Lionfish had indeed become established in Gulf waters. The sightings had expanded to Key West, Cuba, Mexico, the Turks and Caicos Islands, Puerto Rico, St. Croix, the Dominican Republic, Haiti, Jamaica, the Cayman Islands, Belize, Costa Rica, and Columbia. In 2010, there were more sightings in the lower Gulf of Mexico and the east coast of Florida. In 2011, at least 50 confirmed sightings were reported in the Gulf of Mexico. Sightings continued to increase throughout the Caribbean Sea.

Females sexually mature at ~180mm (approximately one year of growth); males at ~100mm. Peak spawning is in summer, but the spawning season is very protracted. Females spawn every 3.5 – 4 days in invaded range. Fecundity is ~25,000 eggs per spawn (~2 million

eggs/year/female). Larvae are pelagic for ~26 days post hatch, which facilitates dispersal via ocean currents.

Lionfish invasion causes potential ecological and economic impacts. *Albins and Hixon (2008)*, showed a 79% reduction in the recruitment of coral reef fish on patch reefs with Lionfish in the Bahamas, compared to reefs without Lionfish. Reports from divers in the Bahamas have shown that on both artificial and natural reefs, the diversity of naturally occurring reef fish is lowest where there are high densities of Lionfish. Lionfish are opportunistic predators and consume over 56 species of teleosts and a variety of invertebrates. One Lionfish was observed consuming 20 small fish in a 30-minute timeframe. They can expand their stomachs 30 times its normal size during feeding events. There is also an increase in algal growth on coral reefs as a result of herbivore removal. Competition with native piscivorous reef fish for prey could hinder the rebuilding of economically important stocks. A loss in tourism is imminent as Lionfish densities increase and the number of Lionfish envenomations of swimmers at resorts increase. Some resorts are actively trying to remove Lionfish from areas where swimmers gather. Lionfish have no natural enemies, although there is evidence of Groupers and Snappers consuming Lionfish. It is uncertain at this time if Groupers or any other reef predators will feed with regularity on Lionfish and if this consumption will be significant enough to reduce the Lionfish population.

**Ballard** provided flyers entitled “Wanted! Information on All Invasive Lionfish Sightings”. The flyers have been distributed to bait shops, dive shops, etc. The online site to report a Lionfish sighting is <http://nas.er.usgs.gov/sightingreport.aspx>. The toll-free number to report Lionfish is 1-877-STOP-ANS.

Last year, Florida launched the “Eat Lionfish” campaign. Local restaurants have been approached about adding Lionfish to their menus. Rodeos for Lionfish capture are also being held, and at a one-day rodeo held last year in Port Eads, Louisiana, 534 Lionfish were captured. Several more rodeos are being planned for this year. The rodeos are not a long-term fix for the invasion problem, but they do remove Lionfish populations in the short-term to help sensitive areas recover.

Future research needs (*Morris & Whitfield 2009*):

- Tracking of sightings and establishment
- Density estimates in native/invaded range
- Factors controlling Lionfish in native range
- Local community and ecosystem impacts
- Diet across temporal and spatial scales
- Competitive interactions
- Venom effects on native predators
- Development of collection/harvest techniques. NOAA is working on a live bait trapping system. Preliminary findings indicate that the traps are successful. Commercial fishermen have reported that with every 500 lobster set traps they run, there are approximately 100 Lionfish captured. Obviously, Lionfish are consuming cut bait as well as live fish.

For more information, visit the following websites:

- NOAA National Centers for Coastal Ocean Science Lionfish webpage  
<http://www.ccfhr.noaa.gov/stressors/lionfish.aspx>

- USGS Non-indigenous Species Database Lionfish factsheet  
<http://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=963>
- NOAA National Ocean Service Lionfish Educational Website  
<http://oceanservice.noaa.gov/education/stories/lionfish>
- Reef Environmental Education Foundation lionfish program  
<http://www.reef.org/programs/exotic/lionfish>

If you have further questions, please contact:

James Ballard  
Gulf States Marine Fisheries Commission  
228-875-5912  
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**B. Martore** stated that in South Carolina, Lionfish are being marketed and sold to local restaurants. The restaurants contract with dive shops to obtain a certain number of Lionfish per week. **Tinsman** asked **Martore** if Lionfish were good to eat. **Martore** replied that, although he personally has not eaten them, he has been told that they are good. He also added that there is a fairly high demand for them. **E. Zlokovitz** asked **Ballard** about recent Northern range. Ballard responded that Lionfish have now been found as far north as Southern New England and New York. However, due to temperature intolerance, they cannot become established in that area. **Martore** asked what the size ranges of Lionfish were that have been reported. He stated that they have not heard of any that measured over 12 inches. **Ballard** replied that there was a Lionfish captured that had measured 474 mm (18 inches). **Dodrill** asked **Martore** about recreational fishermen selling to restaurants, and if a commercial saltwater products license is required in South Carolina. **Martore** answered that fishermen only need a standard fishing license since they are not working on a commercial scale.

### Subway Car Durability Presentation/Discussion – Jeff Tinsman/Hugh Carberry

**H. Carberry** gave a two-part PowerPoint Presentation entitled “New Jersey Department of Environmental Protection Division of Fish and Wildlife Reef Program – Stainless Steel Subway Car Durability”. **Carberry** gave a recap on their documentation of the collapse of the stainless steel subway cars that were deployed on New Jersey’s Atlantic City Reef, and the results of the high resolution side-scan sonar survey that was done in 2009 and 2010.

In 2008, the dive team of New Jersey’s Reef Program performed a scuba dive on stainless steel subway cars deployed on the Atlantic Reef in April of 2008. The objective of the dive was to assess the condition and productivity of the cars following an eight month soak time. Of the five subway cars submerged during the survey, four showed evidence of significant structural damage. These observations were a stark contrast to the Redbird subway cars that were constructed of carbon steel and deployed five years earlier. Initially, the thinking was that the collapsing subway cars may have been a result of collision damage between cars during deployment. In the dive area, a tight grouping deployment configuration was used. Scuba divers had specifically requested that this configuration be utilized for ease of diving. A month later, another scuba dive was performed at an area within the reef where the stainless steel subway cars were broadly dispersed. The logic with the second dive was to rule out collision damage between cars. The mean distance between cars at this location was 80 feet. Of the two cars

surveyed, both exhibited the same characteristics as the subway cars surveyed in November. With this information, other Reef Coordinators were contacted to see if they had observed similar collapse of the stainless steel cars. Marty Gary of Maryland's Reef Program had performed a scuba dive two days following the deployment. At the time of the dive, all of the stainless steel subway cars surveyed were in an intact condition. **B. Martore** of South Carolina's Reef Program indicated that he would perform a dive in the spring, given New Jersey's observations. Another possible cause of damage to the subway cars was from surf clam dredging operations, but this was ruled out as a cause. The Atlantic City Reef is one of the most popular reefs on the Reef Network. If a surf clam vessel had been working within the reef, it would have been reported by anglers and charter boat captains. The Atlantic City Reef is four miles in area and the chances of a surf clam vessel dredging through two patch reefs constructed with subway cars was extremely low. The exact cause of the subway car collapse is unknown. The U.S. EPA had predicted that the subway cars would last between 25-30 years.

In April of 2009, the dive team from South Carolina's Reef Program performed a scuba dive on their stainless steel subway cars that had been deployed nine months earlier. The same type of subway car collapse that had occurred in New Jersey was also documented in South Carolina. Following these results, Maryland's Reef Program had their dive team perform a scuba dive at the Jack's Spot Reef and similar damage characteristics were also observed. The Maryland dive team brought pieces of the subway cars to the surface. Some of the pieces showed signs of galvanic corrosion, while others were in relatively good shape. With similar observations being made from other states, New Jersey contracted Black Laser Learning to perform a high resolution side-scan sonar survey. The survey objectives were to survey five Redbird subway cars (as a control area) deployed on the Atlantic City Reef at the same depth as the stainless steel for comparison purposes, and to survey all forty-four stainless steel subway cars in high resolution to determine how many were damaged.

Results from Phase I of New Jersey's side-scan sonar survey of the Redbird subway cars at the Atlantic City Reef indicated no degradation of the basic structures. The Redbird subway cars were deployed in 2003 at similar depths to the stainless steel cars and had a five-year soak time. While the heights of the cars were reduced from the expected 8.5 feet if lying on their sides, or 12 feet if upright, none of the subway cars exhibited any signs of structural degradation. There were signs of scour and settling into the sediment. All five cars appeared completely intact. In stark contrast, all thirteen of the stainless steel subway cars were completely collapsed, with maximum heights above bottom of less than three feet. All of the cars scanned indicated some degree of structural collapse. The typical vertical relief was between 1.6 feet and 5.2 feet.

In summary, the 2009 Atlantic City Reef Side-scan Survey results indicated that the older Redbird subway cars were entirely intact. All of the newly deployed stainless steel subway cars exhibited some reduction in structural integrity. Many of the cars have been reduced to low-relief debris piles. None of the debris appears to have exhibited signs of movement, with debris fields conforming to a localized area around the remains of the cars.

Results from Phase II of the 2010 Atlantic City reef side-scan sonar survey indicated that none of the five Redbird subway cars showed any degradation of the basic structure after a seven year soak time. Heights of the cars varied from 8.5 feet if lying on their sides, or 12 feet if upright. There were signs of scour and settling into the sediment.

Results of the stainless steel subway car survey revealed that all stainless steel subway cars had extensive structural damage and were surrounded by debris fields. The typical vertical relief was between 1.6 feet and 5.2 feet. There was clearly a general trend of individual pieces of possible small debris extending beyond the reef boundaries to the southwest.

Commercial fishermen have reported that jagged pieces of the outer skin of the subway cars are becoming ensnared on ground lines of lobster and fish pot strings. Pots are being pulled up that have pieces attached to them and this is occurring on and off the reef site. Trawlers working around the reef site are also reporting finding pieces of the stainless steel skin in their nets. The New Jersey Ocean Trawl Survey has caught pieces of the stainless steel skin in the trawl net in stations near the Atlantic City Reef.

**J. Mericle** commented that they have subway cars in multiple reef sites and have found only minimal degradation of those cars. **Mericle** wondered if dissimilar metals of the rivets could be the cause of the collapse of the subway cars.

**M. Meier** asked if Federal aid money was being used to pay for subway car reefs. **Tinsman** replied that it was. **Meier** stated that he was hearing unfavorable comments about commercial fishing lines becoming caught in the reefs, which could possibly impact future funding of the projects. **Meier** pointed out that if structures being sunk are found to be unstable, it could cause repercussions. He commented that they are having the same problem with stainless steel subway cars, but not with the carbon steel Redbird subway cars.

**Zlokovitz** stated that they have underwater photos from a dive done last fall of impressive schools of Black Sea Bass swimming around the subway car structures and he has received favorable fishing reports from boats in the area. **Zlokovitz** also added that, unfortunately, a majority of their cars have either partially or totally collapsed, but have not found any evidence that the cars have scattered outside the reef area.

### **Artificial Reef Monitoring in the Gulf of Mexico: Lessons Learned from Ongoing Surveys on the West Florida Shelf** – Sean Keenan

**S. Keenan** gave a PowerPoint Presentation entitled “Artificial Reef Monitoring: Lessons Learned from Ongoing Surveys on the West Florida Shelf”. The FWC Fisheries Independent Monitoring Project was initiated in 1990 and its history lies within estuarine sampling (seines and trawls). Recent 2008 efforts have focused on reef fish within offshore waters on the West Florida Shelf (WFS) of Apalachicola, Cedar Key, Tampa Bay, and Charlotte Harbor. Sampling occurs between 10-120 miles. The WFS programmatic goals are to develop and implement a comprehensive research and monitoring program to assess nekton waters along Florida’s Gulf of Mexico coast, and to work collaboratively with other state/federal entities to maintain comparability of data across broad geographic regions (i.e., Gulf of Mexico and the Atlantic Ocean).

The specific objectives of the research and monitoring program are to:

- Provide data for single-species stock assessment:
  - Distribution/abundance – managed species
  - Age/growth/reproduction/genetics
- Provide data and biological material required for ecosystem-based management/modeling
  - Community structure
  - Trophic relationships

- Inshore/offshore connectivity
- Habitat associations
- Provide data to address emerging issues:
  - Large-scale environmental perturbations (e.g., hypoxia, hurricanes, oil spills, red tide)
  - Minimum flows/levels
  - Mercury content in fish
  - Global climate change
  - Fishing closures/MPAs

Logistical challenges that the program is faced with:

- Broad spatial coverage, (estuaries, near-shore, and offshore environment), causes sampling efforts to be modified that make it more appropriate for areas they are in, as well as the habitats that they are trying to collect samples from.
- Connectivity and complex life history of many of the fish species being evaluated, such as the Gag Grouper. Juveniles grow up in estuarine waters and sea grass habitats, then move into lower reef areas on the shelf, before finally moving offshore as a reproductive adult.
- Habitat Variability: Riverine, mangrove, structure, soft bottom, hard bottom, sea grass, salt marsh, oyster reef, natural reef, and artificial reef.

Meeting these challenges requires a multi-gear, habitat-based strategy that involves multiple species and life-history stages. The life-stage, habitat-based approach for sample assessment will target juveniles, pre-fishery recruits and fully recruited adults, and will involve using a variety of collection methods. Seines and trawls are utilized in estuaries and sea grass. SEAMAP/baitfish trawls are utilized on neritic, low-relief /soft bottoms. (**Keenan** also mentioned that during a trip in the summer of 2010, three Lionfish were found in a SEAMAP trawl). Cameras, traps, and hooked gear are utilized on neritic, high-relief /hard bottoms. Information obtained from single-species assessments include: abundance, age, and reproduction. Information obtained from ecosystem management include: abundance, diet, and habitat.

Multi-gear reef fish surveys, done primarily in the summer, are conducted in the Gulf of Mexico in areas of hard bottom and encompass a 10-120 mile perimeter. A cooperative effort between FWC and NMFS has resulted in the Pascagoula survey of the Gulf of Mexico along the shelf edge (except for FMG and Pulley Ridge) by NMFS since 1993, the Panama City survey of the Florida Big Bend region by NMFS since 2004, and the mid-peninsular West Florida Shelf by FWC since 2008.

**Keenan** reported on the different methods used to conduct surveys. One such method is the stationary underwater camera. Stationary underwater video camera arrays have two cameras inside that are working 180° from each other. Within the cameras are a digital video camera that is used for species identification/counts, and a pair of stereo cameras that simultaneously take still images and are used to identify and measure fish. The benefit of this type of sampling method is that it is non-extractive and has very limited selectivity. Underwater video has an added benefit in that the images are used to evaluate the habitats of the fish. Camera results provide an abundance of data on many species and correlations with habitats. The stereo images provide high quality still images and allow measurements.

Chevron traps are another method used for conducting surveys. The traps were initially used for reef fish monitoring by the MARMAP Program on the East Coast. The NMFS/FWC chevron traps are a modified version with a ½ throat. They are baited with Atlantic Mackerel and are fished for 90 minutes. The catches provide biological material or fish species for tagging. The



traps are relatively less traumatic on the fish, and the fish can be vented and released very easily. Recently, GoPro® cameras have been mounted inside Chevron traps. The 2” high-definition cameras can be set to either take still photographs or to film videos, and provide information on trap orientation, current direction, and associated habitat. They can also be used to identify species selectivity issues.

Hooked gear is a third method used for conducting surveys. The surveys are conducted Gulf-wide by NMFS and in the Florida Gulf Coast by FWC. The hooked gear supplements traps by collecting underrepresented species or larger species that cannot fit into the Chevron traps, and targets higher-relief and/or hard bottom habitats. It supplements tagging efforts and utilizes unattended vertical long-line (NMFS/FWC), electric reels, commercial bandit rigs, and conventional rod-and-reel (FWC only). Use of the Bandit reel and electric reels mimics industry gear use as well.

The chart below shows the pros and cons of each method.

Gear type	Pros	Cons	Note
Chevron traps	<ul style="list-style-type: none"> <li>• Collects many taxa</li> <li>• Provides biological material</li> <li>• Cost effective</li> </ul>	<ul style="list-style-type: none"> <li>• Bait plums</li> <li>• Species &amp; size selective</li> <li>• Potential for habitat fouling</li> <li>• Cumbersome to deploy/store</li> </ul>	Used by multiple agencies in Gulf/Atlantic
Stationary underwater cameras	<ul style="list-style-type: none"> <li>• Non-extractive</li> <li>• Least species selective</li> <li>• Provides digital record</li> </ul>	<ul style="list-style-type: none"> <li>• No biological material</li> <li>• Most expensive</li> <li>• Training necessary</li> <li>• Potential for habitat fouling</li> </ul>	Used by multiple agencies in Gulf and soon in the Atlantic
Hooked gears	<ul style="list-style-type: none"> <li>• Collects larger managed taxa</li> <li>• Provides biological material</li> <li>• Cost effective</li> <li>• Easy to deploy</li> </ul>	<ul style="list-style-type: none"> <li>• Taxa selective</li> <li>• Potential for habitat fouling</li> <li>• Active gear introduce angler bias</li> </ul>	Unattended gears currently in development
Side-scan sonar	<ul style="list-style-type: none"> <li>• Targets sampling effort</li> <li>• Deployed from many vessels</li> <li>• User-friendly learning curve</li> </ul>	<ul style="list-style-type: none"> <li>• Towed instrument</li> <li>• Range of costs</li> <li>• Survey done prior to sampling</li> </ul>	

Unattended gear is being explored throughout the Gulf of Mexico and the south Atlantic. It removes fisher bias and has a standardized hook size and soak time. Information collected through unattended gear includes hook selectivity and where the fish are gathering in water columns. NMFS and FWC are evaluating configuration with input from stakeholders. This particular gear is very effective for catching Red Snapper, but not Groupers.

**Keenan** discussed habitat importance and stated that the overriding factor influencing surveys is the lack of hard bottom /reef habitat information for both the Gulf of Mexico and the south Atlantic shelf areas. While artificial reefs provide relatively smaller areas of habitat versus natural, knowledge of those habitats are greater. **Keenan** explained that they know the exact location of the artificial reefs, the size and composition of the reef, the date of placement, whether it is a known location to anglers, or if the reef has been placed for scientific purposes. **Keenan** stressed that evaluating the monitoring of the artificial reefs provides very important

data on understanding how the artificial reefs function in comparison to natural reefs. A frequent question that occurs is if the presence of habitat is enough. A FWC study was conducted in 2009 in the Florida Middle Grounds (FMG). The goal was to test the utility of habitat-based, stratified-random survey/identify key habitat metrics structuring reef fish assemblages. Chevron traps, cameras and hooked gears were utilized for the study. To collect habitat data, multi-beam data provided bathymetry and backscatter. Eight habitat strata based on depth, relief and hardness were compiled: shallow/soft; shallow/mixed; shallow/hard; high relief/mixed; high relief/hard; deep/soft; deep/mixed; deep/hard. There were 140 stations sampled for the study.

The FMG study concluded that habitat is important to reef fish assemblages. The abundance of fish species increases with bottom hardness. Soft bottoms showed a low abundance and diversity of fish. In the camera study, high-relief bottoms showed a higher diversity of fish and a higher CPUE for important taxa such as Red Snapper and Gag Grouper. When it comes to fishery and independent monitoring surveys for reef fish across the shelf area, habitat should be considered.

**Keenan** stressed the value of acoustic surveys and stated that they need to be incorporated into reef fish sampling. The FWC and NMFS recognize the need for habitat surveys in conjunction with reef fish sampling. Multi-beam mapping is effective for bathymetry/backscatter; however, costs associated with this method preclude widespread use. Side scan sonar is becoming more readily available and software packages are available for post-processing/geo-referencing data. The FWC has a Klein 3900 towfish side-scan sonar with dual frequencies of 445kHz and 900kHz. Efforts are underway to coordinate habitat classification protocols for the eastern Gulf. In 2010, side-scan sonar surveys were done on the West Florida Shelf. FWC surveyed 55 stations that were sampled with cameras and traps. Once the habitat has been coded, the decision on where to set the sampling gear is made based on the best available reef fish habitat. Ground truthing was accomplished through the use of GoPro® cameras or imagery acquired by stationary video camera arrays. The evaluation of the function of artificial reefs relative to natural reefs is critical. Just as in natural reefs, artificial reefs do not all function in the same manner. Surveys of the reefs need to be designed with well-established objectives and incorporate proximate natural habitats for reference, such as multiple life history stages and multiple trophic groups. Standardized gear types need to be utilized to provide comparable data.

**Keenan** spoke on inshore and near-shore sampling that is conducted in Tampa Bay waters. The sampling program was initiated in 2009 and targets structured habitats during monthly samplings. Fish traps and hook-and-line gear are utilized. The inshore sampling universe sites are randomly selected from known artificial and natural hard-bottom areas. Artificial sites are dominated by the Gulfstream pipeline and also include docks, rip rap, deep sea wells, bridge pilings, and artificial reefs. The 17 inshore stations include 12 artificial and 5 natural, with two Z-traps per station. Two HnL trips are done per month. The near-shore sampling universe sites are also randomly selected from known artificial and natural hard-bottom areas. Artificial sites include pipeline and artificial reefs. Twelve stations are sampled per month, with 4 per strata (Natural/Unknown/Artificial). There are two Z-traps and one Chevron trap per station. A drop camera is utilized at each site to confirm habitat. Preliminary results from July – November for inshore trapping (Z-traps only) revealed 22 species were collected in the Z-traps. Red Grouper catches (n=60) are notable, as none were caught in standard FIM collections from 2006-2008. Preliminary results for near-shore trapping (Antillean style, Z-traps, and Chevron traps) revealed 23 species were collected in the Z-traps and 12 in Chevron traps.



In summary, reef fish monitoring on the West Florida Shelf is a multi-gear, habitat-based approach that targets primarily natural near and offshore reefs and collects reef fish across ontogeny and habitats. The addition of artificial reefs as habitat strata is possible, but available funding is the deciding factor. The FWC is conducting a short-term study from 2009-2011 that is funded by MARFIN to assess structured habitats through the use of Z-traps and HnL effort. The study will be conducted inside Tampa Bay as well as in near-shore waters within 20 miles of Tampa Bay. Small baited reef traps (<2m x ½ m x ½m) with a soak time of 90 minutes will be utilized to observe reef fish communities around natural hard bottom habitats, artificial reefs, pilings, seawalls, and Gulfstream pipeline-associated structures.

**Francesconi** asked Keenan if FWC has found any type of traps that are effective in capturing young Gag Grouper. **Keenan** explained that they had initially believed the Z-traps were going to be effective for Gag Grouper, but they have not worked out very well. However, their monitoring within estuaries in sea grass habitats using trawls and seines is working very well in obtaining data on young Gag Grouper.

**Tinsman** asked what the cost of the camera was. **Keenan** replied that FWC has an employee in-house who can assemble a camera for around \$3,000 - \$4,000. If Stennis Space Center assembles a camera, which they do for NOAA, the cost is \$8,000 - \$9,000. The GoPro® cameras cost around \$250.00, but the field of view is not good, and it is not possible to obtain length measurements.

**Ballard** asked how the underwater cameras are run. **Keenan** explained that they are powered by a battery and are placed in an underwater housing that plugs into camera. Before reaching the sampling station, the cameras are turned on and the computers are booted up on the deck of the boat. The camera then records for one minute to allow filming of a dry erase board that shows the station number. The camera then shuts down for 15 minutes to allow the crew enough time to place the camera on the sea bottom. Once on bottom, the camera turns back on and records for 35 minutes, and then shuts down.

**Mille** asked if there was a minimum visibility for the cameras. **Keenan** answered that all data is recorded with vision measurements. The measurement range is from “0” (perfect visibility) to “10” (unable to see anything). Even with good visibility, it is difficult to do species identification over 5 meters.

**Mille made a motion to have an updated photograph taken of the subcommittee members. The motion was seconded and the motion passed.**

### **State Artificial Reef Program Updates**

#### **North Carolina:** Jim Francesconi

**Francesconi** reported that they have had large budget cuts since the last meeting and some programs were cut. To augment those losses, the artificial reef program and two federal projects were combined into one program under the Wallop-Breaux Fund, involving oyster reef and finfish work within the Pamlico Sound and adjacent rivers. **Francesconi** stated that trawl and trap surveys, and hook-and-line surveys are being done, older permitted reefs are being

consolidated into large reefs, and two inside reefs are being actively rejuvenated. Also, the utilization of recreational fishing license funds was instrumental in creating two projects.

**Francesconi** spoke on the demolished bridge material artificial reef project. Approximately 750 tons of crushed bridge material will be used to create a shallow-water artificial reef. The reef is located in Camp Lejeune and will have top-water plug capabilities for Speckled Trout and Red Drum. Local governments are contributing funds to the project.

Currently, there are eight artificial reefs in inside waters, plus there are eight reefs designated as oyster sanctuaries. The program runs on a 1.46 million budget, recurring annually. Unfortunately, the program will probably be cut in June due to the lack of future funding. Most likely, certain programs will have to be restructured and the oyster sanctuary program will be absorbed. **Francesconi** explained that DMR is facing hardships in the future, and job terminations are almost certain.

### **Alabama:** Kevin Anson

**Anson** reported that the Alabama Department of Conservation and Natural Resources/Marine Resources Division applied for a U.S. Army Corps of Engineers permit to establish two near-shore (within 3 miles) artificial reef zones near Orange Beach, Alabama. The permit is anticipated to be approved, pending satisfactory side-scan and magnetometer surveys to satisfy the Alabama Historical Commission. The surveys will begin soon and the final report is anticipated within the next four to six weeks. Once the permit has been issued, ADCNR/MRD will investigate the possibilities of deploying pre-fabricated reefs of various shapes and dimensions for the artificial reef zones. The water depth of these areas is no greater than 44 feet, and the maximum relief will be six feet. EDRP Round II monies will be used for this project.

The Deepwater Horizon oil spill prevented the creation of two new inshore reefs. The contractor agreed to honor the bid price and will deploy materials on these locations by the end of March, 2011. One of the reefs located in Southeast Mobile Bay will be designed as a dual-purpose reef, with crushed limestone aggregate or oyster shell being deployed in the center of the reef.

ADCNR/MRD is awaiting final approval from the Bureau of Ocean Energy Management, Regulation and Enforcement to begin construction of a 30' aluminum catamaran vessel to serve as the first side-scan research vessel for the Division. The vessel will come equipped with an A-frame with winch and drum to service a side-scan tow fish capable of operating at 200' depths. The vessel will also allow ADCMR/MRD staff to conduct scuba diving, trap video, remote video, and vertical line surveys of Alabama's offshore reef zones. These capabilities will bolster the study of artificial reefs and assist with determining the contributions of artificial reefs.

ADCNR/MRD has received several inquiries from marine contractors to determine the possibility of the Division receiving nearby Idle-Iron structures. The Division is very interested with this prospect, as it is anticipated that many structures will be available in the next decade. ADCNR/MRD has been in contact with BOEMRE reps to identify the necessary steps to allow ADCNR/MRD to receive these structures. The Rigs-to-Reef and Idle-Irons Programs have

recently received great attention from angler groups throughout the northern Gulf of Mexico, as significant modifications could result in reduced habitat for fish species desired by these groups.

The Deepwater Horizon oil spill has highlighted the importance of habitat in maintaining resilient marine ecosystems, which prompted several groups to contact ADCNR/MRD to establish cooperative partnerships. The goals of these groups may be slightly different; for instance the creation of oyster reefs versus fishing reefs, but the opportunity to expand the inshore reef program is high. ADCNR/MRD staff will investigate potential sites in order to achieve these goals.

ADCNR/MRD will continue to fund artificial reef research of Auburn University and the University of South Alabama. To date, research has centered on ecological effects of reefs, effects of fishing pressure on reefs, age and growth of reef fish, and density-dependent relationships of reef fish over time on artificial reefs. This research, coupled with future mapping of Alabama's offshore reef zones, will provide a greater understanding of the contributions of reefs to reef fish populations and may provide for better fisheries management of these areas.

#### **Georgia:** Jeff Mericle

**Mericle** reported that the overall artificial reef program in Georgia has been deeply affected by a loss of state funding. State funding went from \$400,000 for FY2006-2007 to \$0 for FY2011-2012. In 2007, there were 5 employees; now only **Mericle** remains. It is unclear what will happen for FY 2013-2014. This year, the operating budget consisted of \$50,000 of federal money, which has gone for maintenance and deployment of existing on-site buoys.

The Materials of Opportunity Program is ongoing, and recently 400 tons of concrete and power poles were deployed in a conservation partnership with Georgia Power. The poles deemed defective or unusable by Georgia Power are donated to the Materials of Opportunity Program. The DNR pays for the 120-foot poles to be cut into 20-foot sections. The poles are then loaded onto trucks and transported to a dock, loaded onto a barge, and taken offshore. The cost was approximately \$32,000, which depleted most of the budget. The remaining budget money was spent on doing buoy maintenance, monitoring, and maintenance and upkeep of their diving vessels.

#### **Florida:** Jon Dodrill

**Dodrill** mentioned the untimely passing in January of Tom Maher, former member of the Artificial Reef Subcommittee and Environmental Specialist with the Florida Fish and Wildlife Commission's State Artificial Reef Program for nine years.

**Dodrill** provided a listing of the 31 artificial reefs built in Florida this year and spoke on the ten new artificial reef construction activities that will take place. The approved USFWS federal grant to the FWC artificial reef program for FY 2010-2011 included ten artificial reef construction projects off ten coastal counties and a larger artificial reef construction project to support long-term ongoing research and fisheries management off the Florida Big Bend. Four of the ten new reefs will be on the Gulf Coast and six will be on the Atlantic Coast. The latter

project is a FWC cooperative effort with the University of Florida and is intended for the improved management of Gag Grouper stocks.

**Dodrill** reported that the new Governor of Florida requested FWC to provide an overview of expenditures for the artificial reef program and to justify the value of the program. **Dodrill** provided a detailed briefing document entitled "FWC Artificial Reef Construction Program: Program Overview, 2010-2011 Project Summaries, and Discussion of Economic Benefits". The intent of the artificial reef placements is to achieve one or more objectives, usually related to providing additional long-term fishing and diving opportunities, enhanced economic benefits to local coastal communities, reducing user conflicts, augmenting hard-bottom reef habitat, taking pressure off existing natural reefs, restoration of fish stocks, and providing research study sites to address reef ecology and fisheries management-related questions. In southeast Florida in a 2001 study, user groups annually spent \$1.7 billion associated with fishing and diving on or around artificial reefs. The artificial reef systems off these four SE Florida counties assisted in the generation of 27,000 jobs.

The new FY budget allocated \$666,000 for the artificial reef program, in comparison to \$800,000 for the previous FY. The federal and state funds for the artificial reef program are non-recurring funds and the Legislature must provide spending authority for both the federal and state approved funds. **Dodrill** suggested that other members create a briefing document for their own states.

#### **South Carolina:** Bob Martore

**Martore** reported that no cuts have been made to their construction/deployment budget. However, personnel cuts have been made and there are now two staff biologists instead of four, which has reduced their reef monitoring capabilities. On the other hand, DNR acquired a 24' inboard boat for diving that was donated to DNR by a recreational fisherman. Because of the staff cuts, DNR has recruited college students to assist with ongoing projects and reef monitoring.

The DNR is continuing its work with the military on reef program to sink military vessels, tanks, and equipment. Last year, sixty-five armored personnel carriers were deployed. They are currently working on a reef project with the South Carolina Army National Guard.

**Martore** stated that DNR had completed a socio-economic survey a few years ago, and he could provide a copy to anyone who requested one. Because of this survey, the Licensing Board is a strong supporter of the Artificial Reef Program, due to the large amount of revenue and jobs that are generated from artificial reef development.

#### **Louisiana:** Doug Peter

**Peter** reported that their Rigs-to-Reef Program is ongoing and there are now 65 offshore reef sites, with 263 oil and gas platforms descending reef studies. In 2010, 21 platforms were deployed, and approximately 21 more will be deployed this year. Rigs that had been damaged from Hurricanes Rita and Katrina were also acquired.

The DWF is working with CCA for reef development in Baratavia Bay this summer. There were 50 acres permitted, but only 5 will be utilized at this time to build a reef consisting of 5-8,000 cubic yards of limestone. Reef sites in

**Peter** reported that two existing reef sites that had been partially destroyed by Hurricanes were surveyed for possible enhancement, but after the survey work, it was discovered that there were still thriving reef habitats. The DWF did not want to cover over the habitats, so the existing reef sites were extended to the east.

Recently, LSU completed a three-year study at some of the offshore reef sites. They were documenting material sizes, spatial arrangement and food dynamics. Their final report will soon be released and DWF is anticipating helpful information.

**M. Rousseau** asked if the Deepwater Horizon oil spill had any impact on their reef program. **Peter** replied that financially it has not; however, it is yet to be determined what impact the spill will have on artificial reefs. The implementation of a long-term monitoring program of offshore artificial reefs is being discussed and will coincide with what the entire Gulf might do from a Federal standpoint.

**Shively** asked if DWF has received any major donations from BP. **Peter** replied that they had received one prior to the oil spill.

**Virginia:** Mike Meier

**Meier** reported that their deployments have been affected by the economy and their deployment quotas have decreased dramatically. The bulk of MRC's material comes from military construction projects. A large number of Navy projects were cancelled or put on hold; however, the Navy base at Portsmouth has agreed to donate a decommissioned carrier and the fuel depot from Craney Island.

The majority of 2010 was spent getting caught up on the buoy program or looking for material to build artificial reefs. A \$200,000 cut in funding was recently made, and some funds from fishing license fees that **Meier** had put aside for "hard times" will soon have to be used for designing structures, due to the unavailability of demolition materials.

On a positive note, MRC acquired an ROV last year and will be doing more monitoring and sonar work this year than in previous years.

Sport Fishermen Clubs, who are big supporters of the artificial reef program, want more deployments. Currently, there are 17 reefs in the Bay, 1 in the mouth of the James River, and 5 offshore reefs.

**Texas:** Dale Shively

**Shively** gave a PowerPoint Presentation entitled "Texas Artificial Reef Program 2011 Update". He reported that they teamed up with the Texas chapter of the CCA on several projects. Currently, there are 63 reef sites and they are in the process of permitting three more. The main

focus has been on their Public Reef Program. Near-shore reef sites in a 160-acre area were recently built. The sites are designed for fishermen with smaller boats who can go out to the reef sites and make it back to shore within a reasonable time-frame. Through the Public Reef Program, the general public can contribute materials to be used for reef sites. The materials are first certified and then taken to the reef site. Currently, there are near-shore public reefs located in waters off of Port Isabel, Port Mansfield, and Galveston. The channel going out to the Port Mansfield reef site, which is a plentiful Snapper habitat, will be dredged this spring, due to the silting-in of the Port Harbor Entrance. A permit to develop a 160-acre reef site in Matagorda County has recently been approved by the Army Corps of Engineers. A USACOE Permit and a Texas General Land Office Surface Lease were submitted in December, 2010 to the Army Corps of Engineers to develop a 160-acre reef site in Corpus Christi/Port Aransas. A response by late summer of 2011 is anticipated. At the Sabine artificial reef site, 19 quarry rocks (123 tons), and 10 tons of concrete will be deployed. At the S.A.L.T artificial reef site, pre-designed structures are being looked at. One of the structures is made from Florida limestone and is 8 feet tall with a 10 foot triangular base. The large footprint is designed to prevent settling and to keep the reef upright. The Open Pyramid Reef is also being looked at. These sites would be monitored for the next several years. These structures are already being used in the Pensacola area. Artificial reef sites are also being planned for waters off Port O'Connor and Port Arthur.

**Shively** reported that there is a proposed expansion to the Vancouver Artificial Reef Site that was created over 30 years ago. The reef is currently 40 acres, and the expansion would increase it to 160 acres. Last summer, 2,000 tons of rock and concrete culverts were deployed on the reef. The trucking and storage of the materials was provided by CCA, who contributed \$50,000 through their "Habitat Today for Fish Tomorrow Program". The Army Corps of Engineers has required a full archeological survey done of the reef site, so TPWD is currently contracting with Texas A&M University to get the survey completed.

**Shively** spoke about the Texas Clipper Artificial Reef Monitoring Program and the ongoing reef fish and invertebrate surveys that were conducted in partnership with the University of Texas. The University has implemented a new technique by using ROVs and divers for fish and invertebrate surveys. Commonly encountered fish species were Red Snapper, Grey Snapper, Tomtate, Atlantic Spadefish, Seaweed Blenny, Grey Triggerfish, Spottail Pinfish, and Blue Runner.

In August of 2010, the UT-Brownsville Economic Impact Evaluation for 2008-2010 was done. It was revealed that, on average, anglers spent \$460.00 per trip, whereas divers spent \$2,000 per trip.

**Shively** reported their Rigs-to-Reef Program is going well. They have 24 rig donations that are either in negotiations, have a signed agreement for, or have been reefed.

There are 61 reef sites and 139 reefed platform structures in the Texas Gulf. There were 6,000+ tons of fabricated material used for artificial reefs, 423 tons of natural rock, 146 tons of oil and gas platform materials, and 23 tons of miscellaneous vessels.

**K. Anson** asked about the details of why the oil companies are pulling out decommissioned platforms and using them for scrap instead of participating in the Rigs-to-Reef Program. **Shively** replied that the cost to the oil companies is the main factor in not participating. Apache Oil Company has proposed an idea to use the "nose" of the platforms and use them as artificial reefs.

Other oil companies are being approached about participating in this endeavor. **B. Malore** pointed out that 200 feet seems to be the break-even point for a lot of oil companies of when it becomes economical for them to participate in the program. If the structure is under 200 feet of water, it is taken to shore for scrap, whereas data shows that many platforms in water depths greater than 200 feet have been used for the program. Off the coast of Louisiana, there are 2,000 structures in less than 100 feet of water.

**Maryland:** Erik Zlokovitz

**Zlokovitz** stated that Maryland is one of the partners on the Arthur W. Radford Project and is planning diving trips and side-scan sonar surveys.

**Zlokovitz** spoke about two ongoing programs the DNR is involved with.

The Ocean City Reef Foundation was established in 1997 by parties interested in supporting artificial reef development off Ocean City, Maryland. The Foundation's initial purpose was to serve as a source of non-government funding to supplement the Maryland State Reef Program so that timely responses could be made when materials of opportunity became available. When the State of Maryland terminated its reef program on June 31, 1997, the Town of Ocean City assumed responsibility for the permits needed for reef construction. The Town assumed this responsibility under the condition that no Town revenues would be spent on the program. This meant that the Foundation had to assume the program management and operational duties that were previously done by the State. The Foundation was active in the deployment of several vessels for artificial reefs.

The Maryland Artificial Reef Initiative (MARI) includes over 60 private, state, and federal partners, and acts as a funding mechanism (using private and corporate donations) for reef development in Maryland. It is a volunteer organization dedicated to preserving, restoring and creating fish habitat in tidewater Maryland. Funding for MARI comes from the Coastal Conservation Association, Maryland Department of Natural Resources and the coalition of donors and partners. There are currently 9 ocean reef sites, and 21 reef sites in the Bay.

There are a variety of projects being worked on in the Bay. There is a big demand for oyster reefs in shallow water, so DNR is building more shallow water reefs. Also, DNR is working on reef ball projects in the upper Chesapeake Bay with school groups and the Maryland Saltwater Sportsman Association.

At the Gooses Reef site, NOAA's latest Chesapeake Bay Interpretive Buoy was placed in 37' of water. The big yellow buoy is known as a "Smart Buoy". It provides near-real-time observations on the weather and water conditions found at that site off the Little Choptank River, wind direction, speed, gusts, wave height, water temperature, current strength, and its direction. It has 34 different sensors it reports on every ten minutes, with a data history recorded. This is the first CBIBS buoy to have bottom sensors for comparison with surface observations. Especially important are the bottom dissolved oxygen, salinity, and water temperature sensors. The former reflects the overall well-being of the Bay ecosystem. The latter two show how denser salty ocean water is moving up the Bay, beneath the less-dense fresh water that flows south from the Susquehanna and the other upper Bay Rivers. It was funded by the Dominion Resources



Foundation through the Coastal Conservation Association and the Maryland Artificial Reef Initiative (MARI), which first placed barge loads of crushed concrete from the Woodrow Wilson Bridge there to make a man-made reef.

**Zlokovitz** reported that they are moving away from using large concrete pieces in the Bay for artificial reefs and are now using more pulverized concrete. They are working on a proposal with an organization called Gulf Coast Advocates that is located in the Florida Panhandle to obtain calcified oyster shells and limestone. The material would be shipped via CSX Railway up to the Baltimore Harbor and deployed onto the existing oyster sanctuary and fixed reefs to build up the reefs. Unfortunately, at the present time, the costs are very high so CSX Railway is being approached with a proposal to lower their shipping costs and buy into the program. Political support is also being sought.

Although they do not have a formal monitoring plan, DNR is doing side-scan sonar work, volunteer angler surveys, and hook-and-line surveys in cooperation with the Maryland Charter Boat Association. A more formal scientific monitoring plan is being worked on with the University of Maryland.

There is a funding issue with buoys in that at one point, there were 25-30 buoys scattered around the bay; there are now four. There is no guarantee of long-term buoy maintenance, and new buoy sites are not being permitted.

**Malore** asked about the costs per cubic yard of the calcified shells and limestone. **Zlokovitz** replied that the limestone is \$65.00 per ton, which includes transport via railroad to the Maryland Harbor, but does not include deployment. The cost of the calcified shell is \$85.00 per ton which includes transport via railroad to the Maryland Harbor, but does not include deployment.

**Meier** commented that there seems to be a shift in many states towards oysters within the reef programs. Their oyster sanctuary program was deeply affected by the occurrence of Boring Sponge, which is prevalent in high salinity waters. A survey of the sanctuary showed that the oysters had virtually been wiped out by the sponges. As a result, they are looking into using crushed concrete or granite as alternatives.

**B. Shipley** said that they received a call from a contractor who had toilets that could be crushed and used for habitats. **Shipley** reported that the crushed toilets have been found to be good habitats for oyster spats.

**Delaware:** Jeff Tinsman

**Tinsman** reported that they have been developing nine reefs in the Delaware Bay and five ocean reefs since 1995. They have been busy with the Arthur W. Radford Project this year, and early in 2010, they received the last of 1,329 subway cars.

**Tinsman** stated that their budget last year was \$800,000 and their budget this year is \$600,000. They still have \$350,000 left over from last year that must be spent by the end of June. They are in the process of contracting for a concrete contractor to locate, transport and deploy 700 tons of concrete in nine Delaware Bay reef sites. They are also re-bidding for their aerial flight survey that monitors reef sites by doing 70 randomized flights per year. Several years ago, they



obtained an Outland 1000 ROV and have been learning to operate it. It will allow DWF to observe the seasonal fish composition on the reef sites, and to study reef estuaries where Black Sea Bass are dependent on as a safe habitat for their offspring. The ROV footage is instrumental in providing counts for juvenile Sea Bass.

**Tinsman** declared that there is an assault on the reefing of navy ships. An environmental group called The Basel Action Network based on the west coast has a campaign to stop the navy vessel reefing program. They have gone so far as to request that the Arthur W. Radford Project be discontinued. **Tinsman** informed the members to be aware of the group's presence. They have a website. **Mullane** spoke on the Basel Action Network and informed the members that he has had dealings with the group in the past, and they are running an active, well-coordinated program. The group's website address is <http://www.ban.org/>.

#### New Jersey: H. Carberry

**Carberry** reported that there were fewer reef vessel deployments this year, but reef ball deployments are being done at 500 per year. Ten new reef ball molds were recently purchased to replace older ones. The reef balls are constructed at Southern State Correctional Facility at Delmont.

The dredging operations being done in the New York Harbor have provided dredge rock for the network of 15 reefs in the NJ Artificial Reef Program. Year-to-date, over seven million cubic yards of material have been deployed for the artificial reefs. The majority of the deployed material (95%) was dredge rock. Thirty experimental habitats were built using the dredged rock. The rocky ridges and rock piles will become attachment surfaces for invertebrates such as mussels, barnacles, sponges and anemones. Additionally, the rock will provide cover for bottom dwelling species such as Black Sea Bass, Tautog and lobster. The rock deployments began in 2009 and will continue through 2013. A long-term monitoring study on the use of dredge rock is being conducted.

Monitoring efforts are ongoing and high resolution side-scan sonar surveys were done at the Atlantic region reef site. An Artificial Reef Survey was conducted by the Reef Program and the objectives were to assess reef building effectiveness and obtain other relevant data to enable the reef managers to be more efficient. A questionnaire was included in the 2009 edition of the *Reef News* newsletter for anglers to complete and submit. The Reef News is sent to more than 7,300 anglers and is also available online at the Division's Web Site. A total of 203 completed surveys were returned. Survey participants indicated their strongest dislike (116 responses) pertaining to angling on the reef network is the presence of commercial fishing gear. These results are consistent with the volume of commercial fishing gear complaints the Program has received over the past three years.

#### Massachusetts: Mark Rousseau

**Rousseau** reported that he has been working on the Fisheries Habitat Program, but there are currently no permitted areas for reefing.

The five major goals of the Habitat Program's 5-year strategic and management plan are to:

1. Effectively protect, restore, enhance, and research Atlantic coastal fish habitat through fisheries policy and management programs
2. Build partnership opportunities among agency fishery managers and non-fishery resource management agencies, researchers, and like-minded non-governmental organizations to promote the use of habitat information in decision-making
3. Educate ASMFC Commissioners, fishermen, and the general public about the importance of protecting, restoring, and enhancing habitat to achieve successful fisheries management
4. Implement measures of effectiveness for Habitat Program activities to focus efforts and monitor progress of the Habitat Program
5. Identify additional sources of funding for Habitat Program activities

**Rousseau** spoke on the Saltwater Recreational Fishing License Program that was instituted this year. The license fee is \$10.00 per person and one of the conditions of the program passing legislation was that 1/3 of the money collected had to be used to improve the management of MA's marine recreational fisheries, particularly with regard to developing more accurate assessments of recreational catch and effort, and enhance recreational fishing access opportunities, such as renovating and building boat ramps. It could also include development of public artificial reefs. The permit fee revenues cannot be used for any purpose that is unrelated to marine recreational fishing in MA.

#### **Special Management Zones:** Vaughan Douglas

**Douglas** gave a PowerPoint Presentation entitled 'Dingell-Johnson Sport Fish Restoration Program – Recreational and Commercial Fishing Conflicts on Artificial Reefs – Implications for Federal Funding'. **Douglas** gave a brief overview of his duties at the U.S. Fish and Wildlife Service. He explained that he provides oversight and guidance for projects involving land acquisition, development, operation and maintenance, and technical guidance activities for all grant programs. He has direct responsibility for all boating access and fisheries construction/operation and maintenance grants.

**Douglas** spoke on the Dingell-Johnson Sport Fish Restoration Program. The Dingell-Johnson Act was passed in 1950 and provides Federal aid to the states for management and restoration of fish having "material value in connection with sport or recreation in the marine and/or fresh waters of the United States". In 1984, the Wallop-Breaux Amendment was passed. In 1998, the Sportfishing and Boating Safety Act was passed. Amendments to the Act provide funds to the states for aquatic education, wetlands restoration, boat safety and clean vessel sanitation devices, and a non-trailerable boat program. Anglers and boaters purchase tackle and fuel; excise taxes are collected from the manufacturers. The cost of the tax is built into the selling price to the customer. The excise tax funds accumulate in the Aquatic Resource Trust Fund and are distributed yearly to state fish and wildlife agencies, with certain percentages and amounts earmarked for different programs, such as Coastal Wetlands, Clean Vessel Program, and state boating access areas. Funds distributed to states for the various programs funded in the Act are

collected in an account known as the Sport Fish Restoration Account, one of two accounts in the Aquatic Resources Trust Fund established under the authority of the internal revenue code. States are required to match the sport fish restoration funds with at least a 25% share of state money. These matching funds come from fishing license sales or an in-kind contribution.

**Douglas** reported on three artificial reef grants in Region 5. Two of the grants were for deploying materials to construct two artificial reefs in Delaware and New Jersey; the other grant is administrative in nature. The current combined Federal funding is \$900,000. Twenty-nine permitted sites have been approved; 11 located in state waters and 18 located in the Exclusive Economic Zone (EEZ). The artificial reef grant objectives are “to increase diversity, abundance and availability of reef-dependent species sought by recreational fishermen through creation of artificial reefs and to provide increased fishing opportunities for recreational anglers”. Some of the issues plaguing the artificial reef program are the proliferation of commercial fishing traps/pots on artificial reefs constructed with Dingell-Johnson Sport Fish Restoration (SFR) funds; commercial/recreational gear conflict interferes with accomplishment of artificial reef grant objectives; absence of mechanisms to regulate commercial fishing on reefs located in state-controlled waters and the EEZ.

### Sport Fish Restoration Requirements

#### SFR Act

- “Fish restoration and management projects” shall be construed to mean projects designed for the restoration and management of all species of fish which have material value in connection with *sport or recreation* in the marine and/or fresh waters of the United States...

#### Regulations:

- Projects having as their purpose the restoration, conservation, management, and enhancement of sport fish, and *the provision for public use and benefits from these resources*
- Sport fish are limited to gill-breathing, vertebrate animals, bearing paired fins, and *having material value for sport or recreation*
- States must apply Program funds only to activities or purposes approved by the Regional Director. If otherwise applied, such funds must be replaced or the state becomes ineligible to participate
- When property is used for purposes that interfere with the accomplishment of approved purposes, the violating activities must cease and any adverse effects resulting must be remedied
- The state is responsible for the accountability and control of all assets to assure that they serve the purpose for which acquired throughout their useful life
- The Secretary may terminate or suspend those projects in noncompliance, or may declare the state ineligible for further participation in program benefits until compliance is achieved

#### Commercial Use Policy:

- Applies to lands or facilities on which states conduct any SFR-funded management activities during the defined grant period

- Commercial use: Any activity or service that produces income for any entity or individual and is conducted on lands or facilities that states acquired, developed, or managed with SFR funds

#### SFR Policy:

- The state agency may allow a commercial activity as long as it will not interfere with the fulfillment of grant objectives
- The state fish and wildlife agency's first responsibility is to determine if a commercial activity interferes
- Service has the right to review or inspect at any time to ensure compliance

#### Implications for SFR Funding:

- Replacement of expended funds?
- Suspension or termination of project for noncompliance?
- Declare the state ineligible to participate in SFR program?

#### Possible Solutions:

- ◆ State legislation and regulation for waters within it's jurisdiction
  - Delaware recently passed legislation that provides the state fish and wildlife agency with authority to regulate the types of fishing activities permitted on artificial reef sites in state waters
  - Regulatory process initiated to prevent the taking of finfish by any other method than hook-and-line or spear
- ◆ Special Management Zones in the EEZ
  - SAMFC allowed designation of 51 SMZs in 1983 off South Carolina, Georgia, and Florida to encourage establishment of reefs to increase the numbers of fish in an area and/or to create fishing opportunities that would not otherwise exist
  - Gear restrictions were employed to prevent overexploitation

**B. Martore** asked if there was a group that was the equivalent of the South Atlantic Council. **Tinsman** explained that they have the Mid Atlantic Regional Council, although the Council has historically been commercially oriented.

**Martore** reported that they had approached the South Atlantic Council and requested a limit on commercial fishing, but were told that specifying between recreational and commercial gear cannot be done. **Martore** pointed out that this was the basis for using gear restrictions. To get around those restrictions, commercial fishermen began spear fishing more heavily, which resulted in overharvesting of the reefs. The DNR then made a request to the Council that they wanted to alter their SMZs to not only gear restrictions, but also that all catches on SMZs be limited to recreational bag limits. The Council is reviewing the matter and a vote is expected within a year.

**Progress Report on Sampling the ex-Oriskany Reef for PCBs in Recreationally Caught Fish: Preliminary Results through Year-4: Keith Mille**

Mille gave a PowerPoint Presentation entitled "Progress Report on Sampling the ex-Oriskany Reef for PCBs in Recreationally Caught Fish: Preliminary Results through Year-4"

Mille reported that on May 17, 2006, the 911 foot long Oriskany was deployed as an artificial reef, 23.5 nm southeast of Pensacola in 212 feet of water.

Polychlorinated biphenyls (PCBs) are classified as persistent organic pollutants, environmental health hazards and suspected carcinogens. PCBs are long-lived manmade heat resistant organic compounds which, prior to 1975, were commonly incorporated into products likely to be found on military vessels in paints, gaskets, bulkhead insulation, and wire cable where heat resistant capabilities were important. On April 28, 2004, the Navy submitted an application to the EPA requesting to dispose of PCB bulk product waste under 40 CFR Part 761.62(c). The Navy proposes sinking the Oriskany and leaving some materials on board containing PCBs at or above a regulated level of 50 parts per million. Before the EPA issued such a permit, the Navy had to demonstrate to the EPA that there was no unreasonable risk of injury to health or the environment. In addition to health and the environment, the EPA also considers economic consequences and benefits of such a disposal.

PCB source term estimates of materials left on the Oriskany (Pape, 2004):

Estimate of about 722.6 of solid PCBs to be left on board at the time of sinking

- **97.6% (705.5 lbs.)** scattered in varying concentrations in remaining 362,240 lbs. (90%) of cable insulation. Sample average: 1,493.9ppm.
- **1.3% (9.8 lbs.)** in 284,004 lbs. (90%) of paint
- **0.94% (6.8 lbs.)** in remaining 83,995 lbs. of bulkhead insulation. Sample average: 215.1ppm
- **0.055% (0.4 lbs.)** in 11,898 lbs. rubber gaskets
- **0.014% (0.1 lbs.)** in 2,680 lbs. vent gaskets
- **Lubricants removed in their entirety**

The Navy built a case for receipt of PCB bulk waste:

Disposal permit

- 1) Completion of a shipboard materials simulated shallow water PCB leach study (George et al. 2005).
- 2) Navy development of Time Dynamic Model (TDM) calculating the initial pulse release of PCBs in and immediately around the ship, into water, sediments and biota at various distances over the course of first two years post-sinking
- 3) Prospective Risk Assessment Model (PRAM) developed to estimate release, fate, and transport of PCBs (including bio-accumulation) once leach rates reached a steady state.

EPA reviews Navy documents justifying issuing a PCB bulk product risk-based disposal permit:

- EPA reviews and evaluates supporting documents both internally and externally, including seeking consultative assistance of a 13-member independent Science Advisory Board
- Review process and consultation with Navy completed in October, 2005
- EPA gives notice on December 19, 2005 in Federal Register of intent to issue permit. Public comment generally favorable

- Risk-based disposal permit issued to Navy and FWC on February 15, 2006

EPA permit requirements:

- Navy, FWC and Escambia County were tasked with monitoring vessel to protect health of fishermen and their families who were catching and consuming recreationally caught fish on the Oriskany
- Navy agreed to fund pre-deployment baseline collection of biota for PCB analysis
- FWC/Escambia County jointly tasked with multi-year sampling of Oriskany site including development of a monitoring plan. Basic Tier 1 monitoring would focus on PCB analysis of legal size recreationally targeted reef fish at the Oriskany
- Sample means of each species exceeding 20ppb wet weight would trigger greater sampling effort

Pre-sink PCB sampling (Snyder et.al. 2007) in general vicinity of Oriskany deployment site:

- Navy provided funding for University of West Florida (Snyder et al. 2007) to conduct hook-and-line and trawl sampling in the Gulf of Mexico in the general area of sink site just prior to sinking of Oriskany. The purpose was to establish a PCB baseline for selected fish and invertebrates. Twenty fish composites and 38 individual fish samples were analyzed for PCBs. Reef fish analyzed included Scamp, Gag, Red Grouper, Red Snapper, Gray Snapper, Vermilion Snapper, Gray Triggerfish, Tomtates, and Bank Sea Bass
- PCB content of offshore sediments and water column particulate material was consistently low and below detection limits for most congeners
- Fish samples were wet weight fillets of skin-off lateral musculature. (Post sink samples were analyzed skin on)
- Fish lengths and mass significantly correlated with PCB concentrations
- Trophic position increased with size and age
- Age in turn was significantly correlated with PCB levels-indicating bioaccumulation with age
- All sampled reef fish were under EPA total PCB screening level of 20ppb (microgram/kilogram wet weight) except one 700 mm TL 4 year old Gag Grouper (22.5725  $\mu$ /kg). Next highest was Red Grouper at 12.6143

Individual Red Snapper PCB values from ARs in general vicinity of Oriskany deployment site, pre-deployment (Snyder et al. 2007):

- 400 mm TL Age 3 (1.9211  $\mu$ /kg wet weight)
- 401 mm TL Age 2 (0.9099  $\mu$ /kg)
- 480 mm TL Age 5 (3.6200  $\mu$ /kg)
- 550 mm TL Age 3 (4.6464  $\mu$ /kg)
- 558 mm TL Age 6 (2.9024  $\mu$ /kg)
- 613 mm TL Age 4 (4.8037  $\mu$ /kg)
- 614 mm TL Age 2? (2.8451  $\mu$ /kg)
- 652 mm TL Age 4 (3.0257  $\mu$ /kg)
- 740 mm TL Age 5 (2.8694  $\mu$ /kg)
- Mean: 3.0603  $\mu$ /kg (ppb, wet weight)

### FWC-Escambia County post-sink Tier 1 monitoring:

Objective: procure from the Oriskany Reef a minimum of 30 recreationally targeted legal size fish in Grouper-Snapper complex during each of two sampling rounds, spring and fall, for two years, then go to annual sampling

- Have individual skin-on fillets analyzed for all 209 PCB congeners in first two years
- Strive for a minimum of 15 specimens of each of two species during each sample round from which to compute an average total mean PCB value for each species. (Red Snapper is the primary target)
- If mean PCB value for a given species exceeds the EPA screening level of 20 ppb, seek consultation with the EPA for Tier 2 monitoring

Sampling and analysis completed to date resulted in a total of 315 fish retained (254 from the Oriskany; 61 control) from eight sampling rounds. Seven lab results and stats have been completed and 3 are pending. Red snapper accounted for 73% of the species composition of the Oriskany sampling; Vermilion Snapper - 17%; Red Grouper - 0%; Whitebone Porgy - 2%; Scamp - 2%; Gray Triggerfish - 1%; Red Porgy - 5%. Red Snapper accounted for 74% of the species composition of the Control samples; Vermilion Snapper - 13%; Gag Grouper - 6%; Red Porgy - 3%; Gray Snapper - 2%; Gray Triggerfish - 2%.

### Concluding Findings:

- Mean PCB level of fish samples collected from the Oriskany within the first two years (Rounds 1-4) exceeded both the FDOH and EPA thresholds (50ppb, 20ppb, respectively)
- By Round 5, fish samples collected at 2 years, 11 months deployment showed PCB mean levels below the 50ppb FDOH threshold, but slightly above the 20ppb EPA threshold
- Rounds 6 and 7, collected at 3 years, 6 months and 3 years, 11 months, showed PCB mean levels below both the FDOH and EPA thresholds
- Round 8 samples, collected at 4 years, 6 months post-deployment, are currently being processed and results are expected during spring, 2011
- No control site samples exceeded the FDOH and EPA thresholds
- One pre-deployment sample (Gag Grouper, 22ppb) exceeded the EPA threshold
- Species with the highest PCB levels observed were Red Snapper, Red Porgy, and Whitebone Porgy
- No samples of Vermilion Snapper (n=28), Scamp (n=1), or Gray Triggerfish (n=1) exceeded the FDOH or EPA thresholds
- Correlation analysis of the Oriskany samples (Rounds 1-6) did not find any correlation between PCB levels and fish length or fish weight
- Correlation analysis of the Oriskany samples (Rounds 1-6) found correlation between PCB levels and fish percent lipids
- PCB homologs from Oriskany samples are of (or a mixture of) the most common PCB compounds at time (likely Aroclor 1254 and 1260) i.e., no homolog was observed from the fish PCB analysis corresponding to PCB compounds that are unique to the Oriskany

### Issues for further investigation:

- Determine differences in skin-on versus skin-off fillet PCB concentrations in Red Snapper and other species
- Issues with significant intra lab variation in re-samples for same fish (Round 1)
- Future direction from the EPA regarding the scope of PCB monitoring

Highest pre-sink Composite Red Snapper PCB value (Snyder et al. 2007)

- 3 fish mean 337mm TL; mean age: 3
- 5.2781 µ/kg
- % lipid: 1.7
- No Red Snapper composites or Red Snapper individual samples exceeded the above PCB concentrations pre-Oriskany
- Note: EPA screening level is 20 µ/kg total PCBs

Mille explained that there are only certain laboratories approved by the EPA to conduct this type of analysis.

Other Business/Public Comment

There being no further business to discuss, M. Meier recessed the meeting at 6:00 p.m.

Wednesday, March 2<sup>nd</sup>

Chairman Doug Peter called the meeting to order at 8:30 a.m.

M. Bailey reported that Chris Moore, the NOAA Fisheries Representative, is now the Executive Director of the Mid Atlantic Council, and introduced Steve Meyers, who has taken Moore's seat on the subcommittee.

Adoption of Agenda

A motion to adopt the agenda as written was made, and passed unanimously.

Approval of Minutes

D. Shively made a motion to approve the minutes for the October 18, 2010 meeting in Clearwater Beach, Florida, with minor changes. The motion was seconded by J. Dodrill and passed unanimously.

BOEMRE Update on Idle Iron and Rigs-to-Reefs Programs/Discussion on Idle Iron Removal and Rigs-to-Reefs Programs – Herb Leedy/Kate Winters/All

Rigs-to-Reefs Program:

K. Winters provided the 'Rigs-to-Reefs Policy Addendum: Enhanced – Reviewing and Approval Guidelines in Response to the Post Hurricane Katrina Regulatory Environment'. The addendum was created in 2009 to provide additional information on the Minerals Management Service, Gulf of Mexico OCS Region's (MMS GOMR's) Rigs-to-Reefs Policy and the reviewing and procedural components that have been enhanced to address several variations observed in reefing proposals received after, and as a result of, the 2005 storm season. The



information is primarily meant to effect better State and Federal agency coordination and improve industry planning regarding their decommissioning programs. The document is not intended to replace the current Rigs-to-Reef policy document, Rigs-to-Reefs Policy, Progress, and Perspective (OCS Report MMS 2000-073), but to be a flexible supplement that allows for concurrent documentation and sound adaptive management. The objective of the addendum is to outline GOMR's policy, reviewing standards, and procedural framework for the effective coordination and approval of documentation submitted to MMS by industry to tow-and-place, topple-in-place, and partial removal-in-place of platforms for conversion to an artificial reef. The objective of the addendum is not to outline processes and procedures that would normally be covered under Standard Operating Procedures. Some of the specific changes to the addendum are that all submerged decks must be removed; no debris fields, debris piles, or reef baskets will be allowed; future reef sites will not be allowed within 5 miles of established/pending reef locations to minimize the impact to future pipeline operations.

The purpose of the MMS GOMR's Rigs-to-Reefs Policy is to evaluate platform-removal applications seeking an alternative to onshore disposal through the approval of tow-and-place, topple-in-place, and partial removal-in-place of platforms for conversion to an artificial reef.

**Anson** asked if BOEMRE had enough internal information about the program to provide to other states. **Winters** stated that they do, and she would be able to provide states with additional assistance with the program. **Shively** suggested to **Anson** that Alabama should consider the Rigs-to-Reef Program. **Anson** replied that currently they have legislative approval for a fund specifically designated for gillnet buy-out and artificial reef creation, enhancement, and monitoring.

**Winters** stated that President Obama signed an Executive Order in November, 2010 to develop coastal marine spatial plans (CMSP) that build upon and improve existing Federal, State, tribal, local, and regional decision-making and planning processes. Nine regional bodies in the Gulf of Mexico will be established within the next year to develop regional level CMSPs that reflect broader national goals. Another regional body will be established for the Atlantic side.

**Ballard** questioned **Winters** about the contents of the Rigs-to-Reefs Addendum being "set in stone". **Winters** replied that the Addendum is what they are going by, but when more states become involved in the program, the text will need to be updated.

**Peter** stated that in Louisiana, there are not a lot of rigs in state waters, but in Federal waters, there are 3,000 platforms. They are going to meet with BOEMRE and the public about developing more reef sites in state waters that will accommodate platforms. **Peter** stated that they must obtain a permit for every structure, whether a reef site has been established or not. He also pointed out that if a new reef site will be located in Federal Waters, an archeological survey will be required.

#### Idle Iron Program:

**Winters** provided the "United States Department of the Interior Bureau of Ocean Energy Management, Regulation and Enforcement, Gulf of Mexico OCS Region: Notice to Lessees and Operators of Federal Oil and Gas Leases and Pipeline Right-of-Way Holders in the Outer Continental Shelf, Gulf of Mexico OCS Region – Decommissioning Guidance for Wells and Platforms". The purpose of the Notice is to establish guidelines that provide a consistent and

systematic approach to determine the future utility of idle infrastructure on active leases and to ensure that all wells, structures, and pipelines on terminated leases, and pipelines on terminated pipeline rights-of-way (ROW) are decommissioned within the timeframes established by regulations, conditions or approval, and lease instruments. Platforms or other facilities that are no longer useful for operations (including a toppled platform) must be removed as soon as possible, but no later than 5 years after the effective date of the NTL, or within 5 years of the platform meeting the definition of no longer useful for operations, whichever is later. **Winters** stated that there are a large number of rigs in the Gulf that are no longer in use, but have not been permanently plugged or temporarily sealed, and they are a threat to the environment.

**Anson** stated he had read that there was an 18-month timeframe on decommissioning wells. **Winters** pointed out that 12-18 months is the timeframe for preparing the facility for decommissioning, and referred to page 4 of the NTL, Item #6: Decommissioning Wells on Active Leases that states within 3 years, the well must be plugged, temporarily abandoned, or provided with down-hole zonal isolation.

**Anson** commented on the use of explosives to topple rigs and the impact it has on fish species. Removing entire rigs typically requires explosives to dislodge it from the sea floor that could wipe out marine life, some of which have been using the rig beams as habitat for as long as 30 years. The sonic blast that comes from the explosion can kill thousands of fish. **Anson** stated that a study was done by the National Fisheries Service in 2005 that showed that the use of explosives was harmful to marine life and sea turtles, but fish were not mentioned, and pointed out that the mortality rate of Red Snapper due to the use of explosives is very high. **Anson** suggested that this information should be included in the study findings.

### **Discussion of Gulf-Wide Artificial Reef Monitoring Program - All**

**J. Ballard** reported that at the Artificial Reef Subcommittee meeting in October, 2010, it was determined that it would be advantageous for all of the Gulf States if one protocol was used for reef sampling. The most important goals of reef sampling are to obtain information regarding biomass, species diversity, water quality, and the physical progression utilizing a video component. The conclusion was that each state would look at their own reef system, and then draft a sampling protocol for their state. It was also determined that one Gulf-wide protocol would be established using components from each state's draft with data would be compatible from state to state.

#### **Alabama:**

**K. Anson** reported that they have recently funded research through Auburn University and the University of South Alabama, which has resulted in approximately 10 years of data for ecological considerations to artificial reefs. The University of South Alabama has recently conducted a study on fishing pressure on both public and unpublicized reefs. Species diversity and abundance over time were studied and the findings will be used as an initial component for their artificial reef monitoring plan. With the addition of a 30 foot vessel and side-scan sonar equipment, ADCNR/MRD will be engage in more routine and technical monitoring of artificial reefs. **Anson** stated that sample monitoring will be conducted quarterly.

**Bailey** asked **Anson** about their unpublicized reef sites. **Anson** explained that those reefs were bought with state funds and are used to accommodate research being conducted to study fishing pressure in populations.

**Louisiana:**

**D. Peter** reported that they are looking at which studies have been done and which ones still need to be conducted. Several sessions have been held with LSU on offshore monitoring concepts and LSU will be submitting a proposal to DWF on how they can go about establishing a long-term monitoring program. Offshore reef monitoring using ROVs, and inshore reef monitoring is also being conducted. The DWF was contacted by an environmental firm that was interested in assisting with the program by providing personnel, which the artificial reef program needs due to the fact that they only have two staff members. Once the long-term monitoring program is implemented, outside contracted personnel will be hired to assist with the work load.

**Texas:**

**D. Shively** reported that in the past, they have had a monitoring program that consisted of observations by divers. Certain key reef sites were monitored, but might not be visited again for several years. They are now trying to create research that is a more standardized way to do monitoring and will contract this out with the University of Texas at Brownsville. The idea is for a 50-mile reef site radius to be monitored by divers at least once per quarter to gather basic information.

They are looking into monitoring techniques for near-shore waters with very low visibility versus offshore waters with clear visibility. Better techniques on how to study platform rigs are also being sought. One component that has been missed are the invertebrates, so a technique has been developed to incorporate roving divers to study the larger invertebrates. The University of Texas will assist with near-shore monitoring by using ROVs. The ROVs will also be used to monitor the Texas Clipper and independent studies will continue to look at specific problems. **Shively** stated that they are assisting The University in developing a science program and have gotten help from several of the graduate students who are working with Dr. David Hicks, Assistant Professor of Biology at UT. The students have done their thesis work on different aspects of the Texas Clipper.

**Florida:**

**Dodrill** reported that there are several short-term reef monitoring projects looking at a range of artificial reefs; mainly modular reefs or reefs using secondary concrete materials. Their longest association has been with Universities such as the University of Florida. Since 1990, the University of Florida has been doing monitoring assessment work on a series of reefs in the Steinhatchee Fisheries Management Area and the Suwannee River. **Dodrill** stated that they have a 5-year working relationship with the University of West Florida to monitor reefs off of Pensacola. Other ongoing projects are 1-2 year roving diver counts involving volunteer dive groups and a range of divers from several coastal counties. The Florida Wildlife Research Institute out of St. Petersburg has been working with NOAA to develop valuable monitoring techniques.

**Dodrill** questioned whether or not their monitoring efforts are sufficient enough to pick up the changes that would occur when man-made or natural catastrophic events happen, such as major

oil spills or red tides. After the Deepwater Horizon oil spill, visual inspections of the Oriskany and other reef sites further inshore could not detect any adverse impact, yet even the presence of oil could not necessarily be discovered by the naked eye.

**Doddrill** pointed out that long-term monitoring as a specific objective is very important and necessary with artificial reefs, and short-term monitoring has provided an abundance of background information. However, more focus needs to be directed at identifying areas such as bay environments, and provide long-term monitoring there as well.

No specific sites for long-term monitoring, other than the University of Florida project, have been targeted.

**Ballard** pointed out that ROVs as a video component in low visibility waters are going to work better for a wider range reefing area and deep water platforms. He asked the members for their input on their own experiences with ROVs, low visibility issues, etc.

**Tinsman** spoke on their Outland 1000 ROV. The ROV has the following cameras: 1 Compact 480 line color - 360° tilt camera; 1 Compact 600 line Black and White low lux - 360° tilt camera; 1 Compact 480 line color - fixed camera. They have also been using an analog camera in combination with a lens optical clarifier and it has worked well.

**Richard** explained that in Maryland, the previous reef program in the 1980s had experimented with ROVs, but had some problems with low visibility and concerns regarding possible snagging on structures. They have since had success with trap cameras and side-scan sonar surveys. They have been working with volunteer divers who have good high-definition camera equipment and do contract work for National Geographic and the Discovery Channel.

**Ballard** asked **Tinsman** what the cost was for their ROV. **Tinsman** replied that it cost \$40,000 and smaller models cost \$20,000+.

**Martore** pointed out that they had an ROV several years ago that cost \$35,000, but the thrust capabilities were limited and it was hard to maneuver. Many times, they towed the ROV rather than try to maneuver it. He suggested that the thrust capabilities of an ROV should be considered when purchasing one.

**Peter** stated that from their standpoint, they are looking into renting ROVs and not making a direct investment in purchasing one. He felt that since they do not have an ROV operator, they would not obtain the information they are looking for.

**Keenan** stated that they have a small ROV that they use in their estuaries, but do not have offshore experience with ROVs.

**McNamara** remarked that it would benefit all of the states if equipment could be purchased by the Commission and shared among the states. **Ballard** replied that he is looking into that. He needs to find a way to get the funding into the Commission. **Doddrill** asked where the funding is coming from, to which **Ballard** replied that he has funds in the Sport Fish Restoration Program available, if supplemental funding was received to cover the purchase.

**Tinsman** stated that one of the reasons they got an ROV was not so much for the data aspect, but the useful pictures that can accompany their presentations of data.

**Francesconi** remarked that whereas ROVs cannot video aggregation of Flounder and other species, a camera can. An ROV is unable to collect images of fish species at certain times, such as spawning, or at certain locations.

**Keenan** reminded the members that imagery data from artificial reefs is impressive, but comparable imagery from natural reefs and habitats is also important so that the data can be studied side-by-side and see how the reefs are functioning in relation to a larger area of natural habitat. Multi-gear probes are the best way to obtain the data.

**Ballard** asked the members what biological information should be targeted and collected. **Francesconi** replied that photographs and actual biological samples should accompany videos.

**Keenan** replied that incorporating universities in the design of studies is beneficial to the program.

**Zlokovitz** suggested a tagging study in the Mid Atlantic regions on small Sea Bass found in the bay to see if they are migrating to the ocean.

**Shively** suggested GSMFC form an artificial reef monitoring workshop. **Ballard** stated that he will look into it and asked the members how they felt about having an artificial reef monitoring workshop. **Peter** stated that each state should come prepared with a goal of what they are trying to achieve with their artificial reef programs. **Ballard** questioned if the workshop could be put together by October, or next year's joint meeting. He added that multiple states are incorporating universities in their monitoring efforts, but Sea Grant also needs to be involved.

**Anson** commented that as managers, their responsibility is to identify specific important questions that need answering and a method should be established to answer those questions. He further stated that perhaps they are getting ahead of themselves in identifying methods before those specific questions have been identified. To answer those questions might not be realistic with a Gulf-wide program. Specific, controlled areas need to be focused on and questions identified and reviewed first. Then, methods can be established for answering them. **Shively** stated that he would like to see a Gulf-wide joint voice that would educate the public.

It was decided that each state would put together a list of priority questions within the next month and address them at the next meeting.

**Keenan** suggested putting together a comprehensive body of literature, such as scientific studies and various reports from each state that can be utilized whenever necessary. **Ballard** reminded the members about GSMFC's database of literature on their website, and if anyone has articles on artificial reef research, they can be emailed to him in a PDF format and he will add the articles to the database.

## **Discussion of Inshore Artificial Reef BMPs Document: How to Move Forward** – All

**Ballard** provided the “Best Management Practices (BMPs) for Inshore Artificial Reefs” document. The document was created by the Habitat Subcommittee. The document was reviewed by the Artificial Reef Subcommittee, TCC at GSMFC, and The Army Corps of Engineers in Jacksonville. The document has highlighted questions and concerns that each wanted addressed and changed. It was then sent back to the Habitat Subcommittee where it was passed to the Artificial Reef Subcommittee as an action item at the Artificial Reef Subcommittee meeting that was held last October in Clearwater Beach, Florida. The decision to either revise the current document or create a new one will be discussed at the TCC Coordinating Committee meeting at the GSMFC Annual Spring Meeting in Houston on March 15<sup>th</sup>. A discussion ensued, and the general consensus was that the numbers don’t apply to all of the different programs and should be left out of the document. The document should be informational without the numbers, but provide an update of each state’s status. **Shively** stated that the document should be written by the Artificial Reef Subcommittee.

## **Next Meeting/Other Business/Public Comment**

The next meeting location suggestions were Key West, Florida or Miami, Florida.

The next meeting date will be sometime next spring.

**There being no further business to discuss, Doug Peter adjourned the meeting at 11:45 a.m.**

**TCC DATA MANAGEMENT SUBCOMMITTEE  
MINUTES  
Monday, March 13, 2011  
Houston, TX**

APPROVED BY:  
  
COMMITTEE CHAIRMAN

**Chairman Chris Denson** called the meeting to order at 1:06 p.m. The following members and others were present:

**Members**

Chris Denson, AMRD, Gulf Shores, AL  
Kevin Anson, AMRD, Gulf Shores, AL  
Richard Cody, FWC/FWRI, St. Petersburg, FL  
Page Campbell, TPWD, Rockport, TX  
Vicki Swann, TPWD, Austin, TX  
Kerwin Cuevas, MDMR, Biloxi, MS  
Christine Murrell, MDMR, Biloxi, MS  
Michael Harden, LDWF, Baton Rouge, LA  
John Froeschke GMFMC, Tampa, FL  
David Gloeckner, NMFS, Miami, FL

**Staff**

David Donaldson, Assistant Director, Ocean Springs, MS  
Larry B. Simpson, Executive Director, Ocean Springs, MS  
Donna Bellais, ComFIN Programmer, Ocean Springs, MS  
Gregg Bray, Programmer/Analyst, Ocean Springs, MS  
Janet Williams, FIN Staff Assistant, Ocean Springs, MS  
Alex Miller, Staff Economist, Ocean Springs, MS  
James Ballard, Sport Fish Restoration/Aquatic Invasive Coordinator, Ocean Springs, MS

**Others**

Dale Diaz, MSDMR, Biloxi, MS  
Daniel MiMassa, IA Team, Miami, FL  
David McCarron, IA Team, Farmington, NJ  
Camp Matens, GSMFC Commissioner, Baton Rouge, LA  
Terry Cody, TPWD, Rockport, TX  
Joey Shepard, LDWF, Baton Rouge, LA  
Mike Ray, TPWD, Austin, TX  
James Primrose, NOAA Fisheries, Galveston, TX  
Rick Hart, NOAA Fisheries, Galveston, TX  
Alice Best, TPWD, Rockport, TX  
Todd Phillips, Ocean Conservancy, Austin, TX  
Katie Doyle, TPWD, Austin, TX  
Frank Courtney, FWC/FWRI, St. Petersburg, FL

Justin Esslinger, TPWD, Rockport, TX  
Cindy Bohannon, TPWD, Dickinson, TX  
Jack Isaacs, LDWF, Baton Rouge, LA

### **Adoption of Agenda**

The agenda was approved and adopted as written.

### **Approval of Minutes**

The minutes of the Data Management Subcommittee (DMS) meeting held on October 18, 2010 in Clearwater Beach, FL were approved as written.

### **Status of Biological Sampling Activities**

**G. Bray** provided handouts that showed a comparison of the number of otoliths and length measurements collected in 2010 along with the associated sampling targets for the 15 FIN priority species. A large number of shortfalls were observed for most species. These shortfalls are largely due to limited sampling during the oil disaster along with difficulties posed by more restrictive fishing regulations for several species. Alabama, Louisiana, and Texas still had some minor data entry work to accomplish to complete 2010 data entry and all hoped to have that completely in a timely manner.

**Bray** also mentioned that all states have delivered their 2009 age data. Florida had staffing problems with data entry so they recently sent a data file to GSMFC and D. Bellais will work with R. Cody to get those data into a format we can easily load into the FIN data management system. Bray stated that GSMFC would likely start sending reminders concerning 2010 age data entry in July 2011.

### **Presentation of Commercial Vessel Information Project**

**D. McCarron** reported the original design of identifying unique vessels by hull identification number (HIN) was not going to work. Not all of the states collect HIN. Since the HIN based model was ineffective the Information Architecture (IA) team has switched to a spreadsheet template and the IA team will work with the states to populate as many of the data fields as possible. The new model utilizes Coast Guard identification numbers or state registration numbers. The new model spreadsheet collects vessel, person, and license data. He stated the model will work if some of the data elements are not available for that state. Each state will need to work within this template they have created and IA Team envisions a bi-annual or annual load of vessel data. **C. Denson** was concerned that Excel would not handle the number of data records in their license frame. **McCarron** stated that the newest versions of Excel do not have the 65,000 row limitation. **McCarron** demonstrated an upload of some Florida vessel data so the subcommittee could see how the model uniquely identifies vessels. The model does have some upload logic that would identify errors such as a missing coast guard number, missing registration number, or missing license information. After uploading a registry is created that is basically just the entire file of vessels, persons, or license



records. The registry is then parsed into unique individuals and unique vessels. Additional testing with real state data needs to be completed to try and determine if the business logic of the model is completely correct. The IA Team added additional functionality to crosslink coast guard numbers or state registration numbers across multiple data sources. They also have the ability to associate persons with multiple unique roles like owner, captain, or licensee. **R. Cody** asked how the model handles dual ownership scenarios. **McCarron** stated you could use an alias function to address this but GSMFC will have to determine how it would be loaded and the business process would need to be adjusted. **Denson** asked if we would be focusing on all vessels or just vessels with landings. **Donaldson** stated we would start with just vessels with landings. **McCarron** stated the IA Team will be providing the model to **D. Bellais** at GSMFC and they will develop a strategy for providing it to all the states.

### **Data Reconciliation and Data Quality Project**

**D. McCarron** discussed the IA Team has been working to link commercial trip tickets, IFQ data and commercial logbook data using a FIS tool that was created a few years ago. So far the matching has been going well with the success rates in the 70-95% range for red snapper data. The IA Team has been working with state partners to identify how they identify unique data records. The next phase besides expanding to additional data sets is to establish a baseline data quality index. The matchup process is identifying some data errors and how they provide those to each state is still up for consideration. **McCarron** needs some feedback from each state as to who would be the contact person for the matchup errors they have discovered. If the states are not ready to receive those transmissions yet it is possible that **D. Bellais** at GSMFC would receive the transmission. **Denson** asked how the group would handle discrepancies in landed pounds between multiple data sets. **Donaldson** said it will depend on the type of the error but some discrepancies will not be reconciled. The main purpose of this exercise is to fix errors that are fixable but not to be concerned with making every linkable dataset match.

### **Discussion of National Registry Projects**

**Donaldson** stated NOAA Fisheries provided \$850,000 to the Gulf region to attempt to improve the quality of data that goes into the national license registry. Each Gulf state has qualified for exemptions based on their current license system but improvements in data quality would help future license data submitted to the registry. All of the states along with Puerto Rico and USVI have submitted proposals and have been funded. All projects have begun except for Florida. NOAA Fisheries is already attempting a similar project as Florida proposed and FWC is waiting to see if they can work with NOAA on their existing research. Once these initial projects are completed we will have a better idea on how to proceed with future improvements.

### **Update on MRIP Gulf of Mexico For-Hire Logbook Project**

**Donaldson** provided a presentation on the MRIP for-hire logbook pilot project. Testing continues on approximately 60 vessels in the Corpus Christi area of Texas and 330 vessels in the Panhandle of Florida. Sampling began in September of 2010. This study is focusing on all federally permitted reef fish and pelagic for-hire vessels in those regions and each vessel selected is mandated

to report. The project collects weekly trip reports of catch and effort. There is also a validation component that collects dockside and at-sea validation data. Currently the non-compliance rate in Florida is around 19% (~70 vessels). Texas has 100% compliance although a few vessels each week are a little slow in providing their weekly reports. Currently 100% of the captains in Texas are reporting electronically while approximately 50 captains are reporting via a paper option in Florida. Validations are going well during the high activity periods but at-sea trips have decreased significantly through the winter months. FWC has provided a list of approximately 70 boats to NOAA as non-compliant and subsequently their permits have been put on hold. Fifty of these vessels have never provided any weekly data and the additional 20 started providing data but have become delinquent over December and January. This project will continue through August 2011.

### **Discussion of Shrimp Data Issues**

**Donaldson** stated several issues with shrimp landings data was brought up during the February Gulf of Mexico Fishery Management Council (GMFMC) meeting. The presentation was provided to the DMS and **Donaldson** suggested that the DMS go through the presentation and discuss the pertinent issues or possible solutions.

The first issue is concerned with a portion of the shrimp landings not being collected by trip tickets. All of the states were aware of this problem. The GMFMC recommendation of channeling all shrimp landings through a trip ticket system was agreed upon by all states but may be difficult to implement from an enforcement standpoint. Mississippi does not have a reporting requirement for shrimp and until that is changed it will be impossible to fully capture Mississippi shrimp landings via trip tickets. **Denson** stated without full time enforcement presence it will be difficult to force all shrimp landings through the trip ticket system. Florida, Louisiana, and Texas agreed with Alabama.

The second issue was how to consolidate shrimp landings across multiple trips. **Denson** again stated this could only be changed with increased enforcement. All states are requiring a coast guard or state registration number on their trip tickets. Unfortunately these data are not always completely filled out. **Donaldson** believes the infrastructure is in place to help eliminate this issue but enforcement would be essential too. The work being done by the IA Team on the commercial vessel tool will assist in eliminating this data problem.

The third issue addresses shrimp dealers not providing vessel id on some landings records. **Donaldson** stated that possibly some outreach and education will help this issue. The reconciliation tool will help identify dealers that are not reporting those details frequently. **Denson** again stated that it would take more enforcement to actually go visit dealers and require them to provide complete data.

The fourth issue is dealers using coast guard and state vessel id's interchangeably for the same vessel. The IA Team will hopefully have the commercial vessel tables completed soon and that will help cross reference between different vessel identification numbers.

Additional recommendations were:

1. To resolve landings that were not distinguished as federal or state waters. **Denson** stated that current trip tickets have subareas and landings should be identifiable as federal or state waters. **Campbell** stated that Texas trip ticket coding system does not have the ability to differentiate federal and state waters. Texas does not collect area zones that would differentiate state waters versus federal waters landings.

2. Not having the federal permit numbers on the trip ticket makes it difficult to track landings. **Denson** stated it is very difficult for Alabama to add additional fields to paper tickets. Most states agreed with his comment. This recommendation is likely not viable for the states but hopefully the commercial vessel project coupled with increased enforcement and education might be able to improve data quality.
3. The last issue was a concern with the frequency of state trip ticket data submission. **Donaldson** reminded the states that monthly submission is very important for multiple agencies. The states were reminded of the previously agreed upon deadline and agreed to let GSMFC know if there were any road blocks to regular monthly submissions that GSMFC could help eliminate.

### **Discussion of Commercial Data Delivery Issues**

**Donaldson** stated this is a recurring issue that has an impact on the shrimp data issues. FIN has an established deadline of monthly reporting. In the past there have been some specific issues that delayed monthly reporting but **Donaldson** wanted to remind the states that this deadline is very important for multiple agencies. If there are future issues that prevent a monthly submission please let GSMFC know if there is a way we can help alleviate them. **Denson** stated that getting data on time might result in reduced data quality in some instances. **Donaldson** asked if monthly reporting was not unrealistic due to state problems. **Denson** stated it takes Alabama a month to a month and a half to process and run quality control checks on each month's data. **Donaldson** just wanted to remind the states of this agreed upon deadline and everyone should try and do their best to meet the deadline.

### **Status of Federal Quota Monitoring/Electronic Reporting Activities**

**D. Gloeckner** stated that a mandatory electronic reporting date for commercial federal dealers has been established for March 1, 2011. All appropriate dealers have been notified and informed of their reporting options. Gulf dealers will be using a system developed by Claude Peterson at Bluefin data Inc. Approximately 300 dealers in the Gulf will be mandated to report electronically. Data will flow from Bluefin Data to the South East Fishery Science Center. Current non-electronic dealers will be allowed to fax their reports prior to March 1, 2011. NOAA is going to have to publish new regulations to mandate a weekly or daily reporting requirement as current regulations only allow for bi-weekly mandates. Only commercial finfish permit holders will be mandated to participate in electronic reporting. HMS is not currently included although Gulf dealers will have the ability to report through Bluefin Data system. **Donaldson** asked if each state would want the HMS data sent to them or would it be ok to just forward it to NOAA. **Donaldson** also noted additional HMS data elements would be needed on the electronic trip ticket and if the states are interested in those additional data Bluefin Data Inc. could provide those to them too. **Bellais** stated GSMFC is waiting for a new development box to be setup so we can test the data transmission model. There are additional data elements required by SEFSC that some states do not currently include. SEFSC intends to ask for trip ticket number, dealer name, federal permit number, state license number, vessel name, coast guard documentation number/state registration number, date of sale, date landed, if federal trip the logbook number, gear, area fished, port of landing, state landed, species, size category, condition, grade, disposition, amount landed, unit of landings, and price per

pound. Dealers will be required to report all landings weekly. **Donaldson** asked if the Mississippi data in the Gulf FIN database would be considered separate from normal landings data. **Gloeckner** stated we would ultimately like to see the Mississippi electronic data supplement current data already coming in via trip tickets. **C. Murrell** states MSDMR is working with those dealers to try and help them with this process.

### **Discussion of Compilation of Oil Spill Monitoring Protocols/Data**

**Donaldson** stated GSMFC talked about compiling information about all the oil spill monitoring activities in a centralized database. **Denson** asked if we were interested in just state protocols or everything done by all agencies. **Donaldson** stated we would like as much as possible. **Denson** stated some of the protocols might be hard to obtain as they are not being shared publicly. **J. Rester** with GSMFC will be working to compile these protocols from each of the affected states. **Froeschke** asked how soon a metadata list might be available as the GMFMC gets frequent requests for those types of data. **Donaldson** stated a preliminary list might be available later in 2011.

### **Discussion of Trip Tickets and Traceability**

**A. Miller** stated under the current Oil Disaster Recovery Program (ODRP) a project was created to establish seafood certification based on the health of the stock. To accomplish this task a traceability program is required to prove the fishery product that reaches the consumer is the same as what was harvested from a given area. A traceability program will allow managers to describe the safety and quality of the product along with addressing issues like sustainability. Traceability allows for risk management, improving sales, branding, and marketing. You can engage the consumer by providing them information on where their product originated from via smart phone applications. The challenge of traceability is linking up the different data elements like fishermen, dealers, processors, retailers, and end users. The current plan is to use the electronic trip ticket data and allow for voluntary participation with processors to create a traceability model in the Gulf of Mexico.

**Denson** asked which electronic data would be considered for use in this model. **Miller** stated that the paper reporting would not provide data timely enough to be useful for traceability model. **Donaldson** agreed with Miller that the timing of using paper reporting is problematic but the electronic reported data is just a first step in building the traceability model. **Denson** asked which species would be considered in the traceability model. **Miller** said anything reported on the electronic trip ticket could be used in the traceability system. **Denson** was also concerned about pulling trip ticket data in this program for fear of exposing confidential data. **Miller** stated that the traceability program is very aware of confidential data rules and will not allow confidential data released. **Froeschke** stated that fishermen he has dealt with are not convinced that certification or traceability will result in improved prices. **Simpson** stated the other reason for this effort is not just improved pricing but expanded areas to sell product. **Miller** stated traceability will also help improve confidence in seafood products.

### **Discussion of Migrating to APEX Development Tool**

**D. Bellais** stated GSMFC is considering switching from Oracle Discoverer for viewing data and results to Oracle APEX. The main concern is with our confidential users they currently have the

ability to generate custom equations for data analysis. Looking more at the APEX tool users can still make custom equations and the program works in a similar way to Discoverer. The APEX tool has not been tested on Apple Macbooks yet. **Bellais** stated pre built tables would be setup just like the current Discoverer software. All functions that are available in Discoverer are available in APEX. **Denson** asked what the goal of the switch would be. **Bellais** stated Discoverer is not working well with Microsoft Windows users and the Discoverer software being loaded on a Linux server. **Bellais** stated the biological data entry system would be converted over to the APEX system to help alleviate computer lock ups and other problems. **Bellais** hopes to have some preliminary testing done prior to June 2010.

### **Discussion of Weight vs. Numbers for Recreational Data**

**Donaldson** asked everyone to review the council presentation in their folder. A request has been made to use estimated weights for the recreational sector instead of numbers to make it more easily comparable with commercial landings. **Anson** stated the issue was raised by the recreational community because of how stock assessments are produced. The concern was that increasing trends in average weight of red snapper would be more detrimental when the season length is established. Many of the subcommittee agreed that too many limitations occur in recreational sampling to globally switch to estimated weight instead of estimated numbers.

### **Presentation of Inshore Shrimp Survey Results**

**A. Miller** discussed the results of the economic impacts from the inshore shrimp fishery in 2008. While landings and nominal revenue have been relatively the same since the 1970's the inflation adjusted revenue has decreased significantly. Little economic data has been collected on the inshore shrimp fishery in recent years. The majority of the inshore shrimp fleet occurs in Louisiana while the offshore fleet is most prevalent in Texas. The inshore shrimp fleet had much larger response rates (70-80%) than the offshore federal fleet (37%). After quality control and outlier removal there were 313 inshore respondents and 383 federal offshore respondents used for the analysis. The offshore owners had larger assets, liabilities, and equity. Offshore vessels received 99% of revenue from shrimp landings while inshore vessels received 84%. Taking into account the real economic costs, both the federal offshore fleet and inshore shrimp fleet are taking losses and slowly eroding their value over time. The total fishery related impacts of the shrimp fishery are estimated at \$1,380,000 and 13,307 jobs. **C. Perret** asked what the general take home message of this research would be. **J. Isaacs** commented that the inshore fleet had a tough time in 2008 due to low shrimp prices and high fuel prices. He also stated that approximately 40% of the survey population had negative cash flows. **Perret** stated that although this is only one year of research it appears that the trend of struggling shrimp fishery is continuing. **T. Cody** asked if owners that are also captains are making a better living because they are paying themselves and family to work on the vessel. **Miller** agreed that this is a possibility but that these shrimp harvesters are also making some money by fishing for other species during the year. **Isaacs** noted the average number of fishing days from this study was approximately 50 days per shrimper. **Denson** asked if the survey asked respondents how long they have been shrimp harvesters. **Miller** said the average age of respondents indicates an older segment of the population with very few younger fishermen entering the fishery.

### **Status of Metadata Entry**

**Bellais** stated the states need to continue to work on entering and publishing their metadata. **Donaldson** stated GSMFC has been approved to hire a part time metadata employee to assist the states. GSMFC is just waiting on 2011 funding to hire the employee.

### **Other Business**

**Bray** informed the states that Bluefin Data Inc. has developed a web reporting tool that GSMFC would like to make available to for-hire telephone survey participants. After seeking NOAA Fisheries approval GSMFC was informed that it might be necessary to run this improvement through the MRIP process. None of the states were in favor of entering into that process. The states were acceptable to asking captains their willingness to use an electronic reporting tool if made available to them. GSMFC will work with the states to ask this question to respondents in the coming waves.

**Being no further business, the meeting was adjourned at 5:15 p.m.**

**TCC CRAB SUBCOMMITTEE  
WORK SESSION SUMMARY  
61st Annual Spring Meeting  
Monday, March 14, 2011  
Houston, Texas**

**Chairman Wagner** called the work session to order at 8:30 a.m. and started with introductions. The following were in attendance:

**Members**

Tom Wagner, TPWD, Rockport, TX  
Kevin Anson, ADCNR/MRD, Gulf Shores, AL (*proxy for Jason Herrmann*)  
Traci Floyd, MDMR, Biloxi, MS

**Others**

Mike Ray, *GSMFC Commissioner*, Austin, TX  
Ronnie Luster, CCA, Houston, TX  
Chris Blankenship, *GSMFC Commissioner*, Dauphin Island, AL  
Jennifer Bixby, TPWD, Lake Jackson, TX  
Dan Ellinor, FWC, St. Petersburg, FL  
David Abrego, TPWD, Lake Jackson, TX

**Staff**

Steve VanderKooy, GSMFC, IJF Coordinator, Ocean Springs, MS  
Debbie McIntyre, GSMFC, IJF Staff Assistant, Ocean Springs, MS  
Ralph Hode, GSMFC, ODRP/EDRP Coordinator, Ocean Springs, MS

**There was not a quorum present; therefore, no official motions could be made. Written reports submitted by state representatives are available through GSMFC.**

VanderKooy stated that there may be a need to hold a webinar prior to the fall meeting. He also informed the group that the Crab FMP may be up for revision. VanderKooy will notify committee members if a crab FMP revision is indicated and if this committee will meet in October.

*The agenda was not officially adopted due to lack of a quorum.*

*The minutes were not officially approved due to lack of a quorum.*

Florida provided a written report prior to the meeting which included information on the current lipofuscin research as well as an overview of the derelict trap removal program expected to occur this year in lieu of the postponed clean-up from last summer. Florida reported that their total landings for hard and softshell crabs increased in 2010 (preliminary). Likewise, the number of trips and value appears to be increasing as well. The effort management program, through 2010, has reduced endorsements and traps by 21% and 69% respectively.



Alabama reported on their 2010 tissue sampling and reported a substantial decline in the landings and values for 2010 derived from the BP disaster. Alabama will not have a derelict trap clean-up in 2011 but may have one in 2012.

Mississippi reported commercial license sales continued to rise since October, primarily from people trying to get into the BP VOO program. There was a substantial decrease in landings and value attributed to the oil spill closures. There are no plans to hold a derelict trap clean-up in 2011. Harriet Perry's report indicated the GCRL crab aquaculture program was successful last year despite the oil spill. Crab megalopae settlement/recruitment appears to be average even post-BP.

Louisiana provided a written report. The LDWF had not planned a clean-up for 2011 but, due to boating hazards resulting from traps left in the water due to the oil spill, the department closed waters in Plaquemines Parish at the end of February into March to remove abandoned gear and facilitate safe conditions to oil spill clean-up operations. The number of traps removed is not yet quantified. The crab task force continues to work toward MSC certification and is currently working on its stock assessment. Landings in 2010 decreased 45% due to oil spill closures.


Texas reported increased landings for hard crabs in 2010 which coincides with increased recruitment from fishery-independent sampling. The TPWD held its trap clean-up in the end of February. 188 volunteers in 73 vessels removed 1491 traps, mostly from Galveston and San Antonio Bays.

### *Other Business*

VanderKooy stated that the October meeting will probably take place in New Orleans. GSMFC staff will contact subcommittee members well in advance of the October meeting to insure adequate participation; otherwise, alternative meeting formats will be considered.

### **Adjourn**

*With no other business, the work session adjourned at 3:08 p.m.*

APPROVED BY:  
  
COMMITTEE CHAIRMAN

**TCC SEAMAP SUBCOMMITTEE  
MINUTES  
Monday, March 14, 2011  
Houston, Texas**

**Chairman R. Hendon** called the meeting to order at 1:02 p.m. The following members and others were present:

**Members**

Read Hendon, *Chairman*, USM/GCRL, Ocean Springs, MS  
John Mareska, ADCNR/MRD, Gulf Shores, AL  
Bob McMichael, FWC/FWRI, St. Petersburg, FL  
Fernando Martinez, TPWD, Corpus Christi, TX  
Rick Leard, GMFMC, Tampa, FL  
Myron Fischer, LDWF, Grand Isle, LA  
Butch Pellegrin, NOAA Fisheries, Pascagoula, MS

**Others**

Walter Bublely, TPWD, Port O'Connor  
Joey Shepard, LDWF, Baton Rouge, LA  
Brian Alford, LDWF, Baton Rouge, LA  
Stephanie Shelton, TPWD, Austin, TX  
Terry Cody, Rockport, TX

**Staff**

Larry Simpson, *Executive Director*, GSMFC, Ocean Springs, MS  
Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS  
Cheryl Noble, *Staff Assistant*, GSMFC, Ocean Springs, MS

**Adoption of Agenda**

**B. McMichael** moved to adopt the agenda as submitted. **F. Martinez** seconded and the motion passed.

**Approval of Minutes**

**B. McMichael** moved to approve the October 10, 2010 TCC SEAMAP meeting minutes as submitted. **F. Martinez** seconded and the motion passed.

**Administrative Report**

**J. Rester** reported that SEAMAP is beginning the 30<sup>th</sup> year of fishery-independent sampling. The Fall Shrimp/Groundfish Survey, the Winter Shrimp/Groundfish Survey, and the Winter Plankton Survey have all been completed since the last meeting. He said

they planned for the Winter Plankton Survey to continue as a biannual survey but because of lack of ship time, it may not continue. NRDA will perform the survey this year so it will not be an official SEAMAP survey and NRDA will not make this data available in the near future. **B. Pellegrin** said NOAA Corps is cutting back 10% of their ship time. He said they are in discussions with NOAA Corps and feels it should be a NMFS decision on which surveys are cut. Some surveys are more important and have longer databases and instead of the NOAA Corps cutting back ship time equally for all surveys, he feels it should their decision to decide what should be cut back. **J. Rester** asked if the Subcommittee or Commission should send a letter stressing the importance of not cutting back on the long-term resource surveys especially after the DWH spill. **L. Simpson** stated the Chairman of the Senate Commerce Committee made it clear that the need for fishery-independent data is critical and there is a substantial increase in the 2012 President's budget for fishery-independent data sampling.

**M. Fischer moved to draft a letter to the appropriate personnel requesting ship time not be cut for the SEAMAP surveys. Because of the need for fishery-independent data, more ship time should be provided. B. McMichael seconded the motion and it passed.** J. Rester will draft the letter and L. Simpson will provide the names to who it should be addressed. After the Subcommittee reviews the letter, it will be mailed to the person(s) L. Simpson suggests.

**M. Fischer moved to send a letter to NRDA requesting the plankton data they collect for the SEAMAP long-term database. B. McMichael seconded the motion and it passed.**

**J. Rester** reported the operations manual is in the process of being revised and hopes to have it completed before the summer survey begins. He said they also had a vertical longline meeting in January to discuss protocols and asked if the Subcommittee wants to appoint a Vertical Longline Work Group or have this fall under the Longline or Reef Fish Work Group. **J. Rester** will send the listing of all the SEAMAP Work Groups to the Subcommittee to update and they will then decide if any new work groups need to be established. The Joint Annual Report and Marine Directory have been completed.

### **Review of the 2011-2015 SEAMAP Management Plan**

The Subcommittee provided comments and changes to be included in the SEAMAP 2011-2015 Management Plan. After the changes have been incorporated, the Subcommittee will review the management plan again and send final comments to J. Rester before March 31. The Subcommittee will meet via conference call to discuss all changes, and then meet with the South Atlantic and Caribbean components to finalize the plan if needed. The plan will then be sent to the TCC and then the Commission for final approval.

The Subcommittee suggested adding an Executive Summary to the Management Plan to be distributed to the congressional delegation and other potential funding sources. It was suggested to add the Gulf Council's priorities to the management plan or cite the 5 Year

Research Plan. The Subcommittee stated the document was too wordy and some sections should be added as appendixes. Another suggestion was to refer to the sections and add a web link for full details. The Subcommittee needs to decide if the term “vertical longline” is appropriate or if it should be referred to as longline, vertical line, or bottom line.

### **Analysis of the Winter Shrimp/Groundfish Survey Data**

**J. Mareska** gave a presentation on the SEAMAP Winter Shrimp/Groundfish Survey. He stated he used three years of data from the Alabama winter survey and ran it through Primer software then analyzed it using Anosim, Cluster, MDS and Simper. He said this was based on the raw abundances and each station was considered one sample point. He then presented the data analyses to the Subcommittee. He said the conclusions are the data are more dissimilar than similar by season and year due to abundances and species composition. The Fall 2010 and Winter 2011 surveys showed significant differences. He stated that the time series may be too short and that the Winter Cruise may yield different abundances by season. The complete presentation may be obtained from the GSMFC office.

**J. Mareska** asked for suggestions on other approaches to analyze the data. **J. Rester** asked if the survey is providing useful information. **J. Mareska** stated he has not been able to identify any species that is significantly different from the fall and summer cruises. **R. Hendon** stated that because the survey is not gulf-wide, the data probably would not be used for management purposes. The survey was funded by supplemental funds and the Subcommittee needs to decide if the survey should be continued in the future along with the Louisiana Spring Shrimp/Groundfish Survey. **M. Fischer** agreed to provide a presentation on the Louisiana Spring Shrimp/Groundfish Survey and **F. Martinez** would give a presentation on the Texas Winter Survey at the August meeting.

### **Correcting Historical Data in the SEAMAP Database**

**J. Rester** said that he and Lloyd Kirk are continuing to work on correcting historical data in the SEAMAP Database. He asked for suggestions on what type of ranges and constraints should be used to correct the data. He also asked the Subcommittee to have their data management personnel review old data sheets and correct any errors. He noted Mississippi does not have any datasheets before 2005 because of Hurricane Katrina. He asked if data that may be an error should be deleted or flagged if it cannot be verified. The Subcommittee decided to flag it. He asked the Subcommittee to return the corrected data to him within six to eight weeks. It was suggested to use the old FSCS data error checks as an example when setting up the values for error checking.

**J. Rester** stated there was a problem entering the data at the Archiving Center that he discovered when he requested data for the upcoming SEDAR Work Shop. **B. McMichael** will have the appropriate personnel contact Lloyd Kirk to resolve this issue.

### **Online SEAMAP Catch Visualization**

J. Rester gave a presentation on the Online SEAMAP Catch Visualization and explained how Lloyd Kirk calculated CPUE and other specifications. He stated AnyChart software was used for this but Lloyd Kirk is researching other software and will be taking classes on ArcGIS. He stated AnyChart was used because of cost constraints. It was suggested to use 30 x 30 minute grids and to have depth strata contours. **J. Rester** will keep the Subcommittee updated on this ongoing project.

### **2008 SEAMAP Atlas**

**J. Rester** said the 2008 data has been received and Lloyd Kirk has been writing scripts for the new Atlas format. He hopes to have the draft 2008 Atlas available for the Subcommittee to review within the next six weeks. If everyone is in agreement with the new format, the 2009 and 2010 Atlas should be out for review this year also.

### **Other Business**

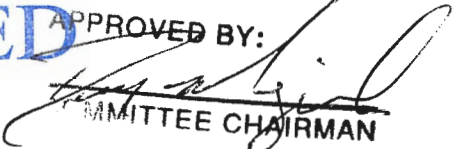
**J. Rester** stated a hotel has not been booked for the Joint Meeting but they are checking the Key West area for the second week in August. He will send the Subcommittee details when a contract is signed.

**There being no further business, the meeting adjourned at 4:25 p.m.**

RECEIVED

APPROVED BY:

MAR 13 2012

  
COMMITTEE CHAIRMAN

TCC HABITAT SUBCOMMITTEE  
MINUTES – 61<sup>th</sup> Spring Meeting  
Monday, March 14, 2011  
Houston, Texas

IMPERILED SPECIES  
MANAGEMENT

**Chairman Ron Mezich** called the meeting to order at 8:30 a.m. and asked members and guests to introduce themselves. The following members and others were present:

**Members**

Frank Courtney, FWC, St. Petersburg, FL  
Ron Mezich, FWC, Tallahassee, FL  
Robert Adami, TPWD, Corpus Christi, TX  
Cherie O'Brien, TPWD, Dickinson, TX  
Heather Warner-Finley, LDWF, Baton Rouge, LA  
Brian Alford, LDWF, Baton Rouge, LA  
Kevin Anson, ADCNR MRD, Dauphin Island, AL

**Staff**

Jeff Rester, *Habitat/SEAMAP Program Coordinator*, Ocean Springs, MS  
Cheryl Noble, *Staff Assistant*, Ocean Springs, MS  
Larry Simpson, *Executive Director*, Ocean Springs, MS  
James Ballard, *Sportfish Restoration/ANS Coordinator*, Ocean Springs, MS

**Others**

Camp Matens, *GSMFC Commissioner*, Baton Rouge, LA  
Chris Blankenship, *GSMFC Commissioner*, Dauphin Island, AL  
Kerwin Cuevas, MDMR, Biloxi, MS

**Adoption of Agenda**

**The agenda was adopted as written.**

**Approval of Minutes**

**The minutes from October 18, 2010 were approved as written with one minor change.**

**Administrative Report**

**J. Rester** stated that the Gulf of Mexico Fishery Management Council (Council) submitted their 5-Year EFH Review Report to NMFS in November as required by the Magnuson-Stevens Act. The literature review provided new information on some managed species' habitat utilization, but the new literature did not provide information that would dramatically alter current EFH designations and descriptions. New larval species distribution maps were produced from SEAMAP data and were the largest contribution of new information on defining EFH. Five new banks off Louisiana were

proposed as habitat areas of particular concern (HAPC) based upon recommendations from the Flower Gardens Bank National Marine Sanctuary staff. The Pinnacle Trend area off Alabama and Mississippi was also proposed as a HAPC. The fishing impacts on habitat literature review did not produce any new evidence or understanding on how current fisheries in the Gulf of Mexico are impacting habitat. Since the 2005 EFH Amendment, one potentially destructive gear, fish traps, has been banned in the Gulf of Mexico. Recreational and commercial fishing effort has declined in recent years. **J. Rester** stated that possible specific actions to consider in a future EFH Amendment update were to use SEAMAP plankton data to designate and describe EFH for the early life history of managed species, consider additional HAPC designations, and refine EFH maps to species and life-stages and provide higher resolution of spatial EFH representation. **J. Rester** stated that the Council's Texas Habitat Protection Advisory Panel met in December and discussed several issues. The Council's Louisiana/Mississippi Habitat Protection Advisory Panel met in December also. They recommended that the Gulf Council task staff with determining how to actively engage in the Gulf Coast Ecosystem Restoration Task Force and NRDA processes to ensure that the impacts to marine fisheries, their EFH, and restoration potential for both were addressed in both forums.

### **Fishery Modeling Analyses for Water Resource Projects**

**P. Williams** stated that the presentation would focus on numeric, multi-dimensional modeling and not desktop species or community based models that had been used for previous water resource projects. The use of these new models would allow informed decision-making based on risk to the environment, fish populations, productivity, and users. Fishery modeling was necessary when evaluating the impact of levee projects and sediment and freshwater diversions. **P. Williams** explained how a freshwater diversion would compress the salinity gradient and potentially reduce the amount of available habitat for estuarine species. He stated that there were several questions to ask when evaluating a project. These included changes in species distributions and biomass, changes in fisheries productivity, and the impacts on the ecosystem. He stated that previous models had limitations on the answers that they could provide. **P. Williams** next discussed how you could integrate fish movement models with ecosystem and food web models. He also discussed the various model inputs and stressed the need for a good hydrology model and good fisheries data. Each model has applications depending on the questions, scale, and data requirements.

**B. Alford** asked about model inputs and stated how model inputs can vary from location to location.

**P. Williams** stated that they have suggested using the best available data or gathering site-specific data if possible. He stated that the model could be affected by data input, but that the model did have the ability to analyze impacts from large-scale projects.

**P. Williams** stated that traditional hydrodynamic fishery models took one to six months to complete and cost less than \$100,000. The newer models take six months to a year to run and could cost over \$200,000. **H. Finley** stated that costs might decrease as the models become more popular and standard inputs are generated.

**H. Finley** stated that the model began as an effort to provide a more quantitative assessment of fishery impacts from large Corps projects. She stated that NMFS had done a good job of trying to change how the Corps assesses project impacts.



### NRDA Update

**R. Mezich** stated that Florida was currently performing a seagrass assessment to determine impacts from the oil spill. The impacts generally related to the placement of protective boom over seagrass areas. The anchors and boom negatively impacted seagrass. Low altitude photography was being used to identify impacted areas from the Florida panhandle to eastern Louisiana. The injury remediation is still being developed. **R. Mezich** stated that approximately 3,000 acres of seagrass might have been impacted by boom placement.

**K. Anson** stated that marsh surveys were about to begin. Photographs and sediment samples will be taken to determine oiling impact. **H. Finley** stated that LIDAR data would be available to help in determining marsh impact. **H. Finley** stated that oyster surveys would be starting in April. **H. Finley** stated that there were significant oyster mortalities in Louisiana due to oil spill response mainly from releasing large amounts of freshwater. **H. Finley** stated that Louisiana was currently trying to map submerged oil. The submerged oil map would help in determining impacts to fish and shrimp.

**H. Finley** suggested that the Commission help in endorsing a plan to standardize sampling protocols for oil spill assessment. She stated that currently they were developing sampling protocols as they went along. **H. Finley made a motion that the Commission in its capacity being involved in any future discussions regarding resource assessment or restoration resulting from the Deepwater Horizon oil spill, advocate the establishment of a Gulf-wide review process to assess the effectiveness of the injury assessment plans that were used, and develop a standard set of protocols and methods for future events.** **K. Anson** seconded the motion and it passed unanimously.

### Artificial Reef Subcommittee Update – Inshore Artificial Reef Guidelines and Preliminary Artificial Reef Monitoring Plans

**J. Ballard** stated that the Artificial Reef Subcommittee met two weeks ago and discussed the inshore artificial reef best management practices. He stated that everyone still had a problem with the numbers contained within the document since these would vary from state to state and reef to reef depending upon the reef's purpose. The Artificial Reef Subcommittee stated they could develop a document that would detail each state's inshore artificial reef guidelines and policies. **K. Anson** stated that the issues within the guidelines document were relevant, but Alabama had concerns about the numbers within the document. The Habitat Subcommittee decided they would like to see the inshore artificial reef guidelines document produced without the numbers in it.

**J. Ballard** stated that another item of interest to the Habitat Subcommittee was the development of draft artificial reef monitoring plans. The states have developed draft plans that were discussed at the meeting two weeks ago. The state agencies were collaborating with nearby institutions to conduct the monitoring. The Artificial Reef Subcommittee would like to hold a workshop to answer common monitoring questions and discuss what data should be collected. Ideally, data from the states would be comparable. The use of remotely operated vehicles (ROVs) was also discussed. The states asked if the Commission could purchase an ROV that could be shared amongst the states. An ROV would cost \$50,000 to \$70,000 for the initial purchase. **J. Ballard** state that the Commission was going to pursue the purchase of an ROV for the states to use in artificial reef monitoring.

### **Other Business**


**H. Finley** stated that since the oil spill only a few areas were opened for oyster harvest in Louisiana. This was a recommendation from their Oyster Task Force. **B. Alford** stated that Louisiana would soon be starting a large-scale offshore fishery independent sampling program. Inshore fishery independent sampling would be increased also.

**K. Anson** stated that CIAP funds were being used to purchase a vessel to help monitor artificial reefs. Alabama's second oyster relay would take place in late March. **K. Anson** stated that a breakwater project in Little Bay had won several engineering awards.

**R. Adami** stated that the stock enhancement program continued to stock fish in Texas bays. Approximately 19 million red drum and 4 million spotted seatrout fingerlings were stocked. The stock enhancement program is also working with flounder. The derelict crab trap removal program removed approximately 1,400 crab traps this year. **C. O'Brien** stated that the CIAP program would soon be administered by the U.S. Fish and Wildlife Service.

**R. Mezich** stated that Florida had permitted the Port Dolphin LNG facility off Tampa. Florida was still working with Port Dolphin on their mitigation plan. Several hundred loggerhead, green, and Kemp's ridley sea turtles were rescued this year due to cold stress. Manatees were also affected. **H. Finley** asked about the turtle eggs that were moved from the Florida panhandle to the Atlantic coast due to fear of the oil spill. **R. Mezich** stated that he was not sure of the hatching success rate, but he would check on it.

*With no other business, the meeting adjourned at 11:50 a.m.*

APPROVED BY:  
  
COMMITTEE CHAIRMAN

**S-FFMC MENHADEN ADVISORY COMMITTEE  
MINUTES  
Tuesday, March 15, 2011  
Houston, Texas**

**J. Mambretti** called the meeting to order at 8:30 a.m. with the following in attendance:

**Members**

Ron Lukens, Omega Protein, Inc., Gainesville, FL  
Borden Wallace, Daybrook Fisheries, Inc., Empire, LA  
Mike "Buck" Buchanan, MDMR, Biloxi, MS  
Joe Smith, NMFS, Beaufort, NC  
Rick Schillaci, Omega Protein, Inc., Moss Point, MS  
John Mareska, AMRD, Gulf Shores, AL  
Jerry Mambretti, TPWD, Port Arthur, TX  
Behzad Mahmoudi, FWC, St. Petersburg, FL  
Harry Blanchet, LDWF, Baton Rouge, LA

**Others**

Doug Vaughan, NOAA Fisheries, Beaufort, NC  
Amy Schueller, NOAA Fisheries, Beaufort, NC  
Joe Shepard, *GSMFC Commissioner*, LDWF, Baton Rouge, LA  
Corky Perret, *GSMFC Commissioner*, MDMR, Biloxi, MS  
Tess Geers, Stony Brook Univ., NY  
Tony Reisinger, TX Sea Grant, San Benito, TX  
Fernando Martinez-Andrade, TPWD, Corpus Christi, TX  
Richard Fulford, USM/GCRL, Ocean Springs, MS  
Read Hendon, USM/GCRL, Ocean Springs, MS  
Scott Herbert, Daybrook Fisheries, Empire, LA  
Brian Alford, LDWF, Baton Rouge, LA  
Walter Buble, TPWD, Port O'Conner, TX  
Katie Doyle, TPWD, Rockport, TX  
Alice Best, TPWD, Rockport, TX  
Jennifer Bixby, TPWD, Lake Jackson, TX  
Ben Landry, Omega Protein, Inc., Baton Rouge, LA

**Staff**

Larry B. Simpson, Executive Director, Ocean Springs, MS  
Dave Donaldson, Assistant Director, Ocean Springs, MS  
Steve VanderKooy, Program Coordinator, Ocean Springs, MS  
Debbie McIntyre, Staff Assistant, Ocean Springs, MS  
Gregg Bray, RecFIN Analyst, Ocean Springs, MS

## **Introductions**

**Chairman Mambretti** led the introductions of the MAC and the audience.

## **Approval of Agenda**

*The agenda was approved as written.*

## **Approval of Minutes (October 19, 2010)**

*The minutes were approved as written.*

## **Review of 2010 Gulf Menhaden Season and Forecast for 2011**

**Smith** reported that the final landings for 2010 were 379,727 mt which was down 17% from 2009 and 15% from the previous 5-yr average. Landings started strong in April until the Deepwater Horizon disaster which resulted in major area closures of traditional fishing grounds and moved most fishing effort to areas west of about Morgan City, LA, for much of the summer. Cumulative landings through July, which is typically among the best months for landings, were down 30-40% from previous years. July landings of about 8,340 mt were the lowest on record for that month. However, good weather in late September and October allowed the fleet to make up a large percent of that loss.

Age-1 Gulf menhaden predominated at the Cameron plant, while age-2 fish dominated at Abbeville. At Empire, age-1s were slightly more numerous than age-2's; At Moss Point, age-2s outnumbered age-1s. Nominal fishing effort in 2010 was down 15% from 2009 and 11% from the 5-yr average. **Smith** reviewed the CDFR data set and noted that in 2010, there were only 2,868 vessel-days when the Gulf menhaden fleet made purse-seine sets. This was only 54% of the total available vessel-days in 2010. In an average year, at least one set is made during approximately 70% of the available vessel-days. Again in 2010, during 2,393 vessel-days either no sets were made or vessels did not leave the dock; this represents about 46% of the available vessel-days for the 2010 fishing season. During an average season, only about 30% of the vessel-days are without sets or vessels did not leave the dock.

**Smith** reported on the NMFS 2011 Fishing Forecast; he expects 4 factories and 40 vessels active in 2011. With about 350,000 vtwks of nominal fishing effort, the forecast model predicts landings of about 437,000 mt of Gulf menhaden in 2011.

## **Update on the Atlantic Menhaden Fishery**

Smith reported that on the Atlantic, the landings in 2010 for menhaden were around 183,000 mt which was up 27% over 2009. The menhaden in Chesapeake Bay were abundant for most of the fishing season. Abundance of fish actually led to processing problems at the Reedville factory; many weeks of summer the factory was not able to process all the fish being landed. This led to company-imposed limits on daily landings per vessel which lasted through early September. In September, Hurricane Earl dumped significant rain pushing the fish out of the Bay and moving them

south along the North Carolina coast. There was generally good fishing off New Jersey throughout the season and a number of bait boats from Massachusetts and Maine took fish back north to support the lobster fishery. Smith is forecasting the 2011 landings on the Atlantic to be around 184,000 mt with one factory operating and 9 vessels.

### **Louisiana Forecast for 2011**

**Blanchet** provided the Louisiana annual menhaden harvest forecast. The forecast model uses estimated fishing effort, combined with 2009 and 2010 juvenile menhaden indices and environmental factors in several multiple regression predictive models. In summary, the winter of 2009-2010 had below average water temperatures, average salinity, below average rainfall, and average river discharge. "Cold, dry" winters are typically associated with good recruitment. It is estimated that between 400,000-540,000 mt could be landed in Louisiana in 2011.

### **Review of the Texas 'Cap' in 2010**

**Mambretti** and **Smith** reported on the Texas TAC. In 2010, the industry removed 20.7 million lbs from Texas waters which was under the Cap. The 'underage' would allow an additional 10% over the quota to be harvested in 2011. The TAC was set at 31.5 million pounds per year, which was the approximate five-year average of Texas catches during 2002-2006.

### **2011 Gulf Menhaden SEDAR and FMP Revision**

**VanderKooy** reported that the GSMFC is hosting the SEDAR27 Data Workshop over the next two days concurrent with the Commission meeting. In addition, the Commission is providing the financial support for the Assessment Workshop scheduled for July in Beaufort, and the SAFMC is sponsoring the Assessment Review at the end of October. **VanderKooy** and **Smith** are working on the revision to the FMP while the SEDAR is in progress in an effort to finish both this fall. Results of the assessment will be included in this revision to the gulf menhaden FMP.

### **Juvenile Gulf Menhaden Sampling**

**VanderKooy** and **Donaldson** reported on the progress toward funding the proposed juvenile menhaden sampling project. It is expected that the first year will cost ~\$200K to gear up and conduct the survey. Last year, it was thought that the Stock Assessment Enhancement (SAE) program at the Commission would be able to fund the project. However, the SAE will not be able to help in 2011. It is believed that there will be carry-over monies in the project after 2011; if NOAA will allow carry-over funds to be spent on the project, sampling might begin in 2012.

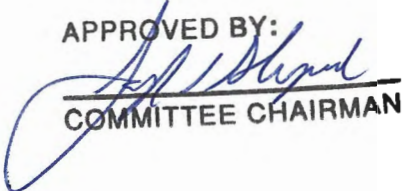
### **Other Business**

The group was reminded that the Gulf Menhaden Symposium would begin after lunch in this same room.

*With no further business, the meeting was adjourned at 11:20 am.*

**TECHNICAL COORDINATING COMMITTEE  
MINUTES – 61<sup>st</sup> Annual Spring Meeting  
Tuesday, March 15, 2011  
Houston, Texas**

APPROVED BY:

  
COMMITTEE CHAIRMAN

**Chairman Joey Shepard** called the meeting to order at 1:00 p.m. The following members, staff and others were present:

**Members**

Dan Ellinor, FWC, Tallahassee, FL  
Richard Cody, FWRI, St. Petersburg, FL  
Kerwin Cuevas, MDMR, Biloxi, MS  
Joey Shepard, LDWF, Baton Rouge, LA  
Chris Denson, ADCNR/MRD, Gulf Shores, AL  
Bill Balboa, TPWD, Dickinson, TX  
Dale Diaz, MDMR, Biloxi, MS  
Harry Blanchet, LDWF, Baton Rouge, LA  
Jerry Mambretti, TPWD, ~~Austin~~, TX

*Port Arthur*

**Staff**

James Ballard, GSMFC, Sport Fish/Aquatic Invasives Coordinator, Ocean Springs, MS  
Jeff Rester, GSMFC, Habitat/SEAMAP Coordinator, Ocean Springs, MS  
Larry Simpson, GSMFC, Executive Director, Ocean Springs, MS  
Dave Donaldson, GSMFC, Assistant Director, Ocean Springs, MS  
Gregg Bray, GSMFC, RecFIN Programmer/Analyst, Ocean Springs, MS  
Joe Ferrer, GSMFC, Systems Administrator, Ocean Springs, MS  
Janet Williams, GSMFC, Staff Assistant, Ocean Springs, MS

**Others**

Read Hendon, GCRL, Ocean Springs, MS  
Kyle Piller, SELU, Hammond, LA  
Ronnie Luster, CCA, Houston, TX  
Mike Ray, TPWD, GSMFC Commissioner, Austin, TX  
Camp Matens, GSMFC Commissioner, Baton Rouge, LA  
Lance Robinson, TPWD, Austin, TX  
Terry Cody, TPWD, Rockport, TX  
Page Campbell, TPWD, Rockport, TX

**Adoption of Agenda**

**A motion to adopt the agenda was made by K. Cuevas and passed unanimously.**

## Approval of Minutes

A motion to approve the minutes as written for the October, 19 2010 meeting was made by K. Cuevas and passed with no opposition.

## Genetic Variation in Spotted Seatrout in Louisiana: Panmixia and Genetic Divergence

**Dr. Kyle Piller** gave a presentation on his work with spotted seatrout genetics in Louisiana. He started by explaining the importance of understanding the stock structure of a fish population that is being managed, and some of the common tools used to examine that structure (tagging, morphology/life history, otolith microchemistry and genetics). In his study, Kyle used a genetic approach which allows examination of long-term patterns of gene flow, identifying unique or isolated populations, and identifying dispersal of individuals. The objective of his study was to assess genetic variation and structure from multiple populations of the spotted Seatrout along the Louisiana coast. Kyle received spotted Seatrout samples from LDWF that were collected from the seven coastal study areas (CSA) along the LA coast (about 50 individuals per CSA). When he started this study, there were very few species-specific microsatellite markers available, so he developed twelve new microsatellite loci specifically for spotted seatrout. He then used a number of genetic analyses to examine the existence of population structure in spotted Seatrout. He started by assessing the variability in the markers among the samples. He determined that the markers were highly variable within the sampled seatrout. Kyle then performed an  $F_{st}$  test which revealed that the fish from CSA1 were significantly different from all the other CSAs. The factorial correspondence and distance analyses showed similar results, with CSA1 coming out somewhat distinctive from the other samples. Kyle stated that his research showed substantial connectivity in spotted seatrout from all CSAs and the population can be referred to as somewhat panmictic. He thinks this is a result of multiple overlapping subpopulations along the coast that are centered around major estuaries. There is gene flow between adjacent estuaries leading to the homogeneity in the population's genetics. He stated that the currents are possibly playing a role in the slight divergence of the spotted seatrout from CSA1 from the rest of the CSAs and/or the Mississippi River may be influencing this isolation.

## Update on Resource Monitoring as a Result of the Deepwater Horizon Disaster

- FL – **R. Cody** stated that they are still processing requests for landings information, but the volume of requests has diminished. He had no other updates on research or other sampling; they have been carrying on with business as usual with no real increased effort in fisheries independent or dependent sampling.
- AL – **C. Denson** reported that they are continuing their normal monitoring programs and are in negotiations with BP to get funding for a larger seafood testing and monitoring program. At this point, they do not know when or if this new program will be implemented.
- MS – **D. Diaz** reported that they dropped their shrimp, finfish, crabs and oyster safety testing to 20 samples per month starting October 1<sup>st</sup> from the original level of 40/month. They are also still in negotiations with BP on funding a seafood safety program that will expand this sampling effort; however, they have not come to any agreements yet. Dale also pointed out that there is a



fair amount of NRDA work going on in the state and DMR is heavily involved with the oyster component of that work. He also stated that DMR is continuing with their normal resource sampling and he is comparing the results of that sampling to previous years to see if there are any changes.

- LA – **J. Shepard** stated that they received \$13 million from BP to do resource monitoring surveys which basically doubled their previous sampling effort in the inshore waters. This new program was started in October, 2010 and so far it has been going well. Another component of this new program is nearshore sampling that goes from 5-40 fathoms that is using the same protocol as SEAMAP, but with increased sampling effort. They had a problem finding a research vessel to carry out this component of the monitoring program, but now have a lease on a vessel and will probably begin around May 1<sup>st</sup>. The final component of this new program is monitoring reef fish species in offshore waters that will be carried out by Dr. Jim Cowan from LSU. Joey also reported that Louisiana received \$18 million from BP to carry out a seafood safety program over the next 3 years. For this program, they will be doing PAHs tissue testing on all commercial and recreational fisheries from both inshore and offshore waters. This study is also funded for three year. Some of the money went to the seafood marketing board.
- TX – **B. Balboa** reported that they have not altered their routine sampling programs, and other than an increase in requests for commercial landings data at the beginning, the programs have been running status-quo.

### **Oyster FMP Revision for Review**

**L. Robinson** gave a presentation on the major revisions that have been performed on the oyster FMP, which was published in 1991, and stated that the plan should be sent to the TCC members in the next few months for their review. He stated that the oyster technical task force split the old Chapter Five (Description of stocks and habitat comprising the management unit) into three separate chapters and added more detail to each (Description of stocks, Description of habitat and Population survival). They also expanded/updated the section of the FMP dealing with social/cultural characteristics of fishermen and communities, and the section on public health detailing *Vibrio* management in the Gulf. They also added new sections on aquaculture/mariculture, historical use of various cultch materials throughout the Gulf, and mapping and assessment. Lance pointed out that they also updated the section on management issues, measures, considerations, and recommendations because several had changed since the document was first published, and some of the issues had been addressed over the years and were no longer a problem. Finally, they updated the research and data needs section to bring it up to date. The TCC will have a 60-day period to review this FMP from the time they receive it.

### **Sand and Silver Seatrout Profile for Review**

**C. Adams** gave a presentation that highlighted some of the information on sand and silver seatrout that can be found in the profile. Chuck pointed out that it is very hard for the average person to tell these two species apart, and as a result, there isn't good species-specific landing data which would be needed to develop a FMP. He reported that sand seatrout are commonly found in estuarine and

shallow offshore waters while silver seatrout are commonly found in deeper offshore waters. He also addressed some of the limitations in silver seatrout biological information, such as spawning, as compared to sand seatrout. Chuck pointed out that most anglers and commercial fishermen do not distinguish between the two species, and they are commonly lumped together under the common name 'white trout'. Currently, there are no bag size regulations on sand and silver seatrout in the five Gulf states. Chuck also touched on the market channels of these two species; there has been a downward trend in the dockside value over the last decade that has been driven by volume, not price. He pointed out that there are no studies that suggest the economic contribution or value associated with sand or silver seatrout angling activities. There are also several other data needs that would have to be addressed to move this profile forward to an FMP. The TCC is receiving this draft Profile to begin their 45-day review. Upon their approval, the Profile will move to the SFFMC for their review, a public comment period, and finally, a review by the full Commission prior to the October GMSFC meeting.

### **Subcommittee Reports**

#### **Crab:**

**J. Ballard** reported that the Crab Subcommittee did not have a quorum, so no actions were taken. Each of the states provided written reports which were reviewed during the work session. Florida's report included information on the current lipofuscin research as well as an overview of the derelict trap removal program expected to occur this year in lieu of the postponed clean-up from last summer. Florida reported that their total landings for hard and softshell crabs increased in 2010 (preliminary). Likewise, the number of trips and value appears to be increasing as well. The effort management program, through 2010, has reduced endorsements and traps by 21% and 69% respectively. Alabama provided information on their 2010 tissue sampling and reported a substantial decline in the landings and values for 2010 derived from the BP disaster. Alabama will not have a derelict trap clean-up in 2011, but may have one in 2012. Mississippi reported commercial license sales continued to rise since October, primarily from people trying to get into the BP VOO program. There was a substantial decrease in landings and value attributed to the oil spill closures. There are no plans to hold a derelict trap clean-up in 2011. Harriet Perry's report indicated the GCRL crab aquaculture program was successful last year despite the oil spill. Crab megalopae settlement/recruitment appears to be average even post-BP. Louisiana had not planned a clean-up for 2011 but, due to boating hazards resulting from traps left in the water due to the oil spill, the department closed waters in Plaquemines Parish at the end of February into March to remove abandoned gear and facilitate safe conditions to oil spill clean-up operations. The number of traps removed is not yet quantified. The crab task force continues to work toward MSC certification and is currently working on its stock assessment. Landings in 2010 decreased 45% due to oil spill closures. Texas reported increased landings for hard crabs in 2010 which coincides with increased recruitment from fishery-independent sampling. The TPWD held its trap clean-up in the end of February. There were 1,491 traps removed by 188 volunteers in 73 vessels, mostly from Galveston and San Antonio Bays.

**D. Diaz made a motion to accept the report and it passed unanimously.**

## **SEAMAP:**

**J. Rester** stated that the main item covered during their meeting was the review of the 2011-2015 SEAMAP management plan that they have been working on for the last few months in conjunction with the South Atlantic and Caribbean groups. The Subcommittee decided to do one more review over the next few weeks before bringing the final draft to the TCC for their review. The Subcommittee also had a recommendation to draft a letter of support for ship time for the NMFS. In recent years SEAMAP has had trouble getting all of their sampling in with the ship time they are allotted. The Subcommittee also looked at some new catch visualization tools that have been developed and they discussed the 2010 SEAMAP atlas.

**A motion to accept the report was moved by D. Diaz, and passed without opposition.**

## **Habitat:**

**J. Rester** pointed out that the main item the Subcommittee discussed was a presentation by Patrick Williams from the NMFS on a fisheries modeling tool that can be used for analyzing the impacts of water resource projects. Unfortunately, it takes a lot of time and money to run these models and the COE have been reluctant to implement this type of modeling on some of their projects. The Subcommittee also had a discussion of NRDA and all the work that is going on in the Gulf states for that assessment. **J. Ballard** updated the subcommittee on what the Artificial Reef Subcommittee is doing with the "Best Management Practices for Inshore Artificial Reefs" Document and the progress on the Gulf wide monitoring program they are trying to get started.

**K. Cuevas made a motion to accept the report and it passed unanimously.**

## **Data Management:**

**C. Denson** reported that Gregg Bray provided handouts that showed a comparison of the number of otoliths and length measurements collected in 2010 along with the associated sampling targets for the 15 FIN priority species. A large number of shortfalls were observed for most species. These shortfalls are largely due to limited sampling during the oil disaster, along with difficulties posed by more restrictive fishing regulations for several species. Chris also stated that David McCarron gave a presentation on the commercial vessel information project. This project was started to compile state commercial vessel information to correspond with trip ticket data. It was discovered that the original design of identifying unique vessels by hull identification number (HIN) was not going to work. Not all of the states collect HIN. Since the HIN-based model was ineffective, the Information Architecture (IA) team has switched to a spreadsheet template and the IA team will work with the states to populate as many of the data fields as possible. David McCarron also reported that the IA Team has been working to link commercial trip tickets, IFQ data and commercial logbook data using an FIS tool that was created a few years ago. So far the matching has been going well with the success rates in the 70-95% range for red snapper data. Chris pointed out that the Subcommittee had an update on the National Registry projects by Dave Donaldson. NOAA Fisheries provided \$850,000 to the Gulf region to attempt to improve the quality of data that goes into the national license registry. Each Gulf state has qualified for exemptions based on their current

license system, but improvements in data quality would help future license data submitted to the registry. All of the states along with Puerto Rico and USVI have submitted proposals and have been funded, except for Florida. NOAA Fisheries is already attempting a similar project as Florida proposed, and FWC is waiting to see if they can work with NOAA on their existing research. Donaldson also gave an update on the MRIP Gulf of Mexico For-Hire Logbook Project. Testing continues on approximately 60 vessels in the Corpus Christi area of Texas, and 330 vessels in the Panhandle of Florida. Sampling began in September of 2010. This study is focusing on all federally-permitted reef fish and pelagic for-hire vessels in those regions. Each vessel selected is mandated to report. The project collects weekly trip reports of catch and effort. There is also a validation component that collects dockside and at-sea validation data. Currently, the non-compliance rate in Florida is around 19% (~70 vessels). Texas has 100% compliance, although a few vessels each week are somewhat slow in providing their weekly reports. Currently 100% of the captains in Texas are reporting electronically, while approximately 50 captains are reporting via a paper option in Florida. Validations are going well during the high activity periods, but at-sea trips have decreased significantly through the winter months. FWC has provided a list of approximately 70 boats to NOAA as non-compliant and subsequently their permits have been put on hold. Fifty of these vessels have never provided any weekly data, and the additional 20 started providing data but have become delinquent over December and January. This project will continue through August 2011. Chris also reported that the Subcommittee had a discussion of Shrimp Data Issues that were brought up during the February Gulf of Mexico Fishery Management Council (GMFMC) meeting. Some of the issues were portion of the shrimp landings not being collected by trip tickets, how to consolidate shrimp landings across multiple trips, shrimp dealers not providing vessel ID on some landings records, and dealers using Coast Guard and state vessel ID's interchangeably for the same vessel. The Subcommittee discussed that these are primarily enforcement issues and that additional enforcement presence and funding was needed to address them. David Gloeckner gave an update on the status of the federal quota monitoring/electronic reporting activities. He stated that a mandatory electronic reporting date for commercial federal dealers has been established for March 1, 2011. All appropriate dealers have been notified and informed of their reporting options. Gulf dealers will be using a system developed by Claude Peterson at Bluefin Data, Inc. Approximately 300 dealers in the Gulf will be mandated to report electronically. The Subcommittee then had a discussion about the possibility of compiling oil spill monitoring protocols/data and housing it at the GSMFC. At first the group will focus on metadata and Jeff Rester will be heading up this effort. Alex Miller provided the Subcommittee with a presentation on his work with trip tickets and traceability. Traceability allows for risk management, improving sales, branding, and marketing. The current plan is to use the electronic trip ticket data and allow for voluntary participation with processors to create a traceability model in the Gulf of Mexico. Chris reported that the Subcommittee had a discussion on weight vs. numbers for recreational data. A request has been made to the GMFMC to use estimated weights for the recreational sector instead of numbers to make it more easily comparable with commercial landings. The concern was that increasing trends in average weight of red snapper would be more detrimental when the season length is established. Many of the subcommittee agreed that too many limitations occur in recreational sampling to globally switch to estimated weight instead of estimated numbers. Alex Miller also supplied the Subcommittee with the results of inshore shrimp survey that was conducted in 2008. While landings and nominal revenue have been relatively the same since the 1970's, the inflation-adjusted revenue has decreased significantly. Little economic data has been collected on the inshore shrimp fishery in recent years. Taking into account the real economic costs,

both the federal offshore fleet and inshore shrimp fleet are taking losses and slowly eroding their value over time. The total fishery-related impacts of the shrimp fishery are estimated at \$1,380,000 and 13,307 jobs.

**A motion to accept the report was moved by D. Diaz, and passed without opposition.**

**Artificial Reef:**

**J. Ballard** stated that the Artificial Reef Subcommittee held a joint meeting with the ASMFC's Subcommittee on March 1-2, 2011 in St. Petersburg, Florida. Some of the topics discussed at this meeting were the reefing project of the ex-Arthur W. Radford off the coast of Delaware, Maryland, and New Jersey; results of the continued monitoring of the stainless steel subway cars reefed off the east coast; and the conflicts between the commercial and recreational fishing sectors on artificial reefs funded by the SFRP, and how the use of SMZs may alleviate them. James also reported that the Subcommittee heard a presentation on artificial reef monitoring in the Gulf of Mexico by Sean Keenan. This sampling took place over a wide range of environments and species and utilized a multi gear approach including stationary camera arrays, Chevron traps and unattended hooked gear. One of the goals of this work was to make the collected data as comparable as possible with that of NMFS. The approach taken in this study is very similar to the one that the Subcommittee wants to put together for their Gulf-wide monitoring program. James then pointed out that the group had an update on the PCB testing in recreationally caught fish on the ex-Oriskany reef. FWC has now completed eight rounds of sampling and have gotten results back on the first seven. For the most part, their findings match the pre-sink leaching study that was performed by the Navy. There was an initial spike in PCB levels and now almost all have fallen below both EPA and Florida DOH acceptable limits. The Subcommittees heard an update from BOEMRE on their Idle Iron and Rigs-to-Reefs programs and then had a long discussion on them and some of the issues that are arising in the Gulf states. The Rigs-to-Reefs program released an addendum last year because of the large amount of unsuitable material that was being proposed for reefing as a result of recent hurricanes. Some of the main changes in this addendum are; no debris piles, debris fields, or reef baskets will be allowed; all submerged decks must be removed; and future reef sites will not be allowed within 5 miles of established/pending reef locations to minimize the impact to future pipeline operations. Another component of this addendum that has been causing problems in Texas is that BOEMRE will only grant Rigs-to-Reefs departures for platform-removal applications if the structure will be sited in an established artificial reef permit area. In Texas their general reef permit area is too far away from the location of the rigs to make reefing cost affective for the oil/gas companies. Texas has been trying to establish a new reef permit area that would be much closer to the rigs; however, BOEMRE does not have the time to move the effort forward. Alabama and Florida have been in discussions with BOEMRE to try and get a Rigs-to-Reefs program established. The idle iron issue started with the release of an NTL by BOEMRE in September of last year. According to BOEMRE, there are a large number of rigs in the Gulf that are no longer in use, but have not been permanently plugged or temporarily sealed and are a threat to the natural environment. One of the main things this NTL does is eliminate the time extensions for permanently plugging or temporarily sealing wells that have been deemed no longer useful for operations. The NTL also establishes that any platform or other facility that is no longer useful for operations must be removed as soon as possible but no later than 5 years from the date of the NTL, or the lessees must submit documentation of the well's usefulness to

the BOEMRE GOM Regional Supervisor. James also pointed out that the Subcommittee had a discussion on the Inshore Artificial Reef BMP Document that was developed by the Habitat Subcommittee. The group came up with two ways to proceed with the revision of this document; 1) they could revise the current document to create a condensed general guidelines document that would not contain any of the specific numbers. These numbers will vary depending on the state, reef location, and reef purpose. 2) They could create a document similar to the material guideline, which summarizes what each state does in regard to inshore artificial reef development. The group decided to take these two choices to the Habitat Subcommittee and see which one they would prefer. After discussing this with them, they chose to go with the first option. Over the next few months the Artificial Reef Subcommittee will work on the revisions to the BMP document and supply the Habitat Subcommittee with a new draft before their October meeting. The final item the Subcommittee discussed was the Gulf-wide artificial reef monitoring program that they are trying to get established. The group had a long discussion about where each state stands with the development of their individual draft monitoring plans. In Florida, most of their monitoring to date was done by universities and were only snapshots in time of some of their reefs. FWC will be working with FWRI to develop their plan over the next few months. Alabama is just starting to get things together for their plan. They have ten years of monitoring data with the Dauphin Island Sea Lab, and will be modeling their plan around some of that ongoing work. Louisiana is in discussions with LSU to do the offshore component of the reef monitoring. They will probably utilize universities or a private firm to carry out their state's monitoring because of the lack of staff in the reef program. Texas is working on agreements with three universities along the coast to monitor their offshore reef sites using divers. They are still working out the details on how they would monitor the rest of their reefs (gear types). Once all of these draft plans are completed, the group will work on combining them into a Gulf-wide program that is as comparable across all states as possible. James stated that the group also had a discussion about the use of ROVs for a component of the Gulf-wide monitoring program. Several people in attendance had experience in using ROVs for reef monitoring and had a lot of good advice for what to look for if we plan to use them in the Gulf program. It was the consensus of the Subcommittee that an ROV would be an essential piece of the monitoring plan, especially for monitoring very deep reefs, and, because of the usefulness of having a video component incorporated in the long term monitoring. The idea was raised of having the GSMFC purchase/lease an ROV system that could then be used by all states to start collecting some preliminary data, while the Subcommittee and the GSMFC try to pull together the full program and supporting funding. James stated that he is currently exploring this possibility and will update the group on what he finds out. The Subcommittee also suggested that a reef monitoring workshop be held in conjunction with the fall 2011 GSMFC meeting. Prior to this workshop each state will develop a list of questions that they have concerning how to monitor their artificial reefs, what long-term data they should be collecting to assess their reefs over time, and how to make the data as comparable as possible Gulf-wide. For this workshop, we will bring in universities with experience in monitoring programs, NMFS, Sea Grant, etc. The goals of this workshop will be to address the questions the states have and to establish a clear set of goals that the monitoring program will aim to achieve.

**K. Cuevas made the following motion: The TCC will hold a discussion at the October 2011 meeting to address the Rigs-to-Reefs and Idle Iron programs under BOEMRE and their associated issues, and invites representatives from BOEMRE, state agencies and the**



commercial/recreational fishing communities that can help in fully illustrating these issues. This motion was seconded by R. Cody, and passed without opposition.

**D. Diaz** made a motion to accept the Artificial Reef Subcommittee report and it passed unanimously.

### Fisheries Outreach

**J. Ballard** reported that in an attempt to work more cooperatively, the TCC Fisheries Outreach Subcommittee met in conjunction with the Gulf of Mexico Fishery Management Council's Outreach and Education Advisory Panel's meeting on January 12-13, 2011 in Tampa, Florida. The two groups found a real benefit to this cooperation and expressed an interest in continuing the effort. During the TCC Subcommittee's meeting there was a discussion of outreach activities as a result of the Deepwater Horizon oil spill. All member states and agencies had some new activities as a result of the spill; Florida developed a list serve to keep the commercial industry up-to-date; had an outreach campaign to show that Florida was not hit hard by the oil spill; and Florida Fresh Seafood campaign.

Alabama set up the Gulf Recovery Program, put out 6 news articles a week to update the public on oil spill activities, and had a special issue of Outdoor Alabama Magazine on the oil spill. Mississippi started the Gulf Safe Campaign, had a lot of press calls and news articles every week, helped with the Vessels of Opportunity program by fast tracking qualified boat owners, and held a chefs event with Emeril Lagasse to promote safe Gulf seafood. Louisiana is doing a lot of work with their safe seafood campaign and working with the seafood marketing board on ways to re-establish gulf seafood as a safe product, dealing with a lot of standings of dolphins, disseminating the results of their extensive seafood testing, and are working closely with their marine law enforcement staff on outreach activities. They have caught several people fishing in closed areas and made them dump their catch to help preserve the integrity of Gulf seafood. Both Mississippi and Louisiana reported that they had stopped most of their ongoing outreach activities and were working exclusively on oil spill related ones. The US Fish and Wildlife Service deployed public affairs officers from around the country, sent a lot of equipment to the affected areas, and launched their Facebook, YouTube, and Twitter sites. These efforts are working out well, and USFWS is working closely with the NERDA process. James stated that the Subcommittee also heard updates from each member state/agency on their outreach activities. During this part of the meeting, the real benefit of this new subcommittee became apparent. Since the first meeting of this group in March of 2010, three new outreach efforts have been started in Gulf States by borrowing the idea from other states. James reported that the Subcommittee elected Rich Abrams as its chair and Lauren Thompson as vice chair and they voted to add a seat for Sea Grant on the Subcommittee.

**K. Cuevas** made a motion to accept the report and it passed unanimously.

### State/Federal Reports

**J. Shepard** started a discussion on the state budget situation in the member states. He pointed out that in the Louisiana Office of Fisheries, they are cutting another \$4 million for the next fiscal year which equals about 3-4% of their total budget. However, they will be able to use some of the oil spill money to make up the shortfalls over the next three years. **C. Denson** reported that so far, Alabama is able to maintain all of their programs; however, they are restructuring some of them to



make them more cost-effective. As a whole, the agency has been receiving a lot of budget cuts. **D. Diaz** stated that DMR has been in several years of downward budget cycles and they have eliminated everything they can without cutting critical programs. They are doing everything they can to make their programs as cost-efficient as possible and not let the budget cuts impact how they serve the public. **D. Ellinor** reported that the total cuts in the Governor's recommendations for FWC are 97 positions and \$14.5 million. A few of the more significant cuts include reducing 23 vacant positions, reducing law enforcement officers by 61 vacant positions, reducing invasive plant management by \$2.7 million, reducing red tide research and monitoring by \$640 thousand, and eliminating the office of recreation services, which is 12 full-time employees. **B. Balboa** stated that state wide, there is a \$15 billion revenue shortfall. They are looking at eliminating all new capital equipment purchases (vehicles, boats, new capital construction, etc). The Coastal Fisheries Department is looking at a \$1.5 million reduction in budget for fiscal year 2012, and \$1.4 million reduction in 2013, which is 10% and 9% respectively. This will result in a reduction in the license buyback programs by \$1.1 million in fiscal year 2012 and 2013.

The following reports were provided to the TCC members prior to the meeting for their review, and the authors only briefly went over the high points during the meeting.

### Florida Report: D. Ellinor/R. Cody

#### **FWC Artificial Reef Program Overview**

Marine Artificial reefs are constructed of man-made or natural materials intentionally placed on the seafloor with the intent of accomplishing one or more biological or socio-economic objectives. In Florida, public artificial reefs are generally placed by commercial marine contractors selected through a competitive bid process and subcontracted by a local coastal government who is the permit holder of the reef area where the artificial reef will be constructed. Florida's 448 artificial reef-permitted areas (145 off the Atlantic coast and 303 off the Gulf coast), encompass a total of 664 square nautical miles and range in size from .06 square nautical miles to 98 square nautical miles. They are located in both state and adjacent federal waters off 34 of 35 coastal counties and are permitted to the Counties by the Florida Department of Environmental Protection (state waters) and the U.S. Army Corps of Engineers (state and federal waters). Individual public reefs range in size from a single 1-2 ton concrete or concrete and steel reef module to a 28,000 ton ex-Navy aircraft carrier. The intent of the artificial reef placements is to achieve one or more objectives, usually related to providing additional long-term fishing and diving opportunities, enhanced economic benefits to local coastal communities, reducing user conflicts, augmenting hard bottom reef habitat, taking pressure off existing natural reefs, restoration of fish stocks, and providing research study sites to address reef ecology and fisheries management related questions.

Historical records maintained by the FWC artificial reef program indicate that as of January 2011, a total of 2,622 reefs have been deployed off both Florida Coasts at depths from 4 to 414 feet of water. Approximately 70-100



Amberjack, and red snapper associated with designed concrete and steel module artificial reefs located off of San Carlos ISL. June 2009

artificial reefs are annually constructed statewide using a combination of federal, state, local government, and private funds. The state artificial reef program also funds monitoring projects to measure the performance of constructed artificial reefs to assess the level of success in meeting reef construction objectives.

The state artificial reef program was legislatively created in 1980. The program is described in s. 379.249 Florida Statutes, operates under 68E-9 Florida Administrative Code and staff are located as a subsection within FWC's Division of Marine Fisheries Management. The state's Artificial Reef program has been a successful 30-year cooperative partnership with coastal local governments, eligible 501(c)3 nonprofit organizations and state universities. Three staff work in the FWC artificial reef program: two Environmental Specialists, and one Environmental Administrator. They provide contract management, technical assistance to local coastal governments, disseminate requested information to a wide range of stakeholders, and conduct statewide performance and compliance monitoring of reef projects.

#### FWC Artificial Reef Program Funding

An annual grant to the FWC Division of Marine Fisheries Management from the U.S. Fish and Wildlife Service Federal Aid in Sport Fish Restoration Program (USFWS) provides the majority of funding required to support the state artificial program. No general revenue funds are utilized. The two Environmental Specialists receive 100% federal funding from the annual USFWS grant to fully cover their salaries and benefits. The Environmental Administrator is 70% funded under the federal grant, with the remainder of his salary coming from saltwater fishing license revenue sources (Marine Resources Conservation Trust Fund (MRCTF)). All FWC reef program operational expenses including office rent, warehouse storage rent, phone, and mission-critical travel related to grant related activities are covered under the federal grant. These federally funded operational expenses, along with the federally-funded salaries and the artificial reef projects themselves, all require a 25% state or third-party match.

Artificial reef construction projects funded through the FWC artificial reef program are also largely funded with USFWS grant funds and matched with MRCTF and third-party cash match assistance. The funds are secured through federal excise taxes on items such as fishing tackle, outboard motor fuel, and small engines. Such funding for marine fisheries-related projects is made available to the states in accordance with a formula based upon the number of licensed anglers and extent of Florida's shoreline. A 25% state or third-party match is required for the federal funds utilized in the artificial reef program. This match is a combination of third-party cash match contributions by local coastal governments to the reef project they are awarded, and saltwater fishing license revenues. The inability of the local coastal government to provide a cash match does not prohibit the local coastal governments from competing for funds, though additional points are awarded for local governments who are able to provide some cash match. The federal and state funds for the artificial reef program are non-recurring funds. Federal funding for identified reef construction projects must be applied for through an annual grant request from FWC's reef program to the U.S. Fish and Wildlife Service. The Legislature must provide spending authority for both the federal and state funds authorized.

#### Current year (2010-2011) planned FWC artificial reef construction projects

The artificial reef construction projects funded through the FWC and planned for the 2010-11 federal grant funding cycle are listed in Table 1. The approved USFWS federal grant to the FWC artificial

reef program for the period of September 1, 2010 through August 31, 2011 included 10 artificial construction projects off ten coastal counties and a larger artificial reef construction project to support long-term ongoing research and fisheries management off the Florida Big Bend. This latter project, an FWC cooperative effort with the University of Florida, is intended for the improved management of gag grouper stocks. Gag are currently overfished and closed to recreational fishing in the Gulf of Mexico for at least the next 180 days (through at least June 30, 2011). A summary narrative of the current-year FWC-sponsored reef projects funded with the support of USFWS Federal Aid in Sport Fish Restoration funding is included at Attachment 1.

Table 1. Artificial reef construction projects planned during FY 2010-11.

Artificial Reef Private Sector Job Creation and Economic Support Issues

Jobs created by artificial reefs in Florida can be separated into two distinct categories: short-term construction related jobs, and longer-term jobs in the coastal community created by the artificial reef fishing and diving activities of residents and visitors over the life of the artificial reef system. Administrative and oversight duties of artificial reef construction sub-contracts are managed directly by the local government at no cost to FWC, allowing 100% of the funds to be allocated to reef construction through competitive bid solicitation from the private marine contracting industry. This results in private sector hiring for short term jobs to implement the construction phase of each

	GRANTEE	FWC Contract Number	Total project cost	Federal Share (SFR)	State Share (MRCTF)	Local Share (TOTAL)	Reef Name & Description
1	Flagler County	10158	\$71,750	\$51,750	\$0	\$20,000	Grady Prather Reef 500-1,000 tons concrete bridge material
2	Jacksonville, City of	10159	\$87,500	\$50,000	\$0	\$37,500	Harms Ledge or Floyds Folly 700 tons concrete culverts, junction boxes, etc.
3	Martin County	10160	\$72,000	\$54,000	\$0	\$18,000	St. Lucie-Jupiter Inlet Reef Site, South County Reef 1500-1800 tons concrete culverts, junction boxes
4	Mexico Beach, City of	10161	\$81,750	\$51,750	\$0	\$30,000	City of Mexico Beach Construction 2010-2011 76 designed concrete modules across 13 locations
5	Miami-Dade County	10162	\$120,000	\$60,000	\$0	\$60,000	Mercy Hospital and Key Biscayne Reef Sites 700 tons limestone boulders and concrete
6	Okaloosa County	10163	\$48,400	\$44,000	\$0	\$4,400	Conch Reef 40 designed concrete modules
7	Palm Beach County	10164	\$111,750	\$51,750	\$0	\$60,000	Boynton Inlet Reef 900 tons limestone boulders
8	Pinellas County	10165	\$50,000	\$25,000	\$0	\$25,000	Rube Allyn Reef 1,020 tons concrete culverts, junction boxes, etc.
9	Reef Ball Foundation (Sarasota County)	10157	\$51,750	\$51,750	\$0	\$0	Silvertooth Reef 72 designed concrete modules of three types
10	St Lucie County	10166	\$74,200	\$60,000	\$0	\$14,200	North County Near Shore Site 2010-11 2,000 tons concrete culverts, junction boxes, etc.
11	Walter Marine (Taylor County)	10091	\$515,002	\$386,252	\$128,750	\$0	Steinhatchee Fisheries Management Area 450 designed concrete modules at 450 locations
<b>TOTAL \$1,284,102 \$886,252 \$128,750 \$269,100</b>							

artificial reef project. The state program requirements of the use of long-lived stable materials (pre-fabricated structures) and materials such as limestone boulders, and clean concrete and heavy-gauge steel products result in the development of storm-resistant reefs that have at least a 20 year-30 year lifespan as a functioning artificial reef.

The cumulative development and long-term use of reefs to form county or regional artificial reef systems has contributed to the economic development and new job creation within local coastal economies. In a 1998 FSU economic study, fishers and divers annually spent over \$414 million associated with fishing and diving on or around artificial reefs off a five-county area of NW

Florida. That system was estimated to be responsible for the creation of **8,163 jobs**. In Southeast Florida in a 2001 study, user groups annually spent \$1.7 billion associated with fishing and diving on or around artificial reefs. The artificial reef systems off four SE Florida counties assisted in the generation of **27,000 jobs**. A study of the reef system off a single Florida East Coast county (Martin), estimated their reef system created **182 jobs** in that county. In a five-county area off SW Florida, a 2009 University of Florida study showed fishers and divers targeting artificial reefs annually spend \$274 million in that geographic region, generating **1,987 jobs**. These referenced studies are listed in the references section and are available upon request.

In summary, formal socio-economic studies have documented job creation in coastal counties as a result of the development of a system of artificial reef-based fishing and diving locations. The use of stable, durable, environmentally-friendly reef materials with a functioning life span of 20-30 years or more ensures a maximum return on the reef construction investment. The economic benefit to the coastal communities from the system of public reefs developed over a period of years occurs in the creation and maintenance of jobs directly and indirectly supporting those recreational opportunities afforded by the artificial reef system. These jobs are created throughout the coastal communities to support increased diving and angling opportunities on artificial reefs deployed in state and adjacent federal waters. An increase in visitors to an area results in an increased need for and maintenance of existing jobs related to the tourism sector. Marine contractors are also provided with short-term reef construction jobs involving reef module construction, overland trucking of materials to a staging area, loading materials onto a barge, transporting materials offshore and building the reefs. These construction jobs are funded with state, federal, local government, and private funds. State general revenue funds are generally not utilized in artificial reef projects and local governments don't charge administrative fees to manage contracts funded through FWC with state and federal funds. Funds administered by FWC for use by local coastal governments to competitively construct artificial reefs go directly to the selected marine contractor and their respective personnel.

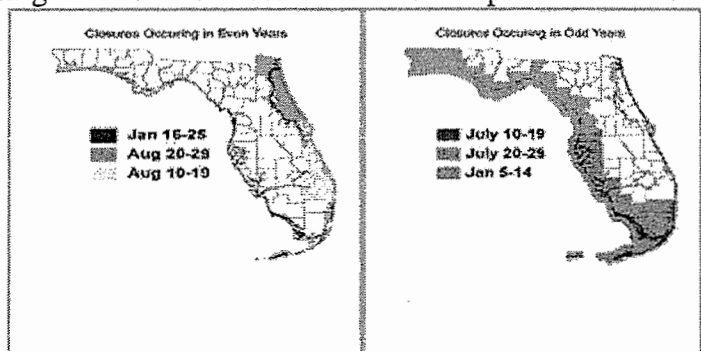
### **Recent Commission regulatory actions:**

#### Blue Crab Trap Closures

The six annual 10-day regional blue crab trap harvest closures in Florida will now occur every other year. In 2009, the FWC established the annual, regional closures to all harvest of blue crabs with traps to help identify and retrieve lost and abandoned blue crab traps from Florida waters. FWC and industry now believe that staggering these closures every other year will help focus trap cleanup efforts in each region and lessen the economic impact of the closures on individual crabbers.

#### Bonefish catch-and-release only

Bonefish are an extremely valuable Florida game fish. New rules will further protect bonefish populations in South Florida, while providing anglers with opportunities to document a record catch and enjoy the exciting action of bonefish fishing tournaments. Bonefish are prized by anglers because they are stealthy, fast-swimming fish that are exciting and challenging to catch. South Florida is one of the few places in the United States



where anglers can fish for bonefish, and the shallow saltwater flats of the Florida Keys and Biscayne Bay are considered a world-class destination for catching large, trophy-sized bonefish. A recent study by scientists at the University of Miami estimated the value of a single bonefish in the Florida Keys to be \$3,500 each year, and nearly \$75,000 over the lifespan of the fish.

Based on bonefish's economic value as a game fish, the FWC's proposed draft rules would eliminate the one-fish daily bag limit for bonefish and allow only catch-and-release fishing. Most anglers already release the bonefish they catch as a conservation measure. The proposed rules would also allow anglers to temporarily possess a bonefish where it is caught, so they can photograph and measure or weigh the fish to document a possible record catch. In addition, the proposed rules would allow anglers participating in specially permitted tournaments to temporarily possess and transport bonefish to tournament check-in stations for weigh-in under specified conditions. These fish would still have to be carefully handled and eventually released.

#### Red Fish bag limit

FWC is proposing to create three regional management areas for red drum and establish a statewide eight-fish red drum daily vessel limit. The Commission also intends to develop ways to modify the red drum off-the-water possession limit. The fishery is holding its own in southern Florida, and numbers of red drum in northern parts of the state are now at a point where it's safe to give back some fish to anglers.

The FWC has strictly managed red drum (also called redfish, channel bass and red bass) for more than 20 years to help rebuild overfished populations. A 2008 FWC stock assessment indicates that annual management goals for red drum are consistently being exceeded in areas of northeastern and northwestern Florida.

As a result, FWC is proposing establishment of three management areas for red drum in Florida (which are the same as established management areas for spotted seatrout) to better target its management approaches for this popular Florida fish. In all waters in the northwest management area (Escambia through Pasco counties) and in the northeast management area (Flagler through Nassau counties), the FWC proposal would raise the daily recreational bag limit for red drum from one fish to two. The Commission is also proposing a statewide eight fish daily vessel limit for red drum, and will consider management options regarding ways to modify the off-the-water red drum possession limit.

#### Gulf Gag Grouper and Amberjack

Commissioners agreed to consider in April proposed recreational amberjack and gag grouper rules for Gulf of Mexico state waters that would be consistent with rules in Gulf federal waters. The proposed rules for Gulf state waters would establish a June 1 through July 31 recreational closed harvest season for amberjack, a recreational closed harvest season of June 1 through Sept. 15, and Nov. 16 through Dec. 31 for gag grouper, and an open recreational harvest season of Sept. 16 through Nov. 15 for gag grouper.

#### Lionfish Diver License Exemption

To encourage removal of the non-native lionfish from Florida waters, the proposed draft rule would allow divers to recreationally harvest lionfish without a recreational saltwater fishing license.

Lionfish are readily distinguishable from native species, and are believed to have negative impacts on native species. The license exemption would only allow unlicensed divers to target and harvest lionfish without incidentally taking other species using legal gears other than hook and line, cast nets, and seines.

#### Shoreline License Fee Repeal

This bill makes the shoreline license a free license to the public. The shoreline license was created last Session in order to avoid a federally-mandated registration for all Florida recreational saltwater anglers. Currently, the fee is \$7.50 (plus administrative fees). This bill keeps the license requirement in effect (retaining the Federal exemption), but it eliminates the fee. The Senate budget reverses the original fund shift that was done when the license fee was implemented, restoring \$900,000 in recurring General Revenue to FWC. An additional \$240,000 recurring General Revenue is provided to cover license issuance costs (the public will pay no administrative fees). With these GR supports in place, the loss to FWC is \$898,800 in future federal aid for fisheries research and management. This bill passed the full Senate and was further approved in the budget conference negotiations between the House and Senate. The conference report (see link above) was amended to the bill as a strike-all amendment and passed both the House and Senate on Friday.

#### **Trap Retrieval Program Report**

From June 21 through July 1, Division of Marine Fisheries Management staff contracted with commercial fishers to remove lost and abandoned stone crab and spiny lobster traps from state waters of Monroe County. Because of recent changes regarding the disposal of derelict traps, this year's efforts began slightly later than in prior years, and seven trips were cancelled due to high winds and rough sea conditions. As a result, a total of 2,208 derelict traps were removed over the course of 17 trips, an average of approximately 130 traps per trip. In contrast, trap retrieval operations in Monroe County last year removed 5,197 derelict traps over the course of 25 trips, an average of 207 traps per trip. We are currently working to reschedule trips in Key West and the Marquesas Keys before the start of the spiny lobster season, and are planning for stone crab trap retrieval operations along the Gulf coast from Collier County to Wakulla County in the coming months. No blue crab trap retrieval operations are planned until January 2011, as the four blue crab trap harvest closures that occur in July and August have been waived.

#### **Other FWC News:**

##### Sea Turtles

Two hundred forty-two cold-stunned sea turtles removed from St. Joseph Bay this winter were released into the Gulf of Mexico off Cape San Blas in Gulf County. All were green turtles. Twenty-five Kemp's Ridleys, also rescued from the cold, will be released at a later date, along with green turtles that need additional rehabilitation. Dedicated volunteers fanned out around the southern end of St. Joseph Bay from January 13-16 when a frigid cold-front enveloped the South, triggering the third sea turtle cold-stunning event in the bay this winter. Local residents, University of Florida turtle researchers, and volunteers from the St. Joseph Bay State Buffer Preserve braved the cold to search marshy shorelines and inshore waters to bring the immobile animals to safety. Rescuers took the turtles to Gulf World Marine Park in Panama City Beach, where they were evaluated and warmed. About half of the turtles were then moved to Florida's Gulfarium in Fort Walton Beach to provide them with more swimming space.



Dr. Allen Foley, a sea turtle biologist who oversees sea turtle rescues for the Florida Fish and Wildlife Conservation Commission (FWC), said the cold-stunning event was triggered by the latest bout of cold weather, causing the shallow-water temperatures in the southern end of St. Joseph Bay to drop into the 40s. "Sea turtles can tolerate water temperatures down to about 50 degrees, but when it drops below that, they're in trouble," Foley said. "St. Joseph Bay is a long bay that is open only at the north end, and turtles may become trapped when the water cools quickly."

### Manatees

Biologists reported a preliminary count of 4,840 manatees statewide during the annual synoptic survey. A team of 20 observers from 11 organizations counted 2,438 manatees on Florida's East Coast and 2,402 on the West Coast of the state. The final numbers will be available at the end of February, following verification of the survey data. In aerial manatee surveys, ideal conditions occur during a warming trend following a prolonged period of cold weather, when manatees gather around warm-water sites. Although weather conditions were not as cold as last year, we had excellent conditions leading up to, and during, this year's survey.

The goal of the synoptic survey is to count as many manatees as possible. The survey results provide researchers with a minimum number of manatees in Florida waters at the time of the survey and are not considered a population estimate. Because the number of manatees that were not visible during the survey is unknown, these counts cannot be used to determine long-term population trends. Over the next few years, the FWC will rely on monitoring programs to better understand long-term implications from these cold-related deaths. Researchers have been conducting synoptic surveys since 1991, weather permitting, to meet the state's requirement for an annual count of manatees in Florida waters.

### FWC resolution highlights gopher tortoise conservation

FWC signed a resolution in Apalachicola urging the U.S. Fish and Wildlife Service (Service) to recognize Florida's strong conservation measures and actions to protect the gopher tortoise. The resolution asked the Service to not list the gopher tortoise in Florida as threatened under the U.S. Endangered Species Act.

Because the Service was petitioned to list the gopher tortoise as threatened in the eastern part of its range, including Florida, Georgia and Alabama, it is conducting a review to determine if the animal should be federally listed. The results of that review, which is required by law, are expected this year.

FWC already lists the gopher tortoise as a state threatened species. FWC and numerous stakeholders began implementing the Gopher Tortoise Management Plan in 2007 to ensure the species' future. Florida's Gopher Tortoise Conservation Program also includes Gopher Tortoise Permitting Guidelines and a rule that protects gopher tortoises and their burrows (homes).

### **Legislative Issues – Governor's Recommendations:**

Governor Rick Scott released his recommendations for the state budget for Fiscal Year 2011/12 and 2012/13. It includes deep cuts across all of State government in order to deal with Florida's substantial deficit and implements a number of policy changes focused on carrying out the Governor's commitments. Some of the major changes include presentation of a two-year budget, redirection of trust fund revenues to General Revenue, budgeting based on broad service categories



ted to performance measures, realignments/consolidations of government functions, tax cuts, pension reforms and employee health insurance reforms. For FWC, the impact is significant but not beyond what might be expected in the current financial crisis.

### **Reductions**

The total cuts in the Governor's recommendations for FWC are 97 positions and \$14.5 million. This represents a 5% reduction in both FTE and dollars from the base recurring budget for FY 2011/12. A few of the more significant cuts include:

- Reduce vacant positions – 23 FTE, \$1,257,798
- Reduce law enforcement officers – 61 FTE, \$3,342,789
- Eliminate Office of Recreation Services – 12 FTE, \$1,257,798
- Reduce invasive plant management - \$2,698,692
- Reduce CARL Land Management (unfunded budget) -\$2,913,783
- Reduce red tide research and monitoring - \$640,993

Most of the cuts came from our potential reductions list, a list each agency is required by law to prepare every year for consideration should the State need to cut back spending. This year agencies were asked to identify 15% of their recurring budgets for potential reduction. Total cuts in the 15% list amount to \$28.6 million. Total cuts recommended by the Governor for FY 2011/12 come to \$14.5 million. The Governor also recommends another \$6.2 million in further cuts for FY 2012/13. Both years together represent a 7.4% reduction from the base recurring budget.

### **Florida Data Collection Activities**

Commercial: Over the most recent reporting period (January 1, 2010-December 31, 2010), the number of trip tickets reported either on paper or electronically (diskette or internet-ftp) was 172,353 (384,555 species records). Of those trip tickets, 108,664, or 63.05%, were reported electronically. Electronic and key-punched trips tickets accounted for 69.57% (267,526) and 30.43% (117,029) of species records, respectively. This continues a strong trend of increasing electronic submission, which surpassed paper records for the first time in 2008. Not surprisingly, species records follow a similar trend. From 2006-2010, electronic submission has increased from 44% to almost 63% of trip ticket records and from 48% to almost 70% of species records. At the time this report was written, data for 2010 had not yet been finalized. Numbers should be considered preliminary and subject to change.

State commercial Dockside samplers conducted 1,087 Trip Interview Program (TIP) interviews in Gulf Coast counties, which accounted for 29,977 biological measurements. Overall, sampling from the Gulf accounted for 63.5% of the measurements and 64.4% of the state TIP interview totals. FWC is working with NOAA Fisheries to improve TIP coverage throughout the state.

The agency continues to receive landings requests from license holders related to income loss associated with the BP Deep Water Horizon (DWH) oil spill disaster although the number of requests has diminished over time.

Recreational: Within the NOAA Fisheries Marine Recreational Fisheries Statistics Survey (MRFSS), FWC samplers conducted more than 25,400 angler intercepts in Gulf Counties in 2010. The totals

for angler intercepts by mode were: 5,974, 5,942 and 13,525 for shore, charter and private/rental boat anglers, respectively. In the For-Hire Telephone Survey, callers have been 3X oversampling since June 2010, for vessels that operate in the Gulf of Mexico. Data are submitted weekly and cooperation rates continue to be good, considering ongoing concerns with response burden for the industry.

Although the Gulf of Mexico headboat at-sea sampling was discontinued in 2007, data collection has been ongoing on our Atlantic Coast for more than six years, and limited sampling mostly targeting reef species has been possible in the Gulf for almost two years. Twenty-eight headboats in the Panhandle and West Central Florida are currently participating in sampling efforts. At-sea sampling on the Gulf Coast differs from that of the Atlantic Coast in that it has a tagging component. It is hoped that tagging can help provide a clearer understanding of catch-and-release related mortality. As the released fish component of the catch becomes increasingly important in terms of the numbers of fish released, mortality related to size, depth caught, and handling also increases in importance. To date, more than 6,500 fish have been tagged as part of a NOAA-funded Cooperative Research Project. Species tagged include: *Lutjanus campechanus* (red snapper), *Rhomboplites aurorubens* (vermillion snapper), *Epinephelus morio* (red grouper), *Mycteroperca phenax* (scamp) *M. microlepis* (gag), *Balistes caprisicus* (gray triggerfish). A second federally-funded project concentrating on red snapper catch has more than 100 participating for-hire vessels in the Gulf, and has resulted in the at-sea tagging of more than 7,000 fish to-date. The red snapper project also has a catch card component that allows red snapper anglers to report the numbers and species of released fish. Both projects will continue into 2012.

The Gulf of Mexico Pilot Logbook Program involving Texas and Florida for-hire vessels is heading toward the half-way stage of the 12-month data collection period. Although participation in the logbook project is mandatory for federally-permitted boats, response from industry has been a concern in Florida, at least. Samplers continue to work with vessel representatives to encourage participation and to assist in any way they can to improve compliance. Currently, participation stands at approximately 75% among Florida boats. To reduce the response burden on vessel operators, vessel representatives have been given the option to use the logbook or the For-Hire Telephone Survey (FHTS) on weeks for which their vessel was selected in the FHTS. On those weeks, vessels participating in the logbook are not called in the FHTS. The Gulf of Mexico Logbook pilot study is one of two projects funded through the Marine Recreational Information Program (MRIP). The second is a project involving video monitoring of private recreational fishing boats. The project has produced a series of prototypes for an onboard camera system that can be used to monitor and record catch. The current version of the system uses three cameras, two of which are mounted to monitor fishing activity, and the third is used to visually record fish measurements. Fish placed on a measuring board can be visually sized from recorded video. The system has a sealed 12 hour battery, LCD monitor, DVR, onboard and flash memory.

Under EDRP II, disaster Recovery funds were made available to the For-Hire Fleet impacted by the 2005 hurricane season. Forty-six vessels completed eligibility requirements for payment under EDRP II. To receive payment, vessel operators also must register as vendors with the state of Florida. Thus far, 31 vessel operators have registered and have been paid, but 15 remain unregistered and consequently, unpaid. Reminder emails to those remaining vessels were distributed in the week before this meeting. To provide additional avenues for the distribution of EDRP II funds

to for-hire operators, funds were used to pay for additional at-sea sampling trips (particularly the overnight and multi-day trips which are under-represented in current dockside and at-sea sampling efforts). The funds have provided additional income to vessel operators to help keep their operations running and allow samplers to bolster sample sizes for at-sea data collection activities.

Biological sampling originally funded solely through FIN has received supplemental support from Sport Fish Restoration funds in 2010. The management of commercial and recreational samples continues to present challenges in terms of the fisheries sampled and the assignment of funds to sampling activities. In 2010, more than 23,500 ageing structures were entered in the FWC database, of which approximately half were funded through FIN and entered into the FIN database. Because of our involvement in at-sea data collection, opportunities to further augment the collection of biological data, tissues and ageing structures, continue to present themselves. However, some discussion regarding the inclusion and use of samples collected on directed trips (using recreational gears) and through tournament sampling may be needed as we move forward.

FWC began its online Boater Panel survey this year. The survey allows boaters to record details of their boating and angling trips. The online survey allows anglers to plot trip routes and the locations of catch. The goal of the panel survey is characterization of boat-based angling in terms of angler behavior and economics. It is also hoped that the survey will help FWC to better direct research and stock enhancement efforts. More than 21,000 invitations were sent to licensed anglers in early February, 2011.

### **Alabama Report: C. Denson**

#### **Fisheries Section**

The Alabama Marine Resources Division (MRD) Director, Vernon Minton, passed away on December 27, 2010. He had been an employee of MRD for 32 years and had spent the last 20 years as the Division's Director. Vernon's accomplishments to our marine resources are long and distinguished and he will be truly missed. Major Chris Blankenship has been named Acting Director of the Marine Resources Division.

Newly-elected Alabama Governor, Robert Bentley, was inaugurated in January. With the new governor came a state-wide administration change. N. Gunter Guy, Jr. has been appointed as the Commissioner of the Department of Conservation and Natural Resources.

EDRP fisherman assistance programs in Alabama were concluded on November 30, 2010. These programs provided economic assistance to fishermen through the submission of detailed, trip level data sheets completed by eligible participants.

The Little River Bay marsh rehabilitation project located near Bayou La Batre completed during the fall of 2010 has received three awards for its design and engineering accomplishments. Funding for this project was provided through the Emergency Disaster Recovery Program (EDRP).

MRD continues to operate EDRP oyster recovery projects. We are currently preparing to coordinate the relay of oysters and cultch material from reclassified waters in upper Mobile Bay to a newly

constructed reef in lower Mobile Bay. A relay program conducted in March 2010 relocated 6 million pounds of material to this new reef. The tentative start date for the relay is March 28.

The use of oyster management stations was implemented in October 2010 with the temporary opening of the newly created relay reef. Over 12,000 sacks were harvested during the brief opening.

Site surveys are being conducted for the possible creation of two near-shore artificial reef zones located in Alabama state waters near Orange Beach. If approved by the USACE, materials will be deployed later this year and will be funded through EDRP II monies.

MRD is working with architecture and engineering firms to develop plans for the construction of a new laboratory and office facility at Claude Peteet Mariculture Center (Gulf Shores) and the renovation of boat basins located at Divisional offices in Gulf Shores and on Dauphin Island. Funding for construction will be derived from Coastal Impact Assistance Program (CIAP) funds. Hatchery equipment for the lab will be acquired using EDRP funds.

SEAMAP fall and winter cruises were completed without incident and the SEAMAP vertical line sampling program in Alabama's offshore artificial reef zones continues. The vertical line sampling program addresses reef fish abundances on structured and unstructured environments, age composition, and selectivity patterns for varying hook sizes. Meetings have been held to look into expanding this sampling protocol to the rest of the Gulf.

MRD's Fishery-Independent Assessment Monitoring Program (FAMP) samples were collected and processed for biological/hydrographic data at monthly intervals to maintain continuity of the 30-year program. Bi-monthly catch reports were submitted to GSMFC.

A voluntary no cost angler registry license was implemented to address database inconsistencies identified in the NOAA/AL National Angler Registry MOU. Exempted individuals such as lifetime license holders and residents over the age of 64 are now able to register annually. A regulation making this registry an annual requirement has been proposed to the Alabama Conservation Advisory Board.

The 2011 editions of MRD's Marine Information calendar and Children's Art calendar were published and distributed. These publications are highly sought after.

### **Enforcement Section**

The Alabama Legislature passed an Oyster Management Bill in April 2010 that will allow the MRD to better manage our oyster resources. The bill allows for the implementation of oyster management stations to allow us to better record the amount and condition of harvest. The bill also changed the tolerance for undersize oysters, standardized the information required on the harvest tags, increased the cost of the tags to include the cost of printing, expanded the use of dredges, removed the ability for private lease holders and others to take seed oysters from the public reefs, expanded our oversight of the marking of private leases, created a shell fee to pay for planting and other oyster management costs, and raised the fines for violations. Multiple regulations were signed by the Conservation Commissioner in November of 2010 that clarified the legislation and set a shell fee of \$2 per sack of

oysters harvested. These funds will be used to enhance and manage the oyster resources of Alabama. The regulations also established the requirement for oyster harvesters to check in/check out at management stations and set harvest times to coincide with the Alabama Department of Public Health time/temperature matrix.

MRD is one of the charter organizations establishing a BEST team at the Port of Mobile. The Border Enforcement Security Team (BEST) has conducted several operations in the Port area since its formation late last year.

The Enforcement Section continued to expand its Coastal Remote Monitoring Program into Baldwin County. Full implementation of this system will provide up to 30 high-resolution cameras at different locations throughout coastal Alabama areas. The video is available through a web-based portal and will be accessible to officers in the field via a wireless internet connection. Not only are the officers able to access the video, they are able to navigate the camera through a web interface. The video is being stored for up to three weeks on secure servers and is time and date stamped for use as evidence. The sensors include closed-circuit television, thermal, and infrared cameras.

#### **MRD Oil Spill Response and Activities**

MRD has submitted a proposal to BP for the implementation and operation of a seafood testing program. Although negotiations for this program are still ongoing, MRD has begun collecting specimens for seafood safety tissue analysis.

A claim has been submitted to BP for the loss of saltwater fishing license sales revenues for the months of May through August 2010 as incurred due to the Deep Water Horizon incident. The status of this claim is pending.

MRD continues to work with GSMFC in the implementation of the ODRP and associated seafood marketing and sustainability programs.

Reports of several dead juvenile dolphins were recently reported in Alabama. The Institute of Marine Mammal Studies (Gulfport, MS) responded to this incident; however, no report has been issued indicating the cause of death.

MRD continues to work with Natural Resource Disaster Assessment (NRDA) process.

#### **Mississippi Report: D. Diaz/K. Cuevas**

##### **Enforcement**

The Office of Marine Patrol, JEA Marine Law Enforcement activities for July 2010 – January 2011 consisted of 3,636 boat patrol hours with 1,612 contacts, which resulted in 51 total citations. These citations mostly consisted of violations concerning red snapper and sharks

### **Shrimp and Crab Bureau**

Mississippi waters N of the ICW closed to shrimping on January 15, 2011 at 12:01. All waters south of the ICW are scheduled to close April 30, 2011. These seasonal area closures occur annually to protect the coming season's shrimp crop.

The National Fish & Wildlife Foundation, using BP monies, is funding on-going DMR projects to address potential increased recreational and commercial fisheries interactions with sea turtles. These monies are being used to provide commercial and recreational fishermen with NOAA sea turtle guidance documents on protection, disentanglement and resuscitation, providing free TEDs to skimmer trawl shrimpers to use voluntarily, and an observer program to collect data on the fisheries. To date, DMR has distributed 302 TEDs for skimmer trawls and have been on board Mississippi shrimp vessels for eighteen turtle observer trips.

The Shrimp and Crab Bureau's Mississippi Seafood Safety Newsletter continues to be updated online at DMR's website ([www.dmr.state.ms.us](http://www.dmr.state.ms.us)). The report contains a summary of the on-going efforts and results of the data that the Office of Marine Fisheries has been gathering in conjunction with the Mississippi Department of Environmental Quality to ensure that Mississippi seafood is free of polycyclic aromatic hydrocarbons (PAHs) and is safe for consumption. To date, out of 327 samples, no sample has been found to contain PAH concentrations above the FDA levels of concern.

### **Shellfish Bureau**

The MDMR Shellfish staff is continuing its monitoring efforts by conducting one-minute dredge tows on the oyster reefs. Staff also collects weekly water samples in compliance with the National Shellfish Sanitation Program.

The R/V Conservationist relayed 600 sacks of oysters to north Whitehouse Reef. The R/V Reef keeper and R/V Stewardship have completed the NRDA transition mapping sites, I. J. samples and began the 60-site intensive reef analysis. The mission of these trips was to determine the condition and present status of the oyster reefs. Staff is also collecting oyster tissues samples for the seafood safety program with MDEQ.

The Natural Resource Disaster Assessment team has partnered with MDEQ, NOAA, MDMR and BP contractors to use established scientific techniques to assess possible damage to the oyster resource from the oil spill. A seventy-page draft of sampling protocols was developed as a result of tri-weekly teleconferences and daily end-of-the-day meetings with representatives from LA, MS, AL and FL. This plan was used to identify areas of concern from the oil spill and to determine possible long-term damage to the oyster reefs. The various components include larvae, sediment, water quality, disease, condition index and tissue samples. Qualitative, quantitative, and mortality data is also enumerated. Currently these protocols are being utilized and sampling will continue.

The 2010- 2011 Oyster season opened on November 8, 2010 for tonging only. As of February 23, 2011, a total of 24,878 sacks have been harvested by 3,054 boat trips. The MDMR Shellfish staff is in the process of completing the final phases of EDRP I and II. We are currently planning an intensive oyster shell cultch plant in the spring in the western Mississippi Sound.

The Deer Island Restoration Project is in the process of completing its final stages. Staff and volunteers set bags of oysters strategically placed to prevent erosion on Deer Island. Contractors still need to plant Spartina and should be finished March 1<sup>st</sup>.

The MDMR was presented the “Seven Seals” award by the Mississippi Committee for Employer Support of the Guard and Reserve. This is in recognition of the MDMR’s continued support of the National Guard and Reserves.

**Artificial Reef Bureau**

Monitoring low-profile inshore reefs in all three coastal counties is ongoing. A total of 12 gill net samples were conducted to monitor species abundance and diversity. Materials are being stockpiled for deployments on Mississippi’s Artificial Reefs. There are currently approximately 4,500 concrete culverts on the Gulfport staging area waiting to be deployed.

**Finfish Bureau**

Personnel are working closely with the MDEQ and Gulf Coast Research Lab to develop NRDA work plans. Personnel are currently working the Coastal Conservation Association to schedule Casting for Conservation kids fishing tournaments for 2011. These tournaments utilize EDRP II public outreach funds.

A survey was developed for Mississippi Combination License holders to determine if they fish in Mississippi salt waters. The survey will be implemented this year and the data obtained will be used to determine which anglers to include in the National Saltwater Angler Registry.

The Marine Recreational Information Program (MRIP) collected 337 interviews from November 1, 2010 to February 22, 2010, meeting quotas in Shore Fishing and Private Boat Modes for Waves 6 in 2010. The charter quota was not met in Wave 6 and Wave 1, as only ten dockside interviews were able to be collected, all in the month of November 2010. There are potentially many reasons for this shortfall. The most obvious is the weather. There were few fishable days this winter due to cold, rain, and wind. Also, five boats moved to the NOAA Fisheries Headboat Survey, and were lost to MRIP surveyors. Other captains left the fishery due to economic and personal hardships.

No new recreational fishing records were accepted for November 2010-February 2011.

**Biological Sampling for NOVEMBER 2010-FEBRUARY 2011**

The table below shows the sampling effort for collection of otoliths. All modes of collection are shown including any samples taken from IJ/ FAM gillnetting effort. Areas blacked out had no quota for sampling due to contractual agreement.

SPECIES	QUOTA		COLLECTED		IND Sampling
	REC	COM	REC	COM	
BLACK DRUM	8		0		11



GRAY SNAPPER		12		0	0
GRAY TRIGGERFISH	7	15	0	0	0
GREATER AMBERJACK		5		0	0
KING MACKEREL	5		0		0
RED DRUM	24		1	0	16
RED SNAPPER	16	12	0	0	0
SHEEPSHEAD	12	140	10	0	2
SOUTHERN FLOUNDER	154	258	0	0	6
SPOTTED SEATROUT	38		0		5
STRIPED MULLET		408		0	16
VERMILION SNAPPER		14		0	0
COBIA	110		0		0
RED PORGY		45		0	0
SOUTHERN KINGFISH					3
ATLANTIC CROAKER					3
SPANISH MACKEREL					1
SAND SEATROUT					4

### Seafood Technology

The Public Outreach program of the Seafood Technology Bureau had one event on Nov. 12-14, 2010

- The Pass Christian Oyster Festival. The Bureau participated in two meetings but also hosted the Gulf States' Directors' Vibrio Conference.

US-Food and Drug Administration evaluated the Shellfish Plant Sanitation Program for FY 2010-2011 for the twenty-five seafood dealers and processors. The program passed the evaluation.

### **Louisiana Report: J. Shepard/H. Blanchet**

#### **Deepwater Horizon Disaster**

The Deepwater Horizon disaster has impacted many aspects of Department operations.

Fishery Openings/Closings: Since April 28, 2010, the LDWF and LWFC have issued over 60 declarations of emergency which closed, opened, re-closed or re-opened portions of LA inside and outside waters to recreational and commercial fishing. The last action taken was dated in November, which reopened crab fishing in a portion of the lower MS River Delta between Southwest Pass and Pass a Loutre.

Since agreeing to the FDA/NOAA fisheries reopening protocol in mid-July, the LDWF has submitted 8 requests to reopen portions of state waters to recreational and commercial fishing which has resulted in the complete openings of the Terrebonne and Pontchartrain Basins and significant portions of the Barataria Basin. At one point in time, as much as 76% of saltwater areas of the state were affected by a recreational and commercial fishing closure at some point in time. On July 5, 2010, approximately 4,425 square miles (57%) of state waters were closed to recreational and commercial fishing. Currently, 1.5% of saltwater areas of the state remain closed to commercial fishing and approximately 0.5% of these areas remain closed to recreational fishing, except for recreational angling and charter boat angling.

Tissue sampling for seafood safety: This assessment has been a two-pronged approach, with private testing labs being used to analyze seafood coast-wide on a regular, ongoing basis. In addition, the state has entered into a cooperative agreement with NOAA and the U.S. FDA, who analyze samples taken in areas proposed for re-opening after closures due to oil impacts. Both state and cooperative NOAA/FDA sampling programs evaluate the same set of polycyclic aromatic hydrocarbons (PAH). The state sampling also assesses total aliphatic hydrocarbons. To date, 512 statewide samples have been taken for seafood monitoring, none of which have had any PAH level near or above the established levels of health concern. This included several samples provided by individuals that reported suspected oil in their seafood. In addition, 142 samples have been taken for the NOAA/FDA re-opening protocols. Each of those NOAA/FDA samples has consisted of several samples for sensory testing, as well as another sample for chemical analysis. None of those have had any levels of hydrocarbons near or above the levels of health concern, and none of the sensory samples have been rejected due to petroleum or dispersant taint.

Habitat issues: Fisheries staff has been working on several habitat issues related to the Deepwater Horizon oil spill. On the Natural Resources Damage Assessment (NRDA) front, staff is working on developing study plans for assessing damages for: Fish, marine mammals and turtles, oysters, SAV, benthic habitats, shoreline (including marsh and mangrove vegetation). Staff is working with NOAA

and contractors in field efforts. This is a long-term task, and is just in the beginning phases. Fisheries personnel, including Marine Section, Inland Section, and the Marine Lab have also had responsibility for area reconnaissance. This has accounted for approximately 1,678 man days, 757 vessel days, and 704 reconnaissance trips. This information was used to help determine extent and severity of oil contamination in state waters, which was part of the information used in the process of making decisions on closing and re-opening areas for recreational and commercial fishing.

Fisheries personnel also responded to many reports of marine animal mortality events, including fish kills, turtle and dolphin strandings. Characterization of the fish kills was made, and forensic sampling of dead turtles and dolphins was done to attempt to determine cause of death. Collection of dead animals was made when feasible. Several turtles and a dolphin were rescued and rehabilitated through cooperation with the Audubon Aquarium facilities and staff.

From the onset of the Deepwater Horizon Oil Spill Incident to the end of 2010, the Louisiana Department of Wildlife and Fisheries and others investigated a total of 81 marine mammals throughout the entire coast of LA. Of these animals the following are included:

- 3 whales
- 3 neonates confirmed
- Obviously externally oiled dolphins = 4 (including all size classes)
- 11 live stranded dolphins (most of which were immediately rereleased once assessed)

In 2011 (as of February 28, 2011), a total of 35 marine mammals have been investigated by the Louisiana Department of Wildlife and Fisheries throughout the entire coast of LA. Of these animals the following are included:

- 2 whales
- 1 fetus from a dead pregnant female that was recovered
- 2 live dolphins (1 was rereleased on site, and 1 is currently undergoing rehabilitation)
- Obviously externally oiled dolphins = 4 (including all size classes)
- Confirmed neonates = 4

Data Management: Since the BP oil spill, over 2,300 requests for trip ticket landings have been processed for fisherman claims. After BP announced that it would require certified copies of trip tickets from LDWF, the Department started receiving multiple sets of trip tickets from previous years, 2008 and 2009 in particular. All late submissions were thoroughly reviewed and forwarded to LDWF Enforcement for investigation. Several citations have been issued and two arrests for fraud have been made to date. Investigations are still continuing.

Inshore/Near-shore Sampling: In response to the need for information to assess the status of living marine resources in inshore waters and in the shelf waters off of Louisiana, a long-term sampling program has been designed. Inshore sampling will be a modification of the long-term existing sampling program, with the addition of new stations and incorporating a stratified random sampling design into the existing program. Offshore sampling will consist of a series of trawl transects across Louisiana. Sampling for these programs began March 1, 2011.

Hurricanes Recovery Programs: The Louisiana Department of Wildlife and Fisheries (LDWF) is in the process of completing many of the projects related to hurricane damage assessment and recovery following Hurricanes Katrina, Rita, Gustav and Ike.

Cooperative Research Surveys: A survey of commercial harvesters and wholesale/retail dealers has been developed to help characterize the long-term effects of the hurricanes on their operations. Those include the types of effects, and the costs associated with repair or replacement and lost revenues. The purpose of this survey is to help understand the factors that need to be addressed, and in what priority, after a catastrophic event. As of July 31, 2010, 296 wholesale/retail seafood dealer surveys and 629 commercial fisher surveys have been scanned. As of July 31 2010, \$12,223,551 has been disbursed under the program.

Commercial Fisherman/Dealer Reimbursement Program: To date, 2,978 vendors have received 1st round checks, totaling \$14,867,489 in funds (74% of all eligible vendors). This quarter saw a large number of second round checks issued (1,989), bringing the total of second-round checks to \$9,731,783 (66% of 1<sup>st</sup> check recipients). A total of \$24,599,272 in funds has been sent to eligible participants.

Seafood Certification Program: LDWF has begun to initiate all phases of its seafood certification program. This spring/summer, LDWF will take the final steps toward MSC certification of its blue crab fishery, as well as review 5 completed pre-assessments on shrimp, oyster, black drum, crawfish, and catfish, to determine which fisheries will move forward to full assessments. LDWF has worked in coordination with Louisiana SEAGRANT to develop draft curriculum for its professionalization program which it hopes to initially roll out as part of the Louisiana Workforce Commissions "Turning the Tide" program.

LDWF and Louisiana SEAGRANT, along with the Seafood Certification Steering Committee, have developed draft shrimp quality assurance standards which LDWF hopes to present to the Shrimp Task Force this spring. The Louisiana Seafood Promotion and Marketing Board is in the final phases of a contract with Focus Research to develop a trademark logo and conduct consumer research for the Seafood Certification Program. At the last steering committee meeting, sketches of possible logo designs were presented for comment and review.

Marine Debris Removal Program: LDWF has continued work on the removal of marine debris in state waters under a contract awarded to Crowder-Gulf Joint Venture, Inc. The original contract was structured whereby the contractor is assigned side-scan sonar survey and debris removal within individual grids measuring four-square miles, for a fixed price of \$37,100 per grid. This contract has been amended whereby the contractor is assigned side-scan sonar surveys of selective grids for a fixed price of \$14,500 per grid, and debris removal in selective grids, for a fixed price of \$23,600. This approach has resulted in cost savings, as the costs of debris removal within surveyed grids containing relatively few or particularly small targets may be avoided, allowing LDWF greater flexibility in assigning debris removal in selective grids containing high target densities. The contractor uses side-scan sonar equipment to survey all water bottoms within each assigned grid to identify the location of debris contacts (waters less than 3 feet in depth are not surveyed due to sonar's limited effectiveness in shallow waters). Contractor is required to utilize Louisiana resident

licensed vessels and crews comprised of Louisiana resident fishermen and charter boat operators to retrieve debris. Marine debris removal work began in July 2007 within portions of Lake Borgne, followed by clean-ups within portions of Lake Pontchartrain (Middle Ground), Lake St. Catherine, Calcasieu Lake, Vermilion and Cote Blanche bays, and Barataria and Caminada bays north of Grand Isle. Through June 2010, approximately 440 square miles of the state's shrimp fishing grounds have been cleared of debris at a cost of \$4.081 million. In January 2010, LDWF assigned the contractor with side-scan sonar survey of 30 grids located in the southeastern portion of Lake Pontchartrain. Based upon review of the side-scan sonar survey data, the contractor was assigned debris removal in 27 of these 30 grids. Marine debris removal operations have concluded in Lake Pontchartrain and LDWF is anticipating delivery and review of the close-out package within the next few weeks.

### **Habitat Programs**

On other issues related to Louisiana coastal habitat, personnel are working with other state agencies and the USACE to develop models for prediction of impacts to fisheries from large coastal restoration and management projects. The first such effort was in support of the particle movement models for larval ingress into Lake Pontchartrain with the hurricane levee projects in the "Golden Triangle" area. They have also worked with the USACE in support of the CASM model for the MRGO/Violet effort. Additional efforts may address a possible levee alignment across the Barataria Basin at the GIWW, and a proposed diversion at Myrtle Grove.

LA is preparing to update the Master Plan for Coastal Restoration and Protection. LDWF staff participated in initial meetings regarding the wildlife and fish inputs to Habitat Suitability modeling for the effort.

### **Research and Assessment**

Louisiana continues to examine the life history and fisheries characteristics of species that are experiencing increasing harvest pressures with new regulations (such as gray and vermilion snappers).

The spotted seatrout is one of the most popular sport fisheries in Louisiana. A stock assessment of this fishery is currently ongoing. Catch at age tables from fishery-dependent data are being constructed, and population parameters (e.g., growth, mortality) are being estimated at the present time. In response to the DWH MC-252 oil spill, a more comprehensive assessment of oyster mortality is also being conducted using SCUBA and Square meter samples to assess direct mortalities of seed, sack and market-size oysters. Mortality estimates are being estimated state-wide and by Basin. To achieve greater confidence in mortality estimates, we have increased the number of sample stations and increased the frequency of sampling to weekly site visits.

We have completed a contract with the U.S. Army Corps of Engineers to investigate community structure and trends in commercially-important species with respect to the Mississippi River-Gulf Outlet (MRGO). This study used long-term standard sample data collected by LDWF Marine Fisheries Section from 1988-2009 in the inshore habitats associated with Lake Borgne and Breton Sound. We used data from 16' otter trawls, bag seines, and gill nets, along with concurrent water quality data, to determine if community structure was associated with changes in salinity, temperature, or turbidity over (1) the entire study period and (2) 5 years prior to and 4 years after

Hurricane Katrina. Our multivariate ordination (partial canonical correspondence analysis) of these data revealed that community structure and species diversity have been stable from 1988-2009. However, changes in species composition were more pronounced when comparing the pre-Katrina and post-Katrina periods. Vast amounts of saltmarsh habitat were lost as a result of Katrina's storm surge through the MRGO. Consequently, changes in species- relative abundances were detected following Hurricane Katrina. In general, from the 16' trawl data, there was a statistically significant increase in water column species such as bay anchovy and striped anchovy, with a decrease in demersal species such as Atlantic croaker, flatfishes, and gobies. From gill net data, we found increases in large-bodied omnivorous species such as gafftopsail catfish and Atlantic croaker, but also a decrease in predators like spotted seatrout, silver perch, and southern kingfish. From seine data, we found significant increases in saltwater-tolerant species such as Atlantic brief squid, blackcheek tonguefish, and gafftopsail catfish, with decreases in freshwater-tolerant species like Gulf menhaden, Atlantic croaker, and Gulf pipefish (a species of conservation concern in Louisiana).

We are also working to develop a predictive model of brown and white shrimp using our fishery-independent data (6' and 16' otter trawls) and environmental data such as precipitation, river discharge, water temperature, salinity, and cumulative number of flood tide days. In addition, we are incorporating economic factors in the analysis, such as average fuel prices. Models developed from this analysis will potentially be used to better assist in managing the shrimp fishery in our state waters.

We recently initiated a study to investigate movement and distribution of the federally endangered Kemp's Ridley sea turtle. We will be conducting beach surveys to look for evidence of nesting sea turtles on the Louisiana coast, and we are applying 6 Kiwisat™ satellite tags onto adult individuals. These tags will continuously collect data for approximately 9 months to a year. Data from these tagged turtles will be made available to the public via a website that will be used to track the turtles.

We continue to examine the influence of freshwater diversions of the Mississippi River on shellfish and finfish community structure as well as commercial and recreational fishing effort. In particular, we are focusing on the Barataria Basin which is influenced by water diverted from the Davis Pond structure. We have monthly/semimonthly data from 1998 (4 years prior to the opening) up to the present time.

Age and Growth: Collection of age, growth, and reproductive information used to develop age-structured stock assessments is coordinated through the Fish Assessment Laboratory in Baton Rouge, LA.

Since the fall of 2009, the Fish Assessment Lab has monitored 15 species of fish. Monitoring is done by the collection of otoliths and spines (gray triggerfish) for ageing purposes. Length, weight, gender, and location are also recorded when these fish are collected in the field. The 15 fish species consist of 12 saltwater and 3 freshwater species. The freshwater species are largemouth bass, black and white crappie. Currently, the saltwater species are red drum, black drum, sheepshead, gray snapper, spotted seatrout, striped mullet, red snapper, southern flounder, vermilion snapper, greater amberjack, gray triggerfish (spines) and king mackerel. All otoliths/spines are obtained through fisheries-dependent sampling.

So far in the fiscal year of 2010/2011 the Fish Assessment lab has received and processed 5,502 otoliths and 7 gray triggerfish spines. We have received otoliths/spines for each of the 15 species. All of the samples collected at this time have been read, (meaning aged), entered in the database, and verified. The numbers aged by species:

<b>Table 1.</b> The statewide Fiscal Year 2010/2011 (July 1, 2010 to June 30, 2011) numbers aged by the Fish Assessment Laboratory.	
<b>Saltwater Species</b>	<b>Received</b>
Gray Snapper	54
Sheepshead	261
Spotted Seatrout	724
Black Drum	258
Red Drum	521
Striped Mullet	215
Red Snapper	278
Vermilion Snapper	20
Southern Flounder	330
Gray Triggerfish	7
King Mackerel	106
Greater Amberjack	49
<b>Total</b>	<b>2,823</b>

<b>Freshwater Species</b>	<b>Received</b>
Largemouth Bass	1220
Black Crappie	907
White Crappie	559
<b>Total</b>	<b>2,686</b>

### **Fisheries Research Lab**

Lab personnel responded to marine mammal and turtle strandings from Terrebonne Bay to Breton Sound.

SEAMAP shrimp/groundfish cruises were handled by lab personnel to gain information from fishery independent sampling. Collection gear consisted of 42' trawls, bongo and neuston plankton nets, and CTD rosette for data and water collection.

Lab staff collected Red Drum samples for age, growth, and fecundity studies. Also, personnel from the Fisheries Research Laboratory prepared for Vertical and Bottom Longline sampling that will collect data on various reef and bottom-dwelling species.

In response to the need for information to assess the status of living marine resources in the shelf waters off of Louisiana, a long-term sampling program has been designed. Offshore sampling will consist of a series of trawl transects across Louisiana, using standard 42' SEAMAP otter trawl, and



planning to occupy over 380 stations annually. Sample sites will be run from 5 fathoms to 40 fathoms, at 5 fathom intervals. Sampling will be done monthly, in different areas of the state (west, central, and east), so that all areas of the shelf are sampled quarterly.

SEAMAP cruises were handled by lab personnel to gain information from fishery independent sampling. Collection gear consisted of 42' trawls, bongo and neuston plankton nets, and CTD rosette for data and water collection.

### **Data Management**

LDWF is working with its contractor on conversion from the legacy SAS data management system to an SQL database with SAS IT analysis capabilities. The second phase of the project, development of the relational data base structure, is underway. Data security and access routines are also under development. Conversion of LDWF's independent sampling data has been completed and is undergoing user testing.

### **Artificial Reef Program**

The Artificial Reef Program continues to assess and permit reef deployments related to oil and gas structures. The Artificial Reef Program has been very active in accepting new structures into previously permitted Artificial Reef sites. Also, the Program is in the process of re-evaluating its program of Special Artificial Reef Sites (SARS) to ensure clarity of purpose and consistent application and evaluation of sites. Development of inshore artificial reefs in Lake Pontchartrain is in the planning stages, using bridge rubble from the hurricane-damaged I-10 bridge. Planning is also ongoing to enhance other inshore artificial reefs in the Lake Pontchartrain and Terrebonne Parish areas using limestone (Terrebonne Parish) and reef balls (L. Pontchartrain).

The LDWF is collaborating with Southeastern Louisiana University to examine the genetic structure of red drum and spotted seatrout populations within Louisiana's bay systems. The spotted seatrout study includes the derivation of additional genetic markers that can be used to enhance the ability of researchers to distinguish differences between sub-populations of spotted seatrout.

### **Shrimp Fishery**

By most estimates, fishing effort in the LA shrimp fishery remains about 60-70% of levels reported last year. Reasons are: many fishermen and vessels were employed in the vessels of opportunity program, soft markets, low dockside shrimp prices and commercial fishing closures. The good news is that only a very small percentage of saltwater areas of LA remain closed to commercial fishing (1.5%). LDWF trip ticket data are not yet available beyond November, but below are preliminary shrimp landings data from NMFS for May through December. Despite declines in fishing effort, shrimp landings in December 2010 have rebounded, producing the highest December total in many years.

Landings, (all species, headless, millions of pounds):

	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2010	4.136	4.996	1.326	3.598	4.939	6.181	6.071	5.175
2009	12.701	10.903	4.338	5.257	5.746	7.338	4.452	1.707
2008	8.614	9.93	3.832	3.212	2.457	7.501	6.154	2.584
2007	10.684	14.835	5.815	4.962	5.729	8.325	5.515	3.161
2006	15.52	12.968	8.278	11.695	7.812	9.368	7.119	3.236

Act No. 606 of the 2010 Regular Legislative Session creates the Louisiana Shrimp Task Force within the Department of Wildlife and Fisheries. In addition to an active dock buyer of shrimp appointed by the Governor, voting members shall include nominees submitted by the Louisiana Shrimp Association, American Shrimp Processors Association, and the Secretary of the Department of Wildlife and Fisheries.

According to Act 606, voting members shall include "three members and three alternate members appointed by the governor, each of whom shall possess a commercial fisherman's license with a "certified" endorsement, with four to be selected from a list of six nominees submitted by the Louisiana Shrimp Association, and two to be selected from a list of six nominees submitted by the Secretary of the Department of Wildlife and Fisheries. Voting members shall also include three members and three alternate members appointed by the governor who are active Louisiana shrimp processors, at least one of whom is selected from a list of three nominees submitted by the American Shrimp Processors Association.

### Crab Fishery

Preliminary trip ticket landings data indicate that blue crab landings (millions of pounds) for May through November are approximately 45% below levels reported for the same period last year.

	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2010	3.519	3.507	2.945	2.982	2.581	2.064	2.109	
2009	5.649	7.116	5.926	6.342	4.381	4.363	3.694	3.66
2008	3.672	4.858	4.464	4.373	2.522	4.951	4.447	4.647
2007	4.079	5.646	6.354	5.865	3.592	3.708	3.366	3.042
2006	5.528	6.814	7.439	7.076	4.842	4.286	3.544	3.217

In September 2010, the LDWF did not recommend conducting a 2011 winter crab trap closure and derelict crab trap cleanup due to ongoing responses to the Deepwater Horizon oil spill, Natural Resource Damage Assessment (NRDA) planning and sampling and concerns with existing staffing and equipment limitations. However, in late January 2011, Plaquemines Parish government formally requested the Secretary of LDWF and the Louisiana Wildlife and Fisheries Commission (LWFC) to temporarily close certain Plaquemines Parish waters to the use of crab traps for the purpose of conducting a trap cleanup. At its February 3, 2011 meeting, the LWFC adopted a declaration of emergency, closing a portion of state waters located in Plaquemines Parish west of the Mississippi River to the use of crab traps for an 8-day period from February 26 – March 5, 2011. Due to

extended fishing closures within these waters, large numbers of traps were abandoned, posing additional hazards to recreational and commercial fishermen and boaters and to crews conducting oil spill clean-up operations. Additionally, portions of the trap closure area occupy waters which still remain closed to all commercial fishing due to the DWH oil spill. As a result of the continued presence of oil in portions of the closure area, the LDWF has contracted removal of these traps through a private company. Cleanup activities are ongoing and trap removal data remain unavailable at this point in time.

### **Oysters**

Although scheduled to open in mid-November, the 2010/2011 oyster season on the public grounds east of the Mississippi River and in the Hackberry Bay Public Oyster Seed Reservation (within the Barataria basin west of the river) was delayed until further notice. The 2010 oyster stock assessment, released in August 2010, showed reduced oyster stocks in this area. In addition, biological sampling showed the widespread presence of newly-settled spat on public reefs in a portion of this area, and significant oyster mortalities (likely due to low salinity and high water temps) on public reefs in another portion of the area. Due to low oyster abundance and the presence of spat, an unprecedented season delay was ordered by the Louisiana Wildlife and Fisheries Commission upon recommendations from both LDWF and the Louisiana Oyster Task Force.

The 2010/2011 oyster season was opened, however, in other parts of the Louisiana coast. Calcasieu Lake opened on October 15, 2010 and has provided the bulk of Louisiana oyster landings to date (approximately 60,000 sacks). Additional areas opened between October 29 and November 15, but have provided only small contributions to overall state landings. Biological sampling continues and modifications to this seasonal framework may occur as needed. All 2009 cultch plants indicated above will remain closed to harvest for the 2010/2011 season.

Extensive side-scan sonar evaluation of public oyster seed grounds is ongoing east of the Mississippi River. Over 75,000 acres were recently completed in the Black Bay area and nearly 150,000 acres are currently being side-scanned in the open waters of Breton Sound. These projects are providing much-needed and valuable reef-mapping information for the public oyster seed grounds in this area.

### **Finfish**

Louisiana opened, closed and re-opened the recreational red snapper season with creel and size limits consistent with Federal regulations. The recreational harvest of red snapper in the first recreational season was reduced to a small fraction of normal, since many of the waters available to the primary ports for recreational fishing were closed for the entire season.

Louisiana closed the commercial season for Large Coastal Shark, consistent with Federal season rules.

Act 979 of the 2010 Regular Legislative Session modified the season for the commercial harvest of spotted seatrout using a commercial rod and reel to run from January 2 of each year until the end of the year, or until the commercial quota is harvested, whichever comes first.

Louisiana closed the commercial season for greater amberjack, consistent with Federal quotas.

Louisiana closed the commercial season for Small Coastal Shark, consistent with Federal season rules.

Louisiana closed state waters to the recreational harvest of gag grouper, consistent with Federal temporary rule.

Louisiana set 2011-12 commercial and recreational reef fish seasonal rules to be consistent with Federal season rules.

Louisiana set the 2011-12 commercial king mackerel season to open July 1.

Louisiana closed the 2010-11 commercial king mackerel season, consistent with Federal season rules.

The annual stock assessment for striped mullet was presented to the Louisiana Wildlife and Fisheries Commission for transmittal to the Louisiana Legislature.

### **Texas Report: B. Balboa/J. Mambretti**

#### **Legislative Issues**

The 82nd Texas Regular Legislative Session has been relatively quiet for Coastal Fisheries. So far, topics have included mercury as related to fish consumption, water rights, and TXDOT's authority for requesting environmental reviews. Other bills of interest involve requirements for active military members to carry a current ID card to prove eligibility for exemption from needing a recreational fishing license, an amendment to the rule requiring a fishing license to possess fish on a recreational vessel, an oyster shell recovery and replacement program (SB932), a proactive measure allowing the sale and consumption in Texas of raw oysters harvested from Texas waters even if federal regulations prohibit the out-of-state sale of Texas oysters (SB 387), an exemption for anglers 65 and older from needing to purchase a fishing license (HB550), and some other water related bills.

The 82<sup>nd</sup> Texas Legislature convened with a projected \$15 billion revenue shortfall for the upcoming biennium. House Bill 1 reduced TPWD's biennial budget by \$162 million, (a 25% reduction), with \$120 million in FY12 and \$42 million in FY13 and eliminates 304 full-time employee positions in FY12 and 233 positions in FY13 (TPWD will be allowed to reacquire 71 of the positions lost in FY12). The bill eliminates all new capital equipment purchases, including vehicles, boats, computers, computer systems, and other equipment and systems. It eliminates all grants and new capital construction. It reduces Coastal Fisheries funding by \$1.5M in FY12 (10%) and \$1.4M in FY13 (9%), which includes reducing the License Buyback programs by \$1.1M in FY 12 and FY13.

#### **Regulatory Issues**

In 2010, the TPWD restructured hunting and fishing regulations, which separated recreational and commercial fishing rules. In the process, two typographical errors were introduced, indicating wrong minimum length limit for gag grouper and snook. Proposed changes will rectify these errors by reflecting the actual minimum length limits (22 inches for gag grouper and 24 inches for snook).

In 2007, TPWD restricted the means for taking red snapper to angling with pole-and-line and only

circle hooks. The intent of this change was to be consistent with rules in federal waters in order to eliminate the possibility of different enforcements. Federal rules require circle hooks to be used only when fishing for red snapper with natural bait. A new proposal will clarify that only natural bait may be used to fish for red snapper with circle hooks.

A proposed change to bycatch retention on shrimp boats include only licensed commercial shrimp boat owners and commercial shrimp boat captain's license-holders may retain bycatch. No other person on board may retain fish. Bycatch retention limit is 50% of the weight of the total shrimp catch. Recreational limit of finfish may be retained by license-holders, but cannot exceed 50% limit.

As part of the annual statewide proclamation process, Coastal Fisheries Division staff hosted a series of coast-wide scoping meetings during January to obtain public input on potential conservation measures for spotted seatrout in Texas. On January 20, staff met with its Coastal Resources Advisory Committee in Austin to assess comments received from spotted seatrout scoping meetings. Committee members thoroughly discussed the results of the scoping meetings and provided their thoughts about the scoping process and the information generated, and were equally divided whether more restrictive management measures are needed at this time. After the TPWD Commission was briefed at the end of January, the decision was made not to change any conservation measures for spotted seatrout at this time.

#### Menhaden Total Allowable Catch

The final adjusted estimated pounds of gulf menhaden caught in Texas waters and landed in Louisiana during the 2010 fishing season totaled 20.7 million pounds. This represents 65.6% of the 31.5 million pound Texas Total Allowable Catch, an increase of 59,022 pounds from the estimated 20,602,500 pounds of menhaden reported on 2010 CDFRs. Considering the +10% rule, the 2011 quota is 34,650,000 pounds.

#### **Coastal Fisheries Programs & Projects**

##### Abandoned Crab Trap Removal Project

During February 19-27, 2011, 188 volunteers helped collect 1,491 crab traps from Texas coastal waters, 38% from Galveston Bay and 37% from San Antonio Bay. Since 2002, this project has removed 29,053 abandoned crab traps.

##### Fish Stocking Efforts

2011 Production Total = none to-date.

##### PRBMFRS Life History Research

Alligator gar otolith and gonad samples were collected from the Cedar Lakes area for a preliminary reproductive biology study.

Gray snapper samples were collected and processed for a life history study.

Routine monitoring otolith collections from gill net samples were continued, as was processing and aging of otoliths collected in previous years.

Otoliths from red drum sampled for a genetics project conducted by Dr. John Gold, Texas A&M University, were processed and aged.

FIN-Biological Sampling Project, funded by this Commission, continued with the collection and processing of otoliths from various marine species by two new contract staff to help reduce the current data entry backlog of otolith ring counts.

Temperature tolerance studies of juvenile southern flounder were initiated, experimental apparatus was designed, and tests were run using pre- and post-metamorphosis southern flounder larvae.

#### PRBMFRS Genetics Research

Sample collection and processing for southern flounder and alligator gar genetic variation studies continues.

A cooperative effort with Texas A&M University at Galveston involving species identification confirmation of snook species collected in Texas waters continued, and additional samples from Mexico were analyzed.

A project to track the severity of oyster disease using QPCR (Quantitative real-time Polymerase Chain Reaction) continued. This project is partially funded by the Texas Water Development Board.

Species identification of processed and packaged commercial shrimp was conducted for NMFS law enforcement.

A proposal to conduct a genetic survey of stranded green sea turtles was discussed with the Texas turtle stranding network staff. The TTSN will provide tissue plugs from stranded green sea turtles for genetic analysis to be conducted at PRB.

#### Artificial Reef Project

During October - February, 3 rigs were reefed, generating \$952,000 in donations. Another 20 active projects are underway and are in various stages of completion. One reef site was added to the General Permit area of the High Island block, making a total of 63 reef sites in Texas (ranging in size from 40ac to over 300ac).

The Artificial Reef Program is working with the Port Aransas Boatmen's Association and Saltwater-Fisheries Enhancement Association (SEA) to plan for "Planning Zones" off Corpus for future Rigs-to-Reefs sites. The planning zones are required by the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE), the old US Minerals Management Service, through an addendum to the Rigs-to-Reefs Policy. At this time, no new artificial reef outside the General Permit Area can be created using platforms. Established reef sites can be used. This has caused much concern by the local fishing groups and TPWD because platforms are being removed at an accelerated rate, and the partial removal option has basically been removed in all waters outside the General Permit Area. A planning zone must be approved by BOEMRE, but BOEMRE does not have the manpower to dedicate to this problem until after BOEMRE is reorganized sometime in late fall 2011. TPWD is moving forward with trying to have companies tow their structures to existing reef

sites, but this does not work in all cases. TPWD is also working with BOEMRE and other agencies/groups to establish the planning zones for future approval. Over 600 platforms Gulf-wide are scheduled for removal in the next 3 years. These BOEMRE planning zones affect all Gulf States and all Artificial Reef Coordinators present at the GSMFC Artificial Reef Subcommittee meeting on March 1-2, 2011 expressed their concerns.

TPWD is contracting with TAMU-Galveston to conduct a geophysical and archeology survey of the Vancouver Liberty Ship Reef, off Freeport, as part of an extended biological monitoring study. The archeology survey is needed by the US Army Corps of Engineers to expand the nearshore site from 40 acres to 160 acres. Future plans include adding more pyramid reefs at the site to complement the Liberty Ship and other concrete culverts.

TPWD continues to work with the City of Corpus Christi and Saltwater Fishing Enhancement Association to permit MU-775, a 160-acre nearshore reef site in Texas state waters off Corpus Christi. The permit application has been submitted to the US Army Corps of Engineers and a decision is expected by late 2011.

Alamo Concrete, in Harlingen, completed the transport of 3,000+ concrete culverts to our reef material storage site at the Port Mansfield. A contract is being bid to reef all the material (over 4,000 culverts) at the nearshore reef by late summer 2011. Coastal Conservation Association will partner with TPWD on this project and has already funded the cost to move the culverts to the storage site.

After the impact of the BP oil spill last summer, biological monitoring trips have been scheduled at least once per quarter for 2011. A new team of TPWD scientific divers and volunteers have been organized. Separate interagency agreements are being developed for additional monitoring and research through TAMU-Galveston, TAMU-Corpus Christi, and UT-Brownsville.

A new TPWD Artificial Reef display will be displayed during the March 14-16 Decommissioning Conference in Houston. We anticipate reaching hundreds of petroleum representatives during the conference to discuss the Rigs-to-Reefs program in Texas. Saltwater-Fisheries Enhancement Association sponsored the booth fee as a partner in saving as many platforms for reefs as possible.

Information Technology's GIS Lab's Resource Information System (RIS) team and Coastal Fisheries Artificial Reef Program have developed and released an artificial reefs interactive mapping application. Designed to increase awareness and promote use of artificial reefs in the Gulf of Mexico, the new app allows the public to find artificial reef locations as well as information on the materials within each reef. Users can search for reefs by name, material, or location and create a custom map with other geographic layers, like depth information and buoy locations. For users interested in planning fishing or diving trips, the app provides tools for measuring distances, viewing the nearest gulf access location, and determining reefs within a certain distance from a user-defined point. The app was developed using US Fish and Wildlife Service State Wildlife Grants (SWG) funds. To find the map, go to [www.tpwd.state.tx.us/artificialreef](http://www.tpwd.state.tx.us/artificialreef), then link to the map through the link at the bottom of the page (interactive map).

## **Buyback Programs**

### Inshore Shrimp Buyback Program

Inshore shrimp buyback round #27 application period closed on October 29, 2010. During this



round, 39 bids were received and a total of 20 (11 bay and 9 bait) licenses were purchased at a total cost of \$177,700. The average purchase price was \$8,885.

Shrimp - Overall totals since 1996

- 2,081 licenses purchased
- 1,049 bay licenses and 1,032 bait licenses
- Total cost of \$13.8 million
- 2,081 / 3,231 original licenses = 64%

#### Crab Buyback Program

Crab buyback round #13 application period closed on April 9, 2010 during which 6 applications were received and 1 license was accepted at a total cost of \$9,500.

Crab - Overall totals since 2001:

- 51 licenses purchased
- Total cost of \$327,249
- Average price over all rounds = \$6,417
- 50 / 288 original licenses = 18% of total

#### Finfish Buyback Program

Finfish buyback round #16 application period closed on October 29, 2010 during which 22 applications were received and 9 licenses were purchased at a total cost of \$85,000 and an average of \$9,444.

Finfish - Overall totals since 2002:

- 231 licenses purchased
- Total cost of \$1,348,450
- Average price over all rounds = \$5,837
- 231 / 549 original licenses = 42%

#### **Oysters**

In late December, CF staff met with members of the Texas commercial oyster industry to further discuss details associated with two oyster management options that have been requested by this fishery. The first option is developing a shell recovery program whereby oyster shell or other suitable cultch material would be returned to public reefs to enhance oyster production by providing additional substrate for spat to attach. The second option would develop a protocol where areas could be quickly closed (within 72 hours) to commercial harvest when the quantity of legal oysters drops below a specified level. Both items require legislative approval and, at the time of this writing, a bill has been filed in the senate and a companion bill is expected to be filed within the week.

In early January, Coastal Fisheries staff met with Department of State Health Services, Seafood and Aquatic Life Group, and oyster leaseholders to discuss options for addressing *Vibrio*-related illnesses resulting from summer harvested oysters. The goal of a 60% reduction in *Vibrio* cases from the five core states (FL, MS, LA, TX, and CA) was not met last year, even with operating under the time-temperature matrix that required oysters to be under refrigeration and chilled to 55° F within a certain number of hours of harvest. It is anticipated that the FDA will require harvest closures (for half-shell product not destined for post-harvest processing) during parts of the summer.

## Special Efforts, Studies, and Topics 'Others'

In January, Coastal Fisheries staff worked on developing a Gulfwide seafood marketing program funded by British Petroleum and administered by the Gulf States Marine Fisheries Commission. The Commission is working with each of the Gulf states to initiate the program in the near future. A web-based networking service called Market Makers is being used to connect seafood producers with retail outlets and restaurants. It appears Texas Sea Grant or Texas Agri-life (both affiliated with Texas A&M University) will enter into a 5-year, \$15M NOAA Fisheries Gulf seafood marketing contract with Market Makers. For Market Makers to work effectively, Texas Sea Grant and Texas Agri-life will need to make an extensive outreach effort to seafood producers and seafood dealers. Mike Ray represents TPWD in helping bolster consumer confidence in the aftermath of the Deepwater Horizon oil spill.

During a sustained mid-January cold front, stunned turtles were reported from Port Aransas to Boca Chica in both Gulf and bay waters. About 13 turtles were reported, mostly from the upper Laguna Madre. TPWD hatcheries were used to rehabilitate recovered turtles. Those recovered from the Gulf may have had other complications (e.g., illness or vessel trauma).

In response to a significant freeze event in early February 2011, a 5-day fishing closure was implemented for 21 thermal refuge locations along the coast. News releases were distributed to media and social networking outlets.

On February 1 and again on February 9, air temperatures dropped below freezing, decreasing water temperatures near 32<sup>0</sup>F in various parts of bays coast-wide. As a result, an estimated 240,000 fishes, representing 26 species, died along the Texas coast. The majority of the coastwide estimates were from Matagorda Bay (68%), lower Laguna Madre (13%), and San Antonio Bay (11%). Coastwide, about 78% of the impacted fishes represented non-recreational species, including silver perch, mullet, and hardhead catfish; versus 22% recreational species, including spotted seatrout, red drum, black drum, and sheephead.

During these freeze events, sea turtles were stranded, picked up, rehabilitated and released. A total of 1,520 sea turtles (1,518 green, 1 loggerhead, and 1 hawksbill) were picked up. During February 1-7, 1,219 sea turtles were picked up, compared to February 9-14 when 271 sea turtles were recovered. Although over 230 sea turtles died, the majority were picked up in the lower coast, held in facilities, including TPWD sites, and released or moved to more permanent rehabilitation facilities before being released into warmer waters of the Gulf of Mexico.

In early March, CF staff received notice from TxA&MU that the Imaging Flow CytoBot, in Port Aransas jetties, had detected increasing concentrations (about 2 cells/ml) of the dinoflagellate *Dinophysis ovum*. Additionally, TPWD received a report of discolored water in the Mustang Island area that is presumed to be *D. ovum*. Because of the concern that affected shellfish can cause a non-fatal type of seafood poisoning called Diarrhetic Shellfish Poisoning, the Texas Department of State Health Services (DSHS) began sampling from Aransas Bay north to Galveston Bay. *D. ovum* was found at two locations, inside Galveston Bay at ship channel marker 55 (6.7/ml) and inside the Port

Aransas jetties (4.4/ml). There have been no illnesses reported in association with this occurrence of *D. ovum*.

A department plan to communicate in Spanish has been called a model that federal officials would like to see in other states. TPWD was required by U.S. Presidential Executive Order 13166 to provide equal services to persons with Limited English Proficiency (LEP) in order to continue receiving federal aid funding. This is mirrored in the department's Land and Water strategic plan, which includes a strategy to, "...engage underserved populations through multilingual programs." For about a decade, TPWD has steadily increased its efforts to reach the about 2.7 million people in Texas who do not speak English well or not at all. Most bilingual efforts involve Spanish, since about 90 percent of Texans who speak languages other than English at home speak Spanish.

***With no further business to discuss, J. Shepard adjourned the meeting at 3:15 p.m.***

**SEA GRANT FISHERIES EXTENSION ADVISORY PANEL  
MINUTES  
Tuesday, March 15, 2011  
Houston, Texas**

APPROVED BY:  
  
COMMITTEE CHAIRMAN

**Call to Order**

The regular meeting of the Sea Grant Fisheries Extension Advisory Panel was called to order at 1:00 PM on March 15, 2011, in Houston, TX by Chairman Chuck Adams.

*Panel members present included:*

*Chuck Adams (FL), Bryan Fluech(FL), Dave Burrage (MS/AL), Peter Nguyen (MS/AL), Tony Reisinger (TX), Gary Graham (TX). The Louisiana representatives were absent due to a conflict with the LA Sea Grant Site Review process.*

In total, 16 attendees were present, including 10 other individuals who added their input into the mix of topics discussed.

**Adoption of Agenda**

The agenda was adopted with two additions: 1) a presentation by Joanne McNeely with the Gulf and South Atlantic Fisheries Foundation on Marketing and 2) the Coast Guard Authorization Act by Dave Burrage. Dave Burrage motioned for approval and Brian Fluech seconded the motion, with the agenda being adopted unanimously as changed.

**Approval of Minutes**

Burrage and Fluech motioned and seconded respectively for approval of the prior meeting's minutes. The minutes from the prior meeting (19 October 2010) were approved unanimously.

**By-Laws Discussion**

A discussion intended to verify representatives from each state ensued. Texas representatives are Gary Graham and Tony Reisinger (Vice-Chair). Mississippi/Alabama representatives are Dave Burrage and Peter Nguyen. Florida is represented by Chuck Adams (Chair) and Brian Fluech (Vice-Chair elect). Gary Graham moved to officially "nominate" Rex Caffey as a replacement for Glenn Thomas. This "nomination" was seconded by Chuck Adams, but the vote was tabled due to procedural issues. Actually, the By-Laws indicate that the state representatives to the Panel are to be selected by the state-specific Advisory Program Leader. That position is currently vacant in LA. Rex Caffey will be contacted by Chuck Adams regarding this "nomination". Pending a favorable outcome of that discussion, Louisiana representatives will Rex Caffey ("nominated") and Julie Anderson.

Brian Fluech was nominated for future Vice-Chair of the Panel by Chuck Adams and Dave Burrage seconded, with unanimous approval by the Panel members in a quorum vote. A discussion of rotation of membership to the Panel followed with general agreement that fisheries-related SG staff are now at a premium. Logan Respass said we need a list of fisheries specialists within the Gulf region's SG programs from which to seek future participation as Panel members.

### **Seafood Marketing-Related Activities by State**

#### **GSMFC Activities Associated with Oil Spill Funds -**

Alex Miller with the GSMFC discussed the Oil Disaster Recovery Program (ODRP) program, which has been allocated \$15 million and has three key Jobs associated with it:

#### **Job 1. Direct Marketing – through the Gulf & South Atlantic Fisheries Foundation**

- Establish a seafood marketing coalition
- Set up a Gulf- wide web-based marketing program for commercial fishers and possibly recreational fishers. The web-based market awareness program, Market Maker, may be an important component of this overall effort, which may also addresses issues related to traceability. He noted Texas and Alabama presently do not have Market Maker in place. However, a process has been initiated to “turn on” Market Maker in each of these two states.

#### **Job 2. Seafood Quality Assurance and Seafood Certifications**

- Rapid assessments of several Gulf fisheries are being done by MREG.
- An RFP oriented toward traceability is out. Will include market branding, tracking and managing risk.
- Manager (contract position) will be sought.
- Onboard Surveillance to better ensure certification via visual assurance of on-board methods and techniques will be emphasized. Reef fish will be first to be recommended for this process.

#### **Job 3. Seafood Quality Testing**

- This program includes buying seafood testing equipment for the states
- So far only Texas and Alabama are interested.

Alex concluded his presentation informing us that \$1.5 million may be available from the ODRP funds for Sea Grant for outreach. A sum of \$1.5 million for a 5-year process of implementing Market Maker will be initiated soon. Alex initiated a discussion on how to best make this process work within the Gulf region with Sea Grant taking the lead on the implementation and outreach efforts.

#### **Gulf and South Atlantic Fisheries Foundation Marketing Program Overview**

Joanne McNeely, new Seafood Marketing Coordinator with the G&SAFF gave an overview of marketing efforts as a result of the Deepwater Horizon oil Spill and its impact on gulf seafood consumption since the event. The Coordinator will oversee the establishment of the Gulf Seafood

Marketing Coalition and the development of intermediate and long-range strategies for Gulf seafood products. Consumer research shows 70% of people are still concerned about oil in seafood and Gulf States are concerned about the one-year anniversary with more negative publicity. Foundation will be developing a newsletter on seafood marketing.

#### An State-Specific Marketing-Related Extension Activities or Issues

Chuck Adams reiterated the Dr. Beach fiasco when all Florida beaches suffered the impact of negative publicity.

Tony Reisinger gave an overview of Texas' marketing efforts for wild shrimp. The Texas Department of Agriculture funds one position primarily from license fees and their efforts are paired with wine marketing and other food marketing at different shows in Texas. Last year the budget was \$130K.

#### **Other Topics**

##### ***Trade Adjustment Assistance***

Chuck Adams gave an overview of the TAA process and orientation program for this year. Mike Haby gave an update on the development of the training videos that are being developed for shrimpers. Videos and translations in Spanish and Vietnamese should be ready in late April.

##### ***Seafood Processors and Dealers Survey***

Alex Miller reported this project has been delayed by the oil spill and has been going on for over a year. The objectives are to measure economic performance and the contribution of processors and dealers to the larger economy. The participants are being encouraged with a \$50 gift certificate.

##### ***Potential Restoration Projects***

With the one-year anniversary of the oil spill approaching, Logan Respass reported Texas Senator John Cornyn's office is looking for ideas for restoration funding projects. Logan suggested oyster restoration since oysters were impacted by the spill and it would be an all around win-win project. He referred to an economic study Mike Haby had conducted in Texas on the loss of oysters habitat due to hurricane Ike. A general discussion ensued on habitat restoration in the Gulf.

##### ***Smalltooth Sawfish***

Gary Graham presented the situation of smalltooth sawfish in the Gulf stating the species is making a slow comeback, which may present issues for shrimpers in the future. He handed out the printed results of a stakeholder's workshop held by NMFS and GSAFF in December 2010.

##### ***Sustainable Certification Status for Gulf Seafood Products***

Alex Miller noted a pre-assessment has been done for blue crab in Louisiana by MREG ... with the fishery going to full assessment soon. Pushed by LA blue crab industry (Pontchartrain Blue Crabbers). A pre-assessment is also being done for some sectors of the Gulf shrimp industry. A California group has been hired to conduct a full assessment by the end of the year.

### ***Blue Crab Tracking***

This was a proposal being pursued by faculty at the U of Florida to assess effort shifts in the blue crab fishery as a result of the oil spill. The research team wanted to install transponders on cooperating blue crab vessels in the Gulf region. The project was abandoned due to lack of interest from the industry in the region.

### ***Coast Guard Authorization Act of 2010***

Dave Burrage gave a presentation on the CGAA 2010. There will be a 3 nautical mile limit where the new regulations will take effect for all vessels. Safety drill record books will have to be maintained and a drill conductor must be onboard at all times. The old rectangular life boats will also become obsolete. The changes, if approved, will create some expensive implications to the industry, such as would be related to new equipment requirements and annual inspections. Key features would be the issue of parity for all vessels, implying that the uniform safety standards would no longer be different for federally-documented and state-registered vessels operating in the same waters ... and that life-floats and buoyant apparatus will no longer be accepted as survival craft on any commercial fishing vessel operating beyond 3 nautical miles. Other features of this Act were also discussed.

### ***GSMFC and NOAA Regional Survey of the Economic Contributions of Saltwater Angling***

Alex Miller gave a brief overview of the upcoming study on the economics contributions of saltwater angling in the Gulf region. This study will provide insight into the economic values associated with saltwater sports fishing in the region.

### ***Thematic Topic for Next Meeting***

Seafood Sustainability, Traceability and Certification in the Gulf of Mexico region. Guest speakers will be invited to provide information on this topic for the Gulf region.

### ***Next Meeting Location***

The next meeting will be 17-20 October 2011 in Louisiana.

***The meeting was adjourned at 5:15PM.***

**Respectfully submitted:** Tony Reisinger, Vice-Chairman

**Approved:** Chuck Adams, Chairman



APPROVED BY:  
  
COMMITTEE CHAIRMAN

**COMMISSION BUSINESS MEETING  
STATE-FEDERAL FISHERIES MANAGEMENT COMMITTEE  
MINUTES – 61st Annual Spring Meeting  
Wednesday, March 16, 2011  
Houston, Texas**

**Chairman M. Ray** called the meeting to order at 8:30 am.

**L. Simpson** mentioned the new sound system and operating procedures. He also discussed two new initiatives being introduced at this meeting: the electronic briefing book and the combination of the State-Federal Fisheries Management Committee and Commission Business Session to reduce the length of the meeting by ½ day. **Simpson** then noted that a quorum was present and reviewed pertinent rules and regulations regarding voting procedures.

The following Commissioners and/or proxies were present:

**Commissioners**

Chris Blankenship, ADCNR/MRD, Gulf Shores, AL  
Dan Ellinor, FWC, Tallahassee, FL (*Proxy for Nick Wiley*)  
Butch Gautreaux, Louisiana Legislature, Morgan City, LA  
Camp Matens, Baton Rouge, LA  
Joe Shepard, LDWF, Baton Rouge (*Proxy for Randy Pausina*)  
Mike Ray, TPWD, Austin, TX (*Proxy for Carter Smith*)  
Dale Diaz, MDMR, Biloxi, MS  
William “Corky” Perret, MDMR, Biloxi, MS

**Staff**

Larry Simpson, Executive Director, Ocean Springs, MS  
Dave Donaldson, Assistant Director, Ocean Springs, MS  
Nancy Marcellus, Administrative Assistant, Ocean Springs, MS  
Steve VanderKooy, IJF Program Coordinator, Ocean Springs, MS  
Jeff Rester, SEAMAP/Habitat Program Coordinator, Ocean Springs, MS  
Joe Ferrer, System Administrator, Ocean Springs, MS  
Ralph Hode, EDRP Program Coordinator, Ocean Springs, MS  
Alex Miller, Staff Economist, Ocean Springs, MS  
Wendy Garner, Chief Financial Officer, Ocean Springs, MS  
James Ballard, SFP/ANS Program Coordinator, Ocean Springs, MS  
Gregg Bray, RecFIN Programmer/Analyst, Ocean Springs, MS

**Others**

Chuck Adams, Florida Sea Grant, Gainesville, FL  
Gary Graham, Texas A&M Marine Advisory Service, West Columbia, TX  
Judy Jamison, Gulf & South Atlantic Fisheries Foundation, Tampa, FL  
Chris Denson, ADCNR/MRD, Gulf Shores, AL



Jerry Mambretti, TPWD, Port Arthur, TX  
Preston Pate, Newport, NC  
John Stein, DOC/NOAA/NMFS/NW Fisheries Science Center, Seattle, WA

### **Adoption of Agenda**

**Corky Perret made a motion to adopt the agenda as presented. Dale Diaz seconded the motion and the agenda was adopted without objection.**

### **Approval of Minutes**

**A motion was made by Chris Blankenship to approve the minutes from the October 20, 2010 State-Federal Fisheries Management Committee. Joey Shepard seconded the motion and the minutes were approved without objection.**

**A motion was made by Chris Blankenship to approve the minutes from the October 20-21, 2010 Commission Business Session. Joey Shepard seconded the motion and the minutes were approved without objection.**

### **GSMFC Standing Committee Reports**

**Law Enforcement Committee – Chris Blankenship** reported that the Law Enforcement Advisory Panel and the Law Enforcement Committee (LEC) met jointly on Tuesday, March 15, 2011. Rick Leard reviewed the Council's action schedule regarding upcoming fishery management plans. The Law Enforcement Committee requested that they receive information on those plans after the scoping meeting, when the drafts become available, so that they can comment on the preferred alternatives. They also mentioned that they would meet with their Council representatives from the states before their meetings to let them know how they feel about the different alternatives and their enforceability. They also discussed the enforcement portion of the Oyster FMP and will review that one final time to make sure that all the regulations and laws from each state are correct. They will do the same with the Arenarius Profile.

The LEC also received a demonstration of the weak hook for the bluefin tuna fishery in the Gulf of Mexico. The LEC provided comment on the tool they would like to use for enforcement in the event that passes with the HMS.

The LEC discussed the dual permitted vessel crew size and recommended as a committee to leave that at three persons or whatever it says on their COI.

The LEC discussed JEAs and the funding for those. As with most of NOAA's programs, the final funding for the JEA program for this upcoming year is on hold until the budget can be established. The LEC made a motion that a resolution be made by the Commission requesting NOAA to ensure that funding is available for the JEA program with enforcement being done by the states and adequate for all regulations created by the Magnuson Stevens Act and actions of the Council.

Essentially, it is a motion asking that the Commission continue to support the JEA program.

**Dale Diaz made a motion that the Commission send a letter to NOAA and encourage them to continue to support the JEA program. The motion was seconded.** During discussion Blankenship added that the letter should address the additional burden from the oil spill and also mention the burden of level funding for the JEAs. With more regulations enacted, they are spending more on data collection and science to protect the species and the fisheries. There has been an increased level of enforcement required under the new fishery management plans. **With no additional discussion, the motion passed.**

Blankenship showed a PowerPoint presentation entitled “Joint Enforcement Agreements – Fisheries Enforcement at Work in the Gulf” which provided a summary of the JEA activities in all the Gulf states.

**Technical Coordinating Committee – Joey Shepard** reported that the Technical Coordinating Committee (TCC) met on Tuesday, March 15, 2011. A presentation was given by Dr. Kyle Piller from Southeastern Louisiana University on the genetic variation of spotted seatrout in Louisiana. The presentation showed that there may be some differences between spotted seatrout and red drum in the Lake Ponchartrain Basin as compared to the rest of the state. Populations east and west of the River appear to be somewhat different. He is really interested in getting fish further east and west to test to see if the populations in Lake Ponchartrain are closer to those in Mississippi/Alabama.

The TCC received an update of resource monitoring as a result of the Deepwater Horizon. Most of the states have not received any funding from BP, although some have submitted requests. Louisiana received 13 million dollars to do resource monitoring of inshore, nearshore and reef fish for a 3 year period. All of that work is underway and Shepard will keep everyone updated on the results.

There was also a presentation on the Oyster FMP revision. It has been 20 years since the management plan was first published and to date has not been modified. The TCC will be getting a draft in a couple of months to review. The TCC received a draft Profile on Sand and Silver Seatrout to begin their 45 day review. At this point in time, sand and silver seatrout are not easily distinguishable in the landings data and the harvest data, and it is very difficult to do a stock assessment on the species. A Profile is being developed which will be very extensive and will be a nice addition so that when those two species can be distinguished, a very good stock assessment could be done. Upon the TCC’s approval, the Profile will move to the SFFMC for their review, a public comment period and finally, a review by the full Commission prior to the October GSMFC meeting.

**Shepard** reported that updates were received from all subcommittees. The TCC Crab Subcommittee met Monday, March 14, 2011, but did not have a quorum; therefore there was no action taken. They discussed derelict crab trap removal, and deceased landings of crabs primarily in states impacted by the BP closures. Louisiana is also working on MSC certification for crabs.

The TCC SEAMAP Subcommittee met on Monday, March 14, 2011, and they are currently reviewing the 2011-2015 management plan. It is almost finalized and it will be forwarded to the

TCC in mid-April for review. An issue they discussed is a problem scheduling SEAMAP sampling cruises with the 3 federal research vessels in the Gulf. The Subcommittee made a recommendation to draft a letter of support for ship time to send to NMFS.

The Habitat Subcommittee met on Monday, March 14, 2011. Patrick Williams gave a presentation on a fisheries modeling tool developed by NMFS, with some input from the states, to predict impacts from freshwater diversions or any kind of introduction of fresh water on the different marine species. It is going to be very useful to look at any new freshwater diversion that comes in and what those impacts may be. The Subcommittee is also heavily involved in national resource damage assessment activities.

The TCC Data Management Subcommittee met on Monday, March 14, 2011. They discussed improvements to commercial data issues as well as recreational data issues. One issue, in particular, is the vessel identification database to track all the activities of a particular vessel. They are also looking at linking commercial logbooks and trip tickets. On the recreational end, the states have received some funding to develop methods to improve the national registry program database. It will significantly improve the recreational survey if there is a registry, and not just random digit dialing as NMFS has done in the past. MRIP is doing a for hire pilot survey through GSMFC getting weekly reports on some of the for hire vessels. Those are federally permitted vessels and they are getting pretty good compliance right now. After the pilot survey, future plans may include an electronic logbook to improve estimates on the recreational for hire sector.

The TCC Artificial Reef Subcommittee met jointly with the Atlantic States Artificial Reef Subcommittee on March 1-2, 2011 in St. Petersburg, Florida. One of the main topics discussed was regarding BOEMRE and their Idle Iron and Rigs-to-Reefs programs and some of the issues that are arising in the Gulf states. The Rigs-to-Reefs program released an addendum last year because of the large amount of unsuitable material that was being proposed for reefing as a result of recent hurricanes. Some of the main changes in this addendum are: no debris piles, debris fields, or reef baskets will be allowed; all submerged decks must be removed; and future reef sites will not be allowed within 5 miles of established/pending reef locations to minimize the impact to future pipeline operations. Another component of this addendum, that has been causing problems in Texas, is that BOEMRE will only grant Rigs-to-Reefs departures for platform-removal applications if the structure will be sited in an established artificial reef permit area. In Texas, their general reef permit area is too far away from the location of the rigs to make reefing cost effective for the oil/gas companies. Texas has been trying to establish a new reef permit area that would be much closer to the rigs; however, BOEMRE does not have the time to move the effort forward. Alabama and Florida have been in discussions with BOEMRE to try and get a Rigs-to-Reefs program established. The Idle Iron issue started with the release of an NTL by BOEMRE in September of last year. According to BOEMRE, there is a large number of rigs in the Gulf that are no longer in use but have not been permanently plugged or temporarily sealed and are a threat to the natural environment. One of the main things this NTL does is it eliminates the time extensions for permanently plugging or temporarily sealing wells that have been deemed no longer useful for operations. The NTL also establishes that any platform or other facility that is no longer useful for operations must be removed as soon as possible but no later than 5 years from the date of the NTL or the lessees must submit documentation of the well's usefulness to the BOEMRE GOM Regional Supervisor. There was a

motion passed at the TCC that there be a discussion held at the October 2011 GSMFC meeting to address the Rigs-to-Reefs and Idle Iron programs under BOEMRE and their associated issues; and invite representatives from BOEMRE, state agencies and the commercial/recreational fishing communities that can help in fully illustrating these issues.

The Subcommittee is still working on general guidelines for inshore artificial reefs. They are also developing an artificial reef monitoring program where they are attempting to standardize all the data that is being collected on artificial reefs. There is a plan to hold a reef monitoring workshop at the fall 2011 GSMFC meeting.

The TCC Fisheries Outreach Subcommittee met in conjunction with the Gulf of Mexico Fishery Management Council's Outreach and Education Advisory Panel on January 12-13, 2011 in Tampa, Florida. The two groups found a real benefit to this cooperation and expressed an interest in continuing the effort. Most of their discussions centered around the Deepwater Horizon oil spill. The states are spending considerable time distributing information regarding the safety of Gulf seafood. These meetings have provided a good venue for sharing information.

**C. Perret** asked J. Shepard to briefly summarize Louisiana's monitoring program funded with the \$13 million from BP. Shepard reported that they are conducting an inshore resource monitoring program which is their current sampling program with the amount of samples doubled and the extent of the samples increased. They are sampling locations not sampled before to get good coverage within the barrier islands of Louisiana. That sampling started in October and will continue for 3 years. They are also sampling the nearshore area, which is from 5 to 40 fathoms, using SEAMAP techniques. It is much more extensive than SEAMAP, and plans are to completely cover the Louisiana coast every quarter. There are 3 zones: eastern, central and western. Each one of those zones will be sampled every month. There are 4 corridors in each one of those zones and one transect will be taken in each one of those corridors resulting in 32 samples per month per zone.

Another resource monitoring project, funded by BP, will be conducted by James Cowan from LSU to look at reef fish species and planktonic fishes.

Louisiana also received \$18 million for seafood safety testing. They will be testing tissue samples, both inshore and offshore, of all the fish that make it to the market in Louisiana.

**Butch Gautreaux made a motion to develop a resolution in support of the artificial reef program and a need to slow down the removal of structures until there is an opportunity to have all the data in place. The motion was seconded by Dale Diaz.** Joey Shepard added that this resolution should be sent to BOEMER. He added that it may be time to get congressional support and copy this resolution to individuals to make sure they respond. The motion passed.

### **State-Federal Fisheries Management Committee**

Menhaden Advisory Committee - **Jerry Mambretti** reported that the TCC Menhaden Advisory Committee met on Tuesday, March 15, 2011. Smith reported that the final landings for 2010 were at 379,727 mt which was down 17% from 2009 and 15% from previous 5-yr average. Landings started

strong in April until the DWH disaster which resulted in a number of closures. July, which is typically the best month for landings, was down 30-40% at around only 8,340 mt which is the lowest on record. However, good weather in October allowed the fleet to make up a large percent of that loss.

Smith reported that in 2011, he expects 4 factories, 40 vessels, and 350,000 vtwks to harvest around 437,000 mt of Gulf menhaden.

Smith reported that on the Atlantic, the landings in 2010 for menhaden were around 183,000 mt which was up 27% over 2009. The menhaden in the Chesapeake Bay were abundant and stayed most of the early season and actually led to problems with the Reedville factory not being able to keep up. In September, Hurricane Earl dumped significant rain pushing the fish out of the bay and moving them north along the coast. There was generally good fishing off NJ throughout the season and a number of bait boats from Gloucester and Maine took fish back north to support the lobster fishery. Smith is forecasting the 2011 landings on the Atlantic to be around 184,000 mt.

On a management note, last fall, the Atl. Men. Management Board asked the Tech Comm. to develop alternative reference points for the fishery. At this time, the TC continues to work on this and expect to complete the alternatives by August.

**Annual menhaden harvest forecasts have been made by the LDWF since 1982. The forecast uses estimated fishing effort with 2009 and 2010 juvenile menhaden indices and environmental factors in several multiple regression predictive models. In summary, the winter of 2009-2010 had below average water temperature, average salinity, below average rainfall, and average river discharge. "Cold, dry" winters are typically associated with good recruitment. It is estimated that between 400,000-540,000 mt could be landed in Louisiana in 2011.**

Mambretti and Smith reported on the Texas TAC. In 2010, the industry removed 2.7 million lbs from Texas waters which was under the cap. The 'underage' would allow an additional 10% over the quota to be harvested in 2011. The TAC was set at 31.5 million pounds per year, which was the approximate five-year average of Texas catches during 2002-2006.

As most are aware, the SEDAR27 Data Workshop has started and is currently underway here. The Commission is hosting and supporting the first phase today and tomorrow, the Assessment Workshop is scheduled for July in Beaufort, and the SAFMC is sponsoring the Assessment Review at the end of October. VanderKooy and Smith are working on the revision to the FMP while the SEDAR is in progress in an effort to finish both this fall and include the results of the assessment in this revision to the Gulf Menhaden Management Plan.

VanderKooy and Donaldson reported on the progress toward funding the proposed juvenile menhaden sampling. It is expected that the first year will cost 200K to gear up and conduct the state run survey. Last year it was thought that the Stock Assessment Enhancement program at the Commission would be able to fund the project. However, the SAE will not be able to help in 2011 so, assuming there is carry-over and NOAA will allow it to be spent on the effort, sampling may not begin until 2012.

Joint Commercial/Recreational Fisheries Advisory Panel – **Steve VanderKooy** reported that the Joint Commercial/Recreational Fisheries Advisory Panel met on Monday, March 14, 2011. There was not a quorum present so no actions took place.

Ballard presented a short overview of the BOEMR Rigs to Reefs Policy Addendum and the Idle Iron issue. While there are a lot of questions around the removal policy for the rigs, the recently restructured agency (former MMS) is unavailable to inform the public on the program. The BOEMRE representatives were unable to attend this meeting but the Panel would like staff to be sure they attend the fall meeting.

Ballard provided a short update on the Invasive Species Program Update.

Ralph Hode covered the EDRP, ODRP and Dave Donaldson reviewed the SAE Program. There were a number of questions related to testing and seafood certification.

Donaldson provide another update on the For-Hire Log Book Project and VanderKooy presented overviews of the trout profile which has begun the GSMFC review process and the oyster FMP which is near completion.

VanderKooy would discuss the possibility of hosting a conference call or webinar prior to the fall meeting in October if travel and participation was going to be a problem for the Panel members again.

### **Sea Grant Fisheries Extension Meeting Report**

**Chuck Adams** reported that the Sea Grant – Fisheries Extension Advisory Panel met on Tuesday, March 15, 2011. The Panel discussed ways Sea Grant programs could join with the Commission on issues and get new Sea Grant faculty involved. The theme topic at this meeting was marketing. Alex Miller, from GSMFC, discussed the Oil Disaster Recovery Program (ODRP), which has been allocated \$15 million and has three key jobs associated with it: direct marketing, seafood quality assurance and seafood certifications, and seafood quality testing.

Joanne McNeely, Seafood Marketing Coordinator with the Gulf and South Atlantic Fisheries Foundation, gave an overview of marketing efforts as a result of the Deepwater Horizon oil spill and its impact on Gulf seafood consumption. She will oversee the establishment of the Gulf Seafood Marketing Coalition and the development of intermediate and long-range strategies for Gulf seafood products.

Tony Reisinger gave an overview of Texas' marketing efforts for wild shrimp. The Texas Department of Agriculture funds one position primarily from license fees and their efforts are paired with wine marketing and other food marketing at different shows in Texas.

Other topics discussed included the Trade Adjustment Assistance process, the Seafood Processors and Dealers Survey, restoration projects, smalltooth sawfish, sustainable certification status for Gulf seafood products, blue crab tracking, Coast Guard Authorization Act of 2010, and GSMFC and

NOAA regional survey of the economic contributions of saltwater angling. The theme topic for the next meeting will be seafood sustainability, traceability and certification in the Gulf of Mexico region.

**J. Shepard** added that Sea Grant will now serve as a member on the Fisheries Outreach committee.

### **NOAA Fisheries Southeast Regional Office Comments**

Due to other commitments, Roy Crabtree was unable to attend the meeting. He provided the following written report.

### **SUSTAINABLE FISHERIES**

#### **Regulatory Actions:**

Recreational Red Snapper Temporary Rules: At its June 2010 meeting, the Gulf of Mexico Fishery Management Council (Council) requested that NOAA Fisheries Service publish an emergency rule that would give the Regional Administrator (RA) authority to re-open the recreational red snapper fishing season after September 30, 2010, if additional quota remained available to the fishery. At the August 2010 Council meeting, NOAA Fisheries Service informed the Council that 2.3 million pounds (mp) remained of the recreational red snapper quota. The Council subsequently requested NOAA Fisheries Service re-open the recreational red snapper season for eight consecutive weekends (Friday through Sunday) beginning Friday, October 1, 2010. A final rule providing such authority and a final rule announcing the re-opening period published on September 24, 2010.

Deepwater Horizon/BP Oil Spill: On November 15, 2010, NOAA Fisheries Service re-opened all Gulf of Mexico waters to fishing except for a 1,041 square mile area directly around the well head. Subsequently, a royal red shrimp fisherman reported encountering tar balls north of the closed area boundary. NOAA Fisheries Service responded by re-closing a 4,213 square mile area to royal red shrimp fishing only. This closure remained in effect through February 1, 2011. The core area directly around the well head site remains closed.

Amendment 32 Draft Document (Gag and Red Grouper): A recent assessment update indicates gag is undergoing overfishing and the stock size of red grouper has declined compared to the findings of the last assessment. The assessment update indicates 65-70 percent reductions are needed in total allowable catch (TAC) for gag, and a 25 percent reduction in TAC is needed for red grouper. The Council is addressing these findings in Amendment 32, which is scheduled for implementation by the end of 2011. In the meantime, the Council requested that NOAA Fisheries Service publish an interim rule to reduce overfishing of gag and developed a regulatory amendment to reduce red grouper TAC (see below).

Gag Interim Rule and Red Grouper Regulatory Amendment: After considerable deliberation and input from the public, the Council voted to request NOAA Fisheries Service publish an interim rule to release 100,000 pounds (lbs) of commercial gag quota and temporarily prohibit the recreational harvest of gag while it developed longer term management measures to address the gag and red



grouper assessment updates through Amendment 32 (see above). The interim rule also prohibited the use of red grouper multi-use allocation in the grouper-tilefish Individual Fishing Quota (IFQ) program. For red grouper, the Council submitted a regulatory amendment that would reduce the 2011 red grouper TAC from 7.57 mp to 5.68 mp; this resulted in a 4.32 mp commercial quota and a 1.36 mp recreational allocation. In recent years, neither sector has landed these allocations of red grouper. Final rules for these actions published December 1, 2010, effective January 1, 2011. At its February 2011 meeting, after reviewing updated information on the gag assessment update, the Council requested NOAA Fisheries Service to publish a new interim rule releasing an additional 330,000 lbs of commercial gag quota and to set a 2011 recreational fishing season for gag from September 16 through November 15. This rule is expected to be effective before the current interim rule expires on June 1, 2011.

Greater Amberjack Regulatory Amendment: During 2009, the recreational sector met its greater amberjack quota by the end of August. In response, Council and Southeast Regional Office staff developed a regulatory amendment which, if implemented, would establish a fixed June-July recreational closed season, with the goal of increasing the total number of days the fishery is open each year. The proposed rule published January 24, 2011, and the comment period ended February 23, 2011. NOAA Fisheries Service re-opened the comment period for 15 days beginning March 10, 2011, to provide additional time for constituents to respond to the proposal.

2011 Red Snapper TAC Increase: The Council has submitted a regulatory amendment for review by the Secretary of Commerce which, if approved, would increase the 2011 red snapper TAC by slightly more than 200,000 lbs. This TAC increase would increase the commercial and recreational quotas by slightly more than 100,000 lbs each. The proposed rule published on February 22, 2011, and is open for public comment through March 24, 2011.

### **Fishery Openings, Closings, and Landings Summary**

Recreational: (recreational landings, catch limits, fishing seasons, and closures can be tracked on the Southeast Regional office (SERO) website at: <http://sero.nmfs.noaa.gov/sf/RecreationalLandingsandCatchLimits.html>).

Landings are reported in gutted weight for groupers; headboat landings are not included for gray triggerfish, red grouper, and gag; no landings for Texas private and charter vessel landings are reported for any species; greater amberjack landings exclude Monroe County, Florida; thus, the results reported here underestimate total recreational harvest.

Red Snapper: The red snapper fishing season opened June 1, 2010, and closed July 24, 2010, based on NOAA Fisheries Service's projection that the 3,403 mp recreational quota would be met by that date. However, NOAA Fisheries Service determined 2.3 mp of the quota had not been taken when the fishery closed on July 24, 2010. Based on a request from the Council, the recreational fishing season was re-opened for eight consecutive weekends (Friday through Sunday) beginning October 1, 2010. For 2010, 1,872 mp (55 percent of the quota) was landed.

King and Spanish Mackerel: For 2010, 1,997 mp king mackerel allocation (29 percent) was landed, and 2,633 mp of the 3,913 mp allocation (67 percent) for Spanish mackerel was landed.

Greater Amberjack and Gray Triggerfish: The 2010 recreational quota for greater amberjack was reduced to 1,243 mp to account for 2009 quota overages. For 2010, recreational greater amberjack landings totaled approximately 1,300 mp (105 percent of the adjusted quota); this total includes all of Monroe County for November-December; thus it slightly overestimates Gulf of Mexico landings. For gray triggerfish, 267,511 lbs (59 percent of the 457,000 lbs annual catch limit [ACL]) of gray triggerfish was landed.

Gag and Red Grouper: Landings for 2010 totaled 1,565 mp for gag (59 percent of the 2.64 mp ACL) and 622,636 lbs (34 percent of the 1.85 mp ACL) for red grouper. Recreational fishing for shallow water grouper is closed February 1 through March 31, and through interim rule, the recreational bag limit for gag is set to zero through June 1, 2011.

**Commercial**: (commercial landings are updated twice a month on the SERO web site. For IFQ species, up-to-date landings can be tracked on the SERO's Reef Fish IFQ web page at <https://ifq.sero.nmfs.noaa.gov/ifq/>.) Reef fish landings reported here are through December 31, 2010.

Red Snapper: As of the end of the year, 3.06 mp (96 percent) of the 2010 quota was landed.

Shallow-Water Grouper (SWG): For 2010, 486,081 lbs (35 percent) of the gag quota was landed; 2,898 mp (50 percent) of the red grouper quota was landed; and 137,688 lbs (33 percent) of the "other" SWG quota was landed.

Deepwater Grouper (DWG) and Tilefish: For 2010, DWG, 624,762 lbs (61 percent) of the DWG quota was landed, and 249,708 lbs (57 percent) of the tilefish quota was landed.

Greater Amberjack and Gray Triggerfish: Because of an overage in 2009, the greater amberjack commercial quota was adjusted to 373,072 lbs. NOAA Fisheries Service closed the commercial sector on October 28; total landings through the end of 2010 were 389,884 lbs (104 percent of the adjusted quota). Commercial greater amberjack fishing is currently prohibited as of March 1, 2011, through May 31, 2011. For gray triggerfish, 40,716 lbs (38 percent of the quota) was taken in 2010.

King and Spanish Mackerel: The commercial king mackerel fishing season for all zones and sub-zones opened on July 1, 2010. Most summer fishing normally occurs in areas that were closed to fishing because of the Deepwater Horizon/BP oil spill. Following re-opening of the northern Gulf of Mexico to fishing, landings increased for the western and northern zones. A trip limit reduction to 500 lbs per day was implemented for the northern zone (Florida-Alabama line southward to Collier County) after 75 percent of the zone's quota was taken by October 26, 2011. The northern zone remains open. The gillnet component in the southern zone (Monroe and Collier counties of Florida) opened January 18 and closed on February 2, 2011. The western zone (Alabama west through Texas) closed February 11, 2011. The Florida east coast zone for Gulf group king mackerel closed February 26, 2011. The hook-and-line component in the southern zone was restricted to 500 lbs per

day on March 8, 2011, when 75 percent of the quota was determined to be taken. For Spanish mackerel, the fishing season opened April 1, 2010; through December, 607,804 lbs of the 5.187 mp quota (11.7 percent) was landed.

## **Permits Status**

The following represents permits issued or renewed within the last 12 months, which can be used to fish in the respective fisheries. It does not represent activity in a fishery. A complete list of valid vessel and dealer permits is found on the SERO web site at

<http://sero.nmfs.noaa.gov/foia/readingrm.htm>. Valid (expired but renewable limited access permits in parentheses) permits as of March 8, 2011, are:

- 1,471 (155) Gulf shrimp moratorium permits and 272 royal red shrimp endorsements. Of the original 1,933 shrimp moratorium permits, 307 have been terminated as of March 8, 2011.
- 1,244 (128) for-hire coastal pelagic moratorium permits; 35 (4) historical captain permits
- 1,436 (91) commercial king mackerel moratorium permits (includes South Atlantic)
- (19 (4) commercial king mackerel gillnet)
- 1,700 commercial Spanish mackerel permits (includes South Atlantic)
- 1,231 for-hire reef fish moratorium permits; 38 (5) historical captain permits
- 836 (101) commercial reef fish moratorium permits (61 (1) longline endorsements)
- 193 commercial spiny lobster permits and 347 tailing permits (includes South Atlantic)

## **AQUACULTURE**

On February 9, 2011, the Department of Commerce (DOC) and NOAA released draft aquaculture policies for public comment. The DOC and NOAA policies are complementary, and together provide a national approach for supporting and enabling aquaculture. The collective goal of these policies is to:

- Increase the U.S. supply of healthy seafood;
- Create jobs in coastal and other communities;
- Spur innovation in technology; and
- Help restore depleted species and marine habitats.

The draft DOC policy focuses on sustainable aquaculture within the context of the key Commerce goals of encouraging economic growth and employment opportunities in the United States. More specifically, the policy supports technology, trade, innovation and entrepreneurship, economic development, and environmental stewardship as they relate to U.S. aquaculture.

The draft NOAA policy provides guidance for NOAA's actions regarding the development of all forms of aquaculture, from shellfish farming and habitat restoration to the culture of marine fish and algae on land and offshore. The policy provides a national approach for supporting sustainable commercial production, expanding restoration aquaculture, and researching and developing new technologies, and is part of NOAA's national approach to sustainable seafood, which encompasses both aquaculture and capture fisheries. The world's demand for seafood will continue to grow as NOAA continues to rebuild wild fish populations. The agency's vision for sustainable seafood includes aquaculture as a complement to wild-caught fisheries in meeting this demand.

The public comment period on these draft policies will close at midnight EST on April 11, 2011. Information on the policies is available on the NOAA Aquaculture Program web site: <http://aquaculture.noaa.gov/>.

## **PROTECTED RESOURCES**

### **Biological Opinions**

- Completed a Biological Opinion for the Jacksonville District Corps of Engineers regarding several projects to “Replace/Repair, or Install Seawalls and/or Install Rip Rap and Associated Activities in Charlotte County, Florida,” and its effects on Smalltooth Sawfish (*Pristis pectinata*) and Smalltooth Sawfish Critical Habitat.
- Completed a Biological Opinion for the Mobile District Corps of Engineers regarding the “Construction of a Municipal Harbor and Re-construction of the Rutherford Fishing Pier in Hancock County, Mississippi,” and effects on Gulf Sturgeon Critical Habitat, and Sea Turtles.
- Completed a Biological Opinion for the Galveston District Corps of Engineers regarding “Explosive Removal of State Lease Platforms in Texas,” and its effects on listed sea turtles and their critical habitat.

### **Conservation Measures**

#### **Completed**

- Completed the Florida Fish and Wildlife Commission’s ESA Section 6 Cooperative Agreement.
- Completed the Alabama Department of Conservation and Natural Resources’ ESA Section 6 Cooperative Agreement.
- Implemented the annual Marine Mammal Authorization Program to over 8,941 fishermen in the Gulf.
- Provided outreach on our Protect Dolphins Campaign and Dolphin SMART program; maintained a booth at Ding Darling Days and the Burrowing Owl Festival in Ft. Myers, Florida.

#### **Ongoing**

- Facilitating observer coverage of the Gulf of Mexico menhaden fishery.
- Characterizing all trap/pot fisheries and gear types operating along the southeast U.S. coast, including the Gulf, per recommendations by Take Reduction Teams.
- Reviewing all bottlenose dolphin stranding data in the Gulf and analyzing for human interactions by type.
- Coordinating with Mississippi-Alabama Sea Grant on soliciting a Request for Proposals for dolphin/human interaction research in the Southeast Region, based on outcomes from a SERO-hosted workshop with local and international experts.
- Conducting a human dimension survey in Panama City, Florida, to help evaluate outreach efforts informing the public on the legality and harm of feeding and harassing wild dolphins, as well as to help determine more effective outreach tools.
- Coordinating with NOAA Fisheries Service’s Offices of Sustainable Fisheries and Science and Technology on the potential for including bottlenose dolphin-recreational fishery

interaction questions into new Marine Recreational Information Program (MRIP) redesign efforts.

- Evaluating existing Dolphin SMART participants in Southwest Florida Gulf Coast for renewal, and evaluating the Florida Aquarium in Tampa as a new business participant.

### **Deepwater Horizon BP Oil Spill**

- Conducted one visual health assessment survey in Perdido Bay, Alabama, to monitor bottlenose dolphins affected by the Deepwater Horizon Oil Spill.
- Coordinated with the Wildlife Branch of the Unified Command to determine step-down criteria for marine mammal stranding response. On November 2, 2010, the response phase to the Deepwater Horizon (DWH/BP) oil spill for marine mammals ended; however, it was reinstated for central and eastern Louisiana on December 3, 2010, and remains in effect due to the recovery of five dead oiled dolphins in Louisiana. The current end date for marine mammal stranding response in central and eastern Louisiana is April 28, 2011.

### **Northern Gulf Marine Mammal Unusual Mortality Event (UME)**

- Worked with NOAA Fisheries Service's Southeast Fisheries Science Center to develop a consultation package for the Working Group for Marine Mammal Unusual Mortality Events (established under Title IV of the Marine Mammal Protection Act) concerning elevated strandings of bottlenose dolphins/cetaceans in the northern Gulf of Mexico from February 2010 through the present.
- On December 13, 2010, a marine mammal UME was officially declared for the northern Gulf of Mexico (Texas/Louisiana border through Franklin County, Florida). As of February 22, 2011, approximately 300 cetaceans were included in the UME. The UME is still open and all mortalities are being thoroughly investigated to the extent possible.
- Between January 1, 2011 and February 27, 2011, 36 bottlenose dolphin (*Tursiops truncatus*) premature or newborn calves stranded dead in Alabama (n=16), Mississippi (n=14), Louisiana (4), and the Florida Panhandle (2). All of these very small animals are included in the UME investigation.
- In the past, UMEs in the Gulf have been attributed to biotoxins, ecological factors, infectious diseases, or unknown causes. Direct or indirect effects of the DWH/BP oil event are among the potential reasons for the increase in strandings and are being investigated.

### **Briefing on Marine Recreational Information Program (MRIP)**

Preston Pate gave a PowerPoint presentation on the Marine Recreational Information Program. The presentation gave an overview on what they have done, what they are working on, and asked the question what is needed from them.

“MRIP is a new data collection and reporting effort created by NOAA Fisheries and a broad collection of partners...to generate better estimates of anglers' catch and effort.”

MRIP is meeting two critical needs: (1) Providing the detailed, timely, scientifically sound estimates that fisheries managers, stock assessors and marine scientists need to ensure the sustainability of

ocean resources; and (2) Addressing stakeholder concerns about the reliability and credibility of recreational fishing catch and effort estimates.

Progress to Date:

- Operations Team funded 31 projects across the county
- Developed cooperatively with state and regional partners
- Address major concerns identified by NRC
  - Focus on fundamental design and sampling methods

Key Accomplishments

- Implement National Saltwater Angler Registry
- Pilot testing electronic for-hire logbook in Gulf
- Test registry-based surveys
- Address potential sources of bias in survey designs
  - New estimation design for CPUE
  - Alternative sampling design for intercept survey

Transition to MRIP has already started and is currently ongoing.

### **Presentation on Ocean Acidification**

John Stein from NOAA Fisheries Service, Northwest Fisheries Science Center, gave a PowerPoint presentation entitled "Ocean Acidification: What is it? Should we care?"

There has been a decrease in pH 0.1 over the last two centuries; a 30% increase in acidity; and a decrease in carbonate ion of about 16%. These changes in pH and carbonate chemistry may have serious impacts on open ocean and coastal marine ecosystems.

The concern for many organisms and ecosystems:

- Reduced calcification rates
- Significant shift in key nutrient and trace element speciation
- Shift in phytoplankton diversity
- Reduced growth, production and life span of adults, juveniles and larvae
- Reduced tolerance to other environmental fluctuations
- Changes to fitness and survival
- Changes to species biogeography
- Changes to key biogeochemical cycles
- Changes to food webs
- Changes to ecosystem and their services

Economic and Ecological Consequences:

- Animals with calcium carbonate shells, especially shallow water forms in the Atlantic and shallow and deep water forms in Pacific, Arctic, and Antarctic
- Bivalves, especially in shallow waters
- Carbonate shelled plankton (pteropods, some phytoplankton – those with shells)

- Crustaceans (crab, lobster, shrimp?)
- Shallow-water coral ecosystems (stony corals)
- Deep corals especially in the North Pacific
- Finfishes dependent on calcium-containing food sources

Possible Policy and Management Considerations:

Science for decision support: observation network; ecosystem model; spatial hazard assessment; infrastructure for authoritative decision support.

Research, monitoring and education

Adaptation Strategies

- Reduce other stresses that can be controlled
  - Reduce nutrient and chemical pollution
  - Manage fisheries conservatively
  - Control invasive species
- Protect biodiversity and habitats to maximize likelihood of biological adaption
- Invest in scientific research, monitoring and education

In conclusion: CO<sub>2</sub> is changing the ocean – ocean acidification is one of the impacts. OA can be thought of as a toxicological issue, but the difference is that the input is global, not local. There is uncertainty – who will be the winners and losers, what are the resulting ecosystem consequences, are there interactions with other stressors and what is the rate of change. Sustained, coordinated research is needed, and mitigation and adaptation needs to be addressed.

For more information: [www.pmel.noaa.gov/co2/story/Ocean+Acidification](http://www.pmel.noaa.gov/co2/story/Ocean+Acidification).

**Interjurisdictional Fisheries Program Report** – Steve VanderKooy

**Oyster FMP Revision**

The Oyster TTF met in December, 2010, in Galveston, Texas to wrap up most of the draft sections. Considerable time was spent line editing the majority of the document in anticipation of a task force final review. There were two sections that still needed substantial work before the FMP could be finalized and the task force has been finishing up those final assignments in January and February. This was an extensive effort overall and was much more than a rewrite of the original FMP. The document, while not yet polished, is being presented to the TCC in preparation for their review in the next few months. The document has taken considerable time to draft, dealing first with the after-effects of Katrina, Rita, and Ike, and major delays due to the Deepwater Horizon disaster and continued issues with staff time in the recovery and monitoring efforts. We thank the task force members for the considerable time they spent drafting and developing the FMP and the regional management recommendations they have provided. We look forward to providing the document for review in the next few months.



## ***Arenarius***

The *Arenarius* TTF met in January, 2011, in New Orleans, Louisiana and completed the final draft of the *Sand and Silver Seatrout Profile for the Gulf of Mexico*. In February, the staff has been working on the final edits and formatting and has provided the complete document to the TTF for their final approval. The TCC is receiving the draft Profile at their meeting to begin their 45 day review. Upon their approval, the Profile will move to the SFFMC for their review, a public comment period and finally, a review by the full Commission prior to the October GMSFC meeting. The task force dedicated a lot of time and effort to the document and is proud to present the Profile for review. We thank them for their time and hard work.

## **Crab Subcommittee**

The Crab Subcommittee has been relatively inactive related to Commission activities. They continue to work on trap cleanups within their own states. The Deepwater Horizon disaster has most of the state marine agency staff tied up with response/recovery/monitoring efforts still and we do not anticipate any specific activities through the IJF program related to stone or blue crabs in the immediate future.

## **Law Enforcement Committee**

The LEC continued to provide comment and review on the two FMP/profiles that have been under development through the IJF Program. Representatives of the LEC served on each of the two task forces and coordinated the input from enforcement. JEAs continue to be a focus in the LEC and monthly conference call opportunities are provided through the IJF Program.

## **Menhaden Advisory Committee**

The IJF staff has been working with the NOAA Fisheries Beaufort Laboratory to coordinate a peer-reviewed stock assessment of gulf menhaden through the Southeast Data and Assessment Review (SEDAR) process. The IJF Program Coordinator and the GSMFC are hosting the SEDAR 27 Data Workshop during the March meeting of the Commission. The Commission is also providing all the technical and travel support for the Assessment Workshop which is tentatively scheduled to take place in Beaufort, North Carolina, in July. This is the first time the assessment will be completed through the SEDAR process and sets the baseline for future assessments of this species. The final assessment report will be provided to SEDAR staff for the Assessment Peer Review currently scheduled for October, 2011.

The IJF Program Coordinator traveled to the NOAA Fisheries Beaufort Laboratory in November, 2010, to work with Joe Smith on the gulf menhaden Captain's Daily Fishing Reports (CDFRs), which were made electronic a number of years ago but were never made available through the GSMFC Data Program. A number of events made the project a low priority, but in anticipation of the SEDAR, Smith and VanderKooy, working with the Commission's Bob Harris, reviewed the data, repaired a number of database issues, and edited a number of problem records so that the entire

dataset, 1983-2010, will be searchable from the Commission's website. There are still some bad records that need to be identified and edited but the entire dataset from 1983-2004 has been modified to work with the new scannable forms (2005-2010) which include lat/long coordinates and generally better detail than the original CDFRs. The entire project will be completed following the SEDAR 27 Data Workshop.

### **Stock Assessment Team**

The SAT was called back to action in December, 2010, to review the out-of-date Commission FMPs and determine a priority for revision. In addition, the SAT is participating with the SEDAR 27 Gulf Menhaden Data Workshop and the Assessment Workshop later this year. The states are supplying fishery-dependent and independent data to the workshop and the SAT will be providing any necessary information related to how the data was collected and should be interpreted. It is anticipated that the SAT will also participate in the assessment itself, providing support to the Population Dynamics Team at the NOAA Fisheries Beaufort Laboratory in July. The Commission is providing travel to the SAT to attend the SEDAR.

VanderKooy provided a report prioritizing the list of out of date FMPs. The results indicate priority as blue crab, mullet, flounder and then black drum. VanderKooy asked for direction to start another FMP revision and one new species profile.

**J. Shepard made a motion that blue crab be the first revision and black drum be the second. The motion was seconded by D. Diaz. C. Blankenship amended the motion that blue crab be the first revision and flounder be second. The motion was seconded by C. Matens and passed unanimously.**

### **SEAMAP Program Report – Jeff Rester**

In 2011, SEAMAP began its 30<sup>th</sup> year of fishery independent sampling. Current SEAMAP surveys will include a Winter, Spring, Summer, and Fall Shrimp/Groundfish Survey; a Winter, Spring, and Fall Plankton Survey; a Reefish Survey; an Inshore Longline Survey; a Vertical Longline Survey; and inshore fishery independent sampling.

SEAMAP has almost finished drafting their 2011-2015 Management Plan. The SEAMAP management plan provides a statement of the current goals, management policies, procedures, and priorities for all SEAMAP components and partnerships. The 2011-2015 Management Plan is a major revision to the previous 5-year plan it should be completed in the next few weeks.

The Commission continues to handle SEAMAP data management duties in the Gulf of Mexico. The Commission has received a number of requests in the past few months for SEAMAP data related to the oil spill and the national resource damage assessment (NRDA) process. The Commission has also built several new tools to visualize SEAMAP catch data. You can currently go online and view station locations for all SEAMAP surveys since 1982. You can type in a species and see where it has been caught. You can also view catch per unit effort (CPUE) for any species caught by SEAMAP.

This can be visualized for a single year or for several years at one time. This information can be viewed at <http://seamap.gsmfc.org>.

### **Sportfish Restoration Program Report** – James Ballard

The Artificial Reef Subcommittee held a joint meeting with the ASMFC's Artificial Reef Subcommittee on March 1-2, 2011 in St. Petersburg, Florida. Some of the topics discussed at this meeting were the reefing project on the ex-*Arthur W. Radford* off the coast of Delaware, results of the continued monitoring of the stainless steel subway cars reefed off the east coast, the conflicts between the commercial and recreational fishing sectors on artificial reefs and how the use of SMZs may alleviate them, and an update on the PCB testing in recreationally caught fish on the ex-*Oriskany* reef. The second day of the meeting focused on issues/activities in the Gulf of Mexico. The Subcommittees heard an update from BOEMRE on their Idle Iron and Rigs-to-Reefs programs and then had a long discussion on them and some of the issues that are arising in the Gulf states. The remainder of the meeting was spent in a discussion about the Gulf-wide monitoring program that the GSMFC's Subcommittee is trying to establish. The Gulf Subcommittee decided that they would like to have an artificial reef monitoring workshop in conjunction with the October GSMFC Annual Meeting. The goal of this workshop will be to bring together agencies and universities with experience in carrying out long term monitoring projects to make sure that the program we put together will collect data that is usable and comparable across the Gulf.

The Program Coordinator is exploring funding opportunities to support the previously mentioned Gulf-wide artificial reef monitoring program.

The next Joint Artificial Reef Subcommittee meeting will be held in the spring of 2012.

In an attempt to work more cooperatively, the TCC Fisheries Outreach Subcommittee met in conjunction with the Gulf of Mexico Fishery Management Council's Outreach and Education Advisory Panel meeting on January 12-13, 2011 in Tampa, Florida. The two groups found a real benefit to this cooperation and expressed an interest in continuing the effort. During the TCC Subcommittee's meeting there was a discussion of outreach activities as a result of the Deepwater Horizon oil spill. All states had some new activities as a result of the spill; however, Mississippi and Louisiana reported that they had stopped most of their ongoing outreach activities and were working exclusively on oil spill related ones. Following this discussion, each member state/agency gave an update on their outreach activities. During this part of the meeting, the real benefit of this new Subcommittee became apparent. Since the first meeting of this group in March of 2010, three new outreach efforts have been started in Gulf states by borrowing the idea from other states. The Subcommittee elected Rich Abrams as its Chairman and Lauren Thompson as Vice Chairman.

### **Fisheries Information Network Program Report** – David Donaldson

The Fisheries Information Network (FIN) is a state-federal cooperative program to collect, manage, and disseminate statistical data and information on the marine commercial and recreational fisheries of the Southeast Region. The FIN consists of two components: Commercial Fisheries Information Network (ComFIN) and the Southeast Recreational Fisheries Information Network [RecFIN(SE)].

The scope of the FIN includes the Region's commercial and recreational fisheries for marine, estuarine, and anadromous species, including shellfish. Constituencies served by the program are state and federal agencies responsible for management of fisheries in the Region. Direct benefits will also accrue to federal fishery management councils, the interstate marine fisheries commissions, the National Park Service, the U.S. Fish and Wildlife Service, and the NOAA National Marine Sanctuaries Program. Benefits that accrue to management of fisheries will benefit not only commercial and recreational fishermen and the associated fishing industries, but the resources, the states, and the nation.

The mission of the FIN is to cooperatively collect, manage, and disseminate marine commercial, anadromous and recreational fishery data and information for the conservation and management of fishery resources in the Region and to support the development of a national program. The four goals of the FIN include planning, managing, and evaluating commercial and recreational fishery data collection activities; to implement a marine commercial and recreational fishery data collection program; to establish and maintain a commercial and recreational fishery data management system; and to support the establishment of a national program.

The organizational structure consists of the FIN Committee, two geographic subcommittees (Caribbean and Gulf), standing and ad hoc subcommittees, technical work groups, and administrative support. The FIN Committee consists of the signatories to the MOU or their designees, and is responsible for planning, managing, and evaluating the program. Agencies represented by signatories to the MOU are the National Marine Fisheries Service, U.S. Fish and Wildlife Service, National Park Service, Alabama Department of Conservation and Natural Resources, Florida Department of Environmental Protection, Louisiana Department of Wildlife and Fisheries, Mississippi Department of Marine Resources, Puerto Rico Department of Environmental and Natural Resources, Texas Parks and Wildlife Department, U.S. Virgin Islands Department of Planning and Natural Resources, Caribbean Fishery Management Council, Gulf of Mexico Fishery Management Council and Gulf States Marine Fisheries Commission.

The FIN Committee is divided into two standing subcommittees representing the major geographical areas of the Region: Caribbean and Gulf of Mexico. These subcommittees are responsible for making recommendations to the Committee on the needs of these areas. Standing and ad hoc subcommittees are established as needed by the FIN Committee to address administrative issues and technical work groups are established as needed by the Committee to carry out tasks on specific technical issues. Coordination and administrative support of the FIN is accomplished through the Gulf States Marine Fisheries Commission.

## **ITEMS INCLUDED FOR FUNDING IN 2011 FIN COOPERATIVE AGREEMENT**

### ***Coordination and Administration of FIN Activities***

***\$412,000***

This task will provide for the coordination, planning, and administration of FIN activities throughout the year as well as provide recreational and commercial information to the FIN participants and other interested personnel. This is a continuation of an activity from the previous year. This activity pertains to all modules of the program.

***Collecting, Managing and Disseminating Marine Recreational Fisheries Data* \$2,943,000**

This task will provide for the conduct of the MRFSS survey in Louisiana, Mississippi, Alabama, Florida and Puerto Rico for shore, for-hire, and private modes. This task will provide for coordination of the survey, an intercept survey of shore, for-hire and private boat anglers to estimate angler catch using the existing MRFSS methodology, and entry of the data. The states will also conduct weekly telephone calls to a 10% random sample of the Louisiana, Mississippi, Alabama, and Florida charter boat captains to obtain estimates of charter boat fishing effort. This is a continuation of an activity from the previous year. This activity pertains to the Recreational Catch/Effort Module for all modes of FIN.

***Head Boat Port Sampling in Texas and Florida* \$231,000**

This task will provide for the sampling of catches, collection of catch reports from head boat personnel, and gathering effort data on head boats that operate primarily in the Exclusive Economic Zone from ports along the coasts of Texas and Florida. This is a continuation of an activity from the previous year. This activity pertains to the Recreational Catch/Effort Module for the for-hire mode of FIN.

***Operations of FIN Data Management System* \$226,000**

This task will provide for operations of the data management system for the FIN. This task will provide funding for the FIN Data Base Manager, ComFIN Programmer and part-time Metadata Coordinator. Responsibilities include further development of data modules structures; routine loading of Louisiana, Mississippi (oyster and finfish only) Alabama, and Florida commercial catch data, Gulf biological data, Gulf recreational data; enter and maintain the metadata records into the InPort system and maintenance of DMS. This is a continuation of an activity from the previous year. This activity pertains to the Data Management Module of FIN.

***Biological Sampling of Commercial and Recreational Catches* \$1,048,000**

This task will provide funding for collection of biological data from the recreational and commercial fisheries. These data are essential to accurately assessing the status of commercial and recreational species. For the commercial aspects, port sampling will be collecting this information based on established guidelines. For the recreational side, samplers will go to sites and collect the necessary biological data using a modified MRFSS method. This task provides funding for collection, processing and analysis of these data. The primary target species include black drum, gag, gray snapper, gray triggerfish, greater amberjack, king mackerel, red drum, red grouper, red snapper, sheepshead, flounders (Gulf & southern), spotted seatrout, striped mullet and vermilion snapper. The secondary target species include Spanish mackerel, scamp, yellowtail snapper, cobia, black grouper, black sea bass, red porgy, snowy grouper, speckled hind and Warsaw grouper. This is a continuation of an activity from the previous year. This activity pertains to the Biological Sampling Module of FIN.

***Improvement of Quality and Completeness of Marine Recreational Fishing License/Registry Databases* \$850,000**

This task will support the development of state registration and/or licensing programs that will meet the requirements for development and maintenance of a complete and regularly-updated National Registry of marine recreational fishing participants. The job will address the following issues: Improve the completeness and accuracy of the states' license and registry database content, including the information specified in 50 CFR 600.1416(a); Implement enhancements to the states' license and registry database coverage consistent with the requirements of 50 CFR 600.1416(d) and address improvements to the state programs as specified in the Memoranda of Agreement between the states and NOAA pursuant to 50 CFR 600.1415(b)(2); enable the states to update their license and registry databases and submit updated registry data to NMFS and survey operators monthly; and develop methods for achieving the above goals that are shared among the states. This is a continuation of an activity from the previous year. This activity pertains to the Recreational Catch/Effort Module of FIN.

**GRAND TOTAL**

**\$5,959,000**

**Habitat Program Report** – Jeff Rester

The Gulf of Mexico Fishery Management Council (Council) submitted their 5-Year EFH Review Report to NMFS in November as required by the Magnuson-Stevens Act. The literature review provided new information on some managed species' habitat utilization, but the new literature did not provide information that would dramatically alter current EFH designations and descriptions. New larval species distribution maps were produced from SEAMAP data and were the largest contribution of new information on defining EFH. Five new banks off Louisiana were proposed as habitat areas of particular concern (HAPC) based upon recommendations from the Flower Gardens Bank National Marine Sanctuary staff. The Pinnacle Trend area off Alabama and Mississippi was also proposed as a HAPC. The fishing impacts on habitat literature review did not produce any new evidence or understanding on how current fisheries in the Gulf of Mexico are impacting habitat. Since the 2005 EFH Amendment, one potentially destructive gear, fish traps, has been banned in the Gulf of Mexico. Recreational and commercial fishing effort has declined in recent years. Possible specific actions to consider in a future EFH Amendment update are: 1) use SEAMAP plankton data to designate and describe EFH for the early life history of managed species; 2) consider additional HAPC designations; and 3) refine EFH maps to species and life-stages and provide higher resolution of spatial EFH representation.

The Council's Texas Habitat Protection Advisory Panel (Texas AP) met in December. The Texas AP discussed the long-term recovery plan after the Deepwater Horizon oil spill, the National Ocean Policy Task Force, several wetland restoration projects in west Galveston Bay, the Deepwater Horizon oil spill, the National Resource Damage Assessment (NRDA) process, the Gulf of Mexico Alliance Regional Sediment Management Plan, and the Council's EFH 5-Year Review Report.

The Council's Louisiana/Mississippi Habitat Protection Advisory Panel (Louisiana/Mississippi AP) met in December also. The Louisiana/Mississippi AP met and discussed fishery modeling analyses for water resource projects, mitigation and restoration for damages to habitat from preventative oil spill protective work, the long-term recovery plan after the Deepwater Horizon oil spill, the status and future of the Coastal Wetlands Planning, Protection, and Restoration Act Program, the Louisiana

state master plan prioritization process, the NRDA process in Louisiana, and the Council's EFH 5-Year Review Report. The Louisiana/Mississippi AP also recommended that the Gulf Council task staff with determining how to actively engage in the Gulf Coast Ecosystem Restoration Task Force and NRDA processes to ensure that the impacts to marine fisheries, their EFH, and restoration potential for both are address in both forums.

### **Aquatic Nuisance Species Program Report** – James Ballard

- The Gulf and South Atlantic Regional Panel (GSARP) on Aquatic Invasive Species held its fall meeting on October 27-28, 2010 in St. Petersburg, Florida.
- The Program Coordinator attended/participated in the Aquatic Nuisance Species Task Force's (ANSTF) fall meeting held November 3-4, 2010 in Arlington, Virginia.
- State Aquatic Nuisance Species Plans:
  - Alabama, Georgia, Louisiana and South Carolina have completed plans and are actively implementing them.
  - Mississippi's plan has gone through the preliminary review by the ANSTF and they are working on incorporating the recommended changes.
  - Florida has a completed plan but it has not been approved by the ANSTF.
  - Texas will soon submit the final drafts of their plan to the ANSTF for review.
  - North Carolina is in the preliminary stages of formulating their plan.
- The Program Coordinator and GSARP are exploring other funding possibilities to secure money so the Panel can start to be more proactive in their efforts to monitor and control aquatic invasive species in the Gulf and South Atlantic Region.
- The Panel is keeping a close eye on the spread of lionfish. The number of lionfish sightings along the east coast and in the Caribbean is continuing to increase. Along with expanding its range, lionfish densities in the invaded range are reaching levels eight times higher than in their native range. In December 2009, two specimens were collected north of the Yucatan, which were the first confirmed sighting of established lionfish in the Gulf of Mexico. In 2010 lionfish have continued to spread with over 50 sightings in Gulf waters with 10 from the northern Gulf. The Program Coordinator developed a lionfish wanted sign to encourage anyone that may encounter a lionfish to report the sighting to the USGS. These signs are being placed in dive shops, bait shops, marine agencies and other locations around the Gulf where people that may encounter a lionfish will see them. These reports will be very important in tracking the lionfish invasion in the Gulf of Mexico and getting an idea of the habitats they are utilizing and their densities.
- The Panel's Information Management Work Group has been, and will continue to review and update the content of the new GSARP website to make sure it stays as current as possible.
- The Panel's Rapid Response Work Group has drafted a new rapid response plan that incorporates the Incident Command System and elements of other plans that have been used



across the country. The Work Group held a meeting in July to review/edit this new document and presented the revised draft to the full Panel at their meeting in October. Following the October Panel meeting, the work group held another meeting to further refine this document and will continue to work over the next few months to hopefully have a final draft for the full Panel to review before their spring meeting.

- **Subcontract Awards**

The Panel voted to fund three projects in 2011 at their fall 2010 meeting.

1. The AIS Traveling Trunk:

The project will develop and produce a traveling trunk of hands-on invasive species examples. Included will be an annotated outline of talking points for presentation to Secondary school students and laymen. The material will cover: definitions, sources, ecological impacts, economic costs (when available), suggested public actions, and websites for additional information. The invasive flora and fauna material will contain bullets covering native origin, purpose of introduction (if intentional), route and a brief life history with ecological and economic impacts. A CD of the talking points and species will be included for visual presentation. The updated listing of invasive species under preparation will be included for reference. The "Traveling Trunk" will be created in a container that can be easily sent by mail. The GSARP office at the GSMFC will be requested to house the "Trunk" and a \$200 allowance is part of the budget to cover shipping costs. Return will be at the borrower's expense. Notice of availability is intended to be posted on the GSARP website. No viable materials/specimens will be in the final product.

2. Trojan Y Chromosome Eradication of Invasive Fish – Development of Sex-specific DNA Markers:

A means of inducing extinction of an exotic population was recently proposed using a genetic approach to shift the ratio of male to female within a population. In the proposed strategy, a "Trojan YY fish" consisting of a sex-reversed fish containing two Y chromosomes are introduced into a normal fish population. These YY fish result in the production of a disproportionate number of male fish in the population in subsequent generations. For this study, Nile tilapia, *Oreochromis niloticus*, which have become established in several GSARP states, will be utilized because they have an XY sex-determination system and both male and female YY fish of this species have been produced using hormone induced sex-reversal combined with selective breeding. In order to test the feasibility of a Trojan Y Chromosome eradication strategy for *O. niloticus*, YY broodstock must first be developed. The primary difficulty in developing YY broodstock is correctly identifying the sex chromosome genotype of fish used in the breeding program. Sex-chromosome genotyping of fish could be greatly facilitated if DNA probes specific to the *O. niloticus* sex chromosomes were available. The purpose of this study is to identify these sex-specific DNA markers. Randomly amplified polymorphic DNA (RAPD) fingerprinting

techniques that have been successfully applied to other species will be applied to *O. niloticus*. Novel sex-specific PCR products will be identified that are specific to either female or male individuals. Markers will then be tested on sex-reversed fish to determine their utility in YY broodstock development.

### 3. Reproductive Sterility as Tool for Prevention and Control of Invasive Aquatics:

Nonindigenous apple snails present two problems in the GSARP region. First, the species *P. insularum* is widespread throughout the region and no method currently exists for eradication. Second, aquarium dumping remains a potential route for new introductions of nonindigenous apple snails into watersheds in the region. This study will address both of these problems. To address the first problem, two alternative approaches for irradiation will be developed to generate sterile snails in high yields. Triploidy and chromosomal translocations in *P. insularum* will be investigated as new methods for producing sterile apple snails for release. To address the second problem, reproductively sterile apple snails of two species in demand as ornamentals in the aquarium trade will be produced.

- The Spring GSARP meeting is set for April 12-13, 2011 in Charleston, South Carolina.
- The Spring ANSTF meeting is set for May 4-5, 2011 in Little Rock, Arkansas.

## **Emergency Disaster Recovery Program/Oil Disaster Recovery Report** – Ralph Hode

### **Resource Recovery Program - EDRP I**

The Resource Recovery program of September 2006 was approved by Congress specifically for fisheries resource recovery and was directed toward oyster restoration, habitat rehabilitation, and cooperative research aimed at defining post-Katrina/Rita fish stock recoveries. As the pass-through agency, GSMFC is charged with coordinating the distribution of these funds which amount to \$127 million. The Gulf States Marine Fisheries Commission's overall objective in doing so is that of assuring:

- that spending remains within budget and within approved work programs;
- that the States have ample opportunity to utilize these appropriations where they are most needed;
- that funding was made available when it was needed most so that State budgets were minimally impacted as recovery efforts were implemented;
- and, that NOAA's National Marine Fisheries Service (NMFS) as well as Congress are kept abreast of recovery progress, changes, and related spending.

### **Gulf-Wide Spending Overview - Through mid February 2011**

Combined expenditures, as indicated in Table 1 for all sub-awards under this "first supplement" were approximately \$104 million through February 2011. This amounts to nearly 81.5 percent of the \$127 million resource recovery budget and leaves approximately \$23.6 million to be utilized over the five months remaining in the EDRP I grant period.

Because the States are not likely to complete scheduled work within the remaining time period, all five states have requested no cost grant extensions to cover time lost due to the two hurricanes in 2008, the Midwest floods of 2008 and the Deepwater Horizon Oil Disaster in 2010. The Commission has been granted a no cost grant extension until August 31, 2012 and has authorized state extensions as necessary to accommodate these additional time needs.

GSMFC administrative cost, amounting to less than 0.6 percent, was programmed for only five years. In order to accommodate the extensions, projected additional admin costs based on historical monthly costs over the past 55 months, have been prorated based on individual state funding levels. Accordingly, each state has been asked to contribute to these costs by reducing programmatic budgets and each was given the flexibility to determine which sub-wards would be reduced in order provide the needed EDRP I administrative funding increases.

**Table 1 EDRP I – Categorical Spending by State through February 2011**

<u>Florida Dept of Ag. and Consumer Services/Aquaculture</u>	<u>Accumulative Total</u>	<u>5 yr Budget*</u>	<u>% to date</u>
OR-RRR-020-2006-04 Public Reefs	1,502,948.73	2,994,700.00	50.19%
OB-SGR-021-2006-04 Private Leases	307,967.81	813,600.00	37.85%
<b><u>Florida F&amp;WCC/FFWRI</u></b>			
CR-M-022-2006-04 Cooperative Research	344,431.27	425,033.00	81.04%
<b><u>Alabama DC and NR</u></b>			
OR-RRR-020-2006-03 Oyster Grounds Rehab	4,468,868.85	5,716,306.00	78.18%
1-OB-SGR-021-2006-03 Habitat Mapping	221,251.68	221,251.68	100.00%
2-OB-SGR-021-2006-03 Shrimp, Oyster and Shellfish Habitat	4,787,359.91	5,570,355.00	85.94%
1-CR-M-022-2006-03 Egg/Larval Distribution and Mortality	4,235,663.71	5,324,706.00	79.55%
2-CR-M-022-2006-03 Cooperative Research	11,295,984.64	12,800,916.00	88.24%
<b><u>Mississippi Dept of Marine Resources</u></b>			
OR-RRR-020-2006-02 Oyster Reef Restoration	12,162,966.22	14,861,056.00	81.84%
OB/SGR-021-2006-02 Oyster, Shrimp Ground Restoration	7,720,015.51	12,000,000.00	64.33%
CR-M-022-2006-02 Cooperative Research	9,159,430.22	10,180,612.00	89.97%
<b><u>Louisiana Dept of Wildlife and Fisheries</u></b>			
OR-RRR-020-2--6-01 Restoration of Oyster Reefs	22,019,443.72	23,500,000.00	93.70%
OB-SGR-021-2006-01 Rehab Oyster beds and Shrimp Grounds	7,171,050.78	10,173,918.00	70.48%
CR-M-022-2006-01 Coop Research and Monitor Gulf Fisheries	16,121,228.14	19,242,750.00	83.78%
<b><u>Texas P&amp;W Coastal Fisheries Div.</u></b>			
OR-RRR-0-20-2006-05 Habitat Mapping - Oysters	1,313,862.72	1,814,940.00	72.39%
OB/SGR-021-2006-05 Habitat Restoration - Oysters and Shrimp	535,801.20	977,260.00	54.83%
CR-M-022-2006-05 Debris location and removal	73,950.45	382,800.00	19.32%
<b>All States Totals</b>	<b>104,176,551.74</b>	<b>127,000,002.68</b>	<b>81.54%</b>
* As Amended			

## Categorical Spending Trends

Trends in spending since 2006 indicated that the Oyster Rehabilitation programs accounted for the majority of past spending, followed closely by Cooperative Research - [Figures 1 and 2](#). All three programs clearly reflect down turns in 2008 which were prompted by Hurricanes Ike and Gustav in late 2008 and lower Mississippi River flood control actions because of spring floods in the Midwestern portion of the US during the early summer of 2008.

However, since December of 2009 the oyster program has reflected a decline in overall spending - while there has been an increase in both the cooperative research and habitat components. Primary contributors to these changes are:

### Oyster Rehabilitation

- The oyster rehabilitation assistance program in [Louisiana](#), which had the largest program of all Gulf states, was essentially completed by the end of 2009; however, LDWF continues its efforts to establish a native oyster stock hatchery
- Cultch plants originally scheduled for the spring of 2010 in [Mississippi](#) were delayed due the oil spill and are scheduled for spring and fall 2011;
- [Alabama](#) had little or no oyster production during 2009 due to high salinities in previous years, discouraging cultch plants except in isolated areas where oyster drill presence was minimal.
- [Texas](#) delayed cultch plants as it examined its reefs and removed debris from Hurricanes in late 2008;
- [Florida](#) continued with plants in areas unaffected by the oil spill but, like Mississippi and Alabama proceeded with caution so as not rehabilitate potential impact areas.

As indicated in [Figure 2](#), approximately \$7.6 million remains in the oyster budget and the majority of these funds are expected to be utilized beginning in the spring of 2011 and extending into 2012. Work effort is expected to be about equal in each of the five Gulf States as each showed oyster budget balances between one and one and a half million dollars per state. Additional work is expected in Louisiana's oyster hatchery program and cultch plants are expected in the remainder of the Gulf States during the extended time period. All states continue to monitor recruitment to restored reefs under this program.

### Cooperative Research

- The primary contributor to increased spending under the Cooperative research category is reflected in [Louisiana's](#) post disaster seafood/marine industry business recovery survey wherein processors, dealers, marinas, and related businesses and industries were compensated for the provision of detailed economic data pertaining to recovery and operations costs;
- Completion of the saltwater intake system at the Claude Peteet Mariculture center; and offshore egg and larval studies in [Alabama](#);
- Continued artificial reef restoration and research and blue crab and snapper research through the Gulf Coast Research Laboratory in [Mississippi](#);

- While both Florida and Texas have Cooperative Research components these were small by comparison and contributed minimally to the increased trends during the period 2009 to present.

As indicated in Figure 2, approximately \$7.2 million remain in the Cooperative Research budget and these are expected to be utilized over the extended time period for additional artificial reef work in Mississippi and ongoing research efforts in Louisiana, Mississippi and Alabama.

**Habitat Restoration**

- The primary increase in habitat spending was seen in Alabama when the Little Bay shoreline restoration project was completed 2010.

The habitat component has remained consistently low except for 2007 where significant expenditures were seen in debris removal efforts in Louisiana. As indicated in Figure 2, this component currently retains approximately \$9 million in unspent funds; and it is expected to be amended to re-allocate much of this balance to continued and expanded oyster restoration efforts.

**Figure 1.**

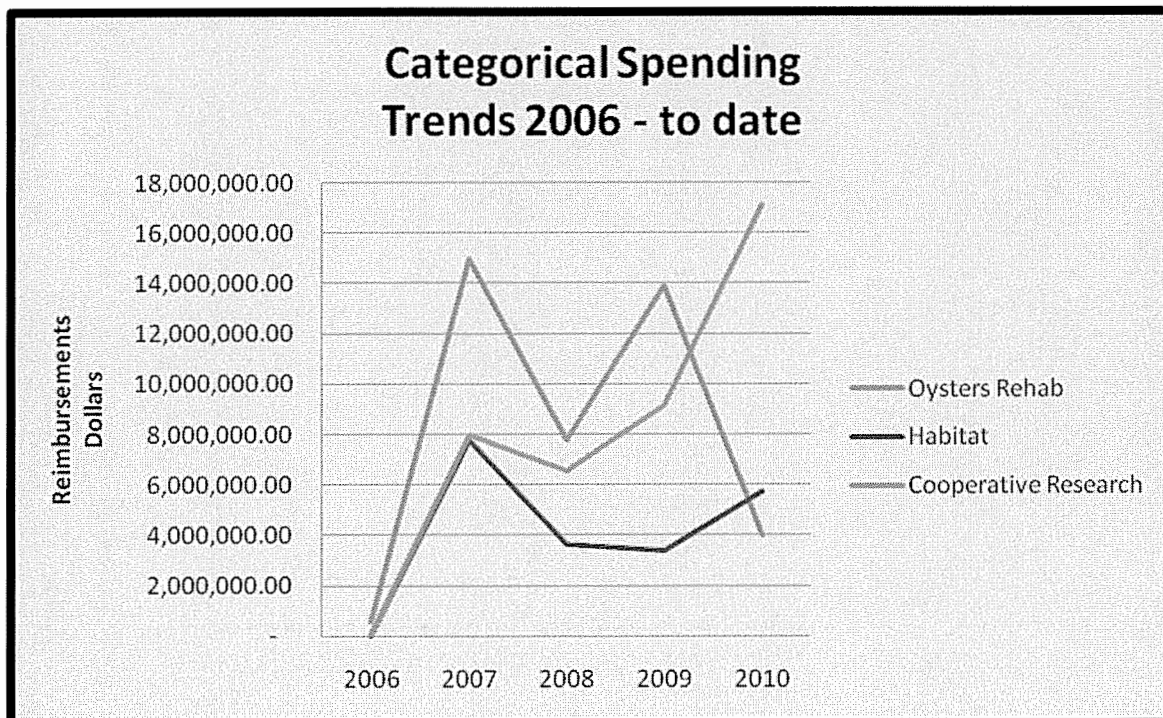
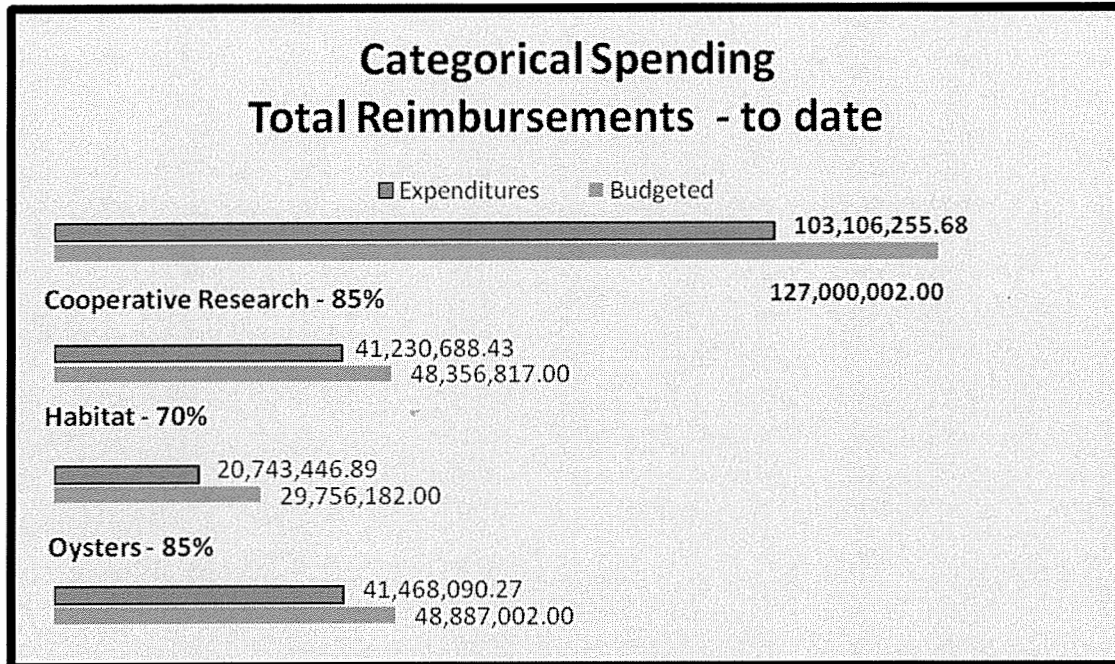


Figure 2.



### Economic Assistance Recovery Program - EDRP II

The Economic Assistance Recovery program of September 2007 was approved by Congress specifically to provide economic assistance to impacted fishermen, businesses and industry across the Gulf as they recovered from the effects of Hurricanes Katrina, Rita and Wilma in 2005. Funds under this \$85 million appropriation were designated for a number of components including *Assistance for Commercial Fishermen, Assistance for Business and Industry, Seafood Testing, and Domestic Product Marketing of Gulf seafood*. The appropriation also provided additional assistance for fishermen compliant with *TED and BRD* regulations. GSMFC is responsible for coordinating the distribution of these funds; and, as such must provide the same assurances as in the EDRP I appropriation.

Combined expenditures, as indicated in Table 2 for all sub awards under this appropriation amounted to \$69,160,666.44 through February 2011. This amounts to nearly 81 percent of the \$85 million assistance budget and leaves approximately \$15 million to be utilized over the remaining 18-24 month period. Because the expenditures under this award are ahead of the grant cycle time line, there is little reason to believe that the States will need extend grant periods.



**Table 2 EDRP II – Categorical Spending by State *through February 2011***

<u>Florida Dept of Ag. and Consumer Services/Aquaculture</u>	<u>Accum. Total</u>	<u>5 yr Budget</u>	<u>% to date</u>
ASBI-023-2007-05 Assistance for Business and Industry	77,374.05	1,500,000.00	51.82%
<b><u>Florida F&amp;WCC/FFWRI</u></b>			
TBC-024-2007-05 TEDs and BRDS Assistance	40,000.00	40,000.00	100.00%
ACF-025-2007-06 Economic Assistance to For Hire Fleet	197,304.57	460,000.00	42.89%
<b><u>Alabama DC and NR</u></b>			
ASBI-023-2007-04 Assistance for Business and Industry	10,645,000.21	10,800,000.00	98.56%
TBC-024-2007-04 TEDs and BRDS Assistance	300,000.00	300,000.00	100.00%
ARHE -026-2007-04 Assistance to Fishermen	2,011,635.41	3,900,000.00	51.58%
<b><u>Mississippi Dept of Marine Resources</u></b>			
ASBI-023-2007-03 Assistance for Business and	8,673,245.79	14,000,000.00	61.95%
ACF-025-2007-03 Assistance to Fishermen	6,024,231.59	6,300,000.00	95.62%
DPM-027-2007-03 Domestic Product Marketing	458,393.44	550,000.00	83.34%
TBC-028-2007-03 TEDs and BRDS Assistance	643,434.26	750,000.00	85.79%
ST-028-2007-03 Seafood Testing	1,680,799.18	3,400,000.00	49.44%
<b><u>Louisiana Dept of Wildlife and Fisheries</u></b>			
ACF-025-2007-02 Assistance to Fishermen	36,034,014.17	39,153,631.00	92.03%
TED-BRD Compliance Portion	825,426.00	825,460.00	100.00%
DPM-027-2007-02 Domestic Product Marketing	276,524.28	1,293,909.00	21.37%
<b><u>Texas P&amp;W Coastal Fisheries Div.</u></b>			
ASBI-023-2007-01 Assistance for Business and Industry	314,895.33	1,173,000.00	26.85%
TBC-024-2007-01 TEDs and BRDS Assistance	27,000.00	27,000.00	100.00%
<b>All States Totals</b>	<b>68,902,278.28</b>	<b>84,473,000.00</b>	<b>81.57%</b>
<b>GSMFC - Administration</b>	<b>231,388.16</b>	<b><u>442,000.00</u></b>	<b>52.35%</b>
<b>Program Totals</b>	<b>69,133,666.44</b>	<b>84,915,000.00</b>	<b>81.47%</b>

## Categorical Spending Trends

Trends in spending under this award (Table 3) indicate that the **TED BRD component** is complete. Even though some budget balances still exist under this component, the congressionally required 2% has been met and fund balances amounting to approximately \$66 thousand are being re-programmed for related bi-catch reduction initiatives.

Nearly 90 percent of the **Assistance to Fishermen** (commercial) (ACF) sub awards have been distributed to date. However, a number of states are utilizing portions of these funds for indirect assistance to provide access and habitat improvements that will have long term benefits to fishermen. As a result, this component is “expected” to take longer to reach completion.

Approximately 81 percent of the **Assistance to Business and Industry Category** has been completed; but, like the ACF sub awards, a portion of these funds are being used for access and habitat improvements that will have long term benefits. The remainder of this component is also not expected to be completed until near the grant end date.

Both the **Domestic Product Marketing** and the **Seafood Testing** components are programmed for long term implementation and are expected to reflect lower spending levels at this time.

**Table 3**

<u>Cumulative Spending EDRP II</u>	<u>Totals to date</u>	<u>Tot. Budgeted</u>	<u>% of Budgeted</u>
<u>Assistance for TED BRD Compliance</u>	1,775,866.26	1,842,460.00	96.4%
<u>Assistance to Fishermen</u>	44,327,179.74	49,813,631.00	89.0%
<u>Assistance to Business and Industry</u>	20,410,515.38	25,201,622.00	81.0%
<u>Domestic product Marketing</u>	734,917.72	1,943,909.00	37.8%
<u>Seafood Testing</u>	1,680,799.18	5,671,378.00	29.6%
Total States	68,929,278.28	84,473,000.00	
<u>Administration</u>	231,388.16	442,000.00	
Total	69,160,666.44	84,915,000.00	81.45%

## Oil Disaster Recovery Program

The Oil Disaster Recovery Program, which was authorized October 1, 2010, remains in its initial stages of implementation. Most progress to date has been seen in the administrative and planning arena and related expenditures have been primarily for meetings, travel and related administrative costs. Summary budget information is shown in Table 4. However, expanded reports reflecting sub awards and/or contracts associated with these elements will be developed to indicate progress as the overall program matures.

Table 4 - ODRP Summary Budget

Sub component	Budget Amount	Expenditures to date	% to date
Administrative	1,585,760.00		
Direct Marketing *	7,691,290.00		
Seafood Certifications	3,960,000.00		
Seafood testing	1762950.00		
Grant Match Assurances	5,000,000.00	5,164,800.00	100.00
	20,000,000.00		

\*Includes plan development and direct marketing (\$6,191,290), and web based marketing (\$1,500,000).

A number of meetings and conference calls beginning in June 2010 have resulted in the establishment of the general plan of action as reflected in the ODRP Summary Budget above and approved by NOAA's Grants Management Division. Actions to date under each of these elements include:

### Direct Marketing

- Gulf Marketing Plan – Approval has been received for the establishment of a Gulf Seafood Marketing Coalition and associated contractual services to develop a Gulf Seafood Marketing Plan, immediate and short term marketing strategies, and initiatives for long term program funding. An Ad Hoc oversight committee composed of the Marine Directors of the five Gulf States has been established to consider and approve marketing strategies recommended by the Coalition.

Proposals have been received and a contract with the Gulf and South Atlantic Fisheries Development Foundation is currently being finalized to work with the Coalition for plan development and implementation.

Four marketing enhancement initiatives have also been approved to date and are being coordinated by GSMFC staff. These include a sub award with the Louisiana Seafood Marketing Foundation for support of the Great American Cook-off in New Orleans in 2012 and 2013, an Oyster Culinary event in Washington in 2011, 2012 and 2013, and a seafood culinary event in the Ontario area (time to be determined).

Additionally approved is a Gulf wide Marketing project at the Seafood Sustainability Exposition conducted annually at the Smithsonian Institute of Natural History in Washington. This event will take place in June of 2011 and has tentative commitments for participation from all five Gulf States.

- Web Based Marketing – Approval has been received through the AD HOC Advisory committee for funding of web-based marketing programs in Texas and Alabama and to support existing web-based marketing programs in all five Gulf States where requested. GSMFC staff is currently working with the Sea Grant services of the five Gulf States in an effort to assure regional opportunities and provide outreach and education which is necessary for the success and utilization of web-based marketing programs.

Seafood Certifications - in support of the overall marketing initiative the Ad Hoc Advisory committee has authorized the implementation of a number of activities aimed at providing sustainability certifications of eligible Gulf seafood products. Initial actions include:

- Rapid Assessment – Proposals have been received and a contract is being negotiated for a rapid assessment of past and/or on-going specie certification efforts across the Gulf; and, for assessment and recommendations for those species likely to achieve sustainability certifications. By identifying those species which are likely to meet accepted criteria for certifications, Gulf States will be positioned to proceed with full certification – ultimately resulting in the “Sustainable Seafood” labeling of approved products and the opening of markets currently or potentially closed to Gulf products because of a lack of quality and sustainability certifications labels.
- Traceability – In concert with the Rapid Assessment element, GSMFC staff has been authorized to proceed with request for proposals for development of traceability programs in the Gulf. Traceability is a critical component of accepted criteria necessary to receive certification labeling; and, is a mechanism by which quality and product source can be examined.

Seafood Testing – In order to further assure that the seafood harvested from the Gulf is safe for consumption, an expanded testing program was approved by the Ad Hoc Committee. The testing component provides funding for the acquisition of necessary testing equipment and related training

so that states can continue to sample and test seafood taken for their respective waters. The intent of this element is to expand product testing and to continue to assure gulf seafood quality.

To date, only Alabama and Texas have expressed interest in participating in this element. However, the remaining states have indicated that decisions to take advantage of these opportunities are dependent upon alternate testing funding proposal currently being considered by British Petroleum Industries.

### **Economic Data Program Report** – Alex Miller

#### *Introduction*

As part of an effort to improve economic data collection and management of the recreational and commercial fisheries throughout the Southeast Region, an Economics Program was formed in July of 2008. The economics program is a cooperative partnership among Texas, Louisiana, Mississippi, Alabama, Florida, the Gulf States Marine Fisheries Commission (GSMFC), and NOAA's National Marine Fisheries Service (NOAA fisheries). The program monitors the economic performance of the fisheries of the Gulf of Mexico (GOM) and assesses the economic impacts of these fisheries on the local and regional economy. In general, the activities of the economics program are divided into three main components. These components include economic data collection, economic research and analysis, and economic outreach and dissemination. These initiatives were further developed throughout late 2010 and early 2011.

#### *Data Collection*

In conjunction with the Fisheries Information Networks' (FIN) Social/economic Workgroup, the GSMFC coordinates, plans, and conducts specific economic data collection projects throughout its five member states. Economic data collection projects in progress during late 2010 and early 2011 included an economic survey of the GOM inshore shrimp fleet, an economic survey of fishing related businesses in the GOM, and a marine angler expenditure survey for the GOM. Additionally, a marine recreational use survey was also under the development phase. Results from these studies will aid in describing the economic performance as well as the economic impacts of these industries. More specifically, economic data and analysis will contribute to a better understanding of the economic contributions that these industries have on the local and regional economies. It is the intent that the collection of dependable economic data will further maximize the economic and ecological benefits of fisheries resources while reducing negative costs to coastal communities throughout the Gulf.

#### *Inshore Shrimp Fleet*

An economic survey of the inshore shrimp fleet was the most well developed project under the economic data collection component of the program throughout late 2010 and early 2011. Cited as one of the most valuable fisheries within United States, the GOM commercial shrimp fishery constitutes fishing pressure from both an offshore fleet as well as an inshore shrimp fleet. Following recent data collection efforts conducted by NOAA fisheries for federally permitted vessels that harvest shrimp in waters offshore, this study is in the process of providing a systematic economic analysis of an important economic segment—the inshore shrimp industry—which has not previously been examined with such depth and rigor. Existing economic data for commercial shrimping in state waters are often piecemeal, outdated, or not fully relevant. Having such information in hand will

enable fisheries managers, commercial shrimpers, and others who utilize shrimp resources to form unbiased conclusions and will lead to improved fisheries management decisions.

Therefore, the GSMFC, in collaboration with the Louisiana Department of Wildlife and Fisheries, have gathered up-to-date economic data about the economics of commercial shrimping in inshore or state waters across the GOM. These data include information on revenue, operating costs, annual expenditures, employment data, and vessel characteristics of the inshore shrimp fleet. In late 2008, the GSMFC obtained the cooperation and support of the relevant state regulatory agencies and several industry groups in each of the five Gulf States. During the early part of 2009, sampling frame development and selection took place for each of the states. A survey instrument was also developed at this time and tested through scoping meetings in each of the Gulf States. The survey and subsequent reminders were mailed throughout the spring of 2009. A total of 589 surveys were returned. During October of 2009 a non-response survey was mailed to individuals who had not responded to the initial survey. A total of 170 non-response questionnaires were returned.

As of 2010, data from all returned questionnaires had been entered into a database. The data in the database were inspected and compared to the questionnaires to assure the fidelity of the data to the original source. The database was further studied to identify response patterns, incomplete responses, outliers, and similar matters. While working in conjunction with the SEFSC and the Louisiana Department of Wildlife and Fisheries, the data were cleaned and compiled in order to derive output that was compatible with and comparable to the data from the annual survey of commercial shrimp fishermen in federal waters in the Gulf of Mexico.

A final report of the results for the inshore shrimp industry was largely compiled throughout late 2010 and early 2011. All figures and estimates were presented as industry totals and averages. This document will be posted on the GSMFC website. In addition to analyzing the economic performance of the fishery, this study also provided an estimate of the economic impacts of the industry on the local and regional economy through the use of regional input-output impact models for entire Gulf shrimp fleet. Economic data from the inshore shrimp fleet was combined with federal economic data collection in order to have a representative data set for the entire Gulf shrimp fleet. This combined data set was used to calculate the number of jobs and sales generated by the commercial offshore and inshore shrimp fishery, in the industry itself, and in other portions of the regional economy. The results from this combined economic impact data analysis will be presented and distributed through a peer-reviewed publication.

#### *Fishing-related Businesses*

**As fisheries management policies change, the economic consequences of these actions extend past commercial fishing fleets to supporting fishing related businesses. Understanding the linkages between specific fisheries industries and the regional economy can be helpful in determining the potential impacts of management decisions. The Commission's economics program is, therefore, in the process of collecting data to determine the economic performance and the economic contributions that seafood processors and dealers have on local and regional economies. The availability of unbiased, systematic economic data of this nature should assist fisheries managers, commercial fishing-related business owners, and others who utilize the Gulf's resources in the formation of informed management decisions.**

This project was in the development and implementation phase during this reporting period. The GSMFC is working with the Louisiana Department of Wildlife and Fisheries (LDWF) as well as the states throughout the GOM. The Gulf States Seafood Processor and Dealer Survey was field tested throughout the five states of the region throughout late 2010 and early 2011. Working in cooperation with the University of Florida, The University of South Alabama, Mississippi State University, Louisiana Department of Wildlife of Fisheries, and Texas A&M, the survey packet was tested with approximately two to three individual processors in each state. Processors were initially mailed a survey packet, which included a cover letter to introduce them to the study. In-person interviews were subsequently conducted. Results from each in-person interview were used to improve the survey packet.

This project will continue to move forward throughout 2011. A workshop will be conducted on March 14 as part of the GSMFC's spring meeting in Houston, TX. This workshop will review the latest version of the survey instrument and finalize plans for full deployment of the survey packet. Full deployment of the survey packet will likely occur through the spring and summer of 2011.

A final report of the results will be compiled and presented once the final data is entered and analysis is conducted. All figures and estimates will be presented as industry totals and averages. In addition to analyzing the economic performance of the fishery, this study will also estimate the economic impacts of the industry on the local and regional economy using regional input-output impact models for commercial seafood fishing related businesses.

#### *Marine Angler Recreational Fishery*

**A recreational fishery in the marine environment provides not only relaxation for stakeholders but also economic stimulation to the surrounding economy. In the GOM, for example, millions of residents participate in marine fisheries recreation, which contributes millions to tens of millions of dollars each year to the economy. A continued understanding of how marine angler expenditures influence local and regional economies in the GOM through sales, income, and employment, provides key economic information, which can be used in fisheries management decisions. The GSMFC and NOAA are, therefore, in the process of soliciting saltwater anglers' expenditures on fishing trips throughout the states in order to assess the size and economic contribution of the marine recreational fishing industry to the GOM and the United States.**

**Preparation for the marine angler recreational survey took place throughout late 2010. This included finalizing the survey materials and the survey sampling design in association with the NMFS. This period also included awarding sub-awards from the GSMFC to the MRFSS Gulf States in order to collect expenditure data from anglers via an intercept survey. A sub-award was also awarded during this period to ICF Macro to conduct mail surveys throughout the region. Data collection via field samplers began in January throughout Florida, Alabama, Mississippi, and Louisiana. Data collection in Texas, via a mail survey, will begin in March and April.**

**The upcoming reporting period will largely include continued data collection and administration of the project. The timeline for data collection will run through December**



**2011, with the analysis conducted from January 2012 to December 2012. This project will contribute to the larger national final report entitled, "The Economic Contribution of Marine Angler Expenditures in the United States, 2011."**

#### *Marine Recreational Use*

**Economic impacts from recreation to the local and regional economy also extend from other types of marine recreation besides marine angling. Such economic impacts might include bird watching, kayaking, canoeing, sailing, etc. Determination of the economic impacts that these activities have on the economy is an important aspect of marine recreation that needs additional attention.**

The GSMFC plans to contract with Knowledge Networks to collect information on marine recreational use. It appears that the focus of the project will be the implementation of a survey that will enable GSMFC and NMFS to estimate the economic impacts and use value from marine recreational use activities. Such activities might include canoeing, bird watching, sailing, and others. Data to be collected include expenditure data, access value data, demographics, and attitudinal information. The population to be sampled includes the general public using the Knowledge Networks survey panel. The survey will be implemented in monthly waves, with the sample rotating in and out each month and no individual being sampled more than a to be determined number of times. Notification to selected individuals will occur in advance, so that they can keep track of their activities and expenditures.

Late 2010 and early 2011 was used to finalize the survey instrument and submit a package to OMB for approval. Given the national scope of this project, and NOAA largely administering the survey in other parts of the country, OMB approval was required. Given approval by NOAA and OMB, it is anticipated that the survey package will be deployed sometime during the summer of 2011. GSMFC plans to contract with Knowledge Networks as soon as possible.

#### *Research and Analysis*

While economic data from initial collection activities is often presented in a simplistic format, further analysis and research investigations allow for a better understanding of the economic performance and impact of Gulf fisheries. Currently, the research and analysis component of the economics program consists of an impact analysis initiative for gulf fishing industries and a study of the influence that macroeconomic factors (i.e. fuel prices) have on marine recreational angler effort throughout the Gulf.

#### *Macroeconomic Variables and Marine Recreational Angler Effort*

State and Federal policymakers continue to struggle with making difficult decisions concerning the management of marine recreational fisheries throughout the Gulf of Mexico. Policymakers have heretofore largely relied on science-based limits, which use effort estimates, to define how many fish can be removed while still investing in the future integrity of the stock. While the problem of stock depletion is definable using biological limits, getting to a welfare improving solution is a challenging integration of legal, economic, ecological interactions, and biological complications. Therefore, understanding how the quantity and distribution of recreational fishing effort responds to macroeconomic factors may be beneficial to the policy process. This study investigates the influence

that macroeconomic variables such as fuel price, unemployment, and state-level gross domestic product (GDP) have on the quantity and distribution of marine recreational fishing effort throughout the Gulf of Mexico. Preliminary results indicate that macroeconomic variables, such as fuel prices, GDP, and unemployment influence the quantity and distribution of marine recreational fishing effort in the GOM. Using such information may allow for welfare improving rule changes that benefit both ecological and economic stakeholders. This project was submitted to an academic journal for potential publication. The editor has responded and indicated that the manuscript needs to be revised before publication can commence. Revisions to this manuscript are currently underway and it is anticipated that a resubmission of the document will occur during the spring of 2011.

### *Impact Analysis*

While raw economic data allows for descriptive statistics and averages, economic impact analysis (e.g. input/output modeling) for a particular fishery can help us to better understand the economic contribution that a fishery has to the local and regional economy throughout the Gulf. For example, impact analysis can be used to describe taxes, employment, income, value-added, and sales generated from a particular Gulf fishery.

An IMPLAN model was further developed throughout late 2010 and early 2011 using data gathered through the recent economic survey of the inshore shrimp industry. Additional impact analysis will be carried forward once data from the other projects described above is collected and prepared for conducting impact analysis.

### *Outreach and Dissemination*

The third component of the economics program is outreach and dissemination. The objective of this branch of the program is to present the information collected and analyzed within the data collection and research and analysis components of the program. Additionally, this component of the program involves the organization of an annual or biennial meeting for economists and associated stakeholders who are interested in or actively engaged in fisheries economic projects and activities throughout the Gulf.

### *Fisheries Economic Information Portals*

In order for there to be a location where stakeholders of fisheries resources can log-on and access fisheries economic data, the Commission successfully worked with the NMFS headquarters office in order to develop a national interactive fisheries economic impacts tool. The GSMFC is also developing an interactive dashboard that will enable web users the ability to access economic data, as well as economic impact information for selected Gulf fisheries. The GSMFC also plans to compile a database of relevant publications and final reports as they relate to the Commission's economic program.

### *Gulf States Fisheries Economics Workshop*

The Gulf States Fisheries Economics Workshop is an initiative of the economics program that is aimed at promoting communication, coordination, and professional development among fisheries economists and associated stakeholders throughout the Gulf of Mexico. The workshop provides an opportunity to share data collections and research projects and to discuss the future direction of

fisheries economics within the region. It is the intention that this meeting will be held on an annual or biennial basis during the spring meeting of the Gulf States Marine Fisheries Commission.

### **Stock Assessment Enhancement Program**

The Stock Assessment Enhancement Program (SAE) was created in response to the BP Deepwater Horizon disaster. Congress allocated \$10M to conduct an expanded stock assessment of the fisheries of the Gulf of Mexico. Such expanded stock assessment shall include an assessment of the commercial and recreational catch and biological sampling, observer programs, data management and processing activities, the conduct of assessments, and follow-up evaluations of such fisheries. The funds were appropriated to the Commission via a cooperative agreement and will be used to fund a variety of activities including state trip ticket operations, menhaden port sampling, implementation of for-hire logbook program and expansion of fishery-independent sampling in the Gulf of Mexico. These activities will be conducted from 2011 to 2015. A summary of the activities and budgeted amounts are listed below.

### **ITEMS INCLUDED FOR FUNDING IN SAE COOPERATIVE AGREEMENT**

#### ***Coordination and Administration of SAE Activities*** **\$254,000**

This task will provide for the coordination, planning, and administration of SAE activities throughout the year. There is funding for this activity for 2011 (all activities) and 2012 (logbook program).

#### ***Gulf Menhaden Port Sampling*** **\$62,000**

This task will provide for sampling of gulf menhaden catches from menhaden purse-seine vessels that operate at in Louisiana. Samples will be processed for size and age composition for use in coast-wide stock assessments. In turn, gulf menhaden stock assessments are incorporated into the Fisheries Management Plan for the species, and are also utilized by the Gulf Coast states, the GSMFC, the menhaden industry, and the NMFS. There is funding for this activity for 2011 only.

#### ***Trip Ticket Program Development and Operation*** **\$1,077,000**

This task will provide for the further development and implementation of commercial trip ticket systems in the Gulf of Mexico. This task will provide for continued development and implementation of components for a commercial trip ticket system to census the commercial oyster and finfish fisheries landings in Mississippi using the data elements and standards developed by the ComFIN. It also provides funding for Texas, Louisiana and Alabama to operate their trip ticket programs. With the full implementation of trip tickets in Mississippi, all five Gulf States will have operating trip ticket programs, which allows for a complete census of all commercial fisheries landings in the Gulf of Mexico. In addition, it provides funding for a contractor to implement and operate an electronic trip ticket reporting program that allows for a more efficient means for dealers to report the necessary data. There is funding for this activity for 2011 only.

#### ***Cooperative For-hire Logbook Reporting Program*** **\$1,657,000**

This task will provide for Texas, Louisiana, Mississippi, Alabama, and Florida personnel to collect catch and effort data via a logbook system (either electronic or paper) and validation activities to verify the information collected from the logbook utilizing existing methodologies developed under

the Marine Recreational Information Program (MRIP) logbook program. It will focus on all charter vessels that possess federal for-hire permits for reef fish and/or pelagic fish in the Gulf of Mexico. There is funding for this activity for 2012 only.

***Enhancement of Fishery-Independent Sampling***

**\$3,100,000**

This task will provide for the GSMFC to contract with various state and academic entities to charter research vessels for the conduct of fishery-independent surveys throughout the Gulf of Mexico. The specific sampling protocols will be developed by the NMFS-SEFSC in conjunction with the Gulf States and the Commission. Detailed sampling activities are included. There is funding for this activity for 2011 to 2015.

**GRAND TOTAL**

**\$6,150,000**

**BASIC DESCRIPTION OF SURVEY ACTIVITIES**

A fishery independent survey will be conducted along the Gulf of Mexico continental shelf from Brownsville, Texas to the Florida Keys using bottom longlines and vertical lines (bandit reel gear). A total of 6 vessels (four rigged for bottom longline and two rigged for vertical longline) will be contracted from April 1 through October 31, 2011. Sampling will occur for up to 12 hours each day.

It is anticipated that approximately 2300 stations in total, averaging 4.5 stations per day. The bottom longline survey will use the same gear and sample methodology used by the NMFS bottom longline survey. Bottom longline sites will be selected using stratified-random sampling with proportional allocation between the 9-m and 366-m isobaths. Stratum boundaries will be defined by region (60 nautical mile contiguous zones along the coastline) and depth (9 m – 55 m; 55 m – 183 m; and 183 m – 550 m). The gear will consist of monofilament mainline (1 nautical mile length; 4-mm, 426-kg test) with 100 #15/0 Mustad circle hooks on monofilament gangions (3-mm, 332-kg test). The bottom longline will soak for 1 hour (time from last radar reflector buoy deployment to first radar reflector buoy retrieval). Hooks will be baited using Atlantic mackerel (*Scomber scombrus*) cut to fit the circle hooks. Catch will be brought on board (for sharks less than approximately 1.5 m in total length), identified, weighed, and measured; otoliths will be removed (and properly archived) from appropriate species for age determination purposes. Live sharks will be tagged and released. For sharks too large to be landed, a landing sling with a remotely operated electronic dynamometer will be used to obtain specimen weights and size (if sea conditions are favorable).

Two of the bottom longline fishing vessels will fish simultaneously with the two bandit fishing vessels outfitted with the side scan sonars. The longline vessel will first set the longline and conduct a CTD cast. The bandit fishing vessel will then transect over the bottom longline using the side scan sonar. If relief or hard bottom is observed with the side scan it will be noted. Additional sampling will be conducted by the bandit fishing vessels (see below).

Longline sets and haulbacks will be monitored using a shipboard SCS/FSCS computer system operated with weatherproof laptop computers with touch screen options. SCS/FSCS software will allow the acquisition of data to describe set and haulback events (GMT time/date stamp, position and any connected ship sensors, e.g. depth from echosounder.) Environmental data will be collected

using a CTD during the bottom longline soak to obtain temperature, salinity and dissolved oxygen profiles.

The two bandit fishing vessels will each be equipped with a side scan sonar. The bandit fishing vessels will follow the bottom longline vessels and fish simultaneously along the longline set. Bandit reels will be deployed to collect samples for comparison with bottom longline catches. The bandit fishing survey will also sample natural reefs located in the Gulf of Mexico. One vessel will be located in the eastern Gulf and one vessel will be located in the western Gulf. A total of 2800 stations will be sampled based on an average of 400 stations per month.

Paired bottom longline and bandit fishing will occur along the continental shelf of the northern Gulf of Mexico in depths between the 9 m and 183 m isobaths. The bandit fishing vessels will follow the bottom longline vessels and fish simultaneously along the longline set. The bandit fishing vessels will fish at the site selected to set the bottom longline gear and up to 5 other randomly selected sites along the longline (within 0.1 nautical miles from the bottom longline). The longline vessel will first set the longline then the bandit fishing vessel will transect over the bottom longline using the side scan sonar. While the bottom longline is fishing and hauling back gear, the bandit fishing vessel will sample the sites using three bandit reels fished simultaneously. The reels will use ten hooks per reel and soak on the bottom for 5 minutes. The reels will use different sized circle hooks, one will use #8/0, one #11/0 and one #15/0.

When the bottom longline vessels are fishing in depths >183 m the bandit fishing vessels will conduct sampling on natural reefs in depths between 9 m -183 m. A two-stage sampling procedure will be used to select natural reef sample sites. The first stage or sample universe will be defined by blocks (10' latitude x 10' longitude) that were identified by fishers in the reef fish fishery and by fishery independent surveys as containing reef habitat. The blocks that are sampled will be selected randomly each month from the sample universe. The second stage will use the side-scan sonar to survey up to 6 randomly located transect lines within each selected block. The waterfall plots from the side scan will be examined to develop a list of reef sites and non-reef sites. Bandit gear will be fished at 7 randomly selected reef sites and 3 randomly selected non-reef sites.

The reels will use ten hooks per reel and soak on the bottom for 5 minutes. The reels will use different sized circle hooks, one will use #8/0, one #11/0 and one #15/0. The bandit reel will use 300 m of 2-mm light blue monofilament (181-kg or 400-lb test) as the mainline. A 6.71-meter-long (22 ft) detachable bandit gear section (backbone) attaches to the terminal end of the main line and is also 2-mm light blue monofilament. Ten gangions are attached at intervals of 61 cm (2 ft) and are construction of 45.36-kg (100 lb) test twisted monofilament line. A 5-kg weight is placed at the terminal end of the backbone to insure stability and fishing throughout the water column.

Bandit sets and haulbacks will be monitored using a shipboard SCS/FSCS computer system operated with weatherproof laptop computers with touch screen options. SCS/FSCS software will allow the acquisition of data to describe set and haulback events (GMT time/date stamp, position and any connected ship sensors, eg. depth from echosounder). Environmental data will be collected using a CTD during the bandit fishing soak to obtain temperature, salinity and dissolved oxygen profiles.

Sampling design may be modified at the discretion of the NOAA Fisheries Service.

**Charles H. Lyles Award Recipient Selection Awarded at October 2011 Meeting**

**Corky Perret made a motion to nominate Dr. Virginia (Ginny) Vail to receive the 2011 Charles H. Lyles Award.** Ginny Vail recently retired from the Florida Fish and Wildlife Conservation Commission. At the time of her retirement Ginny also served as a Commissioner for the Gulf States Marine Fisheries Commission. **Joey Shepard seconded the motion and Dr. Vail was unanimously selected as the recipient for the Charles H. Lyles Award.**

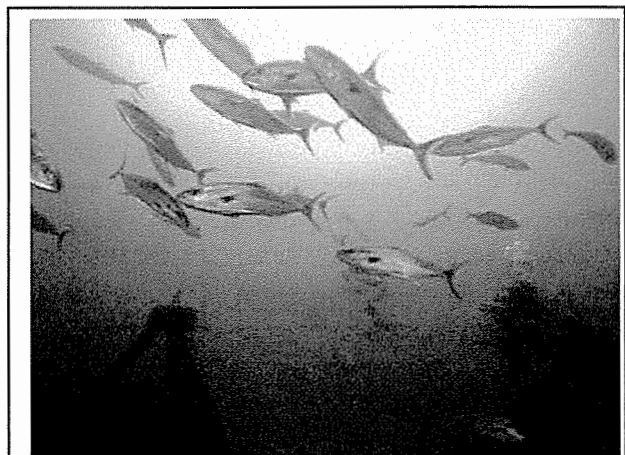
**State Director's Reports**

**Florida** – Dan Ellinor provided the following written report for the Florida Fish and Wildlife Conservation Commission.

**FWC Artificial Reef Program Overview**

Marine Artificial reefs are constructed of man-made or natural materials intentionally placed on the seafloor with the intent of accomplishing one or more biological or socio-economic objectives. In Florida, public artificial reefs are generally placed by commercial marine contractors selected through a competitive bid process and subcontracted by a local coastal government who is the permit holder of the reef area where the artificial reef will be constructed. Florida's 448 artificial reef permitted areas (145 off the Atlantic coast and 303 off the Gulf coast), encompass a total of 664 square nautical miles and range in size from .06 square nautical miles to 98 square nautical miles. They are located in both state and adjacent federal waters off 34 of 35 coastal counties and are permitted to the Counties by the Florida Department of Environmental Protection (state waters) and the U.S. Army Corps of Engineers (state and federal waters). Individual public reefs range in size from a single 1-2 ton concrete or concrete and steel reef module to a 28,000 ton ex Navy aircraft carrier. The intent of the artificial reef placements is to achieve one or more objectives, usually related to providing additional long term fishing and diving opportunities, enhanced economic benefits to local coastal communities, reducing user conflicts, augmenting hard bottom reef habitat, taking pressure off existing natural reefs, restoration of fish stocks, and providing research study sites to address reef ecology and fisheries management related questions.

Historical records maintained by the FWC artificial reef program indicate that as of January 2011, a total of 2,622 reefs have been deployed off both Florida Coasts at depths from 4 to 414 feet of water. Approximately 70-100 artificial reefs are annually constructed statewide using a combination of federal, state, local government, and private funds. The state artificial reef program also funds monitoring projects to measure the performance of constructed artificial reefs to assess the level of success in meeting reef construction objectives.



Amberjack and red snapper associated with designed concrete and steel module artificial reefs located off of Bay County, FL. June 2009.

The state artificial reef program was legislatively created in 1980. The program is described in s. 379.249 Florida Statutes, operates under 68E-9 Florida Administrative Code and staff are located as a subsection within FWC's Division of Marine Fisheries Management. The state's Artificial Reef program has been a successful 30 year cooperative partnership with coastal local governments, eligible 501(c)3 nonprofit organizations and state universities. Three staff work in the FWC artificial reef program: two Environmental Specialists and one Environmental Administrator. They provide contract management, technical assistance to local coastal governments, disseminate requested information to a wide range of stakeholders, and conduct statewide performance and compliance monitoring of reef projects.

#### FWC Artificial Reef Program Funding

An annual grant to the FWC Division of Marine Fisheries Management from the U.S. Fish and Wildlife Service Federal Aid in Sport Fish Restoration Program (USFWS) provides the majority of funding required to support the state artificial program. No general revenue funds are utilized. The two Environmental Specialists receive 100% federal funding from the annual USFWS grant to fully cover their salaries and benefits. The Environmental Administrator is 70% funded under the federal grant, with the remainder of his salary coming from saltwater fishing license revenue sources (Marine Resources Conservation Trust Fund (MRCTF)). All FWC reef program operational expenses including office rent, warehouse storage rent, phone, and mission critical travel related to grant related activities are covered under the federal grant. These federally funded operational expenses along with the federally funded salaries and the artificial reef projects themselves all require a 25% state or third party match.

Artificial reef construction projects funded through the FWC artificial reef program are also largely funded with USFWS grant funds and matched with MRCTF and third party cash match assistance. The funds are secured through federal excise taxes on items such as fishing tackle, outboard motor fuel, and small engines. Such funding for marine fisheries related projects is made available to the states in accordance with a formula based upon the number of licensed anglers and extent of Florida's shoreline. A 25% state or third party match is required for the federal funds utilized in the artificial reef program. This match is a combination of third party cash match contributions by local coastal governments to the reef project they are awarded and saltwater fishing license revenues. The inability of the local coastal government to provide a cash match does not prohibit the local coastal governments from competing for funds, though additional points are awarded for local governments able to provide some cash match. The federal and state funds for the artificial reef program are non-recurring funds. Federal funding for identified reef construction projects must be applied for through an annual grant request from FWC's reef program to the U.S. Fish and Wildlife Service. The Legislature must provide spending authority for both the federal and state funds authorized.

#### Current year (2010-2011) planned FWC artificial reef construction projects

The artificial reef construction projects funded through the FWC and planned for the 2010-11 federal grant funding cycle are listed in Table 1. The approved USFWS federal grant to the FWC artificial reef program for the period of September 1, 2010 through August 31, 2011 included 10 artificial construction projects off ten coastal counties and a larger artificial reef construction project to support long term ongoing research and fisheries management off the Florida Big Bend. This latter project, an FWC cooperative effort with the University of Florida, is intended for the improved management of gag grouper stocks. Gag are currently overfished and undergoing overfishing and are



closed to recreational fishing in the Gulf of Mexico for at least the next 180 days (through at least June 30, 2011). A summary narrative of the current year FWC sponsored reef projects funded with the support of USFWS Federal Aid in Sport Fish Restoration funding is included at Attachment 1.

Table 1. Artificial reef construction projects planned during FY 2010-11.

Artificial Reef Private Sector Job Creation and Economic Support Issues

Jobs created by artificial reefs in Florida can be separated into two distinct categories, short term construction related jobs and longer term jobs in the coastal community created by the artificial reef fishing and diving activities of residents and visitors over the life of the artificial reef system. Administrative and oversight duties of artificial reef construction sub-contracts are managed directly by the local government at no cost to FWC, allowing 100% of the funds to be allocated to reef construction through competitive bid solicitation from the private marine contracting industry. This results in private sector hiring for short term jobs to implement the construction phase of each artificial reef project. The state program requirements of the use of long lived stable materials (prefabricated structures) and materials such as limestone boulders, and clean concrete and heavy gauge steel products result in the development of storm-resistant reefs that have at least a 20 year-30 year lifespan as a functioning artificial reef.

	GRANTEE	FWC Contract Number	Total project cost	Federal Share (SFR)	State Share (MRCTF)	Local Share (TOTAL)	Reef Name & Description
1	Flagler County	10158	\$71,750	\$51,750	\$0	\$20,000	Grady Prather Reef 500-1,000 tons concrete bridge material
2	Jacksonville, City of	10159	\$87,500	\$50,000	\$0	\$37,500	Harms Ledge or Floyds Folly 700 tons concrete culverts, junction boxes, etc.
3	Martin County	10160	\$72,000	\$54,000	\$0	\$18,000	St.Lucie-Jupiter Inlet Reef Site, South County Reef 1500-1800 tons concrete culverts, junction boxes
4	Mexico Beach, City of	10161	\$81,750	\$51,750	\$0	\$30,000	City of Mexico Beach Construction 2010-2011 76 designed concrete modules across 13 locations
5	Miami-Dade County	10162	\$120,000	\$60,000	\$0	\$60,000	Mercy Hospital and Key Biscayne Reef Sites 700 tons limestone boulders and concrete
6	Okaloosa County	10163	\$48,400	\$44,000	\$0	\$4,400	Conch Reef 40 designed concrete modules
7	Palm Beach County	10164	\$111,750	\$51,750	\$0	\$60,000	Boynton Inlet Reef 900 tons limestone boulders
8	Pinellas County	10165	\$50,000	\$25,000	\$0	\$25,000	Rube Allyn Reef 1,020 tons concrete culverts, junction boxes, etc.
9	Reef Ball Foundation (Sarasota County)	10157	\$51,750	\$51,750	\$0	\$0	Silvertooth Reef 72 designed concrete modules of three types
10	St Lucie County	10166	\$74,200	\$60,000	\$0	\$14,200	North County Near Shore Site 2010-11 2,000 tons concrete culverts, junction boxes, etc.
11	Walter Marine (Taylor County)	10091	\$515,002	\$386,252	\$128,750	\$0	Steinhatchee Fisheries Management Area 450 designed concrete modules at 450 locations
<b>TOTAL \$1,284,102 \$886,252 \$128,750 \$269,100</b>							

The cumulative development and long term use of reefs to form county or regional artificial reef systems has contributed to the economic development and new job creation within local coastal economies. In a 1998 FSU economic study, fishers and divers annually spent over \$414 million associated with fishing and diving on or around artificial reefs off a five county area of NW Florida. That system was estimated to be responsible for the creation of **8,163 jobs**. In Southeast Florida in a 2001 study, user groups annually spent \$1.7 billion associated with fishing and diving on or around artificial reefs. The artificial reef systems off four SE Florida counties assisted in the generation of **27,000 jobs**. A study of the reef system off a single Florida East Coast county



(Martin), estimated their reef system created **182 jobs** in that County. In a five county area off SW Florida a 2009 University of Florida study showed fishers and divers targeting artificial reefs annually spend \$274 million in that geographic region generating **1,987 jobs**. These referenced studies are listed in the references section and are available upon request.

In summary, formal socio-economic studies have documented job creation in coastal counties as a result of the development of a system of artificial reef-based fishing and diving locations. The use of stable, durable, environmentally friendly reef materials with a functioning life span of 20-30 years or more ensures a maximum return on the reef construction investment. The economic benefit to the coastal communities from the system of public reefs developed over a period of years occurs in the creation and maintenance of jobs directly and indirectly supporting those recreational opportunities afforded by the artificial reef system. These jobs are created throughout the coastal communities to support increased diving and angling opportunities on artificial reefs deployed in state and adjacent federal waters. An increase in visitors to an area results in an increased need for and maintenance of existing jobs related to the tourism sector. Marine contractors are also provided with short term reef construction jobs involving reef module construction, overland trucking of materials to a staging area, loading materials onto a barge, transporting materials offshore and building the reefs. These construction jobs are funded with state, federal, local government, and private funds. State general revenue funds are generally not utilized in artificial reef projects and local governments don't charge administrative fees to manage contracts funded through FWC with state and federal funds. Funds administered by FWC for use by local coastal governments to competitively construct artificial reefs go directly to the selected marine contractor and their respective personnel.

### **Recent Commission regulatory actions:**

#### Blue Crab Trap Closures

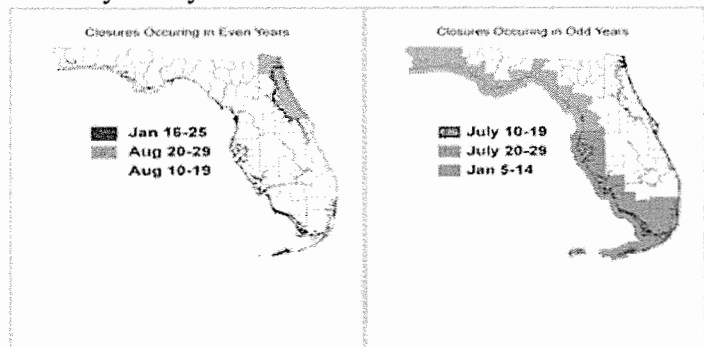
The six annual 10-day regional blue crab trap harvest closures in Florida will now occur every other year. In 2009, the FWC established the annual, regional closures to all harvest of blue crabs with traps to help identify and retrieve lost and abandoned blue crab traps from Florida waters. FWC and industry now believe that staggering these closures every other year will help focus trap cleanup efforts in each region and lessen the economic impact of the closures on individual crabbers.

#### Bone fish catch-and-release only

Bonefish are an extremely valuable Florida game fish. New rules will further protect bonefish populations in South Florida, while providing anglers with opportunities to document a record catch and enjoy the exciting action of bonefish fishing tournaments. Bonefish are prized by anglers because they are stealthy, fast-swimming fish that are exciting and challenging to catch. South Florida is one of the few places in the United States where anglers can fish for bonefish, and the shallow saltwater flats of the Florida Keys and Biscayne Bay are considered a world-class destination for catching large, trophy-sized bonefish.

A recent study by scientists at the University of Miami estimated the value of a single bonefish in the Florida Keys to be \$3,500 each year, and nearly \$75,000 over the lifespan of the fish.

Based on bonefish's economic value as a game fish, the FWC's proposed draft



rules would eliminate the one-fish daily bag limit for bonefish and allow only catch-and-release fishing. Most anglers already release the bonefish they catch as a conservation measure. The proposed rules would also allow anglers to temporarily possess a bonefish where it is caught, so they can photograph and measure or weigh the fish to document a possible record catch. In addition, the proposed rules would allow anglers participating in specially permitted tournaments to temporarily possess and transport bonefish to tournament check-in stations for weigh-in under specified conditions. These fish would still have to be carefully handled and eventually released.

#### Red Fish bag limit

FWC is proposing to create three regional management areas for red drum and establish a statewide eight-fish red drum daily vessel limit. The Commission also intends to develop ways to modify the red drum off-the-water possession limit. The fishery is holding its own in southern Florida, and numbers of red drum in northern parts of the state are now at a point where it's safe to give back some fish to anglers.

The FWC has strictly managed red drum (also called redfish, channel bass and red bass) for more than 20 years to help rebuild overfished populations. A 2008 FWC stock assessment indicates that annual management goals for red drum are consistently being exceeded in areas of northeastern and northwestern Florida.

As a result, FWC is proposing establishment of three management areas for red drum in Florida (which are the same as established management areas for spotted seatrout) to better target its management approaches for this popular Florida fish. In all waters in the northwest management area (Escambia through Pasco counties) and in the northeast management area (Flagler through Nassau counties), the FWC proposal would raise the daily recreational bag limit for red drum from one fish to two. The Commission is also proposing a statewide eight fish daily vessel limit for red drum, and will consider management options regarding ways to modify the off-the-water red drum possession limit.

#### Gulf Gag Grouper and Amberjack

Commissioners agreed to consider in April proposed recreational amberjack and gag grouper rules for Gulf of Mexico state waters that would be consistent with rules in Gulf federal waters. The proposed rules for Gulf state waters would establish a June 1 through July 31 recreational closed harvest season for amberjack.

A Recreational closed harvest seasons of June 1 through Sept. 15 and Nov. 16 through Dec. 31 for gag grouper, and an open recreational harvest season of Sept. 16 through Nov. 15 for gag grouper.

#### Lionfish Diver License Exemption

To encourage removal of the non-native lionfish from Florida waters, the proposed draft rule would allow divers to recreationally harvest lionfish without a recreational saltwater fishing license. Lionfish are readily distinguishable from native species, and are believed to have negative impacts on native species. The license exemption would only allow unlicensed divers to target and harvest lionfish without incidentally taking other species using legal gears other than hook and line, cast nets, and seines.

### Shoreline License Fee Repeal

This bill makes the shoreline license a free license to the public. The shoreline license was created last Session in order to avoid a federally mandated registration for all Florida recreational saltwater anglers. Currently, the fee is \$7.50 (plus administrative fees). This bill keeps the license requirement in effect (retaining the Federal exemption), but it eliminates the fee. The Senate budget reverses the original fund shift that was done when the license fee was implemented, restoring \$900,000 in recurring General Revenue to FWC. An additional \$240,000 recurring General Revenue is provided to cover license issuance costs (the public will pay no administrative fees). With these GR supports in place, the loss to FWC is \$898,800 in future federal aid for fisheries research and management. This bill passed the full Senate and was further approved in the budget conference negotiations between the House and Senate. The conference report (see link above) was amended to the bill as a strike-all amendment and passed both the House and Senate on Friday.

### **Trap Retrieval Program Report**

From June 21 through July 1, Division of Marine Fisheries Management staff contracted with commercial fishers to remove lost and abandoned stone crab and spiny lobster traps from state waters of Monroe County. Because of recent changes regarding the disposal of derelict traps, this year's efforts began slightly later than in prior years, and seven trips were cancelled due to high winds and rough sea conditions. As a result, a total of 2,208 derelict traps were removed over the course of 17 trips, an average of approximately 130 traps per trip. In contrast, trap retrieval operations in Monroe County last year removed 5,197 derelict traps over the course of 25 trips, an average of 207 traps per trip. We are currently working to reschedule trips in Key West and the Marquesas Keys before the start of the spiny lobster season, and are planning for stone crab trap retrieval operations along the Gulf coast from Collier County to Wakulla County in the coming months. No blue crab trap retrieval operations are planned until January 2011, as the four blue crab trap harvest closures that occur in July and August have been waived.

### **Other FWC News:**

#### Sea Turtles

Two hundred forty-two cold-stunned sea turtles removed from St. Joseph Bay this winter were released into the Gulf of Mexico off Cape San Blas in Gulf County. All were green turtles. Twenty-five Kemp's Ridleys, also rescued from the cold, will be released at a later date, along with green turtles that need additional rehabilitation. Dedicated volunteers fanned out around the southern end of St. Joseph Bay Jan. 13-16 when a frigid cold front enveloped the South, triggering the third sea turtle cold-stunning event in the bay this winter. Local residents, University of Florida turtle researchers, and volunteers from the St. Joseph Bay State Buffer Preserve braved the cold to search marshy shorelines and inshore waters and to bring the immobile animals to safety. Rescuers took the turtles to Gulf World Marine Park in Panama City Beach, where they were evaluated and warmed. About half of the turtles were then moved to Florida's Gulfarium in Fort Walton Beach to provide them with more swimming space.

Dr. Allen Foley, a sea turtle biologist who oversees sea turtle rescues for the Florida Fish and Wildlife Conservation Commission (FWC), said the cold-stunning event was triggered by the latest bout of cold weather, causing the shallow-water temperatures in the southern end of St. Joseph Bay to drop into the 40s. "Sea turtles can tolerate water temperatures down to about 50 degrees, but when it drops below that, they're in trouble," Foley said. "St. Joseph Bay is a long bay that is open only at

the north end, and turtles may become trapped when the water cools quickly."

### Manatees

Biologists reported a preliminary count of 4,840 manatees statewide during the annual synoptic survey. A team of 20 observers from 11 organizations counted 2,438 manatees on Florida's East Coast and 2,402 on the West Coast of the state. The final numbers will be available at the end of February, following verification of the survey data. In aerial manatee surveys, ideal conditions occur during a warming trend following a prolonged period of cold weather, when manatees gather around warm-water sites. Although weather conditions were not as cold as last year, we had excellent conditions leading up to, and during this year's survey.

The goal of the synoptic survey is to count as many manatees as possible. The survey results provide researchers with a minimum number of manatees in Florida waters at the time of the survey and are not considered a population estimate. Because the number of manatees that were not visible during the survey is unknown, these counts cannot be used to determine long-term population trends. Over the next few years, the FWC will rely on monitoring programs to better understand long-term implications from these cold-related deaths. Researchers have been conducting synoptic surveys since 1991, weather permitting, to meet the state's requirement for an annual count of manatees in Florida waters.

### FWC resolution highlights gopher tortoise conservation

FWC signed a resolution in Apalachicola urging the U.S. Fish and Wildlife Service (Service) to recognize Florida's strong conservation measures and actions to protect the gopher tortoise. The resolution asked the Service to not list the gopher tortoise in Florida as threatened under the U.S. Endangered Species Act.

Because the Service was petitioned to list the gopher tortoise as threatened in the eastern part of its range, including Florida, Georgia and Alabama, it is conducting a review to determine if the animal should be federally listed. The results of that review, which is required by law, are expected this year.

FWC already lists the gopher tortoise as a state threatened species. FWC and numerous stakeholders began implementing the Gopher Tortoise Management Plan in 2007 to ensure the species' future. Florida's Gopher Tortoise Conservation Program also includes Gopher Tortoise Permitting Guidelines and a rule that protects gopher tortoises and their burrows (homes).

### **Legislative Issues – Governor's Recommendations:**

Governor Rick Scott released his recommendations for the state budget for Fiscal Year 2011/12 and 2012/13). It includes deep cuts across all of State government in order to deal with Florida's substantial deficit and implements a number of policy changes focused on carrying out the Governor's commitments. Some of the major changes include presentation of a two-year budget, redirection of trust fund revenues to General Revenue, budgeting based on broad service categories tied to performance measures, realignments/consolidations of government functions, tax cuts, pension reforms and employee health insurance reforms. For FWC, the impact is significant but not beyond what might be expected in the current financial crisis.

## **Reductions**

The total cuts in the Governor's recommendations for FWC are 97 positions and \$14.5 million. This represents a 5% reduction in both FTE and dollars from the base recurring budget for FY 2011/12. A few of the more significant cuts include:

- Reduce vacant positions – 23 FTE, \$1,257,798
- Reduce law enforcement officers – 61 FTE, \$3,342,789
- Eliminate Office of Recreation Services – 12 FTE, \$1,257,798
- Reduce invasive plant management - \$2,698,692
- Reduce CARL Land Management (unfunded budget) -\$2,913,783
- Reduce red tide research and monitoring - \$640,993

Most of the cuts came from our potential reductions list, a list each agency is required by law to prepare every year for consideration should the State need to cut back spending. This year agencies were asked to identify 15% of their recurring budgets for potential reduction. Total cuts in the 15% list amount to \$28.6 million. Total cuts recommended by the Governor for FY 2011/12 come to \$14.5 million. The Governor also recommends another \$6.2 million in further cuts for FY 2012/13. Both years together represent a 7.4% reduction from the base recurring budget.

## **Florida Data Collection Activities**

Commercial Over the most recent reporting period (January 1, 2010-December 31, 2010), the number of trip tickets reported either on paper or electronically (diskette or internet-ftp) was 172,353 (384,555 species records). Of those trip tickets, 108,664 or 63.05% were reported electronically. Electronic and key punched trips tickets accounted for 69.57% (267,526) and 30.43% (117,029) of species records, respectively. This continues a strong trend of increasing electronic submission, which surpassed paper records for the first time in 2008. Not surprisingly, species records follow a similar trend. From 2006-2010, electronic submission has increased from 44% to almost 63% of trip ticket records and from 48% to almost 70% of species records. At the time this report was written, data for 2010 had not yet been finalized. Numbers should be considered preliminary and subject to change.

State commercial Dockside samplers conducted 1,087 Trip Interview Program (TIP) interviews in Gulf Coast counties, which accounted for 29,977 biological measurements. Overall, sampling from the Gulf accounted for 63.5% of the measurements and 64.4% of the state TIP interview totals. FWC is working with NOAA Fisheries to improve TIP coverage throughout the state.

The agency continues to receive landings requests from license holders related to income loss associated with the BP Deep Water Horizon (DWH) oil spill disaster although the number of requests has diminished over time.

Recreational Within the NOAA Fisheries Marine Recreational Fisheries Statistics Survey (MRFSS), FWC samplers conducted more than 25,400 angler intercepts in Gulf Counties in 2010. The totals for angler intercepts by mode were: 5,974, 5,942 and 13,525 for shore, charter and private/rental boat anglers, respectively. In the For-Hire Telephone Survey, callers have been 3X oversampling since June 2010, for vessels that operate in the Gulf of Mexico. Data are submitted weekly and

cooperation rates continue to be good considering ongoing concerns with response burden for the industry.

Although the Gulf of Mexico headboat at-sea sampling was discontinued in 2007, data collection has been ongoing on our Atlantic Coast for more than six years and limited sampling mostly targeting reef species has been possible in the Gulf for close almost two years. Twenty eight headboats in the Panhandle and West Central Florida are currently participating in sampling efforts. At-sea sampling on the Gulf coast differs from that of the Atlantic coast in that it has a tagging component. It is hoped that tagging can help provide a clearer understanding of catch-and-release related mortality. As the released fish component of the catch becomes increasingly important in terms of the numbers of fish released, mortality related to size, depth caught and handling also increases in importance. To date more than 6,500 fish have been tagged as part of a NOAA funded Cooperative Research Project. Species tagged include: *Lutjanus campechanus* (red snapper), *Rhomboplites aurorubens* (vermillion snapper), *Epinephelus morio* (red grouper), *Mycteroperca phenax* (scamp) *M. microlepis* (gag), *Balistes capriscus* (gray triggerfish). A second federally funded project concentrating on red snapper catch has more than 100 participating for-hire vessels in the Gulf and has resulted in the at-sea tagging of more than 7,000 fish to date. The red snapper project also has a catch card component that allows red snapper anglers to report the numbers and species of released fish. Both projects will continue into 2012.

The Gulf of Mexico Pilot Logbook Program involving Texas and Florida for-hire vessels is heading toward the half way stage of the 12 month data collection period. Although, participation in the logbook project is mandatory for federally permitted boats, response from industry has been a concern in Florida at least. Samplers continue to work with vessel representatives to encourage participation and to assist in any way they can to improve compliance. Currently, participation stands at approximately 75% among Florida boats. To reduce the response burden on vessel operators, vessel representatives have been given the option to use the logbook or the For Hire Telephone Survey (FHTS) on weeks for which their vessel was selected in the FHTS. On those weeks, vessels participating in the logbook are not called in the FHTS. The Gulf of Mexico Logbook pilot study is one of two projects funded through the Marine Recreational Information Program (MRIP). The second is a project involving video monitoring of private recreational fishing boats. The project has produced a series of prototypes for an onboard camera system that can be used to monitor and record catch. The current version of the system uses three cameras, two of which are mounted to monitor fishing activity, and the third is used to visually record fish measurements. Fish placed on a measuring board can be visually sized from recorded video. The system has a sealed 12 hour battery, LCD monitor, DVR, onboard and flash memory.

Under EDRP II, disaster Recovery funds were made available to the For-hire Fleet impacted by the 2005 hurricane season. Forty six vessels completed eligibility requirements for payment under EDRP II. To receive payment, vessels operators also must register as vendors with the state of Florida. Thus far, 31 vessel operators have registered and have been paid but 15 remain unregistered and consequently, unpaid. Reminder emails to those remaining vessels were distributed in the week before this meeting. To provide additional avenues for the distribution of EDRP II funds to for-hire operators, funds were used to pay for additional at-sea sampling trips (particularly the overnight and multiday trips which are under-represented in current dockside and at-sea sampling efforts). The funds have provided additional income to vessel operators to help keep their operations running and

allow samplers to bolster sample sizes for at-sea data collection activities.

Biological sampling originally funded solely through FIN has received supplemental support from Sport Fish Restoration funds in 2010. The management of commercial and recreational samples continues to present challenges in terms of the fisheries sampled and the assignment of funds to sampling activities. In 2010, more than 23,500 ageing structures were entered in the FWC database, of which approximately half were funded through FIN and entered into the FIN database. Because of our involvement in at-sea data collection, opportunities to further augment the collection of biological data, tissues and ageing structures, continue to present themselves. However, some discussion regarding the inclusion and use of samples collected on directed trips (using recreational gears) and through tournament sampling may be needed going forward.

FWC began its online Boater Panel survey this year. The survey allows boaters to record details of their boating and angling trips. The online survey allows anglers to plot trip routes and the locations of catch. The goal of the panel survey is characterization of boat-based angling in terms of angler behavior and economics. It is also hoped that the survey will help FWC to better direct research and stock enhancement efforts. More than 21,000 invitations were sent to licensed anglers in early February, 2011.

Alabama – Chris Blankenship provided the following written report for the Alabama Department of Conservation and Natural Resources/Marine Resources Division.

#### Fisheries Section

The Alabama Marine Resources Division (MRD) Director, Vernon Minton, passed away on December 27, 2010. He had been an employee of MRD for 32 years and had spent the last 20 years as the Division's Director. Vernon's accomplishments to our marine resources are long and distinguished and he will be truly missed. Major Chris Blankenship has been named Acting Director of the Marine Resources Division.

Newly elected Alabama Governor, Robert Bentley, was inaugurated in January. With the new governor came a state-wide administration change. N. Gunter Guy, Jr. has been appointed as the Commissioner of the Department of Conservation and Natural Resources.

EDRP fisherman assistance programs in Alabama were concluded on November 30, 2010. These programs provided economic assistance to fishermen through the submission of detailed, trip level data sheets completed by eligible participants.

The Little River Bay marsh rehabilitation project located near Bayou La Batre completed during the fall of 2010 has received three awards for its design and engineering accomplishments. Funding for this project was provided through the Emergency Disaster Recovery Program (EDRP).

MRD continues to operate EDRP oyster recovery projects. We are currently preparing to coordinate the relay of oysters and cultch material from reclassified waters in upper Mobile Bay to a newly constructed reef in lower Mobile Bay. A relay program conducted in March 2010 relocated of 6 million pounds of material to this new reef. The tentative start date for the relay is March 28.



The use of oyster management stations was implemented in October 2010 with the temporary opening of the newly created relay reef. Over 12,000 sacks were harvested during the brief opening.

Site surveys are being conducted for the possible creation of two near shore artificial reef zones located in Alabama state water's near Orange Beach. If approved by the USACE, materials will be deployed later this year and will be funded through EDRP II monies.

MRD is working with architecture and engineering firms to develop plans for the construction of a new laboratory and office facility at Claude Petet Mariculture Center (Gulf Shores) and the renovation of boat basins located at Divisional offices in Gulf Shores and on Dauphin Island. Funding for construction will be derived from Coastal Impact Assistance Program (CIAP) funds. Hatchery equipment for the lab will be acquired using EDRP funds.

SEAMAP fall and winter cruises were completed without incident and the SEAMAP vertical line sampling program in Alabama's offshore artificial reef zones continues. The vertical line sampling program addresses reef fish abundances on structured and unstructured environments, age composition and selectivity patterns for varying hook sizes. Meetings have been held to look into expanding this sampling protocol to the rest of the Gulf.

MRD's Fishery-Independent Assessment Monitoring Program (FAMP) samples were collected and processed for biological/hydrographic data at monthly intervals to maintain continuity of the 30-year program. Bi-monthly catch reports were submitted to GSMFC.

A voluntary no cost angler registry license was implemented to address database inconsistencies identified in the NOAA/AL National Angler Registry MOU. Exempted individuals such as lifetime license holders and residents over the age of 64 are now able to register annually. A regulation making this registry an annual requirement has been proposed to the Alabama Conservation Advisory Board.

The 2011 editions of MRD's Marine Information calendar and Children's Art calendar were published and distributed. These publications are highly sought after.

### Enforcement Section

The Alabama Legislature passed an Oyster Management Bill in April 2010 that will allow the MRD to better manage our oyster resources. The bill allows for the implementation of oyster management stations to allow us to better record the amount and condition of harvest. The bill also changed the tolerance for undersize oysters, standardized the information required on the harvest tags, increased the cost of the tags to include the cost of printing, expanded the use of dredges, removed the ability for private lease holders and others to take seed oysters from the public reefs, expanded our oversight of the marking of private leases, created a shell fee to pay for planting and other oyster management costs, and raised the fines for violations. Multiple regulations were signed by the Conservation Commissioner in November of 2010 that clarified the legislation and set a shell fee of \$2 per sack of oysters harvested. These funds will be used to enhance and manage the oyster resources of Alabama.

The regulations also established the requirement for oyster harvesters to check in/check out at management stations and set harvest times to coincide with the Alabama Department of Public Health time/temperature matrix.

MRD is one of the charter organizations establishing a BEST team at the Port of Mobile. The Border Enforcement Security Team (BEST) has conducted several operations in the Port area since its formation late last year.

The Enforcement Section continued to expand its Coastal Remote Monitoring Program into Baldwin County. Full implementation of this system will provide up to 30 high resolution cameras at different locations throughout coastal Alabama areas. The video is available through a web-based portal and will be accessible to officers in the field via a wireless internet connection. Not only are the officers able to access the video, they are able to navigate the camera through a web interface. The video is being stored for up to three weeks on secure servers and is time and date stamped for use as evidence. The sensors include closed-circuit television, thermal, and infrared cameras.

#### MRD Oil Spill Response and Activities

MRD has submitted a proposal to BP for the implementation and operation of a seafood testing program. Although negotiations for this program are still ongoing, MRD has begun collecting specimens for seafood safety tissue analysis.

A claim has been submitted to BP for the loss of saltwater fishing license sales revenues for the months of May through August 2010 as incurred due to the Deep Water Horizon incident. The status of this claim is pending.

MRD continues to work with GSMFC in the implementation of the ODRP and associated seafood marketing and sustainability programs.

Reports of several dead juvenile dolphins were recently reported in Alabama. The Institute of Marine Mammal Studies (Gulfport, MS) responded to this incident however no report has been issued indicating the cause of death.

MRD continues to work with Natural Resource Disaster Assessment (NRDA) process.

**Mississippi** – Dale Diaz provided the following written report for the Mississippi Department of Marine Resources.

#### Enforcement

The Office of Marine Patrol, JEA Marine Law Enforcement activities for July 2010 – January 2011 consisted of 3636 boat patrol hours with 1612 contacts, which resulted in 51 total citations. These citations mostly consisted of violations concerning red snapper and sharks

### Shrimp and Crab Bureau

Mississippi waters N of the ICW closed to shrimping on January 15, 2011 at 12:01. All waters S of the ICW are scheduled to close April 30, 2011. These seasonal area closures occur annually to protect the coming season's shrimp crop.

The National Fish & Wildlife Foundation, using BP monies, is funding on-going DMR projects to address potential increased recreational and commercial fisheries interactions with sea turtles. These monies are being used to provide commercial and recreational fishermen with NOAA sea turtle guidance documents on protection, disentanglement and resuscitation, providing free TEDs to skimmer trawl shrimpers to use voluntarily, and an observer program to collect data on the fisheries.

To date, DMR has distributed 302 TEDs for skimmer trawls and have been on board Mississippi shrimp vessels for eighteen turtle observer trips.

The Shrimp and Crab Bureau's Mississippi Seafood Safety Newsletter continues to be updated online at DMR's website ([www.dmr.state.ms.us](http://www.dmr.state.ms.us)). The report contains a summary of the on-going efforts and results of the data that the Office of Marine Fisheries has been gathering in conjunction with the Mississippi Department of Environmental Quality to ensure that Mississippi seafood is free of polycyclic aromatic hydrocarbons (PAHs) and is safe for consumption. To date, out of 327 samples, no sample has been found to contain PAH concentrations above the FDA levels of concern.

### Shellfish Bureau

The MDMR Shellfish staff is continuing its monitoring efforts by conducting one-minute dredge tows on the oyster reefs. Staff also collects weekly water samples in compliance with the National Shellfish Sanitation Program.

The R/V Conservationist relayed 600 sacks of oysters to north Whitehouse Reef. The R/V Reef keeper and R/V Stewardship have completed the NRDA transition mapping sites, I, J, samples and began the 60 site intensive reef analysis. The mission of these trips was to determine the condition and present status of the oyster reefs. Staff is also collecting oyster tissues samples for the seafood safety program with MDEQ.

The Natural Resource Disaster Assessment team has partnered with MDEQ, NOAA, MDMR and BP contractors to use established scientific techniques to assess possible damage to the oyster resource from the oil spill. A seventy-page draft of sampling protocols was developed as a result of tri-weekly teleconferences and daily end-of-the-day meetings with representatives from LA, MS, AL and FL. This plan was used to identify areas of concern from the oil spill and to determine possible long-term damage to the oyster reefs. The various components include larvae, sediment, water quality, disease, condition index and tissue samples. Qualitative, quantitative, and mortality data is also enumerated. Currently these protocols are being utilized and sampling will continue.

The 2010- 2011 Oyster season opened on November 8<sup>th</sup>, 2010 for tonging only. As of February 23<sup>st</sup> 2011, a total of 24,878 sacks have been harvested by 3054 boat trips.

The MDMR Shellfish staff is in the process of completing the final phases of EDRP I and II. We are

currently planning an intensive oyster shell cultch plant in the spring in the western Mississippi Sound.

The Deer Island Restoration Project is in the process of completing its final stages. Staff and volunteers set bags of oysters strategically placed to prevent erosion on Deer Island. Contractors still need to plant Spartina and should be finished March 1<sup>st</sup>.

The MDMR was presented the "Seven Seals" award by the Mississippi Committee for Employer Support of the Guard and Reserve. This is in recognition of the MDMR's continued support of the National Guard and Reserves.

#### Artificial Reef Bureau

Monitoring low profile inshore reefs in all three coastal counties is ongoing. A total of 12 gill net samples were conducted to monitor species abundance and diversity. Materials are being stockpiled for deployments on Mississippi's Artificial Reefs. There are currently approximately 4,500 concrete culverts on the Gulfport staging area waiting to be deployed.

#### Finfish Bureau

Personnel are working closely with the MDEQ and Gulf Coast Research Lab to develop NRDA work plans. Personnel are currently working the Coastal Conservation Association to schedule Casting for Conservation kids fishing tournaments for 2011. These tournaments utilize EDRP II public outreach funds.

A survey was developed for Mississippi Combination License holders to determine if they fish in Mississippi salt waters. The survey will be implemented this year and the data obtained will be used to determine which anglers to include in the National Saltwater Angler Registry.

The Marine Recreational Information Program (MRIP) collected 337 interviews from November 1, 2010 to February 22, 2011 meeting quotas in Shore Fishing and Private Boat Modes for Waves 6 in 2010. The charter quota was not met in wave 6 and wave 1, as only ten dockside interviews were able to be collected, all in the month of November 2010. There are potentially many reasons for this shortfall. The most obvious is the weather. There were few fishable days this winter due to cold, rain, and wind. Also, five boats moved to the NOAA Fisheries Headboat Survey, and were lost to MRIP surveyors. Other captains left the fishery due to economic and personal hardships.

No new recreational fishing records were accepted for November 2010-February 2011.

#### Biological Sampling for NOVEMBER 2010-FEBRUARY 2011

The table below shows the sampling effort for collection of otoliths. All modes of collection are shown including any samples taken from IJ/ FAM gillnetting effort. Areas blacked out had no quota for sampling due to contractual agreement.

SPECIES	QUOTA		COLLECTED		IND Sampling
	REC	COM	REC	COM	
BLACK DRUM	8		0		11
GRAY SNAPPER		12		0	0
GRAY TRIGGERFISH	7	15	0	0	0
GREATER AMBERJACK		5		0	0
KING MACKEREL	5		0		0
RED DRUM	24		1	0	16
RED SNAPPER	16	12	0	0	0
SHEEPSHEAD	12	140	10	0	2
SOUTHERN FLOUNDER	154	258	0	0	6
SPOTTED SEATROUT	38		0		5
STRIPED MULLET		408		0	16
VERMILION SNAPPER		14		0	0
COBIA	110		0		0
RED PORGY		45		0	0
SOUTHERN KINGFISH					3
ATLANTIC CROAKER					3
SPANISH MACKEREL					1
SAND SEATROUT					4

## Seafood Technology

The Public Outreach program of the Seafood Technology Bureau had one event on Nov. 12-14, 2010 The Pass Christian Oyster Festival. The Bureau participated in two meetings but also hosted the Gulf States' Directors' Vibrio Conference.

US-Food and Drug Administration evaluated the Shellfish Plant Sanitation Program for FY 2010-2011 for the twenty-five seafood dealers and processors. The program passed the evaluation.

**Louisiana** – Joey Shepard provided the following written report for the Louisiana Department of Wildlife and Fisheries.

### **Deepwater Horizon Disaster**

The Deepwater Horizon disaster has impacted many aspects of Department operations.

Fishery Openings/Closings: Since April 28, 2010, the LDWF and LWFC have issued over 60 declarations of emergency which closed, opened, re-closed or re-opened portions of LA inside and outside waters to recreational and commercial fishing. The last action taken was dated in November which reopened crab fishing in a portion of the lower MS River Delta between Southwest Pass and Pass a Loutre.

Since agreeing to the FDA/NOAA fisheries reopening protocol in mid-July, the LDWF has submitted 8 requests to reopen portions of state waters to recreational and commercial fishing which have resulted in the complete openings of the Terrebonne and Pontchartrain Basins and significant portions of the Barataria Basin. At one point in time, as much as 76% of saltwater areas of the state were affected by a recreational and commercial fishing closure at some point in time. On July 5, 2010, approximately 4,425 square miles or 57% of state waters were closed to recreational and commercial fishing. Currently, 1.5% of saltwater areas of the state remain closed to commercial fishing and approximately 0.5% of these areas remains closed to recreational fishing except for recreational angling and charter boat angling.

Tissue sampling for seafood safety: This assessment has been a two-pronged approach, with private testing labs being used to analyze seafood coastwide on a regular, ongoing basis. In addition, the state has entered into a cooperative agreement with NOAA and the U.S. FDA, who analyze samples taken in areas proposed for re-opening after closures due to oil impacts. Both state and cooperative NOAA / FDA sampling programs evaluate the same set of polycyclic aromatic hydrocarbons (PAH). The state sampling also assesses total aliphatic hydrocarbons. To date, 512 statewide samples have been taken for seafood monitoring, none of which have had any PAH level near or above the established levels of health concern. This included several samples provided by individuals that reported suspected oil in their seafood. In addition, 142 samples have been taken for the NOAA / FDA re-opening protocols. Each of those NOAA / FDA samples has consisted of several samples for sensory testing, as well as another sample for chemical analysis. None of those have had any levels of hydrocarbons near or above the levels of health concern, and none of the sensory samples have been rejected due to petroleum or dispersant taint.

Habitat issues: Fisheries staff has been working on several habitat issues related to the Deepwater Horizon oil spill. On the Natural Resources Damage Assessment (NRDA) front, staff is working on developing study plans for assessing damages for: Fish, marine mammals and turtles, oysters, SAV, benthic habitats, shoreline (including marsh and mangrove vegetation). Staff is working with NOAA and contractors in field efforts. This is a long-term task, and is just in the beginning phases. Fisheries personnel, including Marine Section, Inland Section, and the Marine Lab have also had responsibility for area reconnaissance. That has accounted for approximately 1,678 man days, 757 vessel days, and 704 reconnaissance trips. This information was used to help determine extent and severity of oil contamination in state waters, which was part of the information used in the process of making decisions on closing and re-opening areas for recreational and commercial fishing.

Fisheries personnel also responded to many reports of marine animal mortality events, including fish kills, turtle and dolphin strandings. Characterization of the fish kills was made, and forensic sampling of dead turtles and dolphins was done to attempt to determine cause of death. Collection of dead animals was made when feasible. Several turtles and a dolphin were rescued, and rehabilitated through cooperation with the Audubon Aquarium facilities and staff.

From the onset of the Deepwater Horizon Oil Spill Incident to the end of 2010, the Louisiana Department of Wildlife and Fisheries and others investigated a total of 81 marine mammals throughout the entire coast of LA. Of these animals the following are included:

- 3 whales
- 3 neonates confirmed
- Obviously externally oiled dolphins = 4 (including all size classes)
- 11 live stranded dolphins (most of which were immediately rereleased once assessed)

In 2011 (as of February 28, 2011) a total of 35 marine mammals have been investigated by the Louisiana Department of Wildlife and Fisheries throughout the entire coast of LA. Of these animals the following are included:

- 2 whales
- 1 fetus from a dead pregnant female that was recovered
- 2 live dolphins (1 was rereleased on site, and 1 is currently undergoing rehabilitation)
- Obviously externally oiled dolphins = 4 (including all size classes)
- Confirmed neonates = 4

Data Management: Since the BP oil spill over 2,300 requests for trip ticket landings have been processed for fisherman claims. After BP announced that it would require certified copies of trip ticket from LDWF, the Department started receiving multiple sets of trip tickets from previous years, 2008 and 2009 in particular. All late submissions were thoroughly reviewed and forwarded to LDWF Enforcement for investigation. Several citations have been issued and two arrests for fraud have been made to date. Investigations are still continuing.

Inshore / Nearshore Sampling: In response to the need for information to assess the status of living marine resources in inshore waters, and in the shelf waters off of Louisiana, a long-term sampling program has been designed. Inshore sampling will be a modification of the long-term existing sampling program, with the addition of new stations and incorporating a stratified random sampling



design into the existing program. Offshore sampling will consist of a series of trawl transects across Louisiana. Sampling for these programs began March 1, 2011.

### **Hurricanes Recovery Programs**

The Louisiana Department of Wildlife and Fisheries (LDWF) is in the process of completing many of the projects related to hurricane damage assessment and recovery following Hurricanes Katrina, Rita, Gustav and Ike.

Cooperative Research Surveys: A survey of commercial harvesters and wholesale/retail dealers has been developed to help characterize the long-term effects of the hurricanes on their operations. Those include the types of effects, and the costs associated with repair or replacement and lost revenues. The purpose of this survey is to help understand the factors that need to be addressed, and in what priority, after a catastrophic event. As of July 31 2010, 296 wholesale/retail seafood dealer surveys and 629 commercial fisher surveys have been scanned. As of July 31 2010, \$12,223,551 has been disbursed under the program.

Commercial Fisherman/Dealer Reimbursement Program: To date, 2,978 vendors have received 1st round checks, totaling \$14,867,489 in funds (74% of all eligible vendors). This quarter saw a large number of second round checks issued (1,989), bringing the total of second round checks to \$9,731,783 (66% of 1<sup>st</sup> check recipients). A total of \$24,599,272 in funds has been sent to eligible participants.

Seafood Certification Program: LDWF has begun to initiate all phases of its seafood certification program. This spring / summer LDWF will take the final steps toward MSC certification of its blue crab fishery, as well as review 5 completed pre-assessments on shrimp, oyster, black drum, crawfish, and catfish, to determine which fisheries will move forward to full assessments. LDWF has worked in coordination with Louisiana SEAGRANT to develop draft curriculum for its professionalization program which it hopes to initially roll out as part of the Louisiana Workforce Commissions "Turning the Tide" program.

LDWF and Louisiana SEAGRANT along with the Seafood Certification Steering Committee have developed draft shrimp quality assurance standards which LDWF hopes to present to the Shrimp Task Force this spring. The Louisiana Seafood Promotion and Marketing Board is in the final phases of a contract with Focus Research to develop a trademark logo and conduct consumer research for the Seafood Certification Program. At the last steering committee meeting, sketches of possible logo designs were presented for comment and review.

Marine Debris Removal Program: LDWF has continued work on the removal of marine debris in state waters under a contract awarded to Crowder-Gulf Joint Venture, Inc. The original contract was structured whereby the contractor is assigned side scan sonar survey and debris removal within individual grids measuring four-square miles for a fixed price of \$37,100 per grid. This contract has been amended whereby the contractor is assigned side scan sonar surveys of selective grids for a fixed price of \$14,500 per grid and debris removal in selective grids for a fixed price of \$23,600. This approach has resulted in cost savings as the costs of debris removal within surveyed grids

containing relatively few or particularly small targets may be avoided allowing LDWF greater flexibility in assigning debris removal in selective grids containing high target densities. The contractor uses side scan sonar equipment to survey all water bottoms within each assigned grid to identify the location of debris contacts (waters less than 3 feet in depth are not surveyed due to sonar's limited effectiveness in shallow waters). Contractor is required to utilize Louisiana resident licensed vessels and crews comprised of Louisiana resident fishermen and charter boat operators to retrieve debris. Marine debris removal work began in July 2007 within portions of Lake Borgne, followed by clean ups within portions of Lake Pontchartrain (Middle Ground), Lake St. Catherine, Calcasieu Lake, Vermilion and Cote Blanche bays, and Barataria and Caminada bays north of Grand Isle. Through June 2010, approximately 440 square miles of the state's shrimp fishing grounds have been cleared of debris at a cost of \$4.081 million. In January, 2010, LDWF assigned the contractor with side scan sonar survey of 30 grids located in the southeastern portion of Lake Pontchartrain. Based upon review of the side scan sonar survey data, the contractor was assigned debris removal in 27 of these 30 grids. Marine debris removal operations have concluded in Lake Pontchartrain and LDWF is anticipating delivery and review of the close out package within the next few weeks.

### **Habitat Programs**

On other issues related to Louisiana coastal habitat, personnel are working with other state agencies and the USACE to develop models for prediction of impacts to fisheries from large coastal restoration and management projects. The first such effort was in support of the particle movement models for larval ingress into Lake Pontchartrain with the hurricane levee projects in the "Golden Triangle" area. They have also worked with the USACE in support of the CASM model for the MRGO/Violet effort. Additional efforts may address a possible levee alignment across the Barataria Basin at the GIWW and a proposed diversion at Myrtle Grove.

LA is preparing to update the Master Plan for Coastal Restoration and Protection. LDWF staff participated in initial meetings regarding the wildlife and fish inputs to Habitat Suitability modeling for the effort.

### **Research and Assessment**

Louisiana continues to examine the life history and fisheries characteristics of species that are experiencing increasing harvest pressures with new regulations (such as gray and vermilion snappers).

The spotted seatrout is one of the most popular sport fisheries in Louisiana. A stock assessment of this fishery is currently ongoing. Catch at age tables from fishery-dependent data are being constructed, and population parameters (e.g., growth, mortality) are being estimated at the present time. In response to the DWH MC-252 oil spill, a more comprehensive assessment of oyster mortality is also being conducted using SCUBA and Square meter samples to assess direct mortalities of seed, sack and market-size oysters. Mortality estimates are being estimated state wide and by Basin. To achieve greater confidence in mortality estimates we have increased the number of sample stations and increased the frequency of sampling to weekly site visits.

We have completed a contract with the U.S. Army Corps of Engineers to investigate community structure and trends in commercially important species with respect to the Mississippi River-Gulf

Outlet (MRGO). This study used long-term standard sample data collected by LDWF Marine Fisheries Section from 1988-2009 in the inshore habitats associated with Lake Borgne and Breton Sound. We used data from 16' otter trawls, bag seines, and gill nets along with concurrent water quality data to determine if community structure was associated with changes in salinity, temperature, or turbidity over (1) the entire study period and (2) 5 years prior to and 4 years after Hurricane Katrina. Our multivariate ordination (partial canonical correspondence analysis) of these data revealed that community structure and species diversity has been stable from 1988-2009. However, changes in species composition were more pronounced when comparing the pre-Katrina and post-Katrina periods. Vast amounts of saltmarsh habitat were lost as a result of Katrina's storm surge through the MRGO. Consequently, changes in species relative abundances were detected following Hurricane Katrina. In general, from the 16' trawl data, there was a statistically significant increase in water column species such as bay anchovy and striped anchovy with a decrease in demersal species such as Atlantic croaker, flatfishes, and gobies. From gill net data, we found increases in large-bodied omnivorous species such as gafftopsail catfish and Atlantic croaker but also a decrease in predators like spotted seatrout, silver perch, and southern kingfish. From seine data, we found significant increases in saltwater-tolerant species such as Atlantic brief squid, blackcheek tonguefish, and gafftopsail catfish with decreases in freshwater-tolerant species like Gulf menhaden, Atlantic croaker, and Gulf pipefish (a species of conservation concern in Louisiana).

We are also working to develop a predictive model of brown and white shrimp using our fishery-independent data (6' and 16' otter trawls) and environmental data such as precipitation, river discharge, water temperature, salinity and cumulative number of flood tide days. In addition we are incorporating economic factors in the analysis such as average fuel prices. Models developed from this analysis will potentially be used to better assist in managing the shrimp fishery in our state waters.

We recently initiated a study to investigate movement and distribution of the federally endangered Kemp's Ridley sea turtle. We will be conducting beach surveys to look for evidence of nesting sea turtles on the Louisiana coast, and we are applying 6 Kiwisat™ satellite tags onto adult individuals. These tags will continuously collect data for approximately 9 months to a year. Data from these tagged turtles will be made available to the public via a website that will be used to track the turtles.

We continue to examine the influence of freshwater diversions of the Mississippi River on shellfish and finfish community structure as well as commercial and recreational fishing effort. In particular, we are focusing on the Barataria Basin which is influenced by water diverted from the Davis Pond structure. We have monthly/semimonthly data from 1998 (4 years prior to the opening) up to the present time.

Age and Growth: Collection of age, growth, and reproductive information used to develop age-structured stock assessments is coordinated through the Fish Assessment Laboratory, in Baton Rouge, La.

Since the fall of 2009 the Fish Assessment Lab has monitored 15 species of fish. Monitoring is done by the collection of otoliths and spines (gray triggerfish), for ageing purposes. Length, weight, gender, and location are also recorded when these fish are collected in the field. The 15 fish species

consist of 12 saltwater and 3 freshwater species. The freshwater species are largemouth bass, black and white crappie. Currently, the saltwater species are red drum, black drum, sheepshead, gray snapper, spotted seatrout, striped mullet, red snapper, southern flounder, vermilion snapper, greater amberjack, gray triggerfish (spines) and king mackerel. All otoliths/spines are obtained through fisheries dependent sampling.

So far in the fiscal year of 2010/2011 the Fish Assessment lab has received and processed 5,502 otoliths and 7 Gray Triggerfish spines. We have received otoliths/spines for each of the 15 species. All of the samples collected at this time have been read, (meaning aged), entered in the database, and verified. The numbers aged by species:

**Table 1.** The statewide Fiscal Year 2010-2011 (July 1, 2010 to June 30, 2011) numbers aged by the Fish Assessment Laboratory.

<b>Saltwater Species</b>	<b>Received</b>
Gray Snapper	54
Sheepshead	261
Spotted Seatrout	724
Black Drum	258
Red Drum	521
Striped Mullet	215
Red Snapper	278
Vermilion Snapper	20
Southern Flounder	330
Gray Triggerfish	7
King Mackerel	106
Greater Amberjack	49
<b>Total</b>	<b>2823</b>

<b>Freshwater Species</b>	<b>Received</b>
Largemouth Bass	1220
Black Crappie	907
White Crappie	559
<b>Total</b>	<b>2686</b>

**Fisheries Research Lab**

Lab personnel responded to marine mammal and turtle strandings from Terrebonne Bay to Breton Sound.

SEAMAP shrimp/groundfish cruises were handled by lab personnel to gain information from fishery independent sampling. Collection gear consisted of 42' trawls, bongo and neuston plankton nets, and CTD rosette for data and water collection.

Lab staff collected Red Drum samples for age, growth, and fecundity studies. Also, personnel from the Fisheries Research Laboratory prepared for Vertical and Bottom Longline sampling that will collect data on various reef and bottom dwelling species.

In response to the need for information to assess the status of living marine resources in the shelf waters off of Louisiana, a long-term sampling program has been designed. Offshore sampling will consist of a series of trawl transects across Louisiana, using standard 42' SEAMAP otter trawl, and planning to occupy over 380 stations annually. Sample sites will be run from 5 fathoms to 40 fathoms, at 5 fathom intervals. Sampling will be done monthly, in different areas of the state (west, central, and east), so that all areas of the shelf are sampled quarterly.

SEAMAP cruises were handled by lab personnel to gain information from fishery independent sampling. Collection gear consisted of 42' trawls, bongo and neuston plankton nets, and CTD rosette for data and water collection.

### **Data Management**

LDWF is working with its contractor on conversion from the legacy SAS data management system to a SQL data base with SAS IT analysis capabilities. The second phase of the project, development of the relational data base structure, is underway. Data security and access routines are also under development. Conversion of LDWF's independent sampling data has been completed and is undergoing user testing.

### **Artificial Reef Program**

The Artificial Reef Program continues to assess and permit reef deployments related to oil and gas structures. The Artificial Reef Program has been very active in accepting new structures into previously permitted Artificial Reef sites. Also, the Program is in the process of re-evaluating its program of Special Artificial Reef Sites (SARS) to ensure clarity of purpose and consistent application and evaluation of sites. Development of inshore artificial reefs in Lake Pontchartrain is in the planning stages, using bridge rubble from the hurricane-damaged I-10 bridge. Planning is also ongoing to enhance other inshore artificial reefs in the Lake Pontchartrain and Terrebonne Parish areas using limestone (Terrebonne Parish) and reef balls (L. Pontchartrain).

The LDWF is collaborating with Southeastern Louisiana University to examine the genetic structure of red drum and spotted seatrout populations within Louisiana's bay systems. The spotted seatrout study includes the derivation of additional genetic markers that can be used to enhance the ability of researchers to distinguish differences between sub-populations of spotted seatrout.

### **Shrimp Fishery**

By most estimates, fishing effort in the LA shrimp fishery remains about 60-70% of levels reported last year. Reasons are: many fishermen and vessels were employed in the vessels of opportunity program, soft markets, low dockside shrimp prices and commercial fishing closures. Good news is that only a very small percentage of saltwater areas of LA remain closed to commercial fishing (1.5%). LDWF trip ticket data are not yet available beyond November but below are preliminary shrimp landings data from NMFS for May through December. Despite declines in fishing effort, shrimp landings in December, 2010 have rebounded producing the highest December total in many

years.

Landings, (all species, headless, millions of pounds):

	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2010	4.136	4.996	1.326	3.598	4.939	6.181	6.071	5.175
2009	12.701	10.903	4.338	5.257	5.746	7.338	4.452	1.707
2008	8.614	9.93	3.832	3.212	2.457	7.501	6.154	2.584
2007	10.684	14.835	5.815	4.962	5.729	8.325	5.515	3.161
2006	15.52	12.968	8.278	11.695	7.812	9.368	7.119	3.236

Act No. 606 of the 2010 Regular Legislative Session creates the Louisiana Shrimp Task Force within the Department of Wildlife and Fisheries. In addition to an active dock buyer of shrimp appointed by the Governor, voting members shall include nominees submitted by the Louisiana Shrimp Association, American Shrimp Processors Association and the Secretary of the Department of Wildlife and Fisheries.

According to Act 606, voting members shall include "three members and three alternate members appointed by the governor each of whom shall possess a commercial fisherman's license with a "certified" endorsement, with four to be selected from a list of six nominees submitted by the Louisiana Shrimp Association and two to be selected from a list of six nominees submitted by the secretary of the Department of Wildlife and Fisheries. Voting members shall also include three members and three alternate members appointed by the governor who are active Louisiana shrimp processors, at least one of whom is selected from a list of three nominees submitted by the American Shrimp Processors Association.

### **Crab Fishery**

Preliminary trip ticket landings data indicate that blue crab landings (millions of pounds) for May through November are approximately 45% below levels reported for the same period last year.

	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2010	3.519	3.507	2.945	2.982	2.581	2.064	2.109	
2009	5.649	7.116	5.926	6.342	4.381	4.363	3.694	3.66
2008	3.672	4.858	4.464	4.373	2.522	4.951	4.447	4.647
2007	4.079	5.646	6.354	5.865	3.592	3.708	3.366	3.042
2006	5.528	6.814	7.439	7.076	4.842	4.286	3.544	3.217

In September, 2010, the LDWF did not recommend conducting a 2011 winter crab trap closure and derelict crab trap cleanup due to ongoing responses to the Deepwater Horizon oil spill, Natural Resource Damage Assessment (NRDA) planning and sampling and concerns with existing staffing and equipment limitations. However, in late January, 2011, Plaquemines Parish government formally requested the Secretary of LDWF and the Louisiana Wildlife and Fisheries Commission (LWFC) to temporarily close certain Plaquemines Parish waters to the use of crab traps for the

purpose of conducting a trap cleanup. At its February 3, 2011 meeting, the LWFC adopted a declaration of emergency closing a portion of state waters located in Plaquemines Parish west of the Mississippi River to the use of crab traps for an 8-day period from February 26 – March 5, 2011. Due to extended fishing closures within these waters, large numbers of traps were abandoned posing additional hazards to recreational and commercial fishermen and boaters and to crews conducting oil spill clean-up operations. Additionally, portions of the trap closure area occupy waters which still remain closed to all commercial fishing due to the DWH oil spill. As a result of the continued presence of oil in portions of the closure area, the LDWF has contracted removal of these traps through a private company. Cleanup activities are ongoing and trap removal data remain unavailable at this point in time.

### **Oysters**

Although scheduled to open in mid-November, the 2010/2011 oyster season on the public grounds east of the Mississippi River and in the Hackberry Bay Public Oyster Seed Reservation (within the Barataria basin west of the river) was delayed until further notice. The 2010 oyster stock assessment, released in August 2010, showed reduced oyster stocks in this area. In addition, biological sampling showed the widespread presence of newly-settled spat on public reefs in a portion of this area and significant oyster mortalities (likely due to low salinity and high water temps) on public reefs in another portion of the area. Due to low oyster abundance and the presence of spat, an unprecedented season delay was ordered by the Louisiana Wildlife and Fisheries Commission upon recommendations from both LDWF and the Louisiana Oyster Task Force.

The 2010/2011 oyster season was opened, however, in other parts of the Louisiana coast. Calcasieu Lake opened on October 15, 2010 and has provided the bulk of Louisiana oyster landings to date (approximately 60,000 sacks). Additional areas opened between October 29 and November 15, but have provided only small contributions to overall state landings. Biological sampling continues and modifications to this seasonal framework may occur as needed. All 2009 cultch plants indicated above will remain closed to harvest for the 2010/2011 season.

Extensive side-scan sonar evaluation of public oyster seed grounds is on-going east of the Mississippi River. Over 75,000 acres were recently completed in the Black Bay area and nearly 150,000 acres is currently being side-scanned in the open waters of Breton Sound. These projects are providing much-needed and valuable reef-mapping information for the public oyster seed grounds in this area.

### **Finfish**

Louisiana opened, closed and re-opened the recreational red snapper season with creel and size limits consistent with Federal regulations. The recreational harvest of red snapper in the first recreational season was reduced to a small fraction of normal, since many of the waters available to the primary ports for recreational fishing were closed for the entire season.

Louisiana closed the commercial season for Large Coastal Shark consistent with Federal season rules.

Act 979 of the 2010 Regular Legislative Session modified the season for the commercial harvest of



spotted seatrout using a commercial rod and reel to run from January 2 of each year until the end of the year, or until the commercial quota is harvested, whichever comes first.

Louisiana closed the commercial season for greater amberjack consistent with Federal quotas.

Louisiana closed the commercial season for Small Coastal Shark consistent with Federal season rules.

Louisiana closed state waters to the recreational harvest of gag grouper consistent with Federal temporary rule.

Louisiana set 2011-12 commercial and recreational reef fish seasonal rules to be consistent with Federal season rules.

Louisiana set the 2011-12 commercial king mackerel season to open July 1.

Louisiana closed the 2010-11 commercial king mackerel season consistent with Federal season rules.

The annual stock assessment for striped mullet was presented to the Louisiana Wildlife and Fisheries Commission for transmittal to the Louisiana Legislature.

**Texas** – Mike Ray provided the following written report for Texas Parks and Wildlife Department.

#### LEGISLATIVE ISSUES

The 82nd Texas Regular Legislative Session has been relatively quiet for Coastal Fisheries. So far, topics have included mercury as related to fish consumption, water rights, and TXDOT's authority for requesting environmental reviews. Other bills of interest involve requirements for active military members to carry a current ID card to prove eligibility for exemption from needing a recreational fishing license, an amendment to the rule requiring a fishing license to possess fish on a recreational vessel, an oyster shell recovery and replacement program (SB932), a proactive measure allowing the sale and consumption in Texas of raw oysters harvested from Texas waters even if federal regulations prohibit the out-of-state sale of Texas oysters (SB 387), an exemption for anglers 65 and older from needing to purchase a fishing license (HB550), and some other water related bills.

The 82<sup>nd</sup> Texas Legislature convened with a projected \$15 billion revenue shortfall for the upcoming biennium. House Bill 1 reduced TPWD's biennial budget by \$162 million, a 25% reduction, with \$120 million in FY12 and \$42 million in FY13 and eliminates 304 full time employee positions in FY12 and 233 positions in FY13 (TPWD will be allowed to reacquire 71 of the positions lost in FY12). The bill eliminates all new capital equipment purchases, including vehicles, boats, computers, computer systems, and other equipment and systems. It eliminates all grants and new capital construction. It reduces Coastal Fisheries funding by \$1.5M in FY12 (10%) and \$1.4M in FY13 (9%), which includes reducing the License Buyback programs by \$1.1M in FY 12 and FY13.

## REGULATORY ISSUES

In 2010, the TPWD restructured hunting and fishing regulations which separated recreational and commercial fishing rules. In the process, two typographical errors were introduced, indicating wrong minimum length limit for gag grouper and snook. Proposed changes will rectify these errors by reflecting the actual minimum length limits (22 inches for gag grouper and 24 inches for snook).

In 2007, TPWD restricted the means for taking red snapper to angling with pole-and-line and only circle hooks. The intent of this change was to be consistent with rules in federal waters in order to eliminate the possibility of different enforcements. Federal rules require circle hooks to be used only when fishing for red snapper with natural bait. A new proposal will clarify that only natural bait may be used to fish for red snapper with circle hooks.

A proposed change to bycatch retention on shrimp boats include only licensed commercial shrimp boat owners and commercial shrimp boat captain's license-holders may retain bycatch. No other person on board may retain fish. Bycatch retention limit is 50% of the weight of the total shrimp catch. Recreational limit of finfish may be retained by license-holders but cannot exceed 50% limit.

As part of the annual statewide proclamation process, Coastal Fisheries Division staff hosted a series of coastwide scoping meetings during January to obtain public input on potential conservation measures for spotted seatrout in Texas. On 20 January, staff met with its Coastal Resources Advisory Committee met in Austin to assess comments received from spotted seatrout scoping meetings. Committee members thoroughly discussed the results of the scoping meetings and provided their thoughts about the scoping process and the information generated, that were nearly split down the middle whether more restrictive management measures are needed at this time. After the TPWD Commission was briefed at the end of January, the decision was made not to change any conservation measures for spotted seatrout at this time.

### **Menhaden Total Allowable Catch**

The final adjusted estimated pounds of gulf menhaden caught in Texas waters and landed in Louisiana during the 2010 fishing season totaled 20.7 million pounds. This represents 65.6% of the 31.5 million pound Texas Total Allowable Catch, an increase of 59,022 pounds from the estimated 20,602,500 pounds of menhaden reported on 2010 CDFRs. Considering the +10% rule, the 2011 quota is 34,650,000 pounds.

## COASTAL FISHERIES PROGRAMS & PROJECTS

### **Abandoned Crab Trap Removal Project**

During 19-27 February 2011, 188 volunteers helped collect 1,491 crab traps from Texas coastal waters, 38% from Galveston Bay and 37% from San Antonio Bay. Since 2002, this project has removed 29,053 abandoned crab traps.

### **Fish Stocking Efforts**

2011 Production Total = none to date

### **PRBMFRS Life History Research**

Alligator gar otolith and gonad samples were collected from the Cedar Lakes area for a preliminary reproductive biology study.

Gray Snapper samples were collected and processed for a life history study.

Routine monitoring otolith collections from gill net samples were continued, as was processing and aging of otoliths collected in previous years.

Otoliths from red drum sampled for a genetics project conducted by Dr. John Gold, Texas A&M University were processed and aged.

FIN-Biological Sampling Project, funded by this Commission, continued with the collection and processing of otoliths from various marine species by two new contract staff to help reduce the current data entry backlog of otolith ring counts.

Temperature tolerance studies of juvenile southern flounder were initiated, experimental apparatus was designed and tests were run using pre and post metamorphosis southern flounder larvae.

#### **PRBMFRS Genetics Research**

Sample collection and processing for southern flounder and alligator gar genetic variation studies continues.

A cooperative effort with Texas A&M University at Galveston involving species identification confirmation of snook species collected in Texas waters continued, and additional samples from Mexico were analyzed.

A project to track the severity of oyster disease using QPCR (Quantitative real-time Polymerase Chain Reaction) continued. This project is partially funded by the Texas Water Development Board.

Species identification of processed and packaged commercial shrimp was conducted for NMFS law enforcement.

A proposal to conduct a genetic survey of stranded green sea turtles was discussed with the Texas turtle stranding network staff. The TTSN will provide tissue plugs from stranded green sea turtles for genetic analysis to be conducted at PRB.

#### **Artificial Reef Project**

During October - February, 3 rigs were reefed, generating \$952,000 in donations. Another 20 active projects are underway and are in various stages of completion. One reef site was added to the General Permit area of the High Island block, making a total of 63 reef sites in Texas (ranging in size from 40ac to over 300ac).

The Artificial Reef Program is working with the Port Aransas Boatmen's Association and Saltwater-Fisheries Enhancement Association (SEA) to plan for "Planning Zones" off Corpus for future Rigs-

to-Reefs sites. The planning zones are required by the Bureau of Ocean Energy Management, Regulation and Enforcement (BOERME), the old US Minerals Management Service, through an addendum to the Rigs-to-Reefs Policy. At this time, no new artificial reef, outside the General Permit Area, can be created using platforms. Established reef sites can be used. This has caused much concern by the local fishing groups and TPWD because platforms are being removed at an accelerated rate and the partial removal option has basically been removed in all waters outside the General Permit Area. A planning zone must be approved by BOERME, but BOERME does not have the manpower to dedicate to this problem until after BOERME is reorganized sometime in late fall 2011. TPWD is moving forward with trying to have companies tow their structures to existing reef sites, but this does not work in all cases. TPWD is also working with BOERME and other agencies/groups to establish the planning zones for future approval. Over 600 platforms Gulf-wide are scheduled for removal in the next 3 years. These BOERME planning zones affect all Gulf States and all Artificial Reef Coordinators present at the GSMFC Artificial Reef Subcommittee meeting on 1-2 March 2011 expressed their concerns.

TPWD is contracting with TAMU-Galveston to conduct a geophysical and archeology survey of the Vancouver Liberty Ship Reef, off Freeport, as part of an extended biological monitoring study. The archeology survey is needed by the US Army Corps of Engineers to expand the nearshore site from 40 acres to 160 acres. Future plans include adding more pyramid reefs at the site to complement the Liberty Ship and other concrete culverts.

TPWD continues to work with the City of Corpus Christi and Saltwater Fishing Enhancement Association to permit MU-775, a 160-acre nearshore reef site in Texas state waters off Corpus Christi. The permit application has been submitted to the US Army Corps of Engineers and a decision is expected by late 2011.

Alamo Concrete, in Harlingen, completed the transport of 3,000+ concrete culverts to our reef material storage site at the Port Mansfield. A contract is being bid to reef all the material (over 4,000 culverts) at the nearshore reef by late summer 2011. Coastal Conservation Association will partner with TPWD on this project and has already funded the cost to move the culverts to the storage site.

After the impact of the BP Oil Spill last summer, biological monitoring trips have been scheduled at least once per quarter for 2011. A new team of TPWD scientific divers and volunteers have been organized. Separate interagency agreements are being developed for additional monitoring and research through TAMU-Galveston, TAMU-Corpus Christi, and UT-Brownsville.

A new TPWD Artificial Reef display will be displayed during the March 14-16 Decommissioning Conference in Houston. We anticipate reaching hundreds of petroleum representatives during the conference to discuss the Rigs-to-Reefs program in Texas. Saltwater-Fisheries Enhancement Association sponsored the booth fee as a partner in saving as many platforms for reefs as possible.

Information Technology's GIS Lab's Resource Information System (RIS) team and Coastal Fisheries Artificial Reef Program have developed and released an artificial reefs interactive mapping application. Designed to increase awareness and promote use of artificial reefs in the Gulf of Mexico, the new app allows the public to find artificial reef locations as well as information on the materials within each reef. Users can search for reefs by name, material, or location and create a custom map with other geographic layers, like depth information and buoy locations. For users

interested in planning fishing or diving trips, the app provides tools for measuring distances, viewing the nearest gulf access location, and determining reefs within a certain distance from a user-defined point. The app was developed using US Fish and Wildlife Service State Wildlife Grants (SWG) funds. To find the map, go to [www.tpwd.state.tx.us/artificialreef](http://www.tpwd.state.tx.us/artificialreef), then link to the map through the link at the bottom of the page (interactive map).

## **Buyback Programs**

### **Inshore Shrimp Buyback Program**

Inshore shrimp buyback round #27 application period closed on 29 October 2010. During this round, 39 bids were received and a total of 20 (11 bay and 9 bait) licenses were purchased at a total cost of \$177,700. The average purchase price was \$8,885.

Shrimp - Overall totals since 1996

- 2,081 licenses purchased
- 1,049 bay licenses and 1,032 bait licenses
- Total cost of \$13.8 million
- $2,081 / 3,231$  original licenses = 64%

### **Crab Buyback Program**

Crab buyback round #13 application period closed on 9 April 2010 during which 6 applications were received and 1 license was accepted at a total cost of \$9,500.

Crab - Overall totals since 2001

- 51 licenses purchased
- Total cost of \$327,249
- Average price over all rounds = \$6,417
- $50 / 288$  original licenses = 18% of total

### **Finfish Buyback Program**

Finfish buyback round #16 application period closed on 29 October 2010 during which 22 applications received and 9 licenses were purchased at a total cost of \$85,000 and an average of \$9,444.

Finfish - Overall totals since 2002

- 231 licenses purchased
- Total cost of \$1,348,450
- Average price over all rounds = \$5,837
- $231 / 549$  original licenses = 42%

## **Oysters**

In late December, CF staff met with members of the Texas commercial oyster industry to further discuss details associated with two oyster management options that have been requested by this fishery. The first option is developing a shell recovery program whereby oyster shell or other suitable cultch material would be returned to public reefs to enhance oyster production by providing additional substrate for spat to attach. The second option would develop a protocol where areas could be quickly closed (within 72 hours) to commercial harvest when the quantity of legal oysters

drops below a specified level. Both items require legislative approval and, at the time of this writing, a bill has been filed in the senate and a companion bill is expected to be filed within the week.

In early January, Coastal Fisheries staff met with Department of State Health Services, Seafood and Aquatic Life Group, and oyster leaseholders to discuss options for addressing Vibrio-related illnesses resulting from summer harvested oysters. The goal of a 60% reduction in Vibrio cases from the five core states (FL, MS, LA, TX, and CA) was not met last year, even with operating under the time-temperature matrix that required oysters to be under refrigeration and chilled to 55° F within a certain number of hours of harvest. It is anticipated that the FDA will require harvest closures (for half-shell product not destined for post-harvest processing) during parts of the summer.

## **SPECIAL EFFORTS, STUDIES, AND TOPICS**

### **‘OTHERS’**

In January, Coastal Fisheries staff worked on developing a Gulfwide seafood marketing program funded by British Petroleum and administered by the Gulf States Marine Fisheries Commission. The Commission is working with each of the Gulf states to initiate the program in the near future. A web-based networking service called Market Makers is being used to connect seafood producers with retail outlets and restaurants. It appears Texas Sea Grant or Texas Agri-life (both affiliated with Texas A&M University) will enter into a 5-year, \$15M NOAA Fisheries Gulf seafood marketing contract with Market Makers. For Market Makers to work effectively, Texas Sea Grant and Texas Agri-life will need to make an extensive outreach effort to seafood producers and seafood dealers. Mike Ray represents TPWD in helping bolstering consumer confidence in the aftermath of the Deepwater Horizon oil spill.

During a sustained mid-January cold front, stunned turtles were reported from Port Aransas to Boca Chica in both Gulf and bay waters. About 13 turtles were reported, mostly from the upper Laguna Madre. TPWD hatcheries were used to rehabilitate recovered turtles. Those recovered from the Gulf may have had other complications (e.g., illness or vessel trauma).

In response to a significant freeze event in early February 2011, a 5-day fishing closure was implemented for 21 thermal refuge locations along the coast. News releases were distributed to media and social networking outlets.

On 1 February and again on 9 February, air temperatures dropped below freezing, decreasing water temperatures near 32<sup>0</sup>F in various parts of bays, coastwide. As a result, an estimated 240,000 fishes, representing 26 species, died along the Texas coast. The majority of the coastwide estimates were from Matagorda Bay (68%), lower Laguna Madre (13%), and San Antonio Bay (11%). Coastwide, about 78% of the impacted fishes represented non-recreational species, including silver perch, mullet, and hardhead catfish; versus 22% recreational species, including spotted seatrout, red drum, black drum, and sheepshead.

During these freeze events, sea turtles were stranded, picked up, rehabilitated and released. A total of 1,520 sea turtles (1,518 green, 1 loggerhead, and 1 hawksbill) were picked up. During 1-7

February, 1,219 sea turtles were picked up compared to 9-14 February when 271 sea turtles were recovered. Although over 230 sea turtles died, the majority were picked up in the lower coast, held in facilities, including TPWD sites, and released or moved to more permanent rehabilitation facilities before being released into warmer waters of the Gulf of Mexico.

In early March, CF staff received notice from TxA&MU that the Imaging Flow CytoBot, in Port Aransas jetties, had detected increasing concentrations (about 2 cells/ml) of the dinoflagellate *Dinophysis ovum*. Additionally, TPWD received a report of discolored water in the Mustang Island area that is presumed to be *D. ovum*. Because of the concern that affected shellfish can cause a non-fatal type of seafood poisoning called Diarrhetic Shellfish Poisoning, the Texas Department of State Health Services (DSHS) began sampling from Aransas Bay north to Galveston Bay. *D. ovum* was found at two locations, inside Galveston Bay at ship channel marker 55 (6.7/ml) and inside the Port Aransas jetties (4.4/ml). There have been no illnesses reported in association with this occurrence of *D. ovum*.

A Department plan to communicate in Spanish has been called a model that federal officials would like to see in other states. TPWD was required by U.S. Presidential Executive Order 13166 to provide equal services to persons with Limited English Proficiency (LEP) in order to continue receiving federal aid funding. This is mirrored in the department's Land and Water strategic plan, which includes a strategy to, "...engage underserved populations through multilingual programs." For about a decade, TPWD has steadily increased its efforts to reach the about 2.7 million people in Texas who do not speak English well or not at all. Most bilingual efforts involve Spanish, since about 90 percent of Texans who speak languages other than English at home speak Spanish.

### **Future Meetings**

**G. Herring** has sent proposal requests to hotels in the New Orleans, Louisiana area for the 62<sup>nd</sup> Annual Meeting to be held October 17-20, 2011. The final site will be selected after those proposals are received and reviewed.

The 62<sup>nd</sup> Annual Spring Meeting will be held March 12-15, 2012. A location in Mississippi has not been determined at this time.

### **Publications List**

A new listing of publications was provided for informational purposes.

### **Other Business**

Commissioners discussed the new briefing book initiative as well as combining the State-Federal Fisheries Management Committee with the Commission Business Meeting. It was the consensus of the group to continue with both the electronic briefing book as well as the combined meeting.

Dale Diaz suggested that the Commission provide copies of the presentations, if available, in advance of the meeting.

*There being no further business, the meeting adjourned at 4:30 pm.*



**GULF & SOUTH ATLANTIC REGIONAL PANEL  
ON AQUATIC INVASIVE SPECIES  
MINUTES  
Tuesday, April 12 & Wednesday, April 13, 2011  
Charleston, SC**

APPROVED BY:  
  
COMMITTEE CHAIRMAN

On Tuesday, April 12, 2011, Chairman **Ron Lukens** called the meeting to order at 1:00 p.m. The meeting began with introductions of the members and guests. **Lukens** introduced new panel member **Peter Kingsley-Smith**. The following were in attendance:

**Members & Proxies**

Lad Akins, REEF, Key Largo, FL  
James Ballard, GSMFC, Ocean Springs, MS  
David Britton, USFWS, Arlington, TX  
Paul Carangelo, Port of Corpus Christi Authority, Corpus Christi, TX  
Earl Chilton, TPWD, Austin, TX  
Pam Fuller, USGS, Gainesville, FL  
Chris Furqueron, National Park Service, Atlanta, GA  
Lisa Gonzalez, HARC, The Woodlands, TX  
Scott Hardin, FL Fish and Wildlife Conservation Commission, Tallahassee, FL  
Kevin Hart, NCDMF, Washington, NC  
Leslie Hartman, TPWD, Palacios, TX  
Jeffrey Herod, FWS, Atlanta, GA  
Rebecca Hillebrant, LA Dept. of Wildlife & Fisheries, Baton Rouge, LA  
Dewayne Hollin, Texas Sea Grant, College Station, TX  
Chuck Jacoby, University of Florida/Florida Sea Grant, Gainesville, FL  
Peter Kingsley-Smith, SCDNR, Charleston, SC  
David Knott, At-Large Member, Charleston, SC  
Herb Kumpf, At-Large Member, Panama City, FL  
Jon Lane, USACE, Jacksonville, FL  
Ron Lukens, At-Large Member, High Springs, FL  
James Morris, Jr., NOAA Fisheries, Beaufort, NC  
Chris Page, SC Department of Natural Resources, Social Circle, SC  
Harriet Perry, GCRL-USM, Ocean Springs, MS  
Dennis Riecke, MDWFP, Jackson, FL  
Don Schmitz, FDEP, Tallahassee, FL  
John Teem, FL Dept. of Agriculture and Consumer Services, Tallahassee, FL  
Keith Weaver, GDNR, Social Circle, GA

**Staff**

Alyce Catchot, GSMFC, Ocean Springs, MS

**Others**

Don MacLean, U.S. Fish and Wildlife Service, Arlington, VA  
Matt Cannister, USGS, Gainesville, FL

George Kenny, NAS Jacksonville, Jacksonville, FL  
Pamela Schofield, USGS, Gainesville, FL  
C. Anna Toline, National Park Service, Sullivan Island, SC

### **Public Comment**

Chairman **Lukens** provided the opportunity for public comment. No public comments were received.

### **Adoption of Agenda**

**D. Schmitz's** presentation scheduled for 4:30 p.m. on Tuesday, April 12 was rescheduled for Wednesday, April 13, 2011 at 8:40 a.m. **E. Chilton** asked that his presentation for Texas for the Member's Forum on Wednesday, April 13, 2011, be given first. **Lukens** requested that a discussion of the Orange Cup Coral document that was finalized by Tonya Shearer be added to the agenda under Other Business. **J. Herod** asked to have **J. Morris** added as a speaker for the Update on the Lionfish Invasion presentation at 1:30 p.m. **A motion to adopt the modified agenda was made, and passed unanimously.**

### **Approval of Minutes**

The minutes of the meeting of the October 27 - 28, 2010 meeting in St. Petersburg, Florida were presented for approval. **P. Fuller** requested that the statement on page 8 under Update on New Introductions which stated 'the origin of Zebra Mussels was not known', be corrected to read 'the origin of **Tiger Shrimp** was not known'. **Lukens** requested that, in the future, page numbers be added to the pages of the minutes. **There being no further changes to the minutes, a motion was made to approve the minutes, and the motion passed.**

### **Update on the Lionfish Invasion and Current/Proposed Management Actions – Action Requested**

**P. Schofield** gave a PowerPoint presentation on lionfish distribution. The first record of lionfish in the Western North Atlantic was in 1985 in South Florida. The lionfish invasion of the Western North Atlantic, the Gulf of Mexico, and the Caribbean Sea is due to two species: *Pterois volitans*, which is widely distributed throughout the Indo-West Pacific Ocean, and *Pterois miles*, which is widely distributed throughout the Red Sea and the Indian Ocean. As of April 1, 2011, there have been over 2,500 lionfish records in the USGS-NAS database. Lionfish distribution is tracked by USGS as part of the Non-indigenous Aquatic Species (NAS) database, which is the national repository for non-indigenous aquatic species-sighting data (fish, invertebrates, herps, and plants). There have been 35 species of non-indigenous marine fish documented in coastal waters of the Southeastern United States. Lionfish tracking by USGS is part of a large, joint research program in partnership with NOAA and REEF. The program focuses on lionfish biology and ecology, control techniques and assessment, assessment of impacts, outreach and education, and much more. This information is publicly available online at <http://nas.er.usgs.gov>. Also on the website is an alert system, and fact sheets with basic biology information, and current distribution maps for each species.

**J. Morris** gave a PowerPoint presentation on invasive lionfish. **Morris** explained that two visually identical species of lionfish, *Pterois volitans* and *Pterois miles*, were introduced into the Atlantic through the United States aquarium trade in the 1980's. In 2000, lionfish were documented as being established off the coast of North Carolina, and are now widespread in the Southeast US and the Caribbean. An invasion of the Gulf of Mexico is currently underway with several sightings in the Northern Gulf waters in 2010. They are expected to invade South America as far south as the northern coast of Argentina.

**Teem** asked if lionfish are expected to pass through the Panama Canal. **J. Morris** explained that the probability was low.

#### Lionfish Biology:

- Lionfish have long life spans and can live for decades. **Morris** stated that there is a Lionfish in the Seattle Aquarium that has lived there for over 30 years.
- They inhabit all marine habitat types and depths, from the shoreline to over 1000'.
- Venomous spines are capable of deterring predators
- They have a temperature tolerance of approximately ~10 – 35C
- They sexually mature in less than one year and spawn in pairs
- A single female spawns over ~2 million eggs per year
- Eggs are held together in a gelatinous mass and are dispersed by currents
- Larval duration is ~25 days

#### Lionfish Ecology:

- Lionfish can reach densities higher than 200 adults per acre
- They are generalist carnivores that consume >60 species of fish and many crustaceans
- They feed during the day and at night, with a higher rate during crepuscular periods
- They have a high affinity for structure, but inhabit most marine habitat types
- Their prey are commercially, recreationally, and ecologically important
- Native predators have been observed to exhibit avoidance for lionfish
- Few parasites, compared to other species
- They exhibit site fidelity

#### Lionfish Impacts – Not just another stressor!

- Lionfish can cause high impacts in less than four years – other stressors have occurred over long time scales
- The scale of lionfish impacts is very large, with extreme impacts to biodiversity
- Potential interactions with other stressors
  - Climate change
  - Ocean acidification
  - Overfishing
  - Coral bleaching
  - Anthropogenic pollution

#### Lionfish Ecological Impacts:

- Biodiversity and resilience of coral, hard-bottom, and artificial reefs

- Potential reduction of ecologically important species such as cleaners, herbivores, and forage fishes
- Cascading impacts across food webs is possible (e.g., predation on herbivores, increased macroalgae, decreased coral biomass)
- Potential impacts to species of concern (Nassau Grouper, Warsaw Grouper, Speckled Hind, Striped Croaker, Key Silverside)
- The scale of ecological impacts is high in magnitude and geographically broad (North Carolina to the Caribbean and the Gulf of Mexico)
- Potential impacts on nursery areas (mangroves)

#### Socio-economic Impacts:

- Potential impacts to stock-rebuilding efforts for commercially important species
- Potential reduction of native species catch rates (e.g., lobster trap fisheries)
- Economic losses for commercial fishermen include loss of fishing days when envenomation occurs
- Potential impact to tourism due to lack of diversity, reef health, and diving safety concerns

#### Human Health Impacts:

- Lionfish sting symptoms include tachycardia, hypertension, hypotension, seizures, chest pain, abdominal pain, swelling, pain, and subdermal necrosis at the sting site, and temporary paralysis to all extremities
- Long-term health impacts of repeated envenomations are unknown
- High densities = high encounter rates
- Envenomation risk to bathers/swimmers increases at locations with structure such as piers, breakwaters, and confined tidal swimming pools

#### Control and management strategies:

- Control plans that support sustained removals can significantly reduce local Lionfish densities
- Programs for local lionfish control include commercial harvesting as a food fish, sport tournaments, and adopt-a-reef and other citizen-based removal efforts
- Based on current technology, lionfish eradication at the regional scale is not feasible, given the expansive depths and geography of lionfish habitat
- Proven capture methods include spearfishing, netting, and bycatch from traps and hook-and-line

#### Eat Lionfish Campaigns:

- Objectives: To encourage fishing pressure on lionfish in local areas and stimulate market development
- Benefits: Control in protected areas, locations with accessible reefs (i.e., some Caribbean islands), economic, and ecological
- We do not believe that fishing pressure can reduce the entire lionfish population, but can control in local areas

#### What's Happening Domestically?

- House Resolution 132
  - Submitted by Delegate to Congress Donna M. Christensen
  - 03/01/2011 - Referred to the House Committee on Natural Resources
  - 03/02/2011 - Referred to the Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs
  - Urges development of a comprehensive, scientifically-based, region-wide strategy, including local management plans and international partnerships, to address the lionfish invasion in the Atlantic Ocean. The Resolution supports scientific research and capacity-building to develop and implement responses to the invasion. It encourages raising public awareness about the invasion across the United States and its territories through outreach and education
  - Congresswoman Christensen is identifying potential sources for funding
- NOAA’s Lionfish Action Plan
- Puerto Rico
  - Fishing Regulation #7949 of Nov. 24, 2010. Article 22 – Special Dispositions for Lionfish
- US Virgin Islands – Lionfish Management Initiative Bill underway in Senate
- NOAA National Marine Sanctuaries Response Plans

What’s Happening Internationally?

- ICRI Regional Lionfish Workshop (Aug. 2010 – Cancun, Mexico)
  - Broad attendance (16 countries)
  - Best practices discussion and scoping of a manual

International Coral Reef Initiative (ICRI):

- Created an Ad Hoc committee to “facilitate a coordinated response to the lionfish invasion in the Caribbean” (Nov. 2010)
  - Committee representation: ICRI, CAR-SPAW, Mexico, U.S., REEF, CABI
    - Build active participation
    - Disseminate best practices manual
    - Develop a regional lionfish strategy
    - Give lessons learned to other regions for ED-RR

Specially Protected Areas and Wildlife – Regional Activity Center (SPAW-RAC):

- Passed a motion to promote “Participation in the development of a Caribbean regional response to the lionfish invasion”. (Oct. 2010)

Center for Agricultural Bioscience International (CABI):

- MTLASIC project-  
**Mitigating the Threats of Invasive Alien Species in the Insular Caribbean.** Launched in October 2009, the project’s goal is to conserve globally important ecosystems, the species and genetic diversity within the insular Caribbean. The project’s objective is to mitigate the threat to local biodiversity and economy from IAS in the Insular Caribbean.
- Bahamas lionfish pilot

- Jamaica lionfish pilot
- Marine invasives strategy

Gulf and Caribbean Fisheries Institute:

- Lionfish special sessions during annual meeting
  - 2008: Guadeloupe, FWI
  - 2009: Venezuela
  - 2010: San Juan, Puerto Rico
  - Fall 2011: Mexico

**Chilton** asked about parasites in lionfish. **Morris** explained that their parasite work is very preliminary at this stage. Recent observations of invasive lionfish collected off North Carolina and in the Bahamas have found low prevalence of endo- and ectoparasites when compared to parasites of native reef fishes. **Chilton** next asked about the effects of lionfish venom on humans. **Morris** explained that if a person is stung, that person will experience intense throbbing, sharp pain, tingling sensations, sweatiness and blistering. In worst case scenarios the symptoms may include headache, nausea, abdominal pain, delirium, seizures, paralysis of limbs, changes in blood pressure, breathing difficulties, heart failure and tremors, pulmonary edema, and loss of consciousness. There is evidence that commercially available stonefish anti-venom has detoxifying effects on lionfish venom.

**Schmitz** asked what the native range densities of lionfish were. **Morris** stated that the densities are low; approximately 0-3 lionfish per hectare.

**Schmitz** presented the question that, given the fact that the lionfish native population densities are extremely low, what is controlling them in their native range, and can this mechanism be brought into the Atlantic to try and minimize the damage that the lionfish has caused? **Morris** replied that there has been very little effort to look at and understand lionfish in their native range. **Morris** added that personally, he is not confident that an answer will ever be found, but stated that the National Science Foundation has awarded a 3-year \$700,000 grant to scientists at OSU to conduct a study to identify sources of resistance to the lionfish. The study will compare lionfish populations in the Pacific and Atlantic oceans to try to sort out why they are rare at home, but thriving in foreign seas. Scientists will study the ecological mechanisms that explain the lionfish's explosive spread and determine potential sources of natural resistance to the invasion in the heavily invaded Bahamas. Because little is known about lionfish ecology and behavior in its native waters, the research team will also conduct comparative studies in the Pacific. Researchers will perform short-term experiments on small patch reefs and long-term experiments and observations on large reefs. They will study behavioral and ecological interactions between lionfish and other species in both oceans. They will also determine whether any native Bahamian and Caribbean species are effective natural enemies of lionfish, including predators, parasites, and competitors of both juvenile and adult lionfish. The project will assist coral-reef managers as well as fisheries managers, who are concerned about the potential for lionfish to reduce commercially valuable species such as grouper and snapper, as well as ecologically important species such as parrotfishes.

**Morris** reported that a main issue at the moment is the discovery of Ciguatera in lionfish. Ciguatera is fish poisoning caused by eating certain large reef fish, such as Grouper and Snapper, whose flesh contain toxins produced by dinoflagellates such as *Gambierdiscus toxicus*. These dinoflagellates adhere to coral, algae, and seaweed, where they are eaten by herbivorous fish, who in turn are eaten by larger carnivorous fish. In this way, the toxins move up the foodchain and bioaccumulate. Scientists and researchers from UVI, St. Thomas, have been doing a study on Ciguatera fish poisoning in the territory, and preliminary data has shown that 4 out of 7 lionfish that were captured tested positive for Ciguatera. **Morris** stated that they are trying to develop the capacity to survey lionfish to establish baseline levels, and are confident that results will show that lionfish do not have higher levels of Ciguatera than the native species. It will then be possible to proceed with confidence on initiatives to develop local markets for the consumption of lionfish.

**L. Akins** gave a PowerPoint presentation on lionfish changing marine systems in the invaded range and how the invasion can best be addressed. **Akins** provided a brief definition of REEF and explained that their mission is to conserve marine ecosystems for their recreational, commercial, and intrinsic value by educating, enlisting and enabling divers and other marine enthusiasts to become active stewards and citizen scientists. REEF links the diving community with scientists, resource managers and conservationists through marine-life data collection and related activities. **Akins** stated that his main focus now is dealing with the exotic species issue. This is the first time that there has ever been a successful marine fish invasion in the Atlantic.

#### REEF Lionfish Activities

- Reporting
  - Online reporting at [www.REEF.org](http://www.REEF.org)
  - Phone in reports to REEF headquarters
  - E-mail reports via REEF.org
  - Inclusion in regular REEF fish surveys
  - Removal specimens to REEF HQ
  - Lobster by-catch reports
  - Derby data
  
- Derbies
  - Green Turtle Abaco - Bahamas
    - 2009 – 1,408 lionfish
    - 2010 – 941 lionfish
    - 2011 – Scheduled for June 24
  - Florida Keys
    - 2010 – Key Largo, Marathon, Key West – 664 lionfish
    - 2011 – Long Key, Key Largo, Key West
  - Palm Beach
    - 2011 – August 13
  - Bimini
    - 2011 – July 23
  
- Outreach and Education

- "Report Lionfish Sightings" flyers
- NOAA permit for capture and removal of red lionfish
- Market Development
  - Predation experiments
  - REEF Lionfish Cookbook
- Current field research
  - 2007 REEF Lionfish Projects:
    - o Field projects in the Bahamas
    - o 600 person days – Feb., Apr., July, Nov., Dec.
    - o Collection/documentation:
      - ◆ 1,200+ specimens
      - ◆ Habitats
      - ◆ Stomach analysis
      - ◆ Reproductive frequency
      - ◆ Aging
      - ◆ Tagging for growth and movement
      - ◆ Parasites
      - ◆ Behavior

#### Upcoming research

- Emerging control methods
- Habitats
- Proportion time active
- Prey consumption rate
- Impact of lionfish on Bahamian reef fishes
  - Up to 95% reduction in fish biomass between 2007-2010
- MPAs and No-dive Zones: De Facto Lionfish reserves?
- Setting targets for lionfish removal
  - Up to 95% removal needed to prevent further impacts

**Chilton** asked if there are any ill effects when a shark or grouper eat a lionfish. **Akins** replied that there are reports of groupers consuming hundreds of lionfish without any ill effects. However, the long-term effects are not known. Aquarium staff have reported that every year there are mortalities in their live tanks of sharks and other top predator fish that consume spiny fish, due to the perforation of the esophagus from a spine. **Morris** stated that the incidence of ill effects occurring in a predator fish that consumes a lionfish depends on the size of each one. A large predator fish can consume a small lionfish without any ill effects. However, **Morris** observed a black sea bass consume a large lionfish, and within 10 minutes, the black sea bass experienced stress and respiratory problems as a result of ingesting the lionfish venom.

**C. Furqueron** provided a brief update on the National Park Service. There are 16 park communities that stretch from Padre Island, Texas around to Cape Hatteras, North Carolina. Of those parks, there are 6 that are considered coral reef parks. Although there are no standard protocols on conducting lionfish surveys, Biscayne National Park, Buck Island, and the Virgin



Islands all have lionfish management plans that outline the protocol for assessing and removing lionfish. In addition, park managers are increasing outreach efforts (e.g. distributing flyers at local marinas and posting information on the park website) to educate the public about the increasing lionfish problem. The South Florida/Caribbean Inventory and Monitoring Network (SFCN) is part of an effort in the National Park Service to develop a stronger scientific basis for stewardship and management of natural resources across the National Park System. There are approximately 150 random coral sites that are being monitored. These sites are available for viewing on Google Earth. In the Virgin Islands, a website is being set up for authorizing divers to be able to purchase diving equipment, and to capture and remove lionfish from the reefs. In the Everglades, spear fishing is not allowed in Dry Tortugas National Park. Also, getting information out to the public is limited, and new rules are needed.

**Furqueron** reported that since October 2010, they have been holding monthly and bi-monthly calls to the park to get an idea of what is going on. Development of a response plan is being discussed, which involves FWC, NOAA, the Park's eco-management task force, technical experts, and Washington representatives.

**J. Herod** gave a PowerPoint presentation on lionfish and coordination. He introduced their team, whose members are Pam Schofield with the USGS, James Morris with NOAA, Lad Atkins with REEF, Chris Furqueron with the NPS, and Jeffrey Herod with the USFWS. **Herod** explained that the purpose of the team's presentation was to show the amount of collaboration and cooperation that is focused on the lionfish issue. The first step in the process of seeking a National or Regional species Control Plan is to define the issue as important in the region, i.e., GSAR, and have the Regional Panel express the importance and provide specific recommendations to the ANSTF.

**As an Action Item, Herod proposed recommending to the ANSTF that a Lionfish Control Working Group (CWG) be formed.**

**Herod** explained that the purpose of the Lionfish Control Working Group is to scope the issues related to prevention, control, and management of lionfish. If the formation of a Lionfish CWG is approved by the ANSTF, it is further recommended that the CWG provide a final report by the next ANSTF meeting in November 2011. This report would contain supporting information for a recommendation on whether or not a National Lionfish Control Plan is needed. The purpose of a Lionfish National Management Plan (NMP) would be to serve as a guide to the ANSTF and other interested parties involved in managing lionfish and natural resources in U.S. waters.

**Kumpf made a motion that the GSARP make a recommendation to the ANSTF that the ANSTF establish a Lionfish Control Working Group. Page seconded the motion and the motion passed.**

### **Update on GSARP-Funded Projects**

**Trojan Y-Chromosome Eradication of Invasive Fish**

**J. Teem** gave a PowerPoint presentation on Trojan Y-Chromosome Eradication of Invasive Fish and sex-specific DNA Markers for Tilapia. In the XY Sex-determination, the Males/Females ratio is 1:1. Females with two Y chromosomes produce only male progeny, half of which are Myy. Myy males are viable and produce only male offspring, which results in a Males/Females ratio of 1:0. Four different matings are possible, leading to increased male production. The Males/Females ratio is 7:1, and this ratio will increase over time if Fyy is added. The addition of a Trojan Y female (Fyy) to a target population will cause females (Fxx) to go to extinction over time. The carrying capacity of the system becomes occupied by Myy fish (males with two Y chromosomes). The production of YY fish requires selective breeding and the use of hormone-induced sex reversal techniques. YY genotypes are verified by test crosses and evaluation of the sex distribution in progeny. Sex-specific DNA markers can greatly reduce the time required to generate YY fish by allowing YY genotypes to be detected by DNA analysis (instead of test crosses). For some fish, sex-specific DNA markers have been identified by using the RAPD PCR method.

RAPD PCR Method:

- Create a DNA pool from only females and another from only males
- Test each pool with PCR using a collection of short DNA primers that amplify sequences at different locations in the genome
- For each primer, compare female-specific DNA amplified products with male-specific amplified products using gel electrophoresis
- Find a primer that gives a band in one DNA pool, but not the other

Collaborators at Auburn University will provide male-specific and female-specific DNA for Nile tilapia. Screening for sex-specific PCR bands will begin shortly.

The comparison of the time to extinction between the TYC strategy and daughterless carp:

- In using differential equations to model daughterless with 8 gene copies, there are 10 types of mating pairs that can occur in the population, and the genotypes of progeny from each mating can be determined using a binomial distribution
- Each of the 11 fish in the population can be represented by an ordinary differential equation
- Under identical conditions, the initial rate of decline of females is similar
- However, the time to extinction of females is less for TYC (56) as compared to daughterless (102)

Combining the TYC strategy together with the daughterless strategy to cause extinction to occur faster:

- In modeling TYC/Daughterless with 8 gene copies, there are 36 different mating pairs that can occur in the population, and the genotypes of progeny from each mating can be determined using a binomial distribution
- Each of the 20 fish genotypes in the population can be represented by an ordinary differential equation
- Extinction occurs slightly faster with a combined TYC/Daughterless strategy
- The combined TYC/Daughterless strategy also reduces the number of fish required to achieve extinction

#### TYC Species Requirements:

- The target fish must have a XY sex-determination system
- The target fish must be amenable to hormone-induced sex reversal
- A female fish with two Y chromosomes (Fyy) must be viable and mate at the same efficiency as wildtype
- The target fish must be amenable to propagation via aquaculture

Why a Trojan Y Chromosome strategy might be an appropriate technique for controlling invasive species:

- Species specific
- Requires no new technology development
- Involves standard aquaculture techniques, no recombinant DNA
- Trojan Y chromosome fish have already been produced in one species (*Oreochromis niloticus*)
- Reversible

#### Risks:

- The invasive species is maintained at the carrying capacity of the system until females are eliminated. The harmful affects of the invasive species thus persist until females are eliminated
- If insufficient numbers of Trojan Y Chromosome fish are added to the system, extinction will not occur
- The strategy must be employed for decades to reach extinction

Timeline for the TYC strategy to be used for control or elimination of a non-native species in the wild:

- A test of the system on Nile tilapia (*Oreochromis niloticus*) could be done at the present time if existing YY broodstock were made available
- The identification of sex-specific DNA markers for Nile tilapia will allow YY to greatly facilitate the development of YY broodstock

#### The AIS Traveling Trunk

**H. Kumpf** gave a PowerPoint presentation on the traveling “trunk” of invasive species. The AIS Traveling Trunk was created for the Gulf and South Atlantic Regional Panel on Aquatic Invasive Species due to the concern about the alarming numbers and impact of invasive species. There are over 100 plant and animal species that are identified as potential or real problems in the Gulf and South Atlantic. Invasive species can be described as exotic, alien, non-native, introduced, and a nuisance. Intentional pathways and sources of invasives are via stocking, food importation, aquaria/pet stores, personal releases, and property development. Non-intentional pathways and sources of invasives are via shipping, boat movement, ballast water, and aquaculture. Impacts from invasive species include ecological (habitat degradation, food chain alteration, competition with native species), and economic (increased management costs, economic losses, and reduced natural productivity).

**Kumpf** explained that he chose five plant species and six animal species to include in the “trunk”. **Kumpf** informed the panel members that he has three of the plant species for the trunk,

but still needs *Salvinia* and *Hydrilla*. He has five of the animal species, but still needs Orange Cup Coral. **Kumpf** explained that his criteria for choosing the 11 species for the traveling trunk was to have species of interest that have a known distribution and could be used as “hands-on”.

The traveling trunk is intended to serve as an outreach and educational resource from the panel. The trunk consists of three sections: a 9-section manual of informative talking points, a compact disk (CD) of illustrations and talking points for visual presentation, and actual samples of imbedded and laminated invasive species specimens for “hands-on” use. The presentation would run approximately 20-35 minutes long. It is suggested that the panel members review the checklist of contents, preview the talking points, test the CD for projection, and familiarize themselves with the included examples. The material is appropriate for interested lay people, secondary school students, and gifted programs. Suggestions and ideas are appreciated and comments may be emailed to the Regional Panel at <http://nis.gsmfc.org>.

The manual contains nine informative talking points:

- Introduction: Using the “Trunk”
- Definitions: What are invasive species
- Pathways/Sources
- Impacts: What is their effect? Ecological and Economic
- Invasive Plants: Species Profiles Talking Points
- Invasive Animals: Species Profiles Talking Points
- What can we do?
- Useful Web Sites for more information
- Acknowledgements

The manual covers the following invasive species:

Invasive Plants:

- Kudzu (*Pueraria montana*)
- Chinese Tallowtree (*Triadica sebifera*)
- Water Hyacinth (*Eichhornia crassipes*)
- Hydrilla (*Hydrilla spp.*)
- *Salvinia* (*Salvinia molesta*)

Invasive Animals:

- Invasive Invertebrates
  - Orange Cup Coral (*Tubatroaea coccinia*)
  - Green Mussel (*Perna viridis*)
  - Zebra Mussel (*Dreissena polymorpha*)
- Invasive Vertebrates
  - Burmese Python (*Python molurus bivittatus*)
  - Pacific Lionfish (*Pterois volitans*)
  - Nutria (*Myocastor coypus*)

**Kumpf** asked for volunteers from the panel to review the talking points in the manual for the traveling trunk. He also asked if any panel members could supply *Salvinia* and *Hydrilla* for the traveling trunk. **Chilton** and **Page** volunteered to supply *Salvinia* for the trunk.

### Reproductive Sterility as a Tool for Prevention/Control of AIS

**J. Teem** gave a PowerPoint presentation on reproductive sterility as a tool for prevention and control of invasive aquatics. Currently, the USDA allows only *Pomacea brigesii* to be sold and shipped in the United States. These Apple Snails leave aquatic plants intact. They are produced in Florida and there are some established populations recorded in the USGS database. On the other hand, *Asolene spixi* will eat aquatic plants and are no longer in trade. There are no established populations recorded in the USGS database.

**Teem** raised the question of whether reproductively sterile *P. brigesii* and *A. spixi* can be produced as new ornamental snail products. Sterile *P. brigesii* could be sold without any requirement for USDA approval, whereas sterile *A. spixi* cannot be sold without USDA approval. **Teem** questioned if there was a potential market for sterile *P. brigesii* and *A. spixi*. If *A. spixi* could be made sterile and was no longer a threat, perhaps the USDA would reconsider it and approve it to be reintroduced back into the trade again.

Irradiation of snails is done in a similar way to the irradiation of insects such as fruit flies. Snail irradiations take place at the Florida Department of Agriculture and Consumer Services FAST facility in Gainesville, Florida. The process of determining what dose of radiation will render snails reproductively sterile is to first irradiate the snails, then determine the sex of the snails in order to set up mating pairs, mate an irradiated snail to a wildtype, collect the eggs, and determine if the eggs hatch into snails that survive. **Teem** reported that snail mating chambers have been built. *P. brigesii* will be irradiated shortly and matings will be set up soon afterwards at Rawlins Tropical Fish Farm in Lithia, Florida, where Art Rawlins will oversee the snail mating chambers and monitor snail fertility assessments. Data on sterility/fertility will be produced once snails start mating. *A. spixi* dose determination studies will be set up once *P. brigesii* matings are underway.

**Lukens** reminded the panel members that at the last meeting, **D. Schmitz** had volunteered to head an effort to create a twice-yearly newsletter for the panel, and needs two panel members to provide editing and feedback. **P. Fuller** and **D. Knott** volunteered to assist with the newsletter.

### Public Comment

**R. Lukens** provided the opportunity for public comment. No comments were received.

**The meeting recessed at 5:15 p.m.**

**Wednesday, April 13, 2011**

**The meeting reconvened at 8:30 a.m.** The Chairman again provided the opportunity for public comment. No comments were received. The Chairman introduced **Kevin Hart**, the new rep for NCDMF.

**NAISN – Overall Structure, By-Laws, and Future Plans**

**D. Schmitz** gave a PowerPoint Presentation on NAISN’s 2010 workshops and formal establishment in North America. NAISN is a consortium that uses a coordinated network to advance science-based understanding of, and effective response to, non-native invasive species in North America. The overall goal of the workshops is to link existing invasive species regional efforts (centers/institutes/labs/networks) into an overall coordinated network. Unifying and connecting these existing invasive species efforts into a single network will result in better communications, identification of informational gaps and needs, coordinated surveys targeting resource managers to determine and refine services offered, the use of the proven Cooperative Invasive Species Management Area (CISMA) concept and model and CISMA establishment throughout North America, tracking and disseminating information about current invasive species research at the regional levels, developing and implementing regional “Invasive Species Watch Lists”, developing a trilateral forum to identify common invasive species concerns among Canada, Mexico, and the U.S., and addressing a coordinated public awareness campaign about invasive species in natural areas within North America, along with tracking their economic costs.

**9 regional centers/institutes/labs/networks in North America**

- Northeast Midwest Institute – Washington, D.C.
- Center for Invasive Plant Management – Montana
- National Marine Invasions Center (SERC) – Maryland
- Center for Aquatic and Invasive Plants – Florida
- Institute for Biological Invasions – Tennessee
- National Institute of Invasive Species Science – Colorado
- Center for Invasive Species and Ecosystem Health – Georgia
- Invasive Species Research Institute – Ontario, Canada
- Canadian Aquatic Invasive Species Network – Canada

Two workshops were held in 2010 (March and November) to determine how to integrate these institutes, centers, networks, and labs into a North American Invasive Species Network. Scientists, resource managers, policy makers, educators, NGOs, and information specialists from Canada, Mexico, and the U.S. attended these workshops along with the directors or representatives from invasive species centers, institutes, labs, networks, and others.

**March 2010 workshop, West Palm Beach, Florida**

- 27 participants – 7 centers/institutes/labs/networks
- Canada, Mexico, & USA
  - Agreed to form NAISN
    - Scope of the network
      - ◆ Canada, Mexico, United States, and all of their protectorates

- Desired future conditions or vision statement
  - ◆ A consortium that uses a coordinated network to advance science-based understanding of, and effective response to, non-native invasive species in North America
- Fundamental objectives (goals)
- Enabling objectives (strategies) & action items

#### November 2010 workshop, Boise, Idaho - Results

- Fundamental Objective 1 – A transparent organizational structure is in place that guides and allows for participation by all members/partners in the North American Invasive Species Network (NAISN)
- Fundamental Objective 2 – Invasive Species Network hubs, consisting of centers/institutes/labs and other organizations/partners, are in place to effectively act in a coordinated manner from local levels up through international levels in North America
- Fundamental Objective 3 – NAISN provides reliable resources and services across North America to stakeholders for the prevention, early detection-rapid response, management, research, policy analysis, and education/outreach on invasive species
- Fundamental Objective 4 – NAISN works across geopolitical boundaries at appropriate geographical scales (airline model)
- Fundamental Objective 5 – NAISN has the resources in place to achieve the DFC

#### NAISN status as of April 2011

- NAISN is in the process of becoming a 501(c)(3) non-profit organization
- NAISN is in the process of filling its Advisory Boards and Committees
- Developing a 5-year Strategic Plan, along with holding a workshop in Mexico
- Developing a website, protocols, and standards between the hubs and node(s)

### **Raising Awareness on AN ACTION PLAN TO MINIMIZE ECOLOGICAL IMPACTS OF AQUATIC INVASIVE SPECIES IN THE MISSISSIPPI RIVER BASIN by Mississippi Interstate Cooperative Resource Association**

**J. Herod** gave a PowerPoint Presentation on an action plan to minimize ecological impacts of aquatic invasive species in the Mississippi River Basin. The first ultimate goal for the basin is to prevent all new introductions of aquatic invasive species. A list of priority species (i.e., high risk of introduction, establishment, spread, and impact) will be developed, updated as needed, and used for ranking MICRA's collaborative efforts. GSARP's similar efforts are to develop a master list of species, have state ANS plans identify action items, and to prevent new introductions of invasive species by raising awareness and informing the public and other partners. The second ultimate goal is to stop the spread of aquatic invasive species within the basin, control populations to ensure sustainable aquatic ecosystems and the social, economic, and cultural uses they support, or if possible, extirpate harmful AIS. A collaboration with partners will be put forth to help develop detailed integrated pest management plans for priority species, and for locations infested and impacted by several of those species. GSARP's similar efforts are for GSARP-funded research into control technologies, state ANS plans to identify action items, and the identification of known pathways of high risks.

Future efforts include:

- Develop environmentally-protective standards for ballast water, and implement effective shipboard treatments and best management practices
- Develop and implement measures that ensure canals and waterways do not enable AIS to pass and expand their ranges
- Prevent the introduction and spread of AIS as the result of escapement/release of organisms imported for various uses
- Implement a well-structured and funded Integrated Management Program (IPM) for AIS in the basin
- Conduct and evaluate cost-effective AIS pathway-specific outreach and education program

**As an Action Item, Herod requested that a letter be provided to MICRA which would express GSARP's willingness to participate, coordinate, and collaborate on appropriate activities identified in the *An Action Plan to Minimize Ecological Impacts of Aquatic Invasive Species in the Mississippi River Basin*.**

**R. Lukens** asked **D. MacLean** if it was possible for GSARP to write a letter to an external entity supporting something that they do, since GSARP represents the ANS Task Force, who is supporting it. **Lukens** was concerned about the procedure. **MacLean** explained that the Panel is an advisory to the Task Force, which means that they can write any letter to the Task Force expressing support of something, but as a Panel, they cannot represent themselves as the Task Force and write a letter to an external entity and express support for something. Caution must be used when wording the letter.

**Lukens** asked if there were any objections to the contents of the document. After various suggestions and opinions by the panel members, it was agreed that a letter would be drafted. It was also decided that the Task Force would be consulted to see if they approve of GSARP sending a letter of that nature. **Lukens** asked **Herod** and **Ballard** to prepare a draft of the letter, and then send it to him for review.

#### **AFS Southern Division Resolution on AIS State Plan and Panel Funding – Action Requested**

**Riecke** provided a draft of the *Resolution on the Federal Funding for Programs to Prevent, Control, and Manage Aquatic Invasive Species*. **Riecke** reported that AFS is requesting the Congress of the United States to appropriate 56 million dollars for funding on an annual basis for federal and state programs concerning the prevention, control, and management of nonnative aquatic invasive species.

**As an Action Item, Riecke asked the Panel to decide if they approve the resolution.**

**Knott** commented that statistics from out-of-date publications are cited in the resolution and are probably no longer applicable. **Riecke** asked for assistance from the panel in providing up-to-date statistics, and **Knott** volunteered to help.



**Riecke** explained that the Southern Division of the American Fisheries Society will be meeting on January 19, 2012 in Biloxi, Mississippi and the Resolution must be published in the summer 2011 newsletter prior to the January 2012 meeting to give the members time to look at it. The resolution will then be voted on.

**Lukens** suggested that **Riecke** initiate a request via email to the GSARP members for specific information or sources, and consider that participation as the panel's conceptual support for AFS to move forward with the Resolution.

### **Update on the Texas White List – Lessons Learned**

**Chilton** gave a PowerPoint presentation on updates of the development of the Texas AIS White List, key issues that were encountered, and lessons that were learned. During the last legislative session, TPWD was directed to publish a list of exotic aquatic plants that are approved for use in Texas without a permit. TPWD was also directed to develop rules that are as permissive as possible without allowing plants that pose environmental, economic, or human health problems. New rules will be considered by the Texas Parks and Wildlife Commission in January 2011. TPWD compiled a list of exotic (non-native) aquatic plants (including macroalgae) currently imported into Texas (over 3,500 plants names). Many of the plant names were not actual species names, some were native, some were terrestrial, and some were cultivars. Therefore, the plant names were reduced to approximately 500 species names. All plants on the draft list (with the exception of microalgae) were evaluated for potential risk to aquatic environments using a scientific risk analysis based on Pheloung et al. Algae were handled differently, due to difficulties with evaluating thousands of strains.

### **Significant issues:**

- Definition of an aquatic plant. Any member of the Kingdom Plantae, as documented using the most recent posting of the Integrated Taxonomic Information System, that is typically found in either aquatic or riparian habitats. (Mosses, algae, bluegreen algae)
- Definition of an exotic aquatic plant (Included vascular plants, macroalgae, microalgae, genetically modified organisms, and hybrids of exotics)
- Definition of a GMO (GMM?)
- Definition of native species
- Cultivars versus species level regulations
- Proprietary issues with algae
- Use of GMM
- Economic considerations
  - Some businesses said they would go out of business if the laws were implemented
  - Some businesses said they would move out of state if the laws were implemented
- Public input
  - Claims from public that TPWD did not accept input from them. However, public forums and public meetings were held for over a year
- Attacks on TPWD expertise
- Privacy concerns
  - Public rumor of Game Wardens sneaking into people's back yards searching for non-approved species and issuing a ticket or arresting them

- Permitting misunderstanding
  - Public misconception that dealers or others would be required to purchase separate permits for each species, even though they were informed that only one permit would be required and all species could be listed on it.

In January 2011, the Texas Parks and Wildlife Department discontinued development of their White List. This was the result of a letter being sent to the department from Texas State Senator Glenn Hegar that requested the department “forego further work and cease implementation on the proposed aquatic plant species white list and the accompanying rules.” Senator Hegar also stated that “it is clear that approval of this measure would severely impact our state's economy and the biofuel, nursery, and gardening industries across the state”. Hegar also stated he would sponsor a bill during the current legislative session that would remove the legislation that authorized the department to develop a white list in the first place.

### **Discussion about Establishing an AIS Risk Assessment Clearing House**

**D. Riecke** discussed an AIS risk assessment screening tool that is being developed to accumulate and assess information describing the identity, characteristics, and impacts of exotic species. Before final release, it will be submitted for internal review, then be posted on the USFWS website. **Ballard** stated that Mike Haus is attempting to develop a website database by later this year and he will provide a link on the website. When a clearing house is developed for the Gulf Coast Region, it will also be linked. **Lukens** stated that if the panel is involved in doing risk assessments on their list, there would be an internal review process.

After suggestions by **Riecke** and **Chilton**, it was decided that Mike Hoff and Gloria Gordon would be invited to conduct an educational workshop on their risk assessment screening processes. **Lukens** stated that the steering committee will structure how to add the workshop to the next meeting. **Ballard** asked if the clearing house issue should be brought up at the workshop. **Lukens** stated that it is a culmination of a process, and the clearing house assumes that there are risk assessments already available on the website. He felt that it should be held in abeyance. **Riecke** suggested having Mike Hoff also discuss his internal review process.

### **Update on New Introductions**

**P. Schofield** spoke on the Lionfish invasion. She stated that this is the time of year when they begin to reappear in the Gulf of Mexico and asked the panel members to report records of lionfish in the gulf and submit specimens to the USGS as soon as possible. **Schofield** discussed the lionfish posters that **Ballard** created and reiterated that sightings can be reported online on the USGS website or by calling the hotline number.

**Akins** suggested that it would be beneficial to educate people who work in call centers about lionfish and other invasive species, since they are not scientists or biologists. A better reporting form for call-in center employees could also be useful. For additional questions from callers, agency telephone numbers are provided.

**Akins** reported that they recently received a report of a panther grouper sighting by a recreational diver at Blue Heron Bridge in Palm Beach. Several attempts to locate and capture the fish have so far been unsuccessful. A sighting of a damsel fish was also reported, and a rapid response resulted in the successful capture and removal of the fish.

### **Aquatic Nuisance Species Task Force Update**

**MacLean** spoke on funding issues for FWS. When a federal budget is finalized or a continued resolution is passed at the end of the year, decisions can be made on getting state and panel funding. It appears that the budget is intact and that there will not be any cuts made. **MacLean** has funding letters ready to be mailed out, but must wait until the final budget has been released.

**MacLean** reported that the Task Force met last November in Arlington, VA. Specific discussions included Chinese mitten crabs, the instate management plan that is under development, the Quagga/Zebra Mussel Action Plan, the summary of the International Symposium on Genetic Biocontrol of Invasive Fish, the summary of the Aquatic Invasive Species Vector Management Workshop held in Maryland, the ANSTF support of exploring the potential for a quagga-zebra mussel coordinator position, the approval to establish an ad-hoc committee to develop concrete recommendations leading to vector intercept and management strategy that will work on state and water-shed scales, and the approval of three new state plans for Wyoming, Nebraska, and Alabama, pending some final changes. The next Task Force meeting will be May 4-6, 2011 in Arkansas.

**MacLean** spoke about the Task Force and explained that it has a charter and is subject to renewal every two years. The administration has made changes this year, and when the charter is renewed there will be new language, including a requirement to have a balance both geographically and functionally for the Task Force members and the panel members. Susan Mangin, the Executive Director of the Task Force, will provide guidance and an explanation of these changes to the members. Also being changed is the process of adding new members to the Task Force. In the past, new members could be added as needed. Now, it will be vetted by the Administration before a member can be added.

**MacLean** updated the panel on the ANSTF Recreational Guidelines Committee. At the fall ANSTF meeting, the ANSTF agreed to form the ad-hoc committee to update the recreational guidelines, which were finalized in 2000. The committee will include federal, state, and local entities and non-governmental organizations.

The ANSTF is establishing an ad-hoc committee, chaired by Marshall Meyers, Executive Vice President and General Counsel of the Pet Industry Joint Advisory Council (PIJAC), and Mike Hoff, Region 3 Regional Aquatic Nuisance Species Coordinator, to develop voluntary codes of conduct for aquatic plant and animal-related industries.

**MacLean** briefed the panel on The National Invasive Species Awareness Group (NISAG). Earlier this year, a delegation of representatives from 5 states of the Mississippi River Basin visited NISAG for a week and then traveled to Washington, DC and met with various government representatives. The delegation visited 16 congressional offices in Washington, D.C. to

specifically discuss aquatic invasive issues and funding needs. The three funding mechanisms discussed were the funding implementation for state ANS Management Plan, funding for the MICRA Action Plan, and funding for the National Asian Carp Management Plan. The trip was very informative and worthwhile, and another trip is being planned for 2012.

### **Invasive Species Advisory Committee Update**

**Chilton** gave a report and PowerPoint Presentation on the Invasive Species Advisory Council (ISAC). The ISAC recommends NISC member agencies such as the Army Corp of Engineers, the Department of Agriculture (ARS and APHIS), and others, to expand biological control efforts for invasive species, and in particular those in aquatic systems, which tend to have limited options that are often very costly. These efforts are justified, based on economic analyses that suggest an average beneficial return of 10-17 fold for each dollar spent on biological control. The ISAC also recommends that NISC member agencies continue to support and encourage participation in National Invasive Species Awareness Week (NISAW).

### **Action Items**

- ISAC recommends the formalization of the commitment to address invasive species by codifying the National Invasive Species Council and the Executive Order 13112 definition of invasive species in legislation
- ISAC recommends that NISC agencies objectively evaluate available technology for inclusive management solutions to meet the National Invasive Species Management Plan objectives such as early detection network, collaboration, information sharing, and performance evaluations
- Global database on risk assessment: Support should be formalized for a global database of risk assessments for intentional introductions of species into countries. The database should include essential information such as the risk assessment model used, the year of the assessment, the individual questions and answers used for the assessment, and the name and contact information for the agency or organization conducting the assessment
- ISAC recommends that the following specific agencies consider the benefits of joining the Invasive Species Compendium: EPA, HHS (CDC), DOI (NPS, BLM, BOR, BOEMRE); DOT (Maritime Org., Coast Guard); State, DOC (NMFS); DOD, and the U.S. Trade Representative
- In an effort to understand the challenges to minimize spread and control of invasive species along transportation corridors and waterways, ISAC would request former federal officer(s), with experience on this issue, to present their perspective and provide advice to ISAC to assist the committee in understanding how a state, region, or county can successfully prioritize invasive species collaborative efforts (*requested by the Subcommittee on Control and Management*)
- Request to full ISAC/NISC: At the spring 2011 ISAC Meeting, request that U.S. Fish and Wildlife Service provide a report on revisions to the Lacey Act

- If there is interest in a White Paper on harvesting, let an officer know. ISAC will convene a task team to provide by the Spring Meeting a draft White Paper on incentives for harvesting invasive species
- NISC staff will revisit the logic/structure of the Prevention Subcommittee and to provide as update at the spring 2011 meeting. If necessary, suggest revision to structure on how this is set up (*requested by the Subcommittee on Prevention*)
- Request to full ISAC/NISC: Have a panel discussion of experts on the topic of internet trade at the spring 2011 ISAC meeting (*requested by the Subcommittee on Prevention*)
- Request that NISC explore the possibility of conducting as intercessional ISAC webinar in spring 2011 to review draft of the PCR White Papers (*requested by the Subcommittee on Early Detection and Rapid Response*)

**Lukens** pointed out that there are new panel members and asked if everyone understood the relationship with the Invasive Species Advisory Committee and the National Invasive Species Council. On February 2, 1999, Executive Order 13112 was issued to prevent the introduction of invasive species, provide for their control, and to minimize the economic, ecological, and human health impacts that invasive species cause. The Executive Order established the National Invasive Species Council (NISC), which consists of 8 federal agencies and is a high-level, interdepartmental organization for current Federal programs that provides leadership, planning, coordination, and response of the complex and accelerating problem of invasive species. The Executive Order also established the Invasive Species Advisory Committee (ISAC), which consists of nonfederal representatives and stakeholders who provide recommendations as well as input and consensus advice to NISC. ISAC includes representatives from State government, private industry, tribes, academia, agriculture, forestry, recreation, and conservation organizations, as well as other stakeholders that have knowledge of the full range of invasive species and other related issues. **Lukens** explained that the relationship between the regional panel, ISAC, NISC, and the Task Force is not a legitimized relationship; it is a “friendly” relationship of understanding.

### **Discussion of Panel Membership**

**Ballard** reported that he had contacted panel members who had not attended meetings regularly to inquire about their intent on continuing to serve on the panel. Several members will no longer be serving on the panel, and there are open seats available. The new representative from Alabama is **Craig Newton** with the ADCNR/Marine Resources Division. He will be attending the next panel meeting.

**Schmitz** stated that at a previous meeting, there was a discussion about adding an outreach member. **Lukens** explained that there is not technically an adoptive process for members. CVs and bios of those interested in serving on the panel are submitted informally.

**Lukens** moved to formally adopt a process for replacing members of non-standing seats only, as state and federal government seats are filled by whoever those agencies feel are appropriate. He suggested that when a seat is open, there should be solicitations for nominations from the panel for those seats, and interested potential members would be asked to submit their CVs or short bios of their knowledge of invasive species and what their interest is in that field. The bios would then be distributed to the panel members for consideration.

**Hardin** suggested holding considerations for seats until the next meeting. It was decided that in the interim, bios and CVs will be gathered and made available to the panel on the Panel's website before the next meeting. The CVs considered for nomination will be posted 30 days prior to the next panel meeting to enable the panel members ample time to review them. **Lukens** stated that the 3 open seats are the Environmental User Group, University/Research, and National Estuary Program.

## **Members Forum**

### **Florida**

**S. Hardin** provided a report on ongoing projects. He spoke on the project that was done in which *P. canaliculata* and egg clutches were manually removed from a 5-acre retention pond. The project continues and there have been no snails or clutches since October. However, small numbers (<10) were found in an adjacent marsh that does not drain into the pond. The project will continue through the reproductive season. Unfortunately, *canaliculata* has been found in other nearby (but not hydrologically connected) ponds, and it is no longer considered an eradication effort. Like island applesnails, this species is not particularly choosy about where it lays its eggs. In experimental settings, hybridization between these two species was not observed.

Control continues on sacred ibis. Occasional reports are received about birds in Palm Beach and Miami-Dade counties. The birds are frequently in the company of native white ibis. The last confirmed sighting was at the Palm Beach County landfill and the bird was removed by the USDA Wildlife Service. There are extensive undeveloped wetlands in the county in the vicinity of the landfill that could harbor additional sacred ibis, and brief opportunistic control is anticipated.

A multi-agency effort failed to eradicate purple swamphens (*Porphyrio porphyrio*) from south Florida due to the lack of a sufficient early detection and monitoring network. Since the conclusion of the project in late 2008, reports have been received of increased numbers of swamphens in the marshes of Lake Okeechobee and north. Ideally, a longer term assessment would follow to understand how this introduced species would fit in, and what impacts it might have on native vegetation and native wildlife.

A considerable amount of cold kill occurred this past winter, primarily in central Florida, even though it was not as harsh as the previous year's. Many species were affected, including blue tilapia (our most abundant non-native freshwater fish) despite its tolerance for low temperatures.

Other cichlids were affected along with Loricariid catfish. Cold winters have not eradicated Florida's established species, but they temporarily reduce their abundance and limit the northern edge of the range (generally to the I-4 corridor, which is the approximate boundary of subtropical Florida).

**D. Schmitz** provided a "Weed Alert – Red Root Floater (*Phyllanthus fluitans*)" flyer. This weed is a freshwater species native to South America and is the sole free-floating aquatic species of the large genus *Phyllanthus*. Common names of *P. fluitans* include red root floater and floating spurge. In 2010, red root floater was found growing in a canal and tributaries in, and near, the Peace River, Desoto County, Florida.

Because red root floater is a popular aquarium plant, it may have been introduced via the aquarium-plant trade. Red root floater can produce a closed canopy over water; and in backwater areas, small isolated populations can be difficult to find. Scientists fear if this species expands its range, it may become as problematic in Florida as have the South American water lettuce and water hyacinth, also canopy-producers.

**Schmitz** noted that they are facing a \$2.5 to \$17 million cut in their budget.

**Schmitz** reported that research during the last several years revealed that several populations of hydrilla, particularly in large Central Florida lakes, have become resistant to low concentrations of fluridone, an herbicide that has been most effective in controlling hydrilla during the past 15 years. During the past several years, research scientists have screened nearly 200 herbicides or herbicide combinations for use to control hydrilla. Bispyribac-sodium will be granted an Aquatic Use Label by the E.P.A. in April. Flumioxazin has received an Aquatic Use Label by the E.P.A. **Schmitz** stated that in research, this herbicide, when used in conjunction with diquat and endothall, proved highly effective in treatments of hydrilla in a lake. They are optimistic that these herbicides will be utilized to control hydrilla in the future.

**Schmitz** spoke about *Megamelus scutellaris*, a small leafhopper that is being used as a biological control method for water hyacinth. *M. scutellaris* is native to South America, and the nymphs and adults feed on the sap of water hyacinth. Researchers collected adults of *M. scutellaris* from Argentina in April 2006 and brought them to a quarantine facility in Ft. Lauderdale, where extensive host-range studies were conducted. They found that the planthopper is highly host-specific and does not pose a threat to native or economically important species. Unfortunately, after they were released, it was found that they could not tolerate the heat. Recently, scientists involved with the research travelled to South America and collected new species of *M. scutellaris*, which are hoped to be more climate-adaptive.

## **Georgia**

**K. Weaver** provided a report on the following projects:

### **Satilla River Flathead Catfish Removal Project**

For the 2010 sampling season, the crew removed 6,289 flathead catfish totaling 11,101 pounds. Since the implementation of the full-time flathead management program in 2007, more than 53,671 pounds of flathead catfish (19,761 fish) have been removed from the river in four years.

The size structure of the flathead population has been significantly affected, with the average size fish removed dropping from 5.8 pounds in 2007, to 2.9 pounds in 2008, to 1.4 pounds in 2009, but did slightly increase in 2010 to 1.8 pounds. In addition, the average length fish removed has declined from 512mm TL in 2007, to 352mm TL in 2008, to 281mm TL in 2009, and also slightly increased to 296mm TL in 2010. Biomass per effort has also declined from 57.1 kg/hr in 2007, to 23.6 kg/hr in 2008, to 19.9 kg/hr in 2009, but increased in 2010 to 31.1 kg/hr. In addition to changes in the size structure, the age structure was also truncated by removal efforts. In 2007, 15% of population was made up of age-1 and age-2 fish, and it was dominated by a strong 2003 year-class of age-4 fish (50%), and 5% of the population consisted of fish age-6 or older. In 2008, the strong 2003 year-class of now age-5 fish was still present and made up 13% of the population, and the same amount of older fish (>age-6) still comprised 5% of the population, but the population began to show signs of being heavily exploited, because 50% of the catch was now age-1 or age-2 fish. In 2009, the age-structure data revealed a typical population that has received high exploitation, characterized by large numbers of small fish (<356mm TL), with over 80% of the fish being age-1 or age-2, and only 3% of the population was age-6 or older, including that once-strong 2003 year class. The 2010-age sample is currently being analyzed. There was evidence for higher recruitment and earlier maturation. The electrofishing catch rate continues to climb and was calculated at 38.7 fish per hour in 2010, which was also up from 2009, where it increased dramatically from 32.5 fish per hour in comparison to 22 fish per hour in 2007 and 18 fish per hour in 2008. Gravid, turning age-2 females were found ranging in size from 200 to 251mm TL. There appears to be a shift in sexual maturity, due to a decade of increased exploitation. Maintenance control of flathead catfish in the Satilla River is possible, given our reported changes in biomass, size and age-structure, but higher recruitment and earlier maturation was demonstrated. As a result, this will require intensive harvest to be maintained to prevent the flathead population from rebuilding within 2 to 5 years. In the summer of 2010, WRD personnel discovered the first field observation of flathead catfish predation on a sturgeon of any species, an Atlantic sturgeon *Acipenser oxyrinchus* in the Satilla River, Georgia. The finding demonstrates a potential impact of flathead catfish predation on sturgeon populations, and provides further context for ongoing efforts to control flathead catfish invasions.

#### ANS Plan

Georgia has submitted its proposal to the ANS Taskforce to receive funding in 2011.

#### Apple Snail Projects

As reported in October 2010, the first phase to evaluate factors controlling the spread and distribution of apple snails has been completed and WRD should have the results soon. Phase 2 data concerning potential habitats would assist managers in planning surveys to investigate the occurrence of the species in Georgia. In addition, it will synthesize information on existing locations, abiotic factors effecting growth, reproduction, survival and invasiveness, and ultimately use all this vital information to build a predictive model of the spread of the invasive apple snail within Georgia. The study will also initiate baseline monitoring in existing invasive snail locations and adjacent control sites to begin investigating impacts of the snail on aquatic ecosystems. **Weaver** stated that their concern is that the locations may be too closely located to the Okefenokee. They are trying to determine if the water quality in the Okefenokee is keeping



the apple snails out. The ph is so low that it is believed to be a barrier in preventing the apple snails from becoming established. Results of this study will be available this fall.

#### Asian Swamp Eel

Work will begin soon to determine the status of Asian swamp eels in the Chattahoochee drainage. Funding has been received to determine if this is more wide-spread than originally suspected.

**Weaver** reported that plans for a proposed new tilapia production facility in Savanna are moving forward. These plans had been halted due to permit budget cuts.

#### Louisiana

**Hillebrandt** reported that the harsh winter has reduced invasive aquatic plant populations. While the winter was not as cold as the previous year, prolonged nights of subzero temperatures, especially in Shreveport/Lake Bistineau area, greatly helped in plant control.

Toledo Bend Reservoir underwent a large drawdown. At this time, it is still ~7½ feet below normal levels. The drawdown has isolated much of the Giant Salvinia into small pockets in the northern part of the reservoir. Crews are working to treat the small pockets before water levels return to normal and re-introduce the plant back into the main water body.

#### Outreach

**Hillebrandt** reported that a large effort is being made for better public outreach/education:

- Joint booths with LDWF Aquatic Outreach section
  - LSU “Ocean Commotion”
  - Boat shows in Lake Charles, New Orleans and Slidell
  - Bassmaster Classic
  - Bass Elite Series: “Battle on the Bayou”
- Group presentations
  - Louisiana BASS High School Championship
  - LaPlace Rotary Club
- New brochures/handouts
  - Rio Grande Cichlid
  - Common Aquatic Nuisance Plants
  - Northern Snakehead vs Bowfin (Choupique)

#### Mississippi

**Perry** reported that DMR is working to eradicate salvinia from the Pascagoula River Basin and elodea in Harrison County. A “Summary of Mississippi Department of Marine Resources AIS Activities – October 2010 through March 2011” was provided.

- 609 miles of waterway were surveyed for early detection of new outbreaks of AIS
- A 183-mile quarterly aerial photo survey was conducted for early detection of new outbreaks of AIS

- New infestations of common salvinia in the Pascagoula River and Brazilian elodea in Harrison County were discovered, immediately treated with herbicide, and reported to the NAS database
- 180 gallons of herbicide were applied in accordance with all state and Federal regulations to combat new and existing infestations of giant salvinia, common salvinia, water hyacinth, cogon grass, Chinese tallow, and Brazilian elodea
- So far, 1,000 “Invasive Lionfish” awareness decals have been produced and approximately 600 distributed to dive shops, charter boat captains, etc
- An article was published in the December 2010 issue of the *Coastal Angler Magazine* about the invasive lionfish threat in Mississippi
- A \$27,500 remote-control helicopter camera system for experimental use in detecting harmful AIS in difficult-to-access open marsh areas was purchased with grant funds from USFWS
- The application process for FAA approval to use above R/C helicopter is underway
- Supervised the aerial application of Clearcast herbicide to 340 acres of Coastal Preserve lands for selective control of Chinese tallow trees
- “Stop Aquatic Hitchhikers” signs were produced and installed at 40 boat ramps in the coastal area
- Invasive species reporting form was developed, and [report.invasive@dmr.ms.gov](mailto:report.invasive@dmr.ms.gov) email address was created to facilitate public reporting of AIS
- Attended invasive species coordinator training workshop/webinar
- Participated in public comment webinar hosted by EPA regarding proposed changes to the Clean Water Act designed to help stop the spread of AIS

**D. Riecke** spoke on updates for Mississippi’s ANS and new activities since October 2010. **Riecke** reported that MDWFP regulation (Public Notice 1405) was revised to prohibit transport into the state, offer for sale or possession within the state, live form snakeheads (all species in the Family *Channidae*) and swamp eels (all species in the Family *Synbranchidae*). Stocking of any nonnative fish except common carp, goldfish, grass carp, and rainbow trout would also be prohibited in private ponds, except for legally permitted aquaculture facilities. Revision was triggered by discovery of tilapia in a private recreational fishing pond. Previously (since 1969) only live forms of piranhas and walking catfish could not be transported, offered for sale, and possessed within Mississippi, and there were not any restrictions on stocking nonnative species in recreational fishing ponds. MDWFP did not succeed in prohibiting the stocking of only certified triploid grass carp stockings in private ponds due to opposition from Mississippi fish producers and the fact that agency hatcheries do not get the “triploid” grass carp on the prohibited stocking list.

**Riecke** reported that MDWFP responded to requests from three Mississippi fish farms on Lacey Act regulations regarding shipment of bighead carp. In March 2010, they learned that approximately 750,000 bighead carp are being cultured in Mississippi commercial fish ponds. It was documented that approximately 102,827 black carp were shipped to Mississippi from 2000-2007. Of that number, 52,556 fish shipped in 2000 were untested and of a “mixed ploidy” ranging from 30% to 90% triploid. Of those fish, 3,614 were diploids shipped in 2007.

The "Stop Aquatic Hitchhikers" posters obtained from USFWS in Atlanta were distributed to the MDWFP boat ramp construction crew for posting on boat ramp access signs.

MDWFP worked to guide submission of an AFS resolution on the ecological separation of the Great Lakes and Mississippi River Basin drainage to the AFS Governing Board. The resolution will be published in Fisheries and may be submitted to the AFS membership for a vote.

MDWFP submitted a letter of support and comments to the US Army Corps of Engineers for the Great Lakes and Mississippi River Interbasin Study.

#### Ongoing activities

The *Mississippi State Management Plan for Aquatic Invasive Species* has undergone state review and public comments were received. It was sent to the National ANS Task Force in January 2010 for their review and extensive comments were received. The Mississippi Department of Environmental Quality (MDEQ) is the designated lead agency for plan development. The MDEQ was heavily involved in response to the Deepwater Horizon oil spill event and this has prevented revision of the State Management Plan for Aquatic Invasive Species. The MDEQ hired a contractor to revise the plan for final submission to the National ANS Task Force in the fall of 2011. The number of fishing licenses and boat registrations sold was updated for inclusion in the revised final document

Represented the MDWFP on the Mississippi Aquatic Invasive Species Task Force, whose last meeting was in November 2007

Reprinted and continued distributing "Stop Aquatic Hitchhikers" cards along with all boat registrations or renewals that are mailed out

Continued printing the "Stop Aquatic Hitchhikers" logo and bullet list in the annual regulation guides—*Mississippi Outdoor Digest* and *Guide to Mississippi Saltwater Fishing*

Links to the Mississippi River Basin Panel on Aquatic Nuisance Species and the Gulf and South Atlantic Regional Panel on Aquatic Invasive Species, Stop Aquatic Hitchhikers, and Habitattitude websites are on the department website

The Mississippi Museum of Natural Science has a permanent exhibit on exotic species

The Mississippi Department of Marine Resources has been monitoring and treating Giant Salvinia (*Salvinia molesta*) in the Pascagoula River system

#### Future Activities

Implement the activities specified in the Mississippi State Management Plan for Aquatic Invasive Species

Compose freshwater fishing bait regulations to specify what bait can be legally sold, possessed, transported, and used in Mississippi

Pursue licensing of retail bait outlets selling live freshwater fishing bait

Adopt a list of approved, restricted, and prohibited species under the authority specified in MS Code 49-7-80 and as specified in the *Mississippi State Management Plan for Aquatic Invasive Species* Amend list of approved, restricted, and prohibited species as specified in the public notice that regulates aquaculture activities in Mississippi

The Mississippi Department of Marine Resource has secured Mississippi Coastal Impact Assistance Program funding authority to hire a Conservation Resource Biologist under a 4-year contract to form an Aquatic Nuisance Species Advisory Council and begin implementation of action items contained in the Mississippi State Management Plan for Aquatic Invasive Species

Establish an EDRR monitoring program comprised of state and federal personnel who sample aquatic species in Mississippi public waterways on a routine basis

Update and expand information for Mississippi contacts listed in the Expert Taxonomic Database

### **North Carolina**

**K. Hart** reported that 10,000 copies of "Stop Aquatic Hitchhikers" brochures were distributed to the public and were well-received, which stimulated interest in invasive species prevention. The brochures were modified to be North Carolina-specific and 12,000 were ordered and will be distributed in May.

In the Albemarle Sound area, a decrease in Eurasian milfoil was observed. However, an increase in hydrilla was also observed.

The Wildlife Resource Commission is developing new flyers to be placed at boat ramps to raise more awareness of invasive species.

The North Carolina Department of Agriculture is looking into the development of a management plan specifically for hydrilla.

The North Carolina Aquatic Nuisance Control Council met in March. This year's work plan includes over 50 projects, such as hydrilla and milfoil treatment, and the introduction of grass carp for plant control.

### **South Carolina**

**C. Page** reported that the Aquatic Plant Management Council met and approved the state's aquatic plant management plan.

**Page** reported that Lake Greenwood was infested by hydrilla, so it was stocked with carp as a control method and this method has proved to be effective. Lake Thurmond, a 71,000 acre lake, has a severe infestation of hydrilla that has grown from approximately 30 acres 2 years ago to approximately 7,000 acres now.

Informational INS flyers are being posted at boat ramps.

Last year, an experimental permit was received for Matrix, a copper-based compound similar to Captain for island apple snail control.

An ANS billboard campaign is underway, paid for with funds provided by the ANS Task Force. There will also be “Stop Aquatic Hitchhikers” flyers, literature, and an additional internet presence available.

**P. Kingsley-Smith** gave a PowerPoint presentation and discussed updates on the status of invasive and non-indigenous species in South Carolina.

Infection of the invasive swim bladder nematode parasite *Anguillicoloides crassus* in South Carolina populations of the American eel *Anguilla rostrata*

During 2010, Jan-Alexis Barry, a summer intern working with the South Carolina Department of Natural Resources (SCDNR) Inshore Fisheries section investigated infection of the American eel, *Anguilla rostrata*, by the nematode parasite *Anguillicoloides crassus*. Barry concentrated on eels captured in the Cooper River and Winyah Bay by the SCDNR electrofishing survey. Data revealed that overall, 38% of eels (n=139) were infected. Rates of infection were higher in June (62%, n=65) than in July (18%, n=74). In June, the infection rate was size-dependent, with 83% of eels <300mm in length being infected, compared with 43% in eels <500mm. In fall 2010, a Master's project was initiated on *A. crassus* by Jen Hein, College of Charleston. Hein investigated *A. crassus* infection of American eels in the ACE (Ashepoo-Combahee-Edisto) Basin, North Inlet, and Cooper River. Work to date has shown that even the small elver stages have high levels of infection. Laboratory experiments are currently underway to examine the effects of the parasite on eel growth and survival.

Understanding the impacts of the Asian seaweed, *Gracilaria vermiculophylla* on estuarine community dynamics

During the last decade, the Asian seaweed, *Gracilaria vermiculophylla*, has rapidly proliferated along high-salinity mudflats in several Georgia and South Carolina estuaries. The seaweed invasion is particularly noteworthy because the mudflats in these estuaries were historically devoid of macrophyte-based primary production and structure. *Gracilaria* has few native analogues in these mudflat environments, and thus represents an important opportunity to examine the ecosystem consequences of an invasion within a historically-unexploited niche. In theory, *Gracilaria* affects populations of species that are directly dependent on the invader for structure and food, as well as altering community- and ecosystem-level processes such as detrital production and food web structure. An NSF-funded project is currently underway through collaboration between the College of Charleston and the University of Georgia. This project will provide a mechanistic understanding of the multiple cascading impacts of this invasive species within the estuarine community. Through a combination of manipulative field experiments, laboratory assays and stable isotope analysis, these investigators plan to test three mechanisms by which *Gracilaria* influences native community structure. The novel primary production generated by *Gracilaria vermiculophylla* may be increasing rates of secondary production, increasing levels of mudflat microbial production through leeching of dissolved nutrients, and increasing detrital input to microbial and macrobial food webs.

Updated numbers for Asian tiger shrimp, *Penaeus monodon* catches from South Carolina commercial trawling activity

At the previous meeting in October 2010 in St. Petersburg, Florida, 10 *Penaeus monodon* had been reported from commercial shrimp trawls in the Gulf and South Atlantic coastal states (SC n=4; FL n=1; LA n=5). Additional catches after that meeting raised the total number of *P. monodon* captured in the region to 30 shrimp for the 2010 season (SC n=20; GA n=1; FL n=2; LA n=7), the majority of which were collected in South Carolina.

**Hart** noted that 5 Asian tiger shrimp were captured in North Carolina.

Collection of live adult specimens of Island apple snails, *Pomacea insularum* and hatching of juveniles under laboratory conditions

At the last meeting, a new infestation of apple snails, *Pomacea insularum*, near Charleston was reported (based on empty shells and egg masses). Since then, a live snail and several egg masses have been collected at the same location in Mt. Pleasant. Egg masses were held in an aquarium and several of them proved viable, hatching out as hundreds of juvenile snails that were raised for 3 months. At 6 intervals during those 3 months, several specimens were preserved to generate preliminary growth rate data at an ambient laboratory temperature of ~22°C. This husbandry was an informal exercise, since feeding was not controlled and the snails were held in mass culture. As yet, these snails have not been measured.

**Page** added that the state DNR budget has been cut by 54% in the last 2 years. However, this year, the cut was only 2.8%. Their invasive program works off water recreation resource funds, so they annually receive \$400,000 to 600,000.

**Lukens** provided the opportunity for other panel members to report on their programs. **Akins** spoke on REEF's continued outreach efforts for lionfish and other non-native species. Seafood festivals have particularly been a good avenue for getting the word out. REEF also had an invasive species exhibit at the Florida Nonnative Pet Amnesty Day that was recently held. Numerous workshops have been held, such as educational training workshops in the Florida Keys. In January, REEF helped organize the Southeast Florida Regional Control Strategy Workshop. Representatives from numerous agencies participated in the workshop to prioritize key issues concerning the lionfish invasion and initiate future management strategies.

Research projects are ongoing, and a new study is being implemented to look at the impact from a lobster fishery in which lion fish are ending up as bycatch. The lobster fishery and some of the fishermen believe that their lobster catches are increasing due to that.

Reports of lionfish sightings are continuing to be submitted, and a new "hit list" tool is in development that can direct people who want to remove lionfish to recent reports that contain information on the location of the reports. Lionfish activities can be planned around the recent reports, and removals can be documented as well.

Recent marketing developments have included the creation of a lionfish cookbook, and the collaboration with restaurants to connect them with lionfish suppliers. There is a new demand for lionfish in the food market, but there is insufficient information on suppliers.

**J. Lane** gave an update on the USACE. They have provided approximately \$800,000 of funding for an Aquatic Nuisance Species Research Program. They are also moving forward with an invasive species management center, and future funding is anticipated.

Funding has been received for a melaleuca biological control project. The objective is to develop safe and effective biological control agents of melaleuca and other invasive weeds.

At the Spring Southern Division of the American Fisheries Society meeting, **Lane** participated in a discussion panel on non-native fish that have invaded the Everglades that was due to the facilitation of certain restoration initiatives. The goal of the panel was to bring forth new ideas regarding the management of non-native fishes in Florida in order to enhance the protection of the Everglades and other natural areas in South Florida from the spread of new non-native fishes. The USACE has been restoring the Everglades National Park; however, non-native fish were introduced into the park because the water that was being diverted into the park contained non-native fish. This will hopefully result in broader implications for policies within the USACE.

### Texas

**E. Chilton** reported that they have completed a final version of their Comprehensive Management Plan and submitted it to the Coastal and Inland Fisheries Grant Division Director. It will then be submitted to the Governor's office for approval.

In November 2010, House Bill 338 was introduced. This bill is now revised in a combined senate/house version and states (in part): A public entity, other than the department, that produces a list of noxious or invasive terrestrial plant species growing in this state shall provide with the list a disclaimer that states: "THIS PLANT LIST IS ONLY A RECOMMENDATION AND HAS NO LEGAL EFFECT IN THE STATE OF TEXAS. THE TEXAS DEPARTMENT OF AGRICULTURE HAS SOLE AUTHORITY TO LABEL TERRESTRIAL PLANTS AS NOXIOUS OR INVASIVE."

**Chilton** reported that Senate Bill 1480 would return the regulation of exotic aquatic plants to a "black list" or "prohibited list" approach. In addition, the bill would adjust the penalties related to possession of an exotic aquatic plant downward to allow lesser penalties for minor violations. All stakeholders involved in the "white list" and rulemaking process requested that TPWD return to a "black list" approach. This legislation reflects an agreed-upon approach between TPWD and all affected stakeholders. As proposed, S.B. 1480 amends current law relating to the regulation of exotic aquatic species by the Parks and Wildlife Department and provides penalties. **Chilton** stated that the prohibited list will be extended over the next few years.

**Chilton** reported that the Texas state legislature pared funding for controlling invasive aquatic salvinia, hydrilla and hyacinth, which will mean a loss of approximately \$750,000 yearly.

Construction has been completed on two giant salvinia weevil rearing facilities. Giant salvinia and salvinia weevils will be cultivated in a controlled environment from which the weevils can be harvested and released. This initiative is intended to provide supplemental insects to compensate for a decrease in weevil populations common during winter months. It is hoped the facility will provide weevils for distribution to crucial areas at the beginning of the growing season to provide more effective biological control of giant salvinia.

Treatments to eradicate zebra mussels at Sister Grove Creek proved ineffective. Funding for treatments has been exhausted and no further treatments will be conducted.

**Chilton** reported that the USDA has issued a permit for release of Arundo scale (*Rhizaspidiotus donacis*). The armored scale insect will be used for the biological control of *Arundo donax* (giant reed, carrizo cane) and is expected to be more effective than the Arundo wasp. *A. donax* is an extremely invasive weed of riparian habitats and irrigation canals of the Rio Grande River Basin and the Southwestern United States. It displaces native plants and animals by forming massive stands that pose a wildfire threat, and consumes excessive amounts of water and competes for water resources in an arid region prone to perennial droughts.

**L. Hartman** provided a flyer on the Texas Rapid Assessment Team's (TexRAT) monitoring event scheduled for June 19-24, 2011. TexRAT is collecting samples from Galveston Bay and its tributaries. Scientists will use both traditional and non-traditional gear to provide a baseline of species data and determine if any invasive species are in the watershed. From the data collected, the group will be able to map species from multiple life stages and habitats. The combined effort will include members from Texas state agencies, universities, NGOs, and citizen-scientists; it will also incorporate aid from other states, and the Federal government. This group is anticipated to be the backbone of invasive species alert and response for Galveston Bay.

**L. Gonzalez** reported that they received a \$5,000 grant from the panel which is being used towards a project called *The Collaborative Approach to Managing the Invasion Potential of Aquarium Species in Texas*. This project aims to better determine what drives the decision to purchase, and later to release, ornamental fish and to incorporate this understanding into an invasion potential scorecard. The results of this project will provide TPWD with information to develop ways to mitigate the long-term effects of non-native species that become invasive in the Houston-Galveston Region. Also, it will help TPWD to design better management, outreach and communication strategies. **Gonzalez** suggested that since the panel funded the project, they might like to have a presentation of the project at a future meeting. **Hartman** recommended the presentation for next spring's panel meeting.

### Work Group Updates

#### **Early Detection/Rapid Response -**

**Hartman** reported that the early detection/rapid response plan is still undergoing revisions.

### Other Business

**Lukens** reported that Tonya Shearer has completed the final version of her Orange Cup Coral invasion report and he requested that **Ballard** make the report available to the panel for review



on the website. **Lukens** also requested that the panel vote whether or not the report should be provided to the South Atlantic Council, since there is an Orange Cup Coral problem in their jurisdiction. **Lukens** suggested that **Ballard** provide Shearer's report to the Aquatic Nuisance Species Task Force in his report and indicate that Orange Cup Coral resides in the south Atlantic and the Gulf of Mexico and is being monitored.

**Ballard** gave a PowerPoint Presentation entitled "Regional Panel Recommendation for the Aquatic Nuisance Species Task Force Meeting". GSARP recommends to the ANSTF that an Invasive Lionfish Control Working Group be formed. The purpose of an Invasive Lionfish Control Working Group (ILCWG) is to scope the issues related to prevention, control, and management of invasive lionfish (*Pterois volitans*, *Pterois miles*). If the formation of this ILCWG is approved by the ANSTF, then it is further recommended that the ILCWG provide a report by the next ANSTF meeting in November 2011. This report would contain supporting information for a recommendation on whether or not a National Invasive Lionfish Control Plan (NILCP) is needed. The purpose of a NILCP would be to serve as a guide to the ANSTF and other interested parties involved in managing lionfish and natural resources in U.S. waters.

After a brief discussion and several suggestions by the panel members, the document was edited and all members were in agreement of the new version.

#### **Next Meeting Time and Place**

It was decided that Austin, Texas would be the location of the next meeting, with San Antonio, Texas being the second choice.

The next meeting will take place sometime during the week of October 3<sup>rd</sup>.

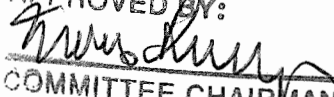
#### **Public Comment**

**Lukens** provided the opportunity for public comment. There was none.

**A motion was made to adjourn the meeting, and the motion was approved. There being no further business, the meeting adjourned at 3:40 p.m.**



**FISHERIES INFORMATION NETWORK (FIN)  
MINUTES  
June 22, 2011  
San Juan, PR**

APPROVED BY:  
  
COMMITTEE CHAIRMAN

Chairman **K. Cuevas** called the meeting to order at 8:30 a.m. The following members, staff, and others were present:

**Members**

Chris Denson, AMRD, Gulf Shores, AL  
John Froeschke, GMFMC, Tampa, FL  
Craig Lilyestrom, PRDNER, San Juan, PR  
Dave Gloeckner, NOAA Fisheries, Miami, FL  
Christine Murrell, MDMR, Biloxi, MS  
Michael Harden, LDWF, Baton Rouge, LA  
Vicki Swann, TPWD, Austin, TX  
Kerwin Cuevas, MDMR, Biloxi, MS  
Page Campbell, TPWD, Rockport, TX  
Thomas Sminkey, NOAA/ NMFS, Silver Spring, MD  
Andy Strelcheck, NOAA/NMFS, Saint Petersburg, FL  
Richard Cody, FFWCC, St. Petersburg, FL  
Daniel Matos, PRDNER, Mayaguez, PR

**Staff**

David Donaldson, GSMFC, Ocean Springs, MS  
Gregg Bray, GSMFC, Ocean Springs, MS  
Donna Bellais, GSMFC, Ocean Springs, MS  
Alex Miller, GSMFC, Ocean Springs, MS

**Others**

Todd Phillips, Ocean Conservancy, Austin, TX  
Nicole Shaffer, AMRD, Gulf Shores, AL  
David McCarron, IA-Team, ME

**Approval of Agenda**

The agenda was approved with minor adjustments.

**Approval of Minutes**

The minutes of the Fisheries Information Network (FIN) meeting held on June 9, 2010 in San Antonio, TX were approved as presented.

**Status of Atlantic Coastal Cooperative Statistics Program (ACCSP)**

**D. Donaldson** reported that due to funding restrictions no ACCSP representative was able to attend the FIN meeting. GSMFC will be provided with an ACCSP presentation in the near future and it will be distributed to the FIN committee members at that time.

### **FIN Data Management System (DMS) Issues**

Review of list of personnel with access to confidential data - **D. Donaldson** distributed a list of personnel with access to the FIN Data Management System (DMS) and requested that members make corrections or additions. **D. Gloeckner** noted that a list for the SEFSC was also provided to the group and any corrections or additions should be sent to him.

Status of the FIN DMS - **D. Bellais** reported on the status of the FIN DMS noting that the tracking of Oracle Discoverer public access has been completed. The current access counts are provided for commercial and recreational business areas. State partners continue to update and enter metadata into the InPort system. The states that have not entered data into the system were encouraged to do so and publish their information too. **D. Donaldson** stated FIN is trying to fund a part-time employee to maintain metadata for the States pending budget. **Bellais** gave an update on record counts in the FIN DMS for commercial landings. **Bellais** reported that Texas 2008 and 2009 trip ticket data has been loaded into FIN and QA/QC reports were sent back for approval. **P. Campbell** stated Texas is migrating to a central database and should be sending timely commercial data soon. Louisiana's recreational fishing license data continues to be loaded by wave. NMFS has access to the data and they continue to publish their findings. FIN continues to support the Information Architecture Team (IA-Team) in the development of Gulf Fishery One Stop Shop (FOSS) as needed. The FIN database equipment and software upgrades have been put on hold due to funding issues. Oracle Discoverer and Forms will be phased out by the end of 2011 and replaced by Oracle APEX. **Bellais** gave a review on biological sampling data, marine recreational fishery catch estimates, marine recreational fishery effort estimates, and menhaden data. Recreational fishery catch and effort estimates for 2010 were not loaded due to NOAA's re-estimation project. The 2010 data should be available by summer of 2011.

### **Presentation of Commercial Vessel Information Project**

**D. McCarron** presented the vessel registry demo that was shown at the GSMFC meeting in Houston, TX. **McCarron** highlighted the upgrades and changes since the last demo focusing mainly on the license portion. The reporting tools were explained and demonstrated. **McCarron** expressed a need for a state to test the template and upload process with real data. Texas volunteered to send a set of data for the testing of the registry module. There were discussions on developing a registry module for dealers and fishermen. **D. Donaldson** stated that there is a lot of interest in the vessel registry and the information it can provide so FIN needs to make this tool operational as soon as possible.

### **Presentation of Results from Economic Inshore Shrimp Project**

**A. Miller** presented the economic status, performance, and impacts of the Gulf Shrimp Fishery in 2008. The results were described for both the inshore fleet as well as the offshore fleet. The results were preempted by an explanation that the number of pounds landed in the Gulf has remained relatively the same for the last 35 years, while the nominal revenue (non-inflation adjusted) has marginally increased, and the real revenue (inflation adjusted) has decreased by 40%. **Miller** gave a background to the mail survey data collection efforts, noting that previous efforts have been few and far between and that the response rates have been poor. **Miller** explained that according to the Gulf Shrimp System (GSS), the offshore fleet accounts for 70% of the landings and 80% of the revenue. **Miller** also explained the

population, the sampling frame, and the response rates. The mandatory offshore survey received a response rate of 84%, while the voluntary inshore survey received a response rate of 32%. In reference to the vessel characteristics, the offshore vessels were two times the length of the inshore vessels, older than the inshore vessels, largely made of steel as compared to the inshore vessels being made of fiberglass, and used freezers as compared to the inshore fleet, which used ice. **Miller** also described the results from the balance sheet, which were based on vessel averages, and showed that the offshore fleet had more loans and more insurance, as they are more expensive. The vessel operation results, also based on vessel averages, showed that the inshore vessels are largely owner-operators. Inshore vessels reported 32% more revenue than reported in the GSS. Offshore vessels reported 1% more revenue than reported in the GSS. Offshore vessels are very specialized to harvest shrimp. Inshore vessels harvest a small amount of other species besides shrimp. The inshore fleet pays more per gallon of fuel, and the inshore fleet is more efficient since these boats take shorter trips. In terms of the income statement, **Miller** noted that both industries, on a per vessel average, are destroying economic value. Of the supply costs reported, fuel accounted for 49% of the costs for the offshore fleet and 27% of the costs for the inshore fleet. The inshore vessels had higher overhead than the offshore fleet and also higher repairs than the offshore fleet. **Miller** further explained that the results were subsequently extrapolated to the total offshore and inshore shrimp-harvesting sector in the Gulf. The balance sheet indicated that all vessels were valued at \$363 million, of which banks owned about \$101 million in 2008, indicating a not very leveraged industry. The entire industry reported using about 59 million gallons of fuel in 2008. **Miller** went on to explain that the cash flow statement for all vessels indicated that they received \$12 million in government payments and that the total expenditures were \$173 million for fuel and \$76 million paid to labor. Net cash flow for the total fishery showed that the industry is only marginally making money. **Miller** also explained that an economic impact analysis was conducted to determine the economic contribution of the shrimp-harvesting sector to the economy. The results indicated that Texas had the largest total economic impact in 2008 with Louisiana having the second largest impact. **Miller** discussed the impact results and noted that Texas has larger vessels, harvested more shrimp in 2008, and had more direct revenues from shrimp landings than Louisiana. Louisiana, however, supports the largest number of shrimp harvesting related jobs in the region, with more than twice as many jobs as Texas. **Miller** finished the presentation by explaining that a final report will soon be released that will focus on the inshore survey, while a joint offshore and inshore report will also be released that will describe the economics of the total shrimp fishery in the Gulf region.

#### **Status of Federal Quota Monitoring/Electronic Reporting Activities**

**D. Gloeckner** reported there are 794 federal dealers reporting electronically in the Southeast and the Gulf. About 500 of those are Gulf dealers. It was noted there is about a two week lag time between landings and reported landings. Amberjack and Triggerfish quota usages for the Gulf were presented. **Gloeckner** mentioned changes to trip tickets have been requested. NMFS has asked states to remove unclassified sharks and make vessel id mandatory. **C. Denson** asked if it is mandatory for all federal dealers to report electronically. **Gloeckner** stated this is true as of April 2011. Since the Traceability program is in the early stages of development and the data to be fed into this system from the Bluefin program is also much of the same data needed for Quota Monitoring, **Bellais** suggested a conference call with the Trace Register folks

to see if the reports developed in the traceability program could suffice for what is needed from GulfFIN for Quota Monitoring in the Gulf of Mexico.

#### **Update on Marine Recreational Information Program (MRIP) Gulf Logbook Pilot Project**

**D. Donaldson** presented a status report of the MRIP Gulf logbook pilot project. This data collection project is focusing on federally permitted for-hire vessels in the Panhandle of Florida and Corpus Christi area in Texas. Sampling began in September 2010 and will end in August 2011. There are two validation components including at-sea and dockside surveys. The program is currently averaging 60 non-reporting vessels per week in Florida and 1 non-reporting vessel per week in Texas. All of the vessel representatives in Texas report electronically while approximately 50 Florida captains report via a paper option. A large number of dockside and at-sea validations have been completed by both Florida and Texas samplers. Florida and Texas are both key entering these data and the validation data will be used to test for over or under reporting and to compare harvest reports with at-sea observations. **Donaldson** stated that the amount of labor that has gone into improving compliance has been extensive for these two small study regions. **A. Strelcheck** asked if we knew any reasons for improved compliance over time. **Donaldson** stated that adding non-compliant boats to the NOAA Permits hold list has changed some attitudes along with increased communication with the captains helped them understand the mandatory reporting requirement. **Donaldson** also stated that if the project was expanded Gulf-wide we still do not have a reporting requirement for state licensed vessels. That would be a large data gap to consider if implementing a gulf-wide logbook program. The project team leaders hope to have some preliminary analysis run in the next few months. They hope to work with some consultants on further data analysis and project review. **Donaldson** stated that money is available to expand the logbook gulf-wide for 2012 but there is only enough money for one year. **Donaldson** is hesitant to commit to hiring staff necessary to expand this project with only one year of funding available. **T. Sminkey** stated a potentially bigger issue will be to determine if a gulf-wide logbook program provides data of the quality and timeliness necessary to be able to replace current sampling methodologies. **J. Froeschke** asked how the decision will be made on the future of possible logbook expansion. **Donaldson** mentioned the decision making process would work through MRIP. **Sminkey** stated the executive steering committee of MRIP would have the final say as to what projects get recommended to NMFS.

#### **Status of States' National Registry Projects**

**D. Donaldson** gave an introduction to the national registry project and explained that NMFS provided funding to all states throughout the country to improve the completeness and the quality of recreational fishing license databases. All of the GOM states (except Florida), and the territories of the southeast, have entered into agreements with GSMFC to improve the license frames. **Donaldson** further noted that the states are trying to figure out how to deal with exemptions such as being over 65 years old and having a lifetime license.

**V. Swann** gave an update on the state of Texas and explained that Texas is trying to determine the number of saltwater fishers that are included in the combination license (hunting and fishing) and non-combination license. They have a combination and a super combination

license that are divided into senior and non-senior categories. Since 2006, they have been surveying only the super combination license holders. A survey of the super combination license holders determined that 50% fish in saltwater. **Swann** further explained that they are currently planning to survey the non-super combination license holders starting in September 2011 to see if they get similar results.

**M. Harden** gave an update on the state of Louisiana's efforts and noted that they are somewhat behind as a result of a number of issues going on in the Gulf. **Harden** noted that they have been working on a number of outreach efforts, such as mailings to anglers, in order to encourage them to update their registry information. **Harden** explained that they are working to bring radio and TV outreach efforts onboard. He noted that they have purchased a kiosk to have on hand at outreach events in order to get in contact with anglers. **Harden** also noted that they are working to allow anglers to update their information on their website.

**K. Cuevas** gave an update on the activities in Mississippi and noted that they are online in real-time with their license. They have submitted the license database and are in compliance except for one combination license. **Cuevas** noted that the combination license out of compliance is a lifetime license. **Cuevas** explained that they are currently in the process of doing a study to determine how many lifetime anglers fish and that they will submit this information once they receive the results. **Donaldson** asked if the survey has been sent out and who is conducting the survey. **Cuevas** noted that they are conducting the survey in-house, have sent everything out, and are now waiting for the results.

**C. Denson** of Alabama explained that they do not have any issues with the combination licenses as they removed their combination licenses in 2008. Data collection is mainly an outreach effort in order to register anglers for this mandatory regulation. All exempted individuals will be registered at no cost. Everything can be done online. This includes lifetime licenses, over 65, etc. The only license they are not focusing on is the under age 16 license. This has been passed and is in place. He also noted that there is a fine for non-compliance. Anglers need to have a license or be registered in the case of an exempted angler. **Denson** noted that they are waiting on the funding. **Donaldson** noted that they have received the funding. **Denson** asked where they should send the data. **D. Bellais** and **Donaldson** noted that data can be sent to either the Commission or the NMFS. **Donaldson** noted that it was up to the states as to what they wanted to do and that the NMFS would probably prefer to deal with one entity in the Gulf. **Donaldson** asked if NMFS is receiving the data at this point. **T. Sminkey** noted that they are set up to take data feeds and that the NMFS has developed a unique process to get access to the data because it includes personal information. **Denson** asked how long it takes NMFS to return a request. **Sminkey** noted that it should not take very long and that he would check into how they are receiving data at the NMFS. **R. Cody** asked what was Alabama's intention to retrieve the data they submit. **Denson** noted that if Alabama, as well as the other states, had their data at the Commission, they would be able to use it immediately. **Cody** noted that he thought **Denson** was implying that once Macro receives the data from the telephone survey that they would feed the data to the states in order to improve the data. **Donaldson** noted that the NMFS is still trying to figure out how the data loads will work and that he plans to talk with them about data loading issues. **Bellais** noted that if the states send the data to the Commission, and the states access that data, it will not have been cleaned. **Donaldson** noted that it is up to the NMFS as to where the

data should be submitted and also noted that he saw a role for the Commission. **Sminkey** suggested that the Commission's role might be data cleaning. **Donaldson** noted that when a sample is pulled and updated, the updates would go back to the initial database. **Donaldson** noted that the group is talking about issues that have not been developed yet and that the group should inform NMFS of the issues discussed.

**R. Cody** of Florida noted that they have been discussing different options as to how to improve the registry. These options included looking at the data as it is now. They determined that these are things that the NMFS planned to do as quality control so there was not a need to do this. The challenging part for **Cody** is that the licensing and permitting is controlled in their Tallahassee, FL office, and he does not have a lot of involvement with that office and is not sure where they are with improving the registry information. **Cody** noted that the free license in Florida might impact the quality of the license frame. **Donaldson** asked if the free license was for shore mode only and how long it was good for. **C. Lilyestrom** asked what percentage was free. **Cody** noted that it was free, for shore only, good for a year, and that it was hard to know what percentage of anglers had this license but might be able to look at the percentage of trips from shore. **Donaldson** also noted that there is an exemption in the Florida license requirements that residents do not have to get a license. **Lilyestrom** noted that he was concerned because things that happened in Florida often happen in Puerto Rico. **Donaldson** noted that Puerto Rico does not have an exemption of that kind at this time. **Cody** also noted that it will be challenging to overcome the free fishing day issues and that they will need to account for that effort. **Donaldson** asked who was concerned about it and **Cody** explained that he was concerned that the data mining that the NMFS does will not get back to the state of Florida. **Cody** noted that they are trying to get a part time in-house person to work on this issue. **Donaldson** asked how many free fishing days they plan to have and if a large number of anglers would fish because it is free. **Cody** indicated that it would be four days and he didn't know how many anglers would be fishing. **Sminkey** suggested to try to figure out how to account for it, such as sampling under the NMFS standard effort sampling frame or use the intercept, in order to lead to some type of adjustment and noted that this approach could potentially be biased. **Sminkey** also noted that there may be economic issues associated with the free fishing opportunities. **Donaldson** noted that he didn't think that there was a large population that would go fishing because it's free, but that it might be interesting to quantify. **Cody** noted that it might be good to have some involvement with the NMFS concerning this. **Denson** asked if the free fishing day was for residents and non-residents. **Cody** noted that it was for residents and non-residents. **Bray** asked if the dockside intercept form should continue to ask if an angler has a license, and for the no responses, what exemption category it fell into in order to quantify the no responses in the field and if that information has value. **Cody** noted that they need a way to quantify this information. **Bray** noted that there have not been a lot of individuals asking for this information and that they could potentially expand the number of exemptions on the form. **Cody** noted that individuals haven't started using the information yet but may in the future. **D. Gloeckner** noted that anglers fishing for free may not be very skilled and that the catch may be insignificant.

**C. Lilyestrom** from Puerto Rico explained that they have never had a recreational fishing license and are now authorized to have a license. **Lilyestrom** noted that the licensing system has been named FLIPPER. **Lilyestrom** also noted that they have had a number of challenges to overcome in order to allow for the sale of licenses. These included such things as needing a



regulation to allow for the sale of licenses and developing a contract to work with local businesses. **Lilyestrom** noted that they have hired a consulting firm which has experience with computer systems and working with the Treasury and the Department of Transportation in Puerto Rico. They are also working to select the sales points such as tackle shops, Wal-Mart, K-Mart, and West Marine stores. **Lilyestrom** is trying to get things up and running in a number of months. **Lilyestrom** explained that the exemptions included the following: children under 13 do not need a license; licenses for children 13-14 are free; anglers over 60 need a license, but will be free; and clients of charter boats do not need a license. **Lilyestrom** explained that there will be a 1 day, 7 day, and 1 year license and that they are still considering a lifetime license. **Lilyestrom** noted that they will be selling permits for lobsters, conch, crabs, billfish and a few other species. They are also making sure that the system is compliant with the National Angler Registry. **Donaldson** asked if they have a freshwater license requirement and **Lilyestrom** noted that an angler needs to have two separate licenses. **A. Strelcheck** asked if the lobster and conch licenses would be an endorsement to the permit and **Lilyestrom** noted that that was correct. **Sminkey** asked if the Wal-Mart and K-Mart sales were point of sale, and **Lilyestrom** noted that that was also correct. He further explained that the public would use touch screens, the internet, and telephones without the need for paper.

**D. Donaldson** commented on the efforts made by the USVI. **Donaldson** noted that they have a sub-award with the Commission and that they are hiring a consultant and a lawyer to look at the feasibility of implementing recreational fishing licenses. **Lilyestrom** noted that they have been surprised that both recreational and commercial fishery stakeholders have looked at the recreational fishing licenses favorably in Puerto Rico. **Cuevas** asked if the USVI has a commercial fishing license, and **Donaldson** noted that they do but that it is rather ad-hoc. **Donaldson** also noted that Puerto Rico is much further along with a recreational and commercial licensing program than the USVI. **Donaldson** also noted that the Commission has funding to continue to do projects related to the registry for all states. **Donaldson** plans to go through the RFP process so that the states can submit project proposals for review.

### **Presentation of New MRIP Estimation Process and Intercept Survey Design**

**T. Sminkey** gave a presentation on the re-estimation project that MRIP is currently working on. The new estimation method correctly weights the distribution of intercept data across waves, modes, and sites. The goal is to produce an unbiased estimate of catch rates by species. The new method utilizes site register, assignment summary draw files, and assignment summary form data which are completely different from previous estimation. NMFS has been working to clean much of these new datasets as they previously received very little quality control prior to delivery. Once completed NMFS will have a new set of estimates to compare with the previously generated estimates. Their goal is to produce revised estimates of effort and harvest for 2004-2009. NMFS hopes to assess the impacts of the new estimation design using a web tool to create easy to read comparisons. After an internal review by NMFS staff, NMFS is also creating an external review group consisting of council, commission, and state partners to assist with the review process. **Sminkey** mentioned NMFS hoped for new estimate review by July but August might be more likely.

**Sminkey** also gave a presentation about the proposed intercept survey design that will improve the sample selection so that modeling and weighting is not necessary for future

estimation of harvest and effort. This model is likely going to be implemented for the Atlantic Coast in 2012. Much of the control of selecting alternate sites, sampling times, rescheduling assignment, determining sampling times, and selecting anglers needs to be taken away from the samplers and controlled by the sampling design. A pilot study was run in North Carolina to test this new field methodology. Alternate sites will be completely pre-determined using site clusters. Clusters are determined by mode, pressure, and geographic proximity. A Google Maps application is used to generate appropriate clusters. The sampling day will be divided into 4 time intervals and the sample selection will choose the time interval for the sampler to be at their site cluster. The sampler will arrive at the start of the time block at the predetermined first site and will stay at the cluster for the entire period. All anglers should be sampled during the selected time block. Samplers will be required to count anglers leaving site during 1 sampling hour and during the next hour they are instructed to interview anglers that have completed fishing. Assignments will no longer be allowed to be rescheduled and must be completed on the day selected. This design should address the previous estimation biases brought up by the NRC review. The first step necessary will be to redesign the site register to create pressures for each time block at each site and day type. Currently NMFS does not have a design for the new site register. **Sminkey** encouraged the states to review their current register to ensure there are no duplicate sites, the GPS coordinates are accurate, and the site status is accurate (open, closed, hostile, etc).

#### **Status of Fisheries One-Stop Shop (FOSS)**

**D. Bellais** reported the testing of the Fisheries One Stop Shop (FOSS) Non-Confidential data for spiral 1 (ACCSP), spiral 2 (GulfFIN) and part of spiral 3 (AkFIN) have been completed by the Professional Specialty Group (PSG) and has been requested from Advisory Team (AT) for this to be released to the public for use. The request was put on hold due to a few questions/issues the AT have. The requirements for the rest of spiral 3 (PacFIN, SW HMS) and spiral 4 (WPacFIN) are currently being completed. The current set of years used (2006-2009) has been expanded to have each FIN provide data as far back as they can to the present. **Bellais** noted the U S Coast Guard sent a request to regional fisheries for some type of vessel registry with spatial capabilities that can be used to schedule patrol areas based on who fishes and where they fish. A demo is under development for drill down GIS mapping using the Gulf Registry Module. The AT asked the PSG for a list of possible usages for this type of registry. The Gulf Registry Module has been suggested by the AT to the PSG for use in FOSS and is now available for testing by the PSG.

#### **Presentation of New Recreational Data Capture Technology**

**G. Bray** gave a brief presentation about a pilot study using digital pens for data capture in the recreational data program. The current process uses scanning and manual data entry and is hampered by the time and cost of mailing paper forms along with potential for errors with recopying data forms. The pilot study will partner with Florida Wildlife Commission and Rover INK to test the Inovo digital pen in the dockside survey and the for-hire telephone survey. The pen basically captures the written letters and numbers via a camera mounted under the roller ball and transmits the data and image to a centralized server. Once on the server the electronic data will run through an electronic quality control process. Data will be exported for import into SAS and the form images are exported for long term storage. The pilot study will test two pens and should start in August. The study will run for 30 days in the Tampa region of West Florida. If

successful, this technology would eliminate the need for mailing forms, would also reduce data entry costs, and improve the time with which data are available in electronic format. **Sminkey** stated that there is a big interest in improving the timeliness of recreational data. Many entities have expressed an interest in monthly estimates which would require more timely data delivery.

### **Review and Approval of 2010 FIN Annual Report**

FIN Committee members were provided with copies of the draft 2010 FIN Annual Report. It was noted that result oriented tables have been updated to the Annual Report with 2010 information. **D. Donaldson** requested that members of the Committee review the Annual Report and provide comments, revisions, or corrections to staff by July 18, 2011. **C. Denson moved to accept the FIN 2010 Annual Report with pending editorial changes. The motion was seconded and passed unanimously.**

### **Subcommittee and Work Group Reports**

FIN members were provided with copies of all Subcommittee and Work Group Reports. The Reports are part of these minutes and are attached.

### **Gulf of Mexico Geographic Subcommittee – (Attachment A)**

The Gulf of Mexico Geographic Subcommittee/TCC Data Management Subcommittee (DMS) met in October 2010 and March 2011. **Bray** stated that both meetings had several interesting presentations but no action items needed to be addressed at the FIN meeting. **P. Campbell moved to accept these reports. The motion was seconded and passed unanimously.**

### **Administrative Subcommittee – (Attachment B)**

The Administrative Subcommittee held a conference call in April. The Administrative Subcommittee forwarded a recommendations document to the FIN committee for review. This document was the result of the most recent facilitated session that was held in San Antonio, TX in 2010. The FIN Committee reviewed each recommendation in the document and made several changes. These changes were incorporated into the Administrative Subcommittee report and will also be included in the 2011 Operations Plan timeline. **C. Denson moved to accept the Administrative Subcommittee report. The motion was seconded and passed unanimously.**

### **Commercial Port Sampler Meetings – (Attachment C)**

The Gulf Port Samplers met in September 2010 in Galveston, TX. The meeting included several presentations. **G. Bray** reported that there were no action items to bring to the FIN committee. **Donaldson** asked the FIN committee to discuss the usefulness of having annual port sampler meetings. In recent years the meetings have been more difficult to develop as the number of important agenda topics has diminished. **C. Lilyestrom** asked how frequently states hire new port samplers. Most states agreed there is very little turnover. After much discussion the FIN committee agreed that canceling the annual port sampler meeting for 2011 would be appropriate and FIN would assess the need for meetings on a yearly basis. **A. Strelcheck** also pointed out an editorial change that will be reflected in the final 2010 Commercial Port Sampler Meeting minutes. **C. Murrell moved to accept the Commercial Port Sampler report. The motion was seconded and passed unanimously.**

#### Otolith Processors Training Workshop – (Attachment D)

The Otolith Processors Training Workshop was held in May of 2011 in St. Petersburg, Florida. **Bray** mentioned as a direct result of two reference sets being lost in 2010 stricter policies have been instituted for the distribution of reference sets. Each state is required to notify the state they are sending the reference to along with notifying GSMFC. States are also required to use a shipping company that offers a tracking number to assist with tracking shipments. A sampler from Florida mentioned that ocean acidification appears to be becoming an issue and asked that the FIN committee consider the possible ramifications on the usefulness of otoliths as an ageing structure in the future. At the end of the workshop, there was a review and comparison of the reading exercises done by the groups. The goal of a 5% A.P.E. is not realistic for gray triggerfish and greater amberjack so currently the group has set a target of 10% A.P.E. for those species. The meeting summary of the otolith processors training workshop is attached. There were no action items to bring to the FIN Committee. **D. Donaldson moved to accept this report. The motion was seconded and passed unanimously.**

#### Data Collection Plan Work Group – (Attachment E)

The Data Collection Plan Work Group met via conference call in May 2011. The purpose of this meeting was to review otolith collection reports for 2010 for the FIN priority species. There was useful input from all of the States as to reasons for shortfalls for specific species and modes of sampling. **Bray** mentioned the Deepwater Horizon oil disaster had a significant impact on 2010 otolith collection shortfalls. **The work group recommended to the FIN committee that FIN continue to use the current targets for biological sampling in 2012. This recommendation was accepted by the Fin Committee. P. Campbell moved to accept this report. The motion was seconded and passed unanimously.**

#### Operations Plan

Status of 2011 Activities - The FIN Committee was provided with a list of activities currently being conducted. The Committee reviewed the various activities and noted that all activities were either completed or being addressed as outlined in the Operations Plan. **Strelcheck** asked if Gulf FIN could be involved with protected resources studies. **Donaldson** stated that the Gulf States usually address those topics only after a request is sent down from NMFS first. **Sminkey** stated that NMFS scientists are working on developing protected resources surveys independent of current recreational harvest surveys.

Review and Approval of 2012 Operations Plan - The FIN Committee reviewed the 2012 Operations Plan. It was noted that the activities in the plan were developed from committee, subcommittee, and work group activities. The FIN Committee needs to ensure that all proposed activities are necessary and will move the program forward. The State/Federal Fisheries Management Committee (S/FFMC) will meet in August 2011 to give final approval to the Plan. **C. Denson moved to give approval to the 2012 Operations Plan contingent on the S/FFMC funding decisions. The motion was seconded and passed unanimously.**

#### Discussion of 2012 FIN Priorities

Committee members were provided with a list of items for funding consideration in 2012. **G. Bray** reported that the list was generated from activities conducted last year as well as

discussions in various subcommittee and work group meetings. The final prioritized list will be forwarded to the S/FFMC for their meeting in August 2011. At that time, they will decide which items will be included in the 2011 FIN cooperative agreement. All items listed as high priority will require budgets and statements of work by July 25, 2011. The Committee agreed to list as high priority on all ongoing activities. The prioritized list of activities for 2012 is as follows:

#### *Ongoing*

- H - Coordination and Administration of FIN Activities – Include IA Team dealer and fishermen module
- H - Collecting, Managing and Disseminating Marine Recreational Fisheries Data
- H - Head Boat Port Sampling in Texas and Florida
- H - Operation of FIN Data Management System
- H - Biological Sampling of Commercial and Recreational Catches

#### *Reinstating*

- H - Gulf Menhaden Port Sampling
- H - Trip Ticket Program Operations for Oysters and Finfish in Mississippi
- H - Trip Ticket Program Operations in Alabama
- H - Trip Ticket Program Operations in Louisiana
- H - Trip Ticket Program Operations in Texas
- L - Detailed Effort Sampling of Shrimp Fishery in Louisiana

#### *New*

- H - At-sea Sampling for Catch and Discards Data from Large-capacity For-Hire Boats in Texas, Louisiana, Mississippi, Alabama and Florida
- H - Trip Ticket Program Implementation for all Commercial Fisheries in Mississippi
- L - Highly Migratory Species Sampling in the Gulf of Mexico
- L - Biological Sampling for FIN Secondary Priority Species

#### **Time Schedule and Location for Next Meeting**

The Committee agreed to target the third week in June 2012 for next FIN meeting. Possible locations suggested for the next FIN Meeting are Charleston, SC, Miami, FL, and Wilmington, NC.

#### **Election of Officers**

Currently the vice chairman is **Tom Sminkey**. Based on the FIN SOPs, he will become the chairman in 2012. **Richard Cody** was nominated as vice chairman by **D. Donaldson** and seconded by **C. Murrell**. The nominations were closed and the chairman and vice chairman selections were approved by the Committee.

#### **Other Business**

**D. Donaldson** distributed the history of chairmanship and committee listings to the group and asked members to review them and provide any comments or changes.

*There being no further business, the meeting was adjourned at 4:43 p.m.*

**TCC DATA MANAGEMENT SUBCOMMITTEE  
MINUTES  
Monday, October 18, 2010  
Clearwater Beach, FL**

**Chairman Kerwin Cuevas** called the meeting to order at 8:30 a.m. The following members and others were present:

**Members**

Chris Denson, AMRD, Gulf Shores, AL  
Kevin Anson, AMRD, Gulf Shores, AL  
Richard Cody, FWC/FWRI, St. Petersburg, FL  
Page Campbell, TPWD, Rockport, TX  
Vicki Swann, TPWD, Austin, TX  
Kerwin Cuevas, MDMR, Biloxi, MS  
Christine Murrell, MDMR, Biloxi, MS  
Michelle Kasprzak, LDWF, Baton Rouge, LA  
Michael Harden, LDWF, Baton Rouge, LA  
Steven Atran (proxy for John Froeschke) GMFMC, Tampa, FL  
David Gloeckner (proxy for Guy Davenport), NMFS, Miami, FL

**Staff**

David Donaldson, GSMFC Assistant Director, Ocean Springs, MS  
Larry B. Simpson, GSMFC Executive Director, Ocean Springs, MS  
Donna Bellais, ComFIN Survey Coordinator, Ocean Springs, MS

Gregg Bray, RecFIN Programmer/Analyst, Ocean Springs, MS

Janet Williams, GSMFC, FIN Staff Assistant, Ocean Springs, MS

Alex Miller, GSMFC Staff Economist, Ocean Springs, MS

### **Others**

Terry Cody, TPWD, Rockport, TX

Michael Bailey, NOAA Fisheries, Tampa, FL

Steve Brown, FWC/FWRI, Saint Petersburg, FL

Geoff White, ACCSP, Arlington, VA

Michael Bailey, NOAA Fisheries, Saint Petersburg, FL

Beverly Sauls, FWC/FWRI, Saint Petersburg, FL

Dale Diaz, MSDMR, Biloxi, MS

### **Adoption of Agenda**

The agenda was approved and adopted as written.

### **Approval of Minutes**

The minutes of the Data Management Subcommittee (DMS) meeting held on March 8, 2010 in Perdido Key, AL were approved as written.

### **Status of Biological Sampling Activities**

Review of collection and analysis activities – **G. Bray** provided handouts that showed a comparison of the number of otoliths and length measurements collected in 2010 along with the associated sampling targets for the 15 FIN priority species. A large number of shortfalls were observed for most species. These shortfalls are largely due to limited sampling during the oil disaster along with difficulties posed by more restrictive fishing regulations for several species. **Bray** mentioned that shortfalls in commercial collections seem to be getting larger and more

prevalent. Many of the states commented that the inability to handle and cut commercial landings has impacted their ability to collect commercial otolith and length samples.

**Bray** also mentioned that all states have delivered their 2009 age data except for Florida. GSMFC has loaded all of that data to the FIN Data Management System (DMS). Florida encountered some problems with data entry staff and is working with GSMFC to provide their 2009 age data in electronic format for direct loading to the data management system.

Status of web-based data entry program – **D. Bellais** reported that everything is working well and most states are utilizing both sample and age data entry screens. A fix is being implemented to add a year drop down box to the age entry screen to improve the efficiency of data entry.

### **Status of Commercial Vessel Information Project**

**D. Donaldson** reported that IA Team continues to work on identifying unique vessels. Donaldson stated the original model that required hull identification numbers (HIN) will not work. Some states do not collect HIN's. The new model utilizes coast guard or state vessel registration numbers and attempts to track those numbers over time. Each state will provide a spreadsheet with vessels, license information, and personal data. Using those variables you could uniquely identify persons and vessels and associate that with information in the Gulf FIN database. The current model requires state partners to submit these data annually or semi-annually. This model is based on similar elements from the old HIN based model. A final report should be delivered to GSMFC by January 1, 2011. The DMS will likely make recommendations on this report at the March 2011 meeting that will be forwarded onto FIN. Hopefully the contractor will be present at that meeting to present their report and answer questions. **Kasprzak** asked if HIN will still be collected even though it will not be the primary key variable under the new model. **Donaldson** said the HIN would still provide useful information. **Cody** asked if the HIN's that were provided had data quality errors. **Donaldson** was not completely sure but thought that was a problem.

### **Status of GulfFIN FOSS Project**

**D. Bellais** provided a demonstration of the non-confidential data portal created for the Fisheries One Stop Shop (FOSS). This is a regional data sharing program created under NOAA's Fishery Information System (FIS) program. Much of the output functionality is not completed but **Bellais** demonstrated a landings report using 2006 non-confidential data for Fisheries of the U.S. The Gulf FIN data is used for West Florida and ACCSP data are used for East Florida results. **Bellais** also showed the subcommittee a FOSS report using Alabama red snapper landings for 2006. The FOSS reports will be linked to metadata and any pertinent metadata is provided with the landing report. **S. Atran** asked if the reports were strictly commercial data. **Bellais** stated all current reports are commercial only and the programmers are working on including recreational data in the future. **Cody** asked if you could select multiple states and species at one time. **Bellais** said that functionality is available but more work needs to be completed to provide that full functionality. **Denson** asked if the website would inform them that confidential data was not being shown. **Bellais** stated the design plan is attempting to accomplish that. **Donaldson**



mentioned the group needed to have a discussion for what various databases need to be included in Gulf FIN. One of the problems is some data bases are occurring in multiple locations but users are obtaining different results depending on the query tool being used. That topic will be discussed at the March 2011 DMS meeting.

### **Discussion of Quota Monitoring/Trip Ticket Issues**

**D. Donaldson** mentioned the SEFSC has a goal that all federally permitted commercial dealers are reporting electronically by early 2011. There is currently an electronic reporting tool being utilized by some dealers in the Gulf of Mexico through Bluefin Data Inc. Some additional work needs to be done to be able to track changes to data and also allow for negative reporting when no fishing is happening. The goal is to have weekly reporting and allow data to be collected through the electronic trip ticket system but uploaded through a secure business universe to SEFSC. This is going to be used for quota monitoring purposes only. **D. Gloeckner** mentioned this will be a federally mandated program. **Denson** asked when the regulation would be issued. **Gloeckner** mentioned that NOAA lawyers believe the regulatory authority already exists and the dealers just need to be notified. The states suggested that NOAA give them some prior notification before they inform dealers of the regulatory change. **S. Brown** asked if there is a list of all the federally permitted dealers. **Gloeckner** stated that list is available on the SERO website.

### **Economic Activities**

**Miller** reported about some proposed add-on questions NOAA Fisheries economists would like to include with the For-Hire Telephone Survey (FHS). **Miller** stated that economic data was listed as a high priority at a recent Saltwater Recreational Fishing Summit. The questions proposed would be total charter fee paid by anglers, how many gallons of fuel used, total amount paid for fuel, and type of fuel purchased. Economists hope to track changes in fuel cost, track changes in charter fees based on reduction or increase in allowable catch, help quantify size of industry, and link price data to trip characteristics. **Miller** hopes to use the data to produce reports to share with the for-hire industry on a near real time basis. **B. Sauls** asked who those results would be shared with. **Miller** said the details have not been fully decided yet. **Kasprzak** asked when they would like to add the questions. **Miller** stated as soon as possible depending on what problems might prohibit a quick startup. Most of the states agreed that the questions are useful but the timing of adding additional work is bad. The current sampling levels are high and many captains are currently upset with the high frequency of being contacted via the FHS. **Kasprzak** asked if there was an outreach plan in place for collected these questions. **Miller** stated nothing is in place yet but they would likely address that if approval is given for data collection. **Cody** stated he is concerned that tagging this onto the current FHS might not provide the best quality economic information. The subcommittee members seemed willing to attempt collecting these data provided we do not attempt this while the current sampling levels of 40% are in effect. The larger burden placed on respondents from the higher sampling levels has created some anxiety from for-hire captains participating in the FHS and adding economic questions could increase angler refusal rates. **B. Sauls** asked if the survey was asking anglers to break out their individual expenditures. **Miller** stated he thinks expenditures should be collected

on an individual basis.

**Miller** also discussed the upcoming 2011 expenditure survey being added to the dockside intercept survey. The questionnaire looks similar to the 2006 survey. Miller will be working with the states to finalize the budget process over the next month. This survey is scheduled to start in January 2011. There will be a voluntary follow-up mail survey administered by Macro International that is a complementary part of this data collection process.

**Miller** updated the subcommittee on the inshore shrimp fishery economic survey. All of the data has been entered, collected, and cleaned. A preliminary analysis and has been run. Miller continues to work on the final analysis and report. He hopes to have the completed and available during the March 2011 GSMFC meeting. Funding has been secured to continue this data collection program in 2012.

**Miller** gave a brief update on the Economic Survey of Processors and Dealers. They have put together an inventory of processors and dealers and have awarded sub awards to University of Florida, University of South Alabama, Mississippi State University, Louisiana State University, and Texas A&M. The survey instrument is nearly completed and will soon be field tested with the hopes of putting it in the field November 1, 2010.

**Miller** gave a brief updates on the National Marine Recreational Use Economic Survey. They have recently completed some focus group work and are getting ready to start a pre-test of the web survey instrument. The goal is to implement the survey in early 2011.

**Miller** finished with a brief demonstration of the Interactive Fisheries Impact Tool. This allows users to query commercial and recreational economic impacts along with recreational fishing expenditures. **Miller** stated this data came from the 2006 expenditure data that was an add-on to the dockside intercept survey. He showed a basic query for the Gulf of Mexico recreational fishing economic impacts. The query tool provides result tables, charts, and clickable maps. **Donaldson** asked if GSMFC had a link to the NOAA query tool. Miller said there was not a link currently but there is a plan to add one in the near future.

### **Update on MRIP Gulf of Mexico For-Hire Logbook Project**

**B. Sauls** reported on the progress of the MRIP For-Hire Logbook pilot program being administered in the Panhandle of Florida and the Corpus Christi region of Texas. Participants are all federal reef fish or pelagic permit holders in both regions. This included 357 boats in the panhandle of Florida and 58 boats in Texas. Captains were made aware of their selection in this mandatory reporting program in June and July via certified letter from NOAA Fisheries. Three public meetings were held in July to provide more information on the data collection tools and allow vessel representatives to ask questions. In August the electronic reporting tool was available for testing and review. Data collection officially started September 1, 2010.

Currently there are 3 methods of validation including drive-by effort validation, dockside interviews, and at-sea observer trips. Drive-by validations are completed by state biologists

confirming if boats are in or out and if out, whether they are fishing or not. Dockside validations are done by state biologists and collect trip information directly from the captain and crew. Dockside sites are randomly selected and biologists interview every vessel at the selected site. At-sea validations involve placing a biologist on the boat during a for-hire trip. This allows for more detailed collected or discarded fish data. Since September 1<sup>st</sup>, Florida has completed 21 dockside assignments and 8 at-sea trips. Texas completed 5 dockside validations and 4 at-sea trips in September.

The logbook compliance reporting results are not going as well as the validation process. Currently approximately 40% of the Florida vessels are non-compliant in providing logbook results. Texas has been able to reduce their non-compliance rate to 0%. Florida has about 50 participants that have requested a paper reporting tool. All of the Texas participants are reporting through the electronic reporting tool. Two additional biologists have been hired to work in Texas and three biologists have been hired in Florida. Florida is working hard to make personal contact with non-compliant captains and vessel representatives and help them in getting setup or delivering data. A few boats have been identified as being exempt even though they were in the federal permit list for the study region. Florida is documenting all attempts and successful contacts of non-compliant vessels. For those still not reporting after a certain period of time vessel representatives will receive a courtesy warning letter from NOAA Fisheries. If they still do not report after being sent the courtesy letter we will notify NOAA Fisheries and NOAA will review their cases prior to their permit renewal process. **Sauls** stated it has been better to implement this as a pilot program at first. Full implementation in the Gulf of Mexico would require a great deal of outreach and would need to be phased in over many geographic areas over a long period of time.

Some of the complaints from current participants are the species list is a little confusing, users are sometimes not sure if their inactivity reports have been submitted electronically, and participants have asked if they could be emailed a reminder each week. Many captains are also concerned about the additional reporting burden the logbook program has added. Many of these captains are participating in the for-hire telephone survey (FHS) although if they provide electronic logbook data in a timely manner they could be exempted from the FHS. Many boats also have commercial reporting requirements and get hit with dockside recreational surveys and biological sampling programs. Captains have also stated they are upset that this program is linked to permit renewal process and they are getting nothing in return. **Cody** asked since red snapper will close towards the end of October and fishing activity will likely decrease will compliance get better or worse. **Sauls** stated she not sure how things will improve or deteriorate in the near future.

### **Discussion of Fish Tags related to Recreational Data Collection Activities**

The Gulf Council asked the subcommittee to address the issue of using fish tags as an effort limitation system or a data collection program. This is not a tag program where a physical marker would be inserted into the flesh of a fish. The concept is similar to a duck stamp where anglers are allowed to harvest the fish if they are awarded a tag. Currently MRIP is not addressing fish tags as a data collection tool. **S. Atran** mentioned the gag quota and recreational

allocation is causing this to be a big issue. Under the current stock assessment and allocation the 2011 gag season could be severely limited. **Atran** mentioned a gag tag has potential as a data collection program but seems to have no strength as an effort limitation system. **Atran** wondered if the states had the infrastructure for assigning and monitoring tag distribution. **Donaldson** mentioned that fish tags work well in the bluefin tuna fishery but the size and scope of the gag fishery makes a data collection tool like fish tags much more difficult. **Denson** stated he was not in favor of a state run fish tag program and thinks it could be run over the internet from a centralized agency. **Kasprzak** asked how you would handle the distribution of tags between for-hire anglers and private boat anglers. **Atran** mentioned that consideration would have to be given to how to allocate for for-hire boats and private anglers. **Cody** cautioned against comparing a gag tag with any other fishery tag like tarpon or blue fin tuna because of the difference in scope of the fisheries. He also mentioned that the time to administer such a program is very large and there would be likely a great deal of resistance from the state of Florida for a gag tag. **Cody** also mentioned the Florida tarpon kill tag allows for culling which creates some higher levels of release mortality. A lack of enforcement also allows for tags to be removed dockside and reused hence allow for more harvest than originally intended. **Sauls** stated she would be more in favor or a special permit or tag coupled with a known sampling universe that would allow for improved data collection. That would allow for specialized surveys that could be directly sampling specific fish or fisheries. The states mentioned any tag with a fee would require state legislative change to allow them to collect it and enforce any rules associated with it. **Campbell** stated Texas would likely not be in favor of a gag tag since their landings are extremely low.

### Status of Metadata Data Entry

**D. Bellais** reported that GSMFC, Texas, and Louisiana have their metadata entered and published. Florida has all of their metadata entered into their own system and GSMFC is trying to link directly to that system. She reminded each state to continue entering, reviewing, and publishing their metadata. **Donaldson** mentioned GSMFC has the approval to hire a part time metadata coordinator to help with data entry and administration. This should help with getting Alabama and Mississippi caught up with data entry. **Bellais** mentioned having the metadata linked to FOSS requires us to get that information entered and reviewed in a timely fashion. **Donaldson** mentioned we would like to expand metadata to fishing regulations and environmental issues so there should be significant amount of work for this part time employee.

### Election of Officers

**P. Campbell** nominated **C. Denson** for chairman and this was seconded by **M. Kasprzak**. **Denson** was approved as the new chairman. **P. Campbell** nominated **V. Swann** as vice-chairman and was seconded by **K. Cuevas**. **Swann** was approved as new vice-chairman.

### Review of 2008-2009 Commercial Data

Each state provided feedback based on the review spreadsheets **D. Bellais** sent out prior to the meeting. The States mentioned the FIN DMS numbers were very close their state totals and the

slight differences likely indicated they collected some additional data that has yet to be delivered to GSMFC. The States also mentioned there were a few coding errors on their part. Data will be redelivered and loaded into the DMS as needed. All necessary corrections will be made at the state data level and submitted to GSMFC for loading into the FIN DMS.

**Being no further business, the meeting was adjourned at 1:45 p.m.**

**TCC DATA MANAGEMENT SUBCOMMITTEE  
MINUTES  
Monday, March 13, 2011  
Houston, TX**

**Chairman Chris Denson** called the meeting to order at 1:06 p.m. The following members and others were present:

**Members**

Chris Denson, AMRD, Gulf Shores, AL  
Kevin Anson, AMRD, Gulf Shores, AL  
Richard Cody, FWC/FWRI, St. Petersburg, FL  
Page Campbell, TPWD, Rockport, TX  
Vicki Swann, TPWD, Austin, TX  
Kerwin Cuevas, MDMR, Biloxi, MS  
Christine Murrell, MDMR, Biloxi, MS  
Michael Harden, LDWF, Baton Rouge, LA  
John Froeschke GMFMC, Tampa, FL  
David Gloeckner, NMFS, Miami, FL

**Staff**

David Donaldson, Assistant Director, Ocean Springs, MS  
Larry B. Simpson, Executive Director, Ocean Springs, MS  
Donna Bellais, ComFIN Programmer, Ocean Springs, MS  
Gregg Bray, Programmer/Analyst, Ocean Springs, MS  
Janet Williams, FIN Staff Assistant, Ocean Springs, MS  
Alex Miller, Staff Economist, Ocean Springs, MS

James Ballard, Sport Fish Restoration/Aquatic Invasive Coordinator, Ocean Springs, MS

**Others**

Dale Diaz, MSDMR, Biloxi, MS

Daniel MiMassa, IA Team, Miami, FL

David McCarron, IA Team, Farmington, NJ

Camp Matens, GSMFC Commissioner, Baton Rouge, LA

Terry Cody, TPWD, Rockport, TX

Joey Shepard, LDWF, Baton Rouge, LA

Mike Ray, TPWD, Austin, TX

James Primrose, NOAA Fisheries, Galveston, TX

Rick Hart, NOAA Fisheries, Galveston, TX

Alice Best, TPWD, Rockport, TX

Todd Phillips, Ocean Conservancy, Austin, TX

Katie Doyle, TPWD, Austin, TX

Frank Courtney, FWC/FWRI, St. Petersburg, FL

Justin Esslinger, TPWD, Rockport, TX

Cindy Bohannon, TPWD, Dickinson, TX

Jack Isaacs, LDWF, Baton Rouge, LA

**Adoption of Agenda**

The agenda was approved and adopted as written.

## Approval of Minutes

The minutes of the Data Management Subcommittee (DMS) meeting held on October 18, 2010 in Clearwater Beach, FL were approved as written.

## Status of Biological Sampling Activities

**G. Bray** provided handouts that showed a comparison of the number of otoliths and length measurements collected in 2010 along with the associated sampling targets for the 15 FIN priority species. A large number of shortfalls were observed for most species. These shortfalls are largely due to limited sampling during the oil disaster along with difficulties posed by more restrictive fishing regulations for several species. Alabama, Louisiana, and Texas still had some minor data entry work to accomplish to complete 2010 data entry and all hoped to have that completely in a timely manner.

**Bray** also mentioned that all states have delivered their 2009 age data. Florida had staffing problems with data entry so they recently sent a data file to GSMFC and D. Bellais will work with R. Cody to get those data into a format we can easily load into the FIN data management system. Bray stated that GSMFC would likely start sending reminders concerning 2010 age data entry in July 2011.

## Presentation of Commercial Vessel Information Project

**D. McCarron** reported the original design of identifying unique vessels by hull identification number (HIN) was not going to work. Not all of the states collect HIN. Since the HIN based model was ineffective the Information Architecture (IA) team has switched to a spreadsheet template and the IA team will work with the states to populate as many of the data fields as possible. The new model utilizes Coast Guard identification numbers or state registration numbers. The new model spreadsheet collects vessel, person, and license data. He stated the model will work if some of the data elements are not available for that state. Each state will need to work within this template they have created and IA Team envisions a bi-annual or annual load of vessel data. **C. Denson** was concerned that Excel would not handle the number of data records in their license frame. **McCarron** stated that the newest versions of Excel do not have the 65,000 row limitation. **McCarron** demonstrated an upload of some Florida vessel data so the subcommittee could see how the model uniquely identifies vessels. The model does have some upload logic that would identify errors such as a missing coast guard number, missing registration number, or missing license information. After uploading a registry is created that is basically just the entire file of vessels, persons, or license records. The registry is then parsed into unique individuals and unique vessels. Additional testing with real state data needs to be completed to try and determine if the business logic of the model is completely correct. The IA Team added additional functionality to crosslink coast guard numbers or state registration numbers across multiple data sources. They also have the ability to associate persons with multiple unique roles like owner, captain, or licensee. **R. Cody** asked how the model handles



dual ownership scenarios. **McCarron** stated you could use an alias function to address this but GSMFC will have to determine how it would be loaded and the business process would need to be adjusted. **Denson** asked if we would be focusing on all vessels or just vessels with landings. **Donaldson** stated we would start with just vessels with landings. **McCarron** stated the IA Team will be providing the model to **D. Bellais** at GSMFC and they will develop a strategy for providing it to all the states.

### **Data Reconciliation and Data Quality Project**

**D. McCarron** discussed the IA Team has been working to link commercial trip tickets, IFQ data and commercial logbook data using a FIS tool that was created a few years ago. So far the matching has been going well with the success rates in the 70-95% range for red snapper data. The IA Team has been working with state partners to identify how they identify unique data records. The next phase besides expanding to additional data sets is to establish a baseline data quality index. The matchup process is identifying some data errors and how they provide those to each state is still up for consideration. **McCarron** needs some feedback from each state as to who would be the contact person for the matchup errors they have discovered. If the states are not ready to receive those transmissions yet it is possible that **D. Bellais** at GSMFC would receive the transmission. **Denson** asked how the group would handle discrepancies in landed pounds between multiple data sets. **Donaldson** said it will depend on the type of the error but some discrepancies will not be reconciled. The main purpose of this exercise is to fix errors that are fixable but not to be concerned with making every linkable dataset match.

### **Discussion of National Registry Projects**

**Donaldson** stated NOAA Fisheries provided \$850,000 to the Gulf region to attempt to improve the quality of data that goes into the national license registry. Each Gulf state has qualified for exemptions based on their current license system but improvements in data quality would help future license data submitted to the registry. All of the states along with Puerto Rico and USVI have submitted proposals and have been funded. All projects have begun except for Florida. NOAA Fisheries is already attempting a similar project as Florida proposed and FWC is waiting to see if they can work with NOAA on their existing research. Once these initial projects are completed we will have a better idea on how to proceed with future improvements.

### **Update on MRIP Gulf of Mexico For-Hire Logbook Project**

**Donaldson** provided a presentation on the MRIP for-hire logbook pilot project. Testing continues on approximately 60 vessels in the Corpus Christi area of Texas and 330 vessels in the Panhandle of Florida. Sampling began in September of 2010. This study is focusing on all federally permitted reef fish and pelagic for-hire vessels in those regions and each vessel selected is mandated to report. The project collects weekly trip reports of catch and effort. There is also a validation component that collects dockside and at-sea validation data. Currently the non-compliance rate in Florida is around 19% (~70 vessels). Texas has 100% compliance although a few vessels each week are a little slow in providing their weekly reports. Currently 100% of the captains in Texas are reporting electronically while approximately 50 captains are reporting via a

paper option in Florida. Validations are going well during the high activity periods but at-sea trips have decreased significantly through the winter months. FWC has provided a list of approximately 70 boats to NOAA as non-compliant and subsequently their permits have been put on hold. Fifty of these vessels have never provided any weekly data and the additional 20 started providing data but have become delinquent over December and January. This project will continue through August 2011.

### **Discussion of Shrimp Data Issues**

**Donaldson** stated several issues with shrimp landings data was brought up during the February Gulf of Mexico Fishery Management Council (GMFMC) meeting. The presentation was provided to the DMS and **Donaldson** suggested that the DMS go through the presentation and discuss the pertinent issues or possible solutions.

The first issue is concerned with a portion of the shrimp landings not being collected by trip tickets. All of the states were aware of this problem. The GMFMC recommendation of channeling all shrimp landings through a trip ticket system was agreed upon by all states but may be difficult to implement from an enforcement standpoint. Mississippi does not have a reporting requirement for shrimp and until that is changed it will be impossible to fully capture Mississippi shrimp landings via trip tickets. **Denson** stated without full time enforcement presence it will be difficult to force all shrimp landings through the trip ticket system. Florida, Louisiana, and Texas agreed with Alabama.

The second issue was how to consolidate shrimp landings across multiple trips. **Denson** again stated this could only be changed with increased enforcement. All states are requiring a coast guard or state registration number on their trip tickets. Unfortunately these data are not always completely filled out. **Donaldson** believes the infrastructure is in place to help eliminate this issue but enforcement would be essential too. The work being done by the IA Team on the commercial vessel tool will assist in eliminating this data problem.

The third issue addresses shrimp dealers not providing vessel id on some landings records. **Donaldson** stated that possibly some outreach and education will help this issue. The reconciliation tool will help identify dealers that are not reporting those details frequently. **Denson** again stated that it would take more enforcement to actually go visit dealers and require them to provide complete data.

The fourth issue is dealers using coast guard and state vessel id's interchangeably for the same vessel. The IA Team will hopefully have the commercial vessel tables completed soon and that will help cross reference between different vessel identification numbers.

Additional recommendations were:

1. To resolve landings that were not distinguished as federal or state waters. **Denson** stated that current trip tickets have subareas and landings should be identifiable as federal or state waters. **Campbell** stated that Texas trip ticket coding system does not have the ability to differentiate federal and state waters. Texas does not collect area zones that would differentiate state waters versus federal waters landings.
2. Not having the federal permit numbers on the trip ticket makes it difficult to track landings. **Denson** stated it is very difficult for Alabama to add additional fields to paper tickets. Most states agreed with his comment. This recommendation is likely

not viable for the states but hopefully the commercial vessel project coupled with increased enforcement and education might be able to improve data quality.

3. The last issue was a concern with the frequency of state trip ticket data submission. Donaldson reminded the states that monthly submission is very important for multiple agencies. The states were reminded of the previously agreed upon deadline and agreed to let GSMFC know if there were any road blocks to regular monthly submissions that GSMFC could help eliminate.

### **Discussion of Commercial Data Delivery Issues**

**Donaldson** stated this is a recurring issue that has an impact on the shrimp data issues. FIN has an established deadline of monthly reporting. In the past there have been some specific issues that delayed monthly reporting but **Donaldson** wanted to remind the states that this deadline is very important for multiple agencies. If there are future issues that prevent a monthly submission please let GSMFC know if there is a way we can help alleviate them. **Denson** stated that getting data on time might result in reduced data quality in some instances. **Donaldson** asked if monthly reporting was not unrealistic due to state problems. **Denson** stated it takes Alabama a month to a month and a half to process and run quality control checks on each month's data. **Donaldson** just wanted to remind the states of this agreed upon deadline and everyone should try and do their best to meet the deadline.

### **Status of Federal Quota Monitoring/Electronic Reporting Activities**

**D. Gloeckner** stated that a mandatory electronic reporting date for commercial federal dealers has been established for March 1, 2011. All appropriate dealers have been notified and informed of their reporting options. Gulf dealers will be using a system developed by Claude Peterson at Bluefin data Inc. Approximately 300 dealers in the Gulf will be mandated to report electronically. Data will flow from Bluefin Data to the South East Fishery Science Center. Current non-electronic dealers will be allowed to fax their reports prior to March 1, 2011. NOAA is going to have to publish new regulations to mandate a weekly or daily reporting requirement as current regulations only allow for bi-weekly mandates. Only commercial finfish permit holders will be mandated to participate in electronic reporting. HMS is not currently included although Gulf dealers will have the ability to report through Bluefin Data system. **Donaldson** asked if each state would want the HMS data sent to them or would it be ok to just forward it to NOAA. **Donaldson** also noted additional HMS data elements would be needed on the electronic trip ticket and if the states are interested in those additional data Bluefin Data Inc. could provide those to them too. **Bellais** stated GSMFC is waiting for a new development box to be setup so we can test the data transmission model. There are additional data elements required by SEFSC that some states do not currently include. SEFSC intends to ask for trip ticket number, dealer name, federal permit number, state license number, vessel name, coast guard documentation number/state registration number, date of sale, date landed, if federal trip the logbook number, gear, area fished, port of landing, state landed, species, size category, condition, grade, disposition, amount landed, unit of landings, and price per pound. Dealers will be required to report all landings weekly. **Donaldson** asked if the Mississippi data in the Gulf FIN database would be considered separate from normal landings data. **Gloeckner** stated we

would ultimately like to see the Mississippi electronic data supplement current data already coming in via trip tickets. **C. Murrell** states MSDMR is working with those dealers to try and help them with this process.

### **Discussion of Compilation of Oil Spill Monitoring Protocols/Data**

**Donaldson** stated GSMFC talked about compiling information about all the oil spill monitoring activities in a centralized database. **Denson** asked if we were interested in just state protocols or everything done by all agencies. **Donaldson** stated we would like as much as possible. **Denson** stated some of the protocols might be hard to obtain as they are not being shared publicly. **J. Rester** with GSMFC will be working to compile these protocols from each of the affected states. **Froeschke** asked how soon a metadata list might be available as the GMFMC gets frequent requests for those types of data. **Donaldson** stated a preliminary list might be available later in 2011.

### **Discussion of Trip Tickets and Traceability**

**A. Miller** stated under the current Oil Disaster Recovery Program (ODRP) a project was created to establish seafood certification based on the health of the stock. To accomplish this task a traceability program is required to prove the fishery product that reaches the consumer is the same as what was harvested from a given area. A traceability program will allow managers to describe the safety and quality of the product along with addressing issues like sustainability. Traceability allows for risk management, improving sales, branding, and marketing. You can engage the consumer by providing them information on where their product originated from via smart phone applications. The challenge of traceability is linking up the different data elements like fishermen, dealers, processors, retailers, and end users. The current plan is the use the electronic trip ticket data and allow for voluntary participation with processors to create a traceability model in the Gulf of Mexico. **Denson** asked which electronic data would be considered for use in this model. **Miller** stated that the paper reporting would not provide data timely enough to be useful for traceability model. **Donaldson** agreed with Miller that the timing of using paper reporting is problematic but the electronic reported data is just a first step in building the traceability model. **Denson** asked which species would be considered in the traceability model. **Miller** said anything reported on the electronic trip ticket could be used in the traceability system. **Denson** was also concerned about pulling trip ticket data in this program for fear of exposing confidential data. **Miller** stated that the traceability program is very aware of confidential data rules and will not allow confidential data released. **Froeschke** stated that fishermen he has dealt with are not convinced that certification or traceability will result in improved prices. **Simpson** stated the other reason for this effort is not just improved pricing but expanded areas to sell product. **Miller** stated traceability will also help improve confidence in seafood products.

### **Discussion of Migrating to APEX Development Tool**

**D. Bellais** stated GSMFC is considering switching from Oracle Discoverer for viewing data and results to Oracle APEX. The main concern is with our confidential users they currently

have the ability to generate custom equations for data analysis. Looking more at the APEX tool users can still make custom equations and the program works in a similar way to Discoverer. The APEX tool has not been tested on Apple Macbooks yet. **Bellais** stated pre built tables would be setup just like the current Discoverer software. All functions that are available in Discoverer are available in APEX. **Denson** asked what the goal of the switch would be. **Bellais** stated Discoverer is not working well with Microsoft Windows users and the Discoverer software being loaded on a Linux server. **Bellais** stated the biological data entry system would be converted over to the APEX system to help alleviate computer lock ups and other problems. **Bellais** hopes to have some preliminary testing done prior to June 2010.

### **Discussion of Weight vs. Numbers for Recreational Data**

**Donaldson** asked everyone to review the council presentation in their folder. A request has been made to use estimated weights for the recreational sector instead of numbers to make it more easily comparable with commercial landings. Anson stated the issue was raised by the recreational community because of how stock assessments are produced. The concern was that increasing trends in average weight of red snapper would be more detrimental when the season length is established. Many of the subcommittee agreed that too many limitations occur in recreational sampling to globally switch to estimated weight instead of estimated numbers.

### **Presentation of Inshore Shrimp Survey Results**

**A. Miller** discussed the results of the economic impacts from the inshore shrimp fishery in 2008. While landings and nominal revenue have been relatively the same since the 1970's the inflation adjusted revenue has decreased significantly. Little economic data has been collected on the inshore shrimp fishery in recent years. The majority of the inshore shrimp fleet occurs in Louisiana while the offshore fleet is most prevalent in Texas. The inshore shrimp fleet had much larger response rates (70-80%) than the offshore federal fleet (37%). After quality control and outlier removal there were 313 inshore respondents and 383 federal offshore respondents used for the analysis. The offshore owners had larger assets, liabilities, and equity. Offshore vessels received 99% of revenue from shrimp landings while inshore vessels received 84%. Taking into account the real economic costs, both the federal offshore fleet and inshore shrimp fleet are taking losses and slowly eroding their value over time. The total fishery related impacts of the shrimp fishery are estimated at \$1,380,000 and 13,307 jobs. **C. Perret** asked what the general take home message of this research would be. **J. Isaacs** commented that the inshore fleet had a tough time in 2008 due to low shrimp prices and high fuel prices. He also stated that approximately 40% of the survey population had negative cash flows. **Perret** stated that although this is only one year of research it appears that the trend of struggling shrimp fishery is continuing. **T. Cody** asked if owners that are also captains are making a better living because they are paying themselves and family to work on the vessel. **Miller** agreed that this is a possibility but that these shrimp harvesters are also making some money by fishing for other species during the year. **Isaacs** noted the average number of fishing days from this study was approximately 50 days per shrimper. **Denson** asked if the survey asked respondents how long they have been shrimp harvesters. **Miller** said the average age of respondents indicates an older segment of the population with very few younger fishermen entering the fishery.

### **Status of Metadata Entry**

**Bellais** stated the states need to continue to work on entering and publishing their metadata. **Donaldson** stated GSMFC has been approved to hire a part time metadata employee to assist the states. GSMFC is just waiting on 2011 funding to hire the employee.

### **Other Business**

**Bray** informed the states that Bluefin Data Inc. has developed a web reporting tool that GSMFC would like to make available to for-hire telephone survey participants. After seeking NOAA Fisheries approval GSMFC was informed that it might be necessary to run this improvement through the MRIP process. None of the states were in favor of entering into that process. The states were acceptable to asking captains their willingness to use an electronic reporting tool if made available to them. GSMFC will work with the states to ask this question to respondents in the coming waves.

**Being no further business, the meeting was adjourned at 5:15 p.m.**

**FIN Administrative Subcommittee  
Conference Call Summary  
April 12, 2011**

The meeting was called to order at 9:05 a.m. and the following people were present:

Ken Brennan, NOAA Fisheries, Beaufort, NC  
Tom Sminkey, NOAA Fisheries, Silver Spring, MD  
Jimmy Sanders (proxy for K. Cuevas), MDMR, Biloxi, MS  
Buck Buchanan, MDMR, Biloxi, MS  
Gregg Bray, GSMFC, Ocean Springs, MS  
Dave Donaldson, GSMFC, Ocean Springs, MS

**Review and Discussion of Recommendations Document**

**D. Donaldson** stated that a recommendations document was developed from the facilitated session held at last year's FIN Committee meeting. This document will help guide FIN in addressing the topics and issues it needs to address for the next five years. The document lists the recommendations, associated tasks and a time frame when those tasks need to be addressed. The group reviewed the document and after some discussion, **the group recommended that the document be presented to the FIN Committee for their consideration and acceptance.**

**There being no further business, the call was adjourned at 9:20 a.m.**

**LIST OF RECOMMENDATIONS DEVELOPED BY THE FIN COMMITTEE FROM  
THE FACILITATED SESSION ON JUNE 8, 2010 IN SAN ANTONIO, TEXAS**



## FIN Administrative Subcommittee

April 2011

### CATCH

**Recommendation 1:                    Develop methods to evaluate self-reported discards data**

Task 1:                    Charge Commercial Technical Work Group with developing methods for verifying self-reported data and exploring potential alternative data collection methods instead of self-reported data (video monitoring, etc) (2014-2015)

Task 2:                    Charge Recreational Technical Work Group with developing methods for verifying self-reported data and exploring alternative data collection methods instead of self-reported data (video monitoring, etc). This group needs to work in conjunction with the MRIP process. (2011-2015)

**Recommendation 2:                    Full implementation of a trip ticket system in MS and USVI (2011-2013)**

**Recommendation 3:                    Develop sampling protocols for private access**

Task 1:                    Charge Recreational Technical Work Group with developing protocols for sampling catch and effort from recreational private access sites. The work group needs to work in conjunction with the MRIP (2012)

**Recommendation 4:                    Develop species-specific surveys for recreational catch and effort**

Task 1:                    Charge Recreational Technical Work Group with identifying species that should be targets for specific surveys. This group needs to work in conjunction with the MRIP process. (2014)

Task 2:                    Implement surveys based on geographic and spatial range for the identified species, based on available funds. This process should explore alternative data collection methods instead of self-reported data (video monitoring, etc) (2015)

**Recommendation 5:                    Develop an approach to improve the timeliness and compatibility of TX recreational data**

Task 1:                    Charge Recreational Technical Work Group with exploring ways to make the Texas recreational survey more timely and compatible with MRIP activities. The work group needs to work with MRIP on this issue (2012)

### EFFORT

**Recommendation 6:                    Review and implement a detailed effort module**

Task 1:                    Charge Commercial Technical Work Group with evaluating current commercial effort data collection methods and alternatives (2012)

- Task 2: Once method has been selected, identify the minimal critical data requirements (2013)
- Task 3: Implement selected data collection method for the collection of commercial detailed effort (2014)
- Recommendation 7: Refine area fished by providing more detail about where fishing is occurring**
- Task 1: FIN Committee needs to explore the possibility of developing more detailed area fished codes or explore feasibility of implementing vessel-monitoring systems (VMS) for fisheries where more specific areas are needed (2012)
- Recommendation 8: Implement effort survey using national angler registry as a sampling frame**
- Task 1: In conjunction with National Registry Team, FIN needs to develop projects that improves the quality and completeness of the existing state license system in order to uses these databases as sampling frames (2011)
- Recommendation 9: Support development of marine recreational fishing licenses in Puerto Rico and US Virgin Islands**
- Task1: In conjunction with National Registry Team, FIN needs to develop projects that improves the quality and completeness of the existing state license system in order to uses these databases as sampling frames (2011)
- Recommendation 10: Establish and maintain recreational fishing sampling in the Caribbean**
- Task 1: Continue recreational sampling for the shore, private and for-hire modes in Puerto Rico (2011)
- Task 2: Implement recreational sampling for the shore, private and for-hire modes in the U.S. Virgin Islands (2012)
- Recommendation 11: Refine protocols for recreational sampling using smaller geographic regions**
- Task 1: In conjunction with MRIP, FIN needs to develop projects explores the feasibility of sampling on smaller areas in Louisiana and Florida (2012)
- Task 2: In conjunction with MRIP, implement sampling on finer geographic levels in Louisiana and Florida (2013)
- Recommendation 12: Evaluate methodologies for improving for hire catch and effort**
- Task 1: In conjunction with MRIP, FIN needs to continue exploring the feasibility of implementing a logbook program for the for-hire industry (2012)

## QUOTA MONITORING

**Recommendation 13: Evaluate methods for in-season quota monitoring to identify limitations, constraints and understand improvement opportunities**

Task 1: In conjunction with MRIP, the Recreational Technical Work Group needs to examine methods for in-season recreational quota monitoring (2013)

**Recommendation 14: Review opportunities to improve the timeliness of data needed to support quota monitoring**

Task 1: In conjunction with NMFS, FIN needs to inventory and assess current commercial data collections to evaluate their potential to support quota monitoring programs (2011)

Task 2: Recommend improvements in specific data collection programs (2012)

## **SOCIAL/ECONOMIC**

**Recommendation 15: Implement the FIN Social and Economic module/Economic Program**

Task 1: The FIN Committee, via the Program Manager and Staff Economist need to continue the implementation of this module (2011). Issues to consider include:

- Secure long-term funding
- Increase economic data collection and support trending over time.
- Improve coordination among management entities
- Develop a uniform approach for assessing the impact of management decisions and fishery disasters

## **BIOLOGICAL SAMPLING**

**Recommendation 16: Increase the number of species sampled under the FIN biological module**

Task 1: Charge the Data Collection Plan Work Group to continue to discuss prioritizing additional species and implementation of sampling (2011)

**Recommendation 17: Be responsive to requests for soft tissue and other biological information, as needed**

Task 1: Through FIN, partners needs to be aware of soft tissue and other biological information requests and collect the needed information as resources and time permits (2011)

**Recommendation 18: Refine approach to otolith and length sampling**

Task 1: Periodically review sampling targets and coordinate with stock assessment scientists to determine appropriate level of sampling for otoliths and lengths (2011)

**Recommendation 19: Provide coordination among agencies collecting biological data**

Task 1: Continue conducting annual biological sampling meetings (both collection and processing) to review protocols and discuss issues and problems encountered during collection and processing of biological information (2011)

**Recommendation 20: Develop protocols for long-term storage of biological samples**

Task 1: Charge the Otolith Processing group with developing protocols for long-term storage of samples (2011)

**OUTREACH**

**Recommendation 21: Evaluate and improve current industry outreach program through utilization of the Commission outreach committee**

Task 1: In conjunction with the GSMFC Outreach Committee, charge the FIN Outreach Work Group with establishing specific outreach goals and targets and developing an appropriate outreach approach for each target audience (2012)

**METADATA**

**Recommendation 22: Support further implementation and expansion of the FIN metadata module**

Task 1: Hire a FIN Metadata Coordinator to assist the states in compiling, entering and maintaining metadata in the InPort system and expanding the system to include legislative and environmental impacts (2011)

**DATA MANAGEMENT**

**Recommendation 22: Evaluate technologies to improve data collection and reporting**

Task 1: FIN needs to periodically reviews advancements in technologies that might improve data collection and reporting of necessary data (2011)

**Recommendation 23: Evaluate technologies to improve data management**

Task 1: FIN needs to periodically reviews advancements in technologies that might improve data management of necessary data (2011)

**Recommendation 24: Fully implement a registration tracking module**

Task 1: FIN needs to fully implement the vessel registry system developed by IA-TEAM consultants (2011)

Task 2: FIN needs to develop similar systems for commercial dealers and fishermen and implement them (2012)

**Recommendation 25: Identify additional data sources for incorporation into the FIN DMS (2013)**

Task 1: Charge the FIN Data Management Work Group with identifying current data gaps in collections and developing agreements for data exchange

**MANAGEMENT**

**Recommendation 26: Continue FIN participation in national and regional programs (2011)**

**Recommendation 27: Formalize response to data needs generated from state and federal fishery resource agencies, regional fishery councils, SEDAR, or other data analysis entities**

Task 1: FIN needs to formalize a response to data needs including timeliness of data (recreational and commercial), reporting compliance (census driven data collection), etc. (2012)

**Gulf of Mexico Port Sampler Meeting  
Meeting Summary  
September 7 and 8, 2010  
Galveston, TX**

On Tuesday, September 7, 2010 David Donaldson of the Gulf States Marine Fisheries Commission called the meeting to order at 8:30 a.m. The following were present:

Cindy Bohannon, TPWD, Seabrook, TX  
Page Campbell, TPWD, Rockport, TX  
Justin Esslinger, TPWD, Rockport, TX  
Amanda Shahan, LDWF, Lake Charles, LA  
Albert Lefort, LDWF, Baton Rouge, LA  
Brittany Breazeale, MDMR, Biloxi, MS  
Wes Devers, MDMR, Biloxi, MS  
Christine Murrell, MDMR, Biloxi, MS  
Pete Antosh, AMRD, Gulf Shores, AL  
Noel Estes, AMRD, Gulf Shores, AL  
Nicole Shaffer, AMRD, Gulf Shores, AL  
Janalea Renaldo, FWC/FWRI, St. Augustine, FL  
Baron Kalmeyer, FWC/FWRI, Melbourne, FL  
Ed Pulido, FWC/FWRI, Tequesta, FL  
Elizabeth Schotman, FWC/FWRI, Marathon, FL  
Charlotte Mansfield, FWC/FWRI, Port Charlotte, FL  
Chris Bradshaw, FWC/FWRI, St. Petersburg, FL  
Steve Brown, FWC/FWRI, St. Petersburg, FL  
Carlos Llull, FWC/FWRI, Pensacola, FL  
Terri Menzel, FWC/FWRI, Pensacola, FL  
Stephanie McGrath, FWC/FWRI, Pensacola, FL  
Andy Strelcheck, NMFS, St. Petersburg, FL  
Debbie Fable, NMFS, Panama City, FL  
Linda Guidry, USDC/NOAA/NMFS, Lafayette, LA  
Kathleen Hebert, USDC/NOAA/NMFS, Houma, LA  
Deborah Anderson, NOAA, New Orleans, LA  
Jo Williams, NMFS, Galveston, TX  
Elizabeth Scott-Denton, Galveston, TX  
Richard Hall, NMFS/SEFSC, Beaufort, NC  
David Hoke, NMFS/SEFSC, Outer Banks, NC

Charles Schaefer, NMFS/SEFSC, Tequesta, FL  
Claudia Dennis, NOAA, New Smyrna Beach, FL  
Jeffrey Brown, NOAA/NMFS, St. Petersburg, FL  
Keith Roberts, NMFS, Galveston, TX  
Larry Beerkircher, NMFS, Miami, FL  
Jill Jensen, NMFS, New Orleans, LA  
Mr. Jim Nance, NOAA, Galveston, TX  
Chuck Armstrong, NMFS, Pascagoula, MS  
Ted Flowers, NMFS, Mobile, AL  
Corey Gable, NMFS, Port Arthur, TX  
Beth Bourgeois, NMFS, Cameron, LA  
Helen Weeks, NOAA, Panama City, FL  
Jay Boulet, NMFS, St. Petersburg, FL  
Pamela Brown-Eyo, NMFS, Miami, FL  
Ed Little, NMFS, Key West, FL  
Tom Herbert, NMFS, Naples, FL  
Rick Hart, NMFS, Galveston, TX,  
James Primrose, NMFS, Galveston, TX  
Kit Doncaster, NMFS, Brownsville/Pt Isabel, TX  
Renee Roman, NOAA, St. Petersburg, FL  
Michelle Padgett, NOAA, Freeport, TX  
Melissa Yencho, NMFS, Silver Spring, MD

#### **Staff**

Dave Donaldson, GSMFC, Ocean Springs, MS  
Gregg Bray, GSMFC, Ocean Springs, MS  
Janet Lumpkin, GSMFC, Ocean Springs, MS

#### **Approval of Agenda**

The agenda was approved as presented.

#### **Discussion of Role of Port Agents in Electronic Dealer Reporting**

**D. Donaldson** talked about the shift to EDR, an electronic component to each of the state trip tickets, and working with quota monitoring using electronic tools. The goal for having 95% of federally permitted dealers reporting electronically is January 1, 2011. **D. Gloeckner** explained that the EDR is being implemented to track the ACL (Annual Catch Limits) the council will establish. Trip ticket data aren't getting in fast enough to do the in-season management. Councils are still working on putting the ACL (Annual Catch Limit) for a number of species. There is a need to track in-season during the year and it cannot be done as the trip ticket data is now, 2-3 months behind. Quota monitoring of 12 species in South Atlantic are

under quotas. Electronic reporting allows dealers to meet multiple requirements with one report. This excludes IFQ (Individual Fishing Quota) and they are trying to figure out how to integrate it. Requirements will apply to all dealers holding federal permits. They will report everything that is landed, not just federal species, and it must be the Tuesday of the following week. There are 3 options for reporting: ACCSP, SAFIS – an online entry form, exporting and uploading files using software, or BlueFin Data trip ticket software provided by Claude Peterson. The dealers will send the raw data to Gulf FIN or ACCSP and at the same time they will send it to the state. The raw data will be used for quota monitoring. Port agents will be involved in the auditing process once the data hits the state. Once the audited data is sent into ACCSP or Gulf FIN, it will be updated with the audited data and the most recent data will be available. **D. Gloeckner** asked for input from the port samplers. There was a great deal of response.

### **Presentation of Turtle Strandings and Rehabilitation (M. Kelley)**

**M. Kelley**, the stranding coordinator for the state of Louisiana for sea turtles and marine mammals, reported on the turtle strandings and rehabilitation along the LA coastline. Any of these animals found dead or alive are brought in for rehabilitation and data collection. They conduct aerial studies, counts, boat surveys, beach walks – with the help of LDWF. Data collection on deceased turtles includes skin sampling, necropsies, and patterns during strandings. There was a UME (Universal Mortality Event) recently with 40 deceased dolphins in one month. Data is being collected on this to find out what occurred. They conduct live strandings response, rescue, and rehabilitation. After the oil spill in the Gulf of Mexico, 200 turtles, and 2 dolphins have remained in rehabilitation. Each state has rehabilitation centers along the coastline. **M. Kelley** went on to discuss the specifics and characteristics of the different species of sea turtles. All sea turtles are endangered species, Kent's Ridley being the most popular in the Gulf of Mexico and the most critically endangered.

### **Discussion on QA/QC Protocols for TIP/FIN Biological Sampling Activities**

**G. Bray** began the discussion of biological sampling in FIN. Samplers are required to undergo training and fish identification testing each year. Once trained, samplers are accompanied on their first couple sampling assignments with a trained biologist. Paper forms should be reviewed prior to data entry. FIN has some quality control checks at the data entry level but there are some things that can't be checked for at this level. FIN uses yearly data review meetings with state supervisors looking for data entry and collection errors. This process helps review sampler performance and helps ensure samples are collected from all geographic areas. Occasionally there are errors that slip through the data on a small scale but getting some feedback from the end users that request the data for stock assessment purposes helps the quality control processes too. The FIN QA/QC document was left open for review and FIN continues exploring ways to improve the quality of the data in the database. **D. Gloeckner** gave a presentation on the *Development of Biosample Database (BSD)* that has been worked on for the last year. It was developed for the age and growth labs at Panama City and Beaufort. Beaufort



was using Excel and Panama City was using Access. BSD allows data in Trip Interview Program (TIP) to automatically populate the database used by the age labs. Interview data, effort data, fish measurements and tag numbers can be automatically transferred from TIP to BSD. This eliminates the need for age lab staff to re-enter the data from TIP sample sheets. Port agents will need to spend more time auditing data before entry. Federal port agents have begun cross-checking each other's data before it is used by the age labs. The TIP printouts will not have to be sent as long as all information identifying the interview and fish are on the sample envelope. Phase 1 is linking BSD with TIP data for 2010 and on. Artech (developer) met with Panama City staff, Beaufort staff and TIP Coordinator in October 2009 and developed functional requirements and data sources for BSD. A Prototype program (entry, inventory, audit, age reading and export screens) was delivered in May 2010. They made requested changes made by July 2010 and age labs currently testing modified system. There is hope for final version by December. The process includes a log in sample, search inventory to identify samples, define criteria for data included in desired data set, search inventory for predefined data sets, and assign otoliths to specific slide boxes at collection level (interview, species) or assign otoliths to specific slide boxes at fish, select which boxes of otoliths will be read by an age reader, and enter the age readings.

### **Presentation of Pelagic Observer Program**

**L. Beerkircher** gave a presentation on the *Southeast Fisheries Science Center Pelagic Observer Program*. There are a couple of observer programs in the southeast including Miami and Galveston, TX. The U.S. pelagic longline fishery target species is swordfish and/or tunas. Participation includes eighty active boats and the season is year round. Trips can be as short as four days and last up to forty days with the average trip of eleven days. The principal ports include the entire East Coast and much of Gulf of Mexico from Portland Maine to Galveston Texas, San Juan Puerto Rico, Newfoundland, CA, and Chaguaramas, Trinidad. The management of Atlantic highly migratory species (Tunas, Swordfish, Billfish, and Sharks) in the U.S. (domestic), the responsibility is designated to NMFS Division of Highly Migratory Species (not regional councils like most other species.) International (North and South Atlantic) management recommendations are made by International Commission for the Conservation of Atlantic tunas (ICCAT). As required by the Atlantic Tunas Convention Act, NMFS must implement ICCAT recommendations in domestic HMS fisheries. Other applicable domestic laws include the Magnuson-Stevens Act, Marine Mammal Protection Act, Endangered Species Act, etc. The creation of the Pelagic Observer Program (POP) began in early 1990. The ICCAT recommended 5% observer coverage. In 1992, NMFS funded the creation of an observer program specifically to collect independent data on board U.S. Pelagic longliners operating in the Atlantic (POP). Responsibility for coverage was shared up until 1995 when primary responsibility was assigned to the Miami Lab of the NMFS Southeast Fisheries Science Center. The original goals of the POP was to collect unbiased catch and effort data from a random 5 % (later 8%) sample of vessels fishing in various temporal and spatial strata, validate self reported

data (e.g. logbooks), and collect biological samples in support of various research initiatives involving HMS species (primarily swordfish). The Vessel selection method includes data strata. Temporal strata are the 4 calendar quarters (January-March, April-June, July-September, and October-December.) A random selection of vessels is created for each quarter and area based on the previous year's logbook reports. Letters are mailed to permit holders notifying vessels of the requirement to take an observer. Observers are deployed in an "as available" fashion during the selection period. Effort data includes gear characteristics comprised of hooks (# set, model, and size, offset), mainline (length, diameter, and test), gangions/leaders (length, diameter, and test), floats (type, number), and baits/lightsticks (type, color). Gear deployment characteristics include spatial data, temporal data, and environmental data. Catch (bycatch) data information is collected about each individual animal caught to identify catch to species level wherever possible. The uses of POP data include direct input for stock assessments (e.g. CPUE indices), as indirect input for stock assessments (catch at size, age/growth studies), to estimate total fleet interactions with protected species, and to examine effectiveness of management measures (gear modifications). The later goal of the POP is to train and provide observers to help NMFS conduct gear research (bycatch mitigation), to "pulse" operations of high coverage (much higher than 8%), to collect data on species and areas of high concern (Bluefin Tuna spawning season), and to expand collection of biological samples to billfish, sharks, etc. The gear research conducted includes 2001-2003 Northeast Distant Experiments where they tested the effectiveness of various types of hooks and baits vs. industry standard hook to reduce sea turtle bycatch and release mortality. They evaluated the effectiveness of various tools and handling techniques to reduce sea turtle post-release mortality. In 2004, Gulf of Mexico evaluated the effect of various size circle hooks on target catch. The 2005 Gear Research evaluated the effect of various baiting techniques on target catch and bycatch and the use of hook timers and TDRs to examine diurnal patterns of habitat use by target catch and bycatch. In 2008-2010, the FEC and SAB closed Area research. The 2007 – 2010 Gulf of Mexico Bluefin Tuna (BFT) spawning season coverage incorporated observer coverage to validate previous estimates of discards through 100% observer coverage and the collection of biological samples needed for BFT research. Billfish Research established range extension of the roundscale spearfish (*Tetrapturus georgii*) and highlighted identification confusion with the white marlin.

### **Presentation of Reef Fish and Shrimp Observer Program**

**L. Scott** gave a presentation on the *NOAA Fisheries Galveston Laboratory Marine Fisheries Observer Programs*. The Southeast Region Fishery Pelagic Observer Program includes (Miami), Southeast Gillnet (Panama City), Shark Bottom Longline (Panama City), Shrimp Trawl (Galveston), and Reef Fish: Bottom Longline, Vertical Line (Galveston). The primary goal of the Shrimp Trawl Bycatch Observer Program is to refine catch rate estimates of finfish and shrimp by area and season for use in stock assessments. They play a big role in the Bycatch Reduction Device (BRD), Turtle Excluder Device (TED) evaluation, and estimating

protected species bycatch. Since 1992, the annual coverage was approximately <1% to 2% of total shrimp effort and the program became mandatory in 2007 (Gulf) and 2008 (SA). The NOAA Fisheries Galveston component is between (6-30) soon to be 40 contract observers depending on funding level. Cooperative Research is done by NOAA Fisheries Galveston, Gulf & South Atlantic Fisheries Foundation, Inc. (Foundation), Texas Shrimp Association, North Carolina Division of Marine Fisheries, and Georgia Department of Natural Resources. Shrimp Trawl Bycatch Mandatory Observer Program is selected randomly based on previous year of landings/effort and stratified by area, depth and season. The target for FY10 is 1872 Sea days - 1498 sea days in the Gulf of Mexico and 374 in the South Atlantic. Shrimp and Reef Mandatory Observer Programs selection letters are mailed 1 – 2 months prior to season and contain authority (Magnuson-Stevens Act, Endangered Species Act) and requirements (e.g. Safety Decal). The letters notify observer program staff 48 hours prior to each trip until requirements are met. The staff works with the industry and OLE (Office of Law Enforcement). NOAA Fisheries prepared several section 7 consultations effects of federal activities (federally-permitted fisheries) on endangered species. Several studies lead to TED requirements – 1987.

The purpose of the Reef Fish Observer Program is to provide quantitative biological, environmental, and vessel and gear-selectivity information relative to directed reef fish fishery operating in the U.S. Gulf of Mexico. Catch and fishing effort data for targeted and bycatch species (including protected species) are collected and analyzed by area, season and gear type. Mortality rates of discarded species will be determined for depth, size and method of capture. They are selected randomly based on previous year of effort and are stratified by area, gear type, and season (January – March, April – June, July – September, and October – December.) The target for FY10 includes 264 reef (3 gears) and 761 special reef fish longline selections (Reef Fish Biological Opinion). The Menhaden program's objective is to determine potential impacts to endangered and protected species, specifically sea turtles and bottlenose dolphins (SERO.) Special Programs include video monitoring, hook timer, otolith / gonad data collection, skimmer trawl TED evaluation, shareholder's alliance, and seafood safety DWH for-hire vessels.

### **Update on Grouper/Tilefish IFQ Program**

**Strelcheck** gave a presentation titled *An Overview of the Gulf of Mexico Grouper/Tilefish and Red Snapper IFQ Programs*. The red snapper IFQ program has been in place since January 2007. The Grouper-Tilefish IFQ program was implemented in January of 2010 which brought in another 18 species. Some regulatory changes were made to make sure that both programs were aligned with one another and have the same regulations. Allocation of pounds that fishermen can harvest is based on logbook reported landings. The landing history determined how many they were allowed to catch under the IFQ program. The main objectives of the programs are to reduce overcapitalization and minimize or eliminate the derby fishing conditions. The IFQ management is broken into 4 components. The LAPP/DM Branch at the regional office handles customer service, QA/QC auditing, program development, and overall administration of the program. Information Technology section develops the online system, an evolving system that

has integrated the old red snapper online system with a new system for data collection. They are trying to make it as user friendly as possible to fishermen and dealers. The answering service handles calls afterhours so that fishermen have 24 hour service to make landing notifications. The Law Enforcement dockside and at-sea monitoring component gives notification when landings are made and review of landings so everything is in compliance with the IFQ program. They also handle training with the various states and conduct the vessel monitoring review and analysis. IFQ participants include 1,115 shareholder accounts and 942 vessel accounts. There are 109 dealers with IFQ endorsements participating in the program. A breakdown of accounts by share category includes Gag, other SWG, Red Grouper, Red Snapper, DWG, and Tilefish. There are 19 total species included. Flexibility measures were set up to hopefully reduce bycatch under the IFQ program. There is a notification requirement to go fishing under the IFQ program. Once at sea, a 3-12 hour advanced landing notification is required when coming into the dock. They have to come into a pre-approved landing location (approved by LEO) and are updated on a regular basis. There is a landing transaction and offload of fish with IFQ endorsement with time limitations from 6 am – 6 pm. The online system allows for real time tracking and landings, provides a way for fishermen to sell or lease shares and allocation, and promotes enforcement. There is one system for all Gulf IFQ species. A User ID and PIN are required to log-in to the online system. Dealer transactions require mandatory reports of lbs landed, price/lb, dealer and vessel account. It is voluntary to report the trip ticket number. Cost recovery fees are automatically computed and transactions are confirmed using an electronic PIN. The 2010 landings were shown by a graph displaying that landings are well below the quotas for all species except red snapper. There are quota changes expected in 2011. There will be a red snapper quota increase contingent on TAC not being exceeded in 2010. Also, a Gag assessment review will take place fall 2010 and continued assessments for yellowedge grouper, golden tilefish, and blueline tilefish. The share consolidation of Red Snapper over a 5 year review of the IFQ program started off with 546 shareholders with 429 shareholders as of September 1, 2010. There was a 21% reduction in red snapper shareholders during the first 3 years. There are some challenges moving forward with IFQ program including bycatch, the DWH/BP oil spill, high share and allocation prices, quota reductions, data quality, and reporting compliance. Future direction of the program includes a 5 year review of Red Snapper program beginning with expected completion by January 1, 2012. They will be sending out a survey to shareholders and hoping to get the word out to as many people to respond to better determine perceptions and attitudes about how the program operates. The Council may consider new IFQ programs for king mackerel and remaining 23 reef fish species.

#### **Discussion of Proposed Changes to TIP**

**D. Gloeckner** gave a presentation of *Proposed changes to TIP*. Currently, effort records are only tied to an interview which leads to multiple possible effort records for each sample/fish. They want to change database to allow effort record to be assigned to each sample by port agent. He would prefer the port agent determine which effort goes with which fish. This is a problem

determining the gear to assign during assessments when dealing with 100,000 plus records. It will require more work by port agents to enter effort records for each sample, but will increase accuracy of sample data. The proposed research in the next year includes recording of interviews on field PCs and electronic boards for collection of fish lengths on electronic boards. Fisheries Information System (FIS) will fund modification of the system used in New England and Mid-Atlantic by NMFS NER port agents. There will be a need to modify TIP to accept data collected this way which eliminates data entry of field sheets. They plan on using Boards and PCs. Latitude 37 (New Zealand) has wireless integration of board and Allegro field PC for the price of \$8,000 per package.

### **Presentation of Processed Products Survey Results**

**M. Yenko** gave the presentation titled *Annual Processed Products Survey*. She began with an overview of the voluntary survey of Seafood Processors across the nation and in US territories. Companies in the northeast are not required to report. Surveys are sent to coastal states, some inland states, American Samoa and Puerto Rico. All of the information is kept confidential. The purpose of surveying processed products provides data including quantity and wholesale value, employment data, regional and state statistics, and insight into how species are utilized. It is helpful for the business itself in case of calamity for instances such as hurricane Katrina or DWH. Surveying processed products also provide market information for tracking trends in quantity and price value. The information obtained from the surveys can be used for many things such as calculating information for Fisheries United States (FUS) which is available online. It is also used for per capita consumption of seafood estimations, national and international reports, and data requests (NOAA, state agencies, industry, private businesses and claims services, and academia.) The procedure involves printing the PPS forms around December/January and sending them out to the Port Agents. They are then distributed to the seafood processors, and the processors voluntarily share data. Everything is forwarded back to the NOAA headquarters and the data is added into the Oracle database. Data is collected from all sources and compiled in database; SQL summarizes and groups data and calculations. Results are entered into FUS tables and the FUS tables are published and data is available for data requests. In 2009, participating processors nationwide reported a total of 5,345,796,024 pounds of product worth \$8,118,270,843. Of this, 162 Gulf Region processors accounted for 809,804,722 pounds worth \$1,069,040,776 which is Approx. 15% of product and approximately 13% of value compared to the nation. *Stats by Product Type 2009* compared National to Gulf Region with the Gulf Region accounting for 58% of Industrial product by weight and 53% by value. A comparison between 2008 and 2009 by product type displayed consistency across the years with industrial having the highest poundage and frozen having the highest value. In 2009, the value has gone up as well as the quantity. Since 2003, the quantity and value for the Gulf region by product type has changed over the years. According to survey results, the most valuable products are finfish and shellfish. The data comes from the reporting states and the companies in that state. The gulf state processors reporting is made up of Alabama-34%,

Mississippi-11%, Louisiana-31%, west coast Florida-16%, and Texas-8%. Some survey issues and solutions that were discussed include the vagueness of form, better instructions, the need for additional species/products, form generation when years are not reported, the appearance that established firms are new businesses, confusion with business status, and how well the survey format and content reflect the needs of the processors and parties interested in data. Future plans include a more detailed, step-by-step instruction form. Potentially, the development of on-line form where firms could enter data which goes directly into a HQ database would make the process easier for all parties. Input and suggestions were encouraged and discussed.

### **Discussion of Buoy Drop and Other Fishing Gear**

C. Bradshaw gave a presentation titled *So That is What You're Calling Buoy Gear* and began with the beginning of buoys. A longline boundary was established in 1990, prohibiting directed harvest shoreward. In response to sea turtle landings the rule was modified in 2009 to prohibit longline gear from June through August at the 35-fathom depth contour east of Cape San Blas, Florida. Many reef fish bottom longline vessels began using buoy gear to continue fishing in areas where bottom longlines were prohibited to protect sea turtles and when they do not qualify for the longline endorsement. Gulf reef fish buoy gear is legally defined as fishing gear consisting of a float and one or more weighted lines suspended there from, generally long enough to reach the bottom. It can have a hook or hooks (6 to 10) are on the lines at or near the end. The float and line(s) drift freely and are retrieved periodically to remove catch and re-bait hooks. The reality of buoy gear that is seen is one line per float but fishing a lot of floats, fishing between 6 and 25 hooks per buoy, and fishing on the bottom. Buoy gear is also seen with all hooks on the bottom, using cable typically, terminal weight highly variable, and some rigs with multiple weights. Bradshaw gave a refresher in buoy gear with the current definition. There is no real restriction on the number of hooks that can be fished per float, no restrictions on weights used, no specified materials for the mainline, no length requirements for the mainline, and there can be any number of lines suspended from a float. The established definition of buoy gear is ambiguous, which limits the enforceability of this gear type. NMFS is proposing with the Councils to modify its definition of buoy gear as used in the Gulf of Mexico reef fish fishery by limiting the number of hooks to no more than 10, limiting the terminal end weight to no more than 10 lbs, restricting the line to rope (not cable or wire), drop line to no greater than two times the depth, hooks must be attached no more than 30 feet from the terminal end, and each buoy must display the official number of the vessel (USCG documentation number or state registration number.)

### **Presentation of Landings to Estimate Texas Brown Shrimp Season**

J. Nance gave a presentation on the *US Gulf of Mexico Shrimp Landings and Effort Data*. Spring CPUE and Landings used Galveston Bay bait CPUE to forecast total offshore catch of brown shrimp (Texas). The monthly CPUE from port agents are used to verify forecast amounts. Preliminary Louisiana May landings are utilized to forecast total inshore/offshore



catch of brown shrimp. Brown shrimp and white shrimp remain the predominant catch in the GOM. The Shrimp Trawl Bycatch Observer Program was discussed. The CPUE of bycatch species is established through the observer program data. The calculation of effort comes from both port agent interviews and the electronic logbook data (ELD). Effort is a primary component in the calculation of bycatch for sea turtles, red snapper and other species. A catch rate is created then multiplied times the effort estimate for an area / time to calculate bycatch (Bycatch = CPUE \* Effort.) Effort started being measured in 1960 and there has been an increase over time. To calculate the effort the landings for that area and the measure of the catch rate is necessary. The pounds will come through the Gulf shrimp system and more recently the trip ticket system. The catch rate is calculated through a trip ticket, trip interview, or through the ELP. At the end of a fishing trip, NMFS port agents interview the captain regarding fishing location(s) and the amount of the effort expended. Thus, a CPUE could be estimated for the trip for a particular location. It is important to record the trip ticket number on interview data. In the Gulf of Mexico there are areas including 219 statistical offshore subunits in 21 zones. Total area covered is approx 128,942 square miles. The average size of a subarea is approximately 600 square miles. Calculating effort can be difficult because the fleet may be large and widely scattered, trips are often long (up to 60 days), species of interest are not uniformly distributed, and effort must be calculated for each month and must be calculated for small areas. A trip match study was conducted where vessel tracks and did a good job estimating the amount of effort that is associated with a particular trip. This study tested to see how well the interview data matched what was coming out of the logbook. The interview quite accurately captures where the effort is occurring but there are some instances where misses endure in a different depth zone. Out of approx. 1800 vessels in the off-shore fleet, there are 600 vessels using the ELB as a mandatory requirement. The trip location in dataset can locate only about 70% of trips in the database. They need landing information to calculate the CPUE for the trip as well as vessel numbers vs. boat numbers. The uses of the ELB data include calculation of total offshore fishing effort in the Gulf and allocation of that effort to areas and depths for comparison to Council requirements. Also, delineation of traditional fishing grounds is used in setting of artificial reefs and potential aquaculture areas. The documentation of use and importance of areas are affected by the recent oil spill and other natural or man-made disasters. The effort is an important variable that is collected from this fishery.

### **Discussion of NOAA Grant Opportunities for Fishing Industry**

**J. Brown** talked about two primary types of grants. The noncompetitive includes discretionary and non-discretionary (Earmark). The competitive includes discretionary only. The three competitive programs are the Cooperative Research Program (CRP), Saltonstall-Kennedy Act (S-K), and Marine Fisheries Initiative (MARFIN). Cooperative research programs were initiated to improve the confidence of commercial and recreational fishermen in NMFS data and analysis. It requires a primary researcher, a NMFS Cooperator, and industry participation. The Saltonstall-Kennedy Act provides assistance for research and development of

projects to benefit the U.S. fishing industry. It is a national competition that focuses on current research priorities. The Marine Fisheries Initiative promotes projects which seek to optimize economic and social benefits from marine resources through cooperative efforts. It is a regional competition that focuses on research priorities in the Gulf of Mexico and the Atlantic off the Southeast U.S. coast.

### **Discussion of Effects of BP Oil Disaster on Fishing Activities**

The Deepwater Horizon Mississippi Canyon 252 oil rig exploded on April 20, 2010, and sank approximately 50 miles southeast of Venice, Louisiana. Shortly after it was determined that oil had started leaking into the Gulf of Mexico, NOAA was called into action. The NOAA fisheries response was to develop rules to allow for emergency response, dedicate staff from regular duties to ongoing emergency response teams, respond daily to most current information, and to balance continued response with regular duties. Rulemaking involves a SERO rule team being formed composed of RA, ARA for SF, a fisheries biologist, GIS specialist, a regulation writer, and an attorney. Emergency Rule #1 required the closing of an area in Gulf Federal waters approximately 6,817 square miles, or 3 percent of federal waters in the Gulf of Mexico. Emergency Rule #2 included a closed area in Gulf Federal waters approximately 10,807 square miles, or 4.5 percent of federal waters in the Gulf of Mexico. Emergency Rule #3 implemented a procedure to allow for timely revisions to the area closure by posting the new closed area on the SERO website and developed a protocol for reopening previously closed areas. A SERO decision team was formed including a RA, Special Assistant to the RA, Fisheries Biologist, and a GIS Specialist. The SERO response team consists of fisheries biologists, GIS specialists, web developers, regulation writers, media specialist, and translators. Gulf seafood is being safeguarded by a multi-prong approach, fishery area closures, at-sea seafood sampling, dockside seafood sampling, and market seafood sampling. Daily responses include reviewing maps, 24-, 48-, and 72-hour trajectories, initialization files, including satellite, overflight, and on the water data, and loop currents, etc. Responses also included deciding on change, initiating a response team if needed, and any modifications being announced by 12 p.m., effective at 6 p.m. Closure protocols include NMFS SERO communication to the public of revised closures by website, fishery Bulletins and a toll-free phone line in English, Spanish, and Vietnamese, NOAA Weather Radio, text messaging, and Twitter. Re-opening protocols required a NOAA/FDA agreement. NMFS may reopen a previously closed area if an area closed to fishing is determined to have never been exposed to oil or if an area previously exposed to oil is now free of oil and the seafood products tested meet FDA standards for public health and wholesomeness. Samples must undergo sensory tests (sniffing raw product, sniffing cooked product, and tasting cooked product) and chemical tests (an analysis of PAH and comparing to FDA levels of concern. Reopening areas entailed a sampling proposal to FDA which determined if the area is oil free, how long the area had been oil free, how likely the area was to be re-oiled, how heavily the area was oiled, and how far the area was from the wellhead. A re-opening protocol involved a decision memo (rationale for the area, sampling strategy, and test results) and clearance by



NOAA, FDA, DOC, and the White House. Priority areas were least impacted by oil, furthest from the wellhead, and were in high fishing areas.

A representative for each of the 5 Gulf States discussed the effects of the BP Oil Disaster on fishing activities. **J. Jensen** from NMFS in New Orleans talked about Venice, LA. The reef fish landings for shrimp and menhaden were caught by skimmers. There was 1 buyer and 5 boats with very little quota in the area. All 5 vessels became vessels of opportunity (VOO) working for BP. There wasn't any fish landed since early May because of the closed areas and the opportunity to work for BP. The oil arrived before any response in Venice. When BP response arrived, they immediately put 600 workers through HAZMAT program and the VOO program. The opening and closing of the seasons and closing of waters made it difficult to navigate. The May season was worked by approx 35-50% of the vessels in the area. 25-30% of boats were taking part in August season and this number is rising due to layoffs and rotations by the BP VOO program. The main problem was that nobody was buying in Venice. Venice was one of the highest landing rates and now it is completely closed. **G. Rouse** with NOAA Fisheries went over some numbers and figures from the Grande Isle area. May shrimp totals were down about 50%. June and July totals were down 70%. 20% of the fleet in this area was still fishing and 80% were working for BP. Oyster and crab numbers were down as well.

**W. Devers** with MDMR in Biloxi reported on the effects the oil spill had on the Mississippi coast. The first closure came 16 days after the event took place. Federal waters adjacent to MS closed May 31<sup>st</sup> which happened 6 hours from the red snapper recreational season. Gulf water closures were shown in the presentation titled *Effects of BPDWH on MS Recreational Fishing*. They wanted to minimize closure areas as long as possible because of the economic impact. The area north of the barrier Islands was reopened to commercial/recreational and live bait shrimping and fin fishing. There was a total of 75 days of water closure in MS. The oil disaster occurred right at the Wave 4 time frame which caused a decline in the interviews by 50%. Surveys were still generated since nothing north of the CSX (Railroad Bridge) line was closed, 3 major bay systems and a small portion of the Pascagoula river system remained open. A comparison of annual MS interviews by wave and annual surveys graphs was shown to display these effects. Recreational fishing generates \$410 million for the coastal economy in MS. Over \$200 million that was lost to the coastal economy. The long term effects are unknown. Mississippi is seeing a substantial impact from the BP Oil Spill. **C. Armstrong** also reported for the state of Mississippi with the VOO numbers. 3800 vessels were trained in the VOO program, 1717 MS vessel owners signed contracts, and 812 was the maximum employed at any given time. Out of the 1,717 contracts, 1200 were licensed in MS. There were a little over 600 vessels as well. 26, 155 claims in MS for \$30 million were paid. A little over 5,000 jobs, from deckhands to wait staff in seafood restaurants, have been affected. There were also 6 plants that ceased operations. MS is down over 105 million lbs over a 3 year average.

The effects the oil spill had on Alabama was reported by **P. Antosh**. He covered Alabama and Escambia county Florida as both were equally affected. The oil took about a month to reach Alabama waters. Tar balls washed up on Dauphin Island in mid to late May. State waters off

Dauphin Island were closed and federal waters had previously been closed. Layers of oil booms were being strung out in the inland area and marshes. By mid June, crude oil washed up on the beaches at Dauphin Island, Gulf Shores, Orange Beach, and Pensacola Beach. Incoming tides brought this oil through the passes at Perdido, Mobile Bay, Katrina cut, and Pensacola Bay. MS Sound waters were closed as well as several other smaller inshore waters in AL. Mobile Bay waters remained open. 62 processors were barely measureable. The fishermen and workers in these plants were working in the VOO Program and some were getting unemployment compensation from BP. At this time, in mid June, there were approximately 25 boats out of the 800+ boats operating the previous year that were still able to fish. Shrimp boats were running out of inventory. There was no oyster harvesting in AL waters and a few oyster processors, out of about 40, were getting enough out of state stock (South Atlantic, Apalachicola) to get one day of work per week. The crab situation was similar to the oyster circumstances with getting just a few from out of state areas to process. This was the lowest point that had the biggest impact on commercial fishing in AL. Shrimp landings were down to a small percentage than normal with less than 50,000 lbs when normally it would be 1.5-2million lbs. In mid July, the cap was put on the well and the floating crude oil was receding, the marine resources division amended the no fishing ban in closed waters to allow catch and release fishing and it was well received. By, late July the coast guard ordered the removal of the oil booms. The concern was the scarce of hurricanes arising and the booms causing damage. In mid August, AL state waters were open to most commercial fishing, participation was low. AL still has a long way to get back to normalcy.

**H. Weeks** out of Panama City, FL gave an update on the oil spill affects in her area. Few tar balls between Fort Walton Beach through Apalachicola. They had about a 50-85% reduction in available product because about 75% of boats went to work for BP. The dealers lost the opportunity to sell products as they didn't have enough products to provide to New York and Canada and those areas. Recreational fishers were shut down by closures and went to work for BP. Booms were put in the passes. **C. Lull** described the effects the oil spill had on his area in FL. Pensacola, west of Destin, was the last area that saw significant oil. Inshore navigation was hard due to the placement of booms. People that were not part of the VOO program could not navigate easily. They are starting to see catches come in but it is hard to find anglers that are not getting BP compensation. FWC had a big presence in the panhandle and brought around 40 boats of law enforcement. Water and fish samples were mailed off for testing. The oil spill affected the perception of gulf seafood which took a toll.

**D. Donaldson** closed by saying that Congress was allocating \$15 million in response to the oil disaster. GSMFC is working with each of the Gulf States by doing some marketing to encourage the eating of Gulf seafood as well as certification traceability. The next 5 years will include working with state agencies on these projects.

### **Planning for Next Meeting**

The next GOM Port Sampler Meeting will be held around the same time of year in September, 2011. The meeting site was not yet determined. Three locations were chosen as options including Key Largo, FL, New Orleans, LA, and Charleston, SC.

**Other Business**

**D. Donaldson** told the meeting attendees to be thinking of topics and discussions for the meeting in September 2011.

**The meeting was adjourned at 5:00 PM**

## **FIN Otolith Processors Training Workshop**

Meeting Summary

May 4-5, 2010

St. Petersburg, Florida

The meeting was called to order at 8:30 a.m. and the following people were present:

Alison Amick, FWRI, St. Petersburg, FL  
Jessica Carroll, FWRI, St. Petersburg, FL  
Janet Tunnell, FWRI, St. Petersburg, FL  
David Westmark, FWRI, St. Petersburg, FL  
Jaime Miller, AMRD, Dauphin Island, AL  
Emily Seale, AMRD, Dauphin Island, AL  
Debbie Belk, MDMR, Biloxi, MS  
Brittany Breazeale, MDMR, Biloxi, MS  
Wes Devers, MDMR, Biloxi, MS  
Isis Longo, LDWF, Baton Rouge, LA  
Prince Robinson, LDWF, Baton Rouge, LA  
Kym Walsh, LDWF, Baton Rouge, LA  
Kathy Brown, TPWD, Palacios, TX  
Tonie Saylor, TPWD, Palacios, TX  
Robert Allman, NMFS, Panama City, FL  
Beverly Barnett, NMFS, Panama City, FL  
Carrie Fioramonti, NMFS, Panama City, FL  
Chris Palmer, NMFS, Panama City, FL  
David Berrane, NMFS, Beaufort, NC  
Tracy McCulloch, NMFS, Beaufort, NC  
Gary Gray, GCRL, Ocean Springs, MS  
Andy Fischer, LSU, Baton Rouge, LA  
Gregg Bray, GSMFC, Ocean Springs, MS  
Dave Donaldson, GSMFC, Ocean Springs, MS  
Steve VanderKooy, GSMFC, Ocean Springs, MS

### Presentation of Gray Triggerfish Processing and Ageing Techniques

**C. Fioramonti** reported that a small group of people met early this year to work on the development of a practical ageing technique for the first dorsal spines of gray triggerfish that would decrease ageing precision error within and between readers of this species. Gray triggerfish ages have not been validated, so the priority at this point is to increase precision between readers. She presented several slides and demonstrated when to count (or not count) a ring and showed how to determine the margin code. There was significant discussion including the identification of the first annulus due to distance from the core and its contrast to the adjacent translucent zones, determination of increment/spacing between translucent zones is difficult as it

appears to be inconsistent as well as others.

The preliminary protocols consisted of 1) count any mark that is conspicuous; 2) first annulus is a mark with a distinct translucent zone, encircling the focus; 3) annuli can be considered doublets if they are very close together with no other “noise” or checks between; 4) pay attention to increment spacing but remember this is somatic growth as opposed to metabolic growth; and 5) think about how your neighbor will age it—this is about precision. The group agreed that this species is very difficult to age and further work and training is necessary before consensus can be reached.

#### Discussion of Margin Codes for Gray Triggerfish

The group then discussed the appropriate codes for identifying the margins of triggerfish spines. It was noted that with this species, the margin code is essentially a measure of presence or absence and it was suggested that a simple system of O (opaque) and T (translucent) be used to identify the margin codes. However, **S. VanderKooy** noted that creating another set of codes when there is already a set of codes that was developed by consensus from all of the state and federal partners in the Gulf of Mexico does not seem very logical. Since it is just a matter of presence or absences, it would make sense to use the existing FIN codes to denote that situation. **After some discussion, the group agreed to use the following codes for gray triggerfish:**

**1 – Presence of ring on the edge**

**2 – Absence of ring on the edge**

There was some concern that the meaning of these codes for triggerfish might get mixed up with other species but it was pointed out that as long as it is identified as triggerfish, the meaning of the codes will be clear.

#### Presentation of Vermilion Snapper Ageing Issues

**R. Allman** presented several slides regarding vermilion snapper. It appears that the majority of vermilion snapper are captured in the early part of the year. They have been studying the distance from the core to the 1<sup>st</sup> ring and it appears to be fairly consistent independent of the age of the fish (~0.55 mm). They would like to get some younger fish to bolster the sample size of the those age classes but it appears that the 1<sup>st</sup> ring appears at 0.55-.6 mm for vermilion snapper.

#### Presentation of Lionfish Ageing Project

**D. Berrane** discussed a project regarding the non-native species, lionfish. There are actually two species of lionfish which have been causing problems in the Caribbean and South Atlantic regions. They consume many species of fishes and a few invertebrates and are also capable of reproducing throughout the year. Their otoliths are relatively small and ovate and often lack postrostrum development in larger fish. The otolith is laterally compressed and has indented sulcus on the proximal surface. He provided an overview of the extraction of the otoliths and showed a short video clip of the process. To process the otolith, they are embedded in epoxy and the core is marked. The otolith is fastened to the slide with crystal bond and

sectioned on an Isomet Low Speed Saw at 6.5 speed and cut into 0.3mm sections. The sections are fastened to the finish slide with crystal bond and applied with liquid cover slip. For the best age determination, annuli are typically most readable on ventral side of otolith.

Conducting Otolith Reading Exercise for Black Drum, Red Drum, Spotted Seatrout, Gray Triggerfish, King Mackerel, Flounders, Sheepshead, Striped Mullet, Gray Snapper, Red Snapper and Vermilion Snapper

The first day of the meeting consisted of a reading exercise where the groups read otoliths. The group split into five sections and conducted readings of various sets of otoliths for king mackerel, gray triggerfish, snappers (red, gray and vermilion), sciaenids (black drum, red drum and spotted seatrout) and inshore species (flounder, sheepshead and striped mullet). Each group read the otoliths, counted annuli, and determined edge type for each fish. This information was recorded and provided to the moderator for compilation.

**The meeting was recessed at 5:00 p.m.**

**May 5, 2010**

**The meeting was reconvened at 9:00 a.m.**

Discussion of Sheepshead Reference Set

**W. Devers** reported that the location of the reference set is currently unknown. He asked that people check in their labs for the set and if located, conduct the reading and pass it on to the next agency. Once all agencies have read the set, an APE will be calculated and distributed to the group. The set will be distributed again to the states and the results of the readings will be presented to the group at the May 2011 meeting. The table shows the historical APEs for this species (the value will be added once the reading of the set has been completed).

**D. Donaldson** noted that it is very important that this reference set (as well as the other sets) gets distributed in a timely manner to ensure all agencies have read the set and the responsible person has enough time to compile the APEs prior to the otolith workshop. These reference sets are used to ensure that the readers from each agency are compatible and comparable and the ageing data can be used for assessments.

	<i>2009</i>	<i>2010</i>
Sheepshead	3.91	

Discussion of Red Snapper Reference Set

**R. Allman** stated that the reference set has been pared down to 200 slides (as decided at the last meeting). There were some delays in getting the reference set distributed and only Florida has read the set this year. The set is currently in Alabama. Once all agencies have read the set, an APE will be calculated and distributed to the group. The set will be distributed to the appropriate agencies and the results of the readings will be presented to the group at the May 2011 meeting. The table shows the historical APEs for this species (the value will be added once the reading of the set has been completed).

	2006	2007	2008	2009	2010
Red snapper	2.74	4.90	4.34		

#### Discussion of Flounder Reference Set

**A. Fischer** distributed documentation regarding the set. It was noted that the APE increased from 3.22% to 8.32% for all agencies. The APEs for individual agencies vs. the average age as well as vs. Louisiana were all under the 5% standard with the exception of Texas. It appears there are still some issues regarding assigning the margin codes. In addition, some of the older slides have become difficult to read and will be replaced prior to distribution for the 2011 reading exercise. The set will be distributed to the appropriate agencies and the results of the readings will be presented to the group at the May 2011 meeting. The table shows the historical APEs for this species.

	2006	2007	2008	2009	2010
Southern flounder	6.71	18.89*	7.35	3.22	8.32

\*data transcription errors resulted in elevated APE)

#### Discussion of King Mackerel Reference Set

**C. Palmer** stated that Florida, Mississippi and Louisiana have read the reference set while Texas and Alabama still need to read it. While the set has not been read by all agencies, there is some encouraging news that it appears there has been improvement over time with the APEs (i.e. for Louisiana, 2007 – 7.75% APE vs. 2010 – 3.90% APE). Once all agencies have read the set, an APE will be calculated and distributed to the group. The reference set will again be distributed to the various agencies and the results of the readings will be presented to the group at the May 2011 meeting. The table shows the historical APEs for this species (the values will be added once the reading of the set has been completed).

	2008	2009	2010
King mackerel (overall)	5.83	7.45	
King mackerel (sectioned)	3.39	4.87	
King mackerel (whole)	9.13	10.04	

#### Discussion of Red drum/Spotted Seatrout/Striped Mullet Reference Sets

**J. Tunnell** stated that the sets are still being read by the various agencies and once all agencies have read the set, an APE will be calculated and distributed to the group. The sets will again be distributed and the results of the readings will be presented to the group at the May 2011 meeting. The table shows the historical APEs for this species (the values will be added once the reading of the set has been completed).

	2009	2010
Red drum	2.36	
Spotted seatrout	3.15	
Striped mullet	7.12	

#### Discussion of Vermilion Snapper Reference Set

**R. Allman** reported that there are 200 otoliths in the reference set. Currently the set is being read by the Mississippi Department of Marine Resource. Staff from Florida and Alabama

have read the set and their APEs are 3.75% and 5.91% respectively. There were some delays in distributing the set due to training issues but once all agencies have read the set, an APE will be calculated and distributed to the group. It was also noted that digital images for some of the otoliths are being developed and will be distributed to the group. The set will again be distributed and the results of the readings will be presented to the group at the May 2011 meeting. The table shows the historical APEs for this species (the value will be added once the reading of the set has been completed).

	<i>2010</i>
Vermilion snapper	

Discussion of Black Drum Reference Set

**S. VanderKooy** stated that all agencies have read the reference set. There were some issues with how to bump the ages. Apparently, the protocols in the manual were not correct and the APE utilizing these protocols was 15.73%. However, after correcting the error and using the right protocols, the APE was reduced to 7.93%. While that is better, it is still higher than the 5% standard. The high APE may be due to some bad slides in the set. **S. VanderKooy** stated that he will be removing and replacing those slides as well as reshooting some of the images in the set and hopefully that will remedy the problems and next year the APE will be lower. He will distribute the reference set to the various agencies prior to the 2011 workshop in order to establish an APE for discussion at the meeting. The table shows the historical APEs for this species.

	<i>2010</i>
Black drum	7.93

Discussion of Gray Triggerfish Reference Set

**C. Fioramonti** reported that she currently has a set of 30 slides. She has samples from Alabama and Florida and asked that Louisiana and Texas to provide her with 20 spines that have been processed for inclusion in the set. In conjunction with Louisiana, APEs between 8.5% to 9.5% were obtained during an informal training session. It was suggested that a processing description paper be developed to better characterize the steps that are necessary to effectively process the spines and **C. Fioramonti** states she would develop something and distribute to the various agencies. She is hoping to have a reference set available at the May 2011 meeting.

Discussion of Storage of Otoliths

**D. Donaldson** stated that an issue has arisen in Alabama regarding storage for otoliths and thought it would be good topic to discuss with the group. Alabama is running out of space to store the processed and whole otoliths collected under FIN. It was noted that while it is currently an issue only in Alabama, it has the potential to become a problem for all agencies. As a short-term fix, **D. Donaldson suggested that Alabama send their excess otoliths to the Commission office and they will store them at their unit.** **D. Donaldson** indicated that the boxes need to be clearly marked regarding the materials that are in them in order to accurately keep track of them. As a longer-term solution, **it was decided that the GSMFC will develop a storage and tracking system and present this system to the group at the next otolith meeting for discussion.** **B. Barnett** stated that NMFS-Panama City had developed a similar system and



would be willing to provide this system as a starting point.

#### Discussion of Future Training Meeting

The group discussed the date and location for the next meeting otolith processors training workshop. It was decided that it should be held at Florida Fish and Wildlife Research Institute during the first part of May 2011. **D. Donaldson** stated that he would develop a draft agenda prior to the meeting and distribute it to everyone for comment.

#### Other Business

D. Donaldson mentioned that it might expedite the reading of reference sets if each set did not have to be read every year. The determining factor for reading a set would be if the APEs were routinely under the 5% standard. **The group believed this was a good idea and would begin implementing this policy as appropriate.**

The group then discussed the reading of greater amberjack otoliths. Unfortunately, Deb Murie was unable to attend this meeting due to ongoing project so the group was not able to get further clarification about otolith analysis. However, greater amberjack is scheduled for an assessment in 2011 and there is a critical need to analyze the otoliths for use in this assessment. It was suggested that it would be useful to have a training session later this year, if possible. **D. Donaldson** stated that funds might be available for such a session. It was suggested that the session could be conducted via the web to save on travel costs. After some discussion, **it was determined that Louisiana collects the majority of greater amberjack otoliths in the Gulf of Mexico so the Commission would set up some type of web-based training session with LDWF, NOAA and Deb Murie to discuss the analysis of greater amberjack otoliths for later this year.**

**S. VanderKooy** noted that he and R. Allman are conducting a study regarding large, older black drum and there is a need to otoliths from this type of fish. So, he requested that if states have otoliths (either processed or whole) from older (at least 15 years old) black drum, please send them to him for use in the study. Also, he noted that the spreadsheet does not accurately calculate APEs if there are zero-aged fish in the set. To remedy this problem, readers can manually enter 0 in the age column and it will correctly calculate APE.

#### Review and Comparison of Reading Exercise by Groups

After each group determined the age of the various fish, the information was entered into a spreadsheet and J. Carroll, J. Tunnell and A. Amick calculated APEs for all species. The following table outlines the APEs for each species and provides a historical look (where applicable) for those species (please note that APEs are recorded as a percentage).

	2003	2004	2005	2006	2007	2008	2009	2010
Black drum					0.67	0.21	2.67	0.00
Red drum					0.52	4.35	1.63	2.83
Spotted seatrout					0.00	4.55	1.17	1.44
Southern flounder		10.54	9.51	4.00	2.86	8.78	3.03	6.48
Striped mullet					6.97	7.48	9.84	2.87
Sheepshead					0.42	8.72	2.96	4.12
Red snapper	16.01	4.97	5.58	3.32	1.14	6.04	3.55	1.30
Gray snapper					3.19	9.22	1.80	3.41
Vermilion snapper					6.10	16.32	8.54	7.02

King mackerel			13.60	2.88	11.51	6.48	13.12	10.26
Gray triggerfish					16.81	21.79	16.02	10.18

After the comparison exercise, several otoliths were selected where there were differences among the groups and everyone examined these otoliths (as a group) to determine where each group had differed. The group believed this was a useful activity and helped everyone identify where errors can (and were) made while reading the otoliths. Overall, the APEs for all the species were at or below the 5% threshold. Where the APEs exceeded the 5% standard, there was usually one or two otoliths where there were discrepancies which were caused by differences in the interpretation of the margin codes. It was pointed out that even though there were differences, all groups were usually within 1 year of the actual age. It was noted that the problems with southern flounder were probably due to the margin code issues identified during the reference set discussion. There are still some issues with king mackerel and gray triggerfish. For mackerel, it was noted that many of the whole otoliths were not properly dried and as the day progressed, it became increasingly more difficult to read them. The majority of the time for this topic was spent discussing triggerfish. There is still confusion on what are actually rings and the group agreed there is still a need for additional training.

It was suggested that it might be useful to have copies of the otolith images for each group so they could indicate what they counted as rings during the reading exercise. Then during the comparison exercise, they could use these copies to determine how the group counted the rings for a particular otolith. **The group agreed that this would be a useful tool and would provide this resource for the next meeting.** J. Tunnell indicated that she had images for all the species with the exception of gray triggerfish and king mackerel. So, C. Fioramonti and C. Palmer will provide Florida staff with images prior to the next meeting.

**Being no further business, the meeting was adjourned at 11:50 a.m.**

**Commercial and Recreational Technical Work Group  
Conference Call Summary**

**April 15th, 9 a.m.**

The following workgroup members were present:

Steve Brown, FFWRI, Saint Petersburg, FL  
Chris Denson, ALDCNR, Gulf Shores, AL  
Michelle Kasprzak, LADWFP, Baton Rouge, LA  
Beverly Sauls, FFWRI, Saint Petersburg, FL  
Kerwin Cuevas, MSDMR, Biloxi, MS  
Rob Andrews, NOAA Fisheries, Silver Spring, MD  
Ken Brennan, NOAA Fisheries, Beaufort, NC  
Craig Lilyestrom, PRDNER, Rio Piedras, PR

**Staff**

Gregg Bray, GSMFC, Ocean Springs, MS  
Dave Donaldson, GSMFC, Ocean Springs, MS

**Review and update FIN QA/QC documentation**

**G. Bray** discussed the purpose of the call was to review and update the FIN QA/QC documentation. **Bray** mentioned the recreational document was fairly detailed but the commercial document was lacking many of the details currently employed by the Gulf States. Donaldson asked if Florida and Louisiana could provide the details of their commercial QA/QC processes. Kasprzak and Brown both agreed to provide their commercial QA/QC documentation to help bolster the FIN documentation. Bray is also going to discuss this with P. Campbell from TPWD to make sure Texas is not doing anything different that would need to be included in this document. Bray mentioned a large section of the recreational documentation could be removed since it pertains to specific sampling guidelines that are already covered in sampling protocol manuals provided to the samplers. All of the work group members agreed that those details do not necessarily pertain to this QA/QC document. Donaldson also stated we will add a section pertaining to head boat at-sea observer and biological sampling QA/QC protocols. Once completed GSMFC will send the document out to the workgroup for a final review. Any final suggestions or comments will be processed into the document.

**There being no further business, the call was adjourned at 9:40 a.m.**

## **FIN Data Collection Plan Work Group**

### **Conference Call Summary**

**May 13th, 9 a.m.**

The following workgroup members were present:

Harry Blanchet, LADWF, Baton Rouge, LA  
Britt Bumguardner, TPWD, Palacios, TX  
John Mareska, ALDCNR, Dauphin Island, AL

#### **Staff**

Gregg Bray, GSMFC, Ocean Springs, MS  
Dave Donaldson, GSMFC, Ocean Springs, MS

#### **Others**

Gary Fitzhugh, NOAA Fisheries, Panama City, FL  
Chris Palmer, NOAA Fisheries, Panama City, FL  
D. Gloeckner (proxy for Guy Davenport), NOAA Fisheries, Beaufort, NC  
Richard Cody, FMRI, Saint Petersburg, FL

### **Review of 2009 Otolith Collection Reports**

**G. Bray** described the results presented in the spreadsheet comparing otoliths collected and total landings for 2009 for the FIN priority species. **Bray** mentioned that each state seemed to be doing a decent job of reaching targets. Some major shortfalls were observed for greater amberjack, gray triggerfish, and sheepshead. Many of the states stated these species are not observed regularly by biological samplers. These species are potentially being harvested by trips outside of normal biological sampling times and on multiday recreational trips that are not regularly sampled. Also the fact that some of these are secondary species that are not often targeted makes them difficult to find with any regularity. **D. Donaldson** stated that many of these shortfalls likely occur from relying on fishery dependant data as the source of harvested fish. **G. Fitzhugh** asked if recent changes in fishing regulations are a big reason for some of the shortfalls. **H. Blanchet** stated that the change in how targets are calculated combined with shorter seasons for some of the high priority species has a big effect on reaching biological sampling targets. **J. Mareska** stated 2010 collections will likely be further impacted by the current oil spill in the Gulf of Mexico. A reduction in overall fishing effort due to concerns of public safety and fish health will make it even more difficult to collect samples from recreational fisherman and commercial fish houses. **Bray** asked if the targets for some of the secondary species that we continually miss are having a negative impact on sampling due to the time spent looking for samples from these species. **R. Cody** stated Florida is adjusting their sampling goals during the season based on available species. The group agreed that changing the targets would not be necessary at this time. **Bray** also provided a draft version of the 2009 age-structure samples collected by National Marine Fisheries Service (NMFS) Panama City Laboratory. **C. Palmer** stated that the total number of samples has increased from approximately 44,000 to

47,000 now with most of the increases being red grouper, red snapper, vermilion snapper, gag, and gray triggerfish from Florida Marine Research Institute (FMRI). **Palmer** stated that samples are still coming in and they are cataloging them as they receive them. **G. Fitzhugh** asked if the perceived decrease in the number of length measurements collected is an accurate assessment. **Cody** stated in Florida there is likely a decrease for commercial samples due to the time required to collect the hard part. **Blanchet** stated Louisiana samplers are instructed to put their focus on collecting the hard part if there is a constraint on collecting both measurements and hard parts. **Mareska** stated that TIP would likely need an increase in funding to allow samplers to increase the total number of length measurements. **After further discussion the group agreed to recommend to the FIN Committee that FIN continue to use the current targets for biological sampling in 2011. The group wanted to acknowledge that impacts due to current fishery management regimes and the impact of the oil spill need to be offset with increased levels of sampling to maintain the current level of data collection.**

**There being no further business, the call adjourned at 9:47 a.m.**

## STATUS OF 2011 ACTIVITIES

### Data Collection and Management Activities

Task A1: Collection of Recreational Fisheries Data (Goal 2, Objective 5) (R)

Objective: Collection of recreational fisheries data in the Gulf of Mexico.

Status: Activities are operating normally. The states, including Puerto Rico are collecting the necessary data and meeting or exceeding quota on a routine basis. The GSMFC continues to administer and coordinate these activities.

Task A2: Continue the Collection of Head Boat Data (Goal 2, Objective 5) (R)

Objective: Continue the support of head boat sampling in the Gulf of Mexico.

Status: Head boat samplers were hired to sample catches, collect catch reports from head boat personnel, and gather effort data on head boats which operate primarily in the Exclusive Economic Zone from ports along the coasts of Texas and Florida. This activity is operating normally.

Task A3: Collection of Biological (otoliths and lengths) Data (Goal 2, Objective 5) (F)

Objective: Implement the collection of recreational and commercial sampling of biological data in the Gulf of Mexico.

Status: Texas, Louisiana, Mississippi, Alabama and Florida have hired personnel to conduct biological sampling interviews of recreational and commercial fishermen using the modified MRFSS and Trip Interview Program protocols. Samplers collect length frequencies, identifications of species, trip and gear characteristics, hard parts (otoliths or spines) and make comparisons of interview data to trip ticket data for quality assurance purposes. Samplers are focusing on black drum, gag, gray snapper, gray triggerfish, greater amberjack, king mackerel, red drum, red grouper, red snapper, sheepshead, flounders (gulf & southern), spotted seatrout, striped mullet and vermilion snapper. The states are also analyzing the otoliths to determine number of rings and edge codes. These data have been utilized in the recent assessments of king mackerel and red snapper.

Task A4: Design, Implementation and Maintenance of Data Management System (Goal 3, Objective 3) (F)

Objective: To design, implement, and maintain a marine commercial and recreational fisheries data management system to accommodate fishery management/research and other needs (e.g., trade and tourism).

Status: The FIN will continue to develop and maintain the Data Management System (DMS). The FIN Data Base Manager as well as the ComFIN Survey Coordinator continues to routinely load the necessary data into the system.

Task A5: Standards/Protocols/Documentation for Data Management (Goal 3, Objective 4) (F)

Objective: Develop standard protocols and documentation for data formats, input, editing, quality control, storage, access, transfer, dissemination, and application.

Status: Standard protocols and documentation for data formats, input, editing, quality control, storage, access, transfer, dissemination, and application are being developed for the system.

### B. Committee Activities

Task B1: Annual Operations Plan, 2012 (Goal 1, Objective 3) (F)

Objective: Develop 2012 Annual Operations Plan including identification of available resources that implements the Framework Plan.  
Status: This document was drafted and will be addressed by the Committee at the June 2011 meeting.

Task B2: Development of Funding Initiatives to Establish Marine Recreational Fisheries Surveys (Goal 1, Objective 3) (R)

Objective: Support the establishment of long-term, comprehensive MRF surveys in Puerto Rico and the Virgin Islands.  
Status: The GSMFC reinstated the coordination and administration of the recreational data collection activities in Puerto Rico since the hiring and budgetary constraints have been resolved. In addition, U.S. Virgin Islands, NMFS and GSMFC personnel continue to discuss the possibility of providing similar support of the MRFSS in the U.S. Virgin Islands.

Task B3: Information Dissemination (Goal 1, Objective 4) (F)

Objective: Distribute program information to cooperators and interested parties.  
Status: The results-oriented tables have been incorporated in the FIN Annual Report. This task is an ongoing activity.

Task B4: Implementation of Outreach Program (Goal 1, Objective 4) (F)

Objective: Further development and implementation an outreach program for FIN  
Status: The FIN Committee approved the outreach strategy in June 2002. As outlined in the document, it is incumbent on the program partners to conduct outreach within their jurisdiction. The Commission recently developed an Outreach Subcommittee and FIN can utilize this group for its outreach issues, as appropriate. This is an ongoing activity.

Task B5: Implementation of the Social/Economic Module (Goal 2, Objective 2) (F)

Objective: Develop the social/economic module for the ComFIN.  
Status: The Social/Economic Work Group has designed a data collection module for the compilation of social/economic information for all commercial fisheries in the Southeast Region. The GSMFC in conjunction with NMFS has hired a term economist to work on various economic projects. The economist will be presenting final results from the inshore shrimp project as well as other activities to the FIN Committee at the June 2011 meeting.

Task B6: Development of Metadata Database (Goal 2, Objective 2) (F)

Objective: Compile metadata for inclusion into a metadata database for the Southeast Region.  
Status: The InPort metadata entry tool has been implemented in the Gulf of Mexico which provides documentation of fisheries-dependent statistics data collection programs in the Gulf. Program partners are responsible for updating and maintaining this information. This is a standing agenda item at the Gulf of Mexico Geographic Subcommittee meeting. Also, hiring a part-time staff member to assist the states in entering and maintaining this information was approved and FIN is waiting on funding to bring this person on board.

Task B7: Implementation of Registration Tracking System (Goal 2, Objective 2) (C)

Objective: Development of a registration tracking system for FIN.  
Status: The Committee approved a registration tracking system in June 2002. The IA-Team has developed a system to assist the states in compiling the vessel information and will be presented at the June 2011 meeting.

Task B8: Evaluation of QA/QC Standards (Goal 2, Objective 3) (F)

Objective: Review the existing FIN commercial and recreational quality assurances/quality control (QA/QC) standards.  
Status: FIN recently updated these standards and he FIN Committee will add the appropriate sections, as necessary. This is an ongoing activity.

- Task B9: Port Samplers Workshops (Goal 2, Objective 3) (C)  
 Objective: Convene workshops of state and federal port samplers to discuss commercial data collection activities  
 Status: In an effort to provide a forum for discussing various issues concerning commercial data collection activities, the FIN Committee decided to convene a workshop of state and federal port agents. The Gulf of Mexico samplers met in September 2010. The workshop was attended by state and federal port agents as well as the appropriate NMFS staff and other interested personnel. The recommendations developed from the 2010 meeting will be addressed by the FIN Committee at the June 2011 meeting.
- Task B10: Otolith Processors Training Workshop (Goal 2, Objective 3) (C)  
 Objective: Convene an annual workshop of state and federal otolith processors to discuss issues related to analyzing hard parts (otoliths, spines, etc.)  
 Status: In an effort to provide a forum to ensure quality control and quality assurance for otolith processing, the FIN Committee decided to convene workshops of state and federal processors. Processing personnel from Texas, Louisiana, Mississippi, Alabama, Florida, GSMFC, NMFS and other interested personnel attended the workshop. The recommendations developed from the 2011 meeting will be addressed by the FIN Committee at the June 2011 meeting.
- Task B11: Develop Methods for Validating Recreational Discards Data (Goal 2, Objective 3) (C)  
 Objective: Develop methods for validating the data regarding discarded recreational catch in the Gulf of Mexico.  
 Status: The Recreational Technical Work Group will work in conjunction with MRIP regarding the recreational redesign activities to address this issue. Several work group members and staff are already involved in the redesign work. Periodical reports from MRIP will be provided to the FIN Committee to keep them abreast of the progress on this issue.
- Task B12: Identification and Evaluation of Current Programs (Goal 2, Objective 4) (F)  
 Objective: Identify and evaluate the adequacy of current and future programs for meeting FIN standards.  
 Status: This task is an ongoing activity.
- Task B13: Combining Duplicative Data Collection and Management Activities (Goal 2, Objective 4) (F)  
 Objective: Identify and combine duplicative data collection and management efforts.  
 Status: This task is an ongoing activity.
- Task B14: Review of Recreational Data (Goal 2, Objective 5) (F)  
 Objective: Periodically review the recreational catch and effort data collected under the Marine Recreational Fisheries Statistics Survey methods  
 Status: The Gulf States, GSMFC and NMFS meet about every 4 months to review the catch and effort data collected under the MRFSS methods. The group examines the catch data looking for potential species misidentifications, outliers (overly large/small or light/heavy fish, etc.). For the effort data, the group looks at the historical data and compares it with the current wave data to determine if there are large decreases or increases. This is part of the ongoing QA/QC procedures under the recreational data collection program.
- Task B15: Integration into the Stock Assessment Process (Goal 2, Objective 5) (F)  
 Objective: Develop a plan that outlines the needs for stock assessment for the upcoming year as well as tracking the collection of these data.  
 Status: The FIN Committee has developed a data collection plan that identifies the priority species (and associated data needed to be collected) for the state, interstate and federal entities as well as establishes sampling target levels for biological data. The Data Collection Plan Work Group met early this year and will present their recommendations at the June 2011 meeting.



- Task B16: Determination of Methods for Collecting Recreational Data from Private Access Sites Goal 2, Objective 5) (R)  
 Objective: Determine most appropriate methods for collecting recreational data from private access sites.  
 Status: The FIN Committee has tasked the Recreational Technical Work Group with determining the best method of collected data from private access sites. Since the recreational redesign activities (MRIP) will be addressing this issue, the Work Group decided to become involved (several work group members and staff are already involved in the redesign work) in that initiative instead of reinventing the wheel. Periodical reports from MRIP will be provided to the FIN Committee to keep them abreast of the progress on this issue.
- Task B17: Establish/modify Recreational Licenses (Goal 2, Objective 5) (F)  
 Objective: Establish/modify recreational licenses to meet criteria for use as sampling frame  
 Status: The FIN has discussed this issue in the past and the states need to make the necessary modifications to the licenses. NMFS has provided funding to the states to support the development of state registration and/or licensing programs that will meet the requirements for development and maintenance of a complete and regularly-updated National Registry of marine recreational fishing participants. Texas, Louisiana, Mississippi, Alabama, Puerto Rico and U.S. Virgin Islands submitted proposals and these projects were funded. Each partner will be providing an update about their project at the June 2011 meeting. This task began in January 2010.
- Task B18: Develop Methodologies for Sampling Highly Migratory Species (Goal 2, Objective 5) (F)  
 Objective: Develop methods for accurately collect catch and effort data for highly migratory species (HMS) in the Gulf of Mexico  
 Schedule: The Gulf of Mexico Fishery Management Council asked the FIN to examine the best methods for collecting catch and effort data for HMS species, specifically yellowfin tuna. Since the recreational redesign activities (MRIP) will be addressing this issue, the Work Group decided to become involved (several work group members and staff are already involved in the redesign work) in that initiative instead of reinventing the wheel.
- Task B19: Recreational Fishing Participation (Goal 2, Objective 5) (F)  
 Objective: Explore methods to accurately estimate recreational fishing participation in the Gulf of Mexico  
 Approach: The FIN Committee tasked the Recreational Technical Work Group with exploring methods for determining recreational fishing participation, by state, in the Gulf. Since the recreational redesign activities (MRIP) will be addressing this issue, the Work Group decided to become involved (several work group members and staff are already involved in the redesign work) in that initiative instead of reinventing the wheel. Periodical reports from MRIP will be provided to the FIN Committee to keep them abreast of the progress on this issue.
- Task B20: Coordination and Integration of Data Collection Efforts (Goal 2, Objective 5) (F)  
 Objective: Encourage coordination, integration, and augmentation, as appropriate, of data collection efforts to meet the FIN requirements.  
 Status: This task is an ongoing activity.
- Task B21: Evaluation of Innovative Data Collection Technologies (Goal 2, Objective 6) (F)  
 Objective: To evaluate and recommend innovative data collection technologies  
 Status: Issues will be address by the FIN Committee as the need arises. This task is an ongoing activity.
- Task B22: Implementation of In-Season Quota Monitoring (Goal 2, Obj 6) (F)  
 Objective: To explore strategies for implementing in-season quota monitoring for the recreational fisheries in the Gulf of Mexico  
 Status: This issue was identified during the 2005 facilitated session as a topic that FIN needed to reexamine. In the past, FIN has recommended that in-season quota monitoring for recreational fisheries not be implemented; however, it appears the in-season quota monitoring may become a reality so FIN needs to address this subject. The FIN will work in conjunction with MRIP to explore this issue. Periodical reports from MRIP will be provided to the FIN Committee to keep them abreast of the progress on this issue.

Task B23: Evaluation of Information Management Technologies (Goal 3, Objective 6) (F)  
Objective: To evaluate and recommend innovative, cost-effective information management technologies.  
Status: This issue will be addressed by the Committee as the need arises. This task is an ongoing activity.

Task B24: Long-term National Program Planning (Goal 4, Objective 1) (F)  
Objective: Provide for long-term national program planning  
Status: The FIN Committee members, GSMFC staff and ACCSP staff continue to attend Pacific RecFIN, PacFIN, ACCSP meetings as well as other pertinent meetings and coordinate activities as appropriate. This task is an ongoing activity.

Task B25: Coordination, Consistency and Comparability with Other Cooperative Marine Commercial and Recreational Fisheries Programs (Goal 4, Objective 2 and Objective 3) (F)  
Objective: Coordinate FIN with other regional cooperative marine commercial and recreational fisheries programs and encourage consistency and comparability among regional programs over time.  
Status: The FIN Committee members, GSMFC staff and ACCSP staff continue to coordinate activities with the Pacific States Marine Fisheries Commission as well as attend the national NMFS FIS meetings. This is an ongoing activity.

**SEAMAP - GULF, SOUTH ATLANTIC  
AND CARIBBEAN SUBCOMMITTEES  
JOINT MINUTES**

Key West, Florida  
August 9, 2011

APPROVED BY:   
COMMITTEE CHAIRMAN

**Chairman Read Hendon** called the meeting to order at 1:30 p.m. The following members and others were present:

**Members:**

Read Hendon, USM/GCRL, Ocean Springs, MS  
Bob McMichael, FWC/FWRI, St. Petersburg, FL  
Jed Brown, DFW, USVI  
John Mareska ADCNR/MRD, Gulf Shores, AL  
Aida Rosario, PRDNER, Mayaguez, PR  
Patrick Geer, GACRD, Brunswick, GA  
Patrick Campfield, ASMFC, Arlington, VA  
Larry DeLancey, SCDNR, Charleston, SC  
Fernando Martinez, TPWD, Corpus Christi, TX  
Todd Kellison, NOAA Fisheries, Beaufort, NC  
Jeanne Boylan, SCDNR, Charleston, SC  
Marcel Reichert, SCDNR, Charleston, SC  
Katy West, NCDMF, Washington, NC  
Tina Udouj, FWC/FWRI, St. Petersburg, FL  
Roger Pugliese, SAFMC, Charleston, SC  
Butch Pelligrin, NOAA Fisheries, Pascagoula, MS

**Others:**

Ellie F. Roche, NOAA/NMFS, St. Petersburg, FL  
Kelly Donnelly, NOAA Fisheries, St. Petersburg, FL  
André Debose, NOAA Fisheries, Pascagoula, MS

**Staff:**

Jeff Rester, GSMFC, Ocean Springs, MS  
Terry Henwood, NOAA/NMFS, Pascagoula, MS  
Melissa Paine, ASMFC, Arlington, VA  
Edgardo Ojeda, UPR Sea Grant, Mayaguez, PR  
Cheryl Noble, GSMFC, Ocean Springs, MS

**Adoption of Agenda**

The agenda was adopted as submitted.

## Approval of Joint Minutes

**J. Brown asked to change FWS to DFW for the agency and M. Reichert stated he is in Charleston, not Columbia. With these changes, the minutes were approved as submitted.**

## Overview of SEAMAP-Caribbean

J. Brown gave the following SEAMAP-Caribbean report.

### Virgin Islands

#### **Conch Assessment Survey**

The Division of Fish and Wildlife, DPNR completed all underwater conch surveys for the U.S. Virgin Islands. Approximately twenty trips for the territory were completed from November 2008 to October 2010. A total of 22 original survey sites and 2 new survey sites have been completed on St. Thomas/St. John from 2008 to 2009. On St. Croix, a total of 24 original sites and 8 new sites were completed from 2009 to 2010.

A total of 1,013 queen conch were observed of which greater than 50% were juveniles. Over 80% of the survey sites in the U.S. Virgin Islands contained conch. Overall average conch density for the territory was 231.4 (conch/ha). Mean conch density was higher around St. Thomas (583.4 conch/ha) compared to St. Croix (158.5 conch/ha) and St. John (73.7 conch/ha). These high densities are partly due to the inclusion of new survey sites on St. Thomas and St. Croix. Overall average density for the territory without the new sites was 124.1 conch/ha. St. Thomas and St. Croix had 156.9 conch/ha and 135.6 conch/ha, respectively.

The highest conch abundances and densities occurred in seagrass habitat. Seagrass was the preferred habitat for conch across all three islands; however, conch density in seagrass beds on St. Thomas was three times that of St. Croix and four times that of St. John. While St. Thomas and St. John had its highest juvenile densities (316.8 juv/ha and 150.6 juv/ha, respectively) in seagrass, St. Croix had its highest juvenile density in sand (261.5 juv/ha). Adult conch densities were highest in seagrass for all island groups.

Overall, queen conch density by depth for transects surveyed in the U.S. Virgin Islands suggested high-density values at all depth strata, except the 19-24 m range. Analysis of conch density by depth and stage for the U.S. Virgin Islands combined, indicated that juvenile conch density decline with depth, but adult density increased with depth.

Maturity classifications indicated greater than 50% of the queen conch encountered on scooter transects were juveniles for all three island groups. St. Croix had the highest percent frequency (22%) of sexually mature adults, followed by St. John (16%) and St. Thomas (14%). St. John had the greatest percentage of adult conchs that were old and very old.

Results of this survey were compared with previous studies for the U.S. Virgin Islands. For all island groups, estimated densities for common transects from previous studies were higher in 2008-2010 than all previous survey years. Statistical analyses for the district of St. Thomas/St.

John indicate that there was a significant increase in conch density across survey years. For the district of St. Croix, however, there was no statistical increase in conch density between survey years.

### **Parrotfish Survey**

A study was initiated in May 2009 to determine the reproductive cycle of stoplight (*Sparisoma viride*), redbtail (*Sparisoma chrysopterum*) and redfin (*Sparisoma rubripinne*) parrotfish. Because redfin parrotfish can be difficult to obtain on St. Thomas, St. Thomas staff purchased red band parrotfish for the study. Samples of 25 fish of each of the three species are obtained monthly for biostatistical measurements, sex and gonad condition. The stages of gonad maturation, as recorded by visual observation of the gonads, was recorded as unknown (Stage 1), resting (Stage 2), developing (Stage 3), ripe (Stage 4) or spent (Stage 5) based on visual inspection. Since 2009 on St. Croix, a total of twelve samples have been obtained on St. Croix resulting in 297 stoplight, 300 redbtail and 232 redfin parrotfish. In St. Thomas, 175 stoplight, 105 redbtail and 27 redfin parrotfish have been sampled. The next cycle of this work began in this fiscal year.

### **Yellowtail Snapper and Reef fish Surveys**

Due to lack of progress on these studies, VI DFW received a one year extension on both the yellowtail and reef fish hook and line surveys.

Sampling includes fishing at traditional commercial yellowtail fishing grounds, and at other places identified by fishers as not good yellowtail fishing sites. This study looks at fishing during the four seasons of the year to determine seasonal variations. On St. Thomas, 20 combined yellowtail trips and reef fish trips have been completed. Thus far on St. Croix, 4 yellowtail trips and 2 reef fish trips have been completed. Please note for St. Croix's Reef fish, 2 trips were attempted but cancelled due to weather. The Reef fish and yellowtail snapper sampling should end by March next year.

### **Administrative/Staff Issues**

There have been several changes to the administrative staff of DFW. Ms. Beulah Dalmida-Smith left the position of Director of the Division of Fish and Wildlife. Dr. Jed Brown was appointed as Acting Director in addition to his other titles of Assistant Director and Chief of Fisheries. He is located in St. Croix. One Fisheries Biologist III retired on St. Croix, two Environmental Specialists retired from St. Croix and one Environmental Specialist III was transferred from St. Thomas. All of this activity happened in December 2010. Two Fishery Biologists II, one for St. Thomas and one for St. Croix has been hired and they are in the process of hiring a replacement for the Fishery Biologists III and Environmental Specialists on St. Croix.

### **Training**

Six fisheries staff from St. Thomas and St. Croix attended training to learn how to better stage gonads. This training was provided by Aida Rosario and Edgardo Ojeda. The purpose of this one-day training was to learn the techniques of gonads preservation for reproduction studies, and

the identification of maturity stage using visual examination. Techniques on otolith extraction for age and growth studies were also included during the training workshop.

## **Puerto Rico**

### **Reef Fish Survey - 2010-11**

All contracts to hire the proposed personnel have been submitted and are in the process of being approved. Procuring project materials were finished and all materials received. The study objective is to expand the reef fish sampling to the east and south coasts of Puerto Rico.

East coast sampling started in October 2009 and finished in March 2011. Due to logistic reasons, 20 trips that were originally scheduled for the south coast were assigned to the east. A total of 80 trips were made in the east coast, yielding a total of over 100 kg of finfish from 34 species and 8 families. The species composition collected at both ends of the island is similar, and the species dominating the catch were the same, red hinds and coney. There is a difference between coasts with respect to which species dominate the catch composition. The red hind was the dominate species on the west coast and coney on the east coast.

### **Yellowtail Snapper Survey Objective**

Sampling started in May 2010 on the west coast. A total of 60 trips were made by March 2011. Sampling included fishing at traditional commercial yellowtail fishing grounds, and at other places identified by fishers as not good yellowtail fishing sites. Fishing occurred during the four seasons to determine seasonal variations.

A total of 792 fish and 3,806 kg were collected on the west coast yellowtail survey, with representation of 15 species. These included 25 species of which 6 were snappers (red, dog, schoolmaster, gray, lane, and yellowtail). Other species included three groupers, two species of squirrelfish, haemulids, jacks and several species of sharks. A total of 414 yellowtail were captured.

### **Lane Snapper Survey Objective**

The objective of this survey is to collect data on the lane snapper fisheries needed for a meaningful assessment of their population. A fisher survey will be conducted among identified fishers that target this species to collect information on traditional fishing grounds. With this information, the stations to be sampled were selected. The contract to undertake this survey is in process at DNER.

## **SEAMAP-C UPR/Administrative Report**

### **Administrative Coordination**

A total of four SEAMAP-C meetings were conducted between August 2010 and July 2011. The meetings took place alternately on Puerto Rico and the U.S. Virgin Islands to review all

programmatic surveys on conch, lobster and reef fish being done in the USVI and Puerto Rico. During this period, an educational/outreach SEAMAP-C workshop was held for the fishers from St. Croix Island. In addition, one day training was organized in St. Croix for all the Virgin Islands SEAMAP-C reef fish working groups and sampling staff. The purpose of the training was to teach the techniques of gonads preservation for reproduction studies, and the identification of maturity stage using visual examination. Techniques on otolith extraction for age and growth studies were also included during the training workshop.

### **Outreach Material Production and Dissemination**

Two SEAMAP-C posters were produced as outreach materials. The color posters, entitled "SEAMAP-C in Puerto Rico" and "SEAMAP-C in the Virgin Islands," summarize the main studies performed by the Caribbean program in each region. The posters have been used in several fisheries workshops for fishermen and also as handouts to the general public. Educational brochures on conch, whelk, lobster and reef fish were also produced and used as outreach materials.

Two graduate students received student assistantships to continue updating the sampling protocols, and to summarize the information of all projects conducted by the Caribbean program. The main goal is to have a clear and uniform sampling protocol, and have the information accessible for dissemination, in addition to making them available for outreach. The educational material was made available to fishermen during workshops and to targeted groups during routine coastal and shore visits.

The students were also contracted to rescue and restore very old SEAMAP-C data stored on the PR-DNER Marine Laboratory depositories. All the data kept on 3½ and 5 1/4 floppy disks and other sources, were transferred to new and safe storage devices, catalogued by themes, and the data was transferred from outdated formats. In addition, a PhD fisheries student was contracted to conduct a quality control and a preliminary evaluation of the lobster data collected by SEAMAP-C from PR.

### **Acquisition of Reef Fish/EFH Sampling Gear**

Two new bottom Acoustic Receivers Data loggers were acquired for fish spawning aggregation identification and dynamic population evaluation.

### **Overview of SEAMAP-Gulf**

R. Hendon gave the following SEAMAP-Gulf report.

The SEAMAP Subcommittee sponsored a fishery independent data collection workshop in September 2010. SEAMAP was looking for guidance on how SEAMAP conducts fishery independent sampling and what the fishery independent data needs were for the Gulf of Mexico. The goals of the workshop were to determine what types of data are needed for fisheries management purposes and current data gaps; to design several fishery independent surveys that will provide abundance, length-frequency, diet, and age distributions for managed species that

can also be used in ecosystem analysis as well as dealing with perturbations such as oil spills, liquefied natural gas facilities, red tides, etc.; to develop a cost estimate of these fishery independent survey components; and to prioritize data needs along with survey components. Approximately 50 researchers from around the Gulf of Mexico attended the meeting to discuss these issues.

The Fall Plankton cruise took place from August 24 through September 29, 2010. NMFS sampled 159 stations, Mississippi sampled 13 stations, and Louisiana sampled seven stations. The objective of this survey was to collect ichthyoplankton samples with bongo and neuston gear for the purpose of estimating abundance and defining the distribution of eggs, larvae, and small juveniles of Gulf of Mexico fishes, particularly king and Spanish mackerel, lutjanids and sciaenids.

The Fall Shrimp/Groundfish Survey was conducted in October and November 2010, from off Tampa, Florida to the U.S.-Mexican border. Five hundred forty-one stations were sampled during the survey. Vessels sampled waters out to 60 fm with trawls and plankton nets in addition to environmental sampling. The objectives of the survey were to sample the entire U.S. Gulf of Mexico to determine abundance and distribution of demersal organisms from inshore waters to 60 fm, obtain length-frequency measurements for major finfish and shrimp species to determine population size structures, collect environmental data to investigate potential relationships between abundance and distribution of organisms and environmental parameters, and collect ichthyoplankton samples to determine relative abundance and distribution of eggs and larvae of commercially and recreationally important fish species.

The Winter Shrimp/Groundfish Survey took place February 8-23, 2011. Eighty-six stations were sampled during the survey that uses protocols similar to the other shrimp/groundfish surveys.

The SEAMAP Spring Plankton Survey was conducted from March 24 to May 28, 2011. Gulf waters were sampled from the west Florida shelf to the Louisiana/Texas border. The objectives of the survey were to collect ichthyoplankton samples for estimates of the abundance and distribution of Atlantic bluefin tuna larvae and collect environmental data at all ichthyoplankton stations.

The Inshore Longline Survey is currently ongoing with Mississippi, Alabama, and Texas participating. This near shore survey complements an existing long-term fisheries independent survey currently being conducted by NMFS, by targeting shark species within the shallow waters of the north central Gulf of Mexico. The objectives of the survey are to collect information on coastal shark abundances and distribution with a 1-mile longline and to collect environmental data.

A vertical longline survey is currently being conducted off Alabama. A total of 12 grids are fished per survey. Two structure and two non-structure areas are randomly chosen and equally allocated across three depth strata. Vertical longline reels are randomly baited with either Atlantic mackerel or squid. Soak time is five minutes. Fish may be retained and processed for age and fecundity. All fish are sacrificed for otoliths at stations deeper than 60 m. In water depth less than 60 m, stations may be assigned as tag and release or collection sites.



The SEAMAP Summer Shrimp/Groundfish Survey was conducted from June 1 to July 31, 2011. Four hundred nine trawl stations were completed in this year's survey. Survey effort was reduced due to mechanical problems with research vessels.

The SEAMAP Winter Plankton Survey was originally designed as a biannual survey to assess winter spawning species such as menhaden, mullet, and grouper. Unfortunately, NOAA Corps funding cuts limited the number of ship days that vessels could operate in the Gulf of Mexico this year and the Winter Plankton Survey will probably be discontinued in the future unless NOAA Corps adds money to operate NOAA vessels in the Gulf of Mexico. A Winter Plankton Survey took place in January 2011, but it was funded by NRDA and this may be the last Winter Plankton Survey.

### **Overview of SEAMAP-South Atlantic**

R. Pugliese gave the following SEAMAP-South Atlantic report.

#### **SEAMAP Coastal Survey**

The Fall 2010 cruise covered 22 days at sea and was completed November 11, 2010. All 112 stations sampled had a high abundance of spot, croaker, and weakfish (NC) with excellent shrimp catches, but poor off Georgia. The Spring 2011 cruise covered 20.5 days at sea and was completed May 13, 2011 with all 112 stations sampled. White and pink shrimp catches were low; catch of cannonball jellies (April 11-22) off southern South Carolina and Georgia were high; high catches of Atlantic croaker and weakfish; low catches for king mackerel; record spring catches for Kemps Ridley turtles (continuing upward trend), good loggerhead turtle catches with one leatherback; and the first capture of a goliath grouper off Florida. The Summer 2011 cruise is almost completed with normal catches. The first capture of shrimp with black gill disease was recorded.

#### **Life history studies**

Fall 2010 collections included weakfish (otoliths =170; gonads =115), Atlantic croaker (otoliths =224; gonads =142) and southern kingfish (otoliths =359; gonads =229). Spring 2011 collections included weakfish (otoliths =135; gonads =95), Atlantic croaker (otoliths =198; gonads =117), southern kingfish (otoliths =409; gonads =262), Spanish mackerels (otoliths =151; gonads =121) and bluefish (otoliths =139; gonads =102).

#### **Diet studies**

*Cynoscion* (sp.) are being saved through 2011 for genetic and morphological review (fall 2010 and spring 2011) and lab analysis. In addition, juvenile cobia are being collected for the 2012 SEDAR 28 cobia benchmark assessment and Spanish mackerel benchmark assessment.

#### **SEAMAP SA Reef Fish Survey**

The 2010 sampling season was completed in October covering 59 sea days on the *R/V Palmetto*, (37 funded by SEAMAP) (17.5 and 16 since last annual meeting). There were 986 gear deployments with one lionfish caught in a trap in September 2010. The 2011 sampling season to date includes 34 sea days (8 legs) with 23 funded by SEAMAP and 561 gear deployments. Staff participated in SEDAR 24 for red snapper and SEDAR 25 for black seabass and golden tilefish. SEAMAP provided red snapper and black sea bass data for SEDAR 24 which was completed in October of 2010 and SEDAR 25 Review Workshop in October and viewed by the SSC and the Council late fall.

### **SA Reef Fish Diet Studies**

Hook and Line gear was used to target 10 specimens of each species in 24 zones with three depth zones: 0-20m, 21-50m, >50m and eight 1-degree latitudinal zones (27° N through 34° N). Red porgy and gray triggerfish were collected 2009-2011. Vermillion snapper is a new species being collected in 2011 with collections from possibly black sea bass starting 2012.

### **Gag Ingress Survey**

Ingress monitoring using Witham collectors occurred between 1995 and 1998. Monitoring resumed in 2005 until the present in collaboration with GA-DNR and NCMFC. During 2011, fifteen sites were selected between Swansboro, NC, and Brunswick, GA. Charleston, SC collections show total abundance ranging from 0 in 2006 to 144 in 2011. Total annual collections varied between 265 in 1998 and 2,266 in 2010.

### **Southeast Regional Taxonomic Center – SERTC**

A SEAMAP Specimen Collection and Photo Gallery exist for fish and invertebrate voucher specimens that are catalogued and accessioned into SERTC's existing taxonomic collection. Fin clips from each species are available for extraction of DNA by cooperating agencies and other investigators upon request. In addition, SERTC's online photo gallery was updated to include fish and invertebrates collected by the SEAMAP showing photos of adults and juveniles and close-ups of principal diagnostic characters (in progress).

Other accomplishments include: 1) Specimens/tissue were provided to researchers at Harvard U., Emory U., Nat. Hist. Mus. Los Angeles County, and U. Central Florida; 2) SERTC crab megalopae specimens were loaned to SEAMAP staff at Gulf Coast Research Lab in Ocean Springs, MS.; 3) Identification of specimens and information provided to researchers at Loyola U., Coll. of Charleston, Auburn U., and MRRI; 5) Image loans and donations to multiple non-profit and educational organizations; 6) Responded to public inquiries (star fish toxicity and pets, mass die offs and beach stranding, treatment of jellyfish stings) and assist with development of educational curricula; 7) Provided taxonomic support for SEAMAP stomach content analysis; and 8) Reference literature database was converted from Procite to Endnote.

The following are available online: 1) Guide to invasive marine species (online and hard copy) is available <http://www.dnr.sc.gov/marine/sertc/invasive.htm>; 2) Key to echinoderms

[http://www.dnr.sc.gov/marine/sertc/Sea\\_Cucumber\\_key.pdf](http://www.dnr.sc.gov/marine/sertc/Sea_Cucumber_key.pdf) ; and 3) Key to jellyfish of the South Atlantic Bight [www.dnr.sc.gov/marine/sertc/SAB\\_jellies\\_key.pdf](http://www.dnr.sc.gov/marine/sertc/SAB_jellies_key.pdf) .

## **SEAMAP Red Drum Survey**

### **North Carolina Red Drum Long Line**

The North Carolina Red Drum Long Line survey provides a fishery independent index of abundance for adult red drum in the waters of the Pamlico Sound. Tagging of red drum captured during the survey allows for additional information on migratory behavior and stock identification. For sampling year 2010, North Carolina conducted sampling in Pamlico Sound from June through October. Sampling occurred as either non-random 'exploratory' sets, or as part of a standardized, stratified-random sample design. All samples were conducted with a 1,500 meter mainline, with gangions placed at 15 meter intervals (100 hooks/set) during nighttime hours starting at sunset.

Random sampling occurred in July (n=12 sets), August (n=30 sets), September (n=24 sets), and October (n=6 sets) and yielded 400 red drum (8,159,233 and 0 respectively). Additional exploratory sets were made in June (n=12 sets) and July (n=3 sets) yielding five additional red drum. Red drum captured ranged in size from 28 to 48 inches fork length. Forty-one red drum were sacrificed to determine age composition and for other biological investigations. The remaining fish (364) were tagged and released to track migration, stock ID and growth rates. Sampling during this period resulted in six recaptures of red drum, while recreational anglers from the public reported eleven additional recaptures.

### **South Carolina Red drum**

Four strata were sampled during the 2010 sampling season in each of three 6-week time blocks (August - December)  $\pm$  30 sites selected randomly from predetermined sites, in each strata, in each period. Exploratory sets were made in new areas within strata to expand number of sites. Productive sites were added. Conversely, sites with no red drum in the first 3 years were not sampled. This decision was made because they want to include sites with characteristics/habitat likely to result in red drum and sharks catches and maximize use of funds to achieve project objectives.

The 2011 Season continues the 2010 sampling strategy. In addition, they will investigate the effect of bait type (Atlantic mackerel and striped mullet) on catches. Standardization efforts: A conference is scheduled between all three participating states to discuss issues and develop solutions.

### **Georgia Red Drum and Coastal Sharks Longline Survey**

In 2010, sampling continued on a monthly basis with 25 sites in Georgia and 10 in North Florida, stratified as sounds, nearshore (0-3nm), and offshore (3-12nm). Two hundred forty-nine sets were completed between April and December 2010. Catches of red drum were below the survey average for the year and remain relatively low with the greatest percentage of the catch continues

to be in November and December in association with offshore artificial reefs. Atlantic Sharpnose continues to dominate spring and summer shark catches, followed by blacknose and bonnethead with ten species of sharks caught in 2010. The overall shark catches show a broad peak between May to August then decline sharply in the fall. In 2011, there was an increase in the number of samples collected inside the barrier islands to intercept red drum prior to their offshore migration.

### **Pamlico Sound Survey**

The Pamlico Sound survey provides a long-term fishery-independent database for the waters of the Pamlico Sound, and the lower Neuse and Pamlico rivers. Data collected from the survey provides juvenile abundance indices and long-term population parameters for interstate and statewide stock assessments of recreationally and commercially important fish stocks. Annually, 52-54 randomly selected stations (grids- one-minute by one-minute grid system equivalent to one square nautical mile) are trawled for 20 minutes using double rigged demersal mongoose trawls over a two-week period.

During the second and third week of June 2010, the North Carolina Fisheries R/V Carolina Coast departed for the fifty-fourth cruise of the Pamlico Sound Survey. Sampling occurred from the 7<sup>th</sup>-8<sup>th</sup> and 14<sup>th</sup>-18<sup>th</sup>. Fifty-nine species of finfish and invertebrates were captured during the cruise. Several of the most abundant species are considered economically important and included Atlantic croaker, spot, blue crab, weakfish, southern flounder, and summer flounder. Spot and Atlantic croaker dominated the catches throughout the cruise. During the June 2010 cruise, Atlantic croaker (n=73,221) increased 400% compared to the average for the past five June surveys. Spot (n=40,861) increased 29%. Weakfish (n=4,699) increased 213%. Blue crabs (n=6,436) increased 215%. Summer flounder (n=774) increased 113%. Southern flounder (n=327) increased 57%.

The Fall survey was conducted September 12-15 and 19-22. Fifty-four randomly selected stations were sampled using the same stratified random sampling design previously stated. Seventy-five species of finfish and invertebrates were captured during the cruise with spot and Atlantic croaker being the most abundant throughout the sampling period. During the September 2010 cruise, spot (n=37,017) decreased 12% compared to the average for the past five September surveys. Atlantic croaker (n=44,201) increased 65%. Weakfish (n=1,712) decreased 40%. Blue crabs (n=395) increased 86%. Summer flounder (n=302) decreased 22%. Southern flounder (n=155) decreased 12%. During June 2011, 54 stations were sampled during the 13<sup>th</sup>-16<sup>th</sup> and 20<sup>th</sup>-23<sup>rd</sup>. In September 2011, 54 stations are planned to be sampled during the 12<sup>th</sup>-15<sup>th</sup> and 19<sup>th</sup>-22<sup>nd</sup>.

### **Crustacean Workgroup Activities**

This workgroup continues to be a forum for state biologists and scientists from the South Atlantic region to discuss and address issues regarding shrimp and blue crab management and research. In 2011, there was no formal activity, but various members participated in activities including the SAFMC Shrimp Review Panel meeting (P. Geer, DeLancey, state and NOAA scientists) where SC white shrimp CPUE following winter cold kill was reviewed to determine if

it met criteria for EEZ closure request. The EEZ off South Carolina closed March 22-June 6. Other activities included: 1) terrapin excluder info to R. Gandy (FL) from SC, NC crab trap studies; 2) Regional Blue Crab Analysis - A. Colton, U MD., PCA of fishery independent, dependent data from Atlantic; 3) Turtle survey: showing good catches of "sponge" crab off Ga., summer 2010; and 4) Cooperative work with GCRL including a Blue crab rearing pilot study in SC, J. Leffler; SC, Savannah State providing blue crab, eggs, megalopae for post BP comparison and support of the Hollings scholar.

### **Cooperative Winter Tagging Cruise for Striped Bass**

There was no traditional Cruise in 2011 due to no funding from the usual (NOAA/NMFS) source for vessel and/or funding for ship time. The North Carolina Division of Marine Fisheries was able to use some of their Federal Aid funding to charter sportfishing vessels to tag striped bass by hook and line, and at least keep that time series intact. Charlton Godwin spearheaded the effort and managed to arrange for two trips out of Rudee Inlet, VA. The first trip was successful and the team tagged and released 108 striped bass, of 110 captured. The tagging occurred on the F/V Midnight Sun, operated by Captain Ryan Rogers, with Mate Kenny Nance. Scientific Party members were: John Ellis (USFWS, Ecological Services, Raleigh, NC); Brian Van Druten (USFWS, Alligator River National Wildlife Refuge, Manteo, NC); Tim Sartwell (ACCSP, Annapolis, MD); Charlton Godwin (NCDMF, Elizabeth City, NC); Kathy Rawls (NCDMF, Elizabeth City, NC); Kelly Smith (NCDMF, Elizabeth City, NC); Will Creef (NCDMF, Elizabeth City, NC); and Mike Loeffler (NCDMF, Elizabeth City, NC). All the fish were captured in the EEZ.

At present, there is no funding committed for chartering the R/V Cape Hatteras to conduct the traditional 2012 Cruise using trawl gear. There should be sufficient Atlantic Coastal Fisheries Cooperative Management Act funding to conduct hook-and-line operations aboard sportfishing vessels in either state waters, or the EEZ. The intent is to have an RFP for charter trips ready to go soon and be able to contact with vessels either out of Oregon Inlet, NC, or Rudee Inlet, VA, during January and February, 2012. Should funding be secured for chartering the R/V Cape Hatteras, the traditional Cruise will be conducted.

### **SEAMAP-SA Database and Web Interface**

The SEAMAP-South Atlantic database is near completion. The current version of the database has been populated with Coastal Survey data, Pamlico Sound Trawl data, and South Carolina Red Drum data. There have been some difficulties in uploading the Georgia red drum data and additions to the tables in the database have been necessary; however, the problems have been identified and should be resolved soon. It is feasible that most of the historical data from all of the data contributors will be uploaded by the time the data programmer is hired. A temporary data programmer was hired to create a web accessible version of the SEAMAP database. A version of the database containing only Coastal Survey data was provided to the SCDNR Technology Development Department and to the data programmer for conversion to an Oracle database. The SEAMAP-SA database was successfully converted and queries and links were created for web access to the database. Although the format of the webpage and the types of

data queries that will be provided to data users will have to be revised and expanded, the existing webpage is a good starting point for an eventual functioning external database.

### **South Atlantic Administrative Report**

The South Atlantic SEAMAP Committee held a meeting October 25-26, 2010 to discuss the 5 year grant document, the SEAMAP 5 year management plan priorities and partnership opportunities. The South Atlantic SEAMAP Data Management Workgroup held monthly conference calls to develop SA database schema as well as an online queryable database which will be presented under the next agenda item. The SEAMAP 2011-2015 Management Plan has been completed and the pdf version will be available in a few weeks and now that funds have been distributed, printing will be done later this month.

### **SEAMAP-SA Update on Database Development**

**J. Boylan** presented the website as it exists now. She said they are in the beginning stages and that this is a work in progress. She showed examples of different queries with visuals and stated the data was in Access Database and converted to Oracle. She said some of the SEAMAP Coastal Survey data is accessible now. Their goal is to have this fully functional and usable within six months. They have also discussed incorporating GIS products and links to SAFMC and FWC. They also have MARMAP information displayed within the viewer, links to videos, and to the management plan. The data system will be housed at SCDMR.

### **Presentation of the GSMFC's Database**

**J. Rester** reported GSMFC took over data management for the Gulf of Mexico in 2007. They kept much of the same relational database structures that NMFS had. The data is stored in ORACLE and as of August of this year, there are 29 years of data in the system. This amounts to roughly 781 cruises and there are 11 different table structures concerning various aspects of the sampling and recorded data in the database. The data can be accessed over the web using Microsoft Access. He said there are links to the database documentation, field definitions and file structures. There is a list of all of the historical cruises that are contained in the database along with links to the cruise reports. He said they have the ability to query by species and by year and this was set up in AnyChart software. He then demonstrated using the database. He said there is a Google Map application that will provide locations of all historic stations for checking where sampling has occurred.

### **Proposed Activities and Budget Needs for FY2012**

**Caribbean - J. Brown** reported level funding, \$525,847, would be adequate to conduct their research efforts.

**Gulf - R. Hendon** reported that for the Gulf to continue current sampling activities they would need \$250,000 more than level funding. This would be for vessel costs only and does not include fuel and personnel. He said the Gulf would prioritize activities and decide where to make cuts if they only receive level funding or less. Level funding would be \$2,068,331.

**South Atlantic - R. Pugliese** reported that for the South Atlantic to maintain their current programs they would need an additional \$150,000. He said once they receive the budget, the South Atlantic Committee would meet to discuss changing the scope of their work if they receive level funding or a cut. Level funding would be \$1,647,653.

**NMFS – B. Pellegrin** reported NMFS is facing the same problems but they will continue the current surveys. He said obtaining sea days is another issue they are facing. Level funding would be \$848,234

### **Joint Discussion of SEAMAP Budget for FY2012**

After discussion, **R. Pugliese** moved to approve the same budget allocations and percentages for each component from the 2011 budget. **A. Rosario** seconded the motion and it passed unanimously.

**B. McMichael** moved to use the same percentages that were used in 2011 if there is an increase or decrease to the SEAMAP budget. **M. Reichert** seconded and the motion passed unanimously.

### **NMFS Explanation of the Section 7 Research Projects Permitting Process/Update on the Biological Opinion for SEAMAP**

**T. Henwood** stated that NMFS has drafted a Section 7 Consultation that will cover the incidental take of any endangered species. This will be an umbrella document to cover all agencies or programs receiving NMFS grants. All programs must submit their expected incidental takes, NMFS will decide the total number, and the total number must not be exceeded. If a program goes over their incidental take, it will affect all of the other programs. The document has been reviewed and should be completed this year.

### **Planning for the 2012 Joint Annual Meeting**

**R. Pugliese** asked for any recommendations for the next meeting. He said they would investigate having the meeting in Charleston, Savannah or Fort Lauderdale. He said they would contact the Caribbean and Gulf Coordinators after the first of the year with the meeting time and place. The Committee agreed to plan the meeting during the week of August 6, 2012. The Committee decided that starting with this meeting, the host of the meeting would chair.

### **Other Business**

**E. Roche** announced the deadline for the Cooperative Research Program RFP is August 30.


The Committee thanked the Gulf for hosting the meeting.

### **Adjourn**

There being no further business, the meeting adjourned at 4:00 p.m.



TCC SEAMAP SUBCOMMITTEE  
MINUTES  
Tuesday, August 9, 2011  
Key West, FL

APPROVED BY:  
  
COMMITTEE CHAIRMAN

**Chairman R. Hendon** called the meeting to order at 8:08 a.m. The following members and others were present:

**Members**

Read Hendon, *Chairman*, USM/GCRL, Ocean Springs, MS  
John Mareska, ADCNR/MRD, Gulf Shores, AL  
Bob McMichael, FWC/FWRI, St. Petersburg, FL  
Fernando Martinez, TPWD, Corpus Christi, TX  
Butch Pellegrin, NOAA Fisheries, Pascagoula, MS  
Myron Fischer *via Telephone*, Grand Isle, LA

**Others**

Ellie Roche, NOAA Fisheries, St. Petersburg, FL  
Kelly Donnelly, NOAA Fisheries, St. Petersburg, FL  
Terry Henwood, NOAA Fisheries, Pascagoula, MS  
André DeBose, NOAA Fisheries, Pascagoula, MS

**Staff**

Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS  
Cheryl Noble, *Staff Assistant*, GSMFC, Ocean Springs, MS

**Adoption of Agenda**

**J. Mareska** moved to adopt the agenda as submitted. **F. Martinez** seconded and the motion passed.

**Approval of Minutes**

**B. McMichael** moved to approve the March 14, 2011 TCC SEAMAP meeting minutes as submitted. **J. Mareska** seconded and the motion passed.

**Administrative Report**

**J. Rester** reported the Summer Shrimp/Groundfish Survey had been completed. Due to vessel problems on both the R/V TOMMY MUNRO and OREGON II, some of the stations in the Panhandle were not sampled, but most of the Gulf was covered. He said the end of survey results will be posted and the link will be emailed next week.

**J. Rester** stated the Spring Plankton Survey was completed and both the vertical and bottom longlining had started. He reminded the Subcommittee to submit their data and cruise reports to

the GSMFC office as quickly as possible. L. Kirk has posted the current cruise listings of trawl data on the website with the cruise report status marked as received or not received. **J. Rester** asked the Subcommittee to check the listing to see if their reports have been submitted to GSMFC and if not, to please submit them. **J. Rester** demonstrated what has been done to this point on visualizing the SEAMAP data.

### **Status of FY2012 Budget**

**R. Hendon** thanked E. Roche and K. Donnelly for their efforts in securing SEAMAP funding. **J. Rester** stated they do not know what the President's or House mark is for SEAMAP in the proposed budget. **E. Roche** informed the Subcommittee that NOAA has been reduced tremendously in the House Budget. She said there is a rumor that the continuing resolution will last all year, which would mean no funding for all grants. **R. Hendon** asked what is the potential for SEAMAP to receive NRDA funding. **T. Henwood** said NRDA has set up work groups to make recommendations to the restoration group. He said W. Ingram is the NOAA/NMFS representative on the work group and they (NMFS) are pushing to do and pay for fishery independent surveys. **J. Rester** said the council has written letters to NRDA and the Ecosystem Restoration Task Force supporting long-term fishery independent monitoring and stating SEAMAP would be the logical group to do this. **After discussion, J. Mareska moved that the Subcommittee draft a letter requesting NRDA funding for SEAMAP activities. B. McMichael seconded and the motion passed.** **T. Henwood** said if SEAMAP does not receive funding, the surveys would not be done. The letter will be sent under L. Simpson's signature and it was suggested to send the letter to Kris Benson and Ian Zello, and to ask L. Simpson if anyone else should receive the letter.

### **Review of the Louisiana Spring Shrimp/Groundfish Survey**

**M. Fischer** stated in reference to the oil spill and budget, he wanted to clarify that Louisiana did secure funding for both inshore and offshore sampling and monitoring for three years. He said the offshore monitoring mimics SEAMAP protocols but they do not collect plankton.

**M. Fischer** then gave a presentation on the Louisiana SEAMAP Trawl Analysis. He said the objective was to compare species diversity and abundance through years and seasons. The seasons were spring, summer and fall, through years 2008, 2009, and 2010. He said Louisiana did not do the spring survey eleven years prior to 2008, so that is why they only used these three years. He stated there is a huge gap in the data and asked if the spring sampling is necessary. The Miami Science Center will probably have to answer that question.

**J. Rester** asked if Louisiana would continue the winter survey since it was not done this past year because of a conflict with the vessel. **M. Fischer** said they used supplemental funds to do the survey so there are no plans to continue it.

**M. Fischer** said they sampled in statistical zones 13 through 17, but noted very few samples were taken in SZ16 and they seldom sample in SZ17. The northern border is 5 fathoms deep and the southern border is 20 fathoms, and they used randomly generated sites. Standard 42 ft. trawls were used with 30-minute tows. They sampled 24 hours a day as opposed to the old

format of sampling days and redoing those samples at night. He then showed slides of the stations and stated when looking at all stations combined, the only unique feature is there are some natural clustering right at the west delta area, just south of Terrebonne Bay, and then a little further west there are 3 clusters of data points.

He said over the 3 years there were a total of 213 stations; 386,945 animals caught with an average of 42,994 animals per cruise; a total of 181 different species; an average of 83 species per cruise; and the numbers of species ranged from 64 to 98. He then reviewed the 10 most common species with Atlantic croaker being the most common. He showed a non-metric multidimensional scaling plot where each box is a sample. He said it shows some overlap of samples across seasons, but in general, each season is unique in terms of species composition. There was a lot of variability in the summer samples. He said the conclusion is the samples were very dissimilar during each season. The conclusion was all seasons, in fact all sets, were dissimilar, but yet it can go either way there were similarities also. When they ran the MRPP, values were extremely low and the conclusion was the samples were very dissimilar. He said their conclusion was all seasons were dissimilar, but it can be argued either way. He asked the Subcommittee to draw their own conclusions. The complete presentation can be obtained from the GSMFC office.

**M. Fischer** asked again if the Subcommittee wants to continue the spring survey. **B. Pellegrin** said it is limited coverage off Louisiana and does not think it would contribute to stock assessments. **R. Hendon** said he agrees it would not be a high priority. **M. Fischer** stated the cost of the survey is \$50,000-\$55,000 and he has no problem using that funding for other high priority surveys. 35,000-

**M. Fischer** stated they are doing vertical longlining and know other states are also doing this. He would like to address some issues they are having with the longlining. **J. Rester** will add this topic to the October meeting agenda.

### **Review of the Texas Winter Shrimp/Groundfish Survey**

**F. Martinez** gave a presentation comparing the three Texas SEAMAP Shrimp/Groundfish Surveys which are the winter, summer and fall. He said they compared species by frequency. He said they sample by calendar month and the winter survey is February, the Summer is June, and the Fall survey is November. They do 80 samples per month and they sample year round. He reviewed the common species that occurred most often during each survey and the Atlantic brief squid was the most common. He said many similar species occurred on all seasons. The summer survey has double the number of organisms per sample than the winter survey. The summer survey has about 20% more species than the winter survey. There were 325 species for the summer and 270 for the winter. The winter and fall surveys caught considerable more white shrimp and flatfish species than the summer survey. The complete presentation can be obtained from the GSMFC office.

## **Future of SEAMAP Shrimp/Groundfish Surveys**

**J. Rester** stated the Subcommittee needs to decide which surveys to continue and discontinue if SEAMAP receives budget cuts. He said even if SEAMAP receives level funding, some of the surveys that are not gulf-wide might need to be discontinued because fuel, vessel and personnel costs are rising. Each member discussed their surveys and agreed that the gulf-wide, long-term surveys are the most important. They discussed dropping the Alabama winter cruise, the Louisiana spring cruise and the Mississippi West Delta survey that should have started in July but is scheduled to start next week. The Subcommittee will discuss the fate of these surveys at the October meeting, but decided to cancel the Mississippi survey this year because it was past the usual timeframe. It was suggested to have the Subcommittee and work groups prioritize the surveys in order of importance. The Subcommittee also decided to ask NMFS to prioritize the SEAMAP surveys.

**M. Fischer** moved to formally request by letter to **B. Ponwith** to prioritize the SEAMAP surveys. **F. Martinez** seconded the motion. **J. Rester** stated he thinks this is a good idea but does not think the Subcommittee will have a response before the October meeting. **T. Henwood** stated no data would be used in a stock assessment unless it is gulfwide and has 5 years or more of data. After further discussion, **M. Fischer** withdrew the motion. The Subcommittee will send a complete list of SEAMAP surveys to **T. Henwood** and copy **B. Ponwith** asking them to prioritize the surveys. **T. Henwood** stated he would prioritize the surveys in a timely manner.

## **Activities and Budget Needs for FY2012**

**J. Rester** read the House Report. He said they want to increase funding for stock assessments but decrease funding for fishery independent data sampling.

**Florida** – **B. McMichael** reported Florida has three SEAMAP programs which were the summer trawl survey, the summer trap/camera, and the archiving center. He said they would continue as they have in the past. He said they would support the fall survey if the funding from the Stock Assessment Enhancement Fund comes through. Level funding would be \$559,421.

**Alabama** – **J. Mareska** reported due to previous discussions, Alabama may drop the winter survey and maintain the summer and fall groundfish survey and bottom longlining. He said the surveys might have to be modified due to a shortfall of funds this coming year, due to an increase in the indirect cost rate. **R. Hendon** said the Subcommittee would discuss this further at the October meeting. Level funding would be \$222,575.

**Mississippi** – **R. Hendon** reported they may drop the West Delta survey permanently as discussed previously, but will revisit this at the October meeting. He said they would maintain the summer and winter trawl, and the plankton surveys. Level funding would be \$442,106.

**Louisiana** – **M. Fischer** reported (earlier in the agenda) they will maintain all surveys but if they drop the spring survey as discussed earlier there will be an extra \$50,000-\$55,000. Level funding would be \$447,420.

35,000 -

**Texas – F. Martinez** reported Texas would continue doing the summer, fall, and winter trawl surveys as well as summer longlining with current funding. He said starting on June 1, 2012 they will have some flexibility to expand the bottom longline surveys to other areas. Level funding would be \$137,335.

**GSMFC – J. Rester** reported the Commission would continue the coordination of the three meetings each year and data management at level funding of \$259,474. He said if budget issues become a problem, the Subcommittee could meet only twice a year or just send the Chair and Vice-Chair to the joint meeting. This will be discussed when the Subcommittee receives the final funding amount.

**NMFS - B. Pellegrin** reported they would continue all SEAMAP surveys which include the summer and fall groundfish, summer and fall plankton, reef/trap/video and longlining. He said they also received ESA funding for vertical longlining. Level funding would be \$848,234.

After an extensive discussion on SEAMAP funding, **B. McMichael** moved to send a letter to NOAA and the Congressional Delegation requesting SEAMAP receive more funding because of higher fuel costs, ship time, vessel cost and the need for fishery independent sampling. **J. Mareska** seconded the motion and it passed. **R. Hendon** suggested stating in the letter the recommendations from the data work shop, and the Gulf Council recommending the need for more fishery independent data sampling and that SEAMAP would be the logical choice to do this.

#### **Redoing SEAMAP Trawl Stations Where Gear is Lost or Damaged**

**J. Rester** stated the Subcommittee needs to decide if a station should be re-sampled if gear is damaged or lost. He said he knows NMFS moves on but Texas redoes it. **R. Hendon** said it depends on if the trawl is being deployed or if the station has already been fished. He said if something happens during deployment, they redo the stations, but if something happens when the bottom has all ready been fished, that would be re-sampling the area so they do not do that. **B. McMichael** said the data would not be lost. The sample is just not completed. **R. Hendon** stated that is the reason for the op codes. He said when the data is being analyzed they usually just use the data with “z” codes meaning a successful tow. **B. Pellegrin** said if something happens to the net, it usually means a bad bottom so they move on so more gear will not be damaged. **F. Martinez** said Texas has been sampling the same areas for 25 years and it is extremely rare that something happens. He said if something happens during deployment, they try again.

**B. McMichael** stated this issue came up when they were doing the real time sampling. The program would not allow them to repeat a station and the problem occurred during deployment. The real time software was not changed when they changed the sampling design. It was decided the real time program could be modified to accommodate this. **J. Rester** will contact Lloyd Kirk or Chuck Schroeder to modify the software.

**J. Rester** then asked about the shipboard system and how changes should be made or problems handled. GSMFC now manages the data but Chuck Schroeder installs the ship board systems

and assists if there is a problem; but he does not want to be contacted by the state people, he feels they should go through GSMFC. The Subcommittee decided all data issues should be handled by J. Rester or Lloyd Kirk and any hardware issues by Chuck Schroeder. They will also ask Chuck Schroeder to train more people to lessen his workload. **J. Rester** said they do not have access to the system; they do not have the code. **B. Pellegrin** said he does not think Chuck Schroeder has the original code for the FISCUS program. Chuck Schroeder has asked for it, but as far as B. Pellegrin is aware, he has not received this. This was software development done by a government employee so it should not be proprietary. B. Pellegrin will double check with Chuck Schroeder to see if he has the code and if not, the Subcommittee will pursue obtaining the code, possibly filing Freedom of Information Act paperwork. **J. Rester** stated there are so many species on the biocode list that will never be caught in the Gulf. **B. Pellegrin** said there is no problem with L. Kirk changing that to suit SEAMAP needs because no software modification would be involved.

**R. Hendon** asked if there is an update on new fish measuring boards. **B. Pellegrin** said John Plank says he is developing a new board that is smaller, lighter and cheaper but so far they have not seen anything and Chuck Schroeder has tried unsuccessfully to contact him. **B. Pellegrin** said the Northeast Center has built their own for about \$4,000 and Chuck Schroeder is considering that as an option. **B. Pellegrin** said they will inform the Subcommittee on any future developments of measuring boards whether from John Plank or NMFS designing their own.

**J. Rester** said updates to the SEAMAP Operations Manual are almost complete. It will be finalized before the October meeting.

**B. McMichael** asked what is the status of the sponge biocodes he requested. **F. Martinez** also requested 5 biocodes. Mark McDuff has assigned this to David Hanisko and he is working on this. **B. Pellegrin** said he will check the status and email the answer.

### **Future Research Vessels for the Gulf of Mexico**

**J. Mareska** said Alabama has a new vessel, the ALABAMA DISCOVER. The vessel was set up for educational purposes so it is not ideal for sampling. He said they want to expand educational purposes for the vessel so they may only be able to use it on the weekends for sampling. **J. Mareska** stated, as everyone is aware, the Gulf research vessels are getting old and may be taken out of service soon. With this in mind, they drafted a letter requesting \$6 million to construct a new vessel that can be used for sampling in the Gulf of Mexico. He said the request will be submitted with the general list of projects under NRDA and hopefully they will receive funding for the vessel. **R. Hendon** stated GCRL and DMR wrote letters of support for the vessel. **J. Mareska** will keep the Subcommittee informed.

**B. McMichael** said Florida received permission to purchase a 46' vessel that can be used to do a lot of the trap/camera, vertical longlining and plankton work. It will not be able to trawl and should be online by next winter.

The Subcommittee discussed coordinating sampling between the states, possibly adding sea days to a cruise when stations from two agencies are close and sample all in one trip. Personnel from

both agencies could work the survey. This will save on vessel and fuel costs. This will be a viable option for future cruises.

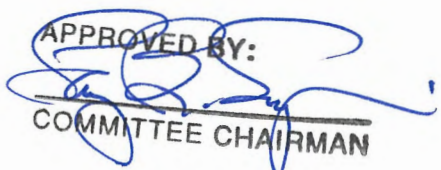
### **Other Business**

**J. Rester** asked if any diseased fish or anything abnormal showed in the catches during the summer survey. He said this seems to be occurring around the Pinnacles. **B. McMichael** said Florida will be doing a longline survey staffed with a fish health person to examine the fish.

**B. McMichael** said forty lionfish were caught this year. The lionfish were further north than last year but have not yet moved into the Panhandle. He said genetic samples were taken and they will continue to do that.

**With there being no further business, the meeting adjourned at 11:23 a.m.**

**OIL DISASTER RECOVERY PROGRAM (ODRP)  
MINUTES of the Ad Hoc Advisory Committee Meeting  
August 25, 2011  
New Orleans, Louisiana**

APPROVED BY:  
  
COMMITTEE CHAIRMAN

The Oil Disaster Recovery Program Ad Hoc Committee convened a meeting at the New Orleans Airport Hilton at 1:00 PM August 25, 2011 coordinated by the GSMFC under NA10NMF4770481 for the purpose of discussing ongoing marketing, seafood testing, and marine sustainability certification contracts and programs and for approving actions necessary for the program to move forward. GSMFC Executive Director, **Larry Simpson**, facilitated the meeting.

On a motion duly made and seconded the minutes of the meeting of April 20, 2011 were approved.

**Ad Hoc Committee representation**

David Heil, FWC, *GSMFC Commissioner*, Tallahassee, FL  
Mike Ray, *GSMFC Commissioner*, TPWD, Austin, TX  
Chris Blankenship, *GSMFC Commissioner*, ADCNR, Gulf Shores, AL  
Mark Schexnayder, LDWF, Baton Rouge, LA  
Corky Perret, MDMR, Biloxi, MS (*Alternate*)

**GSMFC Staff**

Alex Miller, *Economist*, GSMFC, Ocean Springs, MS  
Ralph Hode, *Fisheries Disaster Coordinator*, GSMFC, Ocean Springs, MS  
Larry Simpson, *Executive Director*, GSMFC, Ocean Springs, MS  
Dave Donaldson, *Assistant Director*, GSMFC, Ocean Springs, MS  
Angelia Rabideau, *Accountant*, GSMFC, Ocean Springs, MS  
Adam McInnis, *Senior Accountant*, GSMFC, Ocean Springs, MS

**Others**

Jason Froeba, LDWF, Baton Rouge, LA  
Steve Turner, NMFS, Southeastern Fisheries Science Center, Miami, FL  
Joey Shepard, LDWFF, Baton Rouge, LA  
Bob Trumble, MRAG, St Petersburg, FL  
Jay Lugar, MSC, Halifax, Nova Scotia  
Dale Diaz, MDMR, Biloxi, MS  
Mike "Buck" Buchanan, MDMR, Biloxi, MS  
Dave Van Voorhees, NOAA Fisheries, Silver Spring, MD  
Rene LeBreton, LDWFF Seafood Marketing Division, New Orleans, LA  
Jon Bell, LSU AgCenter, Baton Rouge, LA  
Peter Marshall, Global Trust, Seattle, WA

Introductions were made and the agenda was amended to hear the report on the ODRP Marketing component ahead of the Traceability component.



## **Reports/Presentations/Proposals**

### **Marketing Programs**

A report was given by Ralph Hode regarding ongoing activities under existing contracts in the direct and web based marketing components of the Oil Disaster Recovery Program.

It was noted that the Gulf and South Atlantic Fisheries Foundation has the lead on the marketing component and that the GOM Marketing Coalition had been expanded to include a broad cross section of the marine industry in the Gulf – retaining the initial seafood marketing specialists from each state. The Foundation had recently received a preliminary report from BIG Inc., which had been contracted to conduct a Gulf Seafood Perception study. The report indicated that phase 1, involving focus groups in core market areas including Los Angeles, Dallas, Birmingham, Tampa, and New York had been completed; and that phase II which involves web based and telephone interviews with an estimated 2500 respondents was under way. The study is expected to be completed by the end of 2011.

Additionally, the report indicated that the GSAFF had just completed the selection process for the hiring of a public relations and advertising firm. Twenty seven formal proposals were received and a selection committee consisting of Mike Voisin, Chris Nelson, Harlon Pearce, and Ralph Hode reviewed the proposals and developed a short list for submittal to the full Coalition for approval. The Coalition selected the Food Group, of Tampa as the lead agency and the Edelman Agency of Houston, and the Zehnder Agency of New Orleans, to act as secondary consultants in their respective “strong point” areas of expertise.

GSAFF has met with each of the three consultants to obtain agreement and initial consensus on joint marketing efforts. Additional meetings are scheduled in September to finalize areas of responsibility and to begin formulating the marketing strategy. It was also noted that the strategies ultimately developed will draw on the findings from the marketing perception study.

### **Web Based Marketing**

Hode also provided a report on the web based marketing program noting that all states now have a web based program underway. Sub-awards are in place with either the state extension services or the Sea Grant agencies operating within each state. Contracts with the Market Maker Group of the University of Illinois are being finalized in both Alabama and Texas. The contracting agencies in each state reported conducting both stakeholder training sessions within the industry as well as staff training sessions for helping industry participants begin the process of developing advertising/information pages within the Market Maker program.

It was also reported that the “port direct” concept developed in Delcambre LA is being expanded in LA to provide additional port direct opportunities, including web based advertising, in two additional port communities in south LA. Other ports are also being examined and the LA Sea Grant agency is working to support these initiatives. The Organized Seafood Association of Alabama is also, though independently, starting a port direct program fashioned after the

Delcambre Direct program in south Louisiana. Links between the Market Maker program and the port direct programs are being discussed as the outreach agencies interface with individual industry participants and are expected to be in place as the program moves forward.

### **Other Marketing projects**

A brief report was also provided on the Smithsonian's National Museum of Natural History "Sant Oceans Hall" culinary event in Washington in June. The event included two panel discussions sessions in which Mike Voisin of Motavatit Seafood in Houma, LA, and Patrick Riley of Western Seafood Company in Freeport, Texas were panelists. Included in the Committee meeting packages was a report on the advertising coverage that the event garnered.

### **Seafood Testing**

It was reported that the seafood testing program was formally implemented with sub award agreements with the Mississippi Chemical Testing Laboratory and the Alabama Health and Hospital System. None of the other states opted to participate because they either already had programs in place for testing of samples or simply did not plan to test seafood beyond that which was already being done.

### **ODRP Budget report**

A budget report was provided for all programs and sub awards currently in place. Initial findings were that spending to date has been slow; with the majority of reimbursements having gone to the GSAFF for contracted services and for contracts with Trace Register and MRAG under the seafood certification component of the ODRP. Uncommitted fund balances were discussed and it was noted that balances are in place because the budget for direct marketing came in under estimated costs and only two of the five Gulf States opted to participate in the seafood testing component. The Ad Hoc Committee determined that use of the uncommitted funds would be determined as ongoing programs developed and/or as additional needs or opportunities emerged.

### **Traceability Program and Contract**

Alex Miller provided a report on the Traceability program with emphasis on recent outreach efforts on the part of himself and Andy Furner, Phil Werdal, and Dag Heggelund, the contractor with Trace Register who is heading up implementation of the program. It was noted that meetings were held with key industry leaders in Texas, Louisiana and Mississippi; and that additional meetings are scheduled in the fall with Alabama and Florida leaders. The purpose of the meetings is to introduce industry stakeholders to the concept of traceability and to answer questions or concerns on their part as the program moves forward.

### **Rapid Assessment**

The final report on the rapid assessment of ongoing or pending sustainability program in the Gulf was given by Bob Trumble of MRAG. Included was a list of the most likely species that could be given consideration for certification along with a readiness report for each. There was no

consensus as to what the next step needs to be, but there was considerable discussion among committee members regarding the use of third party contractors and the possibility of independent certification by GSMFC.

Mark Schexnayder presented a concept for consideration that the Commission be the clearinghouse for the data used in the certification process throughout the Gulf. Independent regulatory agencies or organizations would contract for third party audits and certifications of compliance with FAO standards. An information data base would be created for each species, addressing sustainability status, science and management, life history, landings data, stock status and other information. The process would be managed and funded through some yet to be determined method by the GSMFC with input from state agencies and industry experts who are responsible for management of the resource.

Both Global Trust and MSC representatives were available for comment to answer questions.

Larry Simpson pointed out that the Commission was not positioned to do sustainability certifications but that it did have the capability of being the clearing house for data coming from the states and Feds used in the certification process.

Miller also provided a copy of the RFP which was advertised for the hiring of a "Traceability/Certification" liaison outreach consultant. Four responses were submitted and a briefing summary on each was provided. No action was taken on the selection of a candidate but committee members agreed to participate in a conference call on Thursday September 1, 2011 to further discuss the submittals and to possibly select a candidate. The purpose of the Liaison contract was to provide outreach and training/consultation with individual stakeholders and organization as the Traceability and certification program is implemented.

### **Stock Assessment Enhancement (SAE)**

Dave Donaldson gave a report on the ongoing SAE program, noting that the 6 contracted vessels sampled over 550 days and collected 5,000 samples from finfish and shark. In addition, scientists collected almost 3,350 otoliths, almost 2,500 fin clips and over 1,275 gonads. They have also saved almost 550 whole specimens. The sampling is scheduled to conclude in October 2011. With reference to discussions in the State/Federal Fisheries Management Committee meeting earlier in the day, there were inquiries as to whether the SAE program could support some of the FIN stock assessments that were expected to be cut because of budget issues. Donaldson pointed out that the SAE funds appropriated under the oil disaster supplemental had all been obligated.

There being no further business, the meeting was adjourned until Tuesday, October 18, 2011 at the fall meeting the GSMFC, in New Orleans.

APPROVED BY:  
  
COMMITTEE CHAIRMAN

**Blue Crab Technical Task Force  
MINUTES  
September 7 & 8, 2011  
Naples, Florida**

Moderator, Steve *VanderKooy*, called the meeting to order at 8:00 a.m. and started with introductions. The following members and others were in attendance:

**Members Present**

Harriet Perry, USM/CMS Gulf Coast Research Laboratory, Ocean Springs, MS  
Traci Floyd, Mississippi Dept of Marine Resources, Biloxi, MS  
Rob Beaton, Florida Division of Law Enforcement, Tallahassee, FL  
Jeff Marx, Louisiana Dept of Wildlife & Fisheries, New Iberia, LA  
Glen Sutton, Texas Parks & Wildlife Department, Dickinson, TX  
Ryan Gandy, FWRI Crustacean Fisheries, St. Petersburg, FL  
Jason Herrmann, Alabama Dept of Conservation & Natural Resources, Dauphin Island, AL

**Others**

Darcie Graham, USM/GCRL, Ocean Springs, MS  
Steve VanderKooy, GSMFC, Ocean Springs, MS  
Debbie McIntyre, GSMFC, Ocean Springs, MS

**Adoption of Agenda**

The agenda was reviewed and it was agreed that it would be followed, allowing for changes as needed.

*VanderKooy* asked those present to double check the roster list handout for accuracy.

**GSMFC and FMP Background**

*VanderKooy* presented an overview of the IJF program explaining its authority and relationship to the Blue Crab Technical Task Force (TTF). He also explained the FMP revision process, including how an FMP goes from this committee for the review process, to the committees, and then to outside review. If there is no significant response from outside review, everything is returned to the State Federal Committee. If any responses have merit, the document can come all the way back to the TTF for changes.

*VanderKooy* gave an in-depth explanation of how FMPs are put together. He stated that the core members of this task force are biologists. Other Commission committees are represented on the task force for the purpose of assuring accurate representation of other pertinent areas to the fishery, i.e., Law Enforcement, Stock Assessment, Commercial and Recreational crabbing, Data Management, etc.

juveniles, **Perry** referred to Guillermo's Global Climate Change research that would also provide good information.

**Perry** pointed out that a spot may need to be added for Hematodinium. The threats to survival section may need to be separated out. **VanderKooy** will e-mail everyone the threats section from the Oyster draft to see what they think about doing the same type thing here. It was agreed that reviewing certain sample sections of the Oyster FMP could benefit this plan as well, particularly the Recommendations section.

There was a discussion as to whether essential habitats should be under habitat requirements. **VanderKooy** made adjustments to the order of things in this area. There was also discussion as to where to put invasive species. As far as the Deep Water Horizon Oil Spill, should we refer to these as oil spills in general? Marsh loss, long term effects, etc. **VanderKooy** questioned whether we can even print specific DWH issues. The group may be able to work with Jeff Rester regarding answers to questions regarding marsh loss, long term effects, etc.

**VanderKooy** advised that each state (probably around the first of the year) will need to provide its enforcement regulations to **Beaton** for review specifically as it relates to crab. State enforcement reps will do this. LEC should have info to us. **VanderKooy** pointed out that we need to add a History of Regulations related to crab management in the enforcement section.

Although Mariculture is not really a part of the fishery at this time, the inclusion of this section was discussed. The group discussed this issue at length but it was decided not to include this as a section.

**Gandy** to review with group info from MRIS

The Economics section should be expanded and updated. The Economics section will be taken over by **Alex Miller**, GSMFC economist, who will be a valuable addition to this TTF. There have been numerous changes since Hurricane Katrina. Industrial activity processing by-products was discussed. **Marx** reported that fishermen are trying to produce bait. **VanderKooy** told members that **Miller** will be contacting them with questions re: crab by-product processing. **Perry** stated that pasteurization and processing may have changed since ten years ago. Another factor is the live and soft shell market. Per **Perry**, a lot more product is being shipped out. **VanderKooy** reported that, when completing the Sheepshead Profile, they were surprised at how much sheepshead was being used to bolster crab meat shipped to the Chesapeake at one time. **VanderKooy** asked the group to cooperate with **Miller** as much as possible regarding these issues and others, such as product supplementing, exports, and fishing expenditures. The group was encouraged to give **Miller** as much direction as possible. Marketing is also an issue to be addressed and a section which will be greatly expanded upon, particularly regarding product safety and perception (seafood safety testing).

The Sociology section is always difficult and contains much historical background. An effort must be made to characterize this group of fishermen. **Gandy** pointed out that Florida will have some interesting information in the queue concerning history. **Perry** suggested checking with Sea Grant directors to see what they have. **Gandy** stated that he will send the group a copy of the

*VanderKooy* addressed the issue of commercial and recreational representation on the TTF. One question that he raised was for the commercial sector: 'Which type of individual would be better to serve, a fisherman or a processor?' Processors are a key element in this industry, and they are also knowledgeable of fishing practices typically.

The group addressed the potential problems with bringing in too many individuals as full members to the TTF. While it is essential to obtain the outside expertise for portions of the FMP, it was suggested that individuals representing those areas could serve as invited speakers and reviewers rather than require them to attend all the meetings of the TTF. In addition, other experts could be brought in to present specific topics or issues and allow the TTF to take the information and incorporate pertinent details into the FMP.

Finally, with the new culture techniques being developed throughout the Gulf, somebody with culturing background might be useful in developing a detailed section for the appendices. Since *Darcie Graham*, GCRL, was already very familiar with the processes currently underway, *Perry* moved that *Darcie Graham* be made a member of the TTF. *Floyd* seconded, and the motion passed unanimously.

*VanderKooy* pointed out to the group that there are always changes in basic terms. Scientists are not good with acronyms. If there is data that you know of as you are going through, make a list as you go since it is difficult to recall after-the-fact. In addition, *VanderKooy* noted the importance of including complete citations, etc. at the end of the updated sections as they were being drafted. Again, it is easier to do on the front end than to recall them after.

### Assignments:

The attached updated Table of Contents includes the assigned sections. Generally, *Perry* and *VanderKooy* will serve as editors but everyone will have input along the way in the form of line editing and wordsmithing completed draft sections.

### Timeline:

By this time next year, *VanderKooy* expects that we should have a final draft, hopefully. Funding issues come into play too often so, including the review process, it may be two years before revision is totally done.

### Deadlines:

At the New Orleans meeting in October, *VanderKooy* expects to review any progress on sections and discuss what materials individuals might need related to their assigned sections.

The next TTF meeting will likely be held in early December for approximately 1½ days to regroup and touch base. The location will be determined very soon but will be either Texas or Apalachicola, Florida.

*The meeting was adjourned at 4:00 p.m.*

**GULF & SOUTH ATLANTIC REGIONAL PANEL  
ON AQUATIC INVASIVE SPECIES  
MINUTES  
Tuesday, October 4 & Wednesday, October 5, 2011  
Austin, Texas**

APPROVED BY:  
  
COMMITTEE CHAIRMAN

On Tuesday, October 4, 2011, Chairman **Ron Lukens** called the meeting to order at 8:30 a.m. The meeting began with introductions of the members and guests. The following were in attendance:

**Members & Proxies**

James Ballard, GSMFC, Ocean Springs, MS  
David Britton, USFWS, Arlington, TX  
Rick Burris, MDMR, Biloxi, MS  
Paul Carangelo, Port of Corpus Christi Authority, Corpus Christi, TX  
Earl Chilton, TPWD, Austin, TX  
Pam Fuller, USGS, Gainesville, FL  
Chris Furqueron, National Park Service, Atlanta, GA  
Lisa Gonzalez, HARC, The Woodlands, TX  
Scott Hardin, FL FWC, Tallahassee, FL  
Leslie Hartman, TPWD, Palacios, TX  
Jeffrey Herod, USFWS, Atlanta, GA  
Rebecca Hillebrant, LDWF, Baton Rouge, LA  
Chuck Jacoby, Indian River Lagoon National Estuary Program, Palatka, FL  
Peter Kingsley-Smith, SCDNR, Charleston, SC  
David Knott, At-Large Member, Charleston, SC  
Ron Lukens, At-Large Member, High Springs, FL  
Craig Newton, ADNR-MRD, Dauphin Island, AL  
Chris Page, SC DNR, West Columbia, SC  
Dennis Riecke, MDWFP, Jackson, FL  
Don Schmitz, FWC, Tallahassee, FL

**Staff**

Alyce Catchot, GSMFC, Ocean Springs, MS

**Others**

Matt Cannister, USGS, Gainesville, FL  
Mary Gilroy, Austin, TX  
Luci Cook-Hildreth, TPWD, Austin, TX  
Rebecca Haynie, UGA, Athens, GA  
Jim Lester, HARC, The Woodlands, TX  
Susan Mangin, FWS, Arlington, VA  
Susan McCarthy, FDA, Dauphin Island, AL  
Priscilla Weeks, HARC, The Woodlands, TX

### **Public Comment**

Chairman **Lukens** provided the opportunity for public comment. No public comments were received.

### **Adoption of Agenda**

Lukens reported that the Updates on GSARP Funded Projects scheduled for Wednesday, October 5, 2011 would not be presented, due to the absence of the panel members who were to present the updates. However, written reports were provided in each member's folder.

**A motion to adopt the amended agenda was made, and passed unanimously.**

### **Approval of Minutes**

The minutes of the meeting of the April 12-13, 2011 meeting in Charleston, SC were presented for approval.

**There being no changes to the minutes, a motion was made to approve the minutes. L. Hartman seconded the motion, and the motion passed.**

### **Aquatic Invasive Species Activities around Austin**

**M. Gilroy** gave a PowerPoint presentation entitled "Aquatic Invasive Species Control Efforts in Austin, Texas". **Gilroy** reported on two 'Run of the River' reservoirs: Lake Austin and Lady Bird Lake. They are the last two in a chain of 7 'Highland Lakes'. They both provide flood and irrigation water conveyance and are high-use recreational areas. Lake Austin covers 1,600 acres, is 21 miles long, and contains clear, cold, low-nutrient water. It is a fairly shallow reservoir overall; less than 7 meters deep. It is a potable water supply with a privately-owned shoreline and is a popular recreational area for boating, fishing, skiing, and sport fishing.

In Lake Austin, eurasian watermilfoil (*Myriophyllum spicatum*) is dominant, but is controlled by biennial winter drawdowns of the lake to less than 12 feet for approximately 6 weeks. In July 1999, there were 23 acres (10% of total vegetation) of hydrilla (*Hydrilla verticillata*). Hydrilla was first found at boat ramps, which is believed to be where it was introduced into the water by a boat. In July 2000, the hydrilla encompassed 200 acres (40% of total vegetation) in water depths up to 20 feet deep. In July 2002, hydrilla covered 320 acres, bank to bank. Observations over the last few years have revealed that hydrilla has moved steadily upstream due to the water in that area becoming warmer. Typically, that area has contained colder water and has been dominated by Milfoil, which prefers colder water. Many possible control methods were discussed that all stakeholders would agree on, and this led to the development of the Lake Austin Hydrilla Management Plan. In partnership with COA, TPWD, LCRA, and Friends of Lake Austin (FOLA), the plan's objectives are to get the lake back to a pre-hydrilla condition, and to maintain the lake's ecosystem. Integrated efforts include implementing winter drawdowns, harvesting/herbicides on primarily public area mats, incremental grass carp stocking, and stocking based on vegetation surveys supplied by TPWD.



**GULF & SOUTH ATLANTIC REGIONAL PANEL  
ON AQUATIC INVASIVE SPECIES  
MINUTES  
Tuesday, October 4 & Wednesday, October 5, 2011  
Austin, Texas**

On Tuesday, October 4, 2011, Chairman **Ron Lukens** called the meeting to order at 8:30 a.m. The meeting began with introductions of the members and guests. The following were in attendance:

**Members & Proxies**

James Ballard, GSMFC, Ocean Springs, MS  
David Britton, USFWS, Arlington, TX  
Rick Burris, MDMR, Biloxi, MS  
Paul Carangelo, Port of Corpus Christi Authority, Corpus Christi, TX  
Earl Chilton, TPWD, Austin, TX  
Pam Fuller, USGS, Gainesville, FL  
Chris Furqueron, National Park Service, Atlanta, GA  
Lisa Gonzalez, HARC, The Woodlands, TX  
Scott Hardin, FL Fish and Wildlife Conservation Commission, Tallahassee, FL  
Leslie Hartman, TPWD, Palacios, TX  
Jeffrey Herod, USFWS, Atlanta, GA  
Rebecca Hillebrant, LA Dept. of Wildlife & Fisheries, Baton Rouge, LA  
Chuck Jacoby, Indian River Lagoon National Estuary Program, Palatka, FL  
Peter Kingsley-Smith, SCDNR, Charleston, SC  
David Knott, At-Large Member, Charleston, SC  
Ron Lukens, At-Large Member, High Springs, FL  
Craig Newton, AMRD, Dauphin Island, AL  
Chris Page, SC Department of Natural Resources, West Columbia, SC  
Dennis Riecke, MDWFP, Jackson, MS  
Don Schmitz, FWC, Tallahassee, FL

**Staff**

Alyce Catchot, GSMFC, Ocean Springs, MS

**Others**

Matt Cannister, USGS, Gainesville, FL  
Mary Gilroy, Austin, TX  
Luci Cook-Hildreth, TPWD, Austin, TX  
Rebecca Haynie, UGA, Athens, GA  
Jim Lester, HARC, The Woodlands, TX  
Susan Mangin, FWS, Arlington, VA  
Susan McCarthy, FDA, Dauphin Island, AL  
Priscilla Weeks, HARC, The Woodlands, TX



The Hydrilla Management Plan included stocking Lake Austin with 8,125 grass carp between February 2003 and November 2004. Approximately 4 – 4.5 grass carp per lake acre is believed to provide adequate control of the hydrilla. Winter drawdowns were done in February 2003, 2004, and 2005. The implementation of these control methods resulted in a significant reduction in the spread of hydrilla to less than 100 lake acres. Between October 2006 and July 2011, over 15,000 more grass carp were stocked in Lake Austin. However, by September 2011, there were over 500 lake acres covered by hydrilla, despite the presence of 5+ grass carp per acre of lake. **Gilroy** stated that they are unable to explain why this is happening and that there seems to be no way of stopping the spread. **Gilroy** and **E. Chilton** have discussed that perhaps instead of targeting the stocking rate as fish per acre of lake, they should instead look at how to get the stocking rate as 50-60 fish per acre of hydrilla. Several factors have likely enabled the increased spread of hydrilla. Drought means warmer water, which results in more nutrients for the plants. The last scouring flood was in 2007. Fish migration to other nearby water bodies means less fish to feed on the hydrilla. Although over 23,000 grass carp have been stocked in the lake, fish mortality has resulted in approximately 10,000 currently alive.

**Gilroy** explained that they have ascertained that grass carp do play a critical role in hydrilla control. Other factors in helping with hydrilla control include floods and drawdowns, and non-palatable vegetation which cause the grass carp to feed mainly on the hydrilla. So far, grass carp have not been observed significantly feeding on milfoil in the lake. Milfoil is not the public safety or infrastructure hazard that hydrilla is. **Carangelo** inquired as to how much has been spent on the management plan. **Gilroy** surmised that approximately \$500,000 has been spent thus far. **Riecke** asked about using herbicides for hydrilla control. **Gilroy** explained that due to the lake being used as both a public and a private drinking water supply, there is a significant amount of opposition to that practice. Also, the herbicide would kill the plant on the surface, but not the roots and tubers, and therefore would not be feasible cost-wise or effort-wise.

**Gilroy** next reported on Lady Bird Lake. The lake is 6 miles long, approximately 500 acres, with 7 urban tributaries and a highly-used public shoreline. It is an urban refuge for wildlife. There is increased turbidity, temperature, and nutrients. At least 7 invasive species are found on the lake, but very few of them are aquatic vegetation. Only about 10 lake acres are affected by invasive aquatic vegetation. It is believed that this is due to the fact that most of the lake's shoreline is a national shoreline, whereas Lake Austin is privately owned and is over 50% bulk-headed. This means that there is less of a connection between the land and the water. The Lady Bird Lake Riparian Restoration project was created to improve habitat and water quality, and to remove invasive vegetation and plant native species. This project will be used as a model for a city-wide effort. The city is also working on a city-wide Invasive Species Management Plan.

**Gilroy** spoke on Giant cane (*Arundo donax*) which has spread along the entire 5-mile lake shoreline and totals 3.4 acres. Typically found on steep slopes, the cane grows 20 feet tall and spreads by fragments and rhizomes. Though a monoculture, it is also found in mixed stands of hardwoods. It pushes out native species and uses three times the water as native plants. There is little public benefit from the cane, and it provides limited wildlife habitat. It does, however provide hiding places for transients and trash, and increases fire danger. Year-long control efforts include cutting the plants down in mid-summer to decrease biomass, and composting the material at the city facility. In early fall, herbicides (Imazamox, MSO, and Glyphosate) are

applied when re-growth reaches four feet high. This limits the amount of herbicides that would be required if the plants were taller, since the area is used as a hike and bike trail. Next spring, the cane will be re-treated as needed.

**Gilroy** reported on Elephant ear, wild taro (*Colocasia esculenta*). This invasive species covers at least 50% of the lake's shoreline and shades out native grasses. It has little to no wildlife or public benefit and traps trash and debris. However, since it covers so much of the shoreline, it does provide some erosion control.

A pilot project is underway that involves using three replicates of each control treatment. Two herbicides are being used; Imazamox (Clearcast) with MSO, and Glyphosate (Refuge) with NIS. Three application techniques are being used; cut and paint (100% Glyphosate/100% Imazamox), wicking (50% Glyphosate + 0.25% NIS/50% wick imazamox + 0.5% MSO) or glove-in-glove (cotton on top neoprene), and foliar spray (1.6% Glyphosate + 0.25% NIS/5% Imazamox + 0.5% MSO). The areas being treated are 1m<sup>2</sup> plots, with a .5m buffer zone. Treatments are done in mid-August and are evaluated four weeks after treatment, and eight weeks after treatment. (Very) Preliminary results have shown that at four weeks after treatment, there was slightly better control (visually) in the wicked plots than the foliar plots. For both the wicked and foliar plots, Glyphosate appeared to provide better control. Cut-and-paint plots showed signs of new growth. Mid-October evaluation may show more control for Imazamox due to the fact that it is slower acting. **D. Riecke** asked how long the Arundo and Elephant ears have been on the lake. **Gilroy** answered that since there are no historical records, it is not known how long they have been there or how much they have spread. They are in the process of studying GIS aerial photographs to find out.

**Gilroy** discussed the Austin Lakes Aquatic Plant Restoration Project that the city of Austin and the Lewisville Aquatic Ecosystem Research Facility (LAERF) are working on. The goal of the project is to increase native plant diversity and cover on both lakes, but the project is limited by funding issues, the size of the lakes, and the large amount of private property. The project would provide habitat and water quality benefits without invasives, reduce niches for hydrilla, and reduce impacts from grass carp by using a "founder colony" approach to provide propagules and enable the spread of natural species in the lakes. The project design consists of twenty sites on the lakes using seven species that were emergent and submersed in 1-2 ft. depths, with two growth habits. The herbivore exclosures are trays and ring cages built on-site with PVC-coated wire. The benchmarks of success are the survival and spread of the plants inside the protective cages, the spread of plants outside the cages, and the spread beyond and between the various sites. Challenges to the success of the project include two major floods, and a drawdown in Lake Austin in 2005 to control hydrilla that isolated the native plants and caused them to dry out. Other problems were hydrilla floating onto the top of the cages and smothering the vegetation underneath, stranded turtles inside the cages trampling the vegetation, and construction debris being thrown into the cages. In Lake Austin, hydrilla and milfoil limit the spread of the native vegetation.

Between 2004 and 2008, five species survived and spread: *Pontederia*, *Sagittaria*, *Justicia*, *Vallisneria*, and *Heteranthera*. Some of the cages were damaged by flooding and vandalism and there was pressure from herbivores. Overcoming herbivory varies by species. In 2009, larger

pens were constructed, which increased growth and propagule production. They are the key to overcoming the herbivore pressure. In Lake Austin, *Sagittaria* spread 20m beyond the cages. In Lady Bird Lake, the plants had spread outside of the cages, and increased diversity and cover occurred. The current status of the project is that there are well-established founder colonies, a mix of twelve diverse plant species, a significant spread outside of the exclosures, and spread well beyond and between the sites. 'Free' colonies on Lady Bird Lake include 26m<sup>2</sup> of *Sagittaria*, 37m<sup>2</sup> of *Vallisneria*, and *Pontederia* seedlings. There is no single "end-point" for the project. In 2011, new cages and techniques were created for the project. **Riecke** asked if Bullrush had been planted. **Gilroy** stated that it had, and it has been successful.

### **Why People Release Their Pets - A Socioeconomic Study**

**P. Weeks** gave a PowerPoint presentation entitled "Freshwater Aquarium Hobbyists and Invasive Species in the Houston-Galveston Region". **Weeks** reported that they have been working on a project to better determine what drives the decision for people to purchase, and later to release, ornamental fish. Additionally, it aims to better understand how knowledge and values influence the decision-making process. The long-term goal is to develop an Invasive Potential Scorecard that integrates ecological and human dimensions. The current project seeks to discover the availability potential by identifying social and market networks through which aquarium species are exchanged; the release potential by identifying factors that drive the release of non-native invasive species by pet owners; the survival/reproduction potential to develop methodology to determine the potential of invasion for a species released into the environment; participatory research to identify and evaluate potential strategies to discourage release. Future steps to reach the long-term goal are to use results from the current project to create the Invasive Potential Scorecard, and to identify and evaluate candidate management strategies using the Invasive Potential Scorecard. **Weeks** explained that they employed population survey questionnaires, interviews, and statistical analysis to reach their conclusions.

The availability potential was determined by conducting surveys of sources for live aquarium fish. Those sources included local breeders, local fish stores (4 independent and 9 chain), discount stores (9), internet sales by individuals, aquarium society auctions, and international import data (Dallas, Houston, Del Rio, El Paso, Laredo).

The release potential was determined by conducting in-depth interviews and in-person surveys, web-based surveys, and by using a decision model. A multi-stage cluster approach was used to identify aquarists. A general population list of 201 people who have aquariums or are thinking of getting one was drawn from 62 zip codes in the Houston region. Using a stratified random sampling of 30 people that was based on venues, the research sample was selected for the second round. This allowed the research sample and the findings to better represent the various subgroups of neophytes and hobbyists. The survey/interview questionnaire consisted of 31 questions (18 on release) and was conducted in two rounds with each interviewee. The in-depth interviews lasted 1-2 hours.

The in-person survey summary findings revealed that when someone decides to dispose of their aquarium fish, trade/selling is the preferred option, but release is a close second. The respondents believed that release means giving a fish a fighting chance and if the fish dies, it is

because of survival of the fittest. They believed that releasing the fish benefits nature because it adds to diversity, nature is always changing, and it helps prevent extinction. People will drive long distances to release a fish in an appropriate body of water. Virtually no one was worried about legal consequences of release because they knew they would not get caught.

The model summary findings revealed that the well-being of the fish is the primary value considered in making a relinquishment decision. The environmental impact of release is a significant, but secondary, value. Stressing the legal consequences of release is not likely to effect the release decision. Respondents were less likely to release the fish if they perceived that the fish would not thrive; that releasing the fish would likely have a negative impact on the environment; if they had increased connections to the aquarium community.

The web-based survey was designed to capture a few dimensions of five primary constructs and determine what relationship these had to each other. Those five constructs were aquarist identification, Darwinist/survivalist values, environmentalist values, trust in science, and release potential. Ninety-four percent of the aquarists were identified as aquarium owners, with an average age of 32. Sixty percent were men and 40% were women. Nearly 35% of respondents admitted that they would release their fish if they couldn't find someone to give the fish to, and 30% would go so far as to seek out a body of water that seemed appropriate for the fish. Interestingly, although 80% of the respondents were overwhelmingly opposed to release, only 60% said they were unlikely to release. Factors that raised a person's release potential were Darwinist/survivalist values (strong species have a right to survive); their emotional attachment to the fish; if the fish were purchased from big box stores; if information was obtained from big box stores; if they were not connected into the aquarium community. Factors that lowered a person's release potential were their valuing of the stability of the ecosystem; their viewing the environment as a public resource; if they were a serious aquarist; if they used local fish stores and the web for information.

The methodology for determining the survival and reproduction potential of aquarium fish released in Houston's bayous include: determining the species' ability to become established in Texas waterways, and developing a Survival Potential methodology that combines with the Availability Potential and Release Potential aspects of the project; is used as an assessment tool for multiple species and areas; informs education and outreach efforts; supports prevention strategies. Seven species were chosen based on their invasion status. Species attributes were collected through literature review and compiled into species attribute charts. Local habitat was characterized by stream water quality data collection and analysis. Environmental optima charts were developed to compare species attributes to local habitat characterization (e.g. minimum winter water temperature compared to species requirements). Species survival and reproduction potential was combined with availability and release potential. Survival and reproduction potential conclusions were that the methodology shows promise. It should not be unequivocally stated whether a species can or will invade but rather, to predict which species is likeliest to invade and which habitat is the likeliest to be invaded.

The future goal is to create an Invasive Potential Scorecard that is pathway-specific and involves aquarium fishes only. It would differ from risk assessments in that it would not seek to assess quantitative or qualitative risk related to a threat. It would also not assess impacts to ecological,

social, or economic systems. Instead, the potential of invasion would be based on availability potential, release potential, and survival/reproduction potential.

Participatory research included conducting a workshop in April 2011 for aquarists, public educators, resource managers, and the aquarium industry. An exploratory stakeholder workshop was held in August 2007. Project methodology was reviewed and potential strategies to discourage release were identified and evaluated. A framework will be constructed for ongoing collaboration. Long-term outreach oriented management strategies will involve working with big box stores on species lists, perhaps through a large NGO with a track record of working with large corporations, and to create a large ad campaign on the order of "Don't Mess With Texas". Short-term strategies will be to design ad campaigns and materials that target the knowledge and values of people who release aquarium fish.

### **Overview of Avian Vacuolar Myelinopathy (AVM), and the Relationship Between the Disease and Invasive Aquatic Vegetation**

**R. Haynie** gave a PowerPoint presentation entitled "Avian Vacuolar Myelinopathy (AVM) Research Update". Avian Vacuolar Myelinopathy (AVM) is a neurologic disease that affects waterbirds and their avian predators. The disease was first documented in 1994/95 at DeGray Lake in Arkansas. Twenty-nine bald eagles were found dead or dying. The next outbreak was documented in 1996/97 at Ouachita Lake and Hamilton Lakes in Arkansas when 26 more dead or dying bald eagles were found. In 1998, the National Wildlife Health Center characterized and named the disease. AVM was also confirmed in birds from reservoirs in Arkansas, Texas, Georgia, South Carolina, and North Carolina. The body count consisted of Mallards, Ring-necked Ducks, Buffleheads, American Wigeon, Canada Geese, Great Horned Owls, and Killdeer. Clinical symptoms include a staggering gait, ascending paralysis, loss of righting reflex, and general in-coordination.

Pathology reports identified a unique lesion, called an intramyelinic edema, in the white matter of the central nervous system, which was the only consistent finding. The culprit was not easily identified. Anthropogenic compounds that elicit this type of myelinopathy are hexachlorophene, triethyltin, and bromethalin. These compounds were quickly ruled out and the next possible source of the toxin investigated was the environment. Field and laboratory investigations revealed that the disease has a rapid onset of less than 5 days, is site-specific, and seasonal (late fall-winter). The transmission is dietary; the primary intoxication is from an etiologic agent associated with plant material. The secondary intoxication is from an agent retained in the digestive tract. Waterfowl feed primarily on aquatic plants and algae, and thus contract AVM by ingesting cyanobacteria. Bald eagles, in turn, contract AVM by preying on the diseased waterfowl. In spring 2001 at the S. Wilde Laboratory, reservoir surveys were done of water quality, water temperature, DO, and pH. From whole water, nutrient chemistry and algal identification was done. From sediment, algal identification was done. From aquatic plants, primarily submerged aquatic vegetation (SAV), epiphytic alga was found to be very abundant, primarily on *Hydrilla verticillata* that was analyzed from reservoirs and lakes in Arkansas, Texas, SC, Georgia, and North Carolina. Brazilian waterweed (*Egeria densa*) was analyzed from lakes in Arkansas and Georgia. Eurasian watermilfoil (*Myriophyllum spicatum*) was analyzed from water bodies in Arkansas, South Carolina, and Georgia. Results from the surveys



found that these non-indigenous, invasive SAV dominate the AVM sites. A previously undescribed plant-associated cyanobacterium, of the order Stigonematales (“Stig”), is suspected of producing the AVM neurotoxin that causes the disease. The epiphyte covered 20-90% of the leaf and stem surface of the aquatic plants (primarily hydrilla) in the disease sites, but was rare or absent on SAV from unaffected reservoirs. A website, <http://www.forestry.uga.edu/swilde/locations.php>, has been created by UGA that shows confirmed AVM sites and relative Stig densities in the United States. PCR analysis was done and confirmed the morphologic identification. In laboratory tests, methanol extract derived from Stig-SAV complex caused AVM in mallards. The toxin is a stable, polar compound.

Current research being done at the UGA Wilde Laboratory include identifying parameters conducive to Stigonematales growth; invertebrate bioassay development; cell-line assay refinement; distribution and impacts in GA, and Maxent model predict potential range. Also being researched is an alternative toxin transfer pathway through the invertebrate vector (invasive island apple snails), and threats to endangered raptors such as the Snail kite. Idiopathic neurodegenerative diseases are being studied to determine if the disease is a genetic predisposition, or triggered by the environment. Recently, UGA was awarded a grant through the USFWS Avian Health Initiative and will be able to evaluate the management of invasive SAV as to mitigate the impacts of AVM, and also to evaluate paired “AVM” reservoirs with and without SAV management using grass carp stocking. Brian Popko, Director at the University of Chicago’s Center for Peripheral Neuropathy, is investigating mammalian susceptibility. R. Bidigare and S. Christensen at the University of Hawaii’s Center for Marine Microbial Ecology and Diversity are investigating the involvement of known human neurotoxins.

A recent study demonstrated that BMAA ( $\beta$ -N-methylamino-L-alanine) is a neurotoxic amino acid that falls into a group of toxins called excitotoxins. The source of these compounds are marine and freshwater alga. It is produced by cyanobacterium that has been linked to AVM. Glutamate-related excitotoxicity is among the most prominent factors. The ultimate toxicity is neurodegeneration. BMAA first received attention in the 1950’s when the Chamorro people, the indigenous peoples who inhabit the Mariana Islands (Guam), were found to be suffering from Amyotrophic Lateral Sclerosis/Parkinson-Dementia complex (ALS-PDC). The occurrence of ALS-PDC in the Chamorro people was 50-100 times more common than any other known population. Researchers found that a high incidence of ALS-PDC in the native Chamorro people may be linked to their feasting on flying foxes. The flying foxes forage on seeds from cycad trees, which contain cyanobacteria in their roots that produce BMAA. The Chamorro people drop an entire flying fox into a pot of boiling coconut milk. Once the animal is cooked through, it is eaten entirely - fur, wings, bones and all internal organs, where high levels of the toxin accumulate. In Canada, free BMAA was found in the brains of Canadian Alzheimer’s patients.

Cyanobacterial strains that produce BMAA represent all 5 morphological sections. Is the biomagnification of this cyanotoxin unique to the Guam case study, or can it occur elsewhere? Could BMAA be the mysterious AVM toxin? Toxin similarities were studied beginning with its origin, the cyanobacteria-vegetation complex, followed by the secondary predator, then the tertiary predator. In birds, similar clinical symptoms of ascending paralysis, head retraction, staggering gait, and loss of righting reflex were all observed. In mammals, no AVM was observed; however, BMAA was found in laboratory mice and rats. The rodents experienced



weakness and convulsions, dragging, unsteady gait, ataxia, and the inability to stand. BMAA damage to the hippocampal neurons in young mice occurred in mammals. In young rats, AVM was suspected as the cause of damage to their hippocampal neurons. To determine if BMAA could be the mysterious AVM toxin, cyano-SAV and birds need to be collected in the field and screened in the laboratory for the presence of BMAA.

In 2009, cultures from Stigonematales (BG-11), Stigonematales (BG-11 – nitrate), hydrilla plus Stigonematales, and hydrillae were sent to the University of Hawaii's Center for Marine Microbial Ecology and Diversity for analysis. In November 2010, coots with clinical symptoms were collected at J. Strom Thurmond Lake after an AVM outbreak was detected. Tissue from muscle, liver, kidney, brain, and crop/GI tract was extracted from the coots so that it could be analyzed for BMAA. Brains from seven of the birds were reserved for AVM analysis. From September to December, hydrilla samples were taken from each bird collection site. The cultures were analyzed using high performance liquid chromatography/fluorescence detection by HPLC/FL. The identification of BMAA in the samples was confirmed by liquid chromatography/mass spectrometry (LC/MS). BMAA was detected in the Stigonematales BG-11 culture (23  $\mu\text{g/g DW}$ ); the Stigonematales BG-11 – nitrate culture (30  $\mu\text{g/g DW}$ ); and highest in the hydrilla plus the Stigonematales culture (59  $\mu\text{g/g DW}$ ). BMAA was below the limit of detection in the Hydrilla culture. **Haynie** noted that a paper was released in 2011 that showed that cyanobacteria produce more BMAA in nitrogen-starved environments. AVM was confirmed in all seven of the coot tissue samples. BMAA was below the detection limit in all of the coot tissue samples. Results are still pending for the hydrilla/stig samples.

BMAA may not be the AVM toxin. Anecdotal evidence shows that organisms that routinely feed on BMAA-tainted food sources may possess the ability to metabolize and/or deplete the toxin. To strengthen these conclusions, BMAA detection will need to be confirmed in the hydrilla samples that were collected with the coots. Findings from screenings of samples of cyanobacteria species/strains from various habitats and origins confirmed free BMAA in the samples. However, the concentration amount for human health concern is 7000  $\mu\text{g/g}$ , and the findings from the sample screenings ranged from concentrations of 4  $\mu\text{g/g}$  to 758  $\mu\text{g/g}$ . The concentration amount for damage to mammalian neurons is 10-30 nMol. The plant-cyano symbiosis had a BMAA concentration of 0.3  $\mu\text{g/g DW}$  in the Nostoc culture alone. In the C. Micronesia + Nostoc culture, the concentration was 37  $\mu\text{g/g DW}$ . Were the clinical symptoms in mammals an "environmentally relevant" dose? The general consensus is that because BMAA is a non-protein amino acid, it can be incorporated into protein that produces a reservoir of toxins that, over a lifetime, acts as a "slow toxin" as the proteins break down. This could account for the latency period of symptoms in people who are not diagnosed with ALS, Alzheimer's, etc., until later in life. There was a 30+ latency period in the Chamorro people. The implications from BMAA in wildlife are dire. The death toll of bald eagles alone has been immense. In human health, it is unclear at this time. The prevalence and severity of cyanoblooms are increasing. It is imperative that increased awareness and improved management practices of invasive aquatic vegetation be implemented to prevent and reduce cyanoblooms.

## **Overview of TexRAT**

**L. Hartman** gave a PowerPoint presentation entitled “TexRAT - Galveston. The Hunt for Invasive Species”. The Texas Rapid Assessment Team (TexRAT) conducted a week-long rapid assessment survey of native and non-native aquatic species in Galveston Bay and its tributaries June 19-24, 2011. The survey provided a snapshot in time of short-term distribution and abundance patterns of native and non-native species. It increased public awareness of invasive species issues, and established cross-agency relationships. Galveston Bay was chosen for the study because it is a research-rich area with a history of exotic species. Its multiple pathways provide an open door to new invasives. It is geographically accessible and has many vested organizations already there.

TexRAT funding is provided by TPWD funds consisting of \$20,000 in restitution funds and \$20,000 in SWG funds. TexRAT’S partners include TPWD, Texas A&M Galveston, University of Houston Clear Lake, Houston Advanced Research Center, and Sea Grant. In-kind/personnel donations are also received.

A map of “Hot Spots” in Galveston Bay was created to show which locations were most likely to have invasive species. TPWD will set up sampling sites around these hot spots.

A Galveston TexRAT management group/structure was created which consists of program management, lab management, outreach, a field manager, a weather manager, a safety manager, a media team, data shepherding, data entry, SOP development, photographers, and data storage. Data will be posted on GSMFC’s website. HARC has also expressed interest in the data. A museum accessioning of samples was done by UHCL and Texas A&M. Media coverage included *The Houston Chronicle* and the *The Daily News - Galveston County*. A map was created that shows high and medium exotic plant and animal risks and what gear types were used to collect the samples. Invasive animal species identified and/or collected included Cichlids, Nile tilapia, corbicula, grass carp, pleco, and apple snails. Invasive plant species identified and/or collected included alligator weed, giant reed, elephant ear, water hyacinth, hydrilla, salvinia, Brazilian peppertree, saltcedar, and Chinese tallow tree.

Issues faced by TexRAT during the week-long survey included bad weather, personnel scheduling conflicts, and the need for a complete team for field and lab, a centralized location, and improved public outreach. Even with those issues, participants expressed enthusiasm and interest in attending the next rapid assessment survey.

**Lukens** inquired about developing a “how-to” written manual for conducting the surveys and **Hartman** stated that it had been discussed and they will be developing a manual in the future.

## **Risk Analysis of Wild-Caught Tilapia in Aquaculture in Florida**

**S. Hardin** gave a PowerPoint presentation entitled “Tilapia Risk Analysis”. In 1961, blue tilapia were brought to Florida by the Florida Game and Freshwater Fish Commission. The Commission was considering them as a potential sport fish. From 1961-62, their growth and sportfish attributes were studied. In 1964, it was determined that stocking the tilapia was not a good idea, and it was recommended that they no longer be stocked. By 1968, it was illegal to stock the fish

in public waters. In the late 1960s, another tilapia species, Mozambique, found its way into the canals of Southeast Florida. By 1977, blue tilapia had invaded 21 counties and eight major river basins. In the 1980s, blue/Mozambique hybrids were appearing. In 1989 Nile tilapia, a popular aquaculture species, was classified as a “conditional species” to avoid having another invasive species become established. However, in 2006 Nile tilapia were found in three Florida counties. From 2007-2011, they have been found in over five more counties.

The control of aquatic vegetation by blue tilapia has had varying results. Blue tilapia have been used to control filamentous algae and other aquatic vegetation in lakes and experimental ponds.

Potential impacts from blue tilapia include spawning site competition; disruption of spawning activities; food competition between gizzard shad, largemouth bass, and sunfish. In Lake Lena from 1978 – 1984, there was a negative correlation with bass, bluegill, and shad. In the experimental ponds containing no tilapia, there were more young-of-year largemouth bass. However, the three top bass lakes, crappie lakes, and bream lakes have all had blue tilapia for over thirty years with no apparent negative impacts. Biomass estimates (kg/ha) of blue tilapia from the Boynton Canal from 1998-2008 showed no significant negative correlations between blue tilapia and any individual or group of native fish species. The consensus among the fisheries biologists is that they wish the blue tilapia weren't there, but no consistent negative impacts on native species has been observed. FWC has a rule that there are four conditional species of tilapia (blue tilapia; Nile tilapia; Mozambique tilapia; wami/Rufigi tilapia) that are allowed only for commercial use in aquaculture. All other *Oreochromis* and *Sarotherodon* tilapia are prohibited. The introduction of all non-native species to Florida waters is prohibited. The FWC rule for conditional tilapia is that permits are only issued for certified aquaculture, exhibition, and research. There must also be bio-security measures in place, such as pond levees that are 1' above the 100-yr flood plain, and no discharge into public waters. The exception to this rule is that a permit is not required to possess, culture, and transport *Oreochromis aureus* in areas where it is established. However, the fish cannot be stocked in Florida waters or be discharged into Florida waters. There is public interest in stocking blue tilapia to control filamentous algae in homeowner association ponds. However, these ponds are typically connected to state waters via overflow structures, making stocking illegal. Florida fish farmers want to culture wild-caught tilapia without a permit, but due to hybrids, FWC-DACS requires proof of species.

The U.S. Fish and Wildlife Service funded a tilapia risk analysis study to determine risk prevention or mitigation options, and the statewide and regional ecological, economic, or human health risks. These are above the existing risks if proposed uses are allowed. **Hardin** stated that they used The Generic Nonindigenous Aquatic Organisms Risk Analysis Review Process that was published by the Aquatic Nuisance Species Task Force in 1996. This Review Process is “...a standardized process for evaluating the risk of introducing nonindigenous organisms into a new environment and if, needed, determining the correct risk management steps needed to mitigate risk”. There are three element (risk/consequence) ratings that are used. A “Low” rating means that the risk is acceptable and there is too small of a concern to justify mitigation. A “Medium” rating means that the risk is unacceptable and there is a moderate concern that would justify mitigation. A “High” rating means that the risk is unacceptable and there is a major concern that would justify mitigation. Using the Generic Analysis matrix, the organism risk

potential is determined. The Probability of Establishment and the Consequences of Establishment are combined to identify the Overall Risk Potential. Generic analysis involves developing a risk assessment by stakeholders who analyze information; qualify or quantify risk; uncertainties, and make recommendations. Risk management deals with policies, regulations, and/or operational measures to reduce the risk. The Probability of Establishment and Consequences of Establishment for Blue tilapia are combined to identify additional consequences of aquaculture/weed control. The Expert Panel is made up of personnel from government, state, and federal agencies; academic representatives well-schooled in fish and invasive biology; people from the private sector.

**Hardin** stated that the panel was asked to consider possible wild tilapia scenarios. It is feasible that Nile or Mozambique tilapia could be collected, and their release/escape might increase the Florida range of these species; blue tilapia and Nile/Mozambique/B-M hybrids could be collected from the wild and might lead to a “new” hybrid creation with different cold/salinity tolerance; wild tilapia could be mixed and matched with existing stock of uncertain genetic parentage that might be released/escape; wild fish with parasites and pathogens could be collected and transferred with shipments of live fish. Blue tilapia for weed control scenarios were also discussed. Since it is difficult to identify tilapia, mistakenly stocking Nile tilapia or hybrids of unknown parentage for weed control instead of blue tilapia could occur; fish of unknown origin could introduce parasites and pathogens; tilapia and other species could be introduced by unknowing or unscrupulous contractors. “Other” scenarios include the increased use of tilapia as bait; citizen fishery management (i.e., stocking novel waters); citizen or farm interest in the other conditional or prohibited tilapia species in Florida (*T. buttikoferi*, *T. mariae*, *T. sparrmani*, *T. zillii*). Possible environmental consequences are: impacts on native fish such as spawning site competition, behavioral spawning impacts, and parasite/pathogen spread; impacts on trophic structure (e.g., selective grazing) such as community structure changes, fish population size/age structure, predator/prey relationship; impacts on aquatic habitat, water quality (through increased benthic sifting, filter feeding). Possible economic consequences are: the loss of sport fishing; increased commercial fishing; bait production/distribution. Social/political consequences are: the adverse reaction to the establishment of new exotic species; the adverse reaction to relaxing rules for non-native species; the positive reaction to additional algae control options (alternative to chemicals); the positive reaction to increased aquaculture opportunities. The majority of the panel felt that there was no high risk of environmental consequences for tilapia aquaculture. However, some panel members were adamant that there was at least a medium risk because of the presence of Nile tilapia in certain locations. The panel felt that the economic consequences were low. On the other hand, the panel felt that the social/political consequences were a medium/high risk. Environmental consequences for filamentous algae control were felt to be a low risk, with the exception of a medium risk being associated with the native fish/trophic structure in central Florida and lower St. Johns South Florida. Social/political consequences were ranked as a medium/high risk for filamentous algae control.

The panel felt that there were risk management issues that need to be determined: the hybrid tilapia environmental tolerance (temperature, salinity); the status of hybrid tilapia on farms in Florida waters; a better definition of Nile tilapia distribution. **Hardin** reported that in January 2012, they will work to discover a lower lethal temperature for Nile tilapia, which are not as cold-tolerant as blue tilapia. Also, genetic analysis will be done to identify hybrid tilapia. Tilapia will

be collected during fall fish monitoring to determine Nile tilapia distribution. The panel's recommendations are to educate the public on regulations, and to provide them with photo identification of the difference between Nile tilapia and blue tilapia. Fish farmers need to be informed where to collect blue tilapia. To determine if tilapia actually control filamentous algae, the panel recommended conducting a study of the tilapia's consumption rates, the algae species preferences, and the optimal size of the fish. Aquarium studies at the non-native fish laboratory will be undertaken in late 2011/2012. **Hardin** ended his discussion with a post-script. Nile tilapia were collected and analyzed by **J. Teem**. Some of the samples were sent to Canada for identification. All of the samples were identified as being Nile tilapia.

### **Status Update on the Zebra Mussel Situation in Northern Texas**

**D. Britton** gave a PowerPoint presentation entitled "Zebra Mussels in North Texas". In April 2009, the first zebra mussel was found in Lake Texoma. Due to the discovery of the zebra mussels, in July 2009 the North Texas Municipal Water District (NTMWD) stopped pumping water from the Red River Basin (Lake Texoma) through an interbasin pipeline that empties into the Red River Basin (Lake Lavon via Sister Grove Creek). Despite these efforts, two zebra mussels were found in Sister Grove Creek in August 2009. From May – August 2010, additional zebra mussels were found in Sister Grove Creek. In October 2010 TPWD treated Sister Grove Creek with Potassium Chloride. Even after the treatment, some zebra mussels were found alive.

In February 2011 the US Army Corps of Engineers, Tulsa District, suspended the DA permit to transfer water from Lake Texoma into the Trinity River Basin. The Trinity River system supplies drinking water to the Dallas Fort Worth Metroplex and the Houston Metro Area. Both combined total over 12 million people. In August 2011 NTMWD submitted a proposal to USACE to resume pumping water into the Trinity River Basin. The pipeline would first be cleaned, and pumping would only occur when larvae are least likely to be present. As of October 2011 the pipeline remains closed, awaiting USACE authorization. One of the factors considered to be instrumental in the USACE's decision to keep the pipeline closed is Executive Order 13112, which states, in effect, that no federal agency shall knowingly authorize or carry out any actions that would promote the introduction or spread of invasive species in the U.S. or elsewhere unless a thorough study has been done that show that the benefits of these actions outweigh the potential harm caused by the invasive species. **Britton** brought an issue to the attention of the panel members involving the Texoma Area Boundary Agreement that was passed on July 28, 2000. The Agreement delineates the state line between Texas and Oklahoma. However, the NTMWD pump house is located primarily in Oklahoma. Any water pumped through the pipelines starts in Oklahoma and empties into Texas. This means that for the first time, an interbasin transfer of zebra mussels would occur across state lines. For that reason, the Injurious Wildlife Provisions of the Lacey Act may come into play. The Act states, in effect, that importation onto or the transportation of live wildlife or eggs thereof from one state to another state by any means whatsoever is prohibited, except for certain purposes and conditions.

**D. Schmitz** inquired if there had been any discussion about building a water treatment facility that the pipeline water could run through to be treated and sterilized before being released as drinking water. **Britton** replied that it has been discussed, and two proposals were presented that seemed promising. The first proposal's objective was to develop a filter system, which would

cost approximately 30 million dollars. The second proposal's objective was to reroute the pipeline through a water treatment facility that already exists, which would take two years and cost 160 million dollars. That proposal was rejected, as the costs were deemed unreasonable.

### **Commerce/E-commerce As It Relates to AIS**

**E. Chilton** gave a PowerPoint Presentation entitled "AIS Commerce in Texas". **Chilton** reported that last July, an email was received at the TPWD that Purple loosestrife was being sold at a New Orleans area Home Depot and the source of the loosestrife was believed to be in Texas. **Chilton** located the distribution center in Texas and TPWD's law enforcement department was sent to investigate. Approximately 3,000 plants were discovered that were to be sold and shipped to Home Depot locations in Texas and Louisiana. The plants were all placed in bags and disposed of. To deal with this scenario happening again in the future, TPWD quickly developed an Aquatic and Riparian Plant Emergency Response Protocol. Once an occurrence of a prohibited plant species has been reported, a physical sample of the plant should be obtained, accompanied by high resolution photographs. Positive identification of the plant in question should be conducted by a trustworthy authority with written documentation of the findings. The affected area should be contained to avoid possible spread. Specific location, time, date, GPS coordinates, water body name, controlling authority, address, and property owner should all be recorded for future reference. Appropriate authorities should be notified as soon as possible after confirmation (TPWD Law Enforcement, District Fisheries Management office, Regional Fisheries office, Aquatic Habitat Enhancement (AHE) office, and the local Controlling Authority). A brief survey of the immediate area should be conducted by Inland Fisheries personnel to assess the extent and circumstances of the infestation. If located near a stream or waterway, thorough surveys should be conducted downstream from the affected area to determine if dispersal has occurred and identify additional infestations if present. Once surveys are complete, an emergency action plan should be submitted to the governing authority, property owner, or business responsible for the area where the plant was found, outlining the steps to be taken, those responsible for their execution, and deadlines for completion. Hydrilla is easily obtainable for sale from various sources and most likely became invasive through its initial introduction as an aquarium plant. Salvinia is also easily obtainable and is considered a good nutrient sump that keeps algae down and is great for the production of fish such as bettas. Similarly, water hyacinth and water lettuce are also popular aquatic plants for sale. Commercial nurseries that are selling aquatic invasive plant species have been discovered. At one nursery alone, four invasive plant species were being offered for sale.

Other invasive species introduced through commerce include apple snails (*Pomacea insularum*), northern snakehead (*Channa argus*), lionfish (*Pterois volitans*), and suckermouth catfish (family *Loricariidae*). When the White List was being developed, over 50 species were identified as potential threats but are still currently legal to purchase. **Chilton** stressed that the sale of these species should be discontinued before they become invasive. **Schmitz** recommended that the panel develop a regional "watch list" of potential invasive plant and animal species that have a medium to high potential risk of becoming established and possibly producing harmful impacts. These species could then be assessed for their risk potential. **Lukens** agreed and suggested that a risk assessment of a particular species be done on an annual basis until a library is compiled of all potential risk species that are still in commerce. **Chilton** stated that they will be assessing the

25 most egregious plant species from the White List through a second and separate risk analysis that was developed specifically for aquatics. If both lists are in agreement, there would be strong evidence that those species are harmful and should be regulated. **Ballard** reminded the panel that at the last meeting, it was discussed that an “assessment clearing house” should be created. **Schmitz** pointed out that the creation of a watch list should be considered a high priority in the next few years. **Hartman** asked which panel members would be willing to participate in a work group to create the watch list.

**Ballard moved that a work group be formed and a watch list created and incorporated into the Rapid Response Plan. He made a recommendation that the work group be headed by Hartman. Schmitz seconded.**

J. Herod, D. Schmitz, and C. Jacoby volunteered to serve on the work group. Lukens asked the panel members if they were ready to proceed with the project, and if anyone had any objections. There were no objections, and Lukens announced that the panel will proceed with the project.

#### **FY 2011 USFWS R4 AIS Program: Collaboration, Coordination, and Cooperation on AIS Issues**

**J. Herod** gave a PowerPoint presentation entitled “FY 2011 USFWS R4 AIS Program: Collaboration, Coordination, and Cooperation on AIS Issues”. **Herod** reported that state ANS plans approved by ANSTF are Kentucky, Tennessee, Louisiana, South Carolina, Georgia, Oklahoma, and Missouri. Those states with plans drafted and/or under revision are Alabama, Florida, Mississippi, Arkansas, Texas, and North Carolina.

**Herod** reported on USFWS partnerships/projects:

#### **Lionfish and Other Marine Fishes**

The USFWS partnered with NOAA and the USVI Division of Fish and Wildlife on a ciguatera survey for invasive lionfish in the USVI. USFWS is partnering with and providing funding to REEF for a project to study lionfish impacts on the Florida Keys commercial lobster fishery; Lionfish Public Outreach; Control Programs for Florida. USFWS, NOAA, NPS, USGS, REEF, and GSMFC have partnered to form the Invasive Lionfish Control Ad-hoc Committee. USFWS is partnering with USGS on a project to study the small-scale rapid response to non-native marine fishes that are an emerging threat in the Southeastern US.

#### **Early Detection and Planning**

The USFWS worked with Pam Fuller at USGS to update the Summary Report of Nonindigenous Aquatic Species Report for USFWS Region 4. The USFWS, USGS, and Auburn University partnered to do an assessment of the invasion risk of zebra mussels (*Dreissena polymorpha*) into the Mobile River Basin, and the veliger production and drift in the Tenn-Tom Waterway. The Florida Tropical Fish Farms Association, University of Florida, Tropical Aquaculture Laboratory, Division of Aquaculture, and the Florida Department of Agriculture and Consumer Services are partnering in the “Ornamental Nonnative Species Regulation, Production and Distribution Workshop”.



### **Education and Outreach**

The Louisiana Department of Wildlife and Fisheries received USFWS funding for the Louisiana AIS Public Awareness Campaign launched last year. The Florida Everglades Cooperative Invasive Species Management Area (ECISMA) Outreach Committee and the USFWS are partnering on a project to create Florida Non-Native Animal Species Identification Cards. The USFWS received a request from the USDA Forest Service in Arkansas to erect signage on Lake Wedington for Floating Yellow Heart.

### **Control and Research**

The USFWS provided funding to the Alabama Department of Conservation and Natural Resources (ADCNR) Wildlife and Freshwater Fisheries Division for a project to control the Invasive Exotic Island Apple Snail (*Pomacea insularum*) in Southwest Alabama. This is the third year that USFWS has provided funding for the project. The USFWS is in its third year of working with the Florida Department of Agriculture and Consumer Services on a project to sterilize channeled apple snails for biocontrol. The USFWS is working with the USGS on a project on everglades invaders and the biology and ecology of non-native aquatic species in south Florida.

### **Early Detection and Surveys**

All of the USFWS regions and headquarters are partnering on eDNA projects. Environmental DNA (eDNA) refers to DNA fragments that a species leaves behind in the environment. The eDNA can then be extracted from the water and species-specific eDNA can be detected via the polymerase chain reaction (PCR) with the aid of molecular markers specific to each species used to target known segments of the genome. On one project, a list will be compiled of known invasive species, projects being developed, and which species to target for eDNA. The USFWS' Warm Springs FTC was able to fund a project to develop eDNA Chytrid fungus. USFWS NWR funds (not AIS funds) were used for the LOX NWR Project which will develop primers for eDNA for Bullseye snakehead (*Channa marulius*), African jewelfish (*Hemichromis letourneuxi*), Mayan cichlid (*Cichlasoma urophthalmus*). The concept of the project is to develop biometric and environmental DNA standardized protocols for the early detection and population assessment of aquatic invasive species for Loxahatchee National Wildlife Refuge. It will be calibrating e-fishing (the classic fisheries detection tool) and survey methods, and match it with eDNA. Sampling will be quarterly and will begin in October 2011 and continue until October 2012.

HACCP (Hazard Analysis and Critical Control Point) is a valuable tool that can help reduce the risk of moving invasive species unintentionally. It is a process that can be useful for many activities such as field sampling, site visits, and road/trail maintenance. Free training and workshops are provided by USFWS.

**As an action item, Herod will send his report to Ballard, who will distribute it via email to the panel members.**



## **Update on Lionfish**

### **National Park Service Activities - C. Furqueron**

**Furqueron** reported that in January, they began having conference calls with parks in the southeast region that are marine-based. From those calls, it was determined that a general response plan for the southeast region should be developed. A workshop was held on September 13-16, 2011 and a draft for a general response plan was developed. The final response plan should be finalized by October 21, 2011. The focus of the plan is to describe the current lionfish situation and to outline the steps that park managers and staff would take to prevent or mitigate resource impacts.

The NPS will be looking at how to identify and target high-priority areas for lionfish management. Control techniques will be selected that are appropriate for each area, as not all parks allow the taking of lionfish. Also, the NPS will work on determining how to monitor lionfish in native ecosystems. Their lionfish management program will be evaluated periodically to improve management actions. **Lukens** asked if any of the parks would be open to hosting a lionfish derby. **Furqueron** replied that it had been discussed and several parks are interested in it. **Riecke** asked if the decision to harvest lionfish in national parks and marine sanctuaries could be made on a regional level or if it must go to Washington. **Furqueron** replied that the decision would most likely be made on a park level.

### **New Invasive Lionfish Control Ad-hoc Committee – J. Ballard**

**Ballard** updated the panel on the recommendation that was made at the previous GSARP meeting regarding the ANSTF forming an Invasive lionfish Control Working Group (ILCWG) to scope the issues related to the prevention, control, and management of lionfish. If the formation of the ILCWG is approved by the ANSTF, it was further recommended that the ILCWG provide a final report by the next ANSTF meeting in November 2011. The report would contain supporting information for a recommendation on whether or not a National Invasive Lionfish Control Plan is needed. The ANSTF accepted the recommendation at their spring meeting, and the Invasive Lionfish Control Ad-hoc Committee (ILCAC) was formed. The ILCAC, coordinated by J. Ballard, is made up of J. Herod, C. Furqueron, A. Toline, P. Schofield, J. Morris, and L. Akins. The committee has been holding monthly conference calls, and finished their report by the deadline. The report will be sent to the ANSTF for review.

### **Little Cayman Island Lionfish Culling Experiment – C. Jacoby**

**Jacoby** reported that lionfish are definitely established. A lionfish was first spotted in the Cayman Islands in February 2008. They have virtually no natural predators in the Caribbean. They also have a voracious appetite. Within five weeks, they can consume most of the juvenile and small fish on a reef. On reefs where lionfish are present, there is 70-80% less small reef fishes of various types. Lionfish are also responsible for great reductions in fish numbers on reefs where they become established. They prey on herbivorous fishes that consume macroalgae and help protect corals from algal overgrowth.

Due to their extensive geographical range and diversity of habitats, it is unlikely that the lionfish invasion can be reversed. Control is now the only option left. In order to control and manage the lionfish invasion, culling programs have been introduced in the Cayman Islands. The Cayman Islands Government has begun licensing the local dive master population in an effort to cull the

lionfish population. The Department of Environment (DoE) also hosts lionfish culling courses to locals and tourists. Lionfish derbies are held to help eradicate the lionfish. An "Eat Lionfish" campaign is also being promoted.

Lionfish are being harvested to analyze stomach contents and reproductive maturity. Otolith analyses are being performed for age and growth data of the lionfish. Data of this type is needed to build accurate models and plan for the future of lionfish population management.

### **Non-native Marine Fishes: Lionfish and More...**

**Ballard** gave a brief summary of a PowerPoint presentation entitled "Non-native Marine Fishes: Lionfish and more..." that was done by **P. Schofield**, who was unable to attend the meeting. **Ballard** reported that tracking distributions of non-native marine fishes by USGS is part of a large, joint research program in partnership with NOAA and REEF that focuses on lionfish biology and ecology; control techniques and assessment; assessment of impacts; outreach and education. Panther grouper (*Chromileptes altivelis*), which had not been seen in Florida since 2007, was spotted in West Palm County. There have been two recent sightings of yellow tang (*Zebrasoma flavescens*) off the southwest coast of Florida. They were last seen in Florida in 2005. Their native range is in the northwest and Central Pacific, including Hawaii. In July 2011, a spotted scat (*Scatophagus argus*) was captured just inside the St. Lucie inlet near Stuart, Florida in a mangrove/mud habitat. It was transferred to the Florida Museum of Natural History. Spotted scats were last seen in Florida in 1992. Their native range is the Indo-Pacific (India, Sri Lanka, Japan, Philippines, Indonesia, SE Asian coast). Their diet consists of detritus, vegetation, algae, and phytoplankton. An important note is that spotted scats are reported to have venomous spines. This is the first time this species has been documented from the Atlantic Ocean, and the second record of the species in the continental USA. The only other specimen on record was collected in 1992 in the Gulf of Mexico off Cedar Key, Florida.

### **Public Comment**

**R. Lukens** provided the opportunity for public comment. No comments were received.

**The meeting recessed at 5:00 p.m.**

### **Wednesday, October 5, 2011**

**The meeting reconvened at 8:30 a.m.** The Chairman again provided the opportunity for public comment. No comments were received.

### **AFS Southern Division Resolution on AIS State Plan and Panel Funding**

**D. Riecke** provided panel members with a copy of the *AFS Southern Division Resolution on the Federal Funding for Programs to Prevent, Control, and Manage Aquatic Invasive Species*. The resolution calls for increased federal funding (59 million dollars annually) for programs for aquatic invasive species. As required, the resolution was published in the AFS newsletter in the summer, and was put on the website for public comment. It will now go to the AFS Governing Board for approval. It will then go the Southern Division membership when they meet in

January 2012 in Biloxi, MS. If the board passes the resolution, the next step would be for the board to ask at the January meeting if it should go to the parent American Fisheries Society. If yes, it would then go to the resolution committee's national/international level, where electronic voting will be done. **Riecke** stated that he will keep the panel informed as the resolution makes its way through the consideration/adoption process.

### **Update on New Introductions**

**M. Cannister** gave a PowerPoint presentation entitled "GSARP Species Updates". On April 21, 2011 a bighead carp (*Hypophthalmichthys nobilis*) was captured in Chowan drainage in North Carolina. It is unclear how the carp got there. On July 19, 2011 a bighead carp was captured in Plaquemines Parish, Louisiana. On June 15, 2011 a silver carp (*Hypophthalmichthys molitrix*) was captured in Lake Pontchartrain drainage. On July 22, 2011 silver carp were captured in St. Martin Parish, Louisiana, and Morehouse Parish, Louisiana. On May 16, 2011 a red-bellied pacu (*Piaractus brachypomus*) was captured in Spring drainage in Montgomery County, Texas. On June 1, 2011 a red-bellied pacu was captured in Withlacoochee drainage in Lowndes County, Georgia. On May 23, 2011 a Nile tilapia (*Oreochromis niloticus*) was captured in Sarasota Bay drainage in Sarasota County in Florida. On September 14, 2011 an Oscar (*Astronotus ocellatus*) was captured in Haw drainage in Chatham County, North Carolina. On May 9, 2011 zebra mussels (*Dreissena polymorpha*) were removed from East Fork Trinity drainage in Rockwell County, Texas. On May 16, 2011 a flathead catfish was captured in Upper Catawba drainage in Gaston County, North Carolina. "Bonus" captures in Florida include a yellow tang (*Zebrasoma flavescens*) on September 7, 2011 and a sailfin tang (*Zebrasoma veliferum*) on June 1, 2011. An Australian spotted jellyfish was captured in 2011 in Galveston Bay, Texas. Asian tiger shrimp numbers have continued to increase. In 2009, less than 31 were captured. As of 2011, 87 have been captured. New to the U.S. is the Pacific coast giant musk turtle (*Staurotypus salvinii*). On April 15, 2011 a female turtle was captured in the Everglades's drainage in Miami-Dade County, Florida. In November, a juvenile female turtle was captured in the same area. Additional information is available on the USGS website at <http://nas.er.usgs.gov/>. **P. Fuller** mentioned that they are beginning work on the *Peneus monodon* issue by collecting samples for genetic analysis to determine where the shrimp originated from, if they are established, and how many sources and areas of introductions there may be.

**P. Fuller** finished presenting the PowerPoint presentation done by **P. Schofield** entitled "Non-native Marine Fishes: Lionfish and more..." There are new reports of lionfish in west Texas. A panther grouper was spotted in West Palm, Florida. **L. Akins** attempted to capture the fish, but was unsuccessful. There were two more sightings of yellow tang in Florida. Again, **Akins** attempted to capture the fish, but was unsuccessful. A spotted scat was captured inside the St. Lucie inlet near Stuart, Florida in July 2011. This fish is sold in the aquarium trade. **Fuller** reminded the panel members to be on the lookout for any of these new marine species and to report them to **Schofield**.

### **Aquatic Nuisance Species Task Force Update**

**S. Mangin** reported that the ANSTF charter must be renewed every two years. The latest charter was signed in August 2011 and the language has been changed. All panel/committee agendas

must be submitted by the coordinators to **Mangin** for approval. There have been numerous FY2012/2013 budget write-ups, but **Mangin** is not sure what the outcome will be. If ANSTF receives one million dollars from the USFWS 2012 budget, a coordinator would be hired for the Quagga zebra mussel program. Also, they want to use some of the funds for hands-on-training by USFWS personnel to law enforcement personnel on identifying and handling invasive species.

National Invasive Species Awareness Week will be February 26 – March 3, 2012 in Washington, D.C. It will be a week of activities, briefings, workshops and events focused on strategizing solutions to address invasive species prevention, detection, monitoring, control, and management issues at local, state, tribal, regional, national and international scales.

The next ANSTF meeting will be November 2-3, 2011 in Washington, D.C. Topics to be discussed include updating the ANSTF Strategic Plan; climate change; the ANSTF/NISC Award Program; a working group to study how to manage invasive species; Lionfish Ad-hoc Committee Update; new state plans.

The USFWS was approached to explore federal support for the development of Asian carp fish processing facilities. Several states are considering some limited funding and facilitating of private processing facilities to meet market demands. This issue will be a topic at the ANSTF meeting in November. The current status of Asian carp in the Mississippi and Ohio River basins and issues related to processing these fish for markets will be discussed.

### **Invasive Species Advisory Committee Update**

**E. Chilton** gave a PowerPoint presentation entitled “ISAC Report”. To enhance the effectiveness of biological control programs, the ISAC Control and Management Subcommittee recommends that NISC agencies working on biological control of invasive organisms plan, conduct, and evaluate their programs at the inception of the program in the context of an Integrated Pest Management (IPM) approach. This requires integrating biological control with other management options (i.e., physical, cultural, and chemical) to achieve maximum effectiveness.

To further enhance the effectiveness of biological control programs, the ISAC Control and Management Subcommittee recommends that NISC departments and agencies that oversee and conduct control operations utilizing biological control agents become more fully engaged in adaptive management by collecting and sharing post-release monitoring data. This IPM approach should emphasize partnerships with local controlling authorities, post-release monitoring and collaborative programs with other stakeholders in other pest management disciplines.

The ISAC Communication, Education and Outreach Subcommittee recommends that NISC support the website [www.invasivespecies.gov](http://www.invasivespecies.gov), as the primary website coordinating critical and unique information on national invasive species and serving to provide a linkage for accessing all federal invasive species programs.

ISAC Action items:

- ISAC requests a presentation on the Lacey Act revision activities at its 2011 Fall meeting and welcomes as explicit invitation to participate in any associated public review and comment process
- Ask L. Williams to speak with Secretary Salazar regarding his possible assistance with enhancing the visibility of NISC and ISAC
- ISAC requests presentations on the differences on awareness campaigns vs. social marketing at a future meeting
- ISAC requests a presentation from DHS Customs & Border Protection to discuss their authority to conduct inspections for invasive species of privately owned boats and trailers at international borders
- ISAC proposes that they have a full day of the Fall 2011 ISAC meeting focused on ecommerce and invasive species. ISAC recommends that this be an additional day in addition to the normal 2-day meeting

**D. Schmitz** pointed out that it would be beneficial if NISC could create a comprehensive list of ongoing research projects being conducted around the country. Also, a list of what the USFWS is funding in terms of research.

**Discussion of Panel Membership**

**C. Jacoby** discussed the National Estuary Program (NEP) seat. **Jacoby** is the new Project Scientist for the Indian River Lagoon National Estuary Program. **Lukens** asked the panel members if anyone had an objection to **Jacoby** moving from his GSARP at-large seat into the NEP seat. There were no objections.

**Lukens** stated that there are two University seats open. Harriet Perry is giving up her seat. There is a recommendation for Linda Walters to fill the seat. Her CV was included in each panel member's folder. **Lukens** suggested that her nomination be considered, but asked if any members had anyone else to nominate, or if the matter should be postponed until more research has been done. After much deliberation between the panel, it was decided that **Ballard** will send follow-up emails to the members to request information on potential nominations for the University seats, within a one-month time frame. The information will be posted on the portal, and a deadline will be determined for receiving votes. **P. Fuller** suggested that the panel vote via email before the next meeting. **Ballard** suggested adding bios to the list of panel members on the GSARP website. **Lukens** asked if there were any objections. There were no objections, and it was decided that the panel members would email their bios to **Ballard**.

**Lukens** reported that there is an open seat on the Environmental User Group. It was decided that this seat nomination will be handled in the same time-frame as the University seat. **Lukens** also stated that this method of obtaining nominations will be used for all new seats, except standing seats which are offered by the agencies themselves.



## Work Group Updates

**Lukens** reported that there were no work group updates to be given and reminded the panel that a lot of work has been done in the past through the work groups, and he would like to see that continue.

## State Reports

### **Alabama**

**C. Newton** reported on Alabama's marine invasive species. The Australian spotted jellyfish (*Phyllorhiza punctata*) continues to occur in the near-shore waters of the coast during early to mid-summer, but swarms are less frequent and overall abundance has decreased since their peak in 2000. An Asian green mussel (*Perna viridis*) was found on a dock in Perdido Bay in August 2011 by a group of Eastern oyster researchers. The specimen was later verified by a malacologist with Auburn University's Fisheries/Aquaculture Department. These invasive species do not appear to pose an imminent threat to resources or ecology.

The giant tiger prawn (*Penaeus monodon*) has been a species of concern since 2006 when it was first observed in Alabama's inshore waters of the Mississippi Sound. Captures of *P. monodon* have incrementally increased. From 2006 to 2009, the distribution of the tiger prawn was primarily restricted to Alabama's southern inshore waters. However, its distribution has shifted towards the northern portion of Mobile Bay and into Perdido and Wolf Bays. Numerous tiger prawns were caught by commercial shrimp trawlers in August and September during a single night of shrimping around Theodore Industrial Canal and north of Middle Bay Light in the Mobile Ship Channel. The increase of confirmed reports is indicative of the tiger prawn's presence in all of Alabama's primary estuary basins.

There are fewer confirmed reports of lionfish (*Pterois volitans* and *P. miles*) compared to reports of the giant tiger prawn, although the presence of lionfish is just as disturbing. The first report (non-validated) was from a 2009 observation made by a recreational SCUBA diver at an area of natural hard-bottom near Orange Beach in Trysler Grounds. The first confirmed report was documented in June 2011 by a spear fisherman who collected a lionfish from an oil/gas platform south of Dauphin Island. Numerous unconfirmed reports have been made to various government agencies that indicate lionfish are rather abundant on the Trysler Grounds. During a single dive in this area, SCUBA divers reported observing up to 30 lionfish. Reports are also being received from SCUBA divers that lionfish are inhabiting oil/gas platforms at low densities. There have also been reports of lionfish in inshore waters and within Alabama's territorial seas. In November 2010, an unconfirmed report was received that a lionfish was observed in Baldwin County.

Educating the public is paramount to obtaining quality information on invasive species reports, and the DCNR/MRD has increased efforts to enhance public awareness. A notification that describes the giant tiger prawn and provides information concerning proper reporting has been distributed to the shrimping community. Also, a page within the 2012 Alabama Marine Information Calendar is dedicated to educating the public about the giant tiger prawn and the lionfish. The calendar is distributed to bait and tackle shops, gas stations, fish houses, etc.

**Newton** reported that spaghetti bryozoan (*Zoobotryon verticillatum*) has been a problem. The biomass is so high in the Alabama waters of the Mississippi Sound that it is affecting the shrimpers. He was concerned about potential water quality issues that can be expected from this weed - especially when it dies off. Several members stated that it has been a problem in their states as well, but there isn't a lot of literature available on it. **Lukens** suggested following up on the matter.

## **Florida**

**D. Schmitz** reported that despite aggressive control efforts, *Salvinia molesta* still persists in Florida. Giant salvinia still infests waterways in Pensacola, Collier County, near Tallahassee, and Ocala. Surveillance and aggressive treatment efforts of these infected systems are ongoing.

Crested floating heart (*Nymphoides cristata*) is becoming more widespread in Florida's waterways. This Asian species has increased in frequency in Florida's lakes, ponds, and canals but has still not significantly altered Florida's aquatic plant communities, although in canals it can produce a very dense canopy. It is being controlled when it is found in public waterways.

State funding for controlling invasive plant species in public conservation lands and waterways has decreased by 35% since 2008. These funding cuts have resulted in significant impacts to controlling new and existing invasive plant populations on Florida's conservation lands and in invasive plant management research. Research funding has been reduced from 2.8 million to 1.1 million.

FWC recently established an agency Position Statement and overall guidelines on how the agency will implement management of hydrilla in Florida's waterways. The purpose is to establish an agency position and guidance on how the nonindigenous invasive aquatic plant hydrilla (*Hydrilla verticillata*) should be managed and what process will be employed to determine how hydrilla will be managed in a specific waterbody. Prior to July 2, 2008, the invasive plant management program was under the direction of the Department of Environmental Protection (DEP). In July 2008, the legislature moved the program from DEP to the Fish and Wildlife Conservation Commission (FWC). FWC will determine the level of hydrilla management on each public waterbody using a risk-based analysis that considers human safety issues, economic concerns, budgetary constraints, fish and wildlife values, and recreational use, with input from management partners and local stakeholders. In waterbodies where hydrilla is well established, it will be managed at levels that are commensurate with the primary uses and functions of the waterbody and fish and wildlife. For additional information visit: <http://myfwc.com/media/1386747/Hydrilla-Mgmt-Position-Background-Information.pdf>.

**S. Hardin** reported that two *Penaeus monodon* were recently reported; one in Gulf Breeze and the other in St. Andrew Bay in Panama City.

Efforts are continuing in order to prevent zebra and quagga mussels that have infested freshwater bodies primarily in the Midwest in the Great Lakes area from being transported to Florida waters. Some boats are being thoroughly treated, but some are not. One idea **Hardin** would like considered is to supply boat owners with prevention handouts when boat registrations are done.

**Schmitz** and **Lukens** suggested collaboration between the Task Force, GSARP, etc., and holding a conference on combining efforts to deal with invasive species.

### **Georgia**

**K. Weaver** was unable to attend, but provided a written report. For the 2011 sampling season (May-September), 3,134 flathead catfish were removed totaling 8,058 pounds. Since the implementation of the full-time flathead management program in 2007, 22,895 flathead catfish have been removed from the Satilla River. Size structure and age structure have both been reduced by removal efforts. Maintenance control of flathead catfish in the river is possible given the reported changes of biomass, size, and age-structure, but higher recruitment and earlier maturation was demonstrated. As a result, this will require intensive harvest to be maintained to prevent the flathead population from rebuilding within 2 to 5 years.

During sampling in 2011, the WRD removal crew documented the non-indigenous range expansion of blue catfish (*Ictalurus furcatus*) occurring in the Satilla River. A total of seven blue catfish were recovered this season. Along with the flathead catfish, this is the second large non-native riverine catfish to be found existing in the Satilla River Basin. Sampling has verified that non-native blue catfish are also present in the lower Altamaha River Basin.

Current funding is earmarked to fill temporary positions to enhance the sampling effort to remove flathead catfish in the Satilla River. Educational materials will be developed and distributed with the remaining funds.

### **Louisiana**

**R. Hillebrandt** reported that in July and August, giant salvinia weevils were dispersed to Caddo, Saline, and Clear/Smithport Lakes, as well as to many areas of the Terrebonne and Barataria marshes including areas in Lafitte, Des Allemands, and the Barataria Preserve. Flood waters in the Atchafalaya Basin helped to flush large amounts of water hyacinth out, but enabled the Cuban sedge (*Oxycaryum cubense*) to take over in a way that has not been observed before. LDWF spray crews are working to clear some of those areas but the amount of sedge present is overwhelming. Regular use of aerial (helicopter and airplane) vegetation assessments has been employed to locate problem plants and to get accurate estimates of coverage.

The increased number of lionfish reports has created interest in the diving community and Louisiana universities. After contact with the LA Council of Underwater Dive Clubs, a lionfish category was added to their 2011 LCUDC shootout on September 16<sup>th</sup> and 17<sup>th</sup>. Samples collected were to be shared between two LA universities for gut content analysis, age and growth, and genetic data. Only two lionfish were brought in; one eaten by a triggerfish and the other cut in half by a cable. No samples were collected. Flyers have been distributed at dive shops across the Louisiana coast asking for reports.

There have been reports of drastic increases in tiger prawns. Within one two-week period, LDWF received reports of 40 specimens, which is twice the number of reports received in 2010. To date, nearly 100 specimens have been reported. Their distribution has also increased from Lake Pontchartrain to Calcasieu Lake. Tiger prawn posters have been distributed at shrimp docks throughout the coast asking for shrimpers and docks to report any catches.



Following the Mississippi River floods, Asian carp populations spread in northern Louisiana. As a result, more recreational boaters and fishermen were coming in contact with them. LDWF developed and distributed warning posters to boat launches throughout the state, alerting the public to the presence of Asian carp.

A report was received of a Rio Grande cichlid being found in a Baton Rouge subdivision pond.

### **Mississippi**

**D. Riecke** reported that information in the Mississippi State Management Plan for Aquatic Invasive Species has been reviewed and updated.

In May, agency personnel attended the Mississippi River Basin Panel on ANS meeting in Little Rock, AR.

**Riecke** was appointed to represent MDWFP on the AFWA Invasive Species Committee.

**Riecke** worked to guide submission and consideration of an SDAFS *Resolution on the Federal Funding for Programs to Prevent, Control, and Manage Aquatic Invasive Species* by the SDAFS membership, of which he is the Southern Division AFS Resolutions Chairman. The resolution was published in the summer 2011 SDAFS newsletter and advertised for comment. No comments were received, and the SDAFS membership will vote on the resolution at their January 2012 annual business meeting.

**Riecke** coordinated the collection of silver carp from the Mississippi River Oxbow Lake fish kills in September. One carp from Tunica Lake was sent for disease diagnosis. The cause of death was a gram-positive bacterium, *Lactococcus garvieae*.

The *Mississippi State Management Plan for Aquatic Invasive Species* has undergone state review, and public comments were received. It was sent to the National ANS Task Force in January 2010 for their review, and extensive comments were received. The Mississippi Department of Environmental Quality hired a contractor to revise the plan for final submission to the National ANS Task Force in the fall of 2011.

Links to websites for the Mississippi River Basin Panel on Aquatic Nuisance Species and the Gulf and South Atlantic Panel on Aquatic Invasive Species, "Stop Aquatic Hitchhikers", and Habitattitude are on the department's website.

The Mississippi Museum of Natural Science has a permanent exhibit on exotic species.

Yellow plastic "Stop Aquatic Hitchhikers" signs that were obtained from the Atlanta USFWS office are being used by the MDWFP boat ramp construction crew for posting on boat ramp access signs.

Activities specified in the Mississippi State Management Plan for Aquatic Invasive Species will be implemented.

Freshwater fishing bait regulations will be composed to specify what bait can be legally sold, possessed, transported, and used in Mississippi.

A list of approved, restricted, and prohibited species will be adopted under the authority specified in MS Code 49-7-80, and as specified in the *Mississippi State Management Plan for Aquatic Invasive Species*.

The MDMR has secured Mississippi Coastal Impact Assistance Program funding authority to hire a Conservation Resource Biologist under a 4-year contract to form an Aquatic Nuisance Species Advisory Council.

An EDRR monitoring program comprised of state and federal personnel who sample aquatic species in Mississippi public waterways on a routine basis will be established. All reports of nonnative species collected from field reports over the last several years will be sent to the USGS.

**R. Burris** reported that 54 field surveys totaling 798 miles were conducted for early detection of AIS. Giant salvinia (*Salvinia molesta*) was discovered north of Farrigut Lake in the Pascagoula River. Cogongrass (*Imperata cylindrical*) was discovered on Deer Island.

To aid in the early detection of AIS, three aerial photo surveys totaling 527 miles were done.

Nine sightings of invasive Asian tiger shrimp (*Panaeus monodon*) were reported to the NAS database from specimens given to DMR by local fishermen. An invasive species/tiger shrimp decal has been designed to distribute to local fishermen at various docks.

So far, there have been no reports of lionfish. An invasive species/lionfish decal will be distributed shortly.

Herbicide applications were performed in various areas to control invasive plants. In the Pascagoula River, 18 applications were applied to control giant salvinia. In Bogue Houma, Pearl River, Robinson Bayou, and the Pascagoula River, 15 applications were applied to control common salvinia (*salvinia minima*). On Deer Island, 13 applications were applied to control cogon grass (*Imperata cylindrical*). At Stennis Space Center and in the Pascagoula River, 8 applications were applied to control water hyacinth (*Eichhornia crassipies*). In a residential runoff collection pond that discharges directly into the Tchoutacabouffa River, 2 applications were applied to control Brazilian waterweed (*Egeria densa*).

Three public outreach tours to Deer Island were conducted. One of the trips was to deliver native plants for transplant to help populate newly constructed portions of the island and prevent the spread of invasive species.

An article was written about Asian tiger shrimp for the MDMR's quarterly newsletter *Coastal Markers*.

### **South Carolina**

**P. Kingsley-Smith** gave a PowerPoint presentation entitled "Updates on the Status of Invasive and Non-indigenous Species in South Carolina". **Kingsley-Smith** reported on the infection of

the invasive swim bladder parasite *Anguillicoloides crassus* in South Carolina populations of the American eel (*Anguilla rostrata*). American eel populations in South Carolina estuaries have shown a decline since 2001. One potential reason for the decline is the nematode swimbladder parasite. *A. crassus* originated in East Asia where it is widespread in its native host, the Japanese eel (*Anguilla japonica*). The incidence of infections even in juvenile eels was also found to be high and preliminary findings suggest that this parasite may be capable of reducing the health of the eels. Preliminary results from studies done on 66 eels showed a 53% prevalence of infection overall. The percent infection is highest in summer (72%, n = 25), followed by spring (55%, n = 34) and winter (43%, n = 23). Results from studies done during the summer indicate that salinity plays a strong role in determining infection prevalence in the eels. American eels were collected from four South Carolina tributaries covering a wide range of salinities. Infections were most prevalent in eels from high salinity sites and lowest from freshwater sites.

**Kingsley-Smith** next reported on invasive monogeneans parasites of the American eel. Monogeneans are very small (<2 mm) parasitic flatworms within the Phylum Platyhelminthes that are largely ectoparasitic. They attach to the skin or gills of fish using specialized hooks. Two species of invasive monogeneans (*Pseudodactylogyrus bini* and *P. anguillae*) are under investigation in the American eel. It is assumed that these monogeneans should be present in all South Carolina estuaries due either to their initial invasion or to continual invasion. Differentiating between species of *Pseudodactylogyrus* on morphology alone is difficult, and future studies should incorporate DNA sequencing to confirm species identification.

The impacts of the Asian seaweed, *Gracilaria vermiculophylla* on estuarine community dynamics was discussed next. During the last decade, the Asian seaweed has rapidly proliferated along high-salinity mudflats in several South Carolina and Georgia estuaries. This seaweed invasion is particularly noteworthy because the mudflats in these estuaries were historically devoid of macrophyte-based primary production and structure. *Gracilaria vermiculophylla* therefore has few native analogues in these mudflat environments, and thus represents an important opportunity to examine the ecosystem consequences of an invasion within a historically-unexploited niche. Experiments done on interactions between the polychaete *Diopatra cuprea* and the two algal species *G. vermiculophylla* (invasive) and *Ulva lactuca* (native) within the intertidal zone revealed that tidal elevation did not significantly affect relative growth rate (RGR) of *G. vermiculophylla*; however, depth within the subtidal zone did significantly affect RGR, and RGR was significantly higher at subtidal compared to intertidal elevations. Laboratory experiments were also conducted to determine algal species preferences of *D. cuprea* both for decorating its tube and for direct consumption in both choice and no-choice experiments. In choice experiments, *D. cuprea* attached significantly more *Ulva lactuca* than *G. vermiculophylla* to its tubes. In no-choice experiments, there was no significant difference in the amount of each algal species attached to *D. cuprea*. In choice experiments, *D. cuprea* consumed significantly more *U. lactuca* than *G. vermiculophylla*, but in no-choice experiments, consumption rates did not differentiate between algal species.

**Kingsley-Smith** reported on the collection of live adult specimens of island apple snails (*Pomacea insularum*), and hatching of juveniles under laboratory conditions. A live apple snail and several egg masses were previously collected from a location in Mt. Pleasant, near Charleston, SC. A return visit in August yielded no evidence of fresh egg masses, although there

were scarce remnants of egg masses on the inside of two culverts. It cannot be determined definitely whether these egg masses were laid earlier in 2011 or in the 2010 breeding season. In recent visits no live snails were reported, however 17 empty shells were observed in shallow water.

The next topic discussed was the presence of Asian tiger shrimp (*Penaeus monodon*) in the southeast region. Ongoing annual monitoring of the tiger shrimp has revealed that a remarkable number of the species have been collected along the east coast from NC to LA this year. Several *P. monodon* have been collected from estuarine habitats this year. In previous years, reports from these habitats were rare. There is a concern that there may be a reproductive population in the southeast U.S. It is hoped that coordinated regional collecting and reporting efforts will help to address this. In South Carolina, efforts have recently been instigated that incorporate the use of standardized data collection cards that should facilitate the efficient collection of information from commercial fishermen and aid in the incorporation of this data in the USGS database. Tissue samples are being collected which will be used, along with archived samples from previous years, for genetic analyses to better understand the possible sources of these introductions and to determine whether or not this invasive species has become established along the U.S. coastline.

**D. Knott** reported further on Asian tiger shrimp. The average size of an adult male collected to date is 8" and adult females is 9". There seem to be more occurrences of reports after heavy weather, such as hurricanes. A major concern is that *P. monodon* is known to carry diseases such as white spot syndrome virus, which is a viral infection of penaeid shrimp. The disease is highly lethal and contagious, killing shrimps quickly. Outbreaks of this disease have wiped out within a few days the entire populations of many shrimp farms throughout the world. There is a fear that it might spread to native penaeid shrimp species.

**C. Page** reported that the ANSTF met in Charleston at the Marine Resources offices. Staff chaired the meeting and presented information concerning the revision and update of the SC Aquatic Invasive Species Plan.

A public service announcement campaign with the Freshwater Fisheries Section provided public service announcements, billboards, and literature for an ad campaign highlighting aquatic invasive species prevention in SC. The Aquatic Nuisance Species Program implemented several strategies both in-kind through staff time, and through the completion of several outreach materials. Campaign details include the following:

Awareness:

1. Ad campaign utilizing billboards and public service announcements
2. Website Update
  - Update the existing Aquatic Nuisance Species Program homepage to reflect messaging and overall look and feel of the materials produced during the campaign
3. E-blast
  - Distribute a minimum of two E-blast to be provided to all persons in the SCDNR email database

#### 4. Earned Media

- Work with media partners to get the word out through interviews and written articles
- Complete taping of a one-minute interview for television

#### 5. Press Releases

- Include the information press release in the SCDNR news packet

ANS staff participated with the University of Georgia researchers in an island apple snail survey of the Savannah River as part of a research project concerning the transmission of AVM, using the apple snail as the medium for transport of the disease.

A cooperative effort with NRCS has been initiated to provide technical information and funding support to private landowners concerning the invasive species Chinese tallow. A workshop was initiated by SC Exotic Plant Pest Council to provide the public with a starting point for control efforts.

Oversight and supervision was given to the USFWS for invasive species helicopter control projects on the Savannah Wildlife Refuge and the ACE Basin.

In a pond in Trenton, SC, a joint research project with Clemson University, SePRO Corp., and Laymans Nursery was initiated to study pithophora algae and the associated diseases that are causing problems nationally.

Staff met with the US Army Corps of Engineers staff to discuss native plant habitat restoration projects on the Savannah River Lake system.

Staff met with Fisheries staff to discuss the viability of utilizing the Barnwell Fish Hatchery as a nursery for native submersed plants to be used in habitat restoration projects.

Field truthing and survey was accomplished with Santee Cooper staff on a habitat enhancement project in which native plants were transplanted around the Santee Cooper Lakes. This project will give valuable insight into certain planting techniques which, when utilized could provide a better chance for survival of the transplanted natives in water bodies around the state.

To help reduce alligatorweed in Georgetown, Charleston, Berkeley, Clarendon, and York Counties, 6,000 alligatorweed flea beetles were released.

Staff participated in and gave presentations at the South Carolina Aquatic Plant Management Society Annual Meeting in Clemson, SC and the South Carolina Exotic Plant Pest Council Board Meeting.

It appears as if the efficacy of the newer aquatic herbicides is having an impact, as the total acreage of control work is reduced over previous years.

Island apple snails seem to still be on the decline as acreage and total number of ponds has decreased so far this year. Massive egg production has not been seen in most areas, and in intense surveys live specimens have not been seen in a lot of areas.

## Texas

**E. Chilton** reported that their Comprehensive Management Plan has been submitted to the Governor's office for review.

Bighead carp were discovered in the spillway below Lake O' the Pines.

Several habitat restoration projects have been initiated. A program is underway to eradicate giant river cane (*Arundo donax*) in the Nueces Basin and return it to a more historically natural state. This work is a huge collaboration of many private landowners and conservation partners led by the Nueces River Authority. The plants have been sprayed with herbicides, and landowners and volunteers assisted with pulling up plants by hand. Hand-pulling new arundo sprouts was an effective, if labor intensive, strategy on more than 30 miles of the Nueces River. Follow-up will be done in the spring. Other projects include work to maintain and protect the integrity of the headwaters of the Llano River through prescribed burns, construction of structures that slow overland flow, and a project to help maintain a native grassland prairie and remove exotic chinaberry and other invasive plants from a stretch of the Llano River.

A red-breasted piranha was caught in August in a community lake near Houston.

Funding has been cut from \$1.6 million to \$500,000.

**L. Hartman** reported that retired Navy vessels are being used for artificial reefs.

Lionfish were spotted at the Flower Garden Banks National Marine Sanctuary east of Galveston.

Lionfish posters are being distributed to commercial fishermen.

## Members Forum

**P. Carangelo** requested that **Ballard** provide a link for the international ballast water standards from the regulatory congressional testimony.

**D. Britton** reported that a brown tree snake was reported near San Antonio, but efforts to capture it were unsuccessful. He will keep the panel posted on this. He also suggested holding a "Train the Trainer" course and to let him know if anyone was interested. A giant salvinia control team meeting was recently held. Their next meeting will be in January 2012.

## Update on GSARP Funded Projects

### The AIS "Traveling Trunk"

**H. Kumpf** was unable to attend the meeting, but provided a written update. The three sections of the "Trunk" are progressing as planned.

1. Talking Points Manual: Comments from most of the reviewers have been received and are being incorporated into the revised talking points. The draft manual has been submitted to the GSARP office. The rock python will be an additional species noted on the python fact sheet. Use clearance for illustrations is nearly complete.

2. Hands-on specimens are still being obtained. Three of the five plant species are either on hand or sources have been identified. There has been difficulty obtaining salvinia samples for pressing/laminating and Burmese python skins.
3. Graphics for both the manual and CD are being updated and revised.

### **Trojan Y-Chromosome Eradication of Invasive Fish**

**J. Teem** was unable to attend the meeting, but provided a written Progress Report. Two tasks were accomplished during the first six months of the project. Two fish lines were identified for DNA work: Nile tilapia (*Oreochromis niloticus*), and African jewelfish (*Hemichromis bimaculatus*). Nile tilapia have an XY sex determination system that is suitable as a target species for the Trojan Y Chromosome eradication method. In aquaculture, YY Nile tilapia are used to produce all male populations of tilapia fingerlings for sale to commercial fish farms for grow out. Both male and female YY fish are viable and mate normally. It is thus an ideal fish to test the Trojan Y Chromosome eradication strategy. Since YY fish are not available for purchase from aquaculture suppliers, it is necessary to breed YY Nile tilapia anew for the purpose of testing the Trojan Y Chromosome eradication strategy. Sex-specific DNA makers will allow new YY Nile tilapia to be generated through the use of hormone-induced sex reversal and selective breeding techniques. In order to find sex-specific markers, however, it is first necessary to produce Nile tilapia DNA from pure lines of fish that have not undergone hybridization with other tilapia species.

The African jewelfish is an invasive fish in Everglades National Park in Florida. The sex-determination system of this fish is not yet known. African jewelfish are in the Cichlidae family and may therefore have either an XY or a ZW system of sex-determination. The Trojan Y Chromosome approach can be applied to a fish species with either an XY or ZW sex-determination system. In the case of an XY system, a YY female fish is developed as the Trojan fish. In the case of a ZW system, a WW male fish is used as the Trojan fish. Sex-specific markers will aid in the creation of either type of Trojan fish, so the identification of sex-specific markers will be a useful tool in the development of a Trojan African jewelfish regardless of the sex-determination system. Because the interest level for a Trojan Y Chromosome eradication of this invasive fish is high and already in motion, the African jewelfish was deemed an appropriate subject fish for the present study. The project is generating results as anticipated, and future efforts will be directed towards increasing the number of primers screened.

### **Reproductive Sterility as a tool for the Prevention/Control of AIS**

**J. Teem** was unable to attend the meeting, but provided a written Progress Report. The project consists of three main goals. Goal 1 is to determine the dose of radiation required to produce a sterile adult apple snail for the aquarium trade. Studies to define sterility and viability of apple snails after irradiation at different doses are currently being conducted with *P. bridgesii*. Approximately 300 adult snails were obtained from Rawlins Tropical Fish Farm. Snails irradiated at each dose were placed in aquariums and are now being monitored for mortalities over time. Additional snails irradiated at these same doses were also used in pair-wise matings to assess fertility. If eggs are produced as a result of mating, the eggs are collected and hatched to determine whether viable progeny are produced. If no viable progeny are produced, the irradiated snail is deemed reproductively sterile. At this time, egg masses are being produced

only from the untreated controls, so there are no results to report as yet regarding fertility as a function of radiation.

Goal 2 is to define a method for producing sterility in snails that has practical utility for the sterilization of large numbers of snails. Research grade irradiators are generally limited in their capacity to hold samples. The research grade irradiator at the FAST facility at FDACS in Gainesville is limited to a sample container the size of a Pringle potato chip can. This capacity allows about 15020 adult snails to be irradiated in a single run. Irradiation of large numbers of snails is thus impractical in this type of machine. However, this size sample canister can accommodate about 30 apple snail egg masses (representing about 10,000 juvenile snails upon hatching). A research grade irradiator can thus be used to produce a large number of sterile snails if they can be irradiated as eggs rather than adults. Commercial grade irradiators at the FDACS FAST facility are designed to handle very large volumes of egg masses and can be used for apple snail irradiation. Adult snails pose a greater problem because they have a dense shell which limits the penetration of the electron beam into the gonads. They may require a greater radiation dose in order to penetrate the shell. Snails were irradiated using both the research grade and the commercial grade irradiators at the FAST facility. Snails at the same stage of development were irradiated at the same dose on each device and then assayed for fertility in pair-wise matings. These mating tests are currently in progress and have not yielded fertility results yet. Genetic approaches to produce sterile snails are to treat the snails with drugs that affect ploidy, and subsequent assays of progeny by flow cytometry for triploids or tetraploids. The gonads of snails were treated with colchicines, a drug known to induce polyploidy in plants. Colchicine-treated snails were mated and the egg masses produced were assayed by flow cytometry for tetraploid or triploid nuclei. Analysis of whole egg masses from the treated snails indicates that a small number of nuclei are present that fall into the range of triploids or tetraploids, but no individual triploid or tetraploid snails have been detected as yet. This drug treatment has therefore not been successful thus far for generating polyploidy snails. Treatments of the gonad with other drugs (such as cytochalsin B) will be tested in the future. Another approach is to identify putative chromosomal translocation resulting from irradiation. In some organisms, they can be detected microscopically by histological staining of cells that are blocked in metaphase. Giemsa staining is often used for this purpose and can allow translocations to be detected if the chromosomes are large enough to be distinguished using the microscope. Blood cells from snails were stained and examined in the microscope. Although chromosomes could be visualized by microscopy, they were too small to allow the detection of banding patterns on individual chromosome arms. It was therefore not possible to use this method to identify chromosomal translocations in irradiated snail cells. As an alternative to microscopy for identifying translocations, a genetic approach was also taken. Currently, one putative translocation heterozygote has been produced by snail irradiations. This snail was crossed to determine whether fertility was reduced as predicted. No egg masses have yet been produced from this cross, so the fertility associated with this translocation candidate is still pending.

Goal 3 is to perform mating tests on irradiated snails and determine whether they have been rendered sterile. To provide a means to conduct numerous mating assays, a multi-chamber flow-through apparatus was constructed to allow 18 mating tests to be conducted simultaneously. Eggs produced as a result of mating within the apparatus are deposited on the sides of the apparatus at the top.



Additional fertility studies are to be performed with *A. spixi* when a sufficient number of snails become available. Progress has been made toward the goals involving the production of sterile snails by radiation and the analysis of putative snail polyploids by flow cytometry. Alternative means of detecting chromosomal translocations will be further explored.

### **Election of Officers**

#### **Chairman**

**L. Hartman was nominated for Chairman. D. Knott seconded the motion. With no other nominations, Hartman was elected as Chairman.**

#### **Vice Chairman**

**Hartman nominated P. Fuller as Vice Chairman. D. Riecke seconded the motion. With no other nominations, Fuller was elected as Vice Chairman.**

### **Next Meeting Time and Place**

It was decided that Alabama would be the location of the next meeting. The next meeting will take place the first week of April 2012.

### **Public Comment**

**Hartman** provided the opportunity for public comment. There was none.

**A motion was made to adjourn the meeting, and the motion was approved. There being no further business, the meeting adjourned at 4:00 p.m.**



APPROVED BY:  
*Christie Murrell*  
COMMITTEE CHAIRMAN

**TCC DATA MANAGEMENT SUBCOMMITTEE  
MINUTES  
Monday, October 17, 2011  
New Orleans, LA**

**Chairman Chris Denson** called the meeting to order at 8:30 a.m. The following members and others were present:

**Members**

Chris Denson, AMRD, Gulf Shores, AL  
Nicole Shaffer, AMRD, Gulf Shores, AL  
Page Campbell, TPWD, Rockport, TX  
Kerwin Cuevas, MDMR, Biloxi, MS  
Vince Cefalu, LADWF, Baton Rouge, LA  
Christine Murrell, MDMR, Biloxi, MS  
David Gloeckner, NMFS, Miami, FL

**Staff**

David Donaldson, Assistant Director, Ocean Springs, MS  
Larry B. Simpson, Executive Director, Ocean Springs, MS  
Donna Bellais, ComFIN Programmer, Ocean Springs, MS  
Gregg Bray, Programmer/Analyst, Ocean Springs, MS  
Ashley Lott, FIN Staff Assistant, Ocean Springs, MS  
Alex Miller, Staff Economist, Ocean Springs, MS

**Others**

Camp Matens, GSMFC Commissioner, Baton Rouge, LA  
Terry Cody, TPWD, Rockport, TX  
Joey Shepard, LDWF, Baton Rouge, LA  
Todd Phillips, Ocean Conservancy, Austin, TX  
Beverly Sauls, FLFWC, Saint Petersburg, FL  
Joe Smith, NOAA Fisheries, Beaufort, NC  
Kevin Anson, AMRD, Gulf Shores, AL  
Claude Petersen, Bluefin Data Inc, Gonzalez, LA  
Andrew Petersen, Bluefin Data Inc, Gonzalez, LA  
Chris Blankenship, AMRD, Gulf Shores, AL  
Michael "Buck" Buchanon, MSDMR, Biloxi, MS  
Ron Lukens, Omega Protein,  
Nicole Smith, LDWF, Baton Rouge, LA  
Jaimy Norris, Trace Register, Saint Petersburg, FL  
Troy Williamson, Corpus Christi, TX  
Ronnie Luster, Houston, TX  
Mark Schexnayder, New Orleans, LA  
David Heil, FLFWC, Tallahassee, FL  
Brooke Shipley, TPWD, Houston, TX

Amy Schueller, NOAA Fisheries, Beaufort, NC  
Dag Heggelund, Trace Register, Houston, TX  
Randy Pausina, LDWF, Baton Rouge, LA

### **Adoption of Agenda**

The agenda was approved and adopted as written.

### **Approval of Minutes**

The minutes of the Data Management Subcommittee (DMS) meeting held on October 18, 2010 in Clearwater Beach, FL were approved as amended.

### **Status of Biological Sampling Activities**

**G. Bray** discussed 2011 biological sampling collections. **Bray** mentioned that many states have been experiencing difficulty connecting to the FIN data entry system. Louisiana is redesigning their data management system thus making data deliveries difficult. **Bray** talked with Louisiana biologists and they hope to be caught up with 2011 data deliveries in the near future. Mississippi and Texas are doing a good job staying caught up. **D. Bellais** stated most of the connection issues have been resolved working with the GSMFC commercial database manager.

**Bray** also mentioned that all states are close to completing their ageing work for 2010 samples. Red snapper data has been requested by NOAA and GSMFC is planning on delivering FIN data for the assessment process at the end of October. **Bray** also mentioned that a lack of funding may prevent sampling for 2012. GSMFC continues to work to find adequate funding to continue the biological sampling. **P. Campbell** asked what states should do if otoliths need to be processed after funding runs out in 2011. **D. Donaldson** stated states will possibly need to store the otoliths for potential future processing. **J. Shepard** stated Louisiana will continue to sample state waters species and deliver that data to GSMFC if funding for federal waters species runs out. **L. Simpson** stated there are increases projected for stock assessment data needs. Unfortunately NOAA can not commit to how much money is available under the current budget situation.

### **Update on Angler Expenditure Survey**

**A. Miller** reported on the progress of a NOAA Fisheries national study on the impact of marine angler expenditures on the national economy. The GSMFC is implementing the Gulf portion of this economic data collection for the US. Trip level expenditures are collected via a follow-up survey on the dockside intercept survey from Florida through Louisiana and Puerto Rico. Follow-up mail surveys are used to collect the durable goods economic data. Data has been collected and summarized for waves 1 through 4 for 2011. **Miller** showed that the success rate of completed dockside surveys ranged from 60-85% across the Gulf of Mexico and Puerto Rico. The success rate for collecting address data used for the follow-up mail survey ranged from 18-33%. **Miller** stated they would like to increase the success rate of collecting addresses for the follow-up survey since the response rate from completed follow-up mail surveys can sometimes

be low to. Data collection for this research will conclude in December 2011.

### **Update on New Recreational Data Capture Technology**

**G. Bray** presented the results from a test of the Inovo digital pen and Rover INK software for collecting recreational fishery data. The current process relies on paper forms shipped to GSMFC and run through a scanner and intelligent character recognition (ICR) software to produce raw data in an electronic format. The cost and timeliness of shipping paper forms has become a road block for improving the timeliness of data availability. The Inovo digital pen collects the data via a digital camera mounted in the pen, reading micro dots printed on each paper form. The pen uploads the form image and data each time the pen is placed in its docking station. If successful, the pen would eliminate the need for mailing forms to GSMFC for scanning. GSMFC partnered with Florida Wildlife Research Institute (FWRI) staff on a 30 day pilot project. Two pens were tested for 30 days using Florida dockside intercept samplers in the Tampa Bay region. The pilot test showed the pens to be generally reliable although they did not work well on wet paper and eliminated the ability to correct errors in the field. GSMFC and FL FWRI staff had concerns with Rover INK's ability to design a system for 60 or more work stations in the Gulf of Mexico. Rover INK had several issues getting one workstation up and running for 2 pen users in the Saint Petersburg Florida office. Once running properly, the system did deliver data and electronic forms to GSMFC much faster than mailing paper forms. Our conclusions found that the hardware has potential and finding a different contractor who better meets our needs will be our next step.

### **MRIP Gulf Logbook Pilot Project**

#### Status report

**B. Sauls** reported the preliminary results from the pilot logbook project in the Florida Panhandle and Corpus Christi area of Texas. The Florida Panhandle had 333-357 vessels and Texas had 54-60 vessels. Vessel numbers fluctuated as permit holders moved in and out of the study regions. All federally permitted vessels in the study areas were mandated by NOAA Fisheries to provide weekly fishing reports. Vessel representatives were allowed to provide data via a web reporting tool or paper log sheets. Texas had 100% of their vessel representatives using the web tool. Florida had 50 vessel representatives using the paper reporting option. Sauls stated it took a large amount of effort from state biologists reminding vessel representatives to get their fishing activity reports in weekly. Validation methods included dockside interviews of the vessel operator for catch and harvest; roving observations for validating vessel effort; and at-sea validation of catch and harvest.

Compliance results showed 39 vessels in Florida that have not reported any data during the entire 12 month study. Florida biologists worked very hard to get non-compliance numbers that low. They spent a large amount of time on the telephone and sent out a large number of email reminders because many captains were late getting their reports into the system. Texas had zero vessels that were non-compliant. **Sauls** stated the effort validations were difficult during the low activity periods because the time needed to validate a vessel out fishing takes significantly more sampling time. Effort validation would likely need to be accomplished on a much larger scale to provide enough usable data. Florida vessels that were validated out fishing had an overall

compliance of 68%. The vast majority of the vessels that were non-compliant did not provide a logbook report that week that could be compared with the effort validation data. Effort estimation showed very little average difference in angler hours between logbook data and validation data. Red snapper harvest estimation showed little average difference between logbook data and dockside validation data. The red snapper analysis was run on preliminary data that was missing June through August 2011 data. For this reason, the red snapper analysis will be run again on the complete dataset. Preliminary conclusions are that the startup effort was very large and achieving high compliance rates takes significant time. Based on this study, findings show that this logbook was not a census, it is likely more suitable for a large regional scale to maximize validation data matchups, and a small monitoring program may not be sufficient since individual logbooks do not closely match validations. Final analysis should be completed by the end of 2011. Logbook participants are being asked to complete an exit survey to obtain useful feedback on the data collection program.

### Discussion of Future Activities

**Donaldson** started a discussion regarding the future of potential future logbook data collection activities. **Donaldson** stated it is likely premature to make a decision since data results have not been completed. **Sauls** reiterated a final report will hopefully be available by the end of 2011. **Ponwith** asked if a detailed presentation could be made at the February 2012 Gulf of Mexico Fishery Management Council meeting. **Sauls** agreed that date seemed feasible.

### Demonstration of FIS GulfFIN FOSS Project

**Bellais** demonstrated the initial release of the non-confidential data portal. Fisheries One Stop Shop (FOSS) is currently restricted to the NOAA Fisheries Information System (FIS) user group. This portal is intended to provide one location to find commercial non-confidential data for all states and replaces the commercial data portal on NOAA Fisheries Science and Technology (S/T) website. **Bellais** did a query of a few species in the Atlantic and Gulf of Mexico. Data users can query on states, species, and years. **C. Denson** asked if it would be better to signify confidential results with something different than zero. **V. Cefalu** agreed that this change would be good prior to opening FOSS to the public. **Bellais** mentioned the result tables can be exported to comma delimited text files. Users can also provide comments regarding issues or problems they had while accessing the system. **D. Gloeckner** stated that the FOSS system actually hits the regional datasets to produce the requested results.

### Update of Traceability Program

**Miller** stated that the main goals behind the traceability program are to renew confidence in Gulf seafood, manage risk to buyers of Gulf seafood, and to foster existing and new markets for Gulf seafood. The three major components of this traceability program include electronic traceability, real-time data quality auditing, and compliance auditing to resolve identified problems. Data from electronic trip tickets, dealers, processors, and distributors are compiled to provide meaningful information to the end users. Business to business and business to consumer functionality is provided to share information between members of the supply chain and also end users. Currently, the traceability team has attended several meetings with seafood industry

businesses, organizations, and state marine resource agencies to disseminate information about their program. Bluefin Data Inc. has created a traceability interface for the electronic trip ticket program. Currently, the team is creating partnerships with showcase seafood businesses. The group is planning more state meetings and hopes to bring the first seafood showcase firms online by the end of 2011/early 2012. The group plans to implement the full traceability program starting March 2012.

**Miller** also stated that work is being done to determine which data elements the states are willing to allow for data sharing from the trip tickets to Trace Register. **D. Heggelund** asked for the states to discuss which data variables can be sent from trip tickets to Trace Register, the relationship between the harvesters and dealers, and how corrections into trip tickets could be inserted into traceability data. **J. Shepard** stated Louisiana is fine with sharing the proposed data elements from trip tickets to Trace Register. **S. Brown** stated that since Trace Register is under contract with GSMFC and FWC has an agreement to share confidential data with GSMFC, it should be acceptable for the dealers to share harvester data. Mississippi is fine with the proposed plan but is still waiting to fully implement trip tickets. Texas also accepted the sharing of the proposed data elements. All participating states agreed to the list of data attributes and also agreed that the harvester and the vessel license information could be utilized as long as these were encrypted. **Denson** stated as long as the harvester understands and agrees to share their data with the state and Trace Register, the process should be fine. It was further agreed that Bluefin Data would modify the program to include a check box for each vessel/harvester. This check box would indicate the harvester's participation in the program. For all states, except for Alabama, the default value will be yes. For Alabama the default value will be no. **Heggelund** confirmed that Alabama was the only state asking for the harvester to provide written or electronic agreement that their data will be shared with Trace Register. Bluefin data will use the above mentioned flag (yes/no) to determine if data will be sent to Trace Register. If the field is NO, then the trip ticket data will not be sent to Trace Register. It was further agreed that at this time there would be no requirement to synchronize changes made by the State to the Trip Ticket system with Trace Register data.

### **Presentation of Unified Trip Ticket Program**

**C. Petersen** provided a brief demonstration of the unified trip ticket program Bluefin data is generating for use in the Gulf of Mexico. The new program is web based as opposed to the PC based original program that is becoming outdated by current computer technology. The unified program is one program that is custom tailored for all five states in the Gulf of Mexico. Petersen stated the program could be designed to store the databases locally on the workstations or it could communicate and store data via a web server. **Petersen** stated that many of the service calls he gets are attributed to local workstation problems and errors. **Denson** asked if states could have users using both localized and web server versions. **Petersen** said that option will be available. **Petersen** also stated trip ticket is working with NOAA to transmit electronic data from all federal commercial dealers. **Petersen** ran a brief demonstration showing how some of the new functionality works with the unified program. Much of the functionality works exactly as the previous PC based program worked. **Petersen** also mentioned that highly migratory species (HMS) dealers will be able to use the trip ticket program to deliver their data as opposed to using paper sheets. HMS will collect vessel data, trip date, species landed, final landings

disposition, gear, weights, and purchase prices. **Donaldson** asked when the HMS functionality would be implemented. **Petersen** stated the unified program still has a lot of necessary programming before it is ready for public use. The PC based program is being edited to receive the HMS functionality and will be run concurrently with the unified program. It still remains unclear if the old PC based program will run on Windows 8.

### **Status of Metadata Data Entry**

**Bellais** stated nothing has changed recently with metadata entry or review. States should continue to enter, review and publish their data. **Donaldson** mentioned a GSMFC job announcement is listed for a part-time metadata coordinator. The metadata coordinator would assist the states with entry and review of metadata. **S. Brown** stated an FWC employee is looking into putting their commercial metadata into InPort.

### **Election of Officers**

**K. Cuevas** nominated **D. Gloeckner** as Chairman and **C. Murrell** as Vice-chairman. The motion was seconded by **P. Campbell**. **Gloeckner** was approved as chairman and **Murrell** approved as vice-chairman.

### **Other Business**

**Donaldson** stated Texas or Mississippi needs to follow through with their voluntary agreement to provide commercial vessel data to GSMFC for IA Team testing. This module is very important and is waiting for some test data before it can move forward.

**Donaldson** mentioned that the states need to start providing monthly commercial data in a secure format. Louisiana is already providing encrypted data. **Bellais** will query each state individually to find out their preference for providing secure data.

### **Review of 2010 Commercial Data**

Each state provided feedback based on a review of the spreadsheets **Bellais** sent out prior to the meeting. The States mentioned that the FIN DMS numbers were very close to their state totals and the slight differences likely indicated that they collected some additional data that has yet to be delivered to GSMFC. The States also mentioned that there were a few coding errors on their part. Data will be redelivered and loaded into the DMS as needed. All necessary corrections will be made at the state data level and submitted to GSMFC for loading into the FIN DMS.

**Being no further business, the meeting was adjourned at 2:15 p.m.**



APPROVED BY:

  
COMMITTEE CHAIRMAN

**TCC SEAMAP SUBCOMMITTEE  
MINUTES  
Monday, October 17, 2011  
New Orleans, LA**

**Chairman R. Hendon** called the meeting to order at 8:34 a.m. The following members and others were present:

**Members**

Read Hendon, *Chairman*, USM/GCRL, Ocean Springs, MS  
John Mareska, ADCNR/MRD, Gulf Shores, AL  
Bob McMichael, FWC/FWRI, St. Petersburg, FL  
Fernando Martinez, TPWD, Corpus Christi, TX  
Myron Fischer, LDWF, Grand Isle, LA

**Others**

Terry Henwood, NOAA Fisheries, Pascagoula, MS  
Ellie Roche, NOAA Fisheries, St. Petersburg, FL  
Bonnie Ponwith, NOAA Fisheries, Miami, FL  
Jon Dodrill, FWC, Tallahassee, FL  
Jerry Mambretti, TPWD, Port Arthur, TX

**Staff**

Larry Simpson, *Executive Director*, GSMFC, Ocean Springs, MS  
Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS  
Cheryl Noble, *Staff Assistant*, GSMFC, Ocean Springs, MS  
Joe Ferrer, *Systems Administrator*, GSMFC, Ocean Springs, MS  
James Ballard, *Sport Fish/Aquatic Invasive Coordinator* GSMFC, Ocean Springs, MS

**Adoption of Agenda**

J. Mareska suggested combining agenda Item 6 and 7. **M. Fischer moved to adopt the agenda with this change. J. Mareska seconded and the motion passed.**

**Approval of Minutes**

M. Fischer stated he mentioned the Louisiana Spring Cruise cost \$50,000 at the last meeting but wanted to inform the Subcommittee that was an estimate, not the exact amount. **J. Mareska moved to approve the August 9, 2011 GSMFC TCC SEAMAP meeting minutes as submitted. B. McMichael seconded and the motion passed.**

## **Administrative Report**

**J. Rester** reported that since the August meeting, the fall plankton survey took place from August 23 - September 29. He again asked the Subcommittee to submit cruise reports as soon as possible after the survey is completed. He also asked the Subcommittee to submit the data from the cruises as soon as it is completed. He stated it might be a while before he receives the NMFS 2010 trawl data due to the Deepwater Horizon oil spill and the NRDA process. As soon as he receives the data, the 2010 atlas will be compiled. He stated the 2009 Atlas is almost complete and it will be distributed to the Subcommittee and Data Coordinating Work Group for review in early November. **J. Rester** also stated that the 2011 SEAMAP Report to the Technical Coordinating Committee was completed recently.

## **NMFS Research priorities for SEAMAP Data Collection/ Planning 2012 SEAMAP Surveys**

The Subcommittee reviewed the NMFS SEAMAP survey priority list and ranked the survey priorities as follows:

- 1) Summer Shrimp/Groundfish
- 2) Fall Shrimp/Groundfish
- 3) Spring Plankton
- 4) Fall Plankton
- 5) Bottom Longline
- 6) Reefish
- 7) Vertical Longline
- 8) Winter Shrimp/Groundfish
- 9) Spring Shrimp/Groundfish
- 10) Inshore Sampling

The Subcommittee wanted to make it clear that there was a big gap between items and 7 and 8. Subcommittee members will estimate the total cost of each survey for their component for 2012. They will include rising vessel and fuel costs in the estimate. The Subcommittee will then meet via conference call or web meeting in November to discuss which surveys they will continue or cut if the funding received is not sufficient to do all of the surveys. The Subcommittee will evaluate how the data is being used from each survey and if it is not being utilized, that will be another reason to cut a survey. The Subcommittee will pursue additional funding from NRDA.

**M. Fischer** informed the Subcommittee that Louisiana is in the process of leasing smaller vessels that may be able to do some of the nearshore work. He will keep the Subcommittee informed.

## **Inshore Bottom Longline Survey Data Use**

**J. Mareska** stated this was discussed in the previous agenda item but the issue was is the data being used. He said T. Henwood stated they have not had access to the data and did not even know it existed. J. Rester will give NMFS access to the data and it will be compared to the data from the survey done this year in April through October to see how it is comparable. If they

conclude the data is not useful, they will stop the survey and allocate the funds for something else, or if it is useful, they may expand the survey. This will be discussed further after the Subcommittee receives the results from the comparison.

### **Changes to SEAMAP Measurement Codes**

B. Pellegrin distributed via email proposed changes to the measurement codes for the length frequency data for the Subcommittee to review. **After discussion, B. McMichael moved to accept the revised truncated measurement codes with potential edits that will be sent to B. Pellegrin. F. Martinez seconded and the motion passed.**

### **Review of Vertical Longline Protocols**

**M. Fischer** gave a presentation on the obstacles they have encountered with vertical longline sampling. He reviewed their solutions to some of the problems they encountered and made suggestions to changes to the protocols for vertical longline sampling. The Subcommittee discussed the presentation and their individual sampling methods. **M. Fischer** stated they will develop a draft Vertical Longline Protocols document; send the document to John Mareska for his review/input and then send the document to the Work Group and remaining Subcommittee members for input and final approval.

### **Abundance of Groundfish Species in the Northern Gulf Of Mexico**

**J. Rester** asked for input from the Subcommittee on his presentation, "Abundance of Groundfish Species in the Northern Gulf of Mexico," that he will present at the Commission Business Session on Wednesday. He is working on a Master's Degree in GIS and is required to complete a Capstone Project for the degree, which is an independent study project that culminates in a formal public presentation. He examines historical distributions of four fish species to see if they have changed over the past 25 years due to changes in the shrimp fishery and fishery management practices. The purpose of the project was to use fishery independent data to examine species' distributions, compare the distributions between two time periods, and examine fish lengths to see if the size structure in the fish population has changed.

**J. Rester** gave the presentation and stated the conclusions of his project are groundfish abundance levels in the northern Gulf of Mexico have changed in the past 25 years, fish lengths have also changed with the majority of the changes related to decreased fish lengths, density dependence may be affecting the size distribution of these groundfish species, and the changes in groundfish populations may be due to a variety of factors such as cessation of the groundfish fishery, reduced bycatch from bycatch reduction devices, decline in effort in the shrimp fishery, and hypoxia. The complete presentation may be obtained by request from the GSMFC office.

### **Election of Chairman**

**B. McMichael** nominated **R. Hendon** for Chair. **J. Mareska** seconded and the motion passed. **J. Mareska** nominated **B. McMichael** for Vice Chair. **F. Martinez** seconded and the motion passed.

**Other Business**

The Subcommittee updated the SEAMAP work groups and the members will send more changes ASAP when they return to the office.

**There being no further business, the meeting adjourned at 11:50 a.m.**

APPROVED BY:  
*JW Smith 3-6-12*  
COMMITTEE CHAIRMAN

**S-FFMC MENHADEN ADVISORY COMMITTEE  
MINUTES  
Monday, October 17, 2011  
New Orleans, Louisiana**

**J. Mambretti** called the meeting to order at 1:00 p.m. with the following in attendance:

**Members**

Ron Lukens, Omega Protein, Inc., Gainesville, FL  
Borden Wallace, Daybrook Fisheries, Inc., Empire, LA  
Mike "Buck" Buchanan, MDMR, Biloxi, MS  
Joe Smith, NMFS, Beaufort, NC  
Rick Schillaci, Omega Protein, Inc., Moss Point, MS  
John Mareska, AMRD, Gulf Shores, AL  
Jerry Mambretti, TPWD, Port Arthur, TX  
Behzad Mahmoudi, FWC, St. Petersburg, FL  
Harry Blanchet, LDWF, Baton Rouge, LA

**Others**

Amy Schueller, NOAA Fisheries, Beaufort, NC  
Joe Shepard, *GSMFC Commissioner*, LDWF, Baton Rouge, LA  
Corky Perret, *GSMFC Commissioner*, MDMR, Biloxi, MS  
Mike Ray, *GSMFC Commissioner*, TPWD, Austin, TX  
Chuck Adams, Univ. of FL/SeaGrant, Gainesville, FL  
Mark Schexnayder, LDWF, New Orleans, LA  
Ed Swindell, Marine Process Services, Hammond, LA

**Staff**

Larry B. Simpson, Executive Director, Ocean Springs, MS  
Dave Donaldson, Assistant Director, Ocean Springs, MS  
Steve VanderKooy, Program Coordinator, Ocean Springs, MS  
Debbie McIntyre, Staff Assistant, Ocean Springs, MS  
Alex Miller, Staff Economist, Ocean Springs, MS

**Introductions**

**Chairman Mambretti** led the introductions of the MAC and the audience.

**Approval of Agenda**

*Lukens* moved to adopt the agenda and **Buchanan** seconded and the agenda was adopted.

### Approval of Minutes (March 15, 2011)

*The Committee reviewed the draft minutes. **Buchanan** moved to accept the minutes as written, **Mareska** seconded and the minutes were accepted.*

### Update on the 2011 Gulf Menhaden Season

**Smith** reported on the 2011 gulf menhaden season. Through September, 538,816 mt have been landed which is up +85% over 2010 for the same time period and up +37% over the previous 5-yr mean.

**Smith** reported that April was windy and landings in May improved. The fleet experienced fair weather most of June through August. Rains in the mid-West forced the Corps of Engineers to open Louisiana spillways in May, dumping a huge amount of freshwater into Mississippi Sound and coastal Louisiana. Recruitment of age-0 gulf menhaden in 2010 was high and there was a large proportion of age-1 fish in the catch during 2011. However, despite the high river discharge which is normally good for growth, fish were generally small in size with relatively low oil yields. Landings in September declined as TS Lee moved slowly over the New Orleans area around Labor Day weekend and TS Nate stirred the waters in the western Gulf shortly thereafter.

**Smith** predicts that the final 2011 landings could be best in over a decade and may approach 575,000 mt. Landings at this level would be up +51% over 2010 landings and up +32% over previous 5-yr mean.

**Smith** provided a preliminary forecast for 2012. Assuming that the final 2011 landings reach ~575,000 mt with a nominal fishing effort of ~370,000 VTW, the landings forecast for 2012 is ~509,000 mt.

### Atlantic Update

**Smith** provided a short update on the Atlantic menhaden fishery which included the landings through September 30 of 139,319 mt, which is down 3% from 2010, but up 14% over the past 5-yr average. **Smith** noted that one of the data sets being collected on the Atlantic coast is a logbook form completed by menhaden spotter pilots after their Sunday reconnaissance flights over Chesapeake Bay. **Smith** said that the NMFS Beaufort Lab is just beginning to look into the utility of the spotter logbooks for developing an index of abundance for adult menhaden for incorporation possibly into future stock assessments. Considerable time was spent discussing whether this type of survey would be useful in the Gulf. There would be more discussion once the data was examined in the 2012 Atlantic menhaden assessment update.

**Smith** reminded the MAC that in August 2010, the Atlantic Menhaden Management Board (AMMB) of ASMFC moved to initiate an addendum to the FMP. The ASMFC asked the Atlantic Menhaden Technical Committee to consider a range of percent maximum spawning

potential reference points (15, 25 and 40% maximum spawning potential, or MSP) with which to manage the Atlantic menhaden fishery. The AMMB met in August 2011 and drafted Addendum V to their FMP amendment which proposes establishing new interim fishing mortality limits and targets based on MSP.

### **2011 Review of the Texas Cap**

**Mambretti** reported that in 2011, the industry actually approached the TAC and came within 1% of it. For 2011, a 10% overage of the TAC was allowed, since the fishery did not meet the quota last year. Total removals from Texas waters in 2011 were around 34M lbs. Good communication between the TPWD and Omega Protein resulted in a very efficient harvest with very controlled effort.

### **SEDAR Overview**

**Amy Schueller**, NMFS Beaufort Laboratory, provided the final results of the gulf menhaden stock assessment (SEDAR27) which have been submitted to the review panel for their consideration. The Review Workshop will be held in St. Petersburg, Florida, November 1-4, 2011. **VanderKooy** will present a short version of the assessment results to the S-FFMC and Commission later in the week.

### **Discussion of Reference Points**

**VanderKooy** noted that the handout B. **Mahmoudi** had provided at the previous Assessment Workshop on Biological Reference Points was included in the meeting folders. The Committee discussed the need to develop a management goal for the fishery based on the results of the assessment. The targets that will ultimately be proposed relate to how much statistical uncertainty we have with the data going into the model and how much risk in managing the fishery would the industry and states willing to accept? In the assessment, three potential target examples had been presented; 0.65, 0.75, and 0.85  $F/F_{MSY}$ .

It was agreed that after the Review Workshop, the MAC should be reconvened to discuss this issue and determine if and what the appropriate target should be. **VanderKooy** will keep the MAC apprised of the outcome of the Review Workshop and will organize a follow-up discussion either as a conference call, webinar, or face-to-face meeting later this fall.

### **2011 Gulf Menhaden FMP Revision**

**VanderKooy** presented an overview of the progress on revision to the menhaden FMP. To date, **Smith** and **VanderKooy** have been doing the legwork to update the biology, habitat, and fisheries sections. **VanderKooy** provided a draft to the MAC prior to the meeting to begin its review of some of the sections. **VanderKooy** suggested some significant consolidation of

Sections 9 and 10 which included the management considerations and recommendations. The MAC would consider these changes over the next month or so. **Alex Miller** has agreed to update the Economics section and **VanderKooy** has conducted a Gulf-wide survey of the fishery to characterize the socio-demographics of the industry. The survey has nearly 100% coverage and included the vessel crews, docks, plants, and even some of the administration at all four menhaden plants. There is also an effort to get surveys from the Reedville plant on the Atlantic. If **VanderKooy** can locate a sociologist with expertise in evaluating this kind of survey data, it is likely that the study will be publishable outside of the FMP in a more detailed format.

**VanderKooy** discussed a number of the new items for inclusion in the FMP section on management considerations and recommendations. A number of the newer items were related to freshwater re-diversion, oil and petroleum pollution, and impacts to critical habitat. It was suggested that somewhere in the document, a sub-section be added that positively highlights the cooperation and compliance by the industry in the management of the fishery (landings data, logbooks, port samples, lack of major enforcement violations). **VanderKooy** believes he can find a place to develop the narrative and will provide a draft section for the MAC's consideration.

### **Election of Chairman**

The chairmanship rotates to the federal partner in 2012. **Joe Smith** was nominated and elected without objection.

### **Other Business**

At this time, LDWF will attempt to cover the cost of menhaden port sampling in LA and it is hoped that the MDMR will be able to cover the cost or the manpower to sample the Moss Point plant in 2012. There is still no long-term solution for these funding problems. The elimination of the port sampling would seriously hinder the ability to conduct age-based stock assessments for gulf menhaden in the future.

For historical reference, prior to 1987, NMFS funded sampling of menhaden (collection of scales, lengths, etc.) in an ad hoc nature. In 1997, the S-FFMC decided that FIN should fund the menhaden port sampling activity to ensure that this important data collection activity continued. It was done as a place holder until NMFS could secure long-term funding for this activity. From 1998 to 2009, menhaden port sampling in Louisiana was funded through the FIN program while Moss Point samples were collected by a NMFS Pascagoula Lab employee. In 2010, funding shortfalls in FIN resulted in menhaden port sampling being cut from the program. In Louisiana in 2010, the activity was funded by LDWF while NMFS continued to utilize their federal help from the Pascagoula Lab to collect samples in Moss Point.

In 2011, the menhaden port sampling in Louisiana was funded via the Stock Assessment Enhance (SAE) portion of the FIN program with the NMFS port agent again collecting data from Moss Point. There is not a confirmed solution for menhaden sampling for 2012 as of yet but it




will not be funded via any GSMFC programs and the NMFS port agent in Pascagoula will likely not be handling samples.

In addition, there had been the suggestion previously that the SAE program or FIN might be able to fund a Juvenile Recruitment Sampling Protocol which had been developed by the SEAMAP Subcommittee and the MAC. Unfortunately, due to the reduction in funding of FIN and elimination of any left-over money in SAE, the project could not be initiated in 2012. The MAC will continue to seek additional funds to begin this survey in the future.

***With no further business, the meeting adjourned at 5:05 pm.***



**TECHNICAL COORDINATING COMMITTEE  
MINUTES – 62<sup>nd</sup> Annual Meeting  
Tuesday, October 18, 2011  
New Orleans, LA**

APPROVED BY:  
  
COMMITTEE CHAIRMAN

**Chairman Joey Shepard** called the meeting to order at 1:30 p.m. The following members, staff and others were present:

**Members**

David Heil, FWC, Tallahassee, FL  
Steve Brown, FWRI, St. Petersburg, FL  
John Mareska, ADCNR/MRD, Gulf Shores, AL  
Joey Shepard, LDWF, Baton Rouge, LA  
Chris Denson, ADCNR/MRD, Gulf Shores, AL  
Bill Balboa, TPWD, Dickinson, TX  
Dale Diaz, MDMR, Biloxi, MS  
Harry Blanchet, LDWF, Baton Rouge, LA  
Jerry Mambretti, TPWD, Austin, TX  
Roy Crabtree, NOAA Fisheries, St. Petersburg, FL

**Staff**

James Ballard, GSMFC, Sport Fish/Aquatic Invasives Coordinator, Ocean Springs, MS  
Jeff Rester, GSMFC, Habitat/SEAMAP Coordinator, Ocean Springs, MS  
Larry Simpson, GSMFC, Executive Director, Ocean Springs, MS  
Dave Donaldson, GSMFC, Assistant Director, Ocean Springs, MS  
Gregg Bray, GSMFC, RecFIN Programmer/Analyst, Ocean Springs, MS  
Ali Catchot, GSMFC, Staff Assistant, Ocean Springs, MS  
Joe Ferrer, GSMFC, Systems Administrator, Ocean Springs, MS  
Angie Rabideau, GSMFC, Accountant, Ocean Springs, MS  
Adam McInnis, GSMFC, Senior Accountant, Ocean Springs, MS  
Steve VanderKooy, GSMFC, IJF Program Coordinator, Ocean Springs, MS

**Others**

Brooke Shipley, TPWD, Dickinson, TX  
Mike Ray, TPWD, GSMFC Commissioner, Austin, TX  
Camp Matens, GSMFC Commissioner, Baton Rouge, LA  
Douglas Peter, LDWF, Baton Rouge, LA  
Page Campbell, TPWD, Rockport, TX  
Ellie Roche, NOAA Fisheries, St. Petersburg, FL  
Bob McMichael, FWRI, St. Petersburg, FL  
Michael McDonough, LDWF, Baton Rouge, LA  
Ginny Vail, Tallahassee, FL  
Martin Bourgeois, LDWF, Baton Rouge, LA  
Joe Gill, Commissioner, Ocean Springs, MS  
Ron Lukens, Omega Protein, High Springs, FL

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Corky Perret, MDMR, Biloxi, MS  
Jennie Rohrer, TPWD, Dickinson, TX  
Laurie Swanson, BSEE, New Orleans, LA  
Glenn Constant, FWS, Baton Rouge, LA  
John Dodrill, FWC, Tallahassee, FL  
Chris Blankenship, ADCNR/MRD, Commissioner, Dauphin Island, AL  
Bob Zales II, Panama City, FL  
Troy Williamson, Corpus Christi, TX  
Glen Sutton, TPWD, Dickinson, TX  
Herb Leedy, BSEE, New Orleans, LA  
Lance Labiche, BSEE, New Orleans, LA  
Miles Croom, NOAA Fisheries, St. Petersburg, FL  
John Rawlings, Matagorda, TX  
Ed Swindell, Marine Process Services, Hammond, AL  
John Hoffman, Black Elk Energy, Houston, TX

#### **Adoption of Agenda**

**A motion to adopt the agenda was made by D. Diaz and passed unanimously.**

#### **Approval of Minutes**

**A motion to approve the minutes as written for the March, 15 2010 meeting was made by C. Denson and passed with no opposition.**

#### **Overview of BOEMRE's Rigs-to-Reefs Program**

**Herb Leedy** started out by stating that their agency has been split into two separate agencies: the Bureau of Safety and Environmental Enforcement, and the Bureau of Ocean Energy Management. He stated that over the course of this program they have conducted several studies and have concluded that the jacket material is very stable and viable reef material. Herb pointed out that their Code of Federal Regulations states that all oil/gas structures have to be removed 15 feet below the mud line at the end of their life. The Rigs-to-Reefs program allows them to deviate from those regulations as long as a few criteria are met. These include, the structure becomes part of a State artificial reef program that complies with the criteria in the National Artificial Reef Plan; the responsible State agency acquires a permit from the U.S. Army Corps of Engineers and accepts title and liability for the reefed structure once removal/reefing operations are concluded; the operator satisfies any U.S. Coast Guard navigational requirements for the structure; and the reefing proposal complies with Gulf of Mexico Region engineering, stability, and environmental reviewing standards and reef-approval guidelines. Following the hurricanes of 2005 that knocked over about 200 platforms, the agency made an addendum to their Rigs-to-Reefs program. Some of the main changes to the program that were outlined in the addendum were: no debris piles, debris fields, or reef baskets will be allowed under OCSLA regulatory permitting; all nonstructural components on the standing decks must be removed and inspected prior to reefing and all submerged decks and their separated components and equipment must be removed; future reef sites will not be allowed within 5 miles of established/pending reef

locations to minimize impact to future pipeline operations; reef sites must not lead to avoidable space-use conflicts with other users of the GOM OCS; and BSEE GOMR will only grant Rigs-to-Reef departures for platform-removal applications proposing the structure is sited within an existing/established artificial reef site or permit area.

### **Overview of BOEMRE's Idle Iron Program**

**Lance Labiche** pointed out that BSEE has a new Idle Iron Program coordinator, Laurie Swanson. He then covered the regulations that have been around for a long time that back up the Idle Iron initiative. Even though these regulations are not new, they were never clearly defined or enforced. In the NTL that BSEE released in 2010, they defined "no longer useful for operations" as a well that has not produced in the last five years and does not have plans for future operations. As for the platforms, it was defined as any platforms that are toppled and those that have not been used in the past 5 years for operations associated with exploration, development or production of oil/gas. The NTL also requires that idle wells must be permanently abandoned or temporarily abandoned in accordance with the regulations within 3 years, or they can "storm safe" the well by installing a deep plug while they explore if the well has any future potential. Within 2 years of installing the deep plug, the operators must either permanently/temporarily abandon the well or get it back on production. As for idle platforms, they must be removed as soon as possible but no longer than 5 years after it became "no longer useful". Lance pointed out that a total of 3,233 wells and 617 platforms were classified as idle at the time the NTL was released and BSEE received company-wide abandonment plans that covered 96% of the wells and 97% of the platforms. Lance stated that over the last year they have received 261 platform removal permits with 200 of them using explosives to carry out the removal and 1526 well abandonment permits. He also stated that following the storms of 2005, oil companies are starting to see the real benefit of temporarily or permanently abandoning unused wells and BSEE is seeing an increase in the number of both types of abandonment.

### **Update on Rig Removal in Texas and TPWD's Efforts to Establish New Reefing Areas for Removed Structures**

**Brooke Shipley** started off by giving an overview of the Texas Artificial Reef Program. It consists of ~2,500 acres comprised of 63 established reef sites. They have had 126 platform and 20 other oil/gas structure donations to date and 13 in progress. The Rigs-to-Reefs Program has contributed \$20 million to the Texas artificial reef fund. Brooke pointed out that because of the new regulations outlined in the addendum to the Rigs-to-Reefs program, Texas has very few reef sites available to accept oil/gas structures unless the companies are willing to tow the structures long distances. Because of this, TPWD sat down with the Boatman's Association, the Saltwater Fishing Enhancement Association, and CCA in Port Aransas and talked about what platforms were important to them in regard to fishing, diving and other activities. Based on the information from that meeting, TPWD developed new potential reef planning zones and turned them into the USCG and BOEMRE for their suggestions. They received responses from both agencies and they agreed with the proposed plan other than the inclusion of the shipping fairways; however, they also received a response from the Texas Shrimping Association (TSA) that claimed the proposed sites were in the "heart" of their shrimping effort. TPWD is hoping to meet with the TSA and come to some kind of a compromise on the use of the proposed reef

planning sites. **Joey Shepard** asked if these proposed sites are what TPWD is waiting for approval on by BSEE. Brooke stated that it was, and asked Herb Leedy if she should email it to him again. Herb said that she should send it again; however, TPWD needs to work out the conflict with TSA before BSEE can approve the proposed sites.

### **Rigs-to-Reefs Efforts in Louisiana**

**Doug Peter** gave a brief overview of the established artificial reefs in the waters offshore of LA and discussed their 9 general artificial reef planning areas. He then described the different types of oil/gas structures that are found off of LA's coast and how some of them are not well-suited to become artificial reefs. He also pointed out that if these structures are located in 100 feet or less of water, it is very hard to turn them into permanent reef habitat because of permit requirements for clearance over the reef, and it is more cost-effective for the oil/gas companies to bring the structures to land. Since the beginning of the Rigs-to-Reefs program, only about 1% of the oil/gas structures that were located in 100 feet of water or less have been turned into artificial reefs; however, about 65% of the structures located in greater than 200 feet of water have been reefed. Doug stated that LA reefed 26 oil/gas structures in 2010 and had already reefed 23 in 2011 and had 3 more being worked on at the time of his presentation. They also have 67 other structures that they have started the process of adding to their Rigs-to-Reefs program. 50 of them are already permitted and 17 are in the permit process.

### **"Save the Blue" Protecting Precious Ecosystems**

**John Hoffman** gave a presentation on the initiative he founded called "Save the Blue". He started his presentation by showing a live video feed from a camera mounted at a depth of 35 feet on an oil platform in the Gulf of Mexico and pointed out that anyone can watch this feed on [save-the-blue.org](http://save-the-blue.org). With the video, he demonstrated the complex ecosystem that is supported by oil/gas platforms in the Gulf of Mexico and why it is important to preserve this habitat. John stated that Rigs-to-Reefs, while a step in the right direction, still causes massive destruction, as the majority of life occurs above 85 feet subsea. He also pointed out that he has noticed significant passion from people at town hall meetings in several communities around the Gulf who want these habitats preserved. John then showed several pictures of the High Island 370 platform that showed some of the diversity of species that utilize these structures as habitat. He proceeded to go into how the "Save the Blue" initiative is structured. It is being formed as a non-profit organization with members from research, commercial fishing, recreational fishing, sport diving, industry, and education. John stated that the fish biomass on offshore platforms is 10 times higher than protected coral reefs and artificial reefs, 10,000 – 30,000 adult fish reside around a platform, and 80 managed species live on, or forage around platforms in the Gulf of Mexico. These structures help to support the very large and economically important recreational and commercial fishing industries. He then covered how the "Save the Blue" initiative would function. At the conclusion of oil/gas production, an underwater evaluation of the platform would be conducted. If there is no beneficial ecosystem to be found, then the structure should be decommissioned and all wells plugged. If a beneficial ecosystem or habitat is found, then all wells would be plugged and all pipelines decommissioned to mitigate the possibility of pollution; top decks would be removed to mitigate hurricane risk; navigation aids would be attached to the tops of the legs to ensure mariners are protected; and a trust fund would be established by

operators paying a percentage of what it would have cost to remove the structure in accordance with their permit. This trust would cover all of the liability insurance and any removal liability for the structures, as well as all maintenance costs and would be overseen by a trust board comprised of representative stakeholders. John concluded by talking about ways members of the public and organizations can help with this initiative by volunteering on the "Save the Blue" board of directors and/or steering committee, and by donating money to help with education and outreach efforts to promote the program. John stated that he is not positive what shape this program would take if it is implemented. It could be modeled after Rigs-to-Reefs, in which case the trust and program would be managed by the state agencies; it could be a federal program where a federal agency would take responsibility for the program and the trust, or it could be set up under a non-profit organization where the board of directors would have the oversight responsibility.

### **Overview of the Proposed Ships-to-Reefs Program**

**Glenn DaGian** asked the committee if he could briefly talk about his proposed Ships-to-Reefs program and the committee agreed. Glenn stated that he would like to approach the U.S Navy, who has 458 vessels sitting in its mothballed fleet, and ask them to put people in the Gulf of Mexico region back to work cleaning the vessels to the EPA standards, and then give the vessels to the state artificial reef programs in the Gulf for sighting and reefing. He pointed out that this work could be funded by BP and counted as credit toward their NRDA fines. Glenn explained that this program would not just help the state artificial reef programs and create long-term stable marine habitat. It would also help to put shipyards in the Gulf back to work that are on the verge of closing down.

### **Subcommittee Reports**

#### **Crab:**

**Steve VanderKooy** reported that the Crab Subcommittee met in conjunction with the Crab Technical Task force. He stated that they are working on revising the FMP and they discussed their stock assessment and the data they have and the data gaps they need to fill. The Subcommittee also heard a presentation from Florida on the current lipofuscin research where they are finding that this method for aging is not going to work for blue crabs. There were presentations from Florida, Louisiana, and North Carolina on how they carried out their blue crab assessments. These presentations were followed up by a round-table discussion on how the Subcommittee would want to perform their own assessment and the models that were available for them to utilize. They decided that they need to emulate the SEDAR process without using the federal system. They are planning on having a mini data workshop and step through a small scale SEDAR process that would cover just the Gulf of Mexico region.

**D. Heil made a motion to accept the report and it passed unanimously.**

#### **SEAMAP:**

**Bob McMichael** stated that the SEAMAP Subcommittee met in early August with the Caribbean and South Atlantic SEAMAP components to discuss budget and joint issues. The SEAMAP

2011-2015 Management Plan has been completed and printed. The 2011-2015 Management Plan provides a statement of the current goals, management policies, procedures, and priorities for all SEAMAP components and partnerships. It also serves as a reference on SEAMAP history and accomplishments. Finally, it details priorities for future activities. The Subcommittee also met on October 17. The main item discussed at this meeting was the prioritization of current SEAMAP survey activities. After the August meeting, the Subcommittee sought help from NMFS in determining priority data needs and survey priorities. SEAMAP started several new surveys several years ago when supplemental SEAMAP funds were acquired. Those funds have now run out and the current level of sampling cannot be continued unless SEAMAP acquires additional funds. The Subcommittee is evaluating how to best spend the limited SEAMAP funds. The Subcommittee felt that the Summer and Fall Shrimp/Groundfish Surveys were the highest priority surveys, followed by the Spring and Fall Plankton Survey, the Bottom Longline Survey, the Reefish Survey and the new Vertical Longline Survey. The Winter and Spring Shrimp/Groundfish Surveys were limited in scope and were considered low priorities and will be cancelled in 2012. Inshore sampling was also considered low priority since it was limited in scope and the states could not agree on standardized protocols. SEAMAP has recently published the 2008 Environmental and Biological Atlas of the Gulf of Mexico and the 2009 Atlas will soon be finished. The SEAMAP TCC Report has also been published and contains information on all SEAMAP activities for FY2011. Read Hendon was elected chairman and Bob McMichael was elected as vice-chairman.

**A motion to accept the report was moved by J. Mambretti, and passed without opposition.**

#### **Data Management:**

**Chris Denson** reported that the Subcommittee heard a presentation about the status of the biological sampling program. He stated that they have received requests from NOAA for the 2010 data, and the states are working to complete that data set and are hoping to have it in by the end of October. At this time they do not have the funding to continue the biological sampling efforts in 2012 and will cancel the program if they cannot secure new funding. The Subcommittee also heard a presentation on the Angler Expenditure Survey program which is a survey that was tacked onto the current dockside intercept survey in Florida through Louisiana and Puerto Rico and also utilizes a follow-up mail survey. Currently, they have a success rate for completed surveys of between 60-85% Gulf-wide. G. Bray gave a presentation on the Inovo digital pen and Rover INK software for collecting recreational fishery data. The Inovo digital pen collects the data via a digital camera mounted in the pen reading micro dots printed on each paper form. The pen uploads the form image and data each time the pen is placed in its docking station. If successful, the pen would eliminate the need for mailing forms to GSMFC for scanning. GSMFC partnered with FWC on a 30-day pilot project. Two pens were tested for 30 days using Florida dockside intercept samplers in the Tampa Bay region. The pilot test showed the pens to be generally reliable although they did not work well on wet paper and eliminated the ability to correct errors in the field. GSMFC and FL FWC staff had concerns with Rover INK's ability to design a system for 50-60 work stations in the Gulf of Mexico. Rover INK had several issues getting one workstation up and running for 2 pen users in the Saint Petersburg, Florida office. Once running properly the system did deliver data and electronic forms to GSMFC much faster than mailing paper forms. Our conclusions find the hardware has potential, and finding a



different contractor that better meets our needs to be the next step. B. Sauls reported the preliminary results from the pilot logbook project in the Florida Panhandle and Corpus Christi area of Texas. Preliminary conclusions were that startup effort was very large and achieving high compliance rates takes significant time. Based on this study the logbook was not a census, but likely more suitable for a large regional scale to maximize validation data matchups. A small monitoring program may not be sufficient since individual logbooks do not closely match validations. Final analysis should be completed by the end of 2011. D. Bellais demonstrated the initial release of the non-confidential data portal. FOSS is currently restricted to the FIS user group. This portal is indented to provide one location to find commercial non-confidential data for all states and replaces the commercial data portal on NOAA Fisheries Science and Technology (S/T) website. A. Miller gave an update on the traceability program and stated the main goals behind the program is to renew confidence in Gulf seafood, manage risk to buyers of Gulf seafood, and foster existing and new markets for Gulf seafood. Currently the traceability team has attended several meetings with seafood industry businesses, organizations, and state marine resource agencies to disseminate information about their program. Bluefin Data Inc. has created a traceability interface for the electronic trip ticket program. Currently the team is creating partnerships with showcase seafood businesses. The group is planning more state meetings and hopes to bring the first seafood firms online by the end of 2011. The Subcommittee also saw a brief demonstration of the unified trip ticket program Bluefin data is generating for use in the Gulf of Mexico. The new program is web-based, as opposed to the PC-based original program that is becoming outdated by current computer technology.

**A motion to accept the report was moved by D. Diaz, and passed without opposition.**

#### **Fisheries Outreach:**

**James Ballard** reported that the Subcommittee has not had a formal meeting since the last report; however, they held a conference call to scope the usefulness of social media as an outreach tool. At this point, all but one of the state fisheries agencies in the Gulf use social media as an outreach tool. This outreach mechanism is also used by the GMFMC, USFWS, NOAA, and several other state and federal agencies and organizations. All of the subcommittee members stated that they have found social media to be very helpful for disseminating information about their agencies and keeping the public informed about regulation changes and upcoming events. They also stated that they are getting good feedback from members of the public, and the sites are facilitating good discussions on some topics that don't normally get addressed. For the Council, Facebook has been particularly helpful for addressing and clearing up misinformation quickly. Just the fisheries agencies represented on the Subcommittee have over 100,000 people who receive information through their Facebook pages.

**A motion for the Commission to move forward with the development of a social media presence was made by D. Diaz and seconded by H. Blanchet, and passed unanimously.**

#### **Artificial Reef:**

**James Ballard** stated that the Artificial Reef Subcommittee held a Reef Monitoring Workshop in an effort to continue to move toward the establishment of a Gulf-wide Artificial Reef

monitoring program. The goal of this workshop was to get a clear picture of how to set up a monitoring program for artificial reefs that will generate the most useful data that is comparable to that collected in the ongoing efforts on natural reef sites. The hurricanes in the Gulf over the last several years, and last year's oil spill disaster has underlined the fact that we need to establish baseline data on the vast artificial reef areas in the Gulf of Mexico. This data will allow states to determine how new artificial reefs in the future are functioning in comparison to established ones, and how they compare to the function of natural reefs. It will also allow them to assess impacts to artificial reefs from future natural and man-made disasters. The first half of the workshop consisted of presentations covering the ongoing reef monitoring efforts of NOAA, DISL, FL. FWRI, and UT Brownsville. Following the presentations, there was a question-and-answer session where the Subcommittee and attendees were able to ask about how to set up the Gulf-wide artificial reef monitoring program. James stated that the Subcommittee will take the information they gleaned from this workshop and develop a draft monitoring protocol for artificial reef sites in the Gulf of Mexico.

**J. Mambretti made a motion to accept the report and it passed unanimously.**

**State/Federal Reports:**

The following reports were provided to the TCC members prior to the meeting for their review, and the authors only briefly went over the high points during the meeting.

**Florida Report: D. Heil /R. Cody**

**Division of Marine Fisheries Management**

Director: Mark S. Robson (Retired)/Jessica McCawley (Appointed September 2011)

The major responsibilities of the Division of Marine Fisheries Management include: (1) development and implementation of marine fisheries management and policies, (2) angler outreach and marine aquatic resource education, (3) commercial fisheries assistance, (4) the state artificial reef program, (5) monitoring compliance with the marine fisheries trip ticket reporting requirements through audits of applicable fish house records, (6) administrative penalty assessments for violations of specified fisheries regulations, retrieval of lost and abandoned spiny lobster, stone crab and blue crab traps, and (7) issuance of Special Activity Permits. Highlights of staff efforts in 2011 [i.e., state fiscal year 2010/2011] are summarized below.

The 2011 Florida Legislature reduced the Division of Marine Fisheries Management operation budget by 7 %.

**Marine Fisheries Management & Policy Development Section**

The Marine fisheries management and policy development program develops regulatory and management recommendations for consideration by FWC Commissioners designed to ensure the long-term conservation of Florida's valuable marine fisheries resources.

The 2011 Florida Legislature made no amendments to the statutes regarding marine fishery licenses, fees or penalties.

During the state fiscal year 2010/2011, the Florida Fish and Wildlife Conservation Commission (FWC) approved a number of amendments to marine fisheries rules contained in Chapter 68B of the Florida Administrative Code.

Amendments were made to the commercial ballyhoo, marine life, blue crab and stone crab fisheries to provide harvesters more flexibility by allowing the transfer of their fishing license endorsements to other harvesters from May 1 through the end of February. This allows additional time for harvesters to transfer their endorsements for these fisheries each year.

Further amendments were made to the commercial blue crab fishery including amending the six 10-day rolling closures so that they occur every other year instead of annually. Three of the six closures will occur each year, alternating by coast. Additionally, clarifying rules were created stating that a harvester may hold up to two soft shell endorsements, tags can be ordered anytime during the year and blue crabbers that experience boat problems can temporarily designate another boat to pull their commercial traps while their primary boat is being repaired.

FWC's Spanish mackerel and reef fish rules were amended to be consistent with federal regulations for Gulf of Mexico and South Atlantic waters. Spanish mackerel was amended to change the commercial fishing year for Spanish mackerel in Atlantic state waters from April 1 through March 31 to March 1 through the end of February each year and the start date for the 3,500-pound vessel limit was changed from April 1 to March 1.

For reef fish, the FWC created a fall season consisting of eight Friday through Sunday recreational harvest weekends for red snapper in the Gulf of Mexico from October 1 through November 21, 2010. The FWC again addressed the recreational red snapper season in 2011 and established a June 1 through July 18 season for red snapper in the Gulf of Mexico for 2011. The recreational harvest of greater amberjack in the Gulf of Mexico was also prohibited from June 1 through July 31, each year, to become consistent with the newly implemented federal closure in Gulf waters.

The FWC also added the requirement to hold a gulf grouper IFQ account to commercially harvest grouper in Florida waters of the Gulf of Mexico. The FWC also implemented consistent rules with the federal interim rules for gag grouper which prohibited the recreational harvest and possession of gag grouper in all state waters of the Gulf of Mexico, excluding Monroe County, during the following closed periods in 2011: June 1 through September 15 and November 16 through December 31.

Between July 1, 2010, and June 30, 2011, the FWC implemented 10 Executive Orders in response to the Deepwater Horizon Oil Spill. These 10 Executive Orders were in addition to the 18 that were issued in early 2010. The Executive Orders included area closures and openings off Escambia County (Pensacola), a temporary extension of the commercial saltwater products fishing license expiration date and earlier openings or extended fishing seasons for specified fisheries.

### **Angler Outreach and Marine Aquatic Resource Education**

The objective of this activity is to inform the public and to increase public participation in the management and preservation of Florida's marine resources by heightening their awareness of and personal responsibility toward these resources.

Overall there were: (1) 52,654 outreach fishing event contacts; (2) 1,503 presentation and seminar contacts; (3) 69,798 email, telephone, mail outs and in-person contacts; and (4) 1,511,553 website contacts during fiscal year 2010/11.

Twelve Kids' Fishing Clinics (KFC) were conducted in coastal cities throughout Florida. A total of 3,333 children, 529 volunteers and an estimated 1,543 parents attended the KFC's. All participating children received a rod and reel combo provided by Fish Florida! or purchased with donations from individuals and businesses from the hosting community. Fishing vessel partners took 428 participants on fishing excursions to reinforce the Kids' Fishing Clinics curriculum.

Through a partnership with an owner of a fishing fleet over 1,000 children participated in 25 fishing trips as part of a new modified version of the Kids' Fishing Clinics. Ethical angling concepts (fish handling, catch and release techniques and regulations), habitat conservation (No Habitat- No Fish!), knot tying and casting were all taught to the children aboard the fishing vessel. After conclusion of the educational sessions, the children were able to fish and practice what they just learned. Several groups that participated in this program included urban youth organizations, county schools and Boys & Girls Clubs.

Four *Ladies, Let's Go Fishing* (LLGF) seminars were conducted in four locations. A total of 155 women participated. In addition to learning what FWC does to conserve fisheries resources in Florida, the participants at these events learned about how they can have a positive impact on Florida's marine resources and what they can do to promote fish conservation while fishing.

Two one-day events targeting 34 current and future female recreational anglers were conducted. These shore-based clinics focus on the Sport Fish Restoration Program, basic saltwater fishing skills (casting, knot tying, rods and reels, conservation equipment, terminal tackle and lures/bait), how FWC functions to conserve marine fisheries resources (research, outreach and management), catch and release techniques and ways participants can support and be actively involved in the conservation of Florida's marine resources.

Seven events were attended by 261 youth in the Cedar Key region. At these events the participants were provided with information about importance of marine habitats to coastal fisheries, how they as anglers can conserve fish resources and ways they can contribute to the overall enrichment of marine resources. The participants also conducted field sampling activities similar to what state biologists do to gather resource data for management.

A partnership with the International Game Fish Association (IGFA) and their community marine education and outreach efforts was continued by providing various FWC marine resource publications (*e.g. Fishing Lines* magazine) for participants in their education activities and Junior Angler tournaments. IGFA continues to incorporate specific aspects of FWC curricula (*e.g. Kids' Fishing Clinic* stations) into their educational activities.

Partnered with several other agencies and organizations to conduct environmental education projects aimed at marine resource conservation including: Mote Marine Laboratory, Florida Sea Grant and Florida Fish and Wildlife Research Institute.

Distributing FWC/SFR educational literature aimed at heightening citizens' awareness of and personal responsibility for protecting Florida's marine resources. Educational information was distributed by fishing clubs, tackle shops, Florida state parks, Florida state aquatic preserves, fishing organizations (such as IGFA), National Estuarine Research Reserves, Florida Keys National Marine Sanctuary, Florida Sea Grant, International Game Fish Association and FWC field offices.

The following educational publications were made available to the public through numerous events. Most of these publications are also available on-line and the links to each publication are provided below.

- *Fishing Lines: An Angler's Guide to Florida's Marine Resources*  
<http://www.myfwc.com/fishing/saltwater/fishing-resources/fishing-linesmagazine/>
- *Florida Recreational Saltwater Fishing Regulations (English and Spanish editions)*  
<http://www.myfwc.com/fishing/saltwater/regulations/>
- *Fish ID Poster series by artist Diane Rome Peebles*
- *Sea Stats*  
<http://research.myfwc.com/products/products.asp>
- *Catch and Release Techniques*  
<http://www.myfwc.com/fishing/saltwater/fishing-resources/>
- *Florida Boater's Guides*  
<http://research.myfwc.com/products/products.asp>
- *Kids Fishing Activity Book (Freshwater and Saltwater)*
- *Monofilament Recycling and Recovery Program*  
<http://mrrp.myfwc.com/educational-materials.aspx>

One new Boater's Guide, *Treasure Coast South* (12,000 copies) was produced and printed. The Tampa Bay Boater's Guide was updated and 20,000 copies of this guide were printed.

In the Apalachee Bay/Apalachicola Bay region of the Florida Panhandle, staff interacted with anglers at boat ramps, tackle shops and other fishing related events to promote fisheries conservation, resource stewardship and the Sport Fish Restoration Program. This work included giving presentations at various fishing club meetings in the region. In the Cedar Key region (Big Bend area of Florida), O&E staff performed similar activities targeting anglers that resulted in 1,195 anglers and other resource users receiving information about marine fisheries conservation, SFR and habitat conservation. Staff responsible for this program conducted similar activities at other locations (and with other organizations) around the state interacting with 500 anglers.

Modified versions of KFC's called *Nature Coast Fishing for Youth* (formerly known as *1-2-3 FISH*), were conducted in Cedar Key, Florida, during the summer months. Five youth events were conducted with participation from 122 youth. The participants in these programs learned about the importance of marine habitats to coastal fisheries, how they as anglers can conserve

fish resources, the basics of saltwater fishing and ways they could reduce pollution while fishing. These events were partially supported by Fish Florida!, which provided rods, reels and tackle boxes to the participants.

Fifty educational tours and nine fishing events were conducted at the Florida Fish and Wildlife Conservation Commission's Stock Enhancement Research Facility. Over 900 children and adults participated in these hands-on activities designed to increase their knowledge of marine fisheries conservation, ethical angling and habitat preservation. Partnering organizations included The Florida Aquarium, Tampa Bay Watch, Anclote Key Anglers Club, Tampa Bay Fly Fishing Club, Manatee County Sheriff's Youth Ranch, the Florida Sheriff's Youth Ranch, and the Make a Difference Fishing Tournament Foundation.

Thirty-three workshops were conducted to familiarize new teachers with the use of aquatic field activities and gear used to educate students about marine conservation, the various coastal habitats in Florida and the important link uniting saltwater fish and their habitat. Six hundred fifty marine educators completed the workshops and received a certificate that provided them the necessary authority to conduct aquatic field activities. These workshops convey best practices knowledge and skills that the participants can use when bringing groups of students to aquatic environments. These workshops took place at various educational facilities statewide and were taught by trained workshop facilitators. Workshop participants were provided with information about marine fisheries conservation, the SFR program and marine resource educational activities.

Over 500 copies of the Sport Fish Restoration Program brochure were distributed at numerous events. This publication was also distributed upon request and is on the FWC website.

Staff distributed a video (*Conserving Florida's Marine Fisheries*) covering the Sport Fish Restoration Program, It's in Your Hands and Catch and Release. Over 300 copies of this DVD were distributed to fishing clubs, anglers, marine science educators and other interested citizens.

*Fishing Lines* magazine, a Florida Fish and Wildlife Conservation Commission (FWC) publication that highlights information about the SFR Program and Florida's saltwater SFR programs, was reprinted after minor edits and updates were incorporated. About 30,000 copies of this publication were printed for distribution to anglers. The issue contains general fishing information and personal stewardship responsibilities for conserving and enhancing Florida's marine fisheries resources.

Over 9,000 copies of various *Boater's Guides* were distributed statewide at angler and boater events and in response to requests for information.

Staff also distributed several promotional items to increase the knowledge about and benefits of the SFR program to anglers and the general public. These items have information about the SFR program, its benefits to Florida and some general fisheries conservation messages. These items include water bottles, pencils, floating key chains, reusable bags and adhesive fish length rulers. The water bottles, pencils and bags are made from recycled materials. These items were distributed at fishing club meetings and other events where staff interacted directly with anglers.



Digital and print images continue to be collected and added to the photograph library. Representatives collect images from each grant, and images are also collected from all FWC outreach and education events. Staff continued to add to the inventory and assessment of existing photographs to determine suitability for use in publications [photograph of acceptable quality] and need for future publications. Staff continued using the SFR displays produced to promote the SFR program and its value to Florida's recreational anglers. Examples of these displays include vertical roll up banners, table top displays and a large floor display. Some of the events these displays were utilized at include: the International Game Fish Association Fishing Expo, the Apalachicola Seafood Festival, the St. Marks National Wildlife Refuge Wildlife and Heritage Outdoor Festival and the Creating the Next Generation that Cares event.

FWC staff worked with organizations and schools to showcase Florida's SFR programs through the established fish loan program. FWC loaned hatchery-raised red drum to Bottled Ocean (Gaylord Palms Resort), the St. Petersburg Pier Aquarium, Florida Oceanographic Society, Florida Gulf Coast University, the Oregon Coast Aquarium, Rookery Bay National Estuarine Research Reserve, Loggerhead Marinelife Center, the Environmental Learning Center and the FWC Cedar Key Field Lab. Staff also provided educational publications for public distribution at these locations. A total of 543 hatchery-bred fish were provided to these facilities.

FWC loaned hatchery-raised juvenile fish to seven schools through the *Aquaculture in the Classroom* program. Educational materials on the fundamentals of marine aquaculture and fisheries enhancement were also provided to the schools.

A 350-gallon Sport Fish Aquarium with Discovery Rail, an Interactive Smart Screen and a Kids Activity Cube offer ways for the public to interact by virtually touching a screen to learn about Sport Fish Restoration, Marine Fisheries Research and Marine Fisheries Management in Florida. There are also two Interactive Kids Activities pages and an Interactive Kids Activity Cube that teaches children how to measure a fish, bait a hook and identify what they have caught. It also teaches them where fish live.

Staff provided information about outreach material to a variety of media outlets. Staff continues to communicate with media contacts to update them about fisheries management and Sport Fish Restoration information.

Press releases were drafted to publicize or showcase *Kids' Fishing Clinics*, artificial reef deployment and public workshops regarding angler interests. The information was provided to agency personnel authorized to issue press releases.

### **Commercial Fisheries Assistance**

During state fiscal year 2010/2011, the FWC continued ongoing commercial saltwater fisheries regulatory assistance activities.

As many as 20,000 commercial saltwater regulation booklets were designed, printed and distributed by mail (also available on agency website). Three commercial fisheries newsletters were prepared and a total of 45,000 newsletters were distributed by mail (also available on agency website). As many as 299,000 emails were prepared and sent informing commercial

license holders, law enforcement and commercial industry representatives of 23 agency press releases (also available on agency website). As many as 5,400 telephone calls related to commercial fisheries were received and answered and 7,200 emails related to commercial fisheries were received and answered.

### **State Artificial Reef Program**

The primary program objectives are to provide financial and technical assistance to coastal local governments, nonprofit corporations and state universities to develop artificial reefs and to monitor and evaluate these reefs.

Over the spring and summer of 2011, 11 artificial reef construction projects were completed in Florida utilizing funds from the U.S. Fish and Wildlife Service's Federal Sportfish Restoration Program and managed by the FWC Artificial Reef Program with the Division of Marine Fisheries Management.

Five of the 11 (36%) new artificial reef construction activities took place on the Gulf Coast and six of the 11 (64%) were off the Atlantic Coast. Within the Gulf Coast activities, two artificial reef construction activities took place in the Florida Panhandle (Okaloosa County and Mexico Beach in Bay County), while two others took place off the west coast of peninsular Florida (Pinellas and Sarasota counties). The other Gulf Coast reef project is the Steinhatchee Fisheries Management Area Phase II artificial reef construction activity carried over from last year. This new reef was constructed in federal waters of the Florida Big Bend, located southwest of the mouth of the Steinhatchee River (southern Taylor County, northern Dixie County). Within the Atlantic Coast activities, two artificial reef construction activities took place off northeast Florida (the city of Jacksonville and Flagler County) and four construction activities occurred off southeast Florida (Martin, Palm Beach, St. Lucie and Miami-Dade counties). There were also three artificial reef monitoring projects under way in 2011. These various projects are summarized below.

#### Miami-Dade County (Southeast Florida)

Miami-Dade County deployed 700 tons of artificial reef material types consisting of limestone boulders and clean concrete material. A total of four artificial reefs were constructed to create habitat corridors at two separate artificial reef permitted sites, one inshore and one offshore of the county's coast.

The inshore reef site received a total of 350 tons of reef material within the Mercy artificial reef site, located within Biscayne Bay directly east of Mercy Hospital in South Miami at a depth of 12 feet. The reef had six feet of vertical profile. The offshore reef site received a total of 350 tons of materials within the Key Biscayne Artificial Reef Site located approximately four nautical miles at a 120 degree bearing from Marker "G" in Government Cut, directly east of Key Biscayne in federal waters at a depth of 64 feet. This reef had nine feet of vertical profile.

#### Martin County (South Central Florida East Coast)

Martin County deployed 1,200 tons of concrete culverts, clean concrete rip/rap and other concrete modular construction materials divided among three patch reefs within the Martin South County Reef permitted area named the Lee Harris Reef. Each of the three patch reefs consist of



concrete materials placed as a single pile of about 400 tons located about 1,475 feet apart from each other in the center of the permitted site.

St. Lucie County (South Central Florida East Coast)

St. Lucie County deployed a total of 1,996 tons of concrete culverts, concrete light poles and concrete bridge pilings in two patch reefs within the North County Nearshore Reef permitted area. Each of the two patch reefs consisted of concrete materials placed as a single pile (approximately 1,000 tons each), placed about 4,400 feet apart from each other near the northeast corner of the permitted site at depths of 56 feet and 61 feet, respectively.

Okaloosa County (Northwest Florida)

Okaloosa County constructed a reef comprised of 32 prefabricated concrete and steel reef modules weighing a total of approximately 80 tons within the county's Large Area Artificial Reef Site (LAARS) site "A." The reef is comprised of 16 separate locations forming an "X" pattern with two units per deployment location. Each patch reef of two units is approximately 500 feet apart. The deployment location is approximately 14.7 nautical miles on a bearing of 151 degrees from the Destin East Pass inlet in about 110 feet of water. The center of the "X" pattern is occupied by the recently deployed 55-foot tug *Monica Lee*, which was a separate county-private nonprofit partnership effort.

Jacksonville, City of (Northeast Florida)

The city of Jacksonville constructed a reef comprised of 700 tons of concrete junction boxes, culvert pipe, concrete bridge pieces and pilings at a depth of 75 feet within the Floyds Folly (FF) Artificial Reef Site. The reef was deployed as single cluster in a liner pattern with stacking providing a relief of 10 feet. The footprint is roughly 644 square feet.

Pinellas County (West Florida)

Pinellas County constructed a reef comprised 1,050 tons of concrete culvert pipe, slabs, piling cutoffs and power poles at two patch reef locations at a depth of 42 feet within the Rube Allyn Artificial Reef Site. The reef was deployed as two patch reefs each consisting of about 510 tons of concrete material. Each of the reef sites is the same general deployment design and separated by approximately 800 feet at a depth of 42 feet.

Flagler County (North East Florida East Coast)

Flagler County deployed 510 tons of concrete slabs and pilings recovered from a bridge replacement project as a single patch reef within the Flagler County Reef Site #3 permitted area. The patch reef consists of concrete materials placed as a single pile with an anticipated footprint of 10,000 square feet and vertical profile of up to 10 feet at a depth of 68 feet.

Palm Beach County (Southeast Florida)

Palm Beach County deployed 900 tons of limestone boulders at a depth of 25 feet within the Boynton Reef Inlet Artificial Reef Site. The 3-4 feet diameter limestone boulders were stacked at least two high for approximately eight feet of vertical profile. The patch reef is a single pile within the southern quadrant of the permitted area at a depth of 25 feet.

Mexico Beach, City of (Northwest Florida)

The city of Mexico Beach, located in eastern Bay County, deployed 44 concrete and concrete and steel modular units of three different designs. The 44 modules equate to about 80 tons of reef materials distributed among 13 patch reefs at two different permitted sites, with approximately two to 13 modules placed at each patch reef for an average of 5.8 modules per patch reef.

#### Sarasota County (Southwest Florida)

The Reef Ball Foundation, a nonprofit, deployed 72 designed concrete Reef Ball modules at six patch reef sites within the Sarasota County Silvertooth permitted area. Each patch reef consists of 12 concrete modules with four of each of three types of Reef Ball modules placed within the central-east area of the permitted site. The three module types are: (1) the "deep cover module" which is five feet long, three feet wide and two feet tall with a weight of approximately 2,000 pounds, (2) the "reef block unit" which is two and a half feet tall, three feet wide and weighing approximately 1,000 pounds, and (3) the Pallet Ball which is three feet tall, four feet wide and weighs about 1,300 pounds. The water depth at this site is 30 feet.

#### Steinhatchee - University of Florida (Big Bend Florida)

To enhance the habitat quality of hard-bottom Essential Fish Habitat (EFH) for juvenile gag grouper, a total of 1,800 prefabricated reef cube units were deployed over the summer of 2011 as 450 standardized reefs. Each reef was comprised of four concrete cubes (concrete cubes are 88.9 cm on a side with an open 61 cm diameter hole through the middle). This project was a construction effort whose implementation was delayed the previous summer by the Deepwater Horizon Oil Spill. Each of the 450 four-cube patch reefs were deployed at pre-planned, randomized specific scattered locations no closer than 250 meters from their nearest neighbor, under the direction of the University of Florida's principal investigator for the project, Dr. William Lindberg.

All patch reefs were deployed within a 100 square mile permitted area known as the Steinhatchee Fisheries Management Area (SFMA). The triangular permitted area is in federal waters of the Gulf of Mexico. These patch reef deployments now occur at depths between 32-53 feet.

In addition to funding the construction of 1,800 concrete cubes (450 patch reefs), vessel transport and site specific patch reef deployment by crane, funding for this task also included production of a lifting assembly unit with a quick release mechanism that simultaneously deployed by crane four, one ton concrete cube modules at a time as a standardized patch reef. These reef locations will not be made public since this is a research project intended for long term monitoring. Reef deployment guidance and oversight support was provided by research staff at the University of Florida under the direction of Dr. Lindberg.

#### **Artificial Reef Monitoring Projects**

The FWC is also funding the continuation of years two and three of the fish census monitoring of the 520-foot-long, steel-hulled, former missile tracking ship the General Hoyt Vandenberg, sunk as an artificial reef in 2009 six miles south of Key West. This monitoring project continues to document the changes in fish presence/absence and relative abundance and biomass over time at the Vandenberg artificial reef site and seven reference reef sites for years two and three of the new reef. The Vandenberg rests in 135 feet of water about six miles south of Key West at 240

27.60' N latitude and 810 44.25' W longitude. The Reef Environmental Education Foundation (REEF) is performing the fish census activities.

The FWC Artificial Reef program is also providing funding to the University of West Florida to conduct acoustic tracking of selected reef fishes associated with modular concrete and concrete and steel units located in 110-130 feet of water in the EEZ within the Escambia East Large Area Artificial Reef Site, 15 nautical miles south of Pensacola Pass. Work is expected to be conducted during fall/winter 2011. The project will conduct a multidisciplinary, process-oriented study using an acoustic array of 16 Vemco VR2 receivers deployed in a defined pattern over a 22 km<sup>2</sup> area to continue work on the ecological function of small artificial reef patch reefs deployed by the FWC in 2003. Twenty-five reef fish will be tagged and tracked over a three-month period to produce three-dimensional tracks of fish and estimate home ranges and factors effecting tagged fish. Results of this study will add to our knowledge of reef fish ecology on small-scale artificial reefs off the Florida Panhandle.

The FWC and Escambia County will continue sampling legal-size recreationally targeted reef fish (red snapper, grey triggerfish, red and whitebone porgy, vermilion snapper, grouper) for PCB analysis (using skin-on lateral muscle tissue fillets) in compliance with requirements of the EPA risk-based PCB disposal permit for the ex-U.S.S. Oriskany (CVA-34), sunk as an artificial reef in 212 feet of water 22.5 nautical miles off Pensacola Pass on May 17, 2006. Between December 14, 2006, and November 18, 2010, eight reef fish sample collection events were completed, four during the spring and four during late fall/winter. The 254 retained reef fish from the Oriskany Reef through sampling round eight included seven reef fish species: 184 red snapper, 42 vermilion snapper, 14 red porgy, six whitebone porgy, four scamp grouper, two gray triggerfish and one red grouper. Six of seven species (all but the lone red grouper sample) during one or more of the eight sampling rounds had one or more specimens whose total PCB concentrations exceeded the Florida Department of Health (FDOH) PCB screening level of 50 parts per billion and the EPA Tier 1 monitoring screening threshold of 20 parts per billion total PCBs.

Red snapper and vermilion snapper were the only two reef fish species providing enough information to evaluate mean total PCB concentration trends over the first eight sampling rounds. During the first four sampling rounds, red snapper total PCB concentration means remained above both FDOH and EPA screening thresholds, spiking during sampling round two. By sampling round five, red snapper mean total PCB levels had declined below the FDOH threshold but remained above the EPA Tier 1 screening threshold. During sampling rounds six through eight, mean red snapper PCB concentration levels fell below both EPA and FDOH total PCB screening thresholds. Mean vermilion snapper levels remained consistently below FDOH and EPA screening levels from the time they became available for capture through round eight. The benthic insectivores red porgy and whitebone porgy continued through sampling round eight to have individual specimens with elevated PCB levels above EPA screening levels, or in some cases exceeding FDOH screening levels through sampling round eight. However, sample sizes were small for red and whitebone porgy and there was considerable variability in PCB concentrations among individual porgy specimens. The highest recorded total PCB concentrations for any of the individual 254 Oriskany Reef PCB sampled fish were from red porgy (1,654.7 parts per billion (ppb) during sampling round four and 1,222.7 ppb in sampling

round eight). These individual Oriskany Reef fish had total PCB levels 24 to 33 times higher than the FDOH screening level. Only four legal size piscivorous grouper (scamp) were available for capture at the Oriskany Reef with two of three captured in sampling round eight exceeding the FDOH screening threshold (highest concentrations 208.7 ppb and 94.1 ppb respectively).

The downward trends of mean red snapper total PCB concentrations to below EPA and FDOH screening levels at the Oriskany Reef and the consistently low vermilion snapper mean PCB levels presently do not require any fish consumption advisory action to be taken. The remaining species (triggerfish, groupers, and porgy) represent too few specimens sampled at the Oriskany Reef with too great a PCB variability among individuals of the same species to take any species.

Oriskany Reef sampling and monitoring will continue. Forty reef fish specimens from sample round nine collected from the Oriskany Reef on April 29, 2011, (4.9 years post-deployment) are presently undergoing analysis with results expected by the end of August 2011.

Additionally, 10 underwater visual assessments were conducted on the Oriskany Reef *over* the past few years by FWC divers, confirming that the observed recreationally targeted species found on the Oriskany are well represented among the fish retained for PCB analysis. Visual observations by FWC divers also documented that the Oriskany Reef had settled into the sediments about 10 feet at 2.5 years post-deployment and sustained minor structural change to the exterior covering of the smoke stack at 3.5 years post-deployment following the tropical storm events of 2007 and 2008, respectively.

### **Monitoring Compliance with the Marine Fisheries Trip Ticket Reporting Requirements through Audits of Applicable Fish House Records**

Monitoring the compliance with marine fisheries trip ticket reporting requirements ensures accurate fisheries information.

Five complete audits of wholesale dealers were conducted. Two additional complete audits of wholesale dealers were conducted jointly with FWC and NOAA Law Enforcement. Four other audit activities were conducted with FWC Law Enforcement, NOAA Law Enforcement and/or US Fish and Wildlife Law Enforcement. Sixteen audit investigations were conducted related to possible fraudulent trip records submission reported by FWC or NOAA Law Enforcement. As many as 136 One hundred thirty six wholesale dealers *received* delinquent reporting notices. Fifty-four petitions for informal administrative hearings were *received*, 25 informal hearings were conducted and adjudicated and *seven* petitions for informal hearings resulted in settlement agreements (22 remain). As many as 506 business emails were sent responding to audit related activities.

### **Administrative Penalty Assessments for Violations of Specified Fisheries Regulations, Retrieval of Lost and Abandoned Spiny Lobster, Stone Crab and Blue Crab Traps**

Florida Statutes specify administrative penalties for violations of specific fishery regulations.

Seventy-one administrative penalties were assessed for a total of \$214,275. Three of the administrative penalties were rescinded (totaling \$10,000). Penalties paid totaled \$17,575. Forty-eight of the administrative penalties (68%) were for net violations and seven (10%) were for

untagged crab traps, five (7%) were for lobster trap molestation, five (7%) were for wholesale dealer violations and six (8%) were license holder warnings.

The FWC currently has two programs dedicated to removing lost and abandoned traps from state waters. The Spiny Lobster, Stone Crab and Blue Crab Trap Retrieval Program contracts commercial fishermen to remove fishable traps from state waters during closed seasons. The Derelict Trap and Trap Debris Removal Program provide a mechanism to authorize volunteer groups to collect derelict traps and trap debris during open or closed seasons.

Blue crab, stone crab and spiny lobster have a number of trap restrictions and/or tagging requirements. Trap retrieval programs were conducted with revenues paid from fees received by these fisheries. Twenty nine trap retrieval trips were conducted (six for blue crab and 23 for stone crab and lobster) where a total of 2,641 traps (219 for blue crab and 2,422 for stone crab and lobster) were retrieved for a total expenditure of \$60,860. Additionally, eight debris removal authorizations resulted in removal of 3,644 traps.

### **Issuance of Special Activity Permits**

The marine fisheries special activity license program issues licenses for activities that require a waiver of marine fisheries regulations.

Three hundred five Special Activity Licenses were issued (237) or amended (68). Forty four percent (134) were for scientific research, 31% (95) were for education and or exhibition, and 18% (54) were for tournament catch, hold and release (remainder were for aquaculture brood stock (three), denied (five), dredge (one), gear innovation (one), stock collection and release (seven) and withdrawn (five).

### **Florida Fish and Wildlife Research Institute:**

Director: Gil McRae

### **Finfish**

The Florida Fish and Wildlife Institute exists to provide timely information and guidance to protect, conserve and manage Florida's fish and wildlife resources through effective research and technical knowledge.

We continued our efforts to monitor and characterize the recreational snook fishery in Florida and to conduct studies to establish movements and exchange rates between groups of snook inhabiting freshwater, estuarine and coastal reef habitats and also between the major estuarine systems. We also expanded our biological sampling of snook for age and reproductive status into riverine and offshore areas not previously sampled. Monitoring of spotted seatrout courtship sounds at a key spawning site was continued and a pilot project to evaluate red drum spawning sites and site fidelity off the mouth of Tampa Bay was continued, using a similar combination of acoustic telemetry and passive acoustic monitoring as used in our spotted seatrout spawning studies.

Studies of Florida's permit fishery were initiated, with an emphasis on developing a better understanding of the fishery and examining population movements and stock structure using

both conventional and genetic tagging studies. Our studies of movements, habitat fidelity and home ranges of recreationally important reef fish species in the Florida Keys were continued, as was our effort to identify and document spawning sites of the mutton snapper (*Lutjanis analis*) and other reef fish species.

We also continued a field study to provide quantitative information on habitat associations and movement patterns of goliath grouper (*Epinephelus itajara*) within the central eastern Gulf of Mexico, as well as initiating a catch and release mortality study and continuing our opportunistic collection of life history information from specimens made available through natural mortality events or enforcement actions of this protected species. Lastly, we began development of a histological atlas of Florida reef fish using samples from FWRI's West Florida Shelf reef fish surveys.

### **Mollusks**

Bay scallop (*Argopecten irradians*) population monitoring and restoration is ongoing from Pine Island Sound to St. Andrew Bay, with success evaluated via surveys of adult abundance and recruitment patterns. All of the areas open to harvest that were surveyed in 2011 were classified as healthy except the St. Mark's region, which was in a transitional status (showing signs of recovery after low densities in 2009 and 2010). The 2011 harvest season opened six days early compared to the 2010 season, which opened 11 days early. The 2011 season was also extended to September 25, elongating the season by 21 days total in 2011.

We will conduct a post-season survey for the first time since 2003 (Steinhatchee), 2005 (St. Joe Bay and Homosassa) and 2007 (Anclote and St. Andrew Bay) to assess mortality rates in both open-harvest and closed populations. The two monitored populations in the region potentially affected by the Deepwater Horizon oil spill (St. Andrew Bay and St. Joe Bay) had densities in 2011 that exceeded those in 2010, and also had higher recruitment levels, suggesting no immediate impact. Scallop densities in most closed areas were at the highest levels seen since surveys were initiated in 1994. But two populations, Tampa Bay and Sarasota Bay, were at their lowest since surveys started there in 2007, suggesting the population in the southwest region has not fully recovered despite restoration efforts. These efforts are organized with the cooperation of FWRI, but are largely funded through micro-grants and other fund raisers by volunteer-based organizations.

Oyster (*Crassostrea virginica*) population assessment studies are being conducted in southeast Florida as part of the Comprehensive Everglades Restoration Program and also as a component of a federally-funded (ARRA) oyster restoration in St. Lucie County. Additional studies of Gulf of Mexico oysters were initiated as part of two actions related to the Deepwater Horizon oil spill: a rapid-response study meant to establish base-line metrics (which will be useful in comparing data from several Florida Gulf estuaries) and, also, as part of the Federal NRDA response. FWRI is also participating in updating the FMP for Gulf oysters. A draft version of the plan is complete and is being prepared for public comment and the 2012 GSMFC review process.

### **Crustaceans**

Research into lipofuscin age determination of Florida blue crabs continues with investigation into the correlation of lipofuscin accumulation and chronological age. The investigation into the

effect of the Blue Crab Effort Management Plan (BCEMP) on commercial blue crab effort and landings continues to track annual changes in landings, license renewals and traps tags post-BCEMP implementation. A statewide disease monitoring program, using histology and qPCR for the detection of *Hematodinium sp.* in wild populations of blue crabs continues. This program is working to understand the role of this disease in the natural mortality of blue crab populations.

We continue to identify horseshoe crab spawning beaches and collect spawning site information through an online reporting system. This reporting system continues to demonstrate annual increases in public participation and has revealed new spawning sites throughout the state.

The stone crab fishery independent monitoring program continues at nine locations along the west Florida coast. This program gathers fishery independent data on the stocks exploited in this claws-only fishery. Since the implementation of this program, sufficient data has been collected to suggest fishery specific trends that are currently being integrated into the 2012 stock assessment.

This year, Florida has experienced an increase in the reporting of Giant Tiger Prawn, *Penaeus monodon*, from the Panhandle and East coast of the state. We have distributed press releases and contact information statewide to encourage reporting from recreational and commercial fishermen. The extent of this exotic invasive population is unknown.

### **Fisheries Genetics**

With angler assistance, we continued to use DNA markers to genetically track individual tarpon in capture/recapture studies in Florida. To date, about 9,000 samples from caught-and-released tarpon have been obtained and genotyped. The majority of movements for recaptured tarpon have occurred over small distances (less than 10 km); however, some have occurred over large distances (e.g., from the Tampa Bay area to the Florida Keys).

Analyses of genetic data for spiny lobster and common snook continued. We also continued to examine the distributions of bonefish species inhabiting Florida and are completing the formal description of a newly discovered bonefish species, which occurs in south Florida, Mexico and some Caribbean locations (Wallace and Tringali. 2010. J. Fish. Bioi. 76: 1972-1983). Mean single-generation dispersal distances were estimated for members of sand seatrout populations along Florida's Gulf of Mexico coast. Observed patterns of genetic heterogeneity conformed to an isolation-by-distance model of gene flow, and individual sand seatrout can be expected, on average, to disperse from natal locations a distance of about 80 km. The genetic effective population size for the west-central Florida stock of Gulf of Mexico red drum was determined based on genotype data from more than 23,000 wild red drum ( $N_{ew} = 48,580$ ; 95% CI = 32,720 to 86,830). The effective size of hatchery red drum released during Project Tampa Bay was computed based on genotype data from more than 2,200 hatchery recaptures ( $N_{eh} = 34$ ; 95% CI = 32 to 36). Using 29 microsatellite DNA markers, about 250 specimens of hogfish from the Florida Atlantic and west-central Florida Gulf of Mexico were tested to ascertain levels of geographic connectivity. Spatially-associated genetic differentiation was not observed over the sampled range. For spotted seatrout, approximately 500 breeding adults and 650 young of the year from Tampa Bay were genotyped for mark/recapture and kinship studies, which are ongoing.



### **Fisheries Statistics**

Fisheries-independent monitoring (FIM) of fish continues in Tampa Bay, Charlotte Harbor, Indian River Lagoon, Cedar Key, Apalachicola and Northeast Florida. The FIM program uses a systematic sampling strategy to collect fish free from the biases associated with collecting data from recreational and commercial fisheries. Data has been used for numerous stock assessments for several inshore species. Staff has spent much time developing models that describe fish abundance associated with different habitats. Additionally, staff in this program have been involved in the mercury concentration in fish program, fish health assessment, environmental health and fish diets, as well as studying fish from the rivers feeding Charlotte Harbor and Tampa Bay. We have continued to work on expanding our FIM program into reef areas along the coast.

During 2010-2011, preliminary numbers indicate Florida commercial landings from 216,902 commercial fishing trips totaled approximately 95.4 million (M) pounds of fish, crab, clams (wild harvest only, excludes aquaculture), lobster, shrimp and other invertebrates worth over \$200 M in dockside value. Marine life landings (live fish and invertebrates for aquaria and other uses) from 5,601 commercial collecting trips in 2010-11 amounted to 8.2 M individual specimens worth nearly \$2.9 M in dockside value. The top 10 species in dockside value harvested during 2010-11 in Florida were: Caribbean spiny lobster (\$38.3 M), stone crab (claws: \$25 M), pink shrimp (\$13.8 M), red grouper (\$12.4 M), blue crab (including soft-shell crabs; \$12 M), white shrimp (\$10.5 M), king mackerel (\$8.7 M), bait shrimp (\$7.4 M), oysters (\$6.7 M) and black mullet (\$5.9 M). The total commercial harvest of food shrimp in Florida was 17.4 M pounds (heads on; \$34.7 M dockside value) in 2010-2011.

### **Stock Enhancement Research**

Preliminary designs for future marine eco-centers were completed for sites in Escambia and Walton counties in the panhandle. Demolition of buildings and progress on the youth development center and aquatic plant nurseries were ongoing at the New Smyrna Beach Ecocenter. Planning continued for development of an intensive marine hatchery for Tampa Bay. A fourth trial of intensive culture of juvenile red drum *Sciaenops ocellatus* was completed evaluating new equipment to optimize oxygen levels in circular culture tanks. We continued to make improvements to transition existing culture capabilities from extensive to intensive.

A new, six-tank production system for intensive culture of larval red drum was completed in the intensive culture lab. Larval red drum were stocked into these tanks to develop husbandry protocols for indoor, phase-I production. We continued coordination with the crustacean group for an aging study for blue crabs (*Callinectes sapidus*) in pond 16 and greenhouse two. There were no snook or red drum releases during this period. Spartina plugs (33,000) and shoots (10,000) were harvested from the hatchery effluent treatment marsh for shoreline restoration or nurseries at six locations throughout Tampa Bay.

### **Marine Fish and Shellfish Health**

Fish and Wildlife Health (FWH) staff in St. Petersburg monitors the health of aquatic organisms throughout the state. During the 2010-2011 fiscal year, the FWH group conducted necropsies (laboratory or field examinations of fish to collect health data) on 794 specimens that covered four project aspects: 1) event response (n=185), 2) health monitoring (n=257), 3) special projects (n=171) and 4) stock enhancement support (n=181).



Event response specimens (23%) were evaluated as part of fish kill investigations or other fish and wildlife health related events. Health monitoring specimens (32%) were collected primarily by Fisheries Independent Monitoring (FIM) as part of our collaborative disease surveillance efforts, and were submitted to FWH because they exhibited gross external abnormalities or because we requested apparently healthy specimens to fulfill our objective to develop health profiles for sport fish. Fish categorized under special projects (22%) included sport fish collected for parasitological analysis to study parasites that may impact potential aquaculture species. Fish examined for stock enhancement purposes (23%) were evaluated in support of the Florida Marine Fisheries Enhancement Initiative (FMFEI). These fish came from trial re-circulating aquaculture systems from our Stock Enhancement Research Facility.

The statewide, toll-free Fish Kill Hotline (1-800-636-0511) and our web-based fish kill reporting form allow the public to report aquatic mortality and disease events directly to scientists, who can respond immediately to their concerns. Since its inception, the FWH group has received and responded to over 17,419 reports/information requests (hereafter referred to as reports). In 2010-2011, a total of 1,743 reports were received by FWH fish kill hotline, through the FWRI website or via direct calls. Approximately 36% of reports were related to unique fish kills, 32% referred to previously reported fish kills, 16% of the calls were concerning information relevant to FKH data or educational inquiries and the remaining 16% fell into other categories.

Sixteen sites were investigated for fish kills. A fish kill was considered an "event" when it was politically, economically or ecologically significant. Four events were identified during the 2010-2011 period. A multispecies kill affecting primarily adult red drum (*Sciaenops ocellatus*) along 30 miles of the St John's River persisted from the end of May 2010 to the beginning of July. We received 338 reports and/or information requests about the fish kill. The chronic fish kill was triggered by a significant reverse flow event, salinity influx and a cyanobacteria bloom die off. A multi-agency investigation and community conversation with Senator John Thrasher and Jacksonville officials helped explain the event cause and address public concerns. Another event, an epizootic affecting mullet (*Mugil cephalus*), shad (*Dorosoma cepedianum*) and menhaden (*Brevoortia sp.*), was confirmed to be caused by the pathogen *Aphanomyces invadans*, an OIE (Office International Epizootics) reportable aquatic animal disease (n=17). The third event (n=54) was caused by a viral pathogen affecting only hardhead catfish (*Arius felis*). Finally, cold kills resulted in 107 fish kill reports.

### **Marine Mammals**

FWC documented a record number of manatee carcasses in Florida during 2010 (n = 766). Preliminarily, 281 of the cause of death determinations in 2010 were related to cold stress and 83 were watercraft related fatalities. Statewide manatee rescues in 2010 were also a record high (n = 107). Through September 2011, 380 manatee deaths (YTD) were reported in Florida. Of those, 72 were related to watercraft and 109 were related to cold stress. Perinatal deaths (n = 65 YTD) included some cases related to cold stress.

A statewide "synoptic" survey was flown in 2011 and a count of 4,834 manatees was recorded. This is considered to be a minimum count and does not provide a population estimate. An

important *objective* within the state Manatee Management Plan includes improving these methods and implementing statistically sound methods to estimate the manatee population.

During the 2010-11 North Atlantic right whale calving season (December 01, 2010 -March 31, 2011) staff coordinated and conducted aerial surveys off the coastal waters of Florida in an effort to alert vessels to the presence of right whales, monitor calf production, identify unique individuals and describe whale distribution and habitat. Twenty mother/calf pairs were documented during the 2010/2011 North Atlantic right whale calving season. One additional cow-calf pair was sighted for the first time in Rhode Island Sound in April 2011. Six entanglement related events were documented in the southeastern U.S. during the 2010-2011 calving season, four off Florida. In collaboration with Georgia Department of Natural Resources, staff conducted 22 right whale biopsy sampling trips resulting in samples from 13 calves and several previously unsampled juvenile and adult whales.

### **Division of Habitat and Species Conservation**

Director: Tim Breaux (Retired)/Eric Sutton (Appointed September 2011)

#### **Imperiled Species Management**

The Imperiled Species Management Section (ISM) in this Division is responsible for the planning and implementation of management activities directed toward the protection and recovery of manatees, right whales and five species of marine turtles. Marine turtle activities are funded from the Marine Resources Conservation Trust Fund. Manatee and right whale protection efforts are funded from the Save the Manatee Trust Fund.

#### **Marine Turtles:**

The Imperiled Species Management Section (ISM) implements tasks from recovery plans for five species of marine turtles. The activities are focused in five program areas.

1. Review of and commenting for state and federal-permitted activities to minimize negative impacts to marine turtles and their nesting habitat.
2. Provide permits to individuals, organizations and facilities that conduct research or conservation activities or keep captive marine turtles.
3. Assist local governments and private sector in efforts to reduce impacts of lights and other disturbances on marine turtle nesting.
4. Development of longer term conservation strategies such as Habitat Conservation Plans (HCPs).
5. Outreach activities to provide current information to the public and promote conservation stewardship.
6. Respond to unusual or catastrophic events that impact marine turtles.

#### **Accomplishments**

- Staff participated in the January 2011 cold stun event that impacted marine turtles in the Florida Panhandle and the Atlantic coast. During the January cold stun event, staff retrieved animals from St. Joseph Bay in Gulf County, transported them to Gulf World Marine Park in Panama City for rehabilitation and then assisted in the release of animals. Tequesta program staff was integral in processing, transport and release of animals retrieved from peninsular Florida, including Mosquito Lagoon and other areas along the

Atlantic Coast. Staff also participated in various activities that resulted from the 2010 catastrophic Deepwater Horizon event. Staff continued to participate in Technical Working Groups (TWGs) for Natural Resource Damage Assessment (NRDA) planning.

- ISM staff served on the Marine Turtle Grants Committee. This program awarded approximately \$306,000 in grants to Florida conservation groups, local governments and educational institutions based on funds generated by the sale of the sea turtle license plate. ISM staff also managed the review of Marine Turtle Permit applications and the approval process for grant requests for projects requiring such permits.
- Upon request, staff also conducted educational presentations at schools and meetings of local conservation groups, home owners associations and other interested groups concerning marine turtles, lights and other impacts.
- Staff reviewed and approved approximately 190 applications for conservation activities with marine turtles, including nesting beach surveys, stranding and salvage work, research, public turtle walks, rehabilitation at captive facilities and educational display.
- FWC authorized captive facilities to hold marine turtles for rehabilitation (14), for educational display (17) or for research (two). Staff coordinated transfer and release of marine turtles during rehabilitation and supervised public sea turtle releases.
- Staff continued to monitor captive facilities in the state that rehabilitate marine turtles or hold turtles (loggerhead and non-releasable turtles only) for educational purposes.
- Staff reviewed approximately 244 applications submitted to the Florida Department of Environmental Protection's (DEP) District Offices, DEP's Bureau of Beaches and Coastal Systems, the Water Management Districts and the State Clearing House. Projects reviewed included Coastal Construction Control Line applications, Environmental Resource Permit applications and Joint Coastal Permit applications.
- Staff participated in over 416 meetings and conference calls on these projects and on other issues involving marine turtles with staff from local governments, other state and federal agencies, and stakeholders on specific projects and marine turtle conservation issues.
- Staff conducted more than 70 site inspections as part of our environmental commenting responsibilities, including lighting inspections at the invitation of local governments and property owners. Program staff also participated in one administrative hearing.
- Staff participated in the design, implementation and review of monitoring plans required to assess the impacts of permitted activities on marine turtles, their nests and hatchlings. Staff worked with DEP on a report to the legislature on sea turtle monitoring required by state and federal permitting agencies as part of beach nourishment projects.
- FWC staff was invited to participate as an expert for the U.S. Fish and Wildlife Service and Army Corps of Engineer's Team on the Programmatic Biological Opinion for beach restoration. Staff served on the following teams, working groups and committees: Archie Carr Sea Turtle Refuge Working Group, Archie Carr Beach Nourishment Meeting Committee, FWC's Coastal Wildlife Conservation Initiative, the FWC Permitting and Wildlife Friendly Teams and the Marine Turtle Grants Committee.
- Staff continues to work with federal, county and municipal organizations to minimize lighting impacts on marine turtles. Staff managed the hatchling disorientation database, contacted local governments and helped to formulate appropriate actions to resolve problem lights on Florida's nesting beaches. Staff conducted numerous nighttime lighting

inspections to identify problematic light sources and provide recommendations for potential solutions for each problematic light.

- FWC staff hosted the 2011 Marine Turtle Permit Holder Workshop in Melbourne Beach for approximately 350 Marine Turtle Permit Holders, volunteers, local government, state and federal agency staff. This two-day event included approximately 15 presentations by agency management and research staff, conservation organizations and local governments, as well as summaries of Marine Turtle Grant projects.
- Staff responded to requests for educational materials concerning marine turtles and provided copies of educational brochures, posters, rack cards and other information.
- Staff created a colorful decal featuring a photograph of a hawksbill sea turtle. This decal, number 20 of a series, was distributed to local tax collectors' offices across Florida. Funds from the sale of this decal support FWC's marine turtle program.
- Through a Marine Turtle Lighting course, which was developed jointly with the USFWS, FWC staff was able to provide information on marine turtles and lights to a variety of entities across peninsular and panhandle Florida. Lighting workshops were presented to an audience of local government, code enforcement, private property owners, state agency staff, marine turtle permit holders, county employees, lighting consultants, insurance companies and interested citizens. These workshops were hosted by different organizations around the state, including Collier, Volusia and Sarasota counties.
- Staff is administering four grants, including \$416,000 from the U.S. Fish and Wildlife Service for Walton County's Habitat Conservation Plan, \$25,000, from the National Marine Fisheries Service to assist captive facilities to obtain medical supplies to treat injured and sick marine turtles and \$87,000 from the Florida DEP Coastal Zone Management Program for improvements in coastal armoring designs to minimize impacts to marine turtles and their nesting habitat. Staff also assisted the Wildlife Foundation of Florida and two local governments, the city of Deerfield Beach and city of Venice, to obtain funds from the National Fish and Wildlife Foundation for lighting improvements along their sea turtle nesting beaches. Grant management includes oversight of contracts to local governments and vendors as necessary.
- Staff offered a Wildlife Friendly Lighting Certification program for lighting companies to encourage development of products that meet the requirements to keep light low, long (wavelength) and shielded. Lights that meet certain specifications are featured on the FWC website as options for reducing impacts from artificial lights on marine turtles and other wildlife.

### **Manatees:**

The Imperiled Species Management Section (ISM) implements the tasks of the Florida Manatee Recovery Plan and the newly approved state Manatee Management Plan (2007). The activities are focused in six program areas.

1. Development and implementation of county-based manatee protection plans (MPPs).
2. Promulgation of boat speed regulations to protect manatees.
3. Review of permitted activities to minimize negative impacts to manatees.
4. Various directed efforts to protect and enhance manatee habitat, particularly warm water refuges and sea grasses.
5. Outreach activities to provide current information to the public and promote conservation stewardship.

## 6. Stakeholder engagement to encourage participation and partnerships.

More details on the manatee program are available in the Save the Manatee Trust Fund Annual Report to the Legislature, which can be found at:

<http://www.myfwc.com/research/manatee/trust-fund/annual-reports/>

### Highlights

- Duval County MPP Revision Update: Work continues on revisions to the MPP and some portions have been drafted and are under review. A complete draft is expected in late 2011.
- Sarasota County drafted revisions to their MPP with assistance from FWC. The revised plan is scheduled for consideration by the Board of County Commissioners in July 2011.
- FWC also assisted Miami-Dade County, as they evaluate what revisions they may make to their MPP. FWC staff attended several Charlotte County Manatee Protection Plan Advisory Committee Group meetings and presented information in order to help them assess whether the county should develop an MPP. The Charlotte County Board of County Commissioners approved the development of an MPP in February 2011 at the recommendation of the advisory group. FWC is partnering with the county to help develop and draft the MPP.
- Staff produced 265 comment letters for development projects reviewed during the year and offered recommendations to reduce or eliminate potential adverse impacts to manatee from the proposed activities. Implementation of the Boat Facility citing portion of FWC approved MPPs is accomplished during the permit review process. Distribution of public information about manatees is also accomplished through these comments as facilities are required to post informational signs on manatees and distribute written materials to boat users.
- ISM coordinated with the USFWS regarding the revisions to the U.S. Army Corps of Engineers (ACOE) Manatee Key (revised in 2011) as well as the USFWS programmatic biological opinion, which was finalized in March 2011. These efforts should help streamline permit reviews.
- Amendments to the existing speed zones in Sarasota County were adopted in June 2010. Sign posting for the new zones was completed in summer 2011. In Broward and Flagler counties, the rule making process that began last year has proceeded and both local rule review committees completed their reports to the agency. For Broward County, staff published a proposed rule, held a public hearing in the county and received public input. Presentation of the final rule was made at the September 2011 FWC Commission meeting. The rule for Flagler County is still being developed in cooperation with the county and the USFWS.
- Structure Related Manatee Deaths have totaled 198 (since 1974) as a result of interactions with the numerous water control structures located on the state's waterways. The annual average structure related deaths pre-retrofitting has decreased from an average of 6.5 manatees/year (1974- 1999) to a post-retrofitting average of 2.1 manatees/year (2000-2010). There is only one remaining water-control structure requiring the installation of a manatee protection device and this structure will begin retrofitting during late 2011. Overall, coordinated efforts are having a significant influence on reducing structure-caused mortality at retrofitted structures.

- FWC is working with the Water Management Districts in the development of Minimum Flows and Levels (MFLs) for spring systems that provide warm-water habitat for manatees. MFLs for Volusia Blue Spring, Manatee Springs, Fanning Springs and the Weeki Wachee Spring system have all been developed using criteria to protect winter warm-water manatee use. MFLs for the Homosassa River and the Chassahowitzka River were reviewed and FWC comments were provided in 2010.
- FWC has identified a potential restoration project at Fanning Springs that will enhance access to the spring for manatees and Gulf sturgeon. Currently, TNC has provided funding for an engineering feasibility study and FWC will provide funding to complete the project during the 2011-2012 funding cycle. The Fanning Spring restoration project has completed the engineering design phase and FWC has received all construction permits. The project is on schedule to be completed by the end of 2011.
- FWC worked with Florida Power and Light (FPL) to ensure that the heating systems that create interim warm-water refuges during the conversions of the Cape Canaveral and Riviera Beach power plants provided the necessary refuge to manatees. This was the first winter when the plants would no longer discharge warm water due to plant reconstruction projects. Although there were initial difficulties creating a sufficient warm-water refuge at the Cape Canaveral plant, FWC and FPL partnered on solutions that quickly resolved the issues, and manatees survived an extremely cold winter at this refuge. Manatee distribution data was collected via aerial surveys and manatee movement data was collected from satellite tagged manatees, providing information regarding how manatees responded to the changes in warm water availability during the winter cold season. In addition, daily health assessments at the interim warm-water refuge were completed to determine if any manatees suffered from cold-stress related symptoms and whether the interim warm-water refuge moderated those symptoms.
- FWC coordinated with power companies during this past winter to insure that individual power plants were adhering to their operational National Pollutant Discharge Elimination System mandated Manatee Protection Plans. Although the power plants maintained warm-water discharges through most of the winter, the extreme cold of 2010 resulted in numerous mechanical difficulties that complicated the operation of power plants throughout the state. These complications provided additional difficulties for manatees seeking consistent warm-water habitat. FWC will hold annual meetings with the power companies to facilitate ongoing communication.
- Educational activities for manatee conservation included the distribution of brochures and other informational materials to local governments, stakeholders, conservation groups, marinas, schools, libraries and the general public. Staff responded to 175 requests for printed materials.

**Florida Department of Agriculture and Consumer Services**

Commissioner: Adam H. Putnam

**Division of Aquaculture:**

Director: Leslie Palmer

The Division of Aquaculture conducts numerous activities to promote the development of aquaculture and ensure the quality of aquaculture and shellfish products in Florida. These



activities include regulatory, administrative, advisory, and technical functions directed toward ensuring that aquaculture operations are compatible with the Florida Aquaculture Plan, Aquaculture Certification Program, best management practices, resource management goals, and public health protection. The Division provides several primary service programs to support aquaculture and shellfish resource development:

- 1) Aquaculture Certification Program;
- 2) Sovereignty Submerged Lands Aquaculture Leasing Program;
- 3) Oyster Culture and Shellfish Resource Development Program;
- 4) Shellfish Sanitation;
- 5) Shellfish Environmental Assessment; and
- 6) Technical Support Program (Ombudsman, training, technical outreach, grants).

The Division has been very progressive in its support of aquacultural development as a practicable alternative to commercial fishing and conventional agriculture to foster economic development in rural and coastal communities. The Division's programs offer unique and essential services to this emerging sector of Florida's agriculture community. These programs provide the regulatory framework for aquacultural operations and public health protection, provide specific farming areas on state-owned submerged lands, and provide responsible stewardship for Florida's natural aquatic resources.

During FY 2010/2011, the Division continued its commitment to encourage the development of the aquaculture and shellfish industries in Florida. This commitment is based on the belief that aquaculture will become an integral segment of Florida's agricultural and economic future by providing high quality aquacultural products to worldwide markets while advancing resource management.

The following is a summary of the activities related to aquaculture and shellfish resource management carried out by the Bureau of Aquaculture Development and the Bureau of Aquaculture Environmental Services during fiscal year 2010/2011.

### **Bureau of Aquaculture Development**

#### **Aquaculture Certification Program**

Chapter 597, Florida Statutes (F.S.) established the Aquaculture Certificate of Registration to recognize aqua-farming businesses. Aquacultural businesses in Florida are required to be certified annually and to attest that they will comply with the best management practices provided in Chapter 51-3, Florida Administrative Code (F.A.C.). The aquaculture certificate is used to identify aquaculture producers as members of Florida's agricultural community and to identify aquacultural products produced in the state.

The Aquaculture Certificate of Registration is linked to the Best Management Practices Program. Best management practices have been established by and for the aquaculture industry and represent the most appropriate and practical framework for Florida's diverse aquaculture businesses. Site inspections are conducted at aquaculture facilities to ensure compliance with best management practices. Staff is trained to provide a standardized evaluation based on compliance with established best management practices.

The Division certified 913 aquaculture facilities during FY 2010/2011. Shellfish producers (364 farmers) make up 40% of the certified farms, 195 ornamental producers make up 21% of the certified farms, 219 food fish producers make up 24% of the certified farms, with the remaining producing live rock, alligators and bait. Certified farms are found in 61 of the state's 67 counties: with the highest number of certified farms occurring in Levy County (21%) and Hillsborough County (9%).

#### Sovereignty Submerged lands Aquaculture Leasing Program

The Division is responsible for the Aquaculture lease Program under the provisions in Chapter 253, F.S. During FY 2010/2011, the Division administered 521 aquaculture leases containing about 1,180 acres and 60 shellfish leases containing about 1,027 acres. Aquaculture and shellfish leases are located in 17 counties, including: Bay, Brevard, Charlotte, Collier, Dixie, Franklin, Gulf, Indian River, Lee, Levy, Manatee, Monroe, Palm Beach, Pinellas, Santa Rosa, St. Johns, and Volusia Counties. In response to its statutory mandate, the Division identifies tracts of submerged lands throughout the state that are suitable for aquacultural development. Twenty special aquaculture use areas have been identified by the Division and authorized by the Board of Trustees in nine coastal counties.

Unlike many upland agricultural ventures that are conducted on privately-held lands, marine aquaculture must be conducted on or over submerged lands that are largely held in the public domain. Since only an insignificant amount of suitable submerged acreage is privately owned, marine aqua-farmers are uniquely dependent upon the use of public lands to grow their crops. Accordingly, the Department must act on behalf of the Governor and Cabinet to administer and manage these public lands in the best interest of the people of Florida, including protecting valuable natural resources.

The Aquaculture Lease Program supports marine aquaculture in a very unique way, and producing hard clams on sovereignty submerged lands is the largest marine aquaculture business in Florida. The most recent economic survey of hard clam processors (University of Florida, 2007) reported that 184 million clams were sold during 2007, accounting for about \$41 million. Currently, there is little cumulative information available to determine the economic impacts from the Deep Water Horizon oil spill event on clam businesses in 2010 and 2011 in Florida.

#### Oyster Culture and Shellfish Resource Development Program

Under the mandate to improve, enlarge, and protect the oyster and clam resources of the state, the Division is actively engaged in enhancing shellfish resources and restoring oyster reefs on public submerged lands. During FY 2010/2011, the Division collected 193,488 bushels of processed oyster shell from processors located primarily in Franklin County and collected 21,216 bushels of clam shell from processors in Cedar Key. Shell planting operations accounted for the deposition of 8,499 cubic yards of processed and fossil shell on public oyster reefs in Franklin and Levy Counties. Oyster resource development projects involving the relaying and transplanting of live oysters were conducted in cooperation with local oystermen's associations in two coastal counties. A total of 99,678 bushels of live oysters were replanted on public reefs in Dixie and Levy Counties.

#### Restoring Public Oyster Reefs



In 2006, the Department entered into a subcontract agreement with the Gulf States Marine Fisheries Commission (through NOAA) to restore oyster reefs adversely affected by hurricanes under the Emergency Disaster Recovery Program (EDRP). In 2010, the subcontract agreement was extended on an additional year through September 2012. The \$4.2 million contract provides for three project components: 1) restoring public oyster reefs, 2) providing economic assistance to oyster farmers, and 3) developing a scientific model to assess the success of oyster reef restoration efforts in the Pensacola Bay system. In 2010/2011, the Division continued to be actively engaged in restoring oyster reef habitat on numerous sites identified in the EDRP oyster restoration plan. Oyster reef restoration operations accounted for the deposition of 8,499 cubic yards of substrate materials on public oyster reefs in some of Florida's most productive estuaries.

#### Apalachicola Bay Oyster Harvesting License

An oyster harvesting license is required to harvest oysters from Apalachicola Bay. In 2011, 1,898 oyster harvesting licenses were sold, representing a 24 percent increase over the number of licenses sold in the preceding year. License sales demonstrate a trend in the increasing number of harvesting licenses sold, and represents the highest number of licenses sold since the license was established.

#### Technical Support Programs

Providing technical assistance to the aquaculture and shellfish industries is an important Division activity. Staff provides substantial technical and administrative support for aquacultural and shellfish operations through site visits, compliance inspections, technical meetings, conferences and workshops. Staff conducted more than 2,500 site visits and compliance inspections to assist aqua-farmers and shellfish processors.

#### **Bureau of Aquaculture Environmental Services**

##### Shellfish Sanitation and Environmental Assessment Programs

A total of 39 shellfish harvesting areas totaling 1,445,833 acres are currently classified and managed statewide. During FY 2010/2011, 565 sampling excursions were conducted to collect and analyze 11,663 water samples for fecal coliform bacteria. There were 316 management actions to close or re-open shellfish harvesting areas in accordance with the management plans for individual shellfish harvesting areas. During FY 2010/2011, a total of 91 Shellfish Processing Plant Certification Licenses were issued and 380 regulatory processing plant inspections were conducted. Based on inspection results, 28 warning letters and five settlement agreements were issued.

#### **Commercial Fishery Data Collection Activities**

Completed trip ticket information was available for the 2010 calendar year. In 2010, there were 142,573 trips on the Gulf coast that accounted for 61,512,004 pounds of product or 67% of trips and harvest for the entire state. Landings information for 2011 is considered preliminary is based on edited data through early August. Thus far in 2011, 76,097 commercial trips amounting to 37,387,618 pounds of product, have been reported in the Marine Fisheries Information System (MFIS) for the Gulf coast of Florida. In terms of the entire state of Florida, the Gulf coast accounted for 65% of the trips and 70% of the harvest by weight. In terms of reporting, in 2010, a total of 232,993 trip tickets were edited of which, 138,657 (or 60%) were received electronically. Those tickets accounted for 342,993 edited species records (66%). Data for tickets

received closely matched edited data in terms of record and species totals and proportions received electronically.

State samplers conducted a total of 1,688 interviews statewide in 2010 in the NOAA Southeast Science Center's Trip Interview Program (TIP), of which, 1,087 were conducted in the Gulf. Those 1,087 interviews yielded 36,978 fish measurements and 13,600 hard parts for age determination. FDM received limited funds from the Atlantic Coast Cooperative Statistics Program (ACCSP) to evaluate/calibrate current conversion factors used to quantify traditional and regional commercial harvest totals in terms of weight and numbers. The study began in August, 2011 and will continue for one year. Although the study is concentrated on the Atlantic coast, data collected from the Gulf (Florida Keys) will also be evaluated. State and federal port agents are coordinating their activities to optimize data collection. The FDM biostatistical database compiled 27,986 records in 2010 of which 27,558 otoliths were collected. Of those totals, 14,931 records and 9,125 otoliths were from FIN-funded collections. Thus far in 2011, a total of 15,591 records have been entered into the database of which 10,295 were from FIN-funded recreational and commercial TIP collections.

We continue to process Deep Water Horizon related requests from license holders for commercial landings information. However, the volume of information requests has diminished over the past few months.

#### **Recreational Fishery Data Collection Activities**

Complete data for the Marine Recreational Information Program Access Point Angler Intercept Survey (MRIP APAIS) are available for the 2010 calendar year. Preliminary data are available only for waves 1-3 of 2011 and are not presented here. In 2010, a total of 40,508 saltwater angler interviews were conducted by FWC field staff members. From anglers interviewed, 5,826 or 14.4% had harvest available to samplers for measurement. A weight and/or a length was obtained from 19,031 fish which equates to 3.2 fish measured per angler with fish available for measurement and 0.47 fish measured per angler interviewed. The years 2009 and 2010 represent the first years since FWC began conducting the marine recreational survey that the survey recovered less than 0.5 fish measurements per angler interviewed and continues a trend of decreasing biological data from the recreational angler survey. Factors affecting the numbers of fish measured may include the distribution of angler interviews by mode and area fished and a decrease in the availability of fish for measurement as a result of more restrictive regulations on sizes and bag limits as well as seasonal closures for some species. There also is evidence from the survey that more anglers may be practicing catch and release fishing for some inshore species.

FWC's efforts to gain a better understanding of the contribution of released catch to overall reef fish harvest estimates continues. In the period September, 2010 - August, 2011 a total of 135 for-hire trips were sampled, 88 of which were charter trips. To date, a total of 18,679 fish representing six species have been tagged and released. Of those tagged, red grouper, gag and red snapper accounted for 9,289, 2,692 and 5,070, respectively.

The Enhanced For-Hire Telephone Survey (sampling 40% of active vessels) had 37,272 records in 2010, of which 13,132 records represented charter fishing trip reports. Sampling returned to

pre-2010 levels of 10% of active vessels in June 2011. The data collection portion of the MRIP pilot logbook study conducted concurrently in Texas and Florida was completed in August, 2011 and letters have been sent to vessel operators thanking them for their participation. Beverly Sauls is communicating with MRIP consultants, NOAA and GSMFC on details of the analysis. The MRIP Video-Monitoring Pilot Study is in its final period of data collection and is expected to wrap up assessment the efficacy of trip video as a method for obtaining catch information, particularly released catch details, from recreational boat fishers. Lastly, FWC is also conducting an MRIP pilot study that involves stratification of the state into 5-8 independent sample regions for the APAIS. As the new sampling regions would also use new MRIP APAIS methodologies tested in North Carolina in 2009-2010, the Florida stratification study must await the final results from the North Carolina study. In the meantime, we are collaborating with MRIP consultants involved in the development of the new MRIP estimation methodology, to possibly produce sample draws and more appropriately allocate sampling effort. Potentially, data collection could begin in 2012.

### **Alabama Report: C. Denson**

#### **Marine Resources Division (MRD)**

Chris Blankenship, formerly MRD's Chief Enforcement Officer, has been named as the Division's Director.

MRD is working with the National Marine Fisheries Service and the National Fish and Wildlife Foundation (a USFWS foundation) to provide educational materials and inspections for shrimp boats in response to recently proposed TED changes and to reduce turtle mortality rates.

MRD is working with architecture and engineering firms to finalize and implement plans for the construction of a new laboratory and office facility at Claude Peteet Mariculture Center (Gulf Shores) and the renovation of boat basins located at Divisional offices in Gulf Shores and on Dauphin Island. Renovations of the Dauphin Island primary boat basin are currently underway and site work at CPMC is scheduled to begin in October 2011. Funding for construction activities are derived (in part) from the Coastal Impact Assistance Program (CIAP). Hatchery equipment for the lab is being acquired using EDRP funds.

MRD participated in 3 outreach events at the Mobile Boat Show, the Delta Woods and Water Expo, and Alabama Coastal Bird Festival and Conservation Expo in Fairhope. These events included MRD's interactive "touch tanks", public education, and literature dissemination.

MRD conducted an oyster relay project for the second consecutive year. In March of 2011, over 100,000 sacks of oyster and cultch material were relayed from an area classified as conditionally restricted to the Relay Reef in approved waters. The relayed oysters were monitored 24 hours a day for 21 days by the Enforcement Section to ensure no illegal harvest. The Relay Reef will be opened for harvest in November 2011.

#### **Fisheries Section**

MRD continues to operate EDRP oyster recovery projects. A second relay to relocate oysters and cultch material to a reef in lower Mobile Bay was conducted during March and April of

2011. Approximately 6 million pounds were relocated during this relay increasing the total relayed material to around 12 million pounds. Commercial harvest on the relay reef is scheduled to open on October 24 and will be closely monitored through Alabama's oyster management program.

Construction of an oyster management barge is nearing completion and should be operational sometime in November. Barge will allow for cultivating, planting, relaying and assessment of Alabama's reefs.

Construction of a 32 ft research vessel is underway. This vessel will be used for a variety of projects including submerged habitat evaluation (side scan sonar work) and vertical line sampling. Side scan surveying equipment to be used onboard this vessel has been acquired using EDRP funds.

MRD is finalizing preparations for implementing Oyster Management Stations to monitor the harvest and transport of oysters from Alabama's oyster reefs. These stations will greatly enhance our ability to protect consumers by allowing us to more accurately account for what is being harvested from individual reefs and what seafood dealers they are being sold to and will allow us to closely monitor the oyster harvest from specific reefs.

MRD has been working with Bluefin Data in the development of a computer program to better record oyster harvest data at Alabama oyster management stations. The program, built around the Trip Ticket program, will allow the electronic integration of fisherman harvest records with reported Alabama trip tickets to increase landings data accuracy.

MRD has observed an increase in the documented reports of tiger prawn (*Penaeus monodon*) encounters in Alabama waters during 2011 (8 confirmed reports). It is still unclear as to whether this species is becoming more prevalent or if increased public awareness contributed to the increase in documented reports.

MRD has received undocumented reports from SCUBA divers of occurrences of Lionfish (*Pterois volitans*) around Alabama's offshore reef zones. A confirmed report was documented in June 2011 by a spear fisherman who collected an individual at an oil/gas platform approximately 43 miles south of Dauphin Island.

SEAMAP spring cruises were completed without incident and the SEAMAP vertical line sampling program in Alabama's offshore artificial reef zones continues. The vertical line sampling program addresses reef fish abundances on structured and unstructured environments, age composition, and selectivity patterns for varying hook sizes.

MRD's Fishery-Independent Assessment Monitoring Program (FAMP) samples were collected and processed for biological/hydrographic data at monthly intervals to maintain continuity of the 30-year program. Bi-monthly catch reports were submitted to GSMFC.

## **Enforcement Section**

Major Scott Bannon, formerly the MRD Mobile County District Enforcement Supervisor, has been named as the Division's Chief Enforcement Officer.

Regulatory requirements for Alabama's no cost angler registry license have been implemented. Exempted individuals such as lifetime license holders and residents over the age of 64 are now required to register annually. A publicity campaign to disseminate information regarding registration requirements is underway.

Legislation was passed making changes to Alabama's Live Bait law and regulations. Changes include the following:

1. A non-resident vehicle cannot be listed as a transport truck on a resident license.
2. Bull minnow traps used by bait catchers must have the registration number of the inspected vessel attached.
3. Increased the cost of the license.
4. Clarified language for non-resident license.
5. A license may be purchased year round allowing the use of a shop, catcher boats and transport trucks.
6. Dead shrimp is allowed to be packaged in packages up to 5 lbs versus 1 lb.
7. Live Bait catcher boats may use a 50 foot trawl in areas open to commercial shrimping.
8. Increased the number of baskets of shrimp to two on a boat, two on a truck and four in the shop.

Officers from the Division have participated in several outreach activities including Alabama Coastal Clean-up where they recovered over 2000 lbs of debris along the shoreline. They also established a booth at the World of Opportunity career day which allowed 8,000 eighth grade students from all over southern Alabama to experience a variety of possible career paths.

The Enforcement Section completed implementation of Phase Two (Baldwin County) of the Coastal Remote Monitoring Program bringing the total number of active, high resolution cameras to 14. The video is available through a web-based portal and is accessible to officers in the field via a wireless internet connection which allows them to view and control the cameras. The video is being stored for up to three weeks on secure servers and is time/date stamped for use as evidence. The sensors include closed-circuit television, thermal, and infrared cameras. Phase Three is currently in the planning stages and will include environmental sensors in addition to video.

### **MRD Oil Spill Response and Activities**

MRD, in conjunction with the Alabama Department of Public Health (ADPH) and the Alabama Department of Agriculture and Industries (ADAI), is implementing a 3 year seafood tissue testing program. The testing program is broken down into 2 projects: (1) Direct Sampling Effort Project and (2) Dealer/Processor Sampling Project. Both programs will be testing polycyclic aromatic hydrocarbons (PAH) levels using the LC-Fluorescence method, dispersants and key heavy metals. The Direct Sampling Effort Project, operated by MRD and ADPH, will test seafoods collected directly from Alabama waters or reef zones. The Dealer/Processor Sampling Project, operated by ADAI, will test seafoods obtained from processors and dealers regardless of harvest location. The results of this program will be distributed to the public. In addition to the

seafood testing program, Alabama has established a Seafood Marketing Commission that will spearhead a seafood promotional campaign in Alabama. Director Chris Blankenship has been named Program Administrator for both the Seafood Testing Program and the Seafood Marketing Program.

MRD continues to work with GSMFC in the implementation of the ODRP and associated seafood marketing and sustainability programs.

MRD continues to work with the Natural Resource Disaster Assessment (NRDA) process and is involved in several ongoing sampling and assessment programs.

### **Mississippi Report: D. Diaz/K. Cuevas**

#### **Marine Patrol**

The Office of Marine Patrol, Marine Law Enforcement activities for April 2011 – September 2011 consisted of 1205 sea hours with 2,360 contacts which resulted in 55 citations issued.

#### **Shrimp and Crab Bureau**

Mississippi Territorial Waters opened to shrimping at 6:00 a.m. on May 25, 2011. This was the earliest opening on record. An aerial count found only 162 boats trawling in the Mississippi Sound on opening day. So far Mississippi shrimp landings are up this season, the second best year post 2005 Hurricane Katrina. Shrimping effort tends to slow down in the warmer months of July and August. Since late July, there have been a total of 6 tiger shrimp (*Penaeus monodon*) caught by local shrimpers, with the majority coming from the East Biloxi channel. This is the first occurrence of the invasive species in Mississippi waters since they were initially found in 2009.

The Mississippi Commission on Marine Resources (CMR) approved a new trawl door size regulation for Mississippi territorial waters which took effect on May 20, 2011. The previous 6'X34" maximum trawl door requirement was increased to 8'X43", which is consistent with Louisiana requirements. This new regulation allows properly licensed fishermen to cross state lines without having to change doors.

The National Fish & Wildlife Foundation, utilizing BP monies, is funding on-going MDMR projects to address potential increased recreational and commercial fisheries interactions with sea turtles. These monies are being used to provide commercial and recreational fishermen with NOAA sea turtle guidance documents on protection, disentanglement and resuscitation, providing free turtle exclusion device's (TEDs) to skimmer trawl shrimpers to use voluntarily, and an observer program to collect data on the fisheries. To date, MDMR has distributed 378 TEDs for skimmer trawls and have been on board Mississippi shrimp vessels for thirty-one turtle observer trips. Two additional TED installation workshops were held for a total of five overall. MDMR has also mailed 475 angle meters to Mississippi resident commercial shrimpers in order to assist them in properly installing their TED's.

The Mississippi Seafood Safety Newsletter continues to be updated online at MDMR's website. The report contains a summary of the on-going efforts and results of the data that the Office of Marine Fisheries has been gathering in cooperation with the Mississippi Department of Environmental Quality to ensure that Mississippi seafood is free of polycyclic aromatic hydrocarbons (PAHs) and

safe for human consumption. To date, none of the 416 samples has been found to contain PAH concentrations above the FDA levels of concern.

The Bonnet Carre' Spillway opened on May 9, 2011. MDMR began additional trawl sampling prior to the opening. This sampling effort continued through June. The gates were closed on June 20, 2011. In the western Sound, salinities were reduced to as low as 1ppt. Compared to 2001-2009 averages, Mississippi blue crab landings were down 33% for May 2011 and 69% for June 2011.

A trip ticket program is being explored at the request of the Commission on Marine Resources. A Mississippi Crab Task Force meeting was held on July 7, 2011 and attendees supported the staff's proposal for trip tickets. A public workshop was held July 12, 2011 to share the proposal and get input from Mississippi crabbers. The plan originally was intended to only apply to the crab fishery and then progress into the shrimp fishery, but at the August CMR meeting a motion was made to apply it to all fisheries. At the September 2011 CMR meeting, the plan was conditionally approved for public comment from all fisheries.

### **Finfish Bureau**

177 otoliths collected for 6 species on 14 different interviews. Otolith samples have been down during this time period due to inclement weather. The poor weather conditions resulted in fewer fishing trips in both the recreational and commercial sectors which in turn decreased overall landings of targeted species. Another factor affecting sample collection was the late spring flooding in the Mississippi River drainage. A large portion of flood water was diverted through the Bonnet Carre Spillway near New Orleans, Louisiana. This diversion of flood waters greatly decreased the salinity in the Mississippi Sound and heavily impacted saltwater fishing.

The Marine Recreational Information Program (MRIP) collected 1,193 interviews from March 1, 2011 to September 19, 2011 meeting and surpassing quotas in Shore Fishing and Private Boat Modes for Waves 2, 3 and 4, and on track to meet quotas in Wave 5. The Charter quota was met in Waves 2, 3, and 4 as well. Only 7 interviews have been collected so far for the month of September, as the charter industry traditionally slows down in the fall and winter months in Mississippi. The Charter quota was met for Wave 3, but was 7 short in Wave 2 and 4 short in Wave 4. There was a late cold snap that seemed to slow early spring charter fishing in Wave 2. In Wave 4, charter fishing slowed in August after the school year resumed for fall. There were fewer opportunities to survey (less charters being taken), and no charter fishermen were available at all to be surveyed during the last week of August.

Twelve new recreational fishing records were accepted for conventional tackle and four new records were accepted for fly fishing tackle from March to September 2011.

For Conventional Tackle:

- Marbled Grouper (*Dermatolepis inermis*) 12 lbs. 8 oz.
- Spinycheek Scorpionfish (*Neomerinthe hemingwayi*) 3 lbs. 8.56 oz.
- Greater Amberjack (*Seriola dumerili*) 114 lbs. 3.2 oz.
- Creole Fish (*Paranthias furcifer*) 1 lb. 8.69 oz.
- Bigeye Tuna (*Thunnus obesus*) 92 lbs. 2.88 oz.
- Yellowtail Snapper (*Ocyurus chrysurus*) 7lbs. 3.52 oz.

- Scrawled Filefish (*Aluterus scriptus*) 4.8 oz.
- Belted Sandfish (*Serranus subligarius*) 1.0 oz.
- Tilefish (*Lopholatilus chamaeleonticeps*) 14 lbs. 8 oz.
- Bigeye Tuna (*Thunnus obesus*) 93 lbs. 5.6 oz.
- Whitespotted Soapfish (*Rypticus maculatus*) 6.26 oz.
- Atlantic Cutlassfish (*Trichiurus lepturus*) 2lbs. 6.4 oz.

For Fly Fishing Tackle:

- Ladyfish (*Elops saurus*) 3 lbs. 7 oz.
- Yellow Chub (*Kyphosus incisor*) 6 lbs. 5 oz.
- Hardhead Catfish (*Arius felis*) 1 lb. 10 oz.
- Little Tunny (*Euthynnus alletteratus*) 12 lbs. 15.04 oz.

### **Artificial Reef Bureau**

The Artificial Reef Program worked on three projects during this time period. The Pass Christian Key, Katrina Key, and construction of juvenile reef habitat. The Pass Christian Key started construction on June 3<sup>rd</sup> and was finished August 4<sup>th</sup>. There were 51 deployments and 15,795 tons of concrete rubble was deployed. Katrina Key had another 200 foot section completed and another 30 foot section started to the West end. There were 14 deployments made of concrete material that came from the demolition of Old Back Bay Bridge and the Old Highway 90 Fishing Bridge.

There are 40 juvenile reef fish habitats being constructed at this time. These cage like structures are made of 3/8 inch round bar. Most will have spaces at 3 inch intervals and will have a concrete base that measures 4'X4'X6". The juvenile reef habitats will then be deployed on the state's offshore fish havens.

### **Shellfish Bureau**

The MDMR Shellfish staff continued its monitoring efforts by conducting one-minute dredge tows on the oyster reefs. Weekly water samples and bi-weekly phytoplankton samples were collected in compliance with the National Shellfish Sanitation Program.

During the April, 19<sup>th</sup> commission meeting the CMR approved to change the rules for each bid lease from a minimum of \$1 to \$5 dollars per acre.

The Oyster Task Force met on Thursday April 14. Items discussed were license sales/limited entry; training video for preserving oyster reefs, spring cultch plant and oyster survey results.

The 2010- 2011 Oyster season opened up on November 8<sup>th</sup>, 2010 for tonging only and closed April 30<sup>th</sup> 2011. A total of 41,253 sacks have been harvested by 5064 boat trips.

The spring cultch plant began April 19<sup>th</sup> and was stopped before completion on April 29<sup>th</sup>. The remainder of the spring cultch plant was postponed to the fall due to the opening of the Bonnet Carre' spillway. A total of 17,606 cubic yards of oyster shell were deposited on 175 acres. The cultch plant reassumed on August 4 and ended September 19<sup>th</sup>. An additional 30,000 cubic yards of oyster shells and 34,861 cubic yards of limestone were planted over 1043 acres. The R/V Conservationist also relayed 500 sacks of live oysters to St. Joe reef and 400 sacks to Henderson Point reef from St. Louis Bay.



Due to the opening of the Bonne Carre spillway, additional oyster reef samples were collected and analyzed. Environmental parameters that were noted include: mortality, salinity, temperature and dissolved oxygen. This information was used to determine which areas needed to be refurbished in the fall cultch plant.

The Natural Resource Disaster Assessment team has partnered with MDEQ, NOAA, MDMR and BP contractors to use established scientific techniques to assess possible damage to the oyster resource from the oil spill. A seventy-page draft of sampling protocols was developed as a result of tri-weekly teleconferences and daily end-of-the-day meetings with representatives from LA, MS, AL and FL. This plan was used to identify areas of concern from the oil spill and to determine possible long-term damage to the oyster reefs. The various components include larvae, sediment, water quality, disease, and condition index and tissue samples. Qualitative, quantitative, and mortality data is also enumerated. Currently these protocols are being utilized and sampling will continue. The R/V Reef keeper and R/V Stewardship continue to sample the NRDA sites, collect I. J. samples and began the 60 site intensive reef analysis. The mission of these trips was to determine the condition and present status of the oyster reefs. Staff is also collecting oyster tissues samples for the seafood safety program with MDEQ.

**Louisiana Report: J. Shepard/H. Blanchet**  
**Deepwater Horizon Disaster**

The Deepwater Horizon disaster has impacted many aspects of Department operations.

Fishery Openings/Closings: Using the FDA/NOAA fisheries reopening protocol, the LDWF received approval and reopened portions of state inside waters located within the Mississippi River Delta to commercial fishing on April 11, 2011. Similarly, approval to reopen portions of state inside and outside state waters within the Barataria basin was received and these waters were reopened to recreational and commercial fishing on April 26, 2011. Approximately 0.6 percent of saltwater areas of the state currently remain closed to certain fishing activities due to the DWH oil spill. Certain waters within the Mississippi River Delta remain closed to all commercial fishing and portions of the Barataria basin near Bay Jimmy and Grand Terre Island and portions of state outside waters adjacent to Grand Terre Island remain closed to all recreational and commercial fishing except for recreational and charter boat angling (see maps below).



The FDA has recently indicated that it may modify fishery reopening protocols which would eliminate the need for organoleptic or sensory testing of fish tissues by panels and allow state certified labs to conduct the chemical analysis of fish tissues. However, the LDWF not yet received official notification of any changes.

Tissue sampling for seafood safety: Since the beginning of the DWH oil spill, LDWF has been working with the Louisiana Department of Health and Hospitals to collect tissues of various types of seafood to ensure that contaminants from that oil spill were not compromising the safety of seafood from the state. That sampling program has been reported on previously. Also, in order to re-open state waters for harvest of seafood, the state entered into a cooperative agreement with the USFDA and NOAA for sampling of areas prior to re-opening those areas. In addition to these programs, the state has more recently implemented the “Louisiana Seafood Safety Plan” which is a 3-year program funded by \$18 million from British Petroleum. This program is cooperatively administered by the Department of Wildlife and Fisheries, Department of Health and Hospitals, Department of Environmental Quality and Department of Agriculture and Forestry and designed to ensure consumers that Louisiana seafood is monitored and safe. The program involves monthly collections of shrimp, crab, oyster and finfish tissue samples and water and sediment samples for analysis from state inshore waters and nearshore gulf waters. The following table illustrates the number of samples collected by species group by basin from March through August, 2011. Total tissue samples collected numbers 340 for this time period. Since the beginning of the overall sampling program, over 1,600 samples of crabs, oysters, finfish, shrimp, sediments and waters from coastal Louisiana have been tested for hydrocarbon contamination, A website ([www.gulfsource.org](http://www.gulfsource.org)) has been created where the public can access information on the results of those samples.

crab	Atchafalaya Vermilion Teche	Barataria	Calcasieu Sabine	Pontchartrain	Terrebonne
Mar 2011	1	1		1	1
Apr 2011	1	1		1	1
May 2011	1	1	1		1
Jun 2011	1	1		1	1
Jul 2011	1	1		1	1
Aug 2011	1		1	1	1
<b>Totals</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>5</b>	<b>6</b>

shrimp	Atchafalaya Vermilion Teche	Barataria	Calcasieu Sabine	Pontchartrain	Terrebonne	Nearshore
Mar 2011	1	1		1	1	
Apr 2011	2	1	1	1	1	3
May 2011	1	1	1	1	1	19
Jun 2011	1	1	1	1	1	22
Jul 2011	1	1		1	1	23
Aug 2011	1	1		1	1	



<b>Totals</b>	<b>7</b>	<b>6</b>	<b>3</b>	<b>6</b>	<b>6</b>	<b>67</b>
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<b>fish</b>	<b>Atchafalaya Vermilion Teche</b>	<b>Barataria</b>	<b>Calcasieu Sabine</b>	<b>Pontchartrain</b>	<b>Terrebonne</b>	<b>Nearshore</b>
Feb 2011						2
Mar 2011	7	7	1	6	7	14
Apr 2011	7	7	6	7	4	17
May 2011	5	7	6	6	7	22
Jun 2011	7	7	6	5	3	43
Jul 2011	7	7	4	7	6	27
Aug 2011	7	7	6	7	6	33
<b>Totals</b>	<b>40</b>	<b>42</b>	<b>29</b>	<b>38</b>	<b>33</b>	<b>158</b>

Habitat issues: LDWF Fisheries staff have been working on habitat assessment plans for the Natural Resources Damage Assessment (NRDA) for the BP Deepwater Horizon spill; staff are developing and monitoring study plans for assessing damages to: Fish resources, marine mammals and turtles, oysters, SAV, benthic habitats, shoreline (including marsh and mangrove vegetation). LDWF field personnel have worked beside other state, federal and BP representatives on fish resource assessment field work.

Marine Mammal and Turtle Issues: Reports of dead or alive marine mammal and sea turtles are reported to LDWF from various entities including the public and Natural Resource Advisors still working on barrier island beaches, and these reports are investigated by LDWF Staff. All sea turtle carcasses are recovered for necropsy to be performed by a veterinarian and where logistically possible and appropriate depending on state of decomposition, marine mammal carcasses are recovered for necropsies to be performed as well. LDWF works closely with its federal counterparts and staff at NOAA/NMFS and USFWS to investigate the cause of deaths for these animals. The investigations are very important in that they are all a part of the Deepwater Horizon Oil Spill Incident, the Natural Resource Damage Assessment and the marine mammals are also under a formally declared Unusual Mortality Event (UME).

From the onset of Response associated with the Deepwater Horizon Oil Spill Incident to the end of 2010, the LDWF and other entities investigated over 225 total marine mammal and sea turtles throughout the entire coast of LA. Of these animals the following are included:

- 83 marine mammals (includes dead and live animals)
- 142 sea turtles (includes dead and live animals)

To date thus far in 2011, a total of 266 marine mammals and sea turtles have been investigated by the LDWF and other entities throughout the entire coast of LA including offshore. Of these animals the following are included:

- 135 marine mammals (includes dead and live animals)
- 131 sea turtles (includes dead and live animals)

Data Management: Since the BP oil spill over 4,000 requests for trip ticket landings have been processed for fisherman claims. After BP announced that it would require certified copies of trip ticket from LDWF, the Department started receiving multiple sets of trip tickets from previous years, 2008 and 2009 in particular. All late submissions were thoroughly reviewed and forwarded to LDWF Enforcement for investigation. Several citations have been issued and two arrests for fraud have been made to date. Investigations are still continuing.

Inshore / Nearshore Sampling: In response to the need for information to assess the status of living marine resources in inshore waters, and in the shelf waters off of Louisiana, a long-term sampling program has been designed and implemented. Inshore sampling has been modified using the long-term existing sampling program, with the addition of new stations and incorporating a stratified random sampling design into the existing program. Sampling began in October, 2010. Offshore sampling consists of a series of trawl transects across Louisiana. Sampling for these programs began March 1, 2011.

### ***Hurricanes Recovery Programs***

The LDWF is in the process of completing many of the projects related to hurricane damage assessment and recovery following Hurricanes Katrina, Rita, Gustav and Ike.

Cooperative Research Surveys: A survey of commercial harvesters and wholesale/retail dealers has been developed to help characterize the long-term effects of the hurricanes on their operations. Those include the types of effects, and the costs associated with repair or replacement and lost revenues. The purpose of this survey is to help understand the factors that need to be addressed, and in what priority, after a catastrophic event. The department and its contractor have completed scanning software tests and have begun scanning surveys and incorporating data into computerized databases. All commercial harvester surveys have been scanned (2,909) and are being converted into a SAS database to begin checking for scanning errors. All wholesale/retail seafood dealer surveys have been scanned (305) and converted into a SAS database to begin checking for scanning errors. The total funding disbursed to commercial harvesters and dealers is \$13, 239,821.

Commercial Fisherman/Dealer Reimbursement Program: To date, 2,985 vendors have received 1st round checks, totaling \$14,998,093.50 in funds (74% of all eligible vendors). This quarter saw a reduction in second round checks (305), bringing the total of second round checks to 2,497 and \$14,033,317.00 (83% of 1st check recipients). A total of \$29,031,410.50 in funds has been sent to eligible participants.

Seafood Certification Program: LDWF has begun to initiate all phases of its seafood certification program. On August 30<sup>th</sup> and 31<sup>st</sup> LDWF and Scientific Certification Systems (SCS) held the site visit, part of the official MSC process, to finalize the steps that will be necessary to take the final steps toward MSC certification of its blue crab fishery. The meeting went well and Louisiana is likely to have the first blue crab fishery in the world to become MSC certified. LDWF continues to review the 5 completed pre-assessments on shrimp, oyster, black drum, crawfish, and catfish, to determine which fisheries will move forward to full assessments. LDWF was not able to roll out a professionalism program as part of the Louisiana Workforce Commissions "Turning the Tide" program, but continues to work with Louisiana Sea Grant to

develop a curriculum for use in the premium tier of the Louisiana Wild Seafood Certification Program.

After consulting with the Seafood Certification Steering Committee, LDWF has redirected certification efforts away from a premium shrimp program toward a more encompassing basic program that will cover all fisheries and certify product is wild caught from Louisiana. LDWF and Louisiana Sea Grant are meeting regularly to develop program guidelines and procedure. In recent months, LDWF has presented this concept to a group of shrimp fishermen and shrimp processors, as well as the shrimp, crab, and oyster task forces. Outcome from these meetings suggest the industry is on board. LDWF plans to continue working on quality assurance standards not only for shrimp, but other species as well, and will launch a premium tier of the certification program once the base program has been established.

Marine Debris Removal Program: LDWF has concluded work on the removal of marine debris in state waters under a contract awarded to Crowder-Gulf Joint Venture, Inc. The original contract was structured whereby the contractor was assigned side scan sonar survey and debris removal within individual grids measuring four-square miles for a fixed price of \$37,100 per grid. This contract was later amended whereby the contractor was assigned side scan sonar surveys of selective grids for a fixed price of \$14,500 per grid and debris removal in grids selected by LDWF for a fixed price of \$23,600. This approach has resulted in cost savings as the costs of debris removal within surveyed grids containing relatively few or particularly small targets was avoided allowing LDWF greater flexibility in assigning debris removal in selective grids containing high target densities. The contractor used side scan sonar equipment to survey all water bottoms within each assigned grid to identify the location of debris contacts (waters less than 3 feet in depth are not surveyed due to sonar's limited effectiveness in shallow waters). The contractor was required to utilize Louisiana resident licensed vessels and crews comprised of Louisiana resident fishermen and charter boat operators to retrieve debris. Marine debris removal work began in July 2007 within portions of Lake Borgne, followed by clean ups within portions of Lake Pontchartrain (Middle Ground), Lake St. Catherine, Calcasieu Lake, Vermilion and Cote Blanche bays, Barataria and Caminada bays north of Grand Isle and concluded in the southeastern portion of Lake Pontchartrain. Approximately 560 square miles of the state's shrimp fishing grounds have been surveyed and approximately 548 square miles or 98% of surveyed waters have been cleared of debris at a contracted cost of \$5.12 million.

### ***Habitat Programs***

Fisheries personnel are working with other state agencies and the USACE to develop models for prediction of impacts to fisheries from large coastal restoration and management projects. The first such effort was in support of the particle movement models for larval ingress into Lake Pontchartrain with the hurricane levee projects in the "Golden Triangle" area. They have also worked with the USACE in support of the CASM model for the MRGO/Violet effort. Additional efforts may address a possible levee alignment across the Barataria Basin at the GIWW and a proposed diversion at Myrtle Grove.

LA is preparing to update the Master Plan for Coastal Restoration and Protection. LDWF fisheries staff participated in initial meetings regarding the wildlife and fish inputs to Habitat Suitability modeling for the effort, and continue to work with the Framework Development Team to oversee and inform this effort.

LDWF fisheries staff also takes part in the deliberations of the Caernarvon and Davis Pond Interagency Advisory Panels. These groups advise the state about effects of operations, and possible changes in operations of these two freshwater diversion structures.

LDWF fisheries staff participates in the Environmental Work Group deliberations of each year's priority project list (PPL). The Environmental Work Group evaluates up to 11 projects per year for final recommendation to the CWPPRA Technical Committee for funding of engineering and design.

Fisheries staff review coastal use, consistency, and 404 permit applications for possible impacts to fish resources and fish habitats. Since 01 July 2011, staff have reviewed and commented on 237 permit applications.

### ***Research and Assessment***

Louisiana continues to examine the life history and fisheries characteristics of species that are experiencing increasing harvest pressures with new regulations (such as gray and vermilion snappers).

A blue crab assessment has been completed (still in 'draft' state though) and is currently being used in the ongoing sustainable fishery certification.

The spotted seatrout is one of the most popular sport fisheries in Louisiana. A stock assessment of this fishery is currently ongoing. Catch at age tables from fishery-dependent data are being constructed, and population parameters (e.g., growth, mortality) are being estimated at the present time. In response to the DWH MC-252 oil spill, a more comprehensive assessment of oyster mortality is also being conducted using SCUBA and Square meter samples to assess direct mortalities of seed, sack and market-size oysters. Mortality estimates are being estimated state wide and by Basin. To achieve greater confidence in mortality estimates we have increased the number of sample stations and increased the frequency of sampling to weekly site visits.

We have completed a contract with the U.S. Army Corps of Engineers to investigate community structure and trends in commercially important species with respect to the Mississippi River-Gulf Outlet (MRGO). This study used long-term standard sample data collected by LDWF Marine Fisheries Section from 1988-2009 in the inshore habitats associated with Lake Borgne and Breton Sound. We used data from 16' otter trawls, bag seines, and gill nets along with concurrent water quality data to determine if community structure was associated with changes in salinity, temperature, or turbidity over (1) the entire study period and (2) 5 years prior to and 4 years after Hurricane Katrina. Our multivariate ordination (partial canonical correspondence analysis) of these data revealed that community structure and species diversity has been stable from 1988-2009. However, changes in species composition were more pronounced when comparing the pre-Katrina and post-Katrina periods. Vast amounts of saltmarsh habitat were lost as a result of Katrina's storm surge through the MRGO. Consequently, changes in species relative abundances were detected following Hurricane Katrina. In general, from the 16' trawl data, there was a statistically significant increase in water column species such as bay anchovy and striped anchovy with a decrease in demersal species such as Atlantic croaker, flatfishes, and gobies. From gill net data, we found increases in large-bodied omnivorous species such as

gafftopsail catfish and Atlantic croaker but also a decrease in predators like spotted seatrout, silver perch, and southern kingfish. From seine data, we found significant increases in saltwater-tolerant species such as Atlantic brief squid, blackcheek tonguefish, and gafftopsail catfish with decreases in freshwater-tolerant species like Gulf menhaden, Atlantic croaker, and Gulf pipefish (a species of conservation concern in Louisiana).

We are also working to develop a predictive model of brown and white shrimp using our fishery-independent data (6' and 16' otter trawls) and environmental data such as precipitation, river discharge, water temperature, salinity and cumulative number of flood tide days. In addition we are incorporating economic factors in the analysis such as average fuel prices. Models developed from this analysis will potentially be used to better assist in managing the shrimp fishery in our state waters.

We continue to examine the influence of freshwater diversions of the Mississippi River on shellfish and finfish community structure as well as commercial and recreational fishing effort. In particular, we are focusing on the Barataria Basin which is influenced by water diverted from the Davis Pond structure. We have monthly/semimonthly data from 1998 (4 years prior to the opening) up to the present time. We have recently been contracted by the U.S. Army Corps of Engineers to model the potential impacts of proposed diversion at Myrtle Grove in the lower Barataria Basin. This project will be completed in approximately 5 months.

Age and Growth: Collection of age, growth, and reproductive information used to develop age-structured stock assessments is coordinated through the LDWF Fish Assessment Laboratory, in Baton Rouge, La. Since the fall of 2009 the Fish Assessment lab in Baton Rouge has monitored 15 species of fish. Monitoring is done by the collection of otoliths and spines (Gray Triggerfish), for ageing purposes. Length, weight, gender, and location are also recorded when these fish are collected in the field. The 15 fish species consist of 12 saltwater and 3 freshwater species. Currently, the saltwater species are Black Drum, Gray Snapper, Greater Amberjack, Gray Triggerfish (spines), King Mackerel, Red Drum, Red Snapper, Sheepshead, Southern Flounder, Spotted Seatrout, Striped Mullet, and Vermilion Snapper. The 3 freshwater species are Black & White Crappie and Largemouth Bass. All saltwater otoliths/spines are obtained through fisheries dependent sampling. That requires our field Marine biologists to collect the otolith or spine, when they interview a recreational angler. Freshwater species otoliths are obtained through independent sampling conducted by LDWF field biologists targeting a particular species.

As of September 2011 the Fish Assessment lab in Baton Rouge has received 4,650 otoliths and 22 Gray Triggerfish spines. Out of the 4,672 structures received 3,563 have been aged. Within that total 1,627 otoliths are from freshwater species. The lab has received otoliths/spines for each species, except Striped Mullet. However, the lab usually receives most of the Striped Mullet otoliths during October, November, and December. There have only been 24 White Crappie and 5 Black Crappie otoliths received in the lab thus far this year. The lab expects to be receiving many more Black and White Crappie otoliths during fall. The yearly quota for the saltwater species is 10,350. There is no quota for freshwater species. However, the lab has received 1,598 Largemouth Bass otoliths this year, more than any other species thus far this year.

### ***Fisheries Research Lab***

Personnel from the Fisheries Research Laboratory have shifted their mission from oil monitoring and tracking back to resource monitoring and research. Two offshore cruises are conducted by lab personnel along with other lab and field research. Listed are current activities associated with the Fisheries Research Lab.

The SEAMAP cruise is designed to collect fishery independent data on shrimp, plankton, and groundfish associated with abundance and distribution west of the Mississippi River. Surveys are made in spring, summer, and fall at approximately 22 randomly assigned locations. Plankton samples will be collected at 7 set locations off the Louisiana coast. Environmental parameters are sampled at each site. Shrimp and groundfish samples are taken by using a 42-ft trawl in water depths up to 20 fathoms. Plankton samples are acquired by 60-cm bongo and neuston nets. Gear for this fishery independent cruise consist of a 42' otter trawl, bongo and neuston plankton nets, and CTD rosette are the primary sampling gear.

The Nearshore groundfish and shrimp cruises are conducted to provide fishery-independent monitoring and assessment information essential to management of Louisiana Gulf of Mexico fisheries resources in light of the oil spill. LDWF personnel conduct trawl surveys to collect information on shrimp and groundfish abundance and distribution with a standard SEAMAP 42ft semi-balloon trawl. Samples are collected within random zones (Eastern, Central, and Western) and along four random corridors within the selected zone. Samples are collected at each of 8 depth strata along a transect line beginning at 5 fathoms up to 40 fathoms water depth with collections every 5 fathoms. A different zone is sampled monthly, such that each zone will be sampled quarterly during the year. Lab personnel use a CTD rosette to collect information on environmental parameters in conjunction with trawl sampling.

The Rigs/Reefs Biodiversity and Relative Abundance project will develop and test methods to evaluate species distributions, diversity, and relative abundance of offshore fish communities residing at oil and gas platforms and nearby artificial reefs. LDWF will develop a comprehensive spatial and temporal profile of the fish assemblages residing within and near these manmade structures. Three pairs of upright oil platforms and nearby artificial reefs will be sampled quarterly using subsea video coupled with metering lasers. Observations from SCUBA divers will accompany video data as a means of data validation.

As part of SEAMAP resource monitoring, a Vertical Line project will collect information on the spatial and temporal distribution of commercially and recreationally important reef species off the Louisiana coast. Lab personnel will obtain fisheries-independent data characterizing population dynamics of fish assemblages on structured bottom habitat in offshore waters off of Louisiana. Sampling site selection will be randomized. Scheduled sampling will be monthly utilizing standard commercial and recreational methods in compliance with protocols established by the SEAMAP subcommittee.

The Vertical Line project will incorporate a Hook Selectivity study. Lab personnel will collect information on hook selectivity in the reef fish fishery in order to assess the use of hook size for management purposes. The main objective is to reduce by-catch and by-catch mortality and to assess the use of hook size in reducing the catch of regulatory discards in a vertical line fishery.



Sampling site selection will be randomized and sampling will be scheduled monthly, utilizing standard commercial and recreational methods.

Also associated with SEAMAP monitoring is a Bottom Long Line project. Lab personnel target coastal pelagic species. The main objective is a horizontal research plane on bottom feeding species. LDWF will conduct monthly sets using one mile of bottom longline, fishing 100 hooks per set as per the SEAMAP bottom longline protocol.

Fisheries Research Lab personnel are conducting a Red Drum Age and Growth study. The goal is to estimate the abundance of red drum in territorial seas and the EEZ off Louisiana and characterize the age structure of these stocks. Secondary objectives include examination of adult migration patterns, assessment of Louisiana contribution to off-shore red drum stocks in federal waters and fulfillment of data requests by the GMFMC. Samples taken may be used to contribute to calculation of fecundity at age and total fecundity, identification of genetic markers, escapement, and determination of nursery ground site fidelity / identification of discrete stocks.

Lab staff is engaged in a Tarpon DNA Tagging project. The objective of this project is to calculate the geographic range of the Atlantic Tarpon using DNA fingerprinting techniques. This project will also yield valuable information relating to the recapture rates and migratory paths. This project will provide fishery managers necessary information needed to make decisions regarding management of this species.

Working jointly with the Oyster section and LSU Bivalve Hatchery, staff has been working on an Oyster Seed project. The project goal is to supplement the amount of live oyster seed at various estuarine locations throughout coastal Louisiana. This project will utilize oyster larvae produced at LSU's Sea Grant Bivalve Hatchery to set on clean, crushed oyster shell cultch, or other appropriate cultch material, in six rectangular tanks at the LDWF Fisheries Lab. The resulting spat will be used for deployment on public oyster seed grounds and other public water bottoms within coastal Louisiana.

LDWF staff assists researchers from University of Florida in tagging amberjack and obtaining otoliths and gonads for further analysis. Sampling frequency is determined by U of F. This project is designed to study migration and spawning patterns.

Lab staff is working with researchers from the Auburn Aquatic Parasitology Laboratory obtaining samples in the oil affected estuarine area in the northern reaches of Barataria Bay.

Lab staff is undertaking a Charter Boat Cooperative Endeavor in order to monitor the health of Louisiana's reef fish. The Department is enlisting a select number of Louisiana charter boats to provide field information on lesioned reef fish. If a fish is captured that exhibits lesions, LDWF fisheries staff transports the specimen to a pathological lab for further analysis.

### ***Data Management***

LDWF is working with its contractor on conversion from the legacy SAS data management system to a SQL data base with SAS IT analysis capabilities. The second phase of the project, development of the relational data base structure, is underway. Data security and access routines

are also under development. Conversion of LDWF's independent sampling data has been completed and is undergoing user testing.

### ***Artificial Reef Program***

The Artificial Reef Program continues to assess and permit reef deployments related to oil and gas structures. The Program has accepted 8 new structures into previously permitted artificial reef sites and partially removed one structure to create a new deepwater reef. The first of two inshore artificial reefs created from the demolition of the hurricane damaged I-10 bridges was completed. The second phase of bridge demolition has commenced and the construction of the second inshore artificial reef is expected to be completed by the spring of 2012. The Program in collaboration with the Coastal Conservation Association of Louisiana created the Independence Island inshore artificial reef in Barataria Bay with 7600 tons of crushed limestone.

### ***Shrimp Fishery***

Shrimp fishing effort estimates are unavailable at this time but have increased from levels reported last year. Several dock buyers have commented on the number of boats that have been inactive over the last several years but have re-entered the fishery during the spring inshore shrimp season. Many vessels in the fishery have undergone repair and re-painting and in general, the fleet has not looked this good in a number of years.

Since spring of 2011, LDWF has implemented a series of shrimp management actions including special shrimp seasons, delayed season openings and season extensions designed to enhance economic opportunities in the fishery, particularly in light of anticipated impacts created by freshwater flooding in the spring. These actions included extension of the shrimp season in Breton and Chandeleur Sounds, an early spring opening in portions of state outside waters previously closed to shrimping, a 5-day special shrimp season targeting over-wintering white shrimp in portions of the central coast, a special shrimp season in Vermilion Bay beginning May 6, 2011, and staggered opening and closing dates of the spring inshore shrimp season including splits within shrimp management zones. The fall inshore shrimp season opened coastwide on August 22 and both landings and effort have been low according to fishermen and dealer surveys. Shrimping conditions prior to Tropical Storm Lee (September 2-5) were poor as water temperatures were extremely warm. Salinity stratifications along with hypoxic and anoxic conditions were found along certain beaches and inshore waters. White shrimp catches are beginning to improve according to field reports.

Since the opening of the fall inshore shrimp season, LDWF has received approximately 39 reports of Asian tiger prawns (*Penaeus monodon*) in commercial catches. All specimens were large and ranged from 3-20 count per pound. Almost equal numbers were reported from the Barataria and Terrebonne basins with several others reported from Pontchartrain Basin and Vermilion Bay. All reports have been forwarded to the USGS for inclusion in their database. LDWF is continuing to encourage fishermen to report captures and has collected a number of these for potential DNA analysis including a single live specimen.

Below are preliminary shrimp landings data for January through July, 2011 (all species combined / heads-off weight). Landings through August of this year total approximately 34.3 million pounds and are that far below levels reported for the same periods in 2007 and 2009.

**Louisiana Shrimp Landings, (all species, headless, thousands of pounds):**

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Total
2011	1,395	460	354	1,247	10,630	12,431	4,067	3,736	<b>34,321</b>
2010	1,170	617	349	356	4,136	4,966	1,326	3,598	<b>16,518</b>
2009	1,818	1,072	685	1,109	12,701	10,903	4,338	5,257	<b>37,885</b>
2008	2,389	745	247	510	8,614	9,930	3,833	3,211	<b>29,483</b>
2007	1,711	974	368	508	10,684	14,835	5,185	4,962	<b>39,858</b>

Source: NOAA Fisheries. Market News Reports

Act No. 606 of the 2010 Regular Legislative Session created the Louisiana Shrimp Task Force within the Department of Wildlife and Fisheries. All members have been appointed by the Governor and voting members include an active dock buyer of shrimp, three certified commercial fishermen and three shrimp processors. Alternates have also been appointed and may vote in the absence of a designated appointed member. The Task Force has met on three occasions; April 21, May 10 and most recently August 18, 2011. Discussions to date have focused on enhancing shrimp prices, seafood certification, promotion and marketing opportunities, turtle excluder device (TED) regulations, and resource management opportunities.

**Crab Fishery**

Preliminary trip ticket landings data indicate that blue crab landings for January through May measure approximately 11.3 million pounds and are approximately 4% above levels reported for the same time last year but considerably below levels reported in 2007 and 2009.

Louisiana monthly blue crab landings:

	Jan	Feb	Mar	April	May	Total
2011	2.003	1.799	1.73	2.686	3.056	<b>11.274</b>
2010	1.93	1.325	1.764	2.353	3.519	<b>10.891</b>
2009	3.504	2.555	2.135	3.47	5.658	<b>17.322</b>
2008	1.739	1.868	1.35	2.709	3.672	<b>11.338</b>
2007	2.456	2.521	1.797	2.477	4.078	<b>13.329</b>

Source: LDWF trip ticket data

Beginning in March, 2011, LDWF received several complaints from commercial fishermen of elevated crab mortalities in traps and from crab buyers who grade and ship crabs to out-of-state live markets. These reports were limited to central and eastern Terrebonne Parish as well as St. Bernard Parish, however, wide-spread print and television media reports speculated on causes. Following up with these reports, LDWF collected a series of 7 samples of both dead and live crabs for analysis through the Aquatic Diagnostic Laboratory at the LSU School of Veterinary Medicine. Samples were collected from Mar 17 – May 24 from crab shedders, crab fishermen and docks located in Dulac, Montegut, Delacroix Island, Chauvin and Yscloskey. Examinations revealed that many crabs had gills that were dark brown in color and some crabs appeared to be dying in the molt. Specimens with dark brown or black gills were occluded with *Lagenophrys*

*callinectes*. *L. callinectes* specifically infests blue crabs and is usually an indicator of other problems that weaken or slow the growth and molting rate of crab so that the ectocommensals build up to heavy levels. Blockage of the respiratory surface by the parasite causes additional stress during the time of the molt resulting in death of the crab. Haemolymph samples from crabs cultured negative for bacteria with the exception of 2 individuals. These cultured positive for *Vibrio anguillarum* and *Photobacterium damsela*. All qPCR tests for WSSV were negative. Some specimens had parasites in the blood tentatively identified as *Hematodinium sp.* Other specimens displayed an exoskeleton with advanced shell disease caused by *Vibrio spp* with barnacles and algae growing on the carapace.

Factors that slowed the growth rate of the crabs in the spring of 2011 are not known but cooler than normal water temperatures could have been responsible. Bacterial pathogens were not consistently isolated. All crabs were negative for PAH and saved tissues may be tested for other possible viruses.

In September, 2010, LDWF did not recommend conducting a 2011 winter crab trap closure and derelict crab trap cleanup due to ongoing responses to the Deepwater Horizon oil spill, Natural Resource Damage Assessment (NRDA) planning and sampling and concerns with existing staffing and equipment limitations. However, in late January, 2011, Plaquemines Parish government formally requested the Secretary of LDWF and the Louisiana Wildlife and Fisheries Commission (LWFC) to temporarily close certain Plaquemines Parish waters to the use of crab traps for the purpose of conducting a trap cleanup. At its February 3, 2011 meeting, the LWFC adopted a declaration of emergency closing a portion of state waters located in Plaquemines Parish west of the Mississippi River to the use of crab traps for an 8-day period from February 26 – March 5, 2011. Due to extended fishing closures within these waters, large numbers of traps were abandoned posing additional hazards to recreational and commercial fishermen and boaters and to crews conducting oil spill clean-up operations. Additionally, portions of the trap closure area occupy waters which still remain closed to all commercial fishing due to the DWH oil spill. As a result of the continued presence of oil in portions of the closure area, the LDWF contracted removal of these traps through a private company. Cleanup activities were completed in late March and approximately 1,100 abandoned crab traps were removed from the closure area.

In September, 2011, the Wildlife and Fisheries Commission adopted a notice of intent that would close portions of St. Bernard and Plaquemines Parishes to the use of crab traps for purposes of a trap clean-up over a 9-day period beginning at 6:00 am Feb. 25, 2012 through 6:00 am March 5, 2012 as well as a portion of Terrebonne Parish over a 9-day period beginning at 6:00 am Mar.17, 2012 through 6:00 am Mar. 26, 2012.

In recognition of the importance of volunteer participation, LDWF has awarded Louisiana Sea Grant with a \$50,000 contract over the next two years to assist with the abandoned crab trap removal program and for development of an outreach component. In addition, Louisiana Sea Grant applied for and received a grant from the National Fish and Wildlife Foundation for these same purposes.

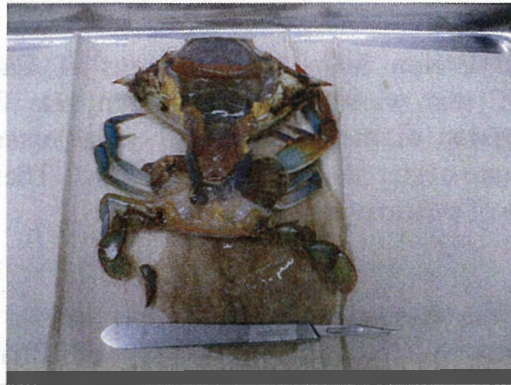


Figure 1. Blue crab with gills occluded by the parasite *Lagenophrys callinectes*. Sample collected from a Montegut crab shedding operation in March, 2011. (Photo courtesy Dr. John Hawke, LSU)



Figure 2. Blue crab with shell rot disease, barnacles and algal growth. Sample collected from a Yscloskey crab dock in May, 2011. (Photo courtesy Dr. John Hawke, LSU)

### ***Oysters***

The 2011/2012 oyster season for the majority of the public oyster areas was recently set to open on October 17, although a small area, called the Little Lake Public Oyster Seed Ground, opened on September 7. The west cove portion of the Calcasieu Lake Public Oyster Area will open on November 1, while the east side of the lake will remain closed. The 2011 oyster stock assessment sampling (the annual stock assessment report has not yet been published) showed an overall reduction in statewide oyster resource availability of approximately 5% as compared to 2010. This reduction was driven largely by a significant drop in seed-oyster stocks. The traditional primary public oyster seed grounds east of the Mississippi River contributed largely to this drop in seed-oyster resources. This is an area where oyster production has been problematic over the last year due to the absence of successful reproductive events (=spatfall).

Due to reductions in oyster resource abundance on the public oyster areas, oyster harvest during the past 2010/2011 oyster season was low. A special oyster season was opened by the LWFC in May 2011 ahead of freshwater inundation (due to the opening of the Bonnet Carre' Spillway) in the public oyster seed grounds of Lake Borgne and Mississippi Sound (St. Bernard Parish). Harvest effort was low, however, and contributed approximately 10,000 barrels of seed to the total seasonal harvest of 56,649 barrels. The majority of the 2010/2011 harvest came from Calcasieu Lake where 41,448 barrels of marketable oysters was harvested during this past season.



Side-scan sonar projects in Breton Sound and portions of Calcasieu Lake were recently completed providing LDWF with valuable water bottom data for these areas. This work provides an accurate description of the location and aerial extent of oyster reefs, which is essential for providing accurate oyster stock size information. These two projects encompassed approximately 170,000 acres of public oyster bottoms.

### ***Finfish***

Louisiana set and opened the recreational gag grouper season with creel and size limits consistent with Federal regulations. NOAA Fisheries service, after closing the recreational gag grouper fishery in January, set a 2011 recreational season to run from September 16 through November 15, 2011.

Louisiana opened and closed the recreational red snapper season with creel and size limits consistent with Federal regulations. The recreational red snapper season was open from June 1, 2011 through July 18, 2011.

Louisiana closed and then re-opened the recreational greater amberjack season with creel and size limits consistent with Federal regulations. NOAA Fisheries Service issued an in-season closure for the recreational fishery for greater amberjack from June 1 through July 30, 2011.

Louisiana closed and then re-opened the commercial greater amberjack season consistent with Federal regulations. The commercial season for greater amberjack was initially closed on June 18, 2011, but after a review of 2010 and 2011 landings by NOAA Fisheries Service the commercial season was re-opened on September 1, 2011 and is scheduled to close on October 31, 2011. Louisiana waters will close at 11:59 p.m. on October 30, 2011.

Louisiana opened the commercial king mackerel season with creel and size limits consistent with Federal regulations on July 1, 2011.

Louisiana closed the commercial season for Large Coastal Sharks consistent with Federal season rules on July 17, 2011. All Louisiana state waters are closed to the recreational and commercial harvest of all sharks between April 1 and June 30 of each year.

Act 65 of the 2011 regular session of the Louisiana Legislature now allows any commercial fisherman with all appropriate licenses and a cast net gear license to harvest live mullet for bait purposes. Cast nets used for harvest of live bait mullet must not exceed 12 feet in radius and must be deployed manually. The LWFC issued a Notice of Intent at its August meeting to modify the regulations for the commercial harvest of mullet per Act 65 and that Notice of Intent is currently in a public comment period which ends in early October.

The LWFC issued a Notice of Intent at its August meeting to modify the regulations for the recreational harvest of bluefin tuna. The change in recreational harvest regulations for bluefin tuna will establish consistency with current Federal regulations regarding size and possession limits. This Notice of Intent is currently out for public comment which will end in early October.

## **Texas Report: B. Balboa/J. Membretti**

### **Legislative Issues**

During the 82nd Texas Regular Legislative Session, TPWD's budget for FY12 was cut by \$150.61 million, a 21.5% reduction. Since mid-May, TPWD eliminated 169 positions, 111 of which were occupied. Coastal Fisheries surrendered 5 unoccupied positions. Coastal Fisheries' commercial license buy-back program was reduced by \$1 million in both FY12 and FY13. This means an estimated 244 licenses will not be purchased and retired in the shrimp, finfish and crab fisheries.

S.B. 387 amends current law relating to the sale and consumption of raw oysters harvested from Texas waters by providing that federal regulations that may prohibit the interstate transportation and sale of oysters which have not been post-harvest treated shall not apply to oysters harvested, sold, and consumed within the state of Texas.

S.B. 932 allows any suitable cultch material to be used in the coastal waters to maintain public oyster reefs. It also requires the Texas Parks and Wildlife Department to sell harvester/shellfish restoration tags, with a fee of 20 cents or an amount set by the Texas Parks and Wildlife Commission. This tag replaces the harvester's tag required by the National Shellfish Sanitation Program. Funds generated from the tag will be used to replace suitable cultch material onto public reefs within bay systems along the Texas coast. The bill would also provide the ability for the commission to close and open areas with at least three days of published notice. This would allow for oyster reefs with a low amount of legal market oysters to be closed within a season.

S.B. 1480 amends current law relating to the regulation of exotic aquatic species by the Parks and Wildlife Department and provides penalties. H.B. 3391, established by the 81st Legislature's Regular Session, included a provision that required TPWD to move exotic aquatic plants that are prohibited in this state from a "black list" of to a "white list" of plants that are allowed. S.B. 1480 returned the regulation of exotic aquatic plants to a "black list" or "prohibited list" approach. In addition, the bill adjusted the penalties related to possession of an exotic aquatic plant to allow lesser penalties for minor violations.

H.B. 1322 amends current law relating to the possession of fish in the tidal water of Texas. Currently, TPWD Code requires a person to have a fishing license when actively sport fishing or landing fish in Texas. H.B. 1322 requires a person possessing fish in a vessel on tidal waters to hold a fishing license.

H.B. 550, senior fishing license exemption, amended the current benchmark date of September 1, 1930 to January 1, 1931 for exempting persons from having to purchase a fishing license.

### **Regulatory Issues**

In late August, the TPWD Commission passed regulations impacting the oyster fishery by enacting S.B. 932 which, as discussed earlier, established a shell recovery program and tag program that was discussed earlier. Also, the sack limit was reduced from 90 to 50 sacks and the legal fishing time will be sunrise to 3:30 PM.

### **Menhaden Total Allowable Catch**

Currently, the reported estimated pounds of gulf menhaden caught in Texas waters and landed in Louisiana during the 2011 Gulf purse seine fishing season totals 34,344,200 pounds. This represents 99.1% of this year's 34,650,000 pound Texas Total Allowable Catch, which includes the '+10% rule' above the base 31,500,000 pound limit. The final adjusted total will be calculated in the next few months.

### **Coastal Fisheries Programs & Projects**

#### Fish stocking efforts

Coastwide 2011 production totals (as of 30 September 2011):

Red drum total: 11,479,746

Spotted Seatrout: 6,961,617

Southern Flounder: 3,823

#### Life History Research at Perry R Bass Marine Fisheries Research Station

Otolith and gonad samples continue to be collected for alligator gar from the Cedar Lakes area for a reproductive biology study.

Gray Snapper samples continue to be processed for a life history study.

Red drum otolith collections continue from routine gill net samples.

Otoliths from red drum sampled for a genetics project conducted by Dr. John Gold, Texas A&M University were processed and aged.

The GSFC funded FIN-Biological Sampling project for otolith collection and processing for various marine species continues. A backlog of otoliths samples were processed resulting data were successfully entered in the FIN database.

Temperature tolerance studies of juvenile spotted seatrout were initiated. An experimental apparatus was designed, and tests were run using two size classes of juvenile spotted seatrout.

#### Genetics Research at Perry R Bass Marine Fisheries Research Station

Sample collection and processing for alligator gar genetic variation studies are continuing.

A southern flounder genetic variation studies was completed and a report is being drafted.

A project, partially funded by the Texas Water Development Board, continued tracking the severity of oyster disease using **quantitative real-time polymerase chain reaction**.

Green sea turtle samples from cold-stunned and killed specimens obtained from the turtle stranding network were processed, data was analyzed, and a manuscript was submitted for publication.

#### Artificial Reef Project



During March thru September 2011, 6 rigs were reefed, generating \$1.2 million in donations. Another 9 active projects are in various stages of completion.

The Artificial Reef Program continues to work with vested fishing groups to plan for “Planning Zones” off Corpus for future Rigs-to-Reefs sites. The planning zones are required by the Bureau of Ocean Energy Management, Regulation and Enforcement (BOERME) through an addendum to the Rigs-to-Reefs Policy. At this time, no new artificial reefs, outside the General Permit Area, can be created using platforms, but established reef sites can be used. This has caused much concern by the local fishing groups and TPWD because platforms are being removed at an accelerated rate and the partial removal option has basically been removed in all waters outside the General Permit Area. A planning zone must be approved by BOERME, and we hope to have a plan submitted soon.

TPWD has contracted several universities to conduct additional biological monitoring and research studies of Texas’ artificial reefs. TAMU-Galveston is conducting a geophysical and archeology survey of the Vancouver Liberty Ship Reef, off Freeport, as part of an extended biological monitoring study. The archeology survey is needed by the USACoE to expand this nearshore site from 40 acres to 160 acres. Plans are underway to add 30 pyramid reefs and 400 tons of concrete materials to this site.

TAMU-Corpus Christi has begun a monitoring program to study about 15 rig reefs within a 75nm radius of Corpus Christi.

UT-Brownsville continues its studies of the marine life associated with the Texas Clipper ship reef and will expand its sampling to 2 additional nearshore reefs off Port Isabel (360ac) and Port Mansfield (160ac).

The Program received USCOE permits and TxGLO surface leases for 2 new 160 acre nearshore reefs off Corpus Christi (MU-775) and Matagorda County (BA-439). Plans to place materials at each site are underway. Both sites have water depths of around 70ft and both are in Texas state waters.

Three large nearshore reefing projects were completed in August 2011, costing over \$1m. Over 4,000 concrete culverts were reefed 7nm offshore at the Port Mansfield reef by Cajun Maritime (Louisiana) at a cost of nearly \$530,000. The S.A.L.T. Reef received 400 predesigned pyramid structures from Walter Marine (Alabama) at a cost of approximately \$450,000. The Sabine Reef received additional quarry rock and concrete at a cost of \$70,000.

Our biological monitoring dive trips began again with a new dive program. We were able to survey over 30 rigs-to-reefs and made over 150 individual dives in the High Island Area.

The new Coastal Fisheries Artificial Reef Program interactive Google Earth map is available through TPWD’s website ([www.tpwd.state.tx.us/artificialreef](http://www.tpwd.state.tx.us/artificialreef)).

## **Buyback Programs**

### Inshore Shrimp Buyback Program

Inshore shrimp buyback round #28 application period closed 22 April 2011. During this round, 32 bids were received and a total of 11 (6 bay and 5 bait) licenses were purchased at a total cost of \$94,200. The average purchase price was \$8,563 with a range of \$6,700 to \$9,500.

Shrimp - Overall totals since 1996

- 2,092 licenses purchased
- 1,055 bay licenses and 1,037 bait licenses
- Total cost of \$13.9 million
- 2,092 / 3,231 original licenses = 65%

#### Crab Buyback Program

Crab buyback round #14 application period closed on 22 April 2011 during which 3 applications were received and 1 license was accepted at a total cost of \$10,000.

Crab - Overall totals since 2001

- 52 licenses purchased
- Total cost of \$337,249
- Average price over all rounds = \$6,485
- 52 / 287 original licenses = 18% of total

#### Finfish Buyback Program

Finfish buyback round #17 application period closed on 22 April 2011 during which 17 applications were received and 5 licenses were purchased at a total cost of \$48,250, with an average cost of \$9,650 and a range of \$8,500 to \$10,000.

Finfish - Overall totals since 2002

- 236 licenses purchased
- Total cost of \$1,396,700
- Average price over all rounds = \$5,918
- 235 / 549 original licenses = 43%

#### **Oysters**

A Galveston Bay oyster dealer requested approval to bring triploid seed eastern oysters to an aquaculture facility in Imperial, TX (west Texas) from a hatchery in Virginia to use in ponds that utilize brine well water to maintain salinities in the 10-15 ppt range. Approval was granted for a one-time shipment based on a good pathology report from the Virginia Institute of Marine Science Shellfish Pathology Laboratory. An additional request has been received to allow a larger shipment of seed oysters be sent to the aquaculture facility and is pending the outcome of the pathology report.

#### **Special Efforts, Studies, and Topics**

In late March, the Texas Department of State Health Services restricted shellfishing in Corpus Christi and Aransas bays due to concentrations of red tide (*Dinophysis ovum*).

In early September, Coastal Fisheries staff in Brownsville reported stressed fish at the surface inside Brazos-Santiago Pass, and related water sample analysis revealed red tide (*Karenia brevis*) at 2 cells per ml. By mid-September, discolored water, aerosols, and dead fish, including red drum, southern flounder, striped mullet, croaker, and spotted seatrout, were noted along the north side of the Brownsville Ship Channel. Water sample analysis confirmed high (hundreds to

thousands per ml) concentrations of *K. brevis* as well as lower numbers of *Prorocentrum micans* (a nontoxic species). By late September, the red tide had expanded to the upper coast, from San Luis Pass to the Brazos River.

#### **‘Others’**

In late June, Coastal Fisheries staff attended a Sustainable Seafood Certification Process workshop in New Orleans to provide information on various fisheries within the Gulf of Mexico relative to assess the different criteria used in evaluating the sustainability of the fisheries. Obtaining certification would allow ecolabeling of the seafood, a distinctive logo, or a statement which indicates that the fish has been harvested or produced in compliance with conservation and sustainability standards. These standards include the stock status of the fishery, the impacts of the fishery on components of the ecosystem, and the management system for the fishery. Meeting participants included state and federal managers and commercial fishermen from various Gulf of Mexico fisheries.

TPWD received a petition for rulemaking to allow the importation of live barramundi, also known as Asian Seabass, from a Massachusetts aquaculture facility to be used for the live seafood market. Barramundi are listed on the Department’s prohibited list. Upon review of the information provided by the petitioner and risk assessment information from other states, TPWD recommended a denial of this request.

#### **NOAA: Summary Update on Status of the Southeast Regional Office: R. Crabtree** **Status of Actions by NOAA Fisheries Service**

In spring 2011, Governors Barbour and Jindal, and several other political officials, requested the Secretary of Commerce declare a fishery resource disaster under the Magnuson-Stevens Fishery Conservation and Management Act or Inter-jurisdictional Fisheries Act to assist affected Mississippi and Louisiana communities in obtaining financial assistance to address the impacts of the historic flooding in the lower Mississippi River. NMFS is assisting the Mississippi and Louisiana state fishery agencies in developing the analyses required to evaluate the appropriateness of such a declaration.

#### **Sustainable Fisheries**

Regulatory Actions:

Deepwater Horizon Oil Spill: Effective April 19, 2011, NOAA Fisheries Service reopened the last 1,041 square miles (2,697 sq km) of area previously closed to commercial and recreational fishing in the Gulf of Mexico in response to the Deepwater Horizon oil spill. All areas of federal waters previously closed to fishing because of the oil spill are now open. Other federal closed areas, such as marine protected areas, remain in effect.

Recreational Red Snapper Total Allowable Catch (TAC): NOAA Fisheries Service published a final rule on April 29, 2011, implementing increases in the commercial and recreational red snapper quotas in the Gulf of Mexico from 3.542 and 3.403 million pounds (mp) to 3.66 and 3.525 mp in 2011, respectively. A recent red snapper assessment update projected overfishing (rate of removal is too high) ended in 2009, and therefore, the TAC could be increased from the

existing 6.945 mp to 7.185 mp. Additionally, the rule set the 2011 recreational red snapper season from June 1, 2011, through July 18, 2011.

Greater Amberjack Recreational Seasonal Closure: NOAA Fisheries Service published a final rule, effective May 31, 2011, to establish a June 1 through July 31 seasonal closure for recreational harvest of greater amberjack in or from the Gulf of Mexico federal waters. The intended effect of the rule is to maintain the rebuilding plan targets for the overfished greater amberjack resource, reduce the likelihood of exceeding the recreational quota for greater amberjack, minimize the length of in-season quota closures for greater amberjack during peak recreational fishing months, and increase social and economic benefits for recreational fishers by maximizing the number of fishing days available to the recreational sector.

Greater Amberjack Accountability Measures (AMs) and Commercial Quota Closure: NOAA Fisheries Service published a rule on April 29, 2011, adjusting the recreational and commercial quotas for greater amberjack. Both sectors exceeded their quotas for 2010; therefore established payback AMs were enacted. In addition, NOAA Fisheries Service announced that it projected the commercial sector would meet its quota and should close at 12:01 a.m. local time, June 18, 2011.

Gag Interim Rule: NOAA Fisheries Service published a temporary rule, effective June 1, 2011, to reset the commercial quota of gag at 430,000 pounds (lbs), continue the suspension of the use of red grouper multi-use individual fishing quota (IFQ) commercial allocation, and set a gag recreational season from September 16 through November 15. This rule expires November 28, 2011, and would need to be renewed unless replaced by regulations implementing Amendment 32 (see below).

Red Snapper Secondary Recreational Quota Increase: NOAA Fisheries Service published an emergency rule, effective September 12, 2011, raising the recreational red snapper quota by 345,000 lbs for the 2011 fishing year and providing the agency with the authority to re-open the recreational red snapper season later this year, if appropriate. However, preliminary projections indicate that even the increased quota was exceeded by the July 19 initial closure date.

Red Grouper Regulatory Amendment: In 2010, the TAC for red grouper was reduced for 2011 from 7.57 mp to 5.68 mp. A subsequent updated rerun of the assessment in early 2011 indicated landings had been less in 2010 than projected, and the 2011 TAC could be increased. NOAA Fisheries Service published a proposed rule on September 21, 2011, with the comment period ending October 6, 2011. The rule would adjust red grouper catch levels through 2015, adjust "other shallow-water group" allocations accordingly, and raise the recreational bag limit from 2 fish to 4 fish in the 4-fish aggregate bag limit.

Annual Catch Limits (ACLs) Amendments: The Gulf of Mexico Fishery Management Council (Council) has submitted three amendments (Generic ACL [Reef Fish, Red Drum, Shrimp, Corals], Coastal Migratory Pelagics 18, Spiny Lobster 10) to establish ACLs for species not undergoing overfishing. The amendments identify species that are in continued need of federal management and those that do not need management, establishes standardized mechanisms by which to set ACLs and AMs, and establishes those ACLs and AMs. NOAA Fisheries Service has

announced the availability of these amendments for public comment. For Spiny Lobster 10, the proposed rule published September 2, 2011, with comments being accepted until November 1. Additionally, the Council requested, and NOAA Fisheries published a rulemaking repealing the Stone Crab Fishery Management Plan (FMP).

Amendment 32 draft document (gag and red grouper): A recent assessment update indicates gag is undergoing overfishing and the stock size of red grouper has declined compared to the findings of the last assessment. The assessment update indicated 65-70 percent reductions are needed in TAC for gag. The amendment would slightly increase gag catch levels from those currently established through interim rule (see above), adjust ACLs, catch targets, and AMs for gag and red grouper, and establish a gag recreational fishing season. Until this amendment can be finalized, at the Councils request, NOAA Fisheries Service published an interim rule for gag (see above) and the Council has developed a regulatory amendment to adjust red grouper TAC (see items listed above). The amendment is scheduled for implementation by the end of 2011.

### **Fishery Openings, Closings, and Landings Summary**

Recreational: (recreational landings, catch limits, fishing seasons, and closures can be tracked on the SERO Web site at <http://sero.nmfs.noaa.gov/sf/RecreationalLandingsandCatchLimits.html>)

#### **GULF OF MEXICO RECREATIONAL ANNUAL CATCH LIMITS**

Species	2011 Preliminary Recreational Landings (lbs) by Two-month Wave*						Total Reported	2011 Annual Catch Limit/ Quota	Percent of ACL
	Jan- Feb	Mar- Apr	May-Jun	Jul- Aug	Sep- Oct	Nov- Dec			
Gag	50,285	94,601	135,254				280,140	2,670,000	10.5%
Gray Triggerfish	22,052	45,464	212,217				279,733	457,000	61.2%
Greater Amberjack	57,203	95,583	193,282				346,068	1,315,224	26.3%
Red Grouper	10,776	43,484	174,389				228,649	1,360,000	16.8%
Red Snapper	32,079	27,908	2,788,756	239,225			3,087,969	3,870,000	79.8%

\*Landings are reported in gutted weight for groupers; greater amberjack landings exclude Monroe County, Florida; 2011 landings for red snapper include headboat landings.

Commercial: (commercial landings are updated twice a month on the SERO Web site. For IFQ species, up-to-date landings can be tracked on the SERO's Reef Fish IFQ Web page at <https://ifq.sero.nmfs.noaa.gov/ifq/>.) Landings report dates are noted under each species.

Red Snapper: As of September 26, 2.39 mp (73 percent) of the 2011 quota has been landed.

Shallow-Water Grouper (SWG): As of September 26, 172,688 lbs (40 percent) of the gag quota has been landed; 3.281 mp (76 percent) of the red grouper quota has been landed (this would be



63 percent of the quota increase currently proposed — see red grouper regulatory amendment above); and 145,554 lbs (35 percent) of the “other” SWG quota was landed.

Deepwater Grouper (DWG) and Tilefish: As of September 26, for DWG, 559,239 lb (55 percent) of the quota has been landed, and 220,581 lbs (50 percent) of the tilefish quota has been landed.

Greater Amberjack and Gray Triggerfish: Because of an overage in 2009, the greater amberjack commercial quota was adjusted from 503,000 lbs to 313,900 lbs. Based on early 2011 landings; NOAA Fisheries Service closed the commercial sector on June 18. Subsequent 2010 and 2011 landings adjustments indicated the quota was not met by that date. NOAA Fisheries Service has since adjusted the 2011 quota to 342,091 lbs and re-opened the commercial sector beginning September 1. Through September 15, 276,401 lbs (81 percent) of the adjusted quota has been taken. For gray triggerfish, 2,662 lbs (2.5 percent of the quota) has been taken in 2011; no landings have been reported by dealers for several reporting periods. NOAA Fisheries Service is examining this lack of landings reports.

King and Spanish Mackerel: The commercial king mackerel fishing season for all zones and sub-zones opened on July 1, 2011. The western zone (Alabama — Texas) met its quota and the commercial sector was closed on September 16. The northern zone (west coast of Florida north of Collier County) has landed 75,700 lbs (45 percent) of its quota through September 15; many vessels that were fishing in the western zone have moved to the Florida panhandle and this small 168,750 lbs quota may be taken rapidly. No landings are reported for the southern zone. For Spanish mackerel, only 212,808 lbs of the 5.187 mp quota were taken through August 15; no updated landings reports have been received since then.

### **Permits Status**

The following represents permits issued or renewed within the last 12 months, which can be used to fish in the respective fisheries. It does not represent activity in a fishery. A complete list of valid vessel and dealer permits is found on the SERO Web site at <http://sero.nmfs.noaa.gov/foia/readingrm.htm>. Permits as of July 25, 2011, are:

- 1,482 (121) moratorium Gulf shrimp permits and 283 royal red shrimp endorsements. Of the original 1,933 shrimp moratorium permits, 330 have been terminated as of July 15, 2011.
- 1,289 (81) for-hire coastal pelagic moratorium permits; 40 (3) historical captain permits.
- 1,440 (81) commercial king mackerel moratorium permits (includes South Atlantic); 18 (5) commercial king mackerel gillnet.
- 1,757 commercial Spanish mackerel permits (includes South Atlantic).
- 1,268 (77) for-hire reef fish moratorium permits; 42 (3) historical captain permits.
- 833 (93) commercial reef fish moratorium permits; 61(1) longline endorsements.
- 206 commercial spiny lobster permits and 370 tailing permits (includes South Atlantic).

### **Protected Resources**

#### **Biological Opinions**

- Preparing a new Biological Opinion on shrimp trawling in the Southeastern United States under Sea Turtle Conservation Regulations (e.g., Turtle Excluder Device regulations) and as managed by the FMPs for shrimp in the South Atlantic and Gulf of Mexico.

- Completed a Biological Opinion for the Mobile District Corps of Engineers (COE) regarding “Construction of a Breakwater in the Mississippi Sound, near Pass Christian, Harrison County, Mississippi,” and its effects on Gulf Sturgeon Critical Habitat.
- Completed a Biological Opinion for the U.S. Fish and Wildlife Service (FWS) regarding the “Texas Parks and Wildlife Department’s Fishery-Independent Sampling Program” and its effects on Listed Sea Turtles.
- Completed a Biological Opinion for the Federal Highway Administration regarding the “Widening of I-75 from North of SR-80 to South of SR-78 in Lee County, Florida” and its effects on Smalltooth Sawfish and its Designated Critical Habitat.
- Completed a Biological Opinion for Eglin Air Force Base and the Jacksonville District COE regarding the “Redevelopment of Waterside Facilities at Test Area D-84 in Lee County, Florida,” and its effects on Listed Sea Turtles, Smalltooth Sawfish, and Gulf Sturgeon and its Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding the “Reissuance and Geographic Expansion of State Programmatic General Permit IV-RI to include all counties within the Northwest Florida Water Management District,” and its effects on Listed Sea Turtles, Smalltooth Sawfish, Gulf Sturgeon, Shortnose Sturgeon, Elkhorn and Staghorn Corals, Johnson’s Seagrass, Johnson’s Seagrass Critical Habitat, and Gulf Sturgeon and Smalltooth Sawfish Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding the “Installation of 65 Linear Feet of Concrete Seawall in Charlotte County, Florida,” and its effects on Smalltooth Sawfish and its Designated Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding several “Seawall Installations in Charlotte County, Florida,” and its effects on Smalltooth Sawfish and its critical habitat.
- Completed a Biological Opinion for the Jacksonville District COE for “Installation of Riprap and Concrete Piers in Lee County, Florida,” and its effects on Smalltooth Sawfish and its Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE for “Installation of Riprap/Dock, and Removal of Black and White Mangroves in Lee County, Florida,” and its effects on Listed Sea Turtles, Smalltooth Sawfish, and Smalltooth Sawfish Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding “Installation of a Concrete Seawall in Charlotte County, Florida,” and its effects on Smalltooth Sawfish and its Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding “Installation of a Concrete Seawall in Lee County, Florida,” and its effects on Listed Sea Turtles and Smalltooth Sawfish and its Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding “Installation of a Seawall/Cap in Lee County, Florida,” and its effects on Listed Sea Turtles and Smalltooth Sawfish and its Critical Habitat.

#### Conservation Measures

- On June 24, 2011, NOAA Fisheries Service published in the Federal Register its intent to prepare an environmental impact statement and to conduct scoping meetings, and made available a scoping document presenting various approaches to addressing incidental

bycatch and mortality of sea turtles in the southeastern shrimp fishery; the scoping period ended on August 23, 2011. Six public scoping meetings were conducted to discuss recent sea turtle strandings, potential issues within the southeastern shrimp fishery that may relate to these strandings, and potential management alternatives to reduce incidental sea turtle bycatch and mortality in the shrimp fishery: July 12 at Gray, Louisiana; July 12 at Belle Chasse, Louisiana; July 13 at Biloxi, Mississippi; July 14 at Bayou La Batre, Alabama; and July 18 at Morehead City, North Carolina. Due to a large turnout of Vietnamese fishermen and a lack of adequate translation services at the July 13 Biloxi, Mississippi meeting, an additional meeting with full translation services was conducted at Biloxi, Mississippi on July 26.

- Participated in partnership meeting with Florida Fish and Wildlife Commission, NOAA Office of Law Enforcement, and NOAA's Office of General Counsel for enforcement and litigation regarding dolphin feeding issues and strategies in Florida.
- Coordinating with Mississippi/Alabama Sea Grant on soliciting a Request for Proposals for dolphin/human interaction research in the Southeast Region - based on outcomes from the above workshop, and development of two Smart-phone apps to enhance stranding response efforts and promote responsible marine mammal viewing.
- Planned, implemented, and executed one Dolphin SMART training in Orange Beach, Alabama.
- Evaluated and recognized one additional business for Dolphin SMART along southwest Florida Gulf Coast.
- Enhanced Dolphin SMART "proud supporter" program in Alabama, Key West, and Central west Florida coast with approximately 40 Proud Supporters.
- Ensured effective/successful response to out-of-habitat or entangled animals in Alabama, Texas, and Florida.

#### Deepwater Horizon (DHW) Oil Spill

- Ongoing coordination with Gulf Coast Incident Management Team (GCIMT) under Section 7 of the Endangered Species Act for ongoing response activities such as Shoreline Cleanup Assessment Technology (SCAT) Operations, Orphaned Anchor Retrieval protocols, Submerged oil detection and retrieval actions, etc. Worked with staff at the GCIMT, state branches (MS, AL, FL), and FWS to resolve conflicts over best management practices (BMP5).
- Worked to ensure that projects potentially affecting NOAA Fisheries Service trust resources were being directed to Protected Resources and Habitat Conservation Divisions for our review.
- Review Shoreline Treatment Recommendations developed by SCAT teams and provide signed checklists indicating the relevant BMPs that must be followed.
- Participate in conference calls, as well as review and comment on documents, related to the No Further Treatment protocols the GCIMT is working on for various locations.
- Participate in conference calls, provide input, and submit BMPs and other measures on GCIMT delineation and removal of submerged oil mats in MS, AL, and FL. Worked with the GCIMT to provide in-water BMPs (developed last summer) and additional recommendations that include general harm avoidance measures, vessel strike avoidance measures, protocol for the use of sonar, and protected species take response protocols, which we developed with the help of the Marine Mammal branch.



- Reviewed briefing/options papers (on artificial reefs, oyster restoration, and aquaculture) developed by the NOAA Restoration Center for potential Natural Resource Damage Assessment early restoration types and provided guidance on section 7 issues.
- Conducted one bottlenose dolphin visual health assessment in Perdido Bay, Alabama.

#### National Resource Damage Assessment (NRDA)

- Participate in weekly NRDA Marine Mammal Technical Working Group calls.
- Facilitate Marine Mammal Working group to identify NRDA related needs.
- Drafted and acted as Principal Investigators for two comprehensive NRDA proposals for post-release monitoring of rehabilitated dolphins within the oil spill impact area, and for active surveillance for stranded marine mammals in Louisiana and Mississippi.
- Worked with Marine Mammal Commission on Draft Strategic Science plan for marine mammals in the Gulf of Mexico — as part of the DWH oil spill.
- Participated in multiple coordination calls regarding 5 incidental takes of dolphins in two separate NRDA sampling projects.
- Reviewed approximately 20 NRDA sampling plans and provided preventative conservation measures to avoid protected species interactions during sampling activities.
- Compiled and submitted an early restoration proposal to reduce bycatch and direct threats to bottlenose dolphins in the Gulf of Mexico.

#### **Habitat Conservation and Protection**

Habitat Conservation Division (HCD) personnel in the SERO and in four field offices strategically located throughout the Gulf of Mexico interacted with federal, state, and local officials, private sector, and interested citizens to fulfill federal mandates to conserve, protect, and restore habitats that support managed fish stocks, protected resources, and healthy ecosystem functions. To accomplish these objectives, HCD applied its authorities to manage and influence the outcome of actions that may adversely affect essential fish habitat (EFH) and other fishery resources and, ultimately, the production of important commercial and recreational fisheries. Activities focused on a suite of actions intended to promote an ecosystem-based approach to management, including:

- Project and permit reviews and EFH consultations involving federal programs.
- Pre- and post-application planning and monitoring.
- Federal projects affecting habitat.
- National Environmental Policy Act (NEPA) consultations.
- Partnerships and coordination (e.g., fishery management councils and marine fisheries commissions).
- Science-management coordination and outreach.

The HCD is a member of the state Habitat Advisory Panels established by the Council and coordinated by the Commission.

HCD staff engage on interdisciplinary planning teams with other staff from the Regional Office, Council, and the Southeast Fishery Science Center. These teams, charged with developing fishery management plan amendments and associated NEPA documents, completed the Generic Annual Catch Limits/Accountability Measures Amendment for the Red Drum, Reef Fish, Shrimp, Coral and Coral Reefs Fishery Management Plans. This amendment also modified

fishery management units and associated EFH identifications and descriptions. HCD staff also worked with Commission and Council staff in preparing the *Final Report Gulf of Mexico Fishery Management Council 5-Year Review of the Final Generic Amendment Number 3 Addressing Essential Fish Habitat Requirements, Habitat Areas of Particular Concern, and Adverse Effects of Fishing in the Fishery Management Plans of the Gulf of Mexico* satisfying the five year review requirement of the MSFCMA and EFH regulations.

The HCD continued its intensive involvement in activities promoting conservation, restoration, enhancement, creation, and preservation of coastal wetlands, riverine habitats, and nearshore areas utilized by important commercial and recreational fish species. Also, the HCD became increasingly involved in regional partnerships to leverage resources and capabilities to conserve habitat and promote stewardship. These partnerships include the Southeast Aquatic Resources Partnership (SARP), the Gulf of Mexico Alliance (GOMA), the Northern Gulf Institute, and the NOAA Gulf of Mexico Regional Collaboration Teams. For example, HCD's work with GOMA included:

- Serving as the federal co-lead to the Habitat Conservation and Restoration Priority Issues Team to ensure all work plan elements and deliverables to the NOAA contract with the Gulf of Mexico Foundation were completed on schedule.
- Working on the GOMA's Regional Sediment Management workgroup.
- Participating in numerous GOMA sponsored meetings and conference calls, as well as the GOMA All hands meeting.
- Participating in the SARP steering committee, Science and Data Committee, and the Communications and Outreach Committee as well as numerous SARP-sponsored meetings.

The HCD continued involvement in many DWH Oil Spill related support activities, including:

- Serving on SCAT teams.
- Reviewing approximately 80 emergency consultations for shoreline treatment recommendations
- Development of numerous briefing materials and participation in a considerable number of conference calls.
- Providing the NRDA Team with project summary documents to assist in the development of the priority restoration projects lists for each Gulf state.

The HCD reviewed and provided comment to the Bureau of Ocean Energy, Management, Regulation, and Enforcement (BOEMRE) on Supplemental NEPA Documents for remaining lease sales in the 2007-2012 Lease Plan for the Western and Central Planning Areas of the Gulf of Mexico. The HCD continued to coordinate with BOEMRE Gulf of Mexico Region on reviewing and updating the Programmatic EFH Consultation for oil and gas development activities in the Gulf of Mexico.

HCD was heavily involved in all aspects of planning for the Gulf Coast Ecosystem Restoration Task Force. HCD staff served on numerous subteams including Sediment Management, Sustainable Storm Buffers, and Coastal Wetland and Barrier Shoreline Habitats. HCD staff was involved in numerous meetings, webinars and conference calls and developing numerous

briefing documents in support of these activities. HCD authored draft reports for the Sediment sub-team on:

- Increased Use of Interagency Coordination Teams for U.S. COE Federal Projects.
- Interagency Roundtable Meetings to Identify Beneficial Uses of Dredged Material Opportunities.
- The Harbor Maintenance Trust Fund issues.
- Coastal Impact Improvement Program and Gulf of Mexico Energy Security Act Funding issues.
- The Need for Programmatic Review of the COE's Operations and Maintenance Program.
- The Jones Act and the COE's Industry Capabilities Program.
- The COE's Continuing Authorities Program.

The HCD provided consultation services through field inspections, meetings, public hearings, informal discussions, and document review. HCD provided habitat information and EFH reviews in support of fishery management plans, amendments, and other regulatory actions. The HCD also provided recommendations to sequentially avoid, minimize, and offset adverse impacts to EFH and other fishery habitats. Federal fiscal year 2011 accomplishments in the Gulf of Mexico region include:

- Reviewed over 1,462 individual proposals to construct in coastal waters or wetlands.
- Provided pre-consultative technical assistance on 90 projects.
- Provided detailed conservation recommendations on over 161 EFH consultations initiated by federal action agencies.
- Completed reviews on 36 NEPA actions.
- Participated in other activities associated with mitigation planning and habitat restoration, including providing technical assistance and consultation on the proposed Port Dolphin closed loop liquefied natural gas (LNG) facilities by serving on a technical advisory committee established to develop and implement plans to monitor and mitigate for unavoidable adverse impacts caused by multiple LNG facilities in offshore and onshore locations.

HCD staff have been successfully planning many large-scale habitat restoration projects including projects being funded under: (1) Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA); (2) Mississippi Coastal Improvement Program; (3) Southwest Coastal Louisiana Feasibility Study; (4) Louisiana Coastal Area Ecosystem Restoration Study; (5) Greater New Orleans Hurricane Storm Surge and Risk Reduction Project; and (6) the Mississippi River-Gulf Outlet Ecosystem Restoration Study. HCD continued assisting the COE with hurricane recovery and protection efforts by providing technical assistance and expedited reviews of proposed levee and flood control activities and engaging in long-term restoration planning. HCD engaged in the following activities related to CWPPRA:

- Continued engineering and design activities for the Chenier Ronquille barrier island restoration project, which would create more than 120 acres of dune habitat and more than 250 acres of saline marsh habitat. Advanced design milestones have been completed.
- Continued engineering and design activities for the Grand Liard Marsh and Ridge restoration project, which would create more than 300 acres of saline marsh, nourish 140 acres of existing marsh, and create 34 acres of maritime ridge habitat. Advanced design milestones have been completed.

- Awarding of a \$43M construction contract for the NOAA-led Pelican Island restoration project. It is anticipated that 227 acres of dune and Gulf shoreline and over 350 acres of intertidal saline marsh will be restored and created.
- Sponsorship of four Priority Project List 21 candidate projects under consideration for engineering and design funding.

Under the auspices of the emerging Cooperative Habitat Protection Program, HCD staff continued to partner with the Galveston Bay Foundation and the National Fish and Wildlife Foundation to implement small landowner living shoreline projects in Galveston Bay and initiated a habitat mapping and prioritization project with the Mobile Bay National Estuary Program and Coastal Services Center. Other major HCD activities included:

- Providing technical support and local expertise to the NOAA Scientific Support Coordinator and the Regional Response Teams during several hazardous material incidents and exercises.
- Working closely with the Florida Department of Transportation throughout the bridge and highway project planning process to minimize project delays and ensure early consideration of measures to conserve NOAA trust resources.
- Participating in ecosystem planning activities through active participation in regional partnerships, including the Mississippi Coastal Improvements Program, Louisiana Coastal Protection and Restoration Program, Louisiana Coastal Area Feasibility Study, Florida's Subcommittee on Managed Marshes, National Estuary Programs in Texas, Louisiana, Mississippi, and Florida, and a variety of similar planning activities.

HCD staff also aggressively engaged in habitat conservation outreach by:

- Conducting poster sessions and making formal and informal presentations at scientific and management meetings. Addressing students of all ages in classrooms throughout the region.
- Delivering lectures at constituent meetings and maintaining continuous contact with concerned individuals and organizations.
- Producing reports and brochures for intra- and interagency coordination.
- Responding to requests for information from private citizens; news media; and local, state, and federal agencies.

**Election of Officers:**

**H. Blanchet** nominated **Dale Diaz** for Chairman, and with no other nominations, Dale was elected. **Chris Denson** was nominated for Vice Chairman and was elected unanimously.

**With no further business to discuss, J. Shepard adjourned the meeting at 3:15 p.m.**

**TCC CRAB SUBCOMMITTEE  
MINUTES 62nd Annual Fall Meeting  
Tuesday, October 18, 2011  
New Orleans, Louisiana**

**R. Gandy** called the meeting to order at 8:30 a.m. and started with introductions. The following were in attendance:

**Members**

Jason Herrmann, AMRD, Dauphin Island, AL  
Martin Bourgeois, LDWF, Baton Rouge, LA  
Ryan Gandy, FWC/FWRI, St. Petersburg, FL  
Bill Richardson, MDMR, Biloxi, MS  
Glenn Sutton, TPWD, Dickinson, TX  
Harriet Perry, GCRL, Ocean Springs, MS

**Others**

Virginia Vail, Tallahassee, FL  
Ronnie Luster, CCA, Houston, TX  
Julie Anderson, LA Sea Grant/LSU, Baton Rouge, LA  
Joe West, LDWF, Baton Rouge, LA  
Dale Diaz, MDMR, Biloxi, MS  
Harry Blanchet, LDWF, Baton Rouge, LA  
Ray Mroch, NCDMF, Morehead City, NC  
Jeff Marx, LDWF, New Iberia, LA

**Staff**

Steve VanderKooy, IJF Coordinator, Ocean Springs, MS  
Debbie McIntyre, IJF Staff Assistant, Ocean Springs, MS

**Adoption of Agenda**

*Bourgeois moved to accept the agenda. The motion was seconded by Perry and passed unanimously.*

**Approval of Minutes**

There were two sets of minutes to be approved. **Bourgeois moved to accept the October 18, 2010 TCC Crab Subcommittee minutes as written. The motion was seconded by Perry and passed unanimously. Richardson moved to accept the September 7-8, 2011 Blue Crab TTF minutes as written. The motion was seconded by Marx and passed unanimously.**

**Stock Assessment Discussion**

**Gandy** presented an overview of the results of Florida's Blue Crab Lipofuscin studies. Gandy explained that lipofuscin is a waste product that builds up in the tissues of blue crabs as a

consequence of metabolism. The technique originated in gerontological studies that looked at the brains and neural tissues of rats, etc. Fisheries in the northeast applied the technique of histology and eventually tried the extraction immunology. The problem with the technique is that there are a lot of other proteins that fluoresce and can confound the presence of Lipofuscin. Because of the extraction problems and interference with this technique, Gandy does not have confidence in this method. He stated that Florida has not published results yet but will soon.

Ray Mroch of the North Carolina Division of Marine Fisheries gave an interesting presentation on the North Carolina Blue Crab "Traffic Light" Assessment concept. It is anticipated that this information will be helpful to the Technical Task Force when looking for possible models to use for the assessment of blue crabs in the Gulf.

*Pellegrin* was not present to talk about the data compiled for an assessment, so *VanderKooy* presented the original appendix from the last Crab FMP, section 14.2. *VanderKooy* stated that we probably have data through 2010. Around 1999, several potential models were looked at but there was not enough confidence in the models. *VanderKooy* noted that we need to determine what other data is out there and we need to learn what data went into the models that have been successful.

*Mahmoudi* presented a summary of Florida's 2006 stock assessment which reflected an eight-year cyclic pattern of landings. The depletion model is used for the most part in crab assessment. The average annual abundance of blue crabs fluctuated. Independent estimates of the exploitation rate are needed in order to fine tune the model. Future modeling should include environmental variables affecting recruitment. *Mahmoudi* explained the blue crab modeling approach used in the Chesapeake Bay, the key features of which were used in their draft 2011 assessment model which he provided electronically to the group.

*Joe West* reviewed Louisiana's assessment which was submitted for MSC certification. Their assessment model is the Collie-Sissenwine which is a catch-survey analysis. The stock status reflected that there was no decline in recruitment, it offered a proposed limit and target, and determined exploitable biomass.

There was a roundtable discussion regarding stock assessment and where to go from here. Discussion took place regarding the benefits of conducting a peer-reviewed stock assessment workshop based on the format of the SEDAR. It was decided that *VanderKooy* will coordinate this workshop to coincide with a meeting of the newly formed Blue Crab TTF. The TTF is in need of a stock assessment representative and the group will attempt to recruit a member for that purpose. *VanderKooy* will begin work immediately to start this process.

*VanderKooy* reminded the members of the TTF that they had assignments to complete (roughed-out changes) by December when the group is meeting in Apalachicola. *VanderKooy* will make use of the website for exchange of information and will put together a bibliography package.

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### **State & Derelict Crab Trap Recovery Reports**

In the interest of time, each state representative submitted a written report to include information such as landings, trips, licenses, trip tickets, CPUE, mortality, legislation, and derelict crab trap recovery. These reports are an attachment to the minutes.

### **Election of Chair**

***Bourgeois made a motion that Gandy remain committee chair during the FMP revision. Perry seconded the motion which was approved unanimously.***

### **Adjourn**

There being no other business, the meeting adjourned at 11:50 a.m.

Attachments:           Alabama State Report  
                              Florida State Report  
                              Louisiana State Report  
                              Mississippi State Report  
                              Texas State Report



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consequence of metabolism. The technique originated in gerontological studies that looked at the brains and neural tissues of rats, etc. Fisheries in the northeast applied the technique of histology and eventually tried the extraction immunology. The problem with the technique is that there are a lot of other proteins that fluoresce and can confound the presence of Lipofuscin. Because of the extraction problems and interference with this technique, Gandy does not have confidence in this method. He stated that Florida has not published results yet but will soon.

Ray Mroch of the North Carolina Division of Marine Fisheries gave an interesting presentation on the North Carolina Blue Crab "Traffic Light" Assessment concept. It is anticipated that this information will be helpful to the Technical Task Force when looking for possible models to use for the assessment of blue crabs in the Gulf.

*Pellegrin* was not present to talk about the data compiled for an assessment, so *VanderKooy* presented the original appendix from the last Crab FMP, section 14.2. *VanderKooy* stated that we probably have data through 2010. Around 1999, several potential models were looked at but there was not enough confidence in the models. *VanderKooy* noted that we need to determine what other data is out there and we need to learn what data went into the models that have been successful.

*Mahmoudi* presented a summary of Florida's 2006 stock assessment which reflected an eight-year cyclic pattern of landings. The depletion model is used for the most part in crab assessment. The average annual abundance of blue crabs fluctuated. Independent estimates of the exploitation rate are needed in order to fine tune the model. Future modeling should include environmental variables affecting recruitment. *Mahmoudi* explained the blue crab modeling approach used in the Chesapeake Bay, the key features of which were used in their draft 2011 assessment model which he provided electronically to the group.

*Joe West* reviewed Louisiana's assessment which was submitted for MSC certification. Their assessment model is the Collie-Sissenwine which is a catch-survey analysis. The stock status reflected that there was no decline in recruitment, it offered a proposed limit and target, and determined exploitable biomass.

There was a roundtable discussion regarding stock assessment and where to go from here. Discussion took place regarding the benefits of conducting a peer-reviewed stock assessment workshop based on the format of the SEDAR. It was decided that *VanderKooy* will coordinate this workshop to coincide with a meeting of the newly formed Blue Crab TTF. The TTF is in need of a stock assessment representative and the group will attempt to recruit a member for that purpose. *VanderKooy* will begin work immediately to start this process.

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APPROVED BY:  
  
COMMITTEE CHAIRMAN

**OIL DISASTER RECOVERY PROGRAM (ODRP)  
MINUTES of the Ad Hoc Advisory Committee Meeting  
Tuesday, October 18, 2011  
New Orleans, Louisiana**

The Oil Disaster Recovery Program Ad Hoc Committee convened a meeting at the Royal Sonesta Hotel in New Orleans, La at 8:30 AM, October 18, 2011. The meeting was coordinated by the GSMFC under NA10NMF4770481 for the purpose of discussing ongoing marketing, seafood testing, and marine sustainability certification contracts and programs and for approving actions necessary for the program to move forward. GSMFC Executive Director, **Larry Simpson**, facilitated the meeting.

On a motion duly made and seconded the minutes of the meeting of August 25, 2011 were approved.

The following Committee members, staff and visitors were in attendance:

**Ad Hoc Committee representation**

David Heil, FWC, *GSMFC Commissioner*, Tallahassee, FL  
Mike Ray, *GSMFC Commissioner*, TPWD, Austin, TX  
Chris Blankenship, *GSMFC Commissioner*, ADCNR, Gulf Shores, AL  
Mark Schexnayder, LDWF, Baton Rouge, LA  
Dale Diaz, MDMR, Biloxi, MS  
Corky Perret, MDMR, Biloxi, MS (*Alternate*)

**GSMFC Staff**

Alex Miller, *Economist*, GSMFC, Ocean Springs, MS  
Ralph Hode, *Fisheries Disaster Coordinator*, GSMFC, Ocean Springs, MS  
Larry Simpson, *Executive Director*, GSMFC, Ocean Springs, MS  
Dave Donaldson, *Assistant Director*, GSMFC, Ocean Springs, MS  
Angela Rabideau, *Accountant*, GSMFC, Ocean Springs, MS  
Adam McInnis, *Senior Accountant*, GSMFC, Ocean Springs, MS  
Ashley Lott, *Staff Assistant*, GSMFC, Ocean Springs, MS  
Donna Bellais, *COM-FIN program*, GSMFC, Ocean Springs, MS

**Others**

Ellie F. Roche, NOAA Fisheries, Southeast Region  
Peter Marshall, Global Trust, Tampa Florida - Seattle, WA  
Harlon Pearce, Gulf of Mexico Fisheries Council, New Orleans, LA  
Jay Lugar, MSC, Halifax, Nova Scotia  
Mark Berrigan, FL Department of Agriculture and Consumer Services, Tallahassee, FL  
Dr. Charles Adams, University of Florida, Sea Grant Program, Gainesville, FL  
Billy Guste, GCR and Associates, Inc., New Orleans, LA  
Camp Matens, GSMFC Commissioner, Baton Rouge, LA  
Malinda Kelly, GCR and Associates, Inc., New Orleans, LA  
Ginny Vail, Past GSMFC Commissioner, Tallahassee, FL

Tracy Williamson, Corpus Christi, TX  
David Heggelund, Trace Register  
Thar Lassen, Ocean Trust, Reston, VA  
Rene LeBreton, LDWFF, New Orleans, LA  
Jon Bell, LSU AgCenter, Baton Rouge, LA  
Joey Shepard, LDWFF, Baton Rouge, LA  
Julia Lightner, LDWF, New Orleans, LA  
Dr. David Veal, Am Shrimp Processors Assoc., Biloxi, MS

Introductions were made and the agenda was approved as presented.

### **Reports/Presentations/Proposals**

#### **ODRP BUDGET OVERVIEW**

**Ralph Hode** provided an overview of overall programs funded under the Oil Disaster supplemental. A total of twelve contracts or sub awards are currently in place totaling \$9.3 Million. Nearly \$1.6 million or 10.4% has been reimbursed to date.

#### **MARKETING PROGRAMS**

A marketing overview was also given by **Hode**. Emphasized was the Coalition membership, ongoing contracts through Gulf and South Atlantic Fisheries Foundation for public relations and advertising strategy development and a final report from BIG, Inc. regarding public perception of Gulf seafood. It was noted that the GOM Seafood Marketing Coalition was scheduled to meet on Wednesday night and Thursday morning, October 19 and 20, 2011, to receive the final report from Big, inc. and to receive and consider actions regarding the strategic plans for public relations and advertising.

A report on the web-based component of GSMFC's ODRP was also provided. It was noted that all five Gulf States are now implementing outreach efforts to train staff to provide outreach support to local fishermen and processors; and to develop outreach strategies, including port direct web-based marketing initiatives that would create or enhance existing marketing opportunities for local processors, fishermen, and other related industries. Discussion followed regarding the need for procedures that would address landings reports and health and safety issues with port direct marketing. Staff noted that plans were being tentatively made to meet with both the outreach contractors and key industry leaders to discuss these concerns.

#### **SEAFOOD TESTING**

**Hode** also reported that Alabama and Mississippi were the only two states opting to participate in the ODRP seafood testing component; and that some requests for reimbursements have already been received and paid.

## TRACEABILITY AND SEAFOOD CERTIFICATION

### Traceability Initiative:

**Alex Miller** provided a report on the Traceability element of the ODRP noting that meetings had recently been held with key industry leaders in Mississippi, Texas and Louisiana. Other meetings with industry leaders in Alabama and Florida are scheduled for the Week of October 24 through 28, 2011. The purpose of these meetings is to provide a thorough understanding of the traceability program and the benefits it can provide in opening marketing opportunities; and in obtaining commitments from key industries in order to set a standard for other industries to follow. A number of processors and restaurants have already committed to joining in this effort and are working with Trace Register to formally implement individual traceability initiatives.

**Miller** also reported on the execution of a contract with GCR of New Orleans to provide additional support in traceability outreach. A number of components, including direct contract with processors, the development of program information packets and related printed materials, and a social media program are anticipated as part of the Traceability outreach contract.

### Oyster Traceability Pilot Study:

In other matters **Mark Schexnayder** introduced a proposal for consideration by the Ad Hoc Committee for an "Oyster Traceability Pilot Study" aimed at addressing chain of custody upgrades throughout the oyster industry that would address recent regulatory changes mandated at the Federal and State food safety levels. **Dag Heggelund** of Trace Register presented a report on possible actions that could be utilized to upgrade existing product source tracking systems to meet these criteria.

Phase I and Phase II of Heggelund's proposal would define and test the key components of an electronic tagging and data capture system for the Gulf States oyster industry. The ultimate plan would be install a non-proprietary program of software to operate equipment that can be used by all Gulf oyster companies whether large or small. It will help ensure full compliance with new Federal and State regulations including recently introduced refrigeration and data logging requirements and reassure buyers and consumers of the safety and quality of Gulf oysters. Under the Phase II component, a number of industries from within the Gulf would be selected for implementation and program demonstration purposes.

Budget estimates for project implementation were as follows:

Phase I – Study of existing operations and needed upgrades from harvester to buyers and consumers	\$65,000
Phase II – Pilot run ( <i>Preliminary estimate only dependent on the findings of the Phase I effort</i> )	\$300,000 to \$400,000
Phase III – Roll out of program ( <i>voluntary participation by Gulf Oyster industries</i> )	No Cost estimate provided.

## **ACTION**

On a motion by **Harlon Pearce** and duly seconded the Ad Hoc Committee authorized GSMFC to move forward with a contract/amended contract with Trace Register for Phase I of the proposal. Phase II is to be considered following completion of Phase I.

### **Seafood Certification Update:**

**Miller** provided an update on Certification efforts to date, noting that a rapid assessment component had been completed, and that committee members had heard earlier presentation on the MSC concept for sustainability certifications. A report/options paper was requested at the August meeting of the Committee to address the question of what needs to be done next in order to move the certification effort forward. Miller indicated that the options paper had been prepared by Richard Allen Associates under contract to CRG and that it would be discussed via simultaneous web cast following a presentation of the Alaska program for certification.

### **The Alaska Seafood Certification Approach – A presentation by Ray Riutta:**

Ray Riutta, Executive Director of the Alaska Seafood Marketing Institute (ASMI), gave a presentation on the Alaska Certification program. Riutta reported that Alaska fisheries had been sustainable for the past fifty years noting that none of its species had ever been listed as overfished. In 2010, however, the Institute contracted with Global Trust to provide third party certification. Under the agreed model, each major Alaska fishery will be assessed for conformance to the United Nations Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries and the FAO Guidelines for Eco-labeling of fishery products.

ASMI invited certifiers to submit competitive bids for third-party certification through an open request for proposals process, and selected Global Trust because of their extensive experience in certifying other best-practice fisheries around the world.

The intent of the ASMI presentation was to give the Ad Hoc Committee a broad overview of third party certification options. A presentation by the MSC group had been received during previous meetings of the Committee.

Following Riutta's presentation, Thor Lassen, of the Ocean Trust group, provided a brief oral resume of his organization and offered to provide a full presentation of their approach to third party certification at a future Committee meeting.

### **Options for Seafood Certification – Web Presentation by Richard Allen Consulting:**

Richard Allen Consulting of Rhode Island, in collaboration with GCR, provided a report (*Attachment 1*) addressing options and alternative actions that the Ad Hoc Committee could pursue in an effort to move the certification process forward. Following discussion, the Committee deferred further action pending opportunities for continued discussions regarding both the current need, species to be considered and possible other third party agency proposals.

There being no further business, the meeting was adjourned until March, 2012 - time and place to be determined.

## **Attachment 1**

### **Options for Increasing the Value of Gulf of Mexico Seafood through Certification and Alternative Sustainability Initiatives**

#### **Introduction**

The Gulf States Marine Fisheries Commission (GSMFC) is implementing an Oil Disaster Recovery Program (ODRP) to provide assistance to the Gulf of Mexico (GOM) seafood industry through programs designed to increase demand for Gulf seafood products. The ODRP initiatives include marketing of Gulf seafood, seafood certification and labeling, traceability, and testing. The specific role of the Commission in the certification of Gulf fisheries has not yet been determined. This white paper provides information that is intended to “help with the development of the Commission’s approach to sustainability certifications.”

#### **Certification and Alternatives**

The seafood certification space is becoming increasingly crowded and is evolving into a multi-layered menu, with something for everyone. Marine Stewardship Council (MSC) certification continues to be the most widely recognized, most demanding, most credible, and most transparent standard in the certification field. Increasingly, however, seafood suppliers and their government and NGO partners are looking for intermediate levels of recognition for well-managed fisheries that will satisfy institutional buyers and consumers through a less expensive and less demanding assessment process.

Whereas major seafood retailers such as Whole Foods and Wal-Mart initially indicated that they would only sell certified marine products exhibiting specific eco-labels, more recent announcements from those and other major seafood buyers indicate a more flexible approach to sourcing requirements than was evident when they first announced their sustainable seafood sourcing plans. The recent emphasis has been on programs that recognize generally healthy fisheries and stress commitments to bring about positive change without an immediate requirement for MSC certification. Notwithstanding this increasing flexibility, it remains clear that any increase in demand for seafood products from healthy GOM fisheries will require proactive efforts to meet customer sourcing requirements and consumer expectations.

In contrast to the singular emphasis on MSC certification that characterized this field initially, options for providing assurance to buyers and consumers concerning the sustainability of seafood products now include the following approaches:

- Certification and Eco-labeling
  - o MSC
  - o Global Trust (GT) FAO/ISO Responsible Fisheries Management Certification
  - o Friends of the Sea
  
- Fishery Improvement Projects (FIPs)
  - o Sustainable Fisheries Partnership (SFP)

1 It should be noted that the use of a recognized eco-label is generally restricted to a client company or organization that pays a licensing fee to the certification body. Not all products and companies in a certified fishery can freely use the eco-label, but they can use the fact of certification in their marketing. Eco-labeling also requires a formal chain of custody system that provides product traceability.

o FIPs not associated with SFP ▪ Seafood Stewardship Labeling based on a staged approach guided by GT or other credible body

• Seafood Ranking Systems and Sourcing Guidance o Monterey Bay Aquarium Seafood Watch

o Blue Ocean Institute

o NOAA's Fish Watch

o New England Aquarium

o FishChoice.com

o FishWise.org

o SeaChoice.org (Canada)

o FishSource.org

• Home-Grown Regional or State Programs o Gulf Wild™ - Gulf of Mexico Reef Fish Shareholders Alliance

o Gulf of Maine Research Institute

o California Seafood Sustainability Initiative (CA law requires the state Ocean Protection Council to develop a seafood promotion program.)

o Commonwealth Quality – Massachusetts Dept. of Agriculture

• Food Alliance – open to all North American shellfish production systems that produce shellfish from seed to harvest within a defined area and with clear ownership of the shellfish being cultured. The program does not cover wild harvest.

### **Take Advantage of the Variety of Sustainability Initiatives**

The variety of sustainability initiatives now underway and potentially available makes it likely that every fishery that is either well-managed today or is willing to commit to a program of improvement can take advantage of some form of sustainability initiative to increase demand.

### **Certification**

Depending on market requirements, MSC certification may be the appropriate route for a particular fishery. MSC certification is recognized by all major marketers as the highest sustainability standard. MSC certification requires annual audits and re-certification every five years.

Global Trust FAO/ISO Responsible Fisheries Management Certification is an alternative to MSC certification that has been adopted by Alaska and Iceland. Global Trust offers to customize certification programs to the client's needs.

Friend of the Sea certification has been less visible than MSC and includes additional requirements concerning bottom damage, by-catch limits, and carbon footprint improvements.

## **Fishery Improvement Projects**

Fishery improvement projects (FIPs) comprise a semi-formal category of sustainability initiatives in which “an alliance of buyers, suppliers and producers work together to improve a fishery by pressing for better policies and management while voluntarily Fishery improvement projects tend to be identified with the Sustainable Fisheries Partnership (SFP), but they do not necessarily involve SFP participation. It should be noted, however, that much of the credibility of sustainability initiatives derives from the recognized standing of the partners and certification bodies.

NOAA is the most authoritative source of information regarding the status of U.S. fisheries and may come into prominence if the explosion in certification bodies and sourcing guides leads to frustration among seafood marketers and consumers, particularly with programs short of MSC certification. Even without that development, well-managed fisheries might do well to publicize their FishWatch descriptions by using NOAA’s attractive FishWatch logo to guide consumers to the government web site at: <http://www.nmfs.noaa.gov/fishwatch/>.

FishWatch starts from the premise that: “If you buy fish managed under a U.S. fishery management plan, you can be assured it meets 10 national standards that ensure fish stocks are maintained, overfishing is eliminated, and the long-term socioeconomic benefits to the nation are achieved.” FishWatch provides buyers and consumers with extensive information on every federally-managed fishery in the country. Local industry and government organizations could likely work with NOAA to improve the FishWatch presentation and visibility with consumers and seafood buyers. FishWatch represents an opportunity for a fishery to tell its story, back that story up with credible government information, and let the consumer decide without any formal approvals.

## **Create a Home-Grown Sustainability Assurance Program**

Fishery organizations, states, and regional NGOs have all developed their own sustainability assurance programs, often with associated labels and pocket guides. The examples described below could provide a model or models for Gulf of Mexico fisheries.

### *Gulf Wild™ (Gulf of Mexico Reef Fish Shareholders’ Alliance)*

Gulf Wild™ is a local example that was launched with considerable fanfare at the 2011 Boston Seafood Show by the Gulf of Mexico Reef Fish Shareholders Alliance. Participation in the Gulf Wild™ program requires adherence to conservation covenants that go beyond the official rules and regulations that govern the fishery. The voluntary nature of the program makes it possible to move forward more quickly than would be possible through the official fishery management system. (Wild Rhody™ is a similar but somewhat less ambitious program initiated by the Rhode Island Commercial Fishermen’s Association.)

### *Gulf of Maine Responsibly Harvested Seal (Gulf of Maine Research Institute)*

The Gulf of Maine Research Institute (GMRI) runs a variety of programs that are intended to assist the regional seafood industry. GMRI’s Community Programs department includes a

Sustainable Seafood Initiative that developed the Gulf of Maine Responsibly Harvested branding program. According to GMRI, "the brand enables market differentiation of Gulf of Maine seafood products that meet important criteria around traceability and responsible harvest."

GMRI notes that "research has shown that consumers prefer to know where their seafood food is harvested and are concerned with the sustainability of seafood. The program empowers consumers to support seafood products they feel good about by identifying products that meet the standard's criteria with the *Gulf of Maine Responsibly Harvested* seal." The products that carry the *Gulf of Maine Responsibly Harvested* seal are verified by the Gulf of Maine Research Institute against criteria around responsible harvest. Further, all products achieve third-party verification that products are traceable to the Gulf of Maine region. The region covered includes both U.S. and Canadian waters and processors.

### *California Ocean Protection Council*

The California Ocean Protection Council (OPC) is mandated by law to develop a seafood promotion program to encourage California fisheries to seek certification in accordance with internationally-accepted standards for sustainability and to promote the purchase and consumption of certified sustainable California seafood. The Council has undertaken a rigorous evaluation of sustainability assurance programs for the purpose of fulfilling its seafood promotion responsibilities. The California Ocean Protection Council initiative is similar in many ways to the current undertaking by the GSMFC and the ODRP and has covered much of the same ground that the ODRP has or will cover. As such, the OPC web site (<http://www.opc.ca.gov/2010/03/california-sustainable-seafood-initiative/>) contains valuable information for the ODRP effort.

The OPC will be creating a California Sustainable Seafood Certification. The OPC stipulated that "any "eco" label that California develops must be easily understood, transparent, and verifiable so that consumers are assured that what they are buying is from California, is sustainable, and is helping our local fishermen continue fishing sustainably while also supporting our coastal communities."

OPC, like the ODRP, proposes a state-wide pre-assessment against MSC standards for multiple fisheries. The OPC chose to use MSC certification as the basis for its sustainability certification, but required higher scores on two performance indicators than are required for MSC certification. Whereas current MSC methodology requires a 60% score; the fisheries wishing to receive both the California label and OPC funding to go through the full MSC certification process must meet an 80% score in the pre-assessment for stock status and by-catch of ETP species.

Additionally:

The California standards will also include a robust traceability component. In addition to the MSC chain of custody requirement, the California traceability component will distinguish California fisheries from other MSC certified fisheries on the basis of increased tracking and data transparency from ship to plate. The mechanism for tracking traceability will be a unique barcode on each certified California fishery package. This barcode can be either scanned by a smart-phone or linked to a website which will reveal a host of traceability details, such as the



name of the vessel or fishermen that caught the fish, what type of gear was used to catch the fish, the port it was landed in, scientific name of the fish, and other unique information about the fishery.

Although the emphasis of the OPC program will be on assisting fisheries to obtain MSC certification, and promoting products from those fisheries, for fisheries that are not yet ready for the full MSC certification, the OPC will encourage the fishery to pursue fishery and management reforms that will result in the fishery becoming more sustainable. The OPC may also be interested in developing programs to help the fisheries who are not yet ready for certification develop new types of fishing gear or engage in collaborative fisheries research.

#### *Commonwealth Quality Seal (Commonwealth of Massachusetts)*

The Commonwealth of Massachusetts is similarly seeking to take advantage of the growing preference for local food products through its "Commonwealth Quality" program. The state describes the program as follows:

Commonwealth Quality, a brand designed by the Massachusetts Department of Agricultural Resources, serves to identify locally sourced products that are grown, harvested and processed right here in Massachusetts using practices that are safe, sustainable and don't harm the environment. That's why Commonwealth Quality-certified growers, producers, harvesters and processors not only meet stringent federal, state and local regulatory requirements, but also employ best management practices and production standards that ensure consumers receive the safest, most wholesome products available.

The program is run by the MA Department of Agriculture and initially focused on agricultural products. The addition of lobster to the program is now under consideration.

#### *Trace and Trust™ - the Bottom-up Approach to Traceability*

Food marketers have learned the importance of making a connection between the people who harvest the food and the consumer who buys the food, whether for home consumption or in a restaurant. Trace and Trust ([www.TraceandTrust.com](http://www.TraceandTrust.com)) enables individual fishermen to make that connection through their own initiative. Fishermen must commit to a set of processes and tools that ensure the integrity of their product's traceability. They feed their product and information into a network of fishermen, distributors, processors and restaurants all dedicated to maintaining vessel-level traceability all the way to the customer. Fishermen can make direct connections with restaurants and seafood markets, and work with them and other partners in the supply chain to determine both the most efficient way to get that seafood to the consumer and the marketing information that will generate price premium for that quality product. Trace and Trust works with its member restaurants to build customer excitement for the certainty of knowing who, when, and where their fish came from. Trace and Trust is an example of owning and recording information, telling the story and letting the consumer and the chefs decide, without necessarily requiring any formal approvals.

## **Potential Course of Action**

In light of the continually expanding array of standard-setting and certification bodies and evolving buyer requirements, we recommend a correspondingly adept approach by GSMFC and its member states and regional fisheries. No single approach will fit all fisheries. GSMFC and the ODRP have in hand the Rapid Assessment Report submitted by MRAG. We suggest that the next steps in this effort should be the following:

- Solicit expressions of interest in certification and other sustainability initiatives from representatives of Gulf fisheries. From this point forward, the resources available through ODRP would likely build first on previous industry activities aimed at securing sustainability assurance, and secondly on new initiatives supported by industry.
  
- Make available a consultant to organize and staff an exploratory committee for each fishery.
  
- For each fishery, determine the marketing needs of that specific fishery and the most appropriate sustainability initiative for that fishery.
  - o Meet with major buyers currently requiring certification (and those not currently requiring certification) to determine their true sustainability requirements;
  - o AND OR, Meet with major buyers currently requiring certification (and those not currently requiring certification) and present the available variety of certification programs and determine which meet their true sustainability requirements.
  
- Provide funding and guidance for the fishery to pursue the most appropriate sustainability initiative.

## **Tailor the Sustainability Initiative to the Needs and Status of Each Fishery**

The first question that should be answered for each fishery is: What benefits does the fishery expect from certification? Potential benefits of certification and eco-labeling include the following:

- Access to new markets for which buyers have definitive sustainability sourcing requirements;
- Expanding market share in existing markets;
- Avoiding loss of market access in existing markets;
- Price premiums for products with demonstrable sustainability claims;
- Reduction in market risk as buyers meet their company goals for sourcing certified or otherwise demonstrably sustainable products.
- Improved management resulting in higher future yields and profits.

Following an analysis of the benefits sought by the fishery, the exploratory committee would use existing information to provide a preliminary plan for moving the fishery into the most appropriate sustainability initiative or initiatives. The MRAG Rapid Assessment provides an initial evaluation of the status of regional fisheries in comparison to the MSC certification standards, as does the Global Trust pre-assessment report on five Louisiana fisheries. Those reports provide valuable guidance to inform a choice among the various sustainability initiatives.

ODRP and its partners can realize value from this program at every step along the way. Major seafood marketers and NGOs with an interest in seafood sales and sustainability have demonstrated the public relations benefits of informing the public whenever a new partnership or a new program is initiated. A constant flow of announcements concerning sustainable seafood initiatives has value in its own right.

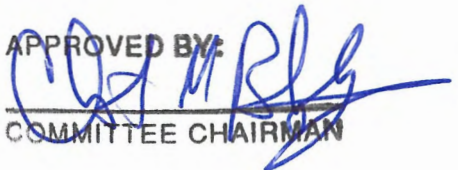
### **Who's Watching the Watchers?**

The Rhode Island Sea Grant Program and the University of Rhode Island's College of Environment and Life Sciences have formed a collaborative called the URI Sustainable Seafood Initiative ([http://seagrant.gso.uri.edu/sustainable\\_seafood/index.html](http://seagrant.gso.uri.edu/sustainable_seafood/index.html)) for the purpose of providing an independent, third-party, objective source of information and research on the sustainable seafood movement, its functioning, and its effectiveness. The URI program does not rank seafood; rather, it provides information on the various seafood certification and ranking programs. The Rhode Island Sea Grant Program and the University of Rhode Island's College of Environment and Life Sciences have formed a collaborative called the URI Sustainable Seafood Initiative ([http://seagrant.gso.uri.edu/sustainable\\_seafood/index.html](http://seagrant.gso.uri.edu/sustainable_seafood/index.html)) for the purpose of providing an independent, third-party, objective source of information and research on the sustainable seafood movement, its functioning, and its effectiveness. The URI program does not rank seafood; rather, it provides information on the various seafood certification and ranking programs.

### **Use the Money for Something Else**

ODRP members should carefully consider the benefits that can be realized from alternative uses of their resources.



APPROVED BY:  
  
COMMITTEE CHAIRMAN

**COMMISSION BUSINESS MEETING  
STATE-FEDERAL FISHERIES MANAGEMENT COMMITTEE  
MINUTES – 62nd Annual Fall Meeting  
Wednesday, October 19, 2011  
New Orleans, Louisiana**

**Chairman M. Ray** called the meeting to order at 8:30 am.

**L. Simpson** noted that a quorum was present and reviewed pertinent rules and regulations regarding voting procedures.

The following Commissioners and/or proxies were present:

**Commissioners**

Chris Blankenship, ADCNR/MRD, Gulf Shores, AL  
Chris Nelson, Bon Secour Fisheries, Inc., Bon Secour, AL  
Thad Altman, Florida Senate, Melbourne, FL  
David Heil, FWC, Tallahassee, FL (*Proxy for Nick Wiley*)  
Butch Gautreaux, Louisiana Legislature, Morgan City, LA  
Camp Matens, Baton Rouge, LA  
Randy Pausina, LDWD, Baton Rouge, LA  
Joe Shepard, LDWF, Baton Rouge, LA (*Proxy for Randy Pausina*)  
Mike Ray, TPWD, Austin, TX (*Proxy for Carter Smith*)  
Troy Williamson, Corpus Christi, TX  
Dale Diaz, MDMR, Biloxi, MS  
Joe Gill, Jr., Joe Gill Consulting, LLC, Ocean Springs, MS  
William “Corky” Perret, MDMR, Biloxi, MS

**Staff**

Larry Simpson, Executive Director, Ocean Springs, MS  
Dave Donaldson, Assistant Director, Ocean Springs, MS  
Nancy Marcellus, Administrative Assistant, Ocean Springs, MS  
Steve VanderKooy, IJF Program Coordinator, Ocean Springs, MS  
Jeff Rester, SEAMAP/Habitat Program Coordinator, Ocean Springs, MS  
Joe Ferrer, System Administrator, Ocean Springs, MS  
Ralph Hode, EDRP Program Coordinator, Ocean Springs, MS  
Alex Miller, Staff Economist, Ocean Springs, MS  
Adam McInnis, Senior Accountant, Ocean Springs, MS  
James Ballard, SFP/ANS Program Coordinator, Ocean Springs, MS  
Gregg Bray, RecFIN Programmer/Analyst, Ocean Springs, MS  
Angie Rabideau, Staff Accountant, Ocean Springs, MS  
Alyce Catchot, Staff Assistant, Ocean Springs, MS  
Debbie McIntyre, Staff Assistant, Ocean Springs, MS  
Ashley Lott, Staff Assistant, Ocean Springs, MS

### **Others**

Chuck Adams, Florida Sea Grant, Gainesville, FL  
Gordon Colvin, NMFS Office of Science & Technology, Silver Spring, MD  
Roy Crabtree, NMFS/SERO, St. Petersburg, FL  
Miles Croom, NMFS Southeast Region, St. Petersburg, FL  
Glenn DaGiav, Ships-to-Reefs Consultant  
Frank Hardisty, Penn State University, University Park, PA  
Judy Jamison, Gulf & South Atlantic Fisheries Foundation, Tampa, FL  
Jerry Mambretti, TPWD, Port Arthur, TX  
Bonnie Ponwith, NOAA Fisheries, Miami, FL  
Dave Reed, FL Institute of Oceanography, St. Petersburg, FL  
Ellie F. Roche, NOAA Fisheries – Southeast, St. Petersburg, FL  
Virginia Vail, Tallahassee, FL

### **Adoption of Agenda**

**Joe Gill made a motion to adopt the agenda as presented. Dale Heil seconded the motion and the agenda was adopted without objection.**

### **Approval of Minutes**

**A motion was made by Butch Gautreaux to approve the minutes from the August 25, 2011 State-Federal Fisheries Management Committee. The motion was seconded and the minutes were approved without objection.**

**A motion was made by Joe Gill to approve the minutes from the March 16, 2011 Commission Business Session. David Heil seconded the motion and the minutes were approved without objection.**

### **GSMFC Standing Committee Reports**

**Law Enforcement Committee – Steve VanderKooy** indicated that he had no formal report at this time. The Law Enforcement Committee will be meeting in conjunction with the Gulf Council the following week.

**Technical Coordinating Committee – Joey Shepard** reported that the Technical Coordinating Committee (TCC) met on Tuesday, October 18, 2011.

**Shepard** reported that the Committee received an overview of the BOEMRE's Rigs-to Reefs Program from Herb Leedy and BOEMRE's Idle Iron Program from Lance Laiche. Brooke Shipley then updated the Committee on rig removals in Texas and TPWD's efforts to establish new reefing areas for removed structures. John Hoffman gave a presentation on the initiative he

founded called "Save the Blue". He showed a live video feed from a camera mounted at a depth of 35 feet on an oil platform in the Gulf of Mexico and pointed out that anyone can watch the feed on [save-the-blue.org](http://save-the-blue.org). With the video, he demonstrated the complex ecosystem that is supported by oil/gas platforms in the Gulf of Mexico and why it is important to preserve this habitat.

The Crab Subcommittee met in conjunction with the Crab Technical Task force. They are working on revising the FMP and they discussed their stock assessment and the data they have and the data gaps they need to fill. The Subcommittee also heard a presentation from Florida on the current lipofuscin research where they are finding that this method for aging is not going to work for blue crabs. There were presentations from Florida, Louisiana, and North Carolina on how they carried out their blue crab assessments. These presentations were followed up by a round-table discussion on how the Subcommittee would want to perform their own assessment and the models that were available for them to utilize. They decided that they need to emulate the SEDAR process without using the federal system. They are planning on having a mini data workshop and step through a small scale SEDAR process that would cover just the Gulf of Mexico region.

The SEAMAP Subcommittee met in early August with the Caribbean and South Atlantic SEAMAP components to discuss budget and joint issues. The SEAMAP 2011-2015 Management Plan has been completed and printed. The 2011-2015 Management Plan provides a statement of the current goals, management policies, procedures, and priorities for all SEAMAP components and partnerships. It also serves as a reference on SEAMAP history and accomplishments. Finally, it details priorities for future activities. The Subcommittee also met on October 17. The main item discussed at this meeting was the prioritization of current SEAMAP survey activities. After the August meeting, the Subcommittee sought help from NMFS in determining priority data needs and survey priorities. SEAMAP started several new surveys several years ago when supplemental SEAMAP funds were acquired. Those funds have now run out and the current level of sampling cannot be continued unless SEAMAP acquires additional funds. The Subcommittee is evaluating how to best spend the limited SEAMAP funds. The Subcommittee felt that the Summer and Fall Shrimp/Groundfish Surveys were the highest priority surveys, followed by the Spring and Fall Plankton Survey, the Bottom Longline Survey, the Reefish Survey and the new Vertical Longline Survey. The Winter and Spring Shrimp/Groundfish Surveys were limited in scope and were considered low priorities and will be cancelled in 2012. Inshore sampling was also considered low priority since it was limited in scope and the states could not agree on standardized protocols. SEAMAP has recently published the 2008 Environmental and Biological Atlas of the Gulf of Mexico and the 2009 Atlas will soon be finished. The SEAMAP TCC Report has also been published and contains information on all SEAMAP activities for FY2011. Read Hendon was elected chairman and Bob McMichael was elected as vice-chairman.

The Data Management Subcommittee heard a presentation about the status of the biological sampling program. They have received requests from NOAA for the 2010 data, and the states are working to complete that data set and are hoping to have it in by the end of October. At this time they do not have the funding to continue the biological sampling efforts in 2012 and will cancel the program if they cannot secure new funding. The Subcommittee also heard a

presentation on the Angler Expenditure Survey program which is a survey that was tacked onto the current dockside intercept survey in Florida through Louisiana and Puerto Rico and also utilizes a follow-up mail survey. Currently, they have a success rate for completed surveys of between 60-85% Gulf-wide. G. Bray gave a presentation on the Inovo digital pen and Rover INK software for collecting recreational fishery data. The Inovo digital pen collects the data via a digital camera mounted in the pen reading micro dots printed on each paper form. The pen uploads the form image and data each time the pen is placed in its docking station. If successful, the pen would eliminate the need for mailing forms to GSMFC for scanning. GSMFC partnered with FWC on a 30-day pilot project. Two pens were tested for 30 days using Florida dockside intercept samplers in the Tampa Bay region. The pilot test showed the pens to be generally reliable although they did not work well on wet paper and eliminated the ability to correct errors in the field. GSMFC and FL FWC staff had concerns with Rover INK's ability to design a system for 50-60 work stations in the Gulf of Mexico. Rover INK had several issues getting one workstation up and running for 2 pen users in the Saint Petersburg, Florida office. Once running properly the system did deliver data and electronic forms to GSMFC much faster than mailing paper forms. Our conclusions find the hardware has potential, and finding a different contractor that better meets our needs to be the next step. B. Sauls reported the preliminary results from the pilot logbook project in the Florida Panhandle and Corpus Christi area of Texas. Preliminary conclusions were that startup effort was very large and achieving high compliance rates takes significant time. Based on this study the logbook was not a census, but likely more suitable for a large regional scale to maximize validation data matchups. A small monitoring program may not be sufficient since individual logbooks do not closely match validations. Final analysis should be completed by the end of 2011. D. Bellais demonstrated the initial release of the non-confidential data portal. FOSS is currently restricted to the FIS user group. This portal is indented to provide one location to find commercial non-confidential data for all states and replaces the commercial data portal on NOAA Fisheries Science and Technology (S/T) website. A. Miller gave an update on the traceability program and stated the main goals behind the program is to renew confidence in Gulf seafood, manage risk to buyers of Gulf seafood, and foster existing and new markets for Gulf seafood. Currently the traceability team has attended several meetings with seafood industry businesses, organizations, and state marine resource agencies to disseminate information about their program. Bluefin Data Inc. has created a traceability interface for the electronic trip ticket program. Currently the team is creating partnerships with showcase seafood businesses. The group is planning more state meetings and hopes to bring the first seafood firms online by the end of 2011. The Subcommittee also saw a brief demonstration of the unified trip ticket program Bluefin data is generating for use in the Gulf of Mexico. The new program is web-based, as opposed to the PC- based original program that is becoming outdated by current computer technology.

The Fisheries Outreach Subcommittee has not had a formal meeting since the last report; however, they held a conference call to scope the usefulness of social media as an outreach tool. At this point, all but one of the state fisheries agencies in the Gulf use social media as an outreach tool. This outreach mechanism is also used by the GMFMC, USFWS, NOAA, and several other state and federal agencies and organizations. All of the subcommittee members stated that they have found social media to be very helpful for disseminating information about their agencies and keeping the public informed about regulation changes and upcoming events. They also stated that they are getting good feedback from members of the public, and the sites



are facilitating good discussions on some topics that don't normally get addressed. For the Council, Facebook has been particularly helpful for addressing and clearing up misinformation quickly. Just the fisheries agencies represented on the Subcommittee have over 100,000 people who receive information through their Facebook pages. A motion was made in the TCC for the Commission to move forward with the development of a social media presence.

**Butch Gautreaux made the motion to move forward with the development of social media for the Commission. Joe Gill seconded the motion and it passed unanimously.**

The Artificial Reef Subcommittee held a Reef Monitoring Workshop in an effort to continue to move toward the establishment of a Gulf-wide Artificial Reef monitoring program. The goal of this workshop was to get a clear picture of how to set up a monitoring program for artificial reefs that will generate the most useful data that is comparable to that collected in the ongoing efforts on natural reef sites. The hurricanes in the Gulf over the last several years, and last year's oil spill disaster has underlined the fact that we need to establish baseline data on the vast artificial reef areas in the Gulf of Mexico. This data will allow states to determine how new artificial reefs in the future are functioning in comparison to established ones, and how they compare to the function of natural reefs. It will also allow them to assess impacts to artificial reefs from future natural and man-made disasters. The first half of the workshop consisted of presentations covering the ongoing reef monitoring efforts of NOAA, DISL, FL. FWRI, and UT Brownsville. Following the presentations, there was a question-and-answer session where the Subcommittee and attendees were able to ask about how to set up the Gulf-wide artificial reef monitoring program. The Subcommittee will take the information they gleaned from this workshop and develop a draft monitoring protocol for artificial reef sites in the Gulf of Mexico.

Dale Diaz was elected Chairman of the TCC and Chris Denson was elected as Vice Chairman.

### **State-Federal Fisheries Management Committee**

Menhaden Advisory Committee - **Jerry Mambretti** reported that the TCC Menhaden Advisory Committee met on Monday, October 17, 2011. The following was discussed:

Update on the 2010 Gulf Menhaden Season - Smith reported on the 2011 Gulf menhaden season. Through September, 538,816 mt have been landed which is up +85% over 2010 for the same time period and up +37% over the previous 5-yr mean.

Smith reported that April was windy and landings in May improved. The fleet experienced fair weather most of June through August. Rains in the mid-West forced the Corp of Engineers to open LA spillways in May, dumping a huge amount of freshwater into the Sound. Despite high freshwater, fish were generally small in catch with relatively low oil yields. September did see TS Lee move slowly from the New Orleans area around Labor Day weekend and TS Nate stirred the waters in the western Gulf shortly thereafter. Smith predicts that the final 2011 landings could be best in over a decade and should approach 575,000 mt based on the last 3-yr average landings for the last two weeks. This is up +51% over 2010 landings and up +32% over previous 5-yr mean.

Smith provided a preliminary forecast for 2012. Assuming that the final 2011 landings reach ~575,000 mt with a nominal fishing effort of ~370,000 VTW, the industry could land ~509,000 mt in 2012.

Atlantic Update - Smith provided a short update on the Atlantic which included the landings to date of 139,319 mt which is down 3% from 2010 but up 14% over the past 5-yr average. One of the items Smith noted was the use of the industries Sunday Reconnaissance flights over Chesapeake Bay to identify schools of adults as a possible index of adult index in future assessments. Considerable time was spent discussing whether this type of survey would be useful in the Gulf. There would be more discussion once the data was examined in the upcoming Atlantic menhaden assessment.

Smith reminded the MAC that in August 2010, the Atlantic Menhaden Management Board of ASMFC moved to initiate an addendum to the FMP. The ASMFC asked the Atlantic Menhaden Technical Committee to consider a range of percent maximum spawning potential reference points (15, 25 and 40% MSP) with which to manage the Atlantic menhaden fishery. The AMMB met in August 2011 and drafted Addendum V to their FMP amendment which proposes establishing new interim fishing mortality limits and targets based on maximum spawning potential, or MSP. The goal, according to the AMMB, is to increase abundance, SSB, and availability as a forage fish.

2011 Review of the Texas Cap - Mambretti reported that in 2011, the industry actually approached the TAC and came within 1%. The landings in Texas surpassed the 31M lbs thanks to the 10% overage allowance since they didn't meet the quota last year. Total landings from Texas waters were around 34M lbs.

SEDAR Overview - Amy Schueller, NOAA Fisheries Beaufort, provided the final results of SEDAR27 which have been submitted to the review panel for their consideration. The Review Workshop will be held in St. Petersburg, Florida November 1-4.

VanderKooy presented a short version of the assessment results which are draft and currently in review.

2011 Gulf Menhaden FMP Revision - VanderKooy presented an overview of the progress on revision to the menhaden FMP. To date, Smith and VanderKooy have been doing the legwork to update the biology, habitat, and fisheries sections. VanderKooy provided a draft to the MAC prior to the meeting to begin its review of some of the sections. VanderKooy suggested some significant rearranging of the last sections which included the management considerations and recommendations into a single section. The MAC would consider these changes over the next month or so. Alex Miller has agreed to update the Economics section and VanderKooy has conducted a Gulf-wide survey of the fishery to characterize the socio-demographics of the industry. The simple survey has had nearly 100% coverage and included the boat crews, docks, plants, and even some of the administration at all four plants. There is also an effort to get surveys from the Reedville plant on the Atlantic.

The chairmanship rotates to the federal partner in 2012. Joe Smith was nominated and elected without objection.

At this time, LDWF will attempt to cover the cost of menhaden port sampling in LA and it is hoped that the MDMR will be able to cover the cost or the manpower to sample the Moss Point plant in 2012. There is still no long-term solution for the funding problems.

### **Sea Grant Fisheries Extension Meeting Report**

**Chuck Adams** reported that the Sea Grant – Fisheries Extension Advisory Panel met on Tuesday, October 18, 2011. Adams reported that Sustainability Certification/Traceability Activities by State was their theme topic for this meeting. Tony Reisinger was elected incoming Chairman with Brian Fluech as Chair-Elect. They also added a new member from Louisiana. Gary Graham was added as the Sea Grant representative to the Outreach Committee. A potential theme for the next meeting would be Climate Change issues and Sea Grant involvement within the Gulf region.

### **NOAA Fisheries Southeast Regional Office Comments** – Roy Crabtree

#### **Status of Actions by NOAA Fisheries Service**

In spring 2011, Governors Barbour and Jindal, and several other political officials, requested the Secretary of Commerce declare a fishery resource disaster under the Magnuson-Stevens Fishery Conservation and Management Act or Inter-jurisdictional Fisheries Act to assist affected Mississippi and Louisiana communities in obtaining financial assistance to address the impacts of the historic flooding in the lower Mississippi River. NMFS is assisting the Mississippi and Louisiana state fishery agencies in developing the analyses required to evaluate the appropriateness of such a declaration.

#### **Sustainable Fisheries**

##### **Regulatory Actions:**

Deepwater Horizon Oil Spill: Effective April 19, 2011, NOAA Fisheries Service reopened the last 1,041 square miles (2,697 sq km) of area previously closed to commercial and recreational fishing in the Gulf of Mexico in response to the Deepwater Horizon oil spill. All areas of federal waters previously closed to fishing because of the oil spill are now open. Other federal closed areas, such as marine protected areas, remain in effect.

Recreational Red Snapper Total Allowable Catch (TAC): NOAA Fisheries Service published a final rule on April 29, 2011, implementing increases in the commercial and recreational red snapper quotas in the Gulf of Mexico from 3.542 and 3.403 million pounds (mp) to 3.66 and 3.525 mp in 2011, respectively. A recent red snapper assessment update projected overfishing (rate of removal is too high) ended in 2009, and therefore, the TAC could be increased from the existing 6.945 mp to 7.185 mp. Additionally, the rule set the 2011 recreational red snapper season from June 1, 2011, through July 18, 2011.

Greater Amberjack Recreational Seasonal Closure: NOAA Fisheries Service published a final rule, effective May 31, 2011, to establish a June 1 through July 31 seasonal closure for recreational harvest of greater amberjack in or from the Gulf of Mexico federal waters. The intended effect of the rule is to maintain the rebuilding plan targets for the overfished greater amberjack resource, reduce the likelihood of exceeding the recreational quota for greater amberjack, minimize the length of in-season quota closures for greater amberjack during peak recreational fishing months, and increase social and economic benefits for recreational fishers by maximizing the number of fishing days available to the recreational sector.

Greater Amberjack Accountability Measures (AMs) and Commercial Quota Closure: NOAA Fisheries Service published a rule on April 29, 2011, adjusting the recreational and commercial quotas for greater amberjack. Both sectors exceeded their quotas for 2010; therefore established payback AMs were enacted. In addition, NOAA Fisheries Service announced that it projected the commercial sector would meet its quota and should close at 12:01 a.m. local time, June 18, 2011.

Gag Interim Rule: NOAA Fisheries Service published a temporary rule, effective June 1, 2011, to reset the commercial quota of gag at 430,000 pounds (lbs), continue the suspension of the use of red grouper multi-use individual fishing quota (IFQ) commercial allocation, and set a gag recreational season from September 16 through November 15. This rule expires November 28, 2011, and would need to be renewed unless replaced by regulations implementing Amendment 32 (see below).

Red Snapper Secondary Recreational Quota Increase: NOAA Fisheries Service published an emergency rule, effective September 12, 2011, raising the recreational red snapper quota by 345,000 lbs for the 2011 fishing year and providing the agency with the authority to re-open the recreational red snapper season later this year, if appropriate. However, preliminary projections indicate that even the increased quota was exceeded by the July 19 initial closure date.

Red Grouper Regulatory Amendment: In 2010, the TAC for red grouper was reduced for 2011 from 7.57 mp to 5.68 mp. A subsequent updated rerun of the assessment in early 2011 indicated landings had been less in 2010 than projected, and the 2011 TAC could be increased. NOAA Fisheries Service published a proposed rule on September 21, 2011, with the comment period ending October 6, 2011. The rule would adjust red grouper catch levels through 2015, adjust "other shallow-water group" allocations accordingly, and raise the recreational bag limit from 2 fish to 4 fish in the 4-fish aggregate bag limit.

Annual Catch Limits (ACLs) Amendments: The Gulf of Mexico Fishery Management Council (Council) has submitted three amendments (Generic ACL [Reef Fish, Red Drum, Shrimp, Corals], Coastal Migratory Pelagics 18, Spiny Lobster 10) to establish ACLs for species not undergoing overfishing. The amendments identify species that are in continued need of federal management and those that do not need management, establishes standardized mechanisms by which to set ACLs and AMs, and establishes those ACLs and AMs. NOAA Fisheries Service has announced the availability of these amendments for public comment. For Spiny Lobster 10, the proposed rule published September 2, 2011, with comments being accepted until November 1. Additionally, the Council requested, and NOAA Fisheries published a rulemaking repealing the

Stone Crab Fishery Management Plan (FMP).

Amendment 32 draft document (gag and red grouper): A recent assessment update indicates gag is undergoing overfishing and the stock size of red grouper has declined compared to the findings of the last assessment. The assessment update indicated 65-70 percent reductions are needed in TAC for gag. The amendment would slightly increase gag catch levels from those currently established through interim rule (see above), adjust ACLs, catch targets, and AMs for gag and red grouper, and establish a gag recreational fishing season. Until this amendment can be finalized, at the Councils request, NOAA Fisheries Service published an interim rule for gag (see above) and the Council has developed a regulatory amendment to adjust red grouper TAC (see items listed above). The amendment is scheduled for implementation by the end of 2011.

**Fishery Openings, Closings, and Landings Summary**

Recreational: (recreational landings, catch limits, fishing seasons, and closures can be tracked on the SERO Web site at <http://sero.nmfs.noaa.gov/sf/RecreationalLandingsandCatchLimits.html>)

**GULF OF MEXICO RECREATIONAL ANNUAL CATCH LIMITS**

Species	2011 Preliminary Recreational Landings (lbs) by Two-month Wave*						Total Reported	2011 Annual Catch Limit/ Quota	Percent of ACL
	Jan- Feb	Mar- Apr	May-Jun	Jul- Aug	Sep- Oct	Nov- Dec			
Gag	50,285	94,601	135,254				280,140	2,670,000	10.5%
Gray Triggerfish	22,052	45,464	212,217				279,733	457,000	61.2%
Greater Amberjack	57,203	95,583	193,282				346,068	1,315,224	26.3%
Red Grouper	10,776	43,484	174,389				228,649	1,360,000	16.8%
Red Snapper	32,079	27,908	2,788,756	239,225			3,087,969	3,870,000	79.8%

\*Landings are reported in gutted weight for groupers; greater amberjack landings exclude Monroe County, Florida; 2011 landings for red snapper include headboat landings.

Commercial: (commercial landings are updated twice a month on the SERO Web site. For IFQ species, up-to-date landings can be tracked on the SERO’s Reef Fish IFQ Web page at <https://ifq.sero.nmfs.noaa.gov/ifq/>.) Landings report dates are noted under each species.

Red Snapper: As of September 26, 2.39 mp (73 percent) of the 2011 quota has been landed.

Shallow-Water Grouper (SWG): As of September 26, 172,688 lbs (40 percent) of the gag quota has been landed; 3.281 mp (76 percent) of the red grouper quota has been landed (this would be 63 percent of the quota increase currently proposed — see red grouper regulatory amendment above); and 145,554 lbs (35 percent) of the “other” SWG quota was landed.

Deepwater Grouper (DWG) and Tilefish: As of September 26, for DWG, 559,239 lb (55 percent) of the quota has been landed, and 220,581 lbs (50 percent) of the tilefish quota has been landed.

Greater Amberjack and Gray Triggerfish: Because of an overage in 2009, the greater amberjack commercial quota was adjusted from 503,000 lbs to 313,900 lbs. Based on early 2011 landings; NOAA Fisheries Service closed the commercial sector on June 18. Subsequent 2010 and 2011 landings adjustments indicated the quota was not met by that date. NOAA Fisheries Service has since adjusted the 2011 quota to 342,091 lbs and re-opened the commercial sector beginning September 1. Through September 15, 276,401 lbs (81 percent) of the adjusted quota has been taken. For gray triggerfish, 2,662 lbs (2.5 percent of the quota) has been taken in 2011; no landings have been reported by dealers for several reporting periods. NOAA Fisheries Service is examining this lack of landings reports.

King and Spanish Mackerel: The commercial king mackerel fishing season for all zones and sub-zones opened on July 1, 2011. The western zone (Alabama — Texas) met its quota and the commercial sector was closed on September 16. The northern zone (west coast of Florida north of Collier County) has landed -75,700 lbs (45 percent) of its quota through September 15; many vessels that were fishing in the western zone have moved to the Florida panhandle and this small 168,750 lbs quota may be taken rapidly. No landings are reported for the southern zone. For Spanish mackerel, only 212,808 lbs of the 5.187 mp quota were taken through August 15; no updated landings reports have been received since then.

### **Permits Status**

The following represents permits issued or renewed within the last 12 months, which can be used to fish in the respective fisheries. It does not represent activity in a fishery. A complete list of valid vessel and dealer permits is found on the SERO Web site at <http://sero.nmfs.noaa.gov/foia/readingrm.htm>. Permits as of July 25, 2011, are:

- 1,482 (121) moratorium Gulf shrimp permits and 283 royal red shrimp endorsements. Of the original 1,933 shrimp moratorium permits, 330 have been terminated as of July 15, 2011.
- 1,289 (81) for-hire coastal pelagic moratorium permits; 40 (3) historical captain permits.
- 1,440 (81) commercial king mackerel moratorium permits (includes South Atlantic); 18 (5) commercial king mackerel gillnet.
- 1,757 commercial Spanish mackerel permits (includes South Atlantic).
- 1,268 (77) for-hire reef fish moratorium permits; 42 (3) historical captain permits.
- 833 (93) commercial reef fish moratorium permits; 61(1) longline endorsements.
- 206 commercial spiny lobster permits and 370 tailing permits (includes South Atlantic).

### **Protected Resources**

#### **Biological Opinions**

- Preparing a new Biological Opinion on shrimp trawling in the Southeastern United States under Sea Turtle Conservation Regulations (e.g., Turtle Excluder Device regulations) and as managed by the FMPs for shrimp in the South Atlantic and Gulf of Mexico.
- Completed a Biological Opinion for the Mobile District Corps of Engineers (COE) regarding “Construction of a Breakwater in the Mississippi Sound, near Pass Christian, Harrison County, Mississippi,” and its effects on Gulf Sturgeon Critical Habitat.

- Completed a Biological Opinion for the U.S. Fish and Wildlife Service (FWS) regarding the “Texas Parks and Wildlife Department’s Fishery-Independent Sampling Program” and its effects on Listed Sea Turtles.
- Completed a Biological Opinion for the Federal Highway Administration regarding the “Widening of I-75 from North of SR-80 to South of SR-78 in Lee County, Florida” and its effects on Smalltooth Sawfish and its Designated Critical Habitat.
- Completed a Biological Opinion for Eglin Air Force Base and the Jacksonville District COE regarding the “Redevelopment of Waterside Facilities at Test Area D-84 in Lee County, Florida,” and its effects on Listed Sea Turtles, Smalltooth Sawfish, and Gulf Sturgeon and its Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding the “Reissuance and Geographic Expansion of State Programmatic General Permit IV-RI to include all counties within the Northwest Florida Water Management District,” and its effects on Listed Sea Turtles, Smalltooth Sawfish, Gulf Sturgeon, Shortnose Sturgeon, Elkhorn and Staghorn Corals, Johnson’s Seagrass, Johnson’s Seagrass Critical Habitat, and Gulf Sturgeon and Smalltooth Sawfish Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding the “Installation of 65 Linear Feet of Concrete Seawall in Charlotte County, Florida,” and its effects on Smalltooth Sawfish and its Designated Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding several “Seawall Installations in Charlotte County, Florida,” and its effects on Smalltooth Sawfish and its critical habitat.
- Completed a Biological Opinion for the Jacksonville District COE for “Installation of Riprap and Concrete Piers in Lee County, Florida,” and its effects on Smalltooth Sawfish and its Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE for “Installation of Riprap/Dock, and Removal of Black and White Mangroves in Lee County, Florida,” and its effects on Listed Sea Turtles, Smalltooth Sawfish, and Smalltooth Sawfish Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding “Installation of a Concrete Seawall in Charlotte County, Florida,” and its effects on Smalltooth Sawfish and its Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding “Installation of a Concrete Seawall in Lee County, Florida,” and its effects on Listed Sea Turtles and Smalltooth Sawfish and its Critical Habitat.
- Completed a Biological Opinion for the Jacksonville District COE regarding “Installation of a Seawall/Cap in Lee County, Florida,” and its effects on Listed Sea Turtles and Smalltooth Sawfish and its Critical Habitat.

#### Conservation Measures

- On June 24, 2011, NOAA Fisheries Service published in the Federal Register its intent to prepare an environmental impact statement and to conduct scoping meetings, and made available a scoping document presenting various approaches to addressing incidental bycatch and mortality of sea turtles in the southeastern shrimp fishery; the scoping period ended on August 23, 2011. Six public scoping meetings were conducted to discuss recent sea turtle strandings, potential issues within the southeastern shrimp fishery that may

relate to these strandings, and potential management alternatives to reduce incidental sea turtle bycatch and mortality in the shrimp fishery: July 12 at Gray, Louisiana; July 12 at Belle Chasse, Louisiana; July 13 at Biloxi, Mississippi; July 14 at Bayou La Batre, Alabama; and July 18 at Morehead City, North Carolina. Due to a large turnout of Vietnamese fishermen and a lack of adequate translation services at the July 13 Biloxi, Mississippi meeting, an additional meeting with full translation services was conducted at Biloxi, Mississippi on July 26.

- Participated in partnership meeting with Florida Fish and Wildlife Commission, NOAA Office of Law Enforcement, and NOAA's Office of General Counsel for enforcement and litigation regarding dolphin feeding issues and strategies in Florida.
- Coordinating with Mississippi/Alabama Sea Grant on soliciting a Request for Proposals for dolphin/human interaction research in the Southeast Region - based on outcomes from the above workshop, and development of two Smart-phone apps to enhance stranding response efforts and promote responsible marine mammal viewing.
- Planned, implemented, and executed one Dolphin SMART training in Orange Beach, Alabama.
- Evaluated and recognized one additional business for Dolphin SMART along southwest Florida Gulf Coast.
- Enhanced Dolphin SMART "proud supporter" program in Alabama, Key West, and Central west Florida coast with approximately 40 Proud Supporters.
- Ensured effective/successful response to out-of-habitat or entangled animals in Alabama, Texas, and Florida.

#### Deepwater Horizon (DHW) Oil Spill

- Ongoing coordination with Gulf Coast Incident Management Team (GCIMT) under Section 7 of the Endangered Species Act for ongoing response activities such as Shoreline Cleanup Assessment Technology (SCAT) Operations, Orphaned Anchor Retrieval protocols, Submerged oil detection and retrieval actions, etc. Worked with staff at the GCIMT, state branches (MS, AL, FL), and FWS to resolve conflicts over best management practices (BMP5).
- Worked to ensure that projects potentially affecting NOAA Fisheries Service trust resources were being directed to Protected Resources and Habitat Conservation Divisions for our review.
- Review Shoreline Treatment Recommendations developed by SCAT teams and provide signed checklists indicating the relevant BMPs that must be followed.
- Participate in conference calls, as well as review and comment on documents, related to the No Further Treatment protocols the GCIMT is working on for various locations.
- Participate in conference calls, provide input, and submit BMPs and other measures on GCIMT delineation and removal of submerged oil mats in MS, AL, and FL. Worked with the GCIMT to provide in-water BMPs (developed last summer) and additional recommendations that include general harm avoidance measures, vessel strike avoidance measures, protocol for the use of sonar, and protected species take response protocols, which we developed with the help of the Marine Mammal branch.
- Reviewed briefing/options papers (on artificial reefs, oyster restoration, and aquaculture) developed by the NOAA Restoration Center for potential Natural Resource Damage Assessment early restoration types and provided guidance on section 7 issues.



- Conducted one bottlenose dolphin visual health assessment in Perdido Bay, Alabama.

#### National Resource Damage Assessment (NRDA)

- Participate in weekly NRDA Marine Mammal Technical Working Group calls.
- Facilitate Marine Mammal Working group to identify NRDA related needs.
- Drafted and acted as Principal Investigators for two comprehensive NRDA proposals for post-release monitoring of rehabilitated dolphins within the oil spill impact area, and for active surveillance for stranded marine mammals in Louisiana and Mississippi.
- Worked with Marine Mammal Commission on Draft Strategic Science plan for marine mammals in the Gulf of Mexico — as part of the DWH oil spill.
- Participated in multiple coordination calls regarding 5 incidental takes of dolphins in two separate NRDA sampling projects.
- Reviewed approximately 20 NRDA sampling plans and provided preventative conservation measures to avoid protected species interactions during sampling activities.
- Compiled and submitted an early restoration proposal to reduce bycatch and direct threats to bottlenose dolphins in the Gulf of Mexico.

#### **Habitat Conservation and Protection**

Habitat Conservation Division (HCD) personnel in the SERO and in four field offices strategically located throughout the Gulf of Mexico interacted with federal, state, and local officials, private sector, and interested citizens to fulfill federal mandates to conserve, protect, and restore habitats that support managed fish stocks, protected resources, and healthy ecosystem functions. To accomplish these objectives, HCD applied its authorities to manage and influence the outcome of actions that may adversely affect essential fish habitat (EFH) and other fishery resources and, ultimately, the production of important commercial and recreational fisheries. Activities focused on a suite of actions intended to promote an ecosystem-based approach to management, including:

- Project and permit reviews and EFH consultations involving federal programs.
- Pre- and post-application planning and monitoring.
- Federal projects affecting habitat.
- National Environmental Policy Act (NEPA) consultations.
- Partnerships and coordination (e.g., fishery management councils and marine fisheries commissions).
- Science-management coordination and outreach.

The HCD is a member of the state Habitat Advisory Panels established by the Council and coordinated by the Commission.

HCD staff engage on interdisciplinary planning teams with other staff from the Regional Office, Council, and the Southeast Fishery Science Center. These teams, charged with developing fishery management plan amendments and associated NEPA documents, completed the Generic Annual Catch Limits/Accountability Measures Amendment for the Red Drum, Reef Fish, Shrimp, Coral and Coral Reefs Fishery Management Plans. This amendment also modified fishery management units and associated EFH identifications and descriptions. HCD staff also worked with Commission and Council staff in preparing the *Final Report Gulf of Mexico Fishery Management Council 5-Year Review of the Final Generic Amendment Number 3 Addressing*

*Essential Fish Habitat Requirements, Habitat Areas of Particular Concern, and Adverse Effects of Fishing in the Fishery Management Plans of the Gulf of Mexico* satisfying the five year review requirement of the MSFCMA and EFH regulations.

The HCD continued its intensive involvement in activities promoting conservation, restoration, enhancement, creation, and preservation of coastal wetlands, riverine habitats, and nearshore areas utilized by important commercial and recreational fish species. Also, the HCD became increasingly involved in regional partnerships to leverage resources and capabilities to conserve habitat and promote stewardship. These partnerships include the Southeast Aquatic Resources Partnership (SARP), the Gulf of Mexico Alliance (GOMA), the Northern Gulf Institute, and the NOAA Gulf of Mexico Regional Collaboration Teams. For example, HCD's work with GOMA included:

- Serving as the federal co-lead to the Habitat Conservation and Restoration Priority Issues Team to ensure all work plan elements and deliverables to the NOAA contract with the Gulf of Mexico Foundation were completed on schedule.
- Working on the GOMA's Regional Sediment Management workgroup.
- Participating in numerous GOMA sponsored meetings and conference calls, as well as the GOMA All hands meeting.
- Participating in the SARP steering committee, Science and Data Committee, and the Communications and Outreach Committee as well as numerous SARP-sponsored meetings.

The HCD continued involvement in many DWH Oil Spill related support activities, including:

- Serving on SCAT teams.
- Reviewing approximately 80 emergency consultations for shoreline treatment recommendations
- Development of numerous briefing materials and participation in a considerable number of conference calls.
- Providing the NRDA Team with project summary documents to assist in the development of the priority restoration projects lists for each Gulf state.

The HCD reviewed and provided comment to the Bureau of Ocean Energy, Management, Regulation, and Enforcement (BOEMRE) on Supplemental NEPA Documents for remaining lease sales in the 2007-2012 Lease Plan for the Western and Central Planning Areas of the Gulf of Mexico. The HCD continued to coordinate with BOEMRE Gulf of Mexico Region on reviewing and updating the Programmatic EFH Consultation for oil and gas development activities in the Gulf of Mexico.

HCD was heavily involved in all aspects of planning for the Gulf Coast Ecosystem Restoration Task Force. HCD staff served on numerous subteams including Sediment Management, Sustainable Storm Buffers, and Coastal Wetland and Barrier Shoreline Habitats. HCD staff was involved in numerous meetings, webinars and conference calls and developing numerous briefing documents in support of these activities. HCD authored draft reports for the Sediment sub-team on:

- Increased Use of Interagency Coordination Teams for U.S. COE Federal Projects.

- Interagency Roundtable Meetings to Identify Beneficial Uses of Dredged Material Opportunities.
- The Harbor Maintenance Trust Fund issues.
- Coastal Impact Improvement Program and Gulf of Mexico Energy Security Act Funding issues.
- The Need for Programmatic Review of the COE's Operations and Maintenance Program.
- The Jones Act and the COE's Industry Capabilities Program.
- The COE's Continuing Authorities Program.

The HCD provided consultation services through field inspections, meetings, public hearings, informal discussions, and document review. HCD provided habitat information and EFH reviews in support of fishery management plans, amendments, and other regulatory actions. The HCD also provided recommendations to sequentially avoid, minimize, and offset adverse impacts to EFH and other fishery habitats. Federal fiscal year 2011 accomplishments in the Gulf of Mexico region include:

- Reviewed over 1,462 individual proposals to construct in coastal waters or wetlands.
- Provided pre-consultative technical assistance on 90 projects.
- Provided detailed conservation recommendations on over 161 EFH consultations initiated by federal action agencies.
- Completed reviews on 36 NEPA actions.
- Participated in other activities associated with mitigation planning and habitat restoration, including providing technical assistance and consultation on the proposed Port Dolphin closed loop liquefied natural gas (LNG) facilities by serving on a technical advisory committee established to develop and implement plans to monitor and mitigate for unavoidable adverse impacts caused by multiple LNG facilities in offshore and onshore locations.

HCD staff have been successfully planning many large-scale habitat restoration projects including projects being funded under: (1) Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA); (2) Mississippi Coastal Improvement Program; (3) Southwest Coastal Louisiana Feasibility Study; (4) Louisiana Coastal Area Ecosystem Restoration Study; (5) Greater New Orleans Hurricane Storm Surge and Risk Reduction Project; and (6) the Mississippi River-Gulf Outlet Ecosystem Restoration Study. HCD continued assisting the COE with hurricane recovery and protection efforts by providing technical assistance and expedited reviews of proposed levee and flood control activities and engaging in long-term restoration planning. HCD engaged in the following activities related to CWPPRA:

- Continued engineering and design activities for the Chenier Ronquille barrier island restoration project, which would create more than 120 acres of dune habitat and more than 250 acres of saline marsh habitat. Advanced design milestones have been completed.
- Continued engineering and design activities for the Grand Liard Marsh and Ridge restoration project, which would create more than 300 acres of saline marsh, nourish 140 acres of existing marsh, and create 34 acres of maritime ridge habitat. Advanced design milestones have been completed.
- Awarding of a \$43M construction contract for the NOAA-led Pelican Island restoration project. It is anticipated that 227 acres of dune and Gulf shoreline and over 350 acres of intertidal saline marsh will be restored and created.

- Sponsorship of four Priority Project List 21 candidate projects under consideration for engineering and design funding.

Under the auspices of the emerging Cooperative Habitat Protection Program, HCD staff continued to partner with the Galveston Bay Foundation and the National Fish and Wildlife Foundation to implement small landowner living shoreline projects in Galveston Bay and initiated a habitat mapping and prioritization project with the Mobile Bay National Estuary Program and Coastal Services Center. Other major HCD activities included:

- Providing technical support and local expertise to the NOAA Scientific Support Coordinator and the Regional Response Teams during several hazardous material incidents and exercises.
- Working closely with the Florida Department of Transportation throughout the bridge and highway project planning process to minimize project delays and ensure early consideration of measures to conserve NOAA trust resources.
- Participating in ecosystem planning activities through active participation in regional partnerships, including the Mississippi Coastal Improvements Program, Louisiana Coastal Protection and Restoration Program, Louisiana Coastal Area Feasibility Study, Florida's Subcommittee on Managed Marshes, National Estuary Programs in Texas, Louisiana, Mississippi, and Florida, and a variety of similar planning activities.

HCD staff also aggressively engaged in habitat conservation outreach by:

- Conducting poster sessions and making formal and informal presentations at scientific and management meetings. Addressing students of all ages in classrooms throughout the region.
- Delivering lectures at constituent meetings and maintaining continuous contact with concerned individuals and organizations.
- Producing reports and brochures for intra- and interagency coordination.
- Responding to requests for information from private citizens; news media; and local, state, and federal agencies.

### **Status of NMFS Effort to Implement New Method for Estimating Recreational Catch**

**Gordon Colvin** provided a PowerPoint presentation entitled "MRIP Update: Improving Recreational Catch Estimation".

NOAA Fisheries provides two estimates of recreational fishing activity:

- Catch, or the number, species and size of fish caught. (Generally determined through shore-side intercepts).
- Effort, or the number of fishing trips taken during a particular reporting period. (Generally determined through telephone surveys).

The Marine Recreational Information Program (MRIP) was created in 2007 to address:

- Recommendations of the National Research Council's *Review of Recreational Fisheries Survey Methods*.
- New requirements of the 2006 Magnuson-Stevens Act.

- Stakeholder confidence in catch and effort estimates.

NRC findings on catch estimation method:

- Estimation process is not matched to how we gather data.
- Shore-side sampling methods emphasize maximizing angler intercepts at the expense of statistical rigor.
- These two factors inserted potential for bias into the point estimates and their precision.

NRC recommended that they fix both the way they estimate catch and the way they gather data. The potential for bias was the NRC's chief concern about MRFSS.

Potential Impact of Changes – Changes in catch estimates can affect:

- Stock assessment results (Is the stock overfished? What's the biomass?)
- Management actions (What's the appropriate catch limit? Are we under or over the catch limit?)

Where there are significant changes in the estimates, revisions to fishing regulations may be necessary.

What's Next:

- Complete the new MRIP catch estimates for 2004 to 2011 and release the updated estimates.
- Improvements to the design of the Access Point Angler Intercept Survey (APAIS).
- Improvements to effort estimates.
- Enhancing precision through increased sampling.

APAIS Improvements:

- NMFS will plan for implementation of new APAIS design over the next 8-12 months.
- Key tasks: finalize design elements; update site register with pressures for all time blocks; new procurement; determine sample size.
- State support needed: states participate in updating site register (upcoming WAVE Meeting, conference calls).
- NMFS actions needed: workshop (web-based?) next year to identify and develop strategies to respond to challenges to states, including discussion of sample size issues; funding to support incremental costs of new design.

Improving Effort Estimates

- Effort is the number of angler trips that occur during a given time period.
- Under MRFSS, effort estimates relied primarily on telephone surveys conducted through random-digit dialing of coastal households.
- Potential issues include: calls to households with no fishermen; no calls to non-coastal households with fishermen; no surveys of households without land lines; and response rates and recall issues associated with telephone surveys.
- Accounting for possible under-estimates of effort by testing:
  - Phone surveys (angler license directory only)
  - Phone surveys (random digit dialing + license directory)

- Mail surveys (postal service addresses + license directory)
- National Saltwater Angler Registry – Federal registration started January 1, 2010.
- MOAs in place with all Atlantic & Gulf states. Each state has or is scheduled to have provided initial data by this September.
- Next steps: data evaluation (ongoing); data improvement plans per MOAs; and second round of grants this winter.
- Mixed mode dual frame survey expanded pilot in South Atlantic beginning Wave 6 2011; then coastwide expansion consistent with pilot results and peer review of methodology.

#### Other Upcoming MRIP Activities:

- For-hire survey: Gulf pilot and beyond
- Timeliness Workshop: improving capability for in-season management.
- Private Access undercoverage bias study.
- Angler self-reporting programs workshop.
- LPS expansions/improvements.

#### Implementation Timing

- Revised MRIP estimates for 2004 to 2010 and for preliminary 2011 Wave estimates in early 2012.
- Expanded pilot of “mixed mode” dual frame effort survey in South Atlantic region beginning Wave 6, 2011.
- Implementation of new shore-side intercept design for Atlantic and Gulf coasts by 2013.

The new estimation methods will yield more accurate numbers with a known level of precision. This exhaustively researched, peer-reviewed methodology is a fundamental improvement that allows for a range of future enhancements. Additional changes are underway to improve sampling methodology and address effort issues. They will be working closely with state partners as they proceed with implementation.

Query the new estimates using the comparison tool at [www.CountMyFish.noaa.gov](http://www.CountMyFish.noaa.gov).

### **Changes in Abundance of Groundfish Species in the Northern Gulf of Mexico**

**Jeff Rester** presented his Capstone Project for his Master’s of Geographic Information Systems from Pennsylvania State University. His advisor Dr. Frank Hardisty was in attendance.

The U.S. shrimp fishery targets shrimp across a large portion of the continental shelf in the northern Gulf of Mexico. The fishery is one of the largest and most valuable in the U.S. with approximately 249 million pounds of shrimp caught in the Gulf of Mexico in 2009 with a dockside value of over \$325 million. Shrimp are captured using otter trawls towed on the bottom. These trawls capture other demersal organisms and approximately 4.5 kg of bycatch are caught for every 1 kg of shrimp. Bycatch are the unintended fish, invertebrates, and other organisms that are caught along with the targeted shrimp. Much of the bycatch caught in the shrimp fishery is usually returned to the water dead. Four fish species compose approximately 75% of the shrimp trawl bycatch.

#### Objectives:

- Examine catch per unit effort (number per hour) data from a fishery independent survey from 1987 to 1998 and 1999 to 2009 to determine if abundance levels have changed since the implementation of bycatch reduction devices.
- Examine the spatial variation between the periods to determine if and where changes have occurred.
- Use species length frequency data to compare average sizes in various areas between the two periods to see if the fish are larger or smaller.

#### Methods:

- Standardized the catch rates (number per hour) at each station to allow comparisons between stations.
- Analyzed the data distribution and global trends using the Exploratory Spatial Data Analysis tools within ArcMap.
- Log transformed (natural log of the catch rate + 1) the data to approach a more normal distribution.
- Examined various interpolation methods.
- Ordinary kriging with a spherical model provided the most robust interpolation method.
- Compared the highly skewed abundance data between the time periods using a Mann Whitney U test.
- Compared fish lengths between the time periods using a t-test.

#### Conclusions:

- Groundfish abundance levels in the northern Gulf of Mexico have changed in the past 25 years.
- Fish lengths have also changed with the majority of the changes related to decreased fish lengths.
- Density dependence may be affecting the size distribution of these groundfish species.
- The changes in groundfish populations may be due to a variety of factors such as cessation of the groundfish fishery, reduced bycatch from bycatch reduction devices, decline in effort in the shrimp fishery, and hypoxia.

### **Overview of Gulf of Mexico Program Regarding Oil Disaster Past, Present and Future**

**Dave Reed** from the Florida Institute of Oceanography, FFWCC, in St. Petersburg, Florida gave a PowerPoint presentation entitled “Overview of Gulf of Mexico Alliance regarding Oil Disaster Past, Present and Future”.

The Gulf of Mexico Alliance is a management team from the states of Alabama, Florida, Louisiana, Mississippi and Texas.

#### Priority Issues:

- Water Quality – mercury in seafood, harmful algal blooms (HABs), pathogens, and monitoring. Point of contact – Becky Prado, Steve Wolfe, and Heather Ritchie, Florida Department of Environmental Protection.

- Habitat Conservation & Restoration – reversing the downward trend in habitat and ecosystems services, expanded partnerships, Gulf Regional Sediment Management Master Plan, technology development, and policy changes. Point of contact – Ryan Fikes, Gulf of Mexico Foundation and James Pahl, Louisiana Office of Coastal Protection and Restoration.
- Ecosystem Integration and Assessment – emergent wetlands status and trends report, living marine resources, ecological services valuation, Gulf of Mexico Master Mapping Plan (GMMMP), and data access and acquisition. Point of contact – Larry McKinney and Seneca Holland, Harte Research Institute.
- Nutrients and Nutrient Impacts – nutrient characterization, nutrient criteria development, nutrient reduction strategies, and hypoxia. Point of contact – Ann Porter and Kim Caviness, Mississippi Department of Environmental Quality.
- Coastal Community Resilience – risk and resilience assessment, risk and resilience management toolbox, and risk and resilience communication. Point of contact – Tina Shumate and Rhonda Price, Mississippi Department of Marine Resources and Michele Deshotels, Louisiana Office of Coastal Protection Restoration Authority Integrated Planning Team.
- Environmental Education – community education & outreach, public awareness, K through 20 environmental literacy, and economic value communication. Point of contact – Lee Yokel, Dauphin Island Sea Lab and Phillip Hinesley, Alabama Department of Conservation and Natural Resources.

#### Gulf of Mexico Research Initiative:

- Rapid Response Awards
  - \$50 million awarded
  - NGI, LSU, FIO, MESC
- RFP – 1
  - Intended for large research consortia (RC)
  - Physical distribution, dispersion, and dilution of petroleum (oil and gas), its constituents, and associated contaminants under the action of physical oceanographic processes, air-sea interactions, and tropical storms.
  - Chemical evolution and biological degradation of the petroleum/dispersant systems and subsequent interaction with coastal, open-ocean, and deep-water ecosystems.
  - Environmental effects of the petroleum/dispersant system on the sea floor, water column, coastal waters, beach sediments, wetlands, marshes, and organisms; and the science of ecosystem recovery.
  - Technology developments for improved response, mitigation, detection, characterization, and remediation associated with oil spills and gas releases.
  - Fundamental scientific research integrating results from the other four themes in the context of public health.
- RFP – 3
  - Same as above.
  - Support continuity of observations and sampling during July 1, 2011 to September 30, 2011.
  - Why the funds are needed and what opportunity will be missed or taken



- advantage of.
- How funds will be used.
- Evidence that observations and samples are impossible to collect without the requested funding.
- RFP – 2
  - Not out yet, will be directed toward individual researchers or smaller groups not associated with a large RC.

Questions? [Dave.Reed@MyFWC.com](mailto:Dave.Reed@MyFWC.com).

### **Interjurisdictional Fisheries Program Report** – Steve VanderKooy

#### **Oyster FMP**

The IJF Coordinator spent several months reformatting the document and provided a final draft to the task force in June. The final draft was approved by the task force in August and copies were submitted to the TCC to begin their review of the draft. It is expected that the FMP revision will be complete in early 2012, and may be ready for the Commission's approval near or after the GSMFC's Annual March meeting.

#### **Sand and Silver Seatrout Profile**

The *Arenarius* TTF approved the Profile in February to begin the internal review starting with the TCC. In May, the TCC approved the draft to go to the S-FFMC for their review and in early July, they approved it to go out for a 45-day public comment period which ended on September 16.

**Joe Shepard indicated that the Profile was reviewed by the TCC and then made a motion that the Sand and Silver Seatrout Profile be approved. Joe Gill seconded the motion and the Profile was approved.**

Printing will occur sometime the end of 2011 or January 2012.

#### **Gulf Menhaden FMP**

The 5th revision to the Gulf menhaden FMP began in March 2011 in conjunction with the beginning of SEDAR 27 which was to provide a benchmark stock assessment for Gulf menhaden. The IJF Coordinator and Joe Smith, NOAA Beaufort, are revising the FMP without a Task Force, requesting input and review from the Commission's Menhaden Advisory Committee (MAC). The IJF Coordinator has served as the SEDAR Coordinator for the Data Workshop which took place in March, and the Assessment Workshop, which took place in July. The assessment will not be completed until after the SEDAR Review Workshop scheduled for early November in St. Petersburg, Florida. The entire FMP will be finalized sometime around the end of 2011 and the review process will begin in 2012.

### **Blue Crab FMP**

The Blue Crab TTF was reactivated and their first meeting to begin the 2nd revision to the blue crab FMP took place in Naples, Florida in early September. At that time, a number of updated sections were discussed as well as representation on the task force. Assignments were given and the task force met with the Commission's Crab Subcommittee at their meeting on Tuesday, October 18, 2011 during the 62nd Annual meeting of the GSMFC in New Orleans. Another task force meeting is scheduled for early December.

### **Gulf and Southern Flounders FMP**

While there were no expenditures related to the revision of the FMP, staff worked on identifying who the members of the upcoming task force would be. It is expected that the reformed group will meet in January 2012.

### **SEAMAP Program Report – Jeff Rester**

SEAMAP is conducting its 30<sup>th</sup> year of fishery independent sampling. Information about current SEAMAP surveys can be found in the SEAMAP Annual Report to the Technical Coordinating Committee (distributed).

Over the summer, SEAMAP finished drafting their 2011 to 2015 Management Plan. The SEAMAP management plan provides a statement of the current goals, management policies, procedures, and priorities for all SEAMAP components and partnerships. The 2011 to 2015 Management Plan is a major revision to the previous 5-year plan.

Fishery independent data are needed now more than ever in the Gulf of Mexico to help manage valuable commercial and recreational fisheries and assess impacts of environmental perturbations such as the Deepwater Horizon oil spill, hypoxia, and liquefied natural gas (LNG) facilities on marine fishery stocks in the Gulf of Mexico. While all SEAMAP partners contribute ships, personnel, and data to SEAMAP data collections, NMFS plays a large role in SEAMAP data collection activities in the Gulf of Mexico. NOAA's Office of Marine and Aviation Operations has been reducing the number of sea days available for operating the NMFS research vessels used to conduct SEAMAP surveys. In April, the Commission sent a letter to NOAA's Office of Marine and Aviation Operations requesting that they do not cut the number of sea days available for fishery independent sampling in the Gulf of Mexico.

Rising research vessels costs will impact the current level of SEAMAP sampling in 2012 unless additional funding is provided. To offset budget shortfalls, SEAMAP is looking to partner with the Natural Resources Damage Assessment (NRDA) to conduct SEAMAP sampling and have NRDA provide some funding to support higher vessel costs. SEAMAP collects fishery independent data that will be used in the NRDA process and SEAMAP would like to continue to collect data for impacts associated with the Deepwater Horizon disaster as well as possible future environmental perturbations. The Commission sent a letter to NRDA representatives in late August, but has not heard back from them yet.

The Commission continues to handle SEAMAP data management duties in the Gulf of Mexico.

The Commission has received a number of requests in the past few months for SEAMAP data related to the oil spill and the NRDA process. The Commission has also built several new tools to visualize SEAMAP catch data. You can currently go online and view station locations for all SEAMAP surveys since 1982. You can type in a species and see where it has been caught. You can also view catch per unit effort (CPUE) for any species caught by SEAMAP. This can be visualized for a single year or for several years at one time. This information can be viewed at <http://seamap.gsmfc.org>.

### **Sportfish Restoration Program Report** – James Ballard

To continue the effort of establishing a Gulf-wide artificial reef monitoring program, the TCC Artificial Reef Subcommittee held a Reef Monitoring Workshop on Tuesday, October 18. The goal of the workshop was to get a clear picture of how to set up a monitoring program for artificial reefs that will generate the most useful data that is comparable to that collected in the ongoing efforts on natural reef areas. The hurricanes in the Gulf over the last several years and last year's oil spill disaster has underlined the fact that we need to establish baseline data on the vast artificial reef areas in the Gulf of Mexico. This data will allow states to determine how new artificial reefs in the future are functioning in comparison to established ones and how they compare to the function of natural reefs. It will also allow them to assess impacts to artificial reefs from future natural and man-made disasters.

The first half of the workshop consisted of presentations covering the ongoing reef monitoring efforts of NOAA, DISL, FL FWRI, and UT Brownsville. Following the presentations was a question and answer session where the Artificial Reef Subcommittee and attendees were able to ask how to set up the Gulf-wide artificial reef monitoring program.

The Program Coordinator is currently exploring funding opportunities to support the Gulf-wide artificial reef monitoring program.

The next Joint Artificial Reef Subcommittee Meeting (Gulf & Atlantic) will be held in the spring of 2012.

To scope the usefulness of social media as an outreach tool, the Program Coordinator held a conference call with the Fisheries Outreach Subcommittee. At this point all but one of the state fisheries agencies in the Gulf use social media as an outreach tool. This outreach mechanism is also used by the GMFMC, USFWS, and NOAA, as well as several other state and federal agencies and organizations. All of the Subcommittee members stated that they have found social media to be very helpful for disseminating information about their agencies and keeping people of the public informed about regulation changes and upcoming events. They also stated that they are getting good feedback from members of the public and the sites are facilitating good discussions on some topics that do not normally get addressed. For the Council, Facebook has been particularly helpful for addressing and clearing up misinformation quickly. The fisheries agencies represented on the Subcommittee have over 100,000 people that receive information through their Facebook pages.

## **Fisheries Information Network Program Report** – David Donaldson

The Fisheries Information Network (FIN) is a state-federal cooperative program to collect, manage, and disseminate statistical data and information on the marine commercial and recreational fisheries of the Southeast Region. The FIN consists of two components: Commercial Fisheries Information Network (ComFIN) and the Southeast Recreational Fisheries Information Network (RecFIN SE).

The scope of the FIN includes the region's commercial and recreational fisheries for marine, estuarine, and anadromous species, including shellfish. Constituencies served by the program are state and federal agencies responsible for management of fisheries in the region. Direct benefits will also accrue to federal fishery management councils, the interstate marine fisheries commissions, the National Park Service, the U.S. Fish and Wildlife Service, and the NOAA National Marine Sanctuaries Program. Benefits that accrue to management of fisheries will benefit not only commercial and recreational fishermen and the associated fishing industries, but the resources, the states, and the nation.

The FIN Committee is divided into two standing subcommittees representing the major geographical areas of the region: Caribbean and Gulf of Mexico. These subcommittees are responsible for making recommendations to the Committee on the needs of these areas. Standing and ad hoc subcommittees are established as needed by the FIN Committee to address administrative issues and technical work groups are established as needed by the Committee to carry out tasks on specific technical issues. Coordination and administrative support of the FIN is accomplished through the Gulf States Marine Fisheries Commission.

### ITEMS INCLUDED FOR FUNDING IN 2011 FIN COOPERATIVE AGREEMENT

#### *Coordination and Administration of FIN Activities - \$397,000*

This task will provide for the coordination, planning, and administration of FIN activities throughout the year as well as provide recreational and commercial information to the FIN participants and other interested personnel. This is a continuation of an activity from the previous year. This activity pertains to all modules of the program.

#### *Collecting, Managing and Disseminating Marine Recreational Fisheries Data - \$3,177,000*

This task will provide for the conduct of the MRFSS survey in Louisiana, Mississippi, Alabama, Florida and Puerto Rico for shore, for-hire, and private modes. This task will provide for coordination of the survey, an intercept survey of shore, for-hire and private boat anglers to estimate angler catch using existing MRFSS methodology, and entry of the data. The states will also conduct weekly telephone calls to a 10% random sample of the Louisiana, Mississippi, Alabama, and Florida charter boat captains to obtain estimates of charter boat fishing effort. This is a continuation of an activity from the previous year. This activity pertains to the Recreational Catch/Effort Module for all modes of FIN.

#### *Operations of FIN Data Management System - \$252,000*

This task will provide for operations of the data management system for the FIN. This task will provide funding for the FIN Data Base Manager, ComFIN Programmer and part-time Metadata

Coordinator. Responsibilities include further development of data modules structures; routine loading of Louisiana, Mississippi (oyster and finfish only), Alabama, and Florida commercial catch data, Gulf biological data, Gulf recreational data; enter and maintain the metadata records into the InPort system and maintenance of DMS. This is a continuation of an activity from the previous year. This activity pertains to the Data Management Module of FIN.

*Trip Ticket Program Development and Operation - \$1,318,000*

This task will provide for the further development and implementation of commercial trip ticket systems in the Gulf of Mexico. This task will provide for continued development and implementation of components for a commercial trip ticket system to census the commercial oyster and finfish fisheries landings in Mississippi using the data elements and standards developed by the ComFIN. It also provides funding for Texas, Louisiana, and Alabama to operate their trip ticket programs. With the full implementation of trip tickets in Mississippi, all five Gulf states will have operating trip ticket programs, which allows for a complete census of all commercial fisheries landings in the Gulf of Mexico. In addition, it provides funding for a contractor to implement and operate an electronic trip ticket reporting program that allows for a more efficient means for dealers to report the necessary data. This activity pertains to the Commercial Catch/Effort Module of FIN.

*Improvement of Quality and Completeness of Marine Recreational Fishing License/Registry Databases - \$664,000*

This task will support the development of state registration and/or licensing programs that will meet the requirements for development and maintenance of a complete and regularly-updated National Registry of marine recreational fishing participants. The job will address the following issues: Improve the completeness and accuracy of the states' license and registry database content, including the information specified in 50 CFR 600.1416(a); Implement enhancements to the states' license and registry database coverage consistent with the requirements of 50 CFR 600.1416(d) and address improvements to the state programs as specified in the Memoranda of Agreement between the states and NOAA pursuant to 50 CFR 600.1415(b)(2); enable the states to update their license and registry databases and submit update registry data to NMFS and survey operators monthly; and develop methods for achieving the above goals that are shared among the states. This is a continuation of an activity from the previous year. This activity pertains to the Recreational Catch/Effort Module of FIN.

*GRAND TOTAL - \$5,809,000*

**Aquatic Nuisance Species Program Report** – James Ballard

The Gulf and South Atlantic Regional Panel (GSARP) on Aquatic Invasive Species held its spring meeting on April 12-13, 2011 in Charleston, South Carolina.

The Program Coordinator attended/participated in the Aquatic Nuisance Species Task Force's (ANSTF) spring meeting held May 4-6, 2011 in Little Rock, Arkansas.

#### State Aquatic Nuisance Species Plans:

- Alabama, Georgia, Louisiana, and South Carolina have completed plans and are actively implementing them.
- Mississippi's plan has gone through the preliminary review by the ANSTF and they are working on incorporating the recommended changes.
- Florida has a completed plan but it has not been approved by the ANSTF.
- Texas will soon submit the final drafts of their plan to the ANSTF for review.
- North Carolina is in the preliminary stages of formulating their plan.

The Program Coordinator and GSARP are exploring other funding possibilities to secure money so the Panel can start to be more proactive in their efforts to monitor and control aquatic invasive species in the Gulf and South Atlantic region.

The Panel is keeping a close eye on the spread of lionfish. The number of lionfish sightings along the western Atlantic, throughout the Caribbean, and in the Gulf of Mexico is continuing to increase. To facilitate the reporting of these sightings, the GSMFC and GSARP members have distributed lionfish "Wanted" signs across all Gulf states. Along with expanding its range, lionfish densities are also increasing with estimates of greater than 200 fish per acre being reported. This rapid spread is fueled, in part, by their prolific reproductive rate. A single female is able to spawn over two million eggs per year with the larval stage lasting approximately 26 days and being dispersed over a large area by ocean currents. In this invaded range, lionfish have shown a high affinity for structure; however, they inhabit most marine habitat types and depths from the shoreline to 300+m within a temperature range of ~10-35°C. They are also generalist carnivores that feed on a wide variety of fishes including ecologically and economically important species (herbivores, grouper, snapper) as well as a number of crustacean species. At the GSARP's spring 2011 meeting there was a session entitled "Update on the Lionfish Invasion and Current/proposed Management Actions" in which several federal agencies (FWS, NOAA, USGS, NPS) and REEF updated the group on their current lionfish research/actions. Many of these groups and several Caribbean countries have started programs to actively remove lionfish from sensitive areas and have initiated discussions on developing management documents for this species.

At the spring ANSTF meeting the GSARP made the following recommendation: **GSARP recommends to the ANSTF the formation of an Invasive Lionfish Control Working Group.** The purpose of an Invasive Lionfish Control Working Group (ILCWG) is to scope the issues related to prevention, control, and management of invasive lionfish (*Pterois volitans*, *Pterois miles*). If the formation of this ILCWG is approved by the ANSTF, then it is further recommended that the ILCWG provide a report by the next ANSTF meeting (November 2011). This report would contain supporting information for a recommendation on whether or not a National Invasive Lionfish Control Plan (NILCP) is needed. The purpose of a NILCP would be to serve as a guide to the ANSTF and other interested parties involved in managing lionfish and natural resources in U.S. waters.

The ANSTF accepted this recommendation and formed the Invasive Lionfish Control Ad Hoc Committee (ILCAC) which is headed by the Program Coordinator and has representation from USFWS, NOAA, NPS, USGS, and REEF. The ILCAC has scoped the issues related to the

lionfish invasion and has supplied the ANSTF with their report "Review and Recommendations to the ANSTF for a National Invasive Lionfish Control Plan.

The Panel's Information Management Work Group has been, and will continue to review and update the content of the new GSARP website to make sure it stays as current as possible.

At the Panel's spring 2011 meeting they voted to start a newsletter that would be produced biannually and would highlight information from each of the Panel's meetings. The first issue of "Water Watch" was finished in the summer of 2011 and is available on the Panel's website.

The Panel's Rapid Response Work Group has drafted a new rapid response plan that incorporates the Incident Command System and elements of other plans that have been used across the country. Following the October 2010 Panel meeting, the work group held another meeting to further refine the plan. The work group will continue to work over the next few months on finalizing the document and will hopefully have a final draft for the full Panel to review by the fall 2011 meeting.

New introduction: There was a report of a Panther Grouper (*Chromileptes altivelis*) off southeast Florida near Palm Beach. REEF has tried to remove the specimen on two occasions but has been unsuccessful.

The Panel formed an ad hoc work group in the spring of 2010 to draft an informational document on *Tubastraea sp.* for SAFMC and GMFMC. There are currently three species that have been reported in the Gulf and South Atlantic region, and at present the SAFMC and GMFMC do not have any clarification to distinguish *Tubastraea sp.* from the other stony corals protected under their management plan. This document has been completed and has been reviewed by the Panel and will be passed along to the Councils.

### **Subcontract Awards**

*The Invasive Species Traveling Trunk* – This project will develop and produce a traveling trunk of hands on invasive species examples. Included will be an annotated outline of talking points for presentation to secondary school students and laymen. The material will cover: definitions, sources, ecological impacts, economic costs (when available), suggested public actions, and websites for additional information. The invasive flora and fauna material will contain bullets covering native origin, purpose of introduction (if intentional), pathway of introduction, brief life history, and ecological and economic impacts. The trunk will highlight five species of invasive plants and six species of invasive animals (3 invertebrates and 3 vertebrates). No viable materials/specimens will be in the final product.

The "Trunk" will consist of three sections:

- a) A manual of informative talking points: the first draft of this manual is complete and was presented at the spring 2011 GSARP meeting. This manual is now being reviewed by Panel members who have expertise with the highlighted invasive species.
- b) A compact disk of illustrations and talking points for visual presentation: this CD is currently being developed by the PI and a graphic designer and Panel members were

asked to provide images of the invasive species covered in the Traveling Trunk.

- c) Actual samples of embedded and laminated invasive species for “hands on” use: the PI has obtained several of the needed specimens and asked Panel members for the ones he was missing. Over the next month he will be working on getting all the specimens embedded and laminated.

*Trojan Y Chromosome Eradication of Invasive Fish/Development of Sex-specific DNA Markers*

– In the proposed strategy, “Trojan YY fish” consisting of sex-reversed fish containing two Y chromosomes are introduced into a normal fish population. These YY fish result in the production of a disproportionate number of male fish in the population in subsequent generations. For this study, Nile tilapia, *Oreochromis niloticus*, which have become established in several GSARP states, will be utilized because they have an XY sex-determination system and both male and female YY fish of this species have been produced using hormone-induced sex-reversal combined with selective breeding. In order to test the feasibility of a Trojan Y Chromosome eradication strategy for *O. niloticus*, YY broodstock must first be developed. The primary difficulty in developing YY broodstock is correctly identifying the sex chromosome genotype of fish used in the breeding program. Sex-chromosome genotyping of fish could be greatly facilitated if DNA probes specific to the *O. niloticus* sex chromosomes were available. The purpose of this study is to identify these sex-specific DNA markers. Randomly amplified polymorphic DNA (RAPD) fingerprinting techniques that have been successfully applied to other species will be applied to *O. niloticus*. Novel sex-specific PCR products will be identified that are specific to either female or male individuals. Markers will then be tested on sex-reversed fish to determine their utility in YY broodstock development. To date, the PI has identified collaborators at Auburn University that will provide male-specific and female-specific DNA for Nile tilapia and he will start screening for sex-specific PCR bands over the next few months.

*Reproductive Sterility as Tool for Prevention and Control of Invasive Aquatics*

– Nonindigenous apple snails present two problems in the GSARP region. First, the species *Pomacea insularum* is widespread throughout the region and no method currently exists for eradication. Second, aquarium dumping remains a potential route for new introductions of nonindigenous apple snails into watersheds in the region. This study will address both of these problems. To address the first problem, two alternative approaches for irradiation will be developed to generate sterile snails in high yields. Triploidy and chromosomal translocations in *P. insularum* will be investigated as new methods for producing sterile apple snails for release. To address the second problem, reproductively sterile apple snails of two species in demand as ornamentals in the aquarium trade will be produced. The PI has selected the two species of apple snails to test the demand for a sterile product in the aquarium trade (*Pomacea brigesii*, *Asolene spixi*). He has also completed construction of the snail mating chambers that he will use to test their sterility. *P. brigesii* will be irradiated within the next month and matings will be set up soon afterwards at Rawlins Tropical Fish Farm. Data on sterility/fertility will be produced once snails start mating. *A. spixi* dose determination studies will be set up once *P. brigesii* matings are underway.

The fall GSARP meeting is set for October 4-5, 2011 in Austin, Texas.

The fall ANSTF meeting is set for November 1-3, 2011 in Washington, DC.



## Emergency Disaster Recovery Program Report – Ralph Hode

### EDRP I

The Resource Recovery Program of September 2006 (EDRP I) was approved by Congress specifically for fisheries resource recovery and was directed toward oyster restoration, habitat rehabilitation, and cooperative research aimed at defining post-Katrina/Rita fish stock recoveries. Combined expenditures for all sub-awards under this “first supplement” were almost \$112 million through August 2011. This amounts to nearly 88 percent of the \$127.7 million supplemental appropriation made by Congress in 2006.

To date, as the end of the initial grant period approaches, approximately \$15.1 million remains unspent. As a result, a one year, no-cost grant extension was approved in March 2011 in order to provide additional time for recipients to complete work delayed by both natural and manmade disasters beginning in 2008. The new grant period has been extended until August 31, 2012.

Habitat Restoration – Under this category, approximately 38%, or nearly \$6 million, remains unspent at this time. The following briefs provide insight into planned activities over the next twelve months.

- **Florida** expects to continue its oyster habitat restoration through extended and additional agreements with lease holders in the Cedar Keys and Apalachicola Bay oyster grounds. *(Note: Private lease restoration was funded under the Habitat component of the Florida program and the public grounds were funded under the Oyster Restoration component).*
- **Mississippi** will begin a new job, under its habitat component, to re-establish opportunities to recover and monitor protected and endangered species impacted by natural or manmade disasters. A program of this nature existed prior to Katrina but was not included in the initial post disaster recovery plans. Post oil disaster recovery efforts identified near fatal shortfalls in the state’s ability to meet this need.
- **Texas** continues with planned cultch plants in impacted oyster grounds. *(Note: Texas also is restoring its oyster grounds under the habitat program while funds in the Oyster Restoration sub-award were used for oyster stock assessment, bottom profiling, and habit mapping preparatory to cultch plants).*
- **Louisiana** will continue with its program to identify and remove underwater obstructions brought on by Katrina. Note, because a vast amount of the state’s marine resources are located within inland marine waters, the task of debris removal was left to the state and was not designated as mission eligible under FEMA debris removal programs. Additionally, the state will continue with its program for simultaneous management of waterways for waterfowl and marine organism access.
- **Alabama’s** Habitat Restoration program is essentially complete.

The Oyster Restoration program has approximately 30% of the budgeted funds remaining unspent through August. Florida, Mississippi and Louisiana all have in excess of \$1 million in oyster funds remaining. Much of this unspent balance is attributed to delays brought on by the Deep Water Horizon disaster in 2010 and spring floods in 2011. Both Mississippi and Louisiana are monitoring state oyster grounds and are proceeding cautiously as plans are made to close out their programs. Florida’s and Texas’ public oyster grounds programs are moving forward and are expected to continue through the extended grant period.

- **Mississippi** has a contract in place and is expected to implement additional cultch plants on impacted oyster grounds in the fall of 2011 following completion of monitoring and sampling efforts.
- **Louisiana** will continue with the restoration of the Native Oyster Stock Hatchery, the installation of an oyster lease data and records management system and will continue with biological sampling through independent sampling on all public grounds.
- **Texas** will continue with the installation of planned bottom profiling, ground truthing, mapping and data storage systems in order to establish a sound oyster ecosystem data base.
- **Alabama** amended a portion of its oyster program to acquire a small shallow water barge for the transport of cultch materials to nearshore/inshore oyster grounds. The barge is expected to be completed in the fall of 2011 and will be utilized to transport materials to oyster grounds damaged by Katrina and oyster drills infestations.
- **Florida's** oyster program will continue with shell plants on a continuing basis. The Department acquired a barge early in the recovery program to replace one damaged by Katrina and has leased a second barge to facilitate deposition of both fossilized shell and processed shells in the Apalachicola and Cedar Keys areas. It will also continue to acquire processed shell through agreements with area processors for future restoration efforts.

The Cooperative Research sub-award balance through August 31, 2011 was nearly \$4.5 million. This sub-award category has experienced numerous increases over the duration of the grant period as states continued to redefine priorities. The original overall Cooperative Research budget increased from \$27.4 million to \$47.8 million – many of these occurring during the latter 18 to 24 months of the grant period. As a result, significant portions of the cooperative research component are still ongoing.

- **Louisiana's** cooperative research component continues with a logbook program for licensed commercial for-hire captains, monitoring of commercial fisheries recovery using trip ticket data, and fishery independent monitoring under this component. Additionally, the state is in the final stage of analyzing nearly 3,200 post-Katrina business recovery surveys designed to determine the current status of its industry; is implementing a demonstration project for a commercial menhaden bait industry; installing a voluntary electronic trip ticket pilot program; and is updating a statewide marina database system.
- **Texas** – the Cooperative Research component, consisting of identification of marine debris and removal, has been completed. The balance of funds under the Texas sub-award was re-allocated to the state's oyster and habitat restoration programs.
- **Mississippi's** Cooperative Research program is in excess of 98% complete. The majority of the program addressed restoration and repair of damaged nearshore and offshore artificial fishing reefs. To date, a total of 145 deployments were completed involving multiple material components such as reef balls, steel hull vessels, and concrete rip-rap and culvert. Additional Cooperative Research jobs included trip reporting studies involving both the commercial fishing sectors as well as the for-hire sectors, monitoring of fisheries recovery from shoreline access points, and monitoring of hatchery raised reef fish on offshore artificial reefs.
- **Alabama's** Department of Conservation and Natural Resources continues to work with

the Dauphin Island Sea Lab to examine egg and larval distribution and mortality as part of an ongoing Fisheries Oceanography of Alabama (FOCAL) program. The second of two Cooperative Research sub-awards funded under EDRP I and involving commercial and for-hire trip reports has been completed. The data from these reports is being analyzed and scanned and will serve as baseline data for future studies.

- **Florida's** oyster dispersal and larvae settlement model is in its final stages. Delays occurred due to contract development for hydrological modeling components; but, the Research Institute's principal for this project expects the project to be completed within the next 12 months.

## **EDRP II**

The Economic Assistance Recover Program of September 2007 was approved by Congress specifically to provide economic assistance to impacted fishermen and marine businesses and industry across the Gulf as they recovered from the effects of Hurricanes Katrina, Rita and Wilma in 2005. Funds under this \$85 million appropriation were designated for a number of components including *Assistance for Commercial Fishermen, Assistance for Business and Industry, Seafood Testing, and Domestic Product Marketing of Gulf Seafood*. The appropriation also provided additional assistance for fishermen compliant with TED and BRD regulations.

Combined expenditures for all sub-awards under this appropriation amounted to \$71,104,339 through August 2011. This amounts to nearly 83.7% of the \$85 million assistance budget and leaves approximately \$13.8 million to be utilized over the remaining 12 month period.

Additional Assistance for TEDs/BRDs Compliance (TED/BRD) – This sub-award has been completed, with the exception of a fund balance for the Mississippi program. Although MDMR program has a balance of approximately \$106,000 the state has met the EDRP II condition that "...not less than 2% of the overall EDRP II supplemental be disbursed as additional assistance for fishermen found to be in compliance with TED/BRD requirements." The remaining funds are expected to be used in the provisions of incentives to promote expanded use of TEDs and BRDs in the shrimp industry.

Assistance to Marine Related Businesses and Industry (ASBI) – Approximately 91% of the budget funds under this sub-award have been disbursed to date. Nearly \$4.5 million remains to be utilized over the next 12 months.

The **Florida Department of Agriculture and Consumer Services** is utilizing the ASBI sub-award to improve access to public fishing grounds and development of a working waterfront in support of its commercial fishermen, and to further restore and rehabilitate impacted public oyster reefs in the Apalachicola and Cedar Keys areas of the state's fishing grounds. Given delays brought on by natural and manmade disasters since 2007, and ongoing work under the EDRP I sub-award, the Department has indicated that the combined work may not be accomplished within the remaining 12 months. As a result, inquiries regarding additional no-cost grant extensions have been made.

**Alabama's** Assistance to Business and Industry sub-award has been completed.

**Mississippi's** ASBI work continues with additional oyster cultch plants planned pending completion of reef monitoring efforts following the spring flood. All other jobs originally scheduled under this sub-award have been completed.

**Louisiana's** ASBI program is incorporated into the ACF (Assistance to Fishermen) component.

**Texas** continues to work with the Texas General Land Office over State Submerged Land Leases and Ducks Unlimited to expand shoreline protection projects. These projects are expected to be completed by January 2012.

#### Assistance to Fishermen (ACF)

The **Florida** Electronic Log Book Reporting project had minimal success and was completed in July 2010 with only 31 of a possible 1,600 vessel owners/operators participating. As a result, the FWCRI established a program in which members of the for-hire fleet voluntarily allowed Department field personnel on at-sea trips for collection of biological samples and for tagging and reporting on discard disposition. EDRP II funds originally scheduled for the electronic logbook program are being utilized to pay for the voluntary at-sea reporting and to fund the cost of at-sea verification and sampling by Department field staff – including on board fares. To date, nearly 13,000 on-board observations have been recorded on 48 at-sea trips. Additional trips are planned for 2011.

Although the **Mississippi** ACF sub-award is approximately 97% complete, work involving an expanded project to *Monitoring and Assess Mississippi's Interjurisdictional Marine Resources* shrimp and crab fishery independent trawl monitoring program is on-going. Additionally, an existing trawl survey program has been expanded to include random sample collection of organisms throughout the Mississippi Sound. Also, current laboratory processing techniques have been modified to allow for the collection of additional community-based data for ecosystem analyses.

**Alabama's** ACF program is approximately 60% complete. Remaining work efforts include acquisition of equipment in support of the new Claude Peteet Mariculture Center being constructed with CIAP funds; mapping of inshore and offshore artificial reef sites (*Note: side scan equipment acquired under the EDRP program has been received and will be installed during the latter quarter of 2011*); and finalization of an onshore remote monitoring project for marine enforcement and public safety purposes.

Through August 2011, **Louisiana** has been reimbursed nearly \$36.4 million, or approximately 93% of the budgeted amount for the ACF program (both the Assistance to Fishermen and the Assistance to Business and Industry programs have been combined in the ACF program). The majority of these have been distributed to resident commercial fishermen, commercial fishing vessel license holders, wholesale/retail seafood dealers and charter boat guides. Additionally, assistance was provided to qualified marinas which had unreimbursed losses of business or facility damages; and for repairs to the state's Booker T Fowler Fish Hatchery. Ongoing projects:

- Baitfish disease investigation/studies – LSU
- Baitfish holding protocol development – LSU
- Development of a marina data base – LSU
- I-110 bridge debris reef program – LDOTD
- Lake Pelto reef restoration program – LDWF

Direct Product Marketing Program – Only Mississippi and Louisiana participated in the Domestic Marketing Program under the EDRP II supplemental appropriation. To date, nearly 83% of the Mississippi program’s scheduled work has been completed; and in Louisiana approximately 24% has been completed. In both state programs, marketing plans were scheduled to extend through the duration of the grant; but spending during the past 18 months has been sporadic. It is suspected that because of the DWH oil disaster in April 2010 and additional supplemental funds made available during the post oil disaster recovery period, both programs are undergoing re-examination.

Seafood Testing – Mississippi was the only state which specifically set aside funds under the Economic Assistance Recovery Program (EDRP II) for seafood testing. This is also a continuing program scheduled to extend through the duration of the grant period. To date, approximately 68% of the funds dedicated to this project have been utilized. This program involves enforcement of ISSC adopted policies on food borne illness outbreaks and recall requirements. Additionally, the MDMR Seafood Testing Division continues to assist dealers as they maintain HACCP plans, to conduct periodic inspections at dock sites, seafood processing facilities and other seafood sales and distribution sites throughout the Mississippi coast area, and to test seafood samples for the presence of *Salmonella*, *Vibrio*, *Listeria monocytogenes*, *E. Coli* and *Campylobacter*.

The state’s seafood testing program also involves work through the Gulf of Mexico Alliance to develop a needs awareness study and a plan of action to address healthy beaches and shellfish beds. Other elements of the GOM initiative includes conservation of coastal wetlands, environmental education, and characterization of Gulf habitats for informed management decisions and reductions in nutrient loading in the Gulf.

The Seafood Testing component includes a “Mississippi Gulf Coast Water Quality Assessment” component in which MDMR is working with the State Department of Environmental Quality as it conducts 305b water quality assessments as coastal communities rebuild over time.

### **Economic Data Program Report** – Alex Miller

**Introduction** - As part of an effort to improve economic data collection and management of the recreational and commercial fisheries throughout the Southeast Region, an Economics Program was formed in July of 2008. The economics program is a cooperative partnership among Texas, Louisiana, Mississippi, Alabama, Florida, the Gulf States Marine Fisheries Commission (GSMFC), and NOAA’s National Marine Fisheries Service (NOAA fisheries). The program monitors the economic performance of the fisheries of the Gulf of Mexico (GOM) and assesses the economic impacts of these fisheries on the local and regional economy. In general, the

activities of the economics program are divided into three main components. These components include economic data collection, economic research and analysis, and economic outreach and dissemination. These initiatives were further developed throughout 2011.

**Data Collection** - In conjunction with the Fisheries Information Networks' (FIN) Social/economic

Workgroup, the GSMFC coordinates, plans, and conducts specific economic data collection projects throughout its five member states. Economic data collection projects in progress during 2011 included an economic survey of the inshore shrimp fleet, an economic survey of fishing related businesses, a marine angler expenditure survey, and a marine recreational use economic survey. Results from these studies will aid in describing the economic performance as well as the economic impacts of these industries. More specifically, economic data and analysis will contribute to a better understanding of the economic contributions that these industries have on the local and regional economies. It is the intent that the collection of dependable economic data will further maximize the economic and ecological benefits of fisheries resources while reducing negative costs to coastal communities throughout the Gulf.

**Inshore Shrimp Fleet** - An economic survey of the inshore shrimp fleet was the most well developed project under the economic data collection component of the program throughout 2011. Cited as one of the most valuable fisheries within United States, the GOM commercial shrimp fishery constitutes fishing pressure from both an offshore fleet as well as an inshore shrimp fleet. Following recent data collection efforts conducted by NOAA fisheries for federally permitted vessels that harvest shrimp in waters offshore, this study provides a systematic economic analysis of an important economic segment—the inshore shrimp industry—which has not previously been examined with such depth and rigor. Existing economic data for commercial shrimping in state waters have traditionally been piecemeal, outdated, or not fully relevant. Having such information in hand will potentially enable fisheries managers, commercial shrimpers, and others who utilize shrimp resources to form unbiased conclusions and will lead to improved fisheries management decisions.

Therefore, the GSMFC, in collaboration with the Louisiana Department of Wildlife and Fisheries, have successfully gathered up-to-date economic data about the economics of commercial shrimping in inshore waters across the GOM. These data include information on revenue, operating costs, annual expenditures, employment data, and vessel characteristics of the inshore shrimp fleet for year 2008. In late 2008, the GSMFC obtained the cooperation and support of the relevant state regulatory agencies and several industry groups in each of the five Gulf States. During the early part of 2009, sampling frame development and selection took place for each of the states. A survey instrument was also developed at this time and tested through scoping meetings in each of the Gulf States. The survey and subsequent reminders were mailed throughout the spring of 2009. A total of 591 surveys were returned. During October of 2009 a non-response survey was mailed to individuals who had not responded to the initial survey. A total of 167 non-response questionnaires were returned.

As of 2010, data from all returned questionnaires had been entered into a database. The data in the database were inspected and compared to the questionnaires to assure the fidelity of the data

to the original source. The database was further studied to identify response patterns, incomplete responses, outliers, and similar matters. While working in conjunction with the SEFSC and the Louisiana Department of Wildlife and Fisheries, the data were cleaned and compiled in order to derive output that was compatible with and comparable to the data from the annual survey of commercial shrimp fishermen in federal waters in the Gulf of Mexico.

A final report of the results for the inshore shrimp industry was compiled throughout 2011 and is completed. All figures and estimates are presented as industry totals and averages. This document will be posted on the GSMFC website. In addition to analyzing the economic performance of the fishery, this study also provides an estimate of the economic impacts of the industry on the local and regional economy through the use of regional input-output impact models for the entire Gulf shrimp fleet. Economic data from the inshore shrimp fleet was combined with federal economic data in order to have a representative data set for the entire Gulf shrimp fleet. This combined data set was used to calculate the number of jobs and sales generated by the commercial offshore and inshore shrimp fishery, in the industry itself, and in other portions of the regional economy. The results from this combined economic impact data analysis will be presented and distributed through a peer-reviewed publication.

The Commission's economics program is currently planning to repeat this data collection project for the inshore shrimp fleet during the spring of 2012. This is an opportune time as shrimp harvesters will be preparing their tax records and it will not interfere with the traditional Gulf shrimp season.

**Fishing-related Businesses** - As fisheries management policies change, the economic consequences of these actions extend past commercial harvesters to supporting fishing related businesses. Understanding the linkages between specific industries and the regional economy can be helpful in determining the potential impacts of management decisions. The Commission's economics program is, therefore, in the process of collecting data to determine the economic performance and the economic contributions that seafood processors and dealers have on local and regional economies. The availability of unbiased, systematic economic data of this nature should assist fisheries managers, commercial fishing-related business owners, and others who utilize the Gulf's resources in the formation of informed management decisions. This project was in the implementation and deployment phase during 2011. The GSMFC is working with the Louisiana Department of Wildlife and Fisheries (LDWF) as well as the states throughout the GOM.

A workshop was conducted in March 2011 as part of the GSMFC's spring meeting in Houston, TX. This workshop reviewed the latest version of the Gulf States Seafood Processor Survey instrument and finalized plans for testing and full deployment of the survey instrument. The survey packet was subsequently field tested throughout the five states of the region throughout early 2011 using the NMFS processor list for 2009. Working in cooperation with the University of Florida, The University of South Alabama, Mississippi State University, Louisiana Department of Wildlife of Fisheries, and Texas A&M, the survey packet was tested with approximately two to three individual processors in each state. Processors were initially mailed a survey packet, which included a cover letter to introduce them to the study. In-person interviews were conducted. Results from each in-person interview were used to improve the survey packet.



Given minor changes to the survey instrument, the survey packet was deployed throughout the spring of 2011 using the aforementioned universities and approach. Data collection will continue through the end of 2011. Periodic conference calls have been conducted to ensure consistency and successes throughout the region. Early results indicate that the response rate has greatly varied between each of the states.

A similar survey instrument and supporting materials, which is shorter and largely based on the processor survey, is currently being finalized for seafood dealers. A database of seafood dealers from each of the states is also being compiled. Full deployment of this mail-based survey should commence throughout the fall of 2011.

A final report of the results from both the processor and dealer survey will be compiled and presented once the final data is entered and analysis is conducted. All figures and estimates will be presented as industry totals and averages. In addition to analyzing the economic performance of processors and dealers, the Commission also plans to estimate the economic impacts of the industry on the local and regional economy using regional input-output impact models.

**Marine Angler Recreational Fishery** - A recreational fishery in the marine environment provides not only relaxation for stakeholders but also economic impact to the surrounding economy. In the GOM, for example, millions of residents participate in marine fisheries recreation, which contributes millions to tens of millions of dollars each year to the economy. A continued understanding of how marine angler expenditures influence local and regional economies in the GOM through sales, income, and employment, provides key economic information, which can be used in fisheries management decisions. The GSMFC and NOAA are, therefore, in the process of soliciting saltwater anglers' expenditures on fishing trips throughout the GOM states and Puerto Rico in order to assess the size and economic contribution of the marine recreational fishing industry to the GOM and the United States.

Preparation for the marine angler recreational survey took place throughout late 2010. This included finalizing the survey materials and the survey sampling design in association with the NMFS. This also included awarding sub-awards from the GSMFC to the MRFSS Gulf States in order to collect expenditure data from anglers via an intercept survey. A sub-award was also awarded to ICF Macro to conduct mail surveys throughout the region.

Data collection via field samplers began in January 2011 throughout Florida, Alabama, Mississippi, Louisiana, and Puerto Rico. Data collection in Texas, via a mail survey, began in March and April 2011. Extensive outreach efforts were conducted with the initial deployment of the survey. This included the development of a press release, informational flyers, and other supporting materials. A number of regional and national news stories were written concerning the data collection effort. A number of conference calls were also conducted and supporting informational materials were provided to each of the states and the mail survey contractor. Cumulatively, from the start of 2011 through June 2011, the percentage of completed mail surveys was 28%. The percentage of completed intercept surveys from January through March 2011 throughout the region was 68%.



The upcoming reporting period will largely include the final period of data collection and administration of the project. The timeline for data collection will run through December 2011, with the analysis conducted from January 2012 to December 2012. This project will contribute to the larger national final report entitled, "The Economic Contribution of Marine Angler Expenditures in the United States, 2011."

**Marine Recreational Use** - Economic impacts from recreation to the local and regional economy also extend from other types of marine recreation besides marine angling. Such economic impacts might include bird watching, kayaking, canoeing, sailing, etc. Determination of the economic impacts that these activities have on the economy is an important aspect of marine recreation that needs additional attention.

The GSMFC plans to contract with Knowledge Networks to collect information on marine recreational use. It appears that the focus of the project will be the implementation of a survey that will enable GSMFC and NMFS to estimate the economic impacts and use value from marine recreational use activities. Such activities might include canoeing, bird watching, sailing, and others. Data to be collected include expenditure data, access value data, demographics, and attitudinal information. The population to be sampled includes the general public using the Knowledge Networks survey panel. The survey will be implemented in monthly waves, with the sample rotating in and out each month and no individual being sampled more than a determined number of times. Notification to selected individuals will occur in advance, so that they can keep track of their activities and expenditures.

The year 2011 was used to finalize the survey instrument and submit a package to OMB for approval. Given the national scope of this project, and NOAA largely administering the survey in other parts of the country, OMB approval was required. Given the requirements of approval by NOAA and OMB, the Commission is currently uncertain when the survey will be deployed. GSMFC plans to contract with Knowledge Networks as soon as possible.

**Research and Analysis** - While economic data from initial collection activities is often presented in a simplistic format, further analysis and research investigations allow for a better understanding of the economic performance and impact of Gulf fisheries. Currently, the research and analysis component of the economics program consists of an impact analysis initiative for Gulf fishing industries and a study of the influence that macroeconomic factors (i.e. fuel prices) have on marine recreational angler effort throughout the Gulf.

**Macroeconomic Variables and Marine Recreational Angler Effort** - State and Federal policymakers continue to struggle with making difficult decisions concerning the management of marine recreational fisheries throughout the Gulf of Mexico. Policymakers have heretofore largely relied on science-based limits, which use effort estimates, to define how many fish can be removed while still investing in the future integrity of the stock. While the problem of stock depletion is definable using biological limits, getting to a welfare improving solution is a challenging integration of legal, economic, ecological interactions, and biological complications. Therefore, understanding how the quantity and distribution of recreational fishing effort responds to macroeconomic factors may be beneficial to the policy process. This study investigates the influence that macroeconomic variables such as fuel price, unemployment, and state-level gross

domestic product (GDP) have on the quantity and distribution of marine recreational fishing effort throughout the Gulf of Mexico. Preliminary results indicate that macroeconomic variables, such as fuel prices, GDP, and unemployment influence the quantity and distribution of marine recreational fishing effort in the GOM. Using such information may allow for welfare improving rule changes that benefit both ecological and economic stakeholders. This project was submitted to an academic journal for potential publication. The editor has responded and indicated that the manuscript needs to be revised before publication can commence. Revisions to this manuscript are currently underway and it is anticipated that a resubmission of the document will occur before the end of 2011 or early 2012.

**Impact Analysis** - While raw economic data allows for descriptive statistics and averages, economic impact analysis (e.g. input/output modeling) for a particular fishery can help us to better understand the economic contribution that a fishery has to the local and regional economy throughout the Gulf. For example, impact analysis can be used to describe taxes, employment, income, value-added, and sales generated from a particular Gulf fishery.

An IMPLAN model was further developed throughout 2011 using data gathered through the recent economic survey of the inshore shrimp industry. Additional impact analysis will be carried forward once data from the other projects described above is collected and prepared for conducting impact analysis.

**Outreach and Dissemination** - The third component of the economics program is outreach and dissemination. The objective of this branch of the program is to present the information collected and analyzed within the data collection and research and analysis components of the program. Additionally, this component of the program involves the organization of meetings for economists and associated stakeholders who are interested in or actively engaged in fisheries economic projects and activities throughout the Gulf.

**Fisheries Economic Information Portals** - In order for there to be a location where stakeholders of fisheries resources can log-on and access fisheries economic data, the Commission successfully worked with the NMFS headquarters office in order to develop a national interactive fisheries economic impacts tool. The GSMFC is also updating their website in order to enable web users the ability to access economic information for selected Gulf fisheries. This information includes relevant publications and final reports as they relate to the Commission's economic program.

**Gulf States Fisheries Economics Workshop** - The Gulf States Fisheries Economics Workshop is an initiative of the economics program that is aimed at promoting communication, coordination, and professional development among fisheries economists and associated stakeholders throughout the Gulf of Mexico. The workshop provides an opportunity to share data collections and research projects and to discuss the future direction of fisheries economics within the region. It is the intention that these meetings will be held as regularly as possible, given funding availability and the need to conduct a workshop.

## **Oil Disaster Recovery Program**

The Oil Disaster Recovery Program, which was authorized October 1, 2010, continues to move forward in all of the elements approved by the ODRP Ad Hoc Committee early in the program planning process. Sub-awards or contracts are currently in place which addresses the following elements of the overall program:

- A Direct Marketing program – including a port direct component
- A Gulf wide seafood sustainability and traceability program
- A culinary outreach component with the Louisiana Seafood Marketing Foundation
- A seafood testing component

**Direct Marketing** - The direct marketing element is being administered through a contract with the Gulf and South Atlantic Fisheries Foundation. This is a \$4.4 million contract which calls for the formalization of a GOM Marketing Coalition whose role is to act in a project review and approval capacity, as well as the provision of guidance and direction as the marketing element moves forward. The coalition is a seventeen-member board representing all five Gulf States and a broad cross section of the marine fisheries industry in the Gulf. Membership consists of state seafood marketing specialists, representatives from the processors, distribution, and harvesting sectors, the “for-hire” recreation sector, the restaurant and retail sectors, and the GSMFC.

To date, the coalition has adopted a five-year program plan for marketing strategies development, and a set of organizational by-laws by which it functions. A contract has been completed with the BIG, Inc. group of Montgomery, Alabama for conducting a seafood marketing study which will serve as background data in the development of Gulf wide marketing strategies. BIG, Inc. will be presenting its final report on this study to the GOM Marketing Coalition at its October 2011 meeting.

Additionally, GSAFF has formalized contracts with three specialty public relations and advertising firms who ranked highest among 21 proposals submitted to the Coalition in August 2011. Each firm brings with it unique experiences that complement ongoing marketing strategies and programs at the state level; but which will result in a Gulf wide approach to marketing Gulf seafood products.

GSAFF was also instrumental in coordinating and providing support for Gulf fisheries recovery through a national seafood sustainability event entitled “Demystifying Seafood.” The event was held at the Smithsonian Institute’s National Museum of Natural History in June 2011 in the Museum’s recently completed Sant Ocean Hall. The event focused on:

- How the Gulf is doing a year after the oil spill,
- The health of our seafood,
- The role of NOAA and government in protecting the sustainability of seafood; and,
- How the Museum’s collections assist in studying our seafood.

**Web Based Marketing** - Also funded under the direct marketing element is a Web Based Marketing element. Separate contracts through the GSMFC are currently in place with the Sea

Grant/Extension Services of all five Gulf States; and various approaches to promoting web based opportunities through Market Maker and Port Direct programs are being utilized. Individual department personnel are also being trained to provide the outreach and support necessary to assure that potential users are technically adept and comfortable using electronic advertising. This is being accomplished through seminars and workshops as well as direct meetings with potential users. Several of the states are also developing web pages to promote these opportunities.

**Marketing Through Culinary and Outreach Events** - The ODRP Ad Hoc Committee determined early on that one of the greatest needs in the Gulf following the DWH event was to counter the negative perception which developed following news reports of widespread oil contamination. As part of the marketing component, the Committee opted to begin immediately by providing support for culinary events that focused on Gulf products. Such events typically brought chefs, restaurant associations, and retail/wholesale associations together in a public forum so that Gulf products could be showcased with the intent of re-capturing lost markets and expanding into areas not previously offering Gulf products in their market areas.

A sub-award agreement was developed with the Louisiana Seafood Marketing Foundation, which had significant experience in promoting State products through culinary events. The sub-award provided financial support for "The Great American Seafood Cook-off" in New Orleans, and an annual "Oyster Industry Council" meeting in Washington. Both events were open to the public and both focused specifically on Gulf products – providing food sampling from Gulf recipes by Gulf chefs. Support of the Great American Seafood Cook-off is slated to begin in August 2012 and will cover a two year period. The Oyster event began in June of 2011 and will cover a three year period.

Provisions were also included in the sub award for an additional culinary event that would promote Gulf products in select Canadian area markets.

## **SEAFOOD TESTING**

The ODRP Ad Hoc Committee also determined early on that, given the negative perception regarding the safety of Gulf products, there was a need to enhance sampling and testing of Gulf products to assure that commercial seafood from the Gulf was free of Polycyclic Aromatic Hydrocarbons (PAHs) and other potential contaminants in the aftermath of the DWH. In order to address this issue, GSMFC programmed nearly \$1.7 million of the supplemental funds for the provision of FDA approved/compatible equipment and related training and supplies. Testing equipment grant opportunities were made available for public institutions or agencies which had interest and/or staff capabilities to support the seafood testing initiative. The intent of the program was to position the states to provide short term/near real time analysis of seafood samples.

As a result, sub-awards are now in place with the Mississippi State Chemical Laboratory in Starkville, Mississippi and with the Alabama Department of Public Health Bureau of Clinical Laboratories in Montgomery, Alabama. Reimbursements for equipment and supplies are ongoing at this time.

## SEAFOOD SUSTAINABILITY AND TRACEABILITY CERTIFICATIONS

Complementing the overall marketing initiative is a Gulf Seafood Sustainability and Traceability program. The Ad Hoc Advisory Committee authorized a budget of approximately \$3.9 million for the implementation of a number of activities, which will support sustainability certification of key Gulf seafood products. The intent of these efforts is to promote sustainable harvest and management of the Gulf's resources and the positioning of Gulf processors, dealers, retailers, and fishermen to compete on a national and global level by meeting a growing demand for "certified sustainable" seafood products.

- **Rapid Assessment** –The product certification program began with a rapid assessment of ongoing or previously conducted endeavors across the Gulf. A contract was executed with MRAG of the Americas to assess pertinent past efforts at sustainability certifications in the Gulf, to define shortfalls in these efforts that may have led to incomplete or failed certifications, and to develop a ranking of species within the Gulf that would likely be positioned for certification in accordance with acceptable Food and Agricultural Organization of the United Nations (FAO) standards in the reasonably near future. The Assessment was completed in July 2011 and presented to the Ad Hoc Committee at its meeting in August 2011. The Committee will begin examining options regarding further certification activities at its meeting in October 2011.
- **Traceability** – The ability to track Gulf products from their source to the Consumer is a key component in the certification process. As a result, GSMFC executed a contract with Trace Register of Seattle, Washington in June 2011 for the implementation of a Gulf wide traceability program.

Implementation of this project is well under way and GSMFC staff has worked closely with Trace Register in an effort to promote the concepts and benefits of product traceability at the source level. Concurrently, Trace Register is working at the wholesale/retail level to facilitate the chain of custody connection between the harvest and the consumer.

Because participation in the program is voluntary, support of key industry leaders is imperative. Meetings have been held across the Gulf with key leaders to promote participation and to establish industry confidence in the program. To date, processors in the blue crab, oyster, and shrimp industry as well as a number of industry associations and restaurant groups in the Gulf have begun the process of implementing traceability procedures and recommendations; or have indicated a willingness to begin. Among these are processors such as Motavatit Seafood in Houma, LA, Pontchartrain Blue Crab in Slidell, LA, the New Orleans Fish House, and Western Seafood in Freeport, TX. Industries such as these are expected to set the standard for other industries to follow. Similar meetings with Mississippi, Alabama and Florida are anticipated over the next few months.

In concert with the above, GSMFC is working with the Blue Fin data group to develop the ability to incorporate Fisheries Information Network (FIN) data with traceability information needs. The intent of this effort is to develop a mechanism that allows trip ticket information (provided under the FIN program) to be provided to the traceability contractor at the same time. Because of confidentiality concerns, those commercial fishermen, processors and dealers who choose to

participate in the traceability program can choose which information they want provided to the traceability program.

Traceability Outreach - In further support of the Traceability program, a contract with the CRG group for outreach services has been executed. The intent of this job is to supplement ongoing outreach efforts in order to assure a comprehensive awareness and understanding of the traceability program. Outreach will be through direct contact with potential participants and via electronic information systems.

### **Stock Assessment Enhancement Program**

The Stock Assessment Enhancement Program (SAE) was created in response to the BP Deepwater Horizon disaster. Congress allocated \$10M to conduct an expanded stock assessment of the fisheries of the Gulf of Mexico. Such expanded stock assessment shall include an assessment of the commercial and recreational catch and biological sampling, observer programs, data management and processing activities, the conduct of assessments, and follow-up evaluations of such fisheries. The funds were appropriated to the Commission via a cooperative agreement and will be used to fund a variety of activities including state trip ticket operations, menhaden port sampling, implementation of for-hire logbook program and expansion of fishery independent sampling in the Gulf of Mexico. These activities will be conducted from 2011 to 2015. A summary of the activities and budgeted amounts are listed below.

### **ITEMS INCLUDED FOR FUNDING IN SAE COOPERATIVE AGREEMENT**

#### ***Coordination and Administration of SAE Activities - \$254,000***

This task will provide for the coordination, planning, and administration of SAE activities throughout the year. There is funding for this activity for 2011 (all activities) and 2012 (logbook program).

#### ***Gulf Menhaden Port Sampling - \$62,000***

This task will provide for sampling of gulf menhaden catches from menhaden purse-seine vessels that operate at in Louisiana. Samples will be processed for size and age composition for use in coast-wide stock assessments. In turn, gulf menhaden stock assessments are incorporated into the Fisheries Management Plan for the species, and are also utilized by the Gulf Coast states, the GSMFC, the menhaden industry, and the NMFS. There is funding for this activity for 2011 only.

#### ***Trip Ticket Program Development and Operation - \$1,077,000***

This task will provide for the further development and implementation of commercial trip ticket systems in the Gulf of Mexico. This task will provide for continued development and implementation of components for a commercial trip ticket system to census the commercial oyster and finfish fisheries landings in Mississippi using the data elements and standards developed by the ComFIN. It also provides funding for Texas, Louisiana and Alabama to operate their trip ticket programs. With the full implementation of trip tickets in Mississippi, all five Gulf States will have operating trip ticket programs, which allows for a complete census of all

commercial fisheries landings in the Gulf of Mexico. In addition, it provides funding for a contractor to implement and operate an electronic trip ticket reporting program that allows for a more efficient means for dealers to report the necessary data. There is funding for this activity for 2011 only.

***Cooperative For-hire Logbook Reporting Program - \$1,657,000***

This task will provide for Texas, Louisiana, Mississippi, Alabama, and Florida personnel to collect catch and effort data via a logbook system (either electronic or paper) and validation activities to verify the information collected from the logbook utilizing existing methodologies developed under the Marine Recreational Information Program (MRIP) logbook program. It will focus on all charter vessels that possess federal for-hire permits for reef fish and/or pelagic fish in the Gulf of Mexico. There is funding for this activity for 2012 only.

***Enhancement of Fishery-Independent Sampling - \$3,100,000***

This task will provide for the GSMFC to contract with various state and academic entities to charter research vessels for the conduct of fishery-independent surveys throughout the Gulf of Mexico. The specific sampling protocols will be developed by the NMFS-SEFSC in conjunction with the Gulf States and the Commission. Detailed sampling activities are included. There is funding for this activity for 2011 only.

**GRAND TOTAL \$6,150,000**

**BASIC DESCRIPTION OF SURVEY ACTIVITIES**

A fishery independent survey will be conducted along the Gulf of Mexico continental shelf from Brownsville, Texas to the Florida Keys using bottom longlines and vertical lines (bandit reel gear). A total of 6 vessels (four rigged for bottom longline and two rigged for vertical longline) will be contracted from April 1 through October 31, 2011. Sampling will occur for up to 12 hours each day. It is anticipated that approximately 2300 stations in total, averaging 4.5 stations per day. The bottom longline survey will use the same gear and sample methodology used by the NMFS bottom longline survey. Bottom longline sites will be selected using stratified random sampling with proportional allocation between the 9-m and 366-m isobaths. Stratum boundaries will be defined by region (60 nautical mile contiguous zones along the coastline) and depth (9 m – 55 m; 55 m – 183 m; and 183 m – 550 m). The gear will consist of monofilament mainline (1 nautical mile length; 4-mm, 426-kg test) with 100 #15/0 Mustad circle hooks on monofilament gangions (3-mm, 332-kg test). The bottom longline will soak for 1 hour (time from last radar reflector buoy deployment to first radar reflector buoy retrieval). Hooks will be baited using Atlantic mackerel (*Scomber scombrus*) cut to fit the circle hooks. Catch will be bought on board (for sharks less than approximately 1.5 m in total length), identified, weighed, and measured; otoliths will be removed (and properly archived) from appropriate species for age determination purposes. Live sharks will be tagged and released. For sharks too large to be landed, a landing sling with a remotely operated electronic dynamometer will be used to obtain specimen weights and size (if sea conditions are favorable).

Two of the bottom longline fishing vessels will fish simultaneously with the two bandit fishing vessels outfitted with the side scan sonars. The longline vessel will first set the longline and conduct a CTD cast. The bandit fishing vessel will then transect over the bottom longline using



the side scan sonar. If relief or hard bottom is observed with the side scan it will be noted. Additional sampling will be conducted by the bandit fishing vessels (see below).

Longline sets and haulbacks will be monitored using a shipboard SCS/FSCS computer system operated with weatherproof laptop computers with touch screen options. SCS/FSCS software will allow the acquisition of data to describe set and haulback events (GMT time/date stamp, position and any connected ship sensors, e.g. depth from echosounder.) Environmental data will be collected using a CTD during the bottom longline soak to obtain temperature, salinity and dissolved oxygen profiles.

The two bandit fishing vessels will each be equipped with a side scan sonar. The bandit fishing vessels will follow the bottom longline vessels and fish simultaneously along the longline set. Bandit reels will be deployed to collect samples for comparison with bottom longline catches. The bandit fishing survey will also sample natural reefs located in the Gulf of Mexico. One vessel will be located in the eastern Gulf and one vessel will be located in the western Gulf. A total of 2800 stations will be sampled based on an average of 400 stations per month.

Paired bottom longline and bandit fishing will occur along the continental shelf of the northern Gulf of Mexico in depths between the 9 m and 183 m isobaths. The bandit fishing vessels will follow the bottom longline vessels and fish simultaneously along the longline set. The bandit fishing vessels will fish at the site selected to set the bottom longline gear and up to 5 other randomly selected sites along the longline (within 0.1 nautical miles from the bottom longline). The longline vessel will first set the longline then the bandit fishing vessel will transect over the bottom longline using the side scan sonar. While the bottom longline is fishing and hauling back gear, the bandit fishing vessel will sample the sites using three bandit reels fished simultaneously. The reels will use ten hooks per reel and soak on the bottom for 5 minutes. The reels will use different sized circle hooks, one will use #8/0, one #11/0 and one #15/0.

When the bottom longline vessels are fishing in depths >183 m the bandit fishing vessels will conduct sampling on natural reefs in depths between 9 m -183 m. A two-stage sampling procedure will be used to select natural reef sample sites. The first stage or sample universe will be defined by blocks (10' latitude x 10' longitude) that were identified by fishers in the reef fish fishery and by fishery independent surveys as containing reef habitat. The blocks that are sampled will be selected randomly each month from the sample universe. The second stage will use the side-scan sonar to survey up to 6 randomly located transect lines within each selected block. The waterfall plots from the side scan will be examined to develop a list of reef sites and non-reef sites. Bandit gear will be fished at 7 randomly selected reef sites and 3 randomly selected non-reef sites.

The reels will use ten hooks per reel and soak on the bottom for 5 minutes. The reels will use different sized circle hooks, one will use #8/0, one #11/0 and one #15/0. The bandit reel will use 300 m of 2-mm light blue monofilament (181-kg or 400-lb test) as the mainline. A 6.71-meterlong (22 ft) detachable bandit gear section (backbone) attaches to the terminal end of the main line and is also 2-mm light blue monofilament. Ten gangions are attached at intervals of 61 cm (2 ft) and are construction of 45.36-kg (100 lb) test twisted monofilament line. A 5-kg weight



is placed at the terminal end of the backbone to insure stability and fishing throughout the water column.

Bandit sets and haulbacks will be monitored using a shipboard SCS/FSCS computer system operated with weatherproof laptop computers with touch screen options. SCS/FSCS software will allow the acquisition of data to describe set and haulback events (GMT time/date stamp, position and any connected ship sensors, eg. depth from echosounder). Environmental data will be collected using a CTD during the bandit fishing soak to obtain temperature, salinity and dissolved oxygen profiles.

Sampling design may be modified at the discretion of the NOAA Fisheries Service.

### **Executive Committee Report**

**Mike Ray** reported that the Executive Committee met on Wednesday, October 19, 2011. The 2010 audit, which had been previously approved by ballot, was discussed. Piltz, Williams, & LaRosa & Company have performed the audit for the past fourteen years. The main focus on the audit was that an unqualified opinion was received, which is the best opinion one can receive. There were no material problems in the financial data. **A motion was made Joe Gill to accept the 2010 Financial Audit. It was seconded by Mike Ray and passed unanimously.**

The Financial Statement as of September 30, 2011 was discussed. Financial Statements are electronically sent out once a month and includes the Statement of Cash, Statement of Revenues and Expenditures by Fund, and a Consolidated Statement of Revenues and Expenditures. **A motion was made Joe Gill to accept the September 2011 Financial Statement. It was seconded by Mike Ray and passed unanimously.**

The 2012 budget was reviewed with an overview of each of the Commission's programs. The budgeted amount for 2012 is \$15,259,552. It's an increase by about 1.7 million, and most of the increase is due to contractual expenses for ODRP, which is 1.3 million. Stock Assessment increase \$520,000. Economic Data increased \$377,000. FIN decreased \$150,000. Currently the Commission has 70 Sub-Awards. Fifty seven of the seventy Sub-Awards are awarded to the five Gulf States. Mike Ray mentioned that Texas has made one early payment for dues. EDRP I & II will be extended from 2012 to 2013. **A motion was made by Joe Gill to adopt the 2012 GSMFC budget for the amount of \$15,529,552. It was seconded by Mike Ray and passed unanimously.**

The Executive Committee recommended the following regarding staff compensation:

- Fisheries Disaster Coordinator work week be reduced to 32 hours but he would still be considered a full-time employee.
- 3% or a minimum of a \$1,000 raise for all employees who have been with the Commission for at least one (1) year.

**A motion was made by Joe Gill to approve the Executive Committee report with those recommendations. It was seconded by Camp Matens and passed unanimously.**

## State Director's Reports

**Due to time constraints, Dale Diaz made a motion that written state reports be included in the official minutes. Joe Gill seconded and the motion was approved.**

### **ALABAMA**

#### Fisheries Section

The Alabama Marine Resources Division (MRD) Director, Vernon Minton, passed away on December 27, 2010. He had been an employee of MRD for 32 years and had spent the last 20 years as the Division's Director. Vernon's accomplishments to our marine resources are long and distinguished and he will be truly missed. Major Chris Blankenship has been named Acting Director of the Marine Resources Division.

Newly elected Alabama Governor, Robert Bentley, was inaugurated in January. With the new governor came a state-wide administration change. N. Gunter Guy, Jr. has been appointed as the Commissioner of the Department of Conservation and Natural Resources.

EDRP fisherman assistance programs in Alabama were concluded on November 30, 2010. These programs provided economic assistance to fishermen through the submission of detailed, trip level data sheets completed by eligible participants.

The Little River Bay marsh rehabilitation project located near Bayou La Batre completed during the fall of 2010 has received three awards for its design and engineering accomplishments. Funding for this project was provided through the Emergency Disaster Recovery Program (EDRP).

MRD continues to operate EDRP oyster recovery projects. We are currently preparing to coordinate the relay of oysters and cultch material from reclassified waters in upper Mobile Bay to a newly constructed reef in lower Mobile Bay. A relay program conducted in March 2010 relocated 6 million pounds of material to this new reef. The tentative start date for the relay is March 28.

The use of oyster management stations was implemented in October 2010 with the temporary opening of the newly created relay reef. Over 12,000 sacks were harvested during the brief opening.

Site surveys are being conducted for the possible creation of two near shore artificial reef zones located in Alabama state waters near Orange Beach. If approved by the USACE, materials will be deployed later this year and will be funded through EDRP II monies.

MRD is working with architecture and engineering firms to develop plans for the construction of a new laboratory and office facility at Claude Peteet Mariculture Center (Gulf Shores) and the renovation of boat basins located at Divisional offices in Gulf Shores and on Dauphin Island. Funding for construction will be derived from Coastal Impact Assistance Program (CIAP) funds.

Hatchery equipment for the lab will be acquired using EDRP funds.

SEAMAP fall and winter cruises were completed without incident and the SEAMAP vertical line sampling program in Alabama's offshore artificial reef zones continues. The vertical line sampling program addresses reef fish abundances on structured and unstructured environments, age composition and selectivity patterns for varying hook sizes. Meetings have been held to look into expanding this sampling protocol to the rest of the Gulf.

MRD's Fishery-Independent Assessment Monitoring Program (FAMP) samples were collected and processed for biological/hydrographic data at monthly intervals to maintain continuity of the 30-year program. Bi-monthly catch reports were submitted to GSMFC.

A voluntary no cost angler registry license was implemented to address database inconsistencies identified in the NOAA/AL National Angler Registry MOU. Exempted individuals such as lifetime license holders and residents over the age of 64 are now able to register annually. A regulation making this registry an annual requirement has been proposed to the Alabama Conservation Advisory Board.

The 2011 editions of MRD's Marine Information calendar and Children's Art calendar were published and distributed. These publications are highly sought after.

### Enforcement Section

The Alabama Legislature passed an Oyster Management Bill in April 2010 that will allow the MRD to better manage our oyster resources. The bill allows for the implementation of oyster management stations to allow us to better record the amount and condition of harvest. The bill also changed the tolerance for undersize oysters, standardized the information required on the harvest tags, increased the cost of the tags to include the cost of printing, expanded the use of dredges, removed the ability for private lease holders and others to take seed oysters from the public reefs, expanded our oversight of the marking of private leases, created a shell fee to pay for planting and other oyster management costs, and raised the fines for violations. Multiple regulations were signed by the Conservation Commissioner in November of 2010 that clarified the legislation and set a shell fee of \$2 per sack of oysters harvested. These funds will be used to enhance and manage the oyster resources of Alabama. The regulations also established the requirement for oyster harvesters to check in/check out at management stations and set harvest times to coincide with the Alabama Department of Public Health time/temperature matrix.

MRD is one of the charter organizations establishing a BEST team at the Port of Mobile. The Border Enforcement Security Team (BEST) has conducted several operations in the Port area since its formation late last year.

The Enforcement Section continued to expand its Coastal Remote Monitoring Program into Baldwin County. Full implementation of this system will provide up to 30 high resolution cameras at different locations throughout coastal Alabama areas. The video is available through a web-based portal and will be accessible to officers in the field via a wireless internet connection. Not only are the officers able to access the video, they are able to navigate the

camera through a web interface. The video is being stored for up to three weeks on secure servers and is time and date stamped for use as evidence. The sensors include closed-circuit television, thermal, and infrared cameras.

### MRD Oil Spill Response and Activities

MRD has submitted a proposal to BP for the implementation and operation of a seafood testing program. Although negotiations for this program are still ongoing, MRD has begun collecting specimens for seafood safety tissue analysis.

A claim has been submitted to BP for the loss of saltwater fishing license sales revenues for the months of May through August 2010 as incurred due to the Deep Water Horizon incident. The status of this claim is pending.

MRD continues to work with GSMFC in the implementation of the ODRP and associated seafood marketing and sustainability programs.

Reports of several dead juvenile dolphins were recently reported in Alabama. The Institute of Marine Mammal Studies (Gulfport, MS) responded to this incident however no report has been issued indicating the cause of death.

MRD continues to work with Natural Resource Disaster Assessment (NRDA) process.

## **FLORIDA**

### **Division of Marine Fisheries Management**

Director: Mark S. Robson (Retired)/Jessica McCawley (Appointed September 2011)

The major responsibilities of the Division of Marine Fisheries Management include: (1) development and implementation of marine fisheries management and policies, (2) angler outreach and marine aquatic resource education, (3) commercial fisheries assistance, (4) the state artificial reef program, (5) monitoring compliance with the marine fisheries trip ticket reporting requirements through audits of applicable fish house records, (6) administrative penalty assessments for violations of specified fisheries regulations, retrieval of lost and abandoned spiny lobster, stone crab and blue crab traps, and (7) issuance of Special Activity Permits. Highlights of staff efforts in 2011 [i.e., state fiscal year 2010/2011] are summarized below.

The 2011 Florida Legislature reduced the Division of Marine Fisheries Management operation budget by 7 %.

### **Marine Fisheries Management & Policy Development Section**

The Marine fisheries management and policy development program develops regulatory and management recommendations for consideration by FWC Commissioners designed to ensure the long-term conservation of Florida's valuable marine fisheries resources.

The 2011 Florida Legislature made no amendments to the statutes regarding marine fishery licenses, fees or penalties.

During the state fiscal year 2010/2011, the Florida Fish and Wildlife Conservation Commission (FWC) approved a number of amendments to marine fisheries rules contained in Chapter 68B of the Florida Administrative Code.

Amendments were made to the commercial ballyhoo, marine life, blue crab and stone crab fisheries to provide harvesters more flexibility by allowing the transfer of their fishing license endorsements to other harvesters from May 1 through the end of February. This allows additional time for harvesters to transfer their endorsements for these fisheries each year.

Further amendments were made to the commercial blue crab fishery including amending the six 10-day rolling closures so that they occur every other year instead of annually. Three of the six closures will occur each year, alternating by coast. Additionally, clarifying rules were created stating that a harvester may hold up to two soft shell endorsements, tags can be ordered anytime during the year and blue crabbers that experience boat problems can temporarily designate another boat to pull their commercial traps while their primary boat is being repaired.

FWC's Spanish mackerel and reef fish rules were amended to be consistent with federal regulations for Gulf of Mexico and South Atlantic waters. Spanish mackerel was amended to change the commercial fishing year for Spanish mackerel in Atlantic state waters from April 1 through March 31 to March 1 through the end of February each year and the start date for the 3,500-pound vessel limit was changed from April 1 to March 1.

For reef fish, the FWC created a fall season consisting of eight Friday through Sunday recreational harvest weekends for red snapper in the Gulf of Mexico from October 1 through November 21, 2010. The FWC again addressed the recreational red snapper season in 2011 and established a June 1 through July 18 season for red snapper in the Gulf of Mexico for 2011. The recreational harvest of greater amberjack in the Gulf of Mexico was also prohibited from June 1 through July 31, each year, to become consistent with the newly implemented federal closure in Gulf waters.

The FWC also added the requirement to hold a gulf grouper IFQ account to commercially harvest grouper in Florida waters of the Gulf of Mexico. The FWC also implemented consistent rules with the federal interim rules for gag grouper which prohibited the recreational harvest and possession of gag grouper in all state waters of the Gulf of Mexico, excluding Monroe County, during the following closed periods in 2011: June 1 through September 15 and November 16 through December 31.

Between July 1, 2010, and June 30, 2011, the FWC implemented 10 Executive Orders in response to the Deepwater Horizon Oil Spill. These 10 Executive Orders were in addition to the 18 that were issued in early 2010. The Executive Orders included area closures and openings off Escambia County (Pensacola), a temporary extension of the commercial saltwater products fishing license expiration date and earlier openings or extended fishing seasons for specified fisheries.

## **Angler Outreach and Marine Aquatic Resource Education**

The objective of this activity is to inform the public and to increase public participation in the management and preservation of Florida's marine resources by heightening their awareness of and personal responsibility toward these resources.

Overall there were: (1) 52,654 outreach fishing event contacts; (2) 1,503 presentation and seminar contacts; (3) 69,798 email, telephone, mail outs and in-person contacts; and (4) 1,511,553 website contacts during fiscal year 2010/11.

Twelve Kids' Fishing Clinics (KFC) were conducted in coastal cities throughout Florida. A total of 3,333 children, 529 volunteers and an estimated 1,543 parents attended the KFC's. All participating children received a rod and reel combo provided by Fish Florida! or purchased with donations from individuals and businesses from the hosting community. Fishing vessel partners took 428 participants on fishing excursions to reinforce the Kids' Fishing Clinics curriculum.

Through a partnership with an owner of a fishing fleet over 1,000 children participated in 25 fishing trips as part of a new modified version of the Kids' Fishing Clinics. Ethical angling concepts (fish handling, catch and release techniques and regulations), habitat conservation (No Habitat- No Fish!), knot tying and casting were all taught to the children aboard the fishing vessel. After conclusion of the educational sessions, the children were able to fish and practice what they just learned. Several groups that participated in this program included urban youth organizations, county schools and Boys & Girls Clubs.

Four *Ladies, Let's Go Fishing* (LLGF) seminars were conducted in four locations. A total of 155 women participated. In addition to learning what FWC does to conserve fisheries resources in Florida, the participants at these events learned about how they can have a positive impact on Florida's marine resources and what they can do to promote fish conservation while fishing.

Two one-day events targeting 34 current and future female recreational anglers were conducted. These shore-based clinics focus on the Sport Fish Restoration Program, basic saltwater fishing skills (casting, knot tying, rods and reels, conservation equipment, terminal tackle and lures/bait), how FWC functions to conserve marine fisheries resources (research, outreach and management), catch and release techniques and ways participants can support and be actively involved in the conservation of Florida's marine resources.

Seven events were attended by 261 youth in the Cedar Key region. At these events the participants were provided with information about importance of marine habitats to coastal fisheries, how they as anglers can conserve fish resources and ways they can contribute to the overall enrichment of marine resources. The participants also conducted field sampling activities similar to what state biologists do to gather resource data for management.

A partnership with the International Game Fish Association (IGFA) and their community marine education and outreach efforts was continued by providing various FWC marine resource publications (*e.g. Fishing Lines* magazine) for participants in their education activities and Junior Angler tournaments. IGFA continues to incorporate specific aspects of FWC curricula (*e.g. Kids' Fishing Clinic* stations) into their educational activities.

Partnered with several other agencies and organizations to conduct environmental education projects aimed at marine resource conservation including: Mote Marine Laboratory, Florida Sea Grant and Florida Fish and Wildlife Research Institute.

Distributing FWC/SFR educational literature aimed at heightening citizens' awareness of and personal responsibility for protecting Florida's marine resources. Educational information was distributed by fishing clubs, tackle shops, Florida state parks, Florida state aquatic preserves, fishing organizations (such as IGFA), National Estuarine Research Reserves, Florida Keys National Marine Sanctuary, Florida Sea Grant, International Game Fish Association and FWC field offices.

The following educational publications were made available to the public through numerous events. Most of these publications are also available on-line and the links to each publication are provided below.

- *Fishing Lines: An Angler's Guide to Florida's Marine Resources*  
<http://www.myfwc.com/fishing/saltwater/fishing-resources/fishing-linesmagazine/>
- *Florida Recreational Saltwater Fishing Regulations (English and Spanish editions)*  
<http://www.myfwc.com/fishing/saltwater/regulations/>
- *Fish ID Poster series by artist Diane Rome Peebles*
- *Sea Stats*  
<http://research.myfwc.com/products/products.asp>
- *Catch and Release Techniques*  
<http://www.myfwc.com/fishing/saltwater/fishing-resources/>
- *Florida Boater's Guides*  
<http://research.myfwc.com/products/products.asp>
- *Kids Fishing Activity Book (Freshwater and Saltwater)*
- *Monofilament Recycling and Recovery Program*  
<http://mrrp.myfwc.com/educational-materials.aspx>

One new Boater's Guide, *Treasure Coast South* (12,000 copies) was produced and printed. The Tampa Bay Boater's Guide was updated and 20,000 copies of this guide were printed.

In the Apalachee Bay/Apalachicola Bay region of the Florida Panhandle, staff interacted with anglers at boat ramps, tackle shops and other fishing related events to promote fisheries conservation, resource stewardship and the Sport Fish Restoration Program. This work included giving presentations at various fishing club meetings in the region. In the Cedar Key region (Big Bend area of Florida), O&E staff performed similar activities targeting anglers that resulted in 1,195 anglers and other resource users receiving information about marine fisheries conservation, SFR and habitat conservation. Staff responsible for this program conducted similar activities at other locations (and with other organizations) around the state interacting with 500 anglers.

Modified versions of KFC's called *Nature Coast Fishing for Youth* (formerly known as *1-2-3 FISH*), were conducted in Cedar Key, Florida, during the summer months. Five youth events were conducted with participation from 122 youth. The participants in these programs learned about the importance of marine habitats to coastal fisheries, how they as anglers can conserve

fish resources, the basics of saltwater fishing and ways they could reduce pollution while fishing. These events were partially supported by Fish Florida!, which provided rods, reels and tackle boxes to the participants.

Fifty educational tours and nine fishing events were conducted at the Florida Fish and Wildlife Conservation Commission's Stock Enhancement Research Facility. Over 900 children and adults participated in these hands-on activities designed to increase their knowledge of marine fisheries conservation, ethical angling and habitat preservation. Partnering organizations included The Florida Aquarium, Tampa Bay Watch, Anclote Key Anglers Club, Tampa Bay Fly Fishing Club, Manatee County Sheriff's Youth Ranch, the Florida Sheriff's Youth Ranch, and the Make a Difference Fishing Tournament Foundation.

Thirty-three workshops were conducted to familiarize new teachers with the use of aquatic field activities and gear used to educate students about marine conservation, the various coastal habitats in Florida and the important link uniting saltwater fish and their habitat. Six hundred fifty marine educators completed the workshops and received a certificate that provided them the necessary authority to conduct aquatic field activities. These workshops convey best practices knowledge and skills that the participants can use when bringing groups of students to aquatic environments. These workshops took place at various educational facilities statewide and were taught by trained workshop facilitators. Workshop participants were provided with information about marine fisheries conservation, the SFR program and marine resource educational activities.

Over 500 copies of the Sport Fish Restoration Program brochure were distributed at numerous events. This publication was also distributed upon request and is on the FWC website.

Staff distributed a video (*Conserving Florida's Marine Fisheries*) covering the Sport Fish Restoration Program, It's in Your Hands and Catch and Release. Over 300 copies of this DVD were distributed to fishing clubs, anglers, marine science educators and other interested citizens.

*Fishing Lines* magazine, a Florida Fish and Wildlife Conservation Commission (FWC) publication that highlights information about the SFR Program and Florida's saltwater SFR programs, was reprinted after minor edits and updates were incorporated. About 30,000 copies of this publication were printed for distribution to anglers. The issue contains general fishing information and personal stewardship responsibilities for conserving and enhancing Florida's marine fisheries resources.

Over 9,000 copies of various *Boater's Guides* were distributed statewide at angler and boater events and in response to requests for information.

Staff also distributed several promotional items to increase the knowledge about and benefits of the SFR program to anglers and the general public. These items have information about the SFR program, its benefits to Florida and some general fisheries conservation messages. These items include water bottles, pencils, floating key chains, reusable bags and adhesive fish length rulers. The water bottles, pencils and bags are made from recycled materials. These items were distributed at fishing club meetings and other events where staff interacted directly with anglers.



Digital and print images continue to be collected and added to the photograph library. Representatives collect images from each grant, and images are also collected from all FWC outreach and education events. Staff continued to add to the inventory and assessment of existing photographs to determine suitability for use in publications [photograph of acceptable quality] and need for future publications. Staff continued using the SFR displays produced to promote the SFR program and its value to Florida's recreational anglers. Examples of these displays include vertical roll up banners, table top displays and a large floor display. Some of the events these displays were utilized at include: the International Game Fish Association Fishing Expo, the Apalachicola Seafood Festival, the St. Marks National Wildlife Refuge Wildlife and Heritage Outdoor Festival and the Creating the Next Generation that Cares event.

FWC staff worked with organizations and schools to showcase Florida's SFR programs through the established fish loan program. FWC loaned hatchery-raised red drum to Bottled Ocean (Gaylord Palms Resort), the St. Petersburg Pier Aquarium, Florida Oceanographic Society, Florida Gulf Coast University, the Oregon Coast Aquarium, Rookery Bay National Estuarine Research Reserve, Loggerhead Marinelife Center, the Environmental Learning Center and the FWC Cedar Key Field Lab. Staff also provided educational publications for public distribution at these locations. A total of 543 hatchery-bred fish were provided to these facilities.

FWC loaned hatchery-raised juvenile fish to seven schools through the *Aquaculture in the Classroom* program. Educational materials on the fundamentals of marine aquaculture and fisheries enhancement were also provided to the schools.

A 350-gallon Sport Fish Aquarium with Discovery Rail, an Interactive Smart Screen and a Kids Activity Cube offer ways for the public to interact by virtually touching a screen to learn about Sport Fish Restoration, Marine Fisheries Research and Marine Fisheries Management in Florida. There are also two Interactive Kids Activities pages and an Interactive Kids Activity Cube that teaches children how to measure a fish, bait a hook and identify what they have caught. It also teaches them where fish live.

Staff provided information about outreach material to a variety of media outlets. Staff continues to communicate with media contacts to update them about fisheries management and Sport Fish Restoration information.

Press releases were drafted to publicize or showcase *Kids' Fishing Clinics*, artificial reef deployment and public workshops regarding angler interests. The information was provided to agency personnel authorized to issue press releases.

### **Commercial Fisheries Assistance**

During state fiscal year 2010/2011, the FWC continued ongoing commercial saltwater fisheries regulatory assistance activities.

As many as 20,000 commercial saltwater regulation booklets were designed, printed and distributed by mail (also available on agency website). Three commercial fisheries newsletters were prepared and a total of 45,000 newsletters were distributed by mail (also available on agency website). As many as 299,000 emails were prepared and sent informing commercial

license holders, law enforcement and commercial industry representatives of 23 agency press releases (also available on agency website). As many as 5,400 telephone calls related to commercial fisheries were received and answered and 7,200 emails related to commercial fisheries were received and answered.

### **State Artificial Reef Program**

The primary program objectives are to provide financial and technical assistance to coastal local governments, nonprofit corporations and state universities to develop artificial reefs and to monitor and evaluate these reefs.

Over the spring and summer of 2011, 11 artificial reef construction projects were completed in Florida utilizing funds from the U.S. Fish and Wildlife Service's Federal Sportfish Restoration Program and managed by the FWC Artificial Reef Program with the Division of Marine Fisheries Management.

Five of the 11 (36%) new artificial reef construction activities took place on the Gulf Coast and six of the 11 (64%) were off the Atlantic Coast. Within the Gulf Coast activities, two artificial reef construction activities took place in the Florida Panhandle (Okaloosa County and Mexico Beach in Bay County), while two others took place off the west coast of peninsular Florida (Pinellas and Sarasota counties). The other Gulf Coast reef project is the Steinhatchee Fisheries Management Area Phase II artificial reef construction activity carried over from last year. This new reef was constructed in federal waters of the Florida Big Bend, located southwest of the mouth of the Steinhatchee River (southern Taylor County, northern Dixie County). Within the Atlantic Coast activities, two artificial reef construction activities took place off northeast Florida (the city of Jacksonville and Flagler County) and four construction activities occurred off southeast Florida (Martin, Palm Beach, St. Lucie and Miami-Dade counties). There were also three artificial reef monitoring projects under way in 2011. These various projects are summarized below.

#### Miami-Dade County (Southeast Florida)

Miami-Dade County deployed 700 tons of artificial reef material types consisting of limestone boulders and clean concrete material. A total of four artificial reefs were constructed to create habitat corridors at two separate artificial reef permitted sites, one inshore and one offshore of the county's coast.

The inshore reef site received a total of 350 tons of reef material within the Mercy artificial reef site, located within Biscayne Bay directly east of Mercy Hospital in South Miami at a depth of 12 feet. The reef had six feet of vertical profile. The offshore reef site received a total of 350 tons of materials within the Key Biscayne Artificial Reef Site located approximately four nautical miles at a 120 degree bearing from Marker "G" in Government Cut, directly east of Key Biscayne in federal waters at a depth of 64 feet. This reef had nine feet of vertical profile.

#### Martin County (South Central Florida East Coast)

Martin County deployed 1,200 tons of concrete culverts, clean concrete rip/rap and other concrete modular construction materials divided among three patch reefs within the Martin South County Reef permitted area named the Lee Harris Reef. Each of the three patch reefs consist of

concrete materials placed as a single pile of about 400 tons located about 1,475 feet apart from each other in the center of the permitted site.

St. Lucie County (South Central Florida East Coast)

St. Lucie County deployed a total of 1,996 tons of concrete culverts, concrete light poles and concrete bridge pilings in two patch reefs within the North County Nearshore Reef permitted area. Each of the two patch reefs consisted of concrete materials placed as a single pile (approximately 1,000 tons each), placed about 4,400 feet apart from each other near the northeast corner of the permitted site at depths of 56 feet and 61 feet, respectively.

Okaloosa County (Northwest Florida)

Okaloosa County constructed a reef comprised of 32 prefabricated concrete and steel reef modules weighing a total of approximately 80 tons within the county's Large Area Artificial Reef Site (LAARS) site "A." The reef is comprised of 16 separate locations forming an "X" pattern with two units per deployment location. Each patch reef of two units is approximately 500 feet apart. The deployment location is approximately 14.7 nautical miles on a bearing of 151 degrees from the Destin East Pass inlet in about 110 feet of water. The center of the "X" pattern is occupied by the recently deployed 55-foot tug *Monica Lee*, which was a separate county-private nonprofit partnership effort.

Jacksonville, City of (Northeast Florida)

The city of Jacksonville constructed a reef comprised of 700 tons of concrete junction boxes, culvert pipe, concrete bridge pieces and pilings at a depth of 75 feet within the Floyds Folly (FF) Artificial Reef Site. The reef was deployed as single cluster in a liner pattern with stacking providing a relief of 10 feet. The footprint is roughly 644 square feet.

Pinellas County (West Florida)

Pinellas County constructed a reef comprised 1,050 tons of concrete culvert pipe, slabs, piling cutoffs and power poles at two patch reef locations at a depth of 42 feet within the Rube Allyn Artificial Reef Site. The reef was deployed as two patch reefs each consisting of about 510 tons of concrete material. Each of the reef sites is the same general deployment design and separated by approximately 800 feet at a depth of 42 feet.

Flagler County (North East Florida East Coast)

Flagler County deployed 510 tons of concrete slabs and pilings recovered from a bridge replacement project as a single patch reef within the Flagler County Reef Site #3 permitted area. The patch reef consists of concrete materials placed as a single pile with an anticipated footprint of 10,000 square feet and vertical profile of up to 10 feet at a depth of 68 feet.

Palm Beach County (Southeast Florida)

Palm Beach County deployed 900 tons of limestone boulders at a depth of 25 feet within the Boynton Reef Inlet Artificial Reef Site. The 3-4 feet diameter limestone boulders were stacked at least two high for approximately eight feet of vertical profile. The patch reef is a single pile within the southern quadrant of the permitted area at a depth of 25 feet.

#### Mexico Beach, City of (Northwest Florida)

The city of Mexico Beach, located in eastern Bay County, deployed 44 concrete and concrete and steel modular units of three different designs. The 44 modules equate to about 80 tons of reef materials distributed among 13 patch reefs at two different permitted sites, with approximately two to 13 modules placed at each patch reef for an average of 5.8 modules per patch reef.

#### Sarasota County (Southwest Florida)

The Reef Ball Foundation, a nonprofit, deployed 72 designed concrete Reef Ball modules at six patch reef sites within the Sarasota County Silvertooth permitted area. Each patch reef consists of 12 concrete modules with four of each of three types of Reef Ball modules placed within the central-east area of the permitted site. The three module types are: (1) the "deep cover module" which is five feet long, three feet wide and two feet tall with a weight of approximately 2,000 pounds, (2) the "reef block unit" which is two and a half feet tall, three feet wide and weighing approximately 1,000 pounds, and (3) the Pallet Ball which is three feet tall, four feet wide and weighs about 1,300 pounds. The water depth at this site is 30 feet.

#### Steinhatchee - University of Florida (Big Bend Florida)

To enhance the habitat quality of hard-bottom Essential Fish Habitat (EFH) for juvenile gag grouper, a total of 1,800 prefabricated reef cube units were deployed over the summer of 2011 as 450 standardized reefs. Each reef was comprised of four concrete cubes (concrete cubes are 88.9 cm on a side with an open 61 cm diameter hole through the middle). This project was a construction effort whose implementation was delayed the previous summer by the Deepwater Horizon Oil Spill. Each of the 450 four-cube patch reefs were deployed at pre-planned, randomized specific scattered locations no closer than 250 meters from their nearest neighbor, under the direction of the University of Florida's principal investigator for the project, Dr. William Lindberg.

All patch reefs were deployed within a 100 square mile permitted area known as the Steinhatchee Fisheries Management Area (SFMA). The triangular permitted area is in federal waters of the Gulf of Mexico. These patch reef deployments now occur at depths between 32-53 feet.

In addition to funding the construction of 1,800 concrete cubes (450 patch reefs), vessel transport and site specific patch reef deployment by crane, funding for this task also included production of a lifting assembly unit with a quick release mechanism that simultaneously deployed by crane four, one ton concrete cube modules at a time as a standardized patch reef. These reef locations will not be made public since this is a research project intended for long term monitoring. Reef deployment guidance and oversight support was provided by research staff at the University of Florida under the direction of Dr. Lindberg.

#### **Artificial Reef Monitoring Projects**

The FWC is also funding the continuation of years two and three of the fish census monitoring of the 520-foot-long, steel-hulled, former missile tracking ship the General Hoyt Vandenberg, sunk as an artificial reef in 2009 six miles south of Key West. This monitoring project continues to document the changes in fish presence/absence and relative abundance and biomass over time at the Vandenberg artificial reef site and seven reference reef sites for years two and three of the

new reef. The Vandenberg rests in 135 feet of water about six miles south of Key West at 240 27.60' N latitude and 810 44.25' W longitude. The Reef Environmental Education Foundation (REEF) is performing the fish census activities.

The FWC Artificial Reef program is also providing funding to the University of West Florida to conduct acoustic tracking of selected reef fishes associated with modular concrete and concrete and steel units located in 110-130 feet of water in the EEZ within the Escambia East Large Area Artificial Reef Site, 15 nautical miles south of Pensacola Pass. Work is expected to be conducted during fall/winter 2011. The project will conduct a multidisciplinary, process-oriented study using an acoustic array of 16 Vemco VR2 receivers deployed in a defined pattern over a 22 km<sup>2</sup> area to continue work on the ecological function of small artificial reef patch reefs deployed by the FWC in 2003. Twenty-five reef fish will be tagged and tracked over a three-month period to produce three-dimensional tracks of fish and estimate home ranges and factors effecting tagged fish. Results of this study will add to our knowledge of reef fish ecology on small-scale artificial reefs off the Florida Panhandle.

The FWC and Escambia County will continue sampling legal-size recreationally targeted reef fish (red snapper, grey triggerfish, red and whitebone pogy, vermilion snapper, grouper) for PCB analysis (using skin-on lateral muscle tissue fillets) in compliance with requirements of the EPA risk-based PCB disposal permit for the ex-U.S.S. Oriskany (CVA-34), sunk as an artificial reef in 212 feet of water 22.5 nautical miles off Pensacola Pass on May 17, 2006. Between December 14, 2006, and November 18, 2010, eight reef fish sample collection events were completed, four during the spring and four during late fall/winter. The 254 retained reef fish from the Oriskany Reef through sampling round eight included seven reef fish species: 184 red snapper, 42 vermilion snapper, 14 red pogy, six whitebone pogy, four scamp grouper, two gray triggerfish and one red grouper. Six of seven species (all but the lone red grouper sample) during one or more of the eight sampling rounds had one or more specimens whose total PCB concentrations exceeded the Florida Department of Health (FDOH) PCB screening level of 50 parts per billion and the EPA Tier 1 monitoring screening threshold of 20 parts per billion total PCBs.

Red snapper and vermilion snapper were the only two reef fish species providing enough information to evaluate mean total PCB concentration trends over the first eight sampling rounds. During the first four sampling rounds, red snapper total PCB concentration means remained above both FDOH and EPA screening thresholds, spiking during sampling round two. By sampling round five, red snapper mean total PCB levels had declined below the FDOH threshold but remained above the EPA Tier 1 screening threshold. During sampling rounds six through eight, mean red snapper PCB concentration levels fell below both EPA and FDOH total PCB screening thresholds. Mean vermilion snapper levels remained consistently below FDOH and EPA screening levels from the time they became available for capture through round eight. The benthic insectivores red pogy and whitebone pogy continued through sampling round eight to have individual specimens with elevated PCB levels above EPA screening levels, or in some cases exceeding FDOH screening levels through sampling round eight. However, sample sizes were small for red and whitebone pogy and there was considerable variability in PCB concentrations among individual pogy specimens. The highest recorded total PCB concentrations for any of the individual 254 Oriskany Reef PCB sampled fish were from red

porgy (1,654.7 parts per billion (ppb) during sampling round four and 1,222.7 ppb in sampling round eight). These individual Oriskany Reef fish had total PCB levels 24 to 33 times higher than the FDOH screening level. Only four legal size piscivorous grouper (scamp) were available for capture at the Oriskany Reef with two of three captured in sampling round eight exceeding the FDOH screening threshold (highest concentrations 208.7 ppb and 94.1 ppb respectively).

The downward trends of mean red snapper total PCB concentrations to below EPA and FDOH screening levels at the Oriskany Reef and the consistently low vermilion snapper mean PCB levels presently do not require any fish consumption advisory action to be taken. The remaining species (triggerfish, groupers, and porgy) represent too few specimens sampled at the Oriskany Reef with too great a PCB variability among individuals of the same species to take any species.

Oriskany Reef sampling and monitoring will continue. Forty reef fish specimens from sample round nine collected from the Oriskany Reef on April 29, 2011, (4.9 years post-deployment) are presently undergoing analysis with results expected by the end of August 2011.

Additionally, 10 underwater visual assessments were conducted on the Oriskany Reef *over* the past few years by FWC divers, confirming that the observed recreationally targeted species found on the Oriskany are well represented among the fish retained for PCB analysis. Visual observations by FWC divers also documented that the Oriskany Reef had settled into the sediments about 10 feet at 2.5 years post-deployment and sustained minor structural change to the exterior covering of the smoke stack at 3.5 years post-deployment following the tropical storm events of 2007 and 2008, respectively.

### **Monitoring Compliance with the Marine Fisheries Trip Ticket Reporting Requirements through Audits of Applicable Fish House Records**

Monitoring the compliance with marine fisheries trip ticket reporting requirements ensures accurate fisheries information.

Five complete audits of wholesale dealers were conducted. Two additional complete audits of wholesale dealers were conducted jointly with FWC and NOAA Law Enforcement. Four other audit activities were conducted with FWC Law Enforcement, NOAA Law Enforcement and/or US Fish and Wildlife Law Enforcement. Sixteen audit investigations were conducted related to possible fraudulent trip records submission reported by FWC or NOAA Law Enforcement. As many as 136 One hundred thirty six wholesale dealers *received* delinquent reporting notices. Fifty-four petitions for informal administrative hearings were *received*, 25 informal hearings were conducted and adjudicated and *seven* petitions for informal hearings resulted in settlement agreements (22 remain). As many as 506 business emails were sent responding to audit related activities.

### **Administrative Penalty Assessments for Violations of Specified Fisheries Regulations, Retrieval of Lost and Abandoned Spiny Lobster, Stone Crab and Blue Crab Traps**

Florida Statutes specify administrative penalties for violations of specific fishery regulations.

Seventy-one administrative penalties were assessed for a total of \$214,275. Three of the administrative penalties were rescinded (totaling \$10,000). Penalties paid totaled \$17,575. Forty-

eight of the administrative penalties (68%) were for net violations and seven (10%) were for untagged crab traps, five (7%) were for lobster trap molestation, five (7%) were for wholesale dealer violations and six (8%) were license holder warnings.

The FWC currently has two programs dedicated to removing lost and abandoned traps from state waters. The Spiny Lobster, Stone Crab and Blue Crab Trap Retrieval Program contracts commercial fishermen to remove fishable traps from state waters during closed seasons. The Derelict Trap and Trap Debris Removal Program provide a mechanism to authorize volunteer groups to collect derelict traps and trap debris during open or closed seasons.

Blue crab, stone crab and spiny lobster have a number of trap restrictions and/or tagging requirements. Trap retrieval programs were conducted with revenues paid from fees received by these fisheries. Twenty nine trap retrieval trips were conducted (six for blue crab and 23 for stone crab and lobster) where a total of 2,641 traps (219 for blue crab and 2,422 for stone crab and lobster) were retrieved for a total expenditure of \$60,860. Additionally, eight debris removal authorizations resulted in removal of 3,644 traps.

#### **Issuance of Special Activity Permits**

The marine fisheries special activity license program issues licenses for activities that require a waiver of marine fisheries regulations.

Three hundred five Special Activity Licenses were issued (237) or amended (68). Forty four percent (134) were for scientific research, 31% (95) were for education and or exhibition, and 18% (54) were for tournament catch, hold and release (remainder were for aquaculture brood stock (three), denied (five), dredge (one), gear innovation (one), stock collection and release (seven) and withdrawn (five).

#### **Florida Fish and Wildlife Research Institute:**

Director: Gil McRae

#### **Finfish**

The Florida Fish and Wildlife Institute exists to provide timely information and guidance to protect, conserve and manage Florida's fish and wildlife resources through effective research and technical knowledge.

We continued our efforts to monitor and characterize the recreational snook fishery in Florida and to conduct studies to establish movements and exchange rates between groups of snook inhabiting freshwater, estuarine and coastal reef habitats and also between the major estuarine systems. We also expanded our biological sampling of snook for age and reproductive status into riverine and offshore areas not previously sampled. Monitoring of spotted seatrout courtship sounds at a key spawning site was continued and a pilot project to evaluate red drum spawning sites and site fidelity off the mouth of Tampa Bay was continued, using a similar combination of acoustic telemetry and passive acoustic monitoring as used in our spotted seatrout spawning studies.

Studies of Florida's permit fishery were initiated, with an emphasis on developing a better



understanding of the fishery and examining population movements and stock structure using both conventional and genetic tagging studies. Our studies of movements, habitat fidelity and home ranges of recreationally important reef fish species in the Florida Keys were continued, as was our effort to identify and document spawning sites of the mutton snapper (*Lutjanis analis*) and other reef fish species.

We also continued a field study to provide quantitative information on habitat associations and movement patterns of goliath grouper (*Epinephelus itajara*) within the central eastern Gulf of Mexico, as well as initiating a catch and release mortality study and continuing our opportunistic collection of life history information from specimens made available through natural mortality events or enforcement actions of this protected species. Lastly, we began development of a histological atlas of Florida reef fish using samples from FWRI's West Florida Shelf reef fish surveys.

### **Mollusks**

Bay scallop (*Argopecten irradians*) population monitoring and restoration is ongoing from Pine Island Sound to St. Andrew Bay, with success evaluated via surveys of adult abundance and recruitment patterns. All of the areas open to harvest that were surveyed in 2011 were classified as healthy except the St. Mark's region, which was in a transitional status (showing signs of recovery after low densities in 2009 and 2010). The 2011 harvest season opened six days early compared to the 2010 season, which opened 11 days early. The 2011 season was also extended to September 25, elongating the season by 21 days total in 2011.

We will conduct a post-season survey for the first time since 2003 (Steinhatchee), 2005 (St. Joe Bay and Homosassa) and 2007 (Anclote and St. Andrew Bay) to assess mortality rates in both open-harvest and closed populations. The two monitored populations in the region potentially affected by the Deepwater Horizon oil spill (St. Andrew Bay and St. Joe Bay) had densities in 2011 that exceeded those in 2010, and also had higher recruitment levels, suggesting no immediate impact. Scallop densities in most closed areas were at the highest levels seen since surveys were initiated in 1994. But two populations, Tampa Bay and Sarasota Bay, were at their lowest since surveys started there in 2007, suggesting the population in the southwest region has not fully recovered despite restoration efforts. These efforts are organized with the cooperation of FWRI, but are largely funded through micro-grants and other fund raisers by volunteer-based organizations.

Oyster (*Crassostrea virginica*) population assessment studies are being conducted in southeast Florida as part of the Comprehensive Everglades Restoration Program and also as a component of a federally-funded (ARRA) oyster restoration in St. Lucie County. Additional studies of Gulf of Mexico oysters were initiated as part of two actions related to the Deepwater Horizon oil spill: a rapid-response study meant to establish base-line metrics (which will be useful in comparing data from several Florida Gulf estuaries) and, also, as part of the Federal NRDA response. FWRI is also participating in updating the FMP for Gulf oysters. A draft version of the plan is complete and is being prepared for public comment and the 2012 GSMFC review process.

### **Crustaceans**

Research into lipofuscin age determination of Florida blue crabs continues with investigation



into the correlation of lipofuscin accumulation and chronological age. The investigation into the effect of the Blue Crab Effort Management Plan (BCEMP) on commercial blue crab effort and landings continues to track annual changes in landings, license renewals and traps tags post-BCEMP implementation. A statewide disease monitoring program, using histology and qPCR for the detection of *Hematodinium sp.* in wild populations of blue crabs continues. This program is working to understand the role of this disease in the natural mortality of blue crab populations.

We continue to identify horseshoe crab spawning beaches and collect spawning site information through an online reporting system. This reporting system continues to demonstrate annual increases in public participation and has revealed new spawning sites throughout the state.

The stone crab fishery independent monitoring program continues at nine locations along the west Florida coast. This program gathers fishery independent data on the stocks exploited in this claws-only fishery. Since the implementation of this program, sufficient data has been collected to suggest fishery specific trends that are currently being integrated into the 2012 stock assessment.

This year, Florida has experienced an increase in the reporting of Giant Tiger Prawn, *Penaeus monodon*, from the Panhandle and East coast of the state. We have distributed press releases and contact information statewide to encourage reporting from recreational and commercial fishermen. The extent of this exotic invasive population is unknown.

### **Fisheries Genetics**

With angler assistance, we continued to use DNA markers to genetically track individual tarpon in capture/recapture studies in Florida. To date, about 9,000 samples from caught-and-released tarpon have been obtained and genotyped. The majority of movements for recaptured tarpon have occurred over small distances (less than 10 km); however, some have occurred over large distances (e.g., from the Tampa Bay area to the Florida Keys).

Analyses of genetic data for spiny lobster and common snook continued. We also continued to examine the distributions of bonefish species inhabiting Florida and are completing the formal description of a newly discovered bonefish species, which occurs in south Florida, Mexico and some Caribbean locations (Wallace and Tringali. 2010. J. Fish. Bioi. 76: 1972-1983). Mean single-generation dispersal distances were estimated for members of sand seatrout populations along Florida's Gulf of Mexico coast. Observed patterns of genetic heterogeneity conformed to an isolation-by-distance model of gene flow, and individual sand seatrout can be expected, on average, to disperse from natal locations a distance of about 80 km. The genetic effective population size for the west-central Florida stock of Gulf of Mexico red drum was determined based on genotype data from more than 23,000 wild red drum ( $N_{ew} = 48,580$ ; 95% CI = 32,720 to 86,830). The effective size of hatchery red drum released during Project Tampa Bay was computed based on genotype data from more than 2,200 hatchery recaptures ( $N_{eh} = 34$ ; 95% CI = 32 to 36). Using 29 microsatellite DNA markers, about 250 specimens of hogfish from the Florida Atlantic and west-central Florida Gulf of Mexico were tested to ascertain levels of geographic connectivity. Spatially-associated genetic differentiation was not observed over the sampled range. For spotted seatrout, approximately 500 breeding adults and 650 young of the year from Tampa Bay were genotyped for mark/recapture and kinship studies, which are

ongoing.

### **Fisheries Statistics**

Fisheries-independent monitoring (FIM) of fish continues in Tampa Bay, Charlotte Harbor, Indian River Lagoon, Cedar Key, Apalachicola and Northeast Florida. The FIM program uses a systematic sampling strategy to collect fish free from the biases associated with collecting data from recreational and commercial fisheries. Data has been used for numerous stock assessments for several inshore species. Staff has spent much time developing models that describe fish abundance associated with different habitats. Additionally, staff in this program have been involved in the mercury concentration in fish program, fish health assessment, environmental health and fish diets, as well as studying fish from the rivers feeding Charlotte Harbor and Tampa Bay. We have continued to work on expanding our FIM program into reef areas along the coast.

During 2010-2011, preliminary numbers indicate Florida commercial landings from 216,902 commercial fishing trips totaled approximately 95.4 million (M) pounds of fish, crab, clams (wild harvest only, excludes aquaculture), lobster, shrimp and other invertebrates worth over \$200 M in dockside value. Marine life landings (live fish and invertebrates for aquaria and other uses) from 5,601 commercial collecting trips in 2010-11 amounted to 8.2 M individual specimens worth nearly \$2.9 M in dockside value. The top 10 species in dockside value harvested during 2010-11 in Florida were: Caribbean spiny lobster (\$38.3 M), stone crab (claws: \$25 M), pink shrimp (\$13.8 M), red grouper (\$12.4 M), blue crab (including soft-shell crabs; \$12M), white shrimp (\$10.5 M), king mackerel (\$8.7 M), bait shrimp (\$7.4 M), oysters (\$6.7 M) and black mullet (\$5.9 M). The total commercial harvest of food shrimp in Florida was 17.4 M pounds (heads on; \$34.7 M dockside value) in 2010-2011.

### **Stock Enhancement Research**

Preliminary designs for future marine eco-centers were completed for sites in Escambia and Walton counties in the panhandle. Demolition of buildings and progress on the youth development center and aquatic plant nurseries were ongoing at the New Smyrna Beach Ecocenter. Planning continued for development of an intensive marine hatchery for Tampa Bay. A fourth trial of intensive culture of juvenile red drum *Sciaenops ocellatus* was completed evaluating new equipment to optimize oxygen levels in circular culture tanks. We continued to make improvements to transition existing culture capabilities from extensive to intensive.

A new, six-tank production system for intensive culture of larval red drum was completed in the intensive culture lab. Larval red drum were stocked into these tanks to develop husbandry protocols for indoor, phase-I production. We continued coordination with the crustacean group for an aging study for blue crabs (*Callinectes sapidus*) in pond 16 and greenhouse two. There were no snook or red drum releases during this period. Spartina plugs (33,000) and shoots (10,000) were harvested from the hatchery effluent treatment marsh for shoreline restoration or nurseries at six locations throughout Tampa Bay.

### **Marine Fish and Shellfish Health**

Fish and Wildlife Health (FWH) staff in St. Petersburg monitors the health of aquatic organisms throughout the state. During the 2010-2011 fiscal year, the FWH group conducted necropsies (laboratory or field examinations of fish to collect health data) on 794 specimens that covered

four project aspects: 1) event response (n=185), 2) health monitoring (n=257), 3) special projects (n=171) and 4) stock enhancement support (n=181).

Event response specimens (23%) were evaluated as part of fish kill investigations or other fish and wildlife health related events. Health monitoring specimens (32%) were collected primarily by Fisheries Independent Monitoring (FIM) as part of our collaborative disease surveillance efforts, and were submitted to FWH because they exhibited gross external abnormalities or because we requested apparently healthy specimens to fulfill our objective to develop health profiles for sport fish. Fish categorized under special projects (22%) included sport fish collected for parasitological analysis to study parasites that may impact potential aquaculture species. Fish examined for stock enhancement purposes (23%) were evaluated in support of the Florida Marine Fisheries Enhancement Initiative (FMFEI). These fish came from trial re-circulating aquaculture systems from our Stock Enhancement Research Facility.

The statewide, toll-free Fish Kill Hotline (1-800-636-0511) and our web-based fish kill reporting form allow the public to report aquatic mortality and disease events directly to scientists, who can respond immediately to their concerns. Since its inception, the FWH group has received and responded to over 17,419 reports/information requests (hereafter referred to as reports). In 2010-2011, a total of 1,743 reports were received by FWH fish kill hotline, through the FWRI website or via direct calls. Approximately 36% of reports were related to unique fish kills, 32% referred to previously reported fish kills, 16% of the calls were concerning information relevant to FKH data or educational inquiries and the remaining 16% fell into other categories.

Sixteen sites were investigated for fish kills. A fish kill was considered an "event" when it was politically, economically or ecologically significant. Four events were identified during the 2010-2011 period. A multispecies kill affecting primarily adult red drum (*Sciaenops ocellatus*) along 30 miles of the St John's River persisted from the end of May 2010 to the beginning of July. We received 338 reports and/or information requests about the fish kill. The chronic fish kill was triggered by a significant reverse flow event, salinity influx and a cyanobacteria bloom die off. A multi-agency investigation and community conversation with Senator John Thrasher and Jacksonville officials helped explain the event cause and address public concerns. Another event, an epizootic affecting mullet (*Mugil cephalus*), shad (*Dorosoma cepedianum*) and menhaden (*Brevoortia sp.*), was confirmed to be caused by the pathogen *Aphanomyces invadans*, an OIE (Office International Epizootics) reportable aquatic animal disease (n=17). The third event (n=54) was caused by a viral pathogen affecting only hardhead catfish (*Arius felis*). Finally, cold kills resulted in 107 fish kill reports.

### **Marine Mammals**

FWC documented a record number of manatee carcasses in Florida during 2010 (n = 766). Preliminarily, 281 of the cause of death determinations in 2010 were related to cold stress and 83 were watercraft related fatalities. Statewide manatee rescues in 2010 were also a record high (n = 107). Through September 2011, 380 manatee deaths (YTD) were reported in Florida. Of those, 72 were related to watercraft and 109 were related to cold stress. Perinatal deaths (n = 65 YTD) included some cases related to cold stress.

A statewide "synoptic" survey was flown in 2011 and a count of 4,834 manatees was recorded.

This is considered to be a minimum count and does not provide a population estimate. An important *objective* within the state Manatee Management Plan includes improving these methods and implementing statistically sound methods to estimate the manatee population.

During the 2010-11 North Atlantic right whale calving season (December 01, 2010 -March 31, 2011) staff coordinated and conducted aerial surveys off the coastal waters of Florida in an effort to alert vessels to the presence of right whales, monitor calf production, identify unique individuals and describe whale distribution and habitat. Twenty mother/calf pairs were documented during the 2010/2011 North Atlantic right whale calving season. One additional cow-calf pair was sighted for the first time in Rhode Island Sound in April 2011. Six entanglement related events were documented in the southeastern U.S. during the 2010-2011 calving season, four off Florida. In collaboration with Georgia Department of Natural Resources, staff conducted 22 right whale biopsy sampling trips resulting in samples from 13 calves and several previously unsampled juvenile and adult whales.

### **Division of Habitat and Species Conservation**

Director: Tim Breaux (Retired)/Eric Sutton (Appointed September 2011)

### **Imperiled Species Management**

The Imperiled Species Management Section (ISM) in this Division is responsible for the planning and implementation of management activities directed toward the protection and recovery of manatees, right whales and five species of marine turtles. Marine turtle activities are funded from the Marine Resources Conservation Trust Fund. Manatee and right whale protection efforts are funded from the Save the Manatee Trust Fund.

### **Marine Turtles:**

The Imperiled Species Management Section (ISM) implements tasks from recovery plans for five species of marine turtles. The activities are focused in five program areas.

1. Review of and commenting for state and federal-permitted activities to minimize negative impacts to marine turtles and their nesting habitat.
2. Provide permits to individuals, organizations and facilities that conduct research or conservation activities or keep captive marine turtles.
3. Assist local governments and private sector in efforts to reduce impacts of lights and other disturbances on marine turtle nesting.
4. Development of longer term conservation strategies such as Habitat Conservation Plans (HCPs).
5. Outreach activities to provide current information to the public and promote conservation stewardship.
6. Respond to unusual or catastrophic events that impact marine turtles.

### **Accomplishments**

- Staff participated in the January 2011 cold stun event that impacted marine turtles in the Florida Panhandle and the Atlantic coast. During the January cold stun event, staff retrieved animals from St. Joseph Bay in Gulf County, transported them to Gulf World Marine Park in Panama City for rehabilitation and then assisted in the release of animals. Tequesta program staff was integral in processing, transport and release of animals

retrieved from peninsular Florida, including Mosquito Lagoon and other areas along the Atlantic Coast. Staff also participated in various activities that resulted from the 2010 catastrophic Deepwater Horizon event. Staff continued to participate in Technical Working Groups (TWGs) for Natural Resource Damage Assessment (NRDA) planning.

- ISM staff served on the Marine Turtle Grants Committee. This program awarded approximately \$306,000 in grants to Florida conservation groups, local governments and educational institutions based on funds generated by the sale of the sea turtle license plate. ISM staff also managed the review of Marine Turtle Permit applications and the approval process for grant requests for projects requiring such permits.
- Upon request, staff also conducted educational presentations at schools and meetings of local conservation groups, home owners associations and other interested groups concerning marine turtles, lights and other impacts.
- Staff reviewed and approved approximately 190 applications for conservation activities with marine turtles, including nesting beach surveys, stranding and salvage work, research, public turtle walks, rehabilitation at captive facilities and educational display.
- FWC authorized captive facilities to hold marine turtles for rehabilitation (14), for educational display (17) or for research (two). Staff coordinated transfer and release of marine turtles during rehabilitation and supervised public sea turtle releases.
- Staff continued to monitor captive facilities in the state that rehabilitate marine turtles or hold turtles (loggerhead and non-releasable turtles only) for educational purposes.
- Staff reviewed approximately 244 applications submitted to the Florida Department of Environmental Protection's (DEP) District Offices, DEP's Bureau of Beaches and Coastal Systems, the Water Management Districts and the State Clearing House. Projects reviewed included Coastal Construction Control Line applications, Environmental Resource Permit applications and Joint Coastal Permit applications.
- Staff participated in over 416 meetings and conference calls on these projects and on other issues involving marine turtles with staff from local governments, other state and federal agencies, and stakeholders on specific projects and marine turtle conservation issues.
- Staff conducted more than 70 site inspections as part of our environmental commenting responsibilities, including lighting inspections at the invitation of local governments and property owners. Program staff also participated in one administrative hearing.
- Staff participated in the design, implementation and review of monitoring plans required to assess the impacts of permitted activities on marine turtles, their nests and hatchlings. Staff worked with DEP on a report to the legislature on sea turtle monitoring required by state and federal permitting agencies as part of beach nourishment projects.
- FWC staff was invited to participate as an expert for the U.S. Fish and Wildlife Service and Army Corps of Engineer's Team on the Programmatic Biological Opinion for beach restoration. Staff served on the following teams, working groups and committees: Archie Carr Sea Turtle Refuge Working Group, Archie Carr Beach Nourishment Meeting Committee, FWC's Coastal Wildlife Conservation Initiative, the FWC Permitting and Wildlife Friendly Teams and the Marine Turtle Grants Committee.
- Staff continues to work with federal, county and municipal organizations to minimize lighting impacts on marine turtles. Staff managed the hatchling disorientation database, contacted local governments and helped to formulate appropriate actions to resolve problem lights on Florida's nesting beaches. Staff conducted numerous nighttime lighting

inspections to identify problematic light sources and provide recommendations for potential solutions for each problematic light.

- FWC staff hosted the 2011 Marine Turtle Permit Holder Workshop in Melbourne Beach for approximately 350 Marine Turtle Permit Holders, volunteers, local government, state and federal agency staff. This two-day event included approximately 15 presentations by agency management and research staff, conservation organizations and local governments, as well as summaries of Marine Turtle Grant projects.
- Staff responded to requests for educational materials concerning marine turtles and provided copies of educational brochures, posters, rack cards and other information.
- Staff created a colorful decal featuring a photograph of a hawksbill sea turtle. This decal, number 20 of a series, was distributed to local tax collectors' offices across Florida. Funds from the sale of this decal support FWC's marine turtle program.
- Through a Marine Turtle Lighting course, which was developed jointly with the USFWS, FWC staff was able to provide information on marine turtles and lights to a variety of entities across peninsular and panhandle Florida. Lighting workshops were presented to an audience of local government, code enforcement, private property owners, state agency staff, marine turtle permit holders, county employees, lighting consultants, insurance companies and interested citizens. These workshops were hosted by different organizations around the state, including Collier, Volusia and Sarasota counties.
- Staff is administering four grants, including \$416,000 from the U.S. Fish and Wildlife Service for Walton County's Habitat Conservation Plan, \$25,000, from the National Marine Fisheries Service to assist captive facilities to obtain medical supplies to treat injured and sick marine turtles and \$87,000 from the Florida DEP Coastal Zone Management Program for improvements in coastal armoring designs to minimize impacts to marine turtles and their nesting habitat. Staff also assisted the Wildlife Foundation of Florida and two local governments, the city of Deerfield Beach and city of Venice, to obtain funds from the National Fish and Wildlife Foundation for lighting improvements along their sea turtle nesting beaches. Grant management includes oversight of contracts to local governments and vendors as necessary.
- Staff offered a Wildlife Friendly Lighting Certification program for lighting companies to encourage development of products that meet the requirements to keep light low, long (wavelength) and shielded. Lights that meet certain specifications are featured on the FWC website as options for reducing impacts from artificial lights on marine turtles and other wildlife.

### **Manatees:**

The Imperiled Species Management Section (ISM) implements the tasks of the Florida Manatee Recovery Plan and the newly approved state Manatee Management Plan (2007). The activities are focused in six program areas.

1. Development and implementation of county-based manatee protection plans (MPPs).
2. Promulgation of boat speed regulations to protect manatees.
3. Review of permitted activities to minimize negative impacts to manatees.
4. Various directed efforts to protect and enhance manatee habitat, particularly warm water refuges and sea grasses.
5. Outreach activities to provide current information to the public and promote conservation stewardship.

## 6. Stakeholder engagement to encourage participation and partnerships.

More details on the manatee program are available in the Save the Manatee Trust Fund Annual Report to the Legislature, which can be found at:

<http://www.myfwc.com/research/manatee/trust-fund/annual-reports/>

### Highlights

- Duval County MPP Revision Update: Work continues on revisions to the MPP and some portions have been drafted and are under review. A complete draft is expected in late 2011.
- Sarasota County drafted revisions to their MPP with assistance from FWC. The revised plan is scheduled for consideration by the Board of County Commissioners in July 2011.
- FWC also assisted Miami-Dade County, as they evaluate what revisions they may make to their MPP. FWC staff attended several Charlotte County Manatee Protection Plan Advisory Committee Group meetings and presented information in order to help them assess whether the county should develop an MPP. The Charlotte County Board of County Commissioners approved the development of an MPP in February 2011 at the recommendation of the advisory group. FWC is partnering with the county to help develop and draft the MPP.
- Staff produced 265 comment letters for development projects reviewed during the year and offered recommendations to reduce or eliminate potential adverse impacts to manatee from the proposed activities. Implementation of the Boat Facility citing portion of FWC approved MPPs is accomplished during the permit review process. Distribution of public information about manatees is also accomplished through these comments as facilities are required to post informational signs on manatees and distribute written materials to boat users.
- ISM coordinated with the USFWS regarding the revisions to the U.S. Army Corps of Engineers (ACOE) Manatee Key (revised in 2011) as well as the USFWS programmatic biological opinion, which was finalized in March 2011. These efforts should help streamline permit reviews.
- Amendments to the existing speed zones in Sarasota County were adopted in June 2010. Sign posting for the new zones was completed in summer 2011. In Broward and Flagler counties, the rule making process that began last year has proceeded and both local rule review committees completed their reports to the agency. For Broward County, staff published a proposed rule, held a public hearing in the county and received public input. Presentation of the final rule was made at the September 2011 FWC Commission meeting. The rule for Flagler County is still being developed in cooperation with the county and the USFWS.
- Structure Related Manatee Deaths have totaled 198 (since 1974) as a result of interactions with the numerous water control structures located on the state's waterways. The annual average structure related deaths pre-retrofitting has decreased from an average of 6.5 manatees/year (1974- 1999) to a post-retrofitting average of 2.1 manatees/year (2000-2010). There is only one remaining water-control structure requiring the installation of a manatee protection device and this structure will begin retrofitting during late 2011. Overall, coordinated efforts are having a significant influence on reducing structure-caused mortality at retrofitted structures.

- FWC is working with the Water Management Districts in the development of Minimum Flows and Levels (MFLs) for spring systems that provide warm-water habitat for manatees. MFLs for Volusia Blue Spring, Manatee Springs, Fanning Springs and the Weeki Wachee Spring system have all been developed using criteria to protect winter warm-water manatee use. MFLs for the Homosassa River and the Chassahowitzka River were reviewed and FWC comments were provided in 2010.
- FWC has identified a potential restoration project at Fanning Springs that will enhance access to the spring for manatees and Gulf sturgeon. Currently, TNC has provided funding for an engineering feasibility study and FWC will provide funding to complete the project during the 2011-2012 funding cycle. The Fanning Spring restoration project has completed the engineering design phase and FWC has received all construction permits. The project is on schedule to be completed by the end of 2011.
- FWC worked with Florida Power and Light (FPL) to ensure that the heating systems that create interim warm-water refuges during the conversions of the Cape Canaveral and Riviera Beach power plants provided the necessary refuge to manatees. This was the first winter when the plants would no longer discharge warm water due to plant reconstruction projects. Although there were initial difficulties creating a sufficient warm-water refuge at the Cape Canaveral plant, FWC and FPL partnered on solutions that quickly resolved the issues, and manatees survived an extremely cold winter at this refuge. Manatee distribution data was collected via aerial surveys and manatee movement data was collected from satellite tagged manatees, providing information regarding how manatees responded to the changes in warm water availability during the winter cold season. In addition, daily health assessments at the interim warm-water refuge were completed to determine if any manatees suffered from cold-stress related symptoms and whether the interim warm-water refuge moderated those symptoms.
- FWC coordinated with power companies during this past winter to insure that individual power plants were adhering to their operational National Pollutant Discharge Elimination System mandated Manatee Protection Plans. Although the power plants maintained warm-water discharges through most of the winter, the extreme cold of 2010 resulted in numerous mechanical difficulties that complicated the operation of power plants throughout the state. These complications provided additional difficulties for manatees seeking consistent warm-water habitat. FWC will hold annual meetings with the power companies to facilitate ongoing communication.
- Educational activities for manatee conservation included the distribution of brochures and other informational materials to local governments, stakeholders, conservation groups, marinas, schools, libraries and the general public. Staff responded to 175 requests for printed materials.

## **Florida Department of Agriculture and Consumer Services**

Commissioner: Adam H. Putnam

### **Division of Aquaculture:**

Director: Leslie Palmer

The Division of Aquaculture conducts numerous activities to promote the development of aquaculture and ensure the quality of aquaculture and shellfish products in Florida. These



activities include regulatory, administrative, advisory, and technical functions directed toward ensuring that aquaculture operations are compatible with the Florida Aquaculture Plan, Aquaculture Certification Program, best management practices, resource management goals, and public health protection. The Division provides several primary service programs to support aquaculture and shellfish resource development:

- 1) Aquaculture Certification Program;
- 2) Sovereignty Submerged Lands Aquaculture Leasing Program;
- 3) Oyster Culture and Shellfish Resource Development Program;
- 4) Shellfish Sanitation;
- 5) Shellfish Environmental Assessment; and
- 6) Technical Support Program (Ombudsman, training, technical outreach, grants).

The Division has been very progressive in its support of aqua cultural development as a practicable alternative to commercial fishing and conventional agriculture to foster economic development in rural and coastal communities. The Division's programs offer unique and essential services to this emerging sector of Florida's agriculture community. These programs provide the regulatory framework for aquacultural operations and public health protection, provide specific farming areas on state-owned submerged lands, and provide responsible stewardship for Florida's natural aquatic resources.

During FY 2010/2011, the Division continued its commitment to encourage the development of the aquaculture and shellfish industries in Florida. This commitment is based on the belief that aquaculture will become an integral segment of Florida's agricultural and economic future by providing high quality aquacultural products to worldwide markets while advancing resource management.

The following is a summary of the activities related to aquaculture and shellfish resource management carried out by the Bureau of Aquaculture Development and the Bureau of Aquaculture Environmental Services during fiscal year 2010/2011.

### **Bureau of Aquaculture Development**

#### Aquaculture Certification Program

Chapter 597, Florida Statutes (F.S.) established the Aquaculture Certificate of Registration to recognize aqua-farming businesses. Aquacultural businesses in Florida are required to be certified annually and to attest that they will comply with the best management practices provided in Chapter 51-3, Florida Administrative Code (F.A.C.). The aquaculture certificate is used to identify aquaculture producers as members of Florida's agricultural community and to identify aquacultural products produced in the state.

The Aquaculture Certificate of Registration is linked to the Best Management Practices Program. Best management practices have been established by and for the aquaculture industry and represent the most appropriate and practical framework for Florida's diverse aquaculture businesses. Site inspections are conducted at aquaculture facilities to ensure compliance with best management practices. Staff is trained to provide a standardized evaluation based on compliance with established best management practices.

The Division certified 913 aquaculture facilities during FY 2010/2011. Shellfish producers (364 farmers) make up 40% of the certified farms, 195 ornamental producers make up 21% of the certified farms, 219 food fish producers make up 24% of the certified farms, with the remaining producing live rock, alligators and bait. Certified farms are found in 61 of the state's 67 counties: with the highest number of certified farms occurring in Levy County (21%) and Hillsborough County (9%).

#### Sovereignty Submerged lands Aquaculture Leasing Program

The Division is responsible for the Aquaculture lease Program under the provisions in Chapter 253, F.S. During FY 2010/2011, the Division administered 521 aquaculture leases containing about 1,180 acres and 60 shellfish leases containing about 1,027 acres. Aquaculture and shellfish leases are located in 17 counties, including: Bay, Brevard, Charlotte, Collier, Dixie, Franklin, Gulf, Indian River, Lee, Levy, Manatee, Monroe, Palm Beach, Pinellas, Santa Rosa, St. Johns, and Volusia Counties. In response to its statutory mandate, the Division identifies tracts of submerged lands throughout the state that are suitable for aquacultural development. Twenty special aquaculture use areas have been identified by the Division and authorized by the Board of Trustees in nine coastal counties.

Unlike many upland agricultural ventures that are conducted on privately-held lands, marine aquaculture must be conducted on or over submerged lands that are largely held in the public domain. Since only an insignificant amount of suitable submerged acreage is privately owned, marine aqua-farmers are uniquely dependent upon the use of public lands to grow their crops. Accordingly, the Department must act on behalf of the Governor and Cabinet to administer and manage these public lands in the best interest of the people of Florida, including protecting valuable natural resources.

The Aquaculture Lease Program supports marine aquaculture in a very unique way, and producing hard clams on sovereignty submerged lands is the largest marine aquaculture business in Florida. The most recent economic survey of hard clam processors (University of Florida, 2007) reported that 184 million clams were sold during 2007, accounting for about \$41 million. Currently, there is little cumulative information available to determine the economic impacts from the Deep Water Horizon oil spill event on clam businesses in 2010 and 2011 in Florida.

#### Oyster Culture and Shellfish Resource Development Program

Under the mandate to improve, enlarge, and protect the oyster and clam resources of the state, the Division is actively engaged in enhancing shellfish resources and restoring oyster reefs on public submerged lands. During FY 2010/2011, the Division collected 193,488 bushels of processed oyster shell from processors located primarily in Franklin County and collected 21,216 bushels of clam shell from processors in Cedar Key. Shell planting operations accounted for the deposition of 8,499 cubic yards of processed and fossil shell on public oyster reefs in Franklin and Levy Counties. Oyster resource development projects involving the relaying and transplanting of live oysters were conducted in cooperation with local oystermen's associations in two coastal counties. A total of 99,678 bushels of live oysters were replanted on public reefs in Dixie and Levy Counties.

### Restoring Public Oyster Reefs

In 2006, the Department entered into a subcontract agreement with the Gulf States Marine Fisheries Commission (through NOAA) to restore oyster reefs adversely affected by hurricanes under the Emergency Disaster Recovery Program (EDRP). In 2010, the subcontract agreement was extended on an additional year through September 2012. The \$4.2 million contract provides for three project components: 1) restoring public oyster reefs, 2) providing economic assistance to oyster farmers, and 3) developing a scientific model to assess the success of oyster reef restoration efforts in the Pensacola Bay system. In 2010/2011, the Division continued to be actively engaged in restoring oyster reef habitat on numerous sites identified in the EDRP oyster restoration plan. Oyster reef restoration operations accounted for the deposition of 8,499 cubic yards of substrate materials on public oyster reefs in some of Florida's most productive estuaries.

### Apalachicola Bay Oyster Harvesting License

An oyster harvesting license is required to harvest oysters from Apalachicola Bay. In 2011, 1,898 oyster harvesting licenses were sold, representing a 24 percent increase over the number of licenses sold in the preceding year. License sales demonstrate a trend in the increasing number of harvesting licenses sold, and represents the highest number of licenses sold since the license was established.

### Technical Support Programs

Providing technical assistance to the aquaculture and shellfish industries is an important Division activity. Staff provides substantial technical and administrative support for aquacultural and shellfish operations through site visits, compliance inspections, technical meetings, conferences and workshops. Staff conducted more than 2,500 site visits and compliance inspections to assist aqua-farmers and shellfish processors.

### **Bureau of Aquaculture Environmental Services**

#### Shellfish Sanitation and Environmental Assessment Programs

A total of 39 shellfish harvesting areas totaling 1,445,833 acres are currently classified and managed statewide. During FY 2010/2011, 565 sampling excursions were conducted to collect and analyze 11,663 water samples for fecal coliform bacteria. There were 316 management actions to close or re-open shellfish harvesting areas in accordance with the management plans for individual shellfish harvesting areas. During FY 2010/2011, a total of 91 Shellfish Processing Plant Certification Licenses were issued and 380 regulatory processing plant inspections were conducted. Based on inspection results, 28 warning letters and five settlement agreements were issued.

### **Commercial Fishery Data Collection Activities**

Completed trip ticket information was available for the 2010 calendar year. In 2010, there were 142,573 trips on the Gulf coast that accounted for 61,512,004 pounds of product or 67% of trips and harvest for the entire state. Landings information for 2011 is considered preliminary is based on edited data through early August. Thus far in 2011, 76,097 commercial trips amounting to 37,387,618 pounds of product, have been reported in the Marine Fisheries Information System (MFIS) for the Gulf coast of Florida. In terms of the entire state of Florida, the Gulf coast accounted for 65% of the trips and 70% of the harvest by weight. In terms of reporting, in 2010, a total of 232,993 trip tickets were edited of which, 138,657 (or 60%) were received

electronically. Those tickets accounted for 342,993 edited species records (66%). Data for tickets received closely matched edited data in terms of record and species totals and proportions received electronically.

State samplers conducted a total of 1,688 interviews statewide in 2010 in the NOAA Southeast Science Center's Trip Interview Program (TIP), of which, 1,087 were conducted in the Gulf. Those 1,087 interviews yielded 36,978 fish measurements and 13,600 hard parts for age determination. FDM received limited funds from the Atlantic Coast Cooperative Statistics Program (ACCSP) to evaluate/calibrate current conversion factors used to quantify traditional and regional commercial harvest totals in terms of weight and numbers. The study began in August, 2011 and will continue for one year. Although the study is concentrated on the Atlantic coast, data collected from the Gulf (Florida Keys) will also be evaluated. State and federal port agents are coordinating their activities to optimize data collection. The FDM biostatistical database compiled 27,986 records in 2010 of which 27,558 otoliths were collected. Of those totals, 14,931 records and 9,125 otoliths were from FIN-funded collections. Thus far in 2011, a total of 15,591 records have been entered into the database of which 10,295 were from FIN-funded recreational and commercial TIP collections.

We continue to process Deep Water Horizon related requests from license holders for commercial landings information. However, the volume of information requests has diminished over the past few months.

### **Recreational Fishery Data Collection Activities**

Complete data for the Marine Recreational Information Program Access Point Angler Intercept Survey (MRIP APAIS) are available for the 2010 calendar year. Preliminary data are available only for waves 1-3 of 2011 and are not presented here. In 2010, a total of 40,508 saltwater angler interviews were conducted by FWC field staff members. From anglers interviewed, 5,826 or 14.4% had harvest available to samplers for measurement. A weight and/or a length was obtained from 19,031 fish which equates to 3.2 fish measured per angler with fish available for measurement and 0.47 fish measured per angler interviewed. The years 2009 and 2010 represent the first years since FWC began conducting the marine recreational survey that the survey recovered less than 0.5 fish measurements per angler interviewed and continues a trend of decreasing biological data from the recreational angler survey. Factors affecting the numbers of fish measured may include the distribution of angler interviews by mode and area fished and a decrease in the availability of fish for measurement as a result of more restrictive regulations on sizes and bag limits as well as seasonal closures for some species. There also is evidence from the survey that more anglers may be practicing catch and release fishing for some inshore species.

FWC's efforts to gain a better understanding of the contribution of released catch to overall reef fish harvest estimates continues. In the period September, 2010 - August, 2011 a total of 135 for-hire trips were sampled, 88 of which were charter trips. To date, a total of 18,679 fish representing six species have been tagged and released. Of those tagged, red grouper, gag and red snapper accounted for 9,289, 2,692 and 5,070, respectively.

The Enhanced For-Hire Telephone Survey (sampling 40% of active vessels) had 37,272 records

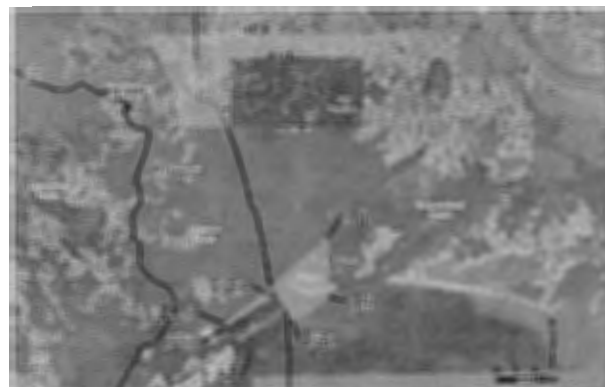
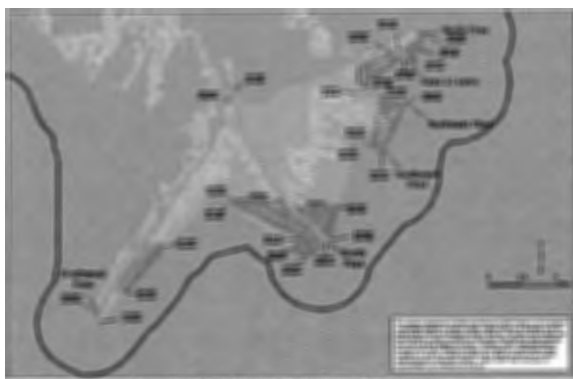
in 2010, of which 13,132 records represented charter fishing trip reports. Sampling returned to pre-2010 levels of 10% of active vessels in June 2011. The data collection portion of the MRIP pilot logbook study conducted concurrently in Texas and Florida was completed in August, 2011 and letters have been sent to vessel operators thanking them for their participation. Beverly Sauls is communicating with MRIP consultants, NOAA and GSMFC on details of the analysis. The MRIP Video-Monitoring Pilot Study is in its final period of data collection and is expected to wrap up assessment the efficacy of trip video as a method for obtaining catch information, particularly released catch details, from recreational boat fishers. Lastly, FWC is also conducting an MRIP pilot study that involves stratification of the state into 5-8 independent sample regions for the APAIS. As the new sampling regions would also use new MRIP APAIS methodologies tested in North Carolina in 2009-2010, the Florida stratification study must await the final results from the North Carolina study. In the meantime, we are collaborating with MRIP consultants involved in the development of the new MRIP estimation methodology, to possibly produce sample draws and more appropriately allocate sampling effort. Potentially, data collection could begin in 2012.

## LOUISIANA

### Deepwater Horizon Disaster

The Deepwater Horizon disaster has impacted many aspects of Department operations.

**Fishery Openings/Closings:** Using the FDA/NOAA fisheries reopening protocol, the LDWF received approval and reopened portions of state inside waters located within the Mississippi River Delta to commercial fishing on April 11, 2011. Similarly, approval to reopen portions of state inside and outside state waters within the Barataria basin was received and these waters were reopened to recreational and commercial fishing on April 26, 2011. Approximately 0.6 percent of saltwater areas of the state currently remain closed to certain fishing activities due to the DWH oil spill. Certain waters within the Mississippi River Delta remain closed to all commercial fishing and portions of the Barataria basin near Bay Jimmy and Grand Terre Island and portions of state outside waters adjacent to Grand Terre Island remain closed to all recreational and commercial fishing except for recreational and charter boat angling (see maps below).



The FDA has recently indicated that it may modify fishery reopening protocols which would eliminate the need for organoleptic or sensory testing of fish tissues by panels and allow state certified labs to conduct the chemical analysis of fish tissues. However, the LDWF not yet received official notification of any changes.

**Tissue sampling for seafood safety:** Since the beginning of the DWH oil spill, LDWF has been working with the Louisiana Department of Health and Hospitals to collect tissues of various types of seafood to ensure that contaminants from that oil spill were not compromising the safety of seafood from the state. That sampling program has been reported on previously. Also, in order to re-open state waters for harvest of seafood, the state entered into a cooperative agreement with the USFDA and NOAA for sampling of areas prior to re-opening those areas. In addition to these programs, the state has more recently implemented the “Louisiana Seafood Safety Plan” which is a 3-year program funded by \$18 million from British Petroleum. This program is cooperatively administered by the Department of Wildlife and Fisheries, Department of Health and Hospitals, Department of Environmental Quality and Department of Agriculture and Forestry and designed to ensure consumers that Louisiana seafood is monitored and safe. The program involves monthly collections of shrimp, crab, oyster and finfish tissue samples and water and sediment samples for analysis from state inshore waters and nearshore gulf waters. The following table illustrates the number of samples collected by species group by basin from March through August, 2011. Total tissue samples collected numbers 340 for this time period. Since the beginning of the overall sampling program, over 1,600 samples of crabs, oysters, finfish, shrimp, sediments and waters from coastal Louisiana have been tested for hydrocarbon contamination, A website ([www.gulfsource.org](http://www.gulfsource.org)) has been created where the public can access information on the results of those samples.

crab	Atchafalaya Vermilion Teche	Barataria	Calcasieu Sabine	Pontchartrain	Terrebonne
Mar 2011	1	1		1	1
Apr 2011	1	1		1	1
May 2011	1	1	1		1
Jun 2011	1	1		1	1
Jul 2011	1	1		1	1
Aug 2011	1		1	1	1
<b>Totals</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>5</b>	<b>6</b>

shrimp	Atchafalaya Vermilion Teche	Barataria	Calcasieu Sabine	Pontchartrain	Terrebonne	Nearshore
Mar 2011	1	1		1	1	
Apr 2011	2	1	1	1	1	3
May 2011	1	1	1	1	1	19
Jun 2011	1	1	1	1	1	22

Jul 2011	1	1		1	1	23
Aug 2011	1	1		1	1	
<b>Totals</b>	<b>7</b>	<b>6</b>	<b>3</b>	<b>6</b>	<b>6</b>	<b>67</b>

fish	Atchafalaya Vermilion Teche	Barataria	Calcasieu Sabine	Pontchartrain	Terrebonne	Nearshore
Feb 2011						2
Mar 2011	7	7	1	6	7	14
Apr 2011	7	7	6	7	4	17
May 2011	5	7	6	6	7	22
Jun 2011	7	7	6	5	3	43
Jul 2011	7	7	4	7	6	27
Aug 2011	7	7	6	7	6	33
<b>Totals</b>	<b>40</b>	<b>42</b>	<b>29</b>	<b>38</b>	<b>33</b>	<b>158</b>

**Habitat issues:** LDWF Fisheries staff have been working on habitat assessment plans for the Natural Resources Damage Assessment (NRDA) for the BP Deepwater Horizon spill; staff are developing and monitoring study plans for assessing damages to: Fish resources, marine mammals and turtles, oysters, SAV, benthic habitats, shoreline (including marsh and mangrove vegetation). LDWF field personnel have worked beside other state, federal and BP representatives on fish resource assessment field work.

**Marine Mammal and Turtle Issues:** Reports of dead or alive marine mammal and sea turtles are reported to LDWF from various entities including the public and Natural Resource Advisors still working on barrier island beaches, and these reports are investigated by LDWF Staff. All sea turtle carcasses are recovered for necropsy to be performed by a veterinarian and where logistically possible and appropriate depending on state of decomposition, marine mammal carcasses are recovered for necropsies to be performed as well. LDWF works closely with its federal counterparts and staff at NOAA/NMFS and USFWS to investigate the cause of deaths for these animals. The investigations are very important in that they are all a part of the Deepwater Horizon Oil Spill Incident, the Natural Resource Damage Assessment and the marine mammals are also under a formally declared Unusual Mortality Event (UME).

From the onset of Response associated with the Deepwater Horizon Oil Spill Incident to the end of 2010, the LDWF and other entities investigated over 225 total marine mammal and sea turtles throughout the entire coast of LA. Of these animals the following are included:

- 83 marine mammals (includes dead and live animals)
- 142 sea turtles (includes dead and live animals)

To date thus far in 2011, a total of 266 marine mammals and sea turtles have been investigated by the LDWF and other entities throughout the entire coast of LA including offshore. Of these animals the following are included:



- 135 marine mammals (includes dead and live animals)
- 131 sea turtles (includes dead and live animals)

**Data Management:** Since the BP oil spill over 4,000 requests for trip ticket landings have been processed for fisherman claims. After BP announced that it would require certified copies of trip ticket from LDWF, the Department started receiving multiple sets of trip tickets from previous years, 2008 and 2009 in particular. All late submissions were thoroughly reviewed and forwarded to LDWF Enforcement for investigation. Several citations have been issued and two arrests for fraud have been made to date. Investigations are still continuing.

**Inshore / Nearshore Sampling:** In response to the need for information to assess the status of living marine resources in inshore waters, and in the shelf waters off of Louisiana, a long-term sampling program has been designed and implemented. Inshore sampling has been modified using the long-term existing sampling program, with the addition of new stations and incorporating a stratified random sampling design into the existing program. Sampling began in October, 2010. Offshore sampling consists of a series of trawl transects across Louisiana. Sampling for these programs began March 1, 2011.

### ***Hurricanes Recovery Programs***

#### ***Artificial Reef Program***

The Artificial Reef Program continues to assess and permit reef deployments related to oil and gas structures. The Program has accepted 8 new structures into previously permitted artificial reef sites and partially removed one structure to create a new deepwater reef. The first of two inshore artificial reefs created from the demolition of the hurricane damaged I-10 bridges was completed. The second phase of bridge demolition has commenced and the construction of the second inshore artificial reef is expected to be completed by the spring of 2012. The Program in collaboration with the Coastal Conservation Association of Louisiana created the Independence Island inshore artificial reef in Barataria Bay with 7600 tons of crushed limestone.

#### ***Shrimp Fishery***

Shrimp fishing effort estimates are unavailable at this time but have increased from levels reported last year. Several dock buyers have commented on the number of boats that have been inactive over the last several years but have re-entered the fishery during the spring inshore shrimp season. Many vessels in the fishery have undergone repair and re-painting and in general, the fleet has not looked this good in a number of years.

Since spring of 2011, LDWF has implemented a series of shrimp management actions including special shrimp seasons, delayed season openings and season extensions designed to enhance economic opportunities in the fishery, particularly in light of anticipated impacts created by freshwater flooding in the spring. These actions included extension of the shrimp season in Breton and Chandeleur Sounds, an early spring opening in portions of state outside waters previously closed to shrimping, a 5-day special shrimp season targeting over-wintering white shrimp in portions of the central coast, a special shrimp season in Vermilion Bay beginning May 6, 2011, and staggered opening and closing dates of the spring inshore shrimp season including splits within shrimp management zones. The fall inshore shrimp season opened coastwide on August 22 and both landings and effort have been low according to fishermen and dealer



surveys. Shrimping conditions prior to Tropical Storm Lee (September 2-5) were poor as water temperatures were extremely warm. Salinity stratifications along with hypoxic and anoxic conditions were found along certain beaches and inshore waters. White shrimp catches are beginning to improve according to field reports.

Since the opening of the fall inshore shrimp season, LDWF has received approximately 39 reports of Asian tiger prawns (*Penaeus monodon*) in commercial catches. All specimens were large and ranged from 3-20 count per pound. Almost equal numbers were reported from the Barataria and Terrebonne basins with several others reported from Pontchartrain Basin and Vermilion Bay. All reports have been forwarded to the USGS for inclusion in their database. LDWF is continuing to encourage fishermen to report captures and has collected a number of these for potential DNA analysis including a single live specimen.

Below are preliminary shrimp landings data for January through July, 2011 (all species combined / heads-off weight). Landings through August of this year total approximately 34.3 million pounds and are that far below levels reported for the same periods in 2007 and 2009.

Louisiana Shrimp Landings, (all species, headless, thousands of pounds):

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Total
<u>2011</u>	1,395	460	354	1,247	10,630	12,431	4,067	3,736	34,321
<u>2010</u>	1,170	617	349	356	4,136	4,966	1,326	3,598	16,518
<u>2009</u>	1,818	1,072	685	1,109	12,701	10,903	4,338	5,257	37,885
<u>2008</u>	2,389	745	247	510	8,614	9,930	3,833	3,211	29,483
<u>2007</u>	1,711	974	368	508	10,684	14,835	5,185	4,962	39,858

Source: NOAA Fisheries. Market News Reports

Act No. 606 of the 2010 Regular Legislative Session created the Louisiana Shrimp Task Force within the Department of Wildlife and Fisheries. All members have been appointed by the Governor and voting members include an active dock buyer of shrimp, three certified commercial fishermen and three shrimp processors. Alternates have also been appointed and may vote in the absence of a designated appointed member. The Task Force has met on three occasions; April 21, May 10 and most recently August 18, 2011. Discussions to date have focused on enhancing shrimp prices, seafood certification, promotion and marketing opportunities, turtle excluder device (TED) regulations, and resource management opportunities.

#### *Crab Fishery*

Preliminary trip ticket landings data indicate that blue crab landings for January through May measure approximately 11.3 million pounds and are approximately 4% above levels reported for the same time last year but considerably below levels reported in 2007 and 2009.

**Louisiana monthly blue crab landings:**

	Jan	Feb	Mar	April	May	Total
2011	2.003	1.799	1.73	2.686	3.056	11.274
2010	1.93	1.325	1.764	2.353	3.519	10.891
2009	3.504	2.555	2.135	3.47	5.658	17.322
2008	1.739	1.868	1.35	2.709	3.672	11.338
2007	2.456	2.521	1.797	2.477	4.078	13.329

Source: LDWF trip ticket data

Beginning in March, 2011, LDWF received several complaints from commercial fishermen of elevated crab mortalities in traps and from crab buyers who grade and ship crabs to out-of-state live markets. These reports were limited to central and eastern Terrebonne Parish as well as St. Bernard Parish, however, wide-spread print and television media reports speculated on causes. Following up with these reports, LDWF collected a series of 7 samples of both dead and live crabs for analysis through the Aquatic Diagnostic Laboratory at the LSU School of Veterinary Medicine. Samples were collected from Mar 17 – May 24 from crab shedders, crab fishermen and docks located in Dulac, Montegut, Delacroix Island, Chauvin and Yscloskey. Examinations revealed that many crabs had gills that were dark brown in color and some crabs appeared to be dying in the molt. Specimens with dark brown or black gills were occluded with *Lagenophrys callinectes*. *L. callinectes* specifically infests blue crabs and is usually an indicator of other problems that weaken or slow the growth and molting rate of crab so that the ectocommensals build up to heavy levels. Blockage of the respiratory surface by the parasite causes additional stress during the time of the molt resulting in death of the crab. Haemolymph samples from crabs cultured negative for bacteria with the exception of 2 individuals. These cultured positive for *Vibrio anguillarum* and *Photobacterium damsela*. All qPCR tests for WSSV were negative. Some specimens had parasites in the blood tentatively identified as *Hematodinium sp.* Other specimens displayed an exoskeleton with advanced shell disease caused by *Vibrio spp* with barnacles and algae growing on the carapace.

Factors that slowed the growth rate of the crabs in the spring of 2011 are not known but cooler than normal water temperatures could have been responsible. Bacterial pathogens were not consistently isolated. All crabs were negative for PAH and saved tissues may be tested for other possible viruses.

In September, 2010, LDWF did not recommend conducting a 2011 winter crab trap closure and derelict crab trap cleanup due to ongoing responses to the Deepwater Horizon oil spill, Natural Resource Damage Assessment (NRDA) planning and sampling and concerns with existing staffing and equipment limitations. However, in late January, 2011, Plaquemines Parish government formally requested the Secretary of LDWF and the Louisiana Wildlife and Fisheries Commission (LWFC) to temporarily close certain Plaquemines Parish waters to the use of crab traps for the purpose of conducting a trap cleanup. At its February 3, 2011 meeting, the LWFC adopted a declaration of emergency closing a portion of state waters located in Plaquemines Parish west of the Mississippi River to the use of crab traps for an 8-day period from February 26 – March 5, 2011. Due to extended fishing closures within these waters, large numbers of traps were abandoned posing additional hazards to recreational and commercial fishermen and boaters

and to crews conducting oil spill clean-up operations. Additionally, portions of the trap closure area occupy waters which still remain closed to all commercial fishing due to the DWH oil spill. As a result of the continued presence of oil in portions of the closure area, the LDWF contracted removal of these traps through a private company. Cleanup activities were completed in late March and approximately 1,100 abandoned crab traps were removed from the closure area.

In September, 2011, the Wildlife and Fisheries Commission adopted a notice of intent that would close portions of St. Bernard and Plaquemines Parishes to the use of crab traps for purposes of a trap clean-up over a 9-day period beginning at 6:00 am Feb. 25, 2012 through 6:00 am March 5, 2012 as well as a portion of Terrebonne Parish over a 9-day period beginning at 6:00 am Mar.17, 2012 through 6:00 am Mar. 26, 2012.

In recognition of the importance of volunteer participation, LDWF has awarded Louisiana Sea Grant with a \$50,000 contract over the next two years to assist with the abandoned crab trap removal program and for development of an outreach component. In addition, Louisiana Sea Grant applied for and received a grant from the National Fish and Wildlife Foundation for these



Figure 1. Blue crab with gills occluded by the parasite *Lagenophrys callinectes*. Sample collected from a Montegut crab shedding operation in March, 2011. (Photo courtesy Dr. John Hawke, LSU)



Figure 2. Blue crab with shell rot disease, barnacles and algal growth. Sample collected from a Yscloskey crab dock in May, 2011. (Photo courtesy Dr. John Hawke, LSU)

### Oysters

The 2011/2012 oyster season for the majority of the public oyster areas was recently set to open on October 17, although a small area, called the Little Lake Public Oyster Seed Ground, opened

on September 7. The west cove portion of the Calcasieu Lake Public Oyster Area will open on November 1, while the east side of the lake will remain closed. The 2011 oyster stock assessment sampling (the annual stock assessment report has not yet been published) showed an overall reduction in statewide oyster resource availability of approximately 5% as compared to 2010. This reduction was driven largely by a significant drop in seed-oyster stocks. The traditional primary public oyster seed grounds east of the Mississippi River contributed largely to this drop in seed-oyster resources. This is an area where oyster production has been problematic over the last year due to the absence of successful reproductive events (=spatfall).

Due to reductions in oyster resource abundance on the public oyster areas, oyster harvest during the past 2010/2011 oyster season was low. A special oyster season was opened by the LWFC in May 2011 ahead of freshwater inundation (due to the opening of the Bonnet Carre' Spillway) in the public oyster seed grounds of Lake Borgne and Mississippi Sound (St. Bernard Parish). Harvest effort was low, however, and contributed approximately 10,000 barrels of seed to the total seasonal harvest of 56,649 barrels. The majority of the 2010/2011 harvest came from Calcasieu Lake where 41,448 barrels of marketable oysters was harvested during this past season.

Side-scan sonar projects in Breton Sound and portions of Calcasieu Lake were recently completed providing LDWF with valuable water bottom data for these areas. This work provides an accurate description of the location and aerial extent of oyster reefs, which is essential for providing accurate oyster stock size information. These two projects encompassed approximately 170,000 acres of public oyster bottoms.

### *Finfish*

Louisiana set and opened the recreational gag grouper season with creel and size limits consistent with Federal regulations. NOAA Fisheries service, after closing the recreational gag grouper fishery in January, set a 2011 recreational season to run from September 16 through November 15, 2011.

Louisiana opened and closed the recreational red snapper season with creel and size limits consistent with Federal regulations. The recreational red snapper season was open from June 1, 2011 through July 18, 2011.

Louisiana closed and then re-opened the recreational greater amberjack season with creel and size limits consistent with Federal regulations. NOAA Fisheries Service issued an in-season closure for the recreational fishery for greater amberjack from June 1 through July 30, 2011.

Louisiana closed and then re-opened the commercial greater amberjack season consistent with Federal regulations. The commercial season for greater amberjack was initially closed on June 18, 2011, but after a review of 2010 and 2011 landings by NOAA Fisheries Service the commercial season was re-opened on September 1, 2011 and is scheduled to close on October 31, 2011. Louisiana waters will close at 11:59 p.m. on October 30, 2011.

Louisiana opened the commercial king mackerel season with creel and size limits consistent with Federal regulations on July 1, 2011.

Louisiana closed the commercial season for Large Coastal Sharks consistent with Federal season rules on July 17, 2011. All Louisiana state waters are closed to the recreational and commercial harvest of all sharks between April 1 and June 30 of each year.

Act 65 of the 2011 regular session of the Louisiana Legislature now allows any commercial fisherman with all appropriate licenses and a cast net gear license to harvest live mullet for bait purposes. Cast nets used for harvest of live bait mullet must not exceed 12 feet in radius and must be deployed manually. The LWFC issued a Notice of Intent at its August meeting to modify the regulations for the commercial harvest of mullet per Act 65 and that Notice of Intent is currently in a public comment period which ends in early October.

The LWFC issued a Notice of Intent at its August meeting to modify the regulations for the recreational harvest of bluefin tuna. The change in recreational harvest regulations for bluefin tuna will establish consistency with current Federal regulations regarding size and possession limits. This Notice of Intent is currently out for public comment which will end in early October.

## **MISSISSIPPI**

### **Marine Patrol**

The Office of Marine Patrol, Marine Law Enforcement activities for April 2011 – September 2011 consisted of 1205 sea hours with 2,360 contacts which resulted in 55 citations issued.

### **Shrimp and Crab Bureau**

Mississippi Territorial Waters opened to shrimping at 6:00 a.m. on May 25, 2011. This was the earliest opening on record. An aerial count found only 162 boats trawling in the Mississippi Sound on opening day. So far Mississippi shrimp landings are up this season, the second best year post 2005 Hurricane Katrina. Shrimping effort tends to slow down in the warmer months of July and August. Since late July, there have been a total of 6 tiger shrimp (*Penaeus monodon*) caught by local shrimpers, with the majority coming from the East Biloxi channel. This is the first occurrence of the invasive species in Mississippi waters since they were initially found in 2009.

The Mississippi Commission on Marine Resources (CMR) approved a new trawl door size regulation for Mississippi territorial waters which took effect on May 20, 2011. The previous 6'X34" maximum trawl door requirement was increased to 8'X43", which is consistent with Louisiana requirements. This new regulation allows properly licensed fishermen to cross state lines without having to change doors.

The National Fish & Wildlife Foundation, utilizing BP monies, is funding on-going MDMR projects to address potential increased recreational and commercial fisheries interactions with sea turtles. These monies are being used to provide commercial and recreational fishermen with NOAA sea turtle guidance documents on protection, disentanglement and resuscitation, providing free turtle exclusion device's (TEDs) to skimmer trawl shrimpers to use voluntarily, and an observer program to collect data on the fisheries. To date, MDMR has distributed 378

TEDs for skimmer trawls and have been on board Mississippi shrimp vessels for thirty-one turtle observer trips. Two additional TED installation workshops were held for a total of five overall. MDMR has also mailed 475 angle meters to Mississippi resident commercial shrimpers in order to assist them in properly installing their TED's.

The Mississippi Seafood Safety Newsletter continues to be updated online at MDMR's website. The report contains a summary of the on-going efforts and results of the data that the Office of Marine Fisheries has been gathering in cooperation with the Mississippi Department of Environmental Quality to ensure that Mississippi seafood is free of polycyclic aromatic hydrocarbons (PAHs) and safe for human consumption. To date, none of the 416 samples has been found to contain PAH concentrations above the FDA levels of concern.

The Bonnet Carre' Spillway opened on May 9, 2011. MDMR began additional trawl sampling prior to the opening. This sampling effort continued through June. The gates were closed on June 20, 2011. In the western Sound, salinities were reduced to as low as 1ppt. Compared to 2001-2009 averages, Mississippi blue crab landings were down 33% for May 2011 and 69% for June 2011.

A trip ticket program is being explored at the request of the Commission on Marine Resources. A Mississippi Crab Task Force meeting was held on July 7, 2011 and attendees supported the staff's proposal for trip tickets. A public workshop was held July 12, 2011 to share the proposal and get input from Mississippi crabbers. The plan originally was intended to only apply to the crab fishery and then progress into the shrimp fishery, but at the August CMR meeting a motion was made to apply it to all fisheries. At the September 2011 CMR meeting, the plan was conditionally approved for public comment from all fisheries.

### **Finfish Bureau**

177 otoliths collected for 6 species on 14 different interviews. Otolith samples have been down during this time period due to inclement weather. The poor weather conditions resulted in fewer fishing trips in both the recreational and commercial sectors which in turn decreased overall landings of targeted species. Another factor affecting sample collection was the late spring flooding in the Mississippi River drainage. A large portion of flood water was diverted through the Bonnet Carre Spillway near New Orleans, Louisiana. This diversion of flood waters greatly decreased the salinity in the Mississippi Sound and heavily impacted saltwater fishing.

The Marine Recreational Information Program (MRIP) collected 1,193 interviews from March 1, 2011 to September 19, 2011 meeting and surpassing quotas in Shore Fishing and Private Boat Modes for Waves 2, 3 and 4, and on track to meet quotas in Wave 5. The Charter quota was met in Waves 2, 3, and 4 as well. Only 7 interviews have been collected so far for the month of September, as the charter industry traditionally slows down in the fall and winter months in Mississippi. The Charter quota was met for Wave 3, but was 7 short in Wave 2 and 4 short in Wave 4. There was a late cold snap that seemed to slow early spring charter fishing in Wave 2. In Wave 4, charter fishing slowed in August after the school year resumed for fall. There were fewer opportunities to survey (less charters being taken), and no charter fishermen were available at all to be surveyed during the last week of August.

Twelve new recreational fishing records were accepted for conventional tackle and four new records were accepted for fly fishing tackle from March to September 2011.

For Conventional Tackle:

- Marbled Grouper (*Dermatolepis inermis*) 12 lbs. 8 oz.
- Spinycheek Scorpionfish (*Neomerinthe hemingwayi*) 3 lbs. 8.56 oz.
- Greater Amberjack (*Seriola dumerili*) 114 lbs. 3.2 oz.
- Creole Fish (*Paranthias furcifer*) 1 lb. 8.69 oz.
- Bigeye Tuna (*Thunnus obesus*) 92 lbs. 2.88 oz.
- Yellowtail Snapper (*Ocyurus chrysurus*) 7lbs. 3.52 oz.
- Scrawled Filefish (*Aluterus scriptus*) 4.8 oz.
- Belted Sandfish (*Serranus subligarius*) 1.0 oz.
- Tilefish (*Lopholatilus chamaeleonticeps*) 14 lbs. 8 oz.
- Bigeye Tuna (*Thunnus obesus*) 93 lbs. 5.6 oz.
- Whitespotted Soapfish (*Rypticus maculatus*) 6.26 oz.
- Atlantic Cutlassfish (*Trichiurus lepturus*) 2lbs. 6.4 oz.

For Fly Fishing Tackle:

- Ladyfish (*Elops saurus*) 3 lbs. 7 oz.
- Yellow Chub (*Kyphosus incisor*) 6 lbs. 5 oz.
- Hardhead Catfish (*Arius felis*) 1 lb. 10 oz.
- Little Tunny (*Euthynnus alletteratus*) 12 lbs. 15.04 oz.

### **Artificial Reef Bureau**

The Artificial Reef Program worked on three projects during this time period. The Pass Christian Key, Katrina Key, and construction of juvenile reef habitat. The Pass Christian Key started construction on June 3<sup>rd</sup> and was finished August 4<sup>th</sup>. There were 51 deployments and 15,795 tons of concrete rubble was deployed. Katrina Key had another 200 foot section completed and another 30 foot section started to the West end. There were 14 deployments made of concrete material that came from the demolition of Old Back Bay Bridge and the Old Highway 90 Fishing Bridge.

There are 40 juvenile reef fish habitats being constructed at this time. These cage like structures are made of 3/8 inch round bar. Most will have spaces at 3 inch intervals and will have a concrete base that measures 4'X4'X6". The juvenile reef habitats will then be deployed on the state's offshore fish havens.

### **Shellfish Bureau**

The MDMR Shellfish staff continued its monitoring efforts by conducting one-minute dredge tows on the oyster reefs. Weekly water samples and bi-weekly phytoplankton samples were collected in compliance with the National Shellfish Sanitation Program.

During the April, 19<sup>th</sup> commission meeting the CMR approved to change the rules for each bid lease from a minimum of \$1 to \$5 dollars per acre.

The Oyster Task Force met on Thursday April 14. Items discussed were license sales/limited

entry; training video for preserving oyster reefs, spring cultch plant and oyster survey results.

The 2010- 2011 Oyster season opened up on November 8<sup>th</sup>, 2010 for tonging only and closed April 30<sup>th</sup> 2011. A total of 41,253 sacks have been harvested by 5064 boat trips.

The spring cultch plant began April 19<sup>th</sup> and was stopped before completion on April 29<sup>th</sup>. The remainder of the spring cultch plant was postponed to the fall due to the opening of the Bonnet Carre' spillway. A total of 17,606 cubic yards of oyster shell were deposited on 175 acres. The cultch plant reassumed on August 4 and ended September 19<sup>th</sup>. An additional 30,000 cubic yards of oyster shells and 34,861 cubic yards of limestone were planted over 1043 acres. The R/V Conservationist also relayed 500 sacks of live oysters to St. Joe reef and 400 sacks to Henderson Point reef from St. Louis Bay.

Due to the opening of the Bonne Carre spillway, additional oyster reef samples were collected and analyzed. Environmental parameters that were noted include: mortality, salinity, temperature and dissolved oxygen. This information was used to determine which areas needed to be refurbished in the fall cultch plant.

The Natural Resource Disaster Assessment team has partnered with MDEQ, NOAA, MDMR and BP contractors to use established scientific techniques to assess possible damage to the oyster resource from the oil spill. A seventy-page draft of sampling protocols was developed as a result of tri-weekly teleconferences and daily end-of-the-day meetings with representatives from LA, MS, AL and FL. This plan was used to identify areas of concern from the oil spill and to determine possible long-term damage to the oyster reefs. The various components include larvae, sediment, water quality, disease, and condition index and tissue samples. Qualitative, quantitative, and mortality data is also enumerated. Currently these protocols are being utilized and sampling will continue. The R/V Reef keeper and R/V Stewardship continue to sample the NRDA sites, collect I. J. samples and began the 60 site intensive reef analysis. The mission of these trips was to determine the condition and present status of the oyster reefs. Staff is also collecting oyster tissues samples for the seafood safety program with MDEQ.

## **TEXAS**

### **Legislative Issues**

The 82nd Texas Regular Legislative Session has been relatively quiet for Coastal Fisheries. So far, topics have included mercury as related to fish consumption, water rights, and TXDOT's authority for requesting environmental reviews. Other bills of interest involve requirements for active military members to carry a current ID card to prove eligibility for exemption from needing a recreational fishing license, an amendment to the rule requiring a fishing license to possess fish on a recreational vessel, an oyster shell recovery and replacement program (SB932), a proactive measure allowing the sale and consumption in Texas of raw oysters harvested from Texas waters even if federal regulations prohibit the out-of-state sale of Texas oysters (SB 387), an exemption for anglers 65 and older from needing to purchase a fishing license (HB550), and some other water related bills.

The 82<sup>nd</sup> Texas Legislature convened with a projected \$15 billion revenue shortfall for the



upcoming biennium. House Bill 1 reduced TPWD's biennial budget by \$162 million, a 25% reduction, with \$120 million in FY12 and \$42 million in FY13 and eliminates 304 full time employee positions in FY12 and 233 positions in FY13 (TPWD will be allowed to reacquire 71 of the positions lost in FY12). The bill eliminates all new capital equipment purchases, including vehicles, boats, computers, computer systems, and other equipment and systems. It eliminates all grants and new capital construction. It reduces Coastal Fisheries funding by \$1.5M in FY12 (10%) and \$1.4M in FY13 (9%), which includes reducing the License Buyback programs by \$1.1M in FY 12 and FY13.

### **Regulatory Issues**

In 2010, the TPWD restructured hunting and fishing regulations which separated recreational and commercial fishing rules. In the process, two typographical errors were introduced, indicating wrong minimum length limit for gag grouper and snook. Proposed changes will rectify these errors by reflecting the actual minimum length limits (22 inches for gag grouper and 24 inches for snook).

In 2007, TPWD restricted the means for taking red snapper to angling with pole-and-line and only circle hooks. The intent of this change was to be consistent with rules in federal waters in order to eliminate the possibility of different enforcements. Federal rules require circle hooks to be used only when fishing for red snapper with natural bait. A new proposal will clarify that only natural bait may be used to fish for red snapper with circle hooks.

A proposed change to bycatch retention on shrimp boats include only licensed commercial shrimp boat owners and commercial shrimp boat captain's license-holders may retain bycatch. No other person on board may retain fish. Bycatch retention limit is 50% of the weight of the total shrimp catch. Recreational limit of finfish may be retained by license-holders but cannot exceed 50% limit.

As part of the annual statewide proclamation process, Coastal Fisheries Division staff hosted a series of coastwide scoping meetings during January to obtain public input on potential conservation measures for spotted seatrout in Texas. On 20 January, staff met with its Coastal Resources Advisory Committee met in Austin to assess comments received from spotted seatrout scoping meetings. Committee members thoroughly discussed the results of the scoping meetings and provided their thoughts about the scoping process and the information generated, that were nearly split down the middle whether more restrictive management measures are needed at this time. After the TPWD Commission was briefed at the end of January, the decision was made not to change any conservation measures for spotted seatrout at this time.

### **Menhaden Total Allowable Catch**

The final adjusted estimated pounds of gulf menhaden caught in Texas waters and landed in Louisiana during the 2010 fishing season totaled 20.7 million pounds. This represents 65.6% of the 31.5 million pound Texas Total Allowable Catch, an increase of 59,022 pounds from the estimated 20,602,500 pounds of menhaden reported on 2010 CDFRs. Considering the +10% rule, the 2011 quota is 34,650,000 pounds.

## **Coastal Fisheries Programs & Projects**

### **Abandoned Crab Trap Removal Project**

During 19-27 February 2011, 188 volunteers helped collect 1,491 crab traps from Texas coastal waters, 38% from Galveston Bay and 37% from San Antonio Bay. Since 2002, this project has removed 29,053 abandoned crab traps.

### **Fish Stocking Efforts**

2011 Production Total = none to date

### **PRBMFRS Life History Research**

Alligator gar otolith and gonad samples were collected from the Cedar Lakes area for a preliminary reproductive biology study.

Gray Snapper samples were collected and processed for a life history study.

Routine monitoring otolith collections from gill net samples were continued, as was processing and aging of otoliths collected in previous years.

Otoliths from red drum sampled for a genetics project conducted by Dr. John Gold, Texas A&M University were processed and aged.

FIN-Biological Sampling Project, funded by this Commission, continued with the collection and processing of otoliths from various marine species by two new contract staff to help reduce the current data entry backlog of otolith ring counts.

Temperature tolerance studies of juvenile southern flounder were initiated, experimental apparatus was designed and tests were run using pre and post metamorphosis southern flounder larvae.

### **PRBMFRS Genetics Research**

Sample collection and processing for southern flounder and alligator gar genetic variation studies continues.

A cooperative effort with Texas A&M University at Galveston involving species identification confirmation of snook species collected in Texas waters continued, and additional samples from Mexico were analyzed.

A project to track the severity of oyster disease using QPCR (Quantitative real-time Polymerase Chain Reaction) continued. This project is partially funded by the Texas Water Development Board.

Species identification of processed and packaged commercial shrimp was conducted for NMFS law enforcement.

A proposal to conduct a genetic survey of stranded green sea turtles was discussed with the Texas turtle stranding network staff. The TTSN will provide tissue plugs from stranded green

sea turtles for genetic analysis to be conducted at PRB.

### **Artificial Reef Project**

During October - February, 3 rigs were reefed, generating \$952,000 in donations. Another 20 active projects are underway and are in various stages of completion. One reef site was added to the General Permit area of the High Island block, making a total of 63 reef sites in Texas (ranging in size from 40ac to over 300ac).

The Artificial Reef Program is working with the Port Aransas Boatmen's Association and Saltwater-Fisheries Enhancement Association (SEA) to plan for "Planning Zones" off Corpus for future Rigs-to-Reefs sites. The planning zones are required by the Bureau of Ocean Energy Management, Regulation and Enforcement (BOERME), the old US Minerals Management Service, through an addendum to the Rigs-to-Reefs Policy. At this time, no new artificial reef, outside the General Permit Area, can be created using platforms. Established reef sites can be used. This has caused much concern by the local fishing groups and TPWD because platforms are being removed at an accelerated rate and the partial removal option has basically been removed in all waters outside the General Permit Area. A planning zone must be approved by BOERME, but BOERME does not have the manpower to dedicate to this problem until after BOERME is reorganized sometime in late fall 2011. TPWD is moving forward with trying to have companies tow their structures to existing reef sites, but this does not work in all cases. TPWD is also working with BOERME and other agencies/groups to establish the planning zones for future approval. Over 600 platforms Gulf-wide are scheduled for removal in the next 3 years. These BOERME planning zones affect all Gulf States and all Artificial Reef Coordinators present at the GSMFC Artificial Reef Subcommittee meeting on 1-2 March 2011 expressed their concerns.

TPWD is contracting with TAMU-Galveston to conduct a geophysical and archeology survey of the Vancouver Liberty Ship Reef, off Freeport, as part of an extended biological monitoring study. The archeology survey is needed by the US Army Corps of Engineers to expand the nearshore site from 40 acres to 160 acres. Future plans include adding more pyramid reefs at the site to complement the Liberty Ship and other concrete culverts.

TPWD continues to work with the City of Corpus Christi and Saltwater Fishing Enhancement Association to permit MU-775, a 160-acre nearshore reef site in Texas state waters off Corpus Christi. The permit application has been submitted to the US Army Corps of Engineers and a decision is expected by late 2011.

Alamo Concrete, in Harlingen, completed the transport of 3,000+ concrete culverts to our reef material storage site at the Port Mansfield. A contract is being bid to reef all the material (over 4,000 culverts) at the nearshore reef by late summer 2011. Coastal Conservation Association will partner with TPWD on this project and has already funded the cost to move the culverts to the storage site.

After the impact of the BP Oil Spill last summer, biological monitoring trips have been scheduled at least once per quarter for 2011. A new team of TPWD scientific divers and

volunteers have been organized. Separate interagency agreements are being developed for additional monitoring and research through TAMU-Galveston, TAMU-Corpus Christi, and UT-Brownsville.

A new TPWD Artificial Reef display will be displayed during the March 14-16 Decommissioning Conference in Houston. We anticipate reaching hundreds of petroleum representatives during the conference to discuss the Rigs-to-Reefs program in Texas. Saltwater-Fisheries Enhancement Association sponsored the booth fee as a partner in saving as many platforms for reefs as possible.

Information Technology's GIS Lab's Resource Information System (RIS) team and Coastal Fisheries Artificial Reef Program have developed and released an artificial reefs interactive mapping application. Designed to increase awareness and promote use of artificial reefs in the Gulf of Mexico, the new app allows the public to find artificial reef locations as well as information on the materials within each reef. Users can search for reefs by name, material, or location and create a custom map with other geographic layers, like depth information and buoy locations. For users interested in planning fishing or diving trips, the app provides tools for measuring distances, viewing the nearest gulf access location, and determining reefs within a certain distance from a user-defined point. The app was developed using US Fish and Wildlife Service State Wildlife Grants (SWG) funds. To find the map, go to [www.tpwd.state.tx.us/artificialreef](http://www.tpwd.state.tx.us/artificialreef), then link to the map through the link at the bottom of the page (interactive map).

## **Buyback Programs**

### **Inshore Shrimp Buyback Program**

Inshore shrimp buyback round #27 application period closed on 29 October 2010. During this round, 39 bids were received and a total of 20 (11 bay and 9 bait) licenses were purchased at a total cost of \$177,700. The average purchase price was \$8,885.

Shrimp - Overall totals since 1996

- 2,081 licenses purchased
- 1,049 bay licenses and 1,032 bait licenses
- Total cost of \$13.8 million
- 2,081 / 3,231 original licenses = 64%

### **Crab Buyback Program**

Crab buyback round #13 application period closed on 9 April 2010 during which 6 applications were received and 1 license was accepted at a total cost of \$9,500.

Crab - Overall totals since 2001

- 51 licenses purchased
- Total cost of \$327,249
- Average price over all rounds = \$6,417
- 50 / 288 original licenses = 18% of total

### **Finfish Buyback Program**

Finfish buyback round #16 application period closed on 29 October 2010 during which 22 applications received and 9 licenses were purchased at a total cost of \$85,000 and an average of

\$9,444.

Finfish - Overall totals since 2002

- 231 licenses purchased
- Total cost of \$1,348,450
- Average price over all rounds = \$5,837
- 231 / 549 original licenses = 42%

### **Oysters**

In late December, CF staff met with members of the Texas commercial oyster industry to further discuss details associated with two oyster management options that have been requested by this fishery. The first option is developing a shell recovery program whereby oyster shell or other suitable cultch material would be returned to public reefs to enhance oyster production by providing additional substrate for spat to attach. The second option would develop a protocol where areas could be quickly closed (within 72 hours) to commercial harvest when the quantity of legal oysters drops below a specified level. Both items require legislative approval and, at the time of this writing, a bill has been filed in the senate and a companion bill is expected to be filed within the week.

In early January, Coastal Fisheries staff met with Department of State Health Services, Seafood and Aquatic Life Group, and oyster leaseholders to discuss options for addressing Vibrio-related illnesses resulting from summer harvested oysters. The goal of a 60% reduction in Vibrio cases from the five core states (FL, MS, LA, TX, and CA) was not met last year, even with operating under the time-temperature matrix that required oysters to be under refrigeration and chilled to 55° F within a certain number of hours of harvest. It is anticipated that the FDA will require harvest closures (for half-shell product not destined for post-harvest processing) during parts of the summer.

### **Special Efforts, Studies, and Topics**

#### **'OTHERS'**

In January, Coastal Fisheries staff worked on developing a Gulfwide seafood marketing program funded by British Petroleum and administered by the Gulf States Marine Fisheries Commission. The Commission is working with each of the Gulf states to initiate the program in the near future. A web-based networking service called Market Makers is being used to connect seafood producers with retail outlets and restaurants. It appears Texas Sea Grant or Texas Agri-life (both affiliated with Texas A&M University) will enter into a 5-year, \$15M NOAA Fisheries Gulf seafood marketing contract with Market Makers. For Market Makers to work effectively, Texas Sea Grant and Texas Agri-life will need to make an extensive outreach effort to seafood producers and seafood dealers. Mike Ray represents TPWD in helping bolstering consumer confidence in the aftermath of the Deepwater Horizon oil spill.

During a sustained mid-January cold front, stunned turtles were reported from Port Aransas to Boca Chica in both Gulf and bay waters. About 13 turtles were reported, mostly from the upper Laguna Madre. TPWD hatcheries were used to rehabilitate recovered turtles. Those recovered from the Gulf may have had other complications (e.g., illness or vessel trauma).

In response to a significant freeze event in early February 2011, a 5-day fishing closure was implemented for 21 thermal refuge locations along the coast. News releases were distributed to media and social networking outlets.

On 1 February and again on 9 February, air temperatures dropped below freezing, decreasing water temperatures near 32<sup>0</sup>F in various parts of bays, coastwide. As a result, an estimated 240,000 fishes, representing 26 species, died along the Texas coast. The majority of the coastwide estimates were from Matagorda Bay (68%), lower Laguna Madre (13%), and San Antonio Bay (11%). Coastwide, about 78% of the impacted fishes represented non-recreational species, including silver perch, mullet, and hardhead catfish; versus 22% recreational species, including spotted seatrout, red drum, black drum, and sheepshead.

During these freeze events, sea turtles were stranded, picked up, rehabilitated and released. A total of 1,520 sea turtles (1,518 green, 1 loggerhead, and 1 hawksbill) were picked up. During 1-7 February, 1,219 sea turtles were picked up compared to 9-14 February when 271 sea turtles were recovered. Although over 230 sea turtles died, the majority were picked up in the lower coast, held in facilities, including TPWD sites, and released or moved to more permanent rehabilitation facilities before being released into warmer waters of the Gulf of Mexico.

In early March, CF staff received notice from TxA&MU that the Imaging Flow CytoBot, in Port Aransas jetties, had detected increasing concentrations (about 2 cells/ml) of the dinoflagellate *Dinophysis ovum*. Additionally, TPWD received a report of discolored water in the Mustang Island area that is presumed to be *D. ovum*. Because of the concern that affected shellfish can cause a non-fatal type of seafood poisoning called Diarrhetic Shellfish Poisoning, the Texas Department of State Health Services (DSHS) began sampling from Aransas Bay north to Galveston Bay. *D. ovum* was found at two locations, inside Galveston Bay at ship channel marker 55 (6.7/ml) and inside the Port Aransas jetties (4.4/ml). There have been no illnesses reported in association with this occurrence of *D. ovum*.

A department plan to communicate in Spanish has been called a model that federal officials would like to see in other states. TPWD was required by U.S. Presidential Executive Order 13166 to provide equal services to persons with Limited English Proficiency (LEP) in order to continue receiving federal aid funding. This is mirrored in the department's Land and Water strategic plan, which includes a strategy to, "...engage underserved populations through multilingual programs." For about a decade, TPWD has steadily increased its efforts to reach the about 2.7 million people in Texas who do not speak English well or not at all. Most bilingual efforts involve Spanish, since about 90 percent of Texans who speak languages other than English at home speak Spanish.

### **Future Meetings**

The 62<sup>nd</sup> Annual Spring Meeting will be held March 12-14, 2012. A location in Mississippi has not been determined at this time. **Corky Perret mentioned a conflict with the meeting date and made the motion to change the meeting date to March 5-7, 2012. Joe Gill seconded the**

**motion and the meeting date was changed to March 5-7, 2012.**

The 63<sup>rd</sup> Annual Fall Meeting will be held October 15-17, 2012 in Alabama. Virginia Herring will coordinate with the Alabama Commissioners to secure a meeting location.

### **Publications List**

A new listing of publications was provided for informational purposes.

### **Election of Officers**

a. State/Federal Fisheries Management Committee

**Joe Shepard nominated Dale Diaz for Chairman. Joe Gill seconded. Without opposition, Dale Diaz was named Chairman by acclamation.**

b. Commission

The Chairman rotation will go to Alabama for 2011-2012.

**Joe Gill nominated Chris Blankenship for Chairman. Chris Nelson seconded. Without opposition, Chris Blankenship was named Chairman for 2010-2011 by acclamation.**

**Corky Perret nominated Joe Gill for 1<sup>st</sup> Vice Chairman. Without opposition, Joe Gill was named 1<sup>st</sup> Vice Chairman.**

**Camp Matens nominated Joe Shepard for 2<sup>nd</sup> Vice Chairman. T. Williamson seconded. Without opposition, Joe Shepard was named 2<sup>nd</sup> Vice Chairman.**

### **Other Business**

**Butch Gautreaux** acknowledged that this would be the last meeting he would be serving as a Commissioner. He thanked his fellow Commissioners and the GSMFC staff for their guidance and assistance during his appointment as a Commissioner, and the importance of the activities of the Commission.

**Dale Diaz** thanked Ginny Vail for her many years of dedicated service as the Commissioner from Florida. He also acknowledged her as being the recipient of the 2011 Charles H. Lyles Award.

*There being no further business, the meeting adjourned at 4:45 pm.*





APPROVED BY:

*[Signature]*  
COMMITTEE CHAIRMAN

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

JOINT MEETING OF THE LAW ENFORCEMENT COMMITTEE, LAW ENFORCEMENT  
ADVISORY PANEL, and GULF STATES LAW ENFORCEMENT COMMITTEE

Doubletree Hotel New Orleans, Louisiana

October 24, 2011

VOTING MEMBERS

- Kay Williams .....Mississippi
- Kevin Anson (designee for Chris Blankenship) .....Alabama
- Carmen DeGeorge ..... USCG
- LCDR Robert Foos ..... USCG
- Harlon Pearce ..... Louisiana
- Larry Simpson ..... GSMFC

NON-VOTING MEMBERS

- Larry Abele ..... Florida
- Doug Boyd ..... Texas
- Roy Crabtree ..... NMFS, SERO, St. Petersburg, Florida
- Pamela Dana ..... Florida
- Myron Fischer (designee for Randy Pausina) ..... Louisiana
- Robert Gill ..... Florida
- John Greene, Jr. .... Alabama
- Damon McKnight ..... Louisiana
- Corky Perret (designee for William Walker) ..... Mississippi
- Robin Riechers ..... Texas
- Patrick Riley ..... Texas
- Bob Shipp ..... Alabama
- William Teehan (designee for Nick Wiley) ..... Florida

STAFF

- Steven Atran ..... Population Dynamics Statistician
- Steve Bortone ..... Executive Director
- Shepherd Grimes ..... NOAA General Counsel
- Trish Kennedy ..... Administrative Assistant
- Richard Leard ..... Deputy Executive Director
- Phyllis Miranda ..... Secretary

OTHER PARTICIPANTS

- Scott Bannon ..... AL
- Jeff Barger ..... Ocean Conservancy, Austin, TX
- Rob Beaton ..... FL
- Chris Blankenship ..... AL
- Steve Branstetter ..... NMFS
- Walter Chataginer ..... MS
- David Cupka ..... SAFMC

MEMORANDUM FOR THE RECORD

- 1 Dave Donaldson ..... GSMFC
- 2 Otha Easley ..... NOAA OLE
- 3 Julie Falgout ..... Louisiana Sea Grant
- 4 Libby Fetherston ..... Ocean Conservancy, St. Petersburg, FL
- 5 Robert Goodrich ..... Austin, TX
- 6 Gary Graham ..... TX
- 7 Clint Guidry ..... LA
- 8 Chad Hansen ..... Pew, Crawfordville, FL
- 9 Judi Jamison ..... Gulf and South Atlantic Fisheries Foundation
- 10 Jeff Mayne ..... LA
- 11 Cynthia Meyer ..... NMFS
- 12 Debbie McIntire ..... GSMFC
- 13 Russell Nelson ..... CCA
- 14 Todd Phillips ..... Ocean Conservancy
- 15 Bonnie Ponwith ..... NOAA SEFSC
- 16 Samantha Port-Minner ..... Ocean Conservancy
- 17 Phil Steele ..... NOAA Fisheries
- 18 Steve VanderKooy ..... GSMFC
- 19 Donald Waters ..... Pensacola, FL

20  
21

22 The Joint Gulf Council Law Enforcement Committee, Gulf Council  
23 Law Enforcement Advisory Panel, and Gulf States Law Enforcement  
24 Committee convened at the Doubletree Hotel, New Orleans,  
25 Louisiana, Monday afternoon, October 24, 2011, and was called to  
26 order at 1:00 p.m. by Chairman Kay Williams.

27  
28  
29

**ADOPTION OF AGENDA**

30 **CHAIRMAN KAY WILLIAMS:** Welcome. The first item is the Adoption  
31 of the Agenda. Are there any additions to the agenda, before we  
32 do so? There is one -- Actually, there's four items that I'm  
33 going to move up, Item X, XI, XII, and XIII. I would like for  
34 us to address those. They're going to be very short anyway and  
35 I'm going to move those up under Item II, right after Approval  
36 of the Minutes, because I may get called away. If you will just  
37 bear with me, I would appreciate that.

38

39 **MR. HARLON PEARCE:** I'm trying to pull up my agenda now, but  
40 during the law enforcement discussion, I would sure like to have  
41 some discussion on TEDs and BRDs. I've got Clint Guidry from  
42 the Louisiana Shrimp Association here, who would like to talk  
43 about how he can help with compliance and get things done and so  
44 if you can fit that in anywhere, I would like to come after that  
45 a little bit.

46

47 **CHAIRMAN WILLIAMS:** Do you have a preference or do you just want  
48 me to put that like under Other Business?

1  
2 **MR. PEARCE:** That's fine, just so we can have some discussion.  
3

4 **APPROVAL OF MINUTES**  
5

6 **CHAIRMAN WILLIAMS:** We'll add that under Other Business then, to  
7 have some discussion about TEDs and BRDs. Are there any others?  
8 Hearing no other, then the agenda is adopted. That brings us to  
9 Approval of the Minutes, Tab H, Number 2. Are there any  
10 corrections to the minutes? Hearing none, the minutes are  
11 approved as far as under Tab H, Number 2.  
12

13 I believe there's probably another set of minutes that we'll  
14 take up and I don't see it on the agenda, but I believe Steve is  
15 going to take that up when he goes into -- Steve, do you want to  
16 go ahead and do that now? Let's do it now.  
17

18 **MR. STEVE VANDERKOOY:** For the Enforcement Committee of the  
19 Commission, the LAC, there's a second set of minutes, which is  
20 your joint March meeting, which was a LEAP/LEC meeting in  
21 Houston. If you have any comments on that, I'll take them.  
22 Otherwise, if you want to approve them as written, we'll take a  
23 motion.  
24

25 **MR. PEARCE:** So moved.  
26

27 **DISCUSSION OF POTENTIAL WEAK HOOK REGULATIONS**  
28

29 **CHAIRMAN WILLIAMS:** The minutes have been approved. Is there  
30 any opposition to approving the minutes, both sets of them?  
31 Hearing none, the minutes are approved. That now is going to  
32 bring us to the other four items that I spoke earlier about.  
33

34 These were just some comments that I had after reading the March  
35 minutes and there was some discussion and I know a little bit  
36 about the weak hook and we had down Discussion of Potential Weak  
37 Hook Regulations. It was my understanding we already have  
38 regulations and they're using the hooks now.  
39

40 I think there was a question about what happens and won't these  
41 hooks break off and stay in the fish and it's just my  
42 understanding that these hooks do not break off and they  
43 actually straighten out and so they don't have that issue.  
44

45 Also, it was my understanding that law enforcement has received  
46 some gauges that they used as part of an aid to help them. It's  
47 also my understanding that some of our law enforcement may not  
48 have received those, but we'll check into that, unless, do you

1 know anything about the gauges and them being distributed to law  
2 enforcement?

3  
4 **MR. PEARCE:** No, I don't.

5  
6 **CHAIRMAN WILLIAMS:** Once again, like I said, it is my  
7 understanding that the gauges have been given to the different  
8 law enforcement, including Coast Guard. Coast Guard is shaking  
9 their heads yes and so that's good and I'm glad to hear that.  
10 That was really my only comment about the weak hook.

11  
12 **MR. ROBERT GOODRICH:** I'm not aware that we've gotten gauges.  
13 If they did send them out, I would love to know who they sent  
14 them to.

15  
16 **CHAIRMAN WILLIAMS:** You and I had a discussion earlier off of  
17 the record and that's why I said some of the law enforcement may  
18 not have received them, but that we'll check into that and see  
19 however I can help.

20  
21 **LCDR CARMEN DEGEORGE:** If we want to get more gauges, what's the  
22 mechanism to get more gauges?

23  
24 **CHAIRMAN WILLIAMS:** Let me check on that and get back with you.

25  
26 **MR. WALTER CHATAGINER:** We didn't receive them either.

27  
28 **DISCUSSION OF CREW SIZE LIMITS ON DUAL-PERMITTED VESSELS AND**  
29 **IMPLICATIONS OF AN LAPP**

30  
31 **CHAIRMAN WILLIAMS:** Like I said, I'll check on that and I'll get  
32 back with you to see what I can find out about those. The other  
33 item that I saw discussion on was Discussion of Crew Size Limits  
34 on Dual-Permitted Vessels and Implications of an LAPP.

35  
36 I know we have a document back there on the table dealing with  
37 some of those issues, but there was some discussion about it's  
38 going to cause a problem with law enforcement and that's why I  
39 think it is important to have law enforcement around the table  
40 with us at some of these meetings, so we can address some of  
41 these potential issues before we move forward into various  
42 options.

43  
44 It's my understanding that, and this is from the fishermen, is  
45 that they didn't feel like there would be that many issues,  
46 because they've already got a call-in and call-out and so that's  
47 how you would know whether they were fishing commercially or not  
48 and so they don't really see where that was an issue and that

1 was something that was in the minutes that was discussed and so  
2 that's really just a comment on that.

3  
4 **DISCUSSION OF FUTURE JOINT MEETINGS WITH THE COUNCIL**

5  
6 The next item, which was XII, was the Future Joint Meetings with  
7 the Council. I saw back in 2010, when Mr. Pearce was Chairman  
8 of Law Enforcement, there was motions made to have more meetings  
9 where law enforcement met jointly with the council at the  
10 council meetings.

11  
12 There was various reasons stating why that was a good idea and  
13 this isn't to take away anything as far as the Gulf States  
14 program or anything. We used to have law enforcement meet with  
15 the council practically at every council meeting, because it did  
16 a couple of things.

17  
18 It helped with fleshing out any potential problems before we got  
19 too far into the amendment and it also gave the opportunity for  
20 law enforcement to interact with the public and so I'm  
21 supportive.

22  
23 It's my understanding, in reading over your minutes, that there  
24 were quite a bit of the law enforcement personnel and they felt  
25 like that they were really being brought in after the fact and  
26 it would actually be better for them to be brought in at the  
27 start of an amendment, so that they can also hear the ideas,  
28 because you just lose some of the potential issues if you're not  
29 here to hear them and to also hear from the fishermen.

30  
31 I'm hoping that we have some discussion. I would like to hear  
32 from law enforcement if they feel that it would be a benefit to  
33 meet jointly with the council if you will.

34  
35 **MR. CHATAGINER:** If I may, I've discussed it with some of my law  
36 enforcement counterparts, and you can hear it from my own self  
37 too, but we would prefer to go back to meeting the way we  
38 originally met since the 1970s. We thought it was working and  
39 we didn't see any really need to change.

40  
41 We have changed and it's been one year and this will be the one-  
42 year period from the first meeting and I've yet to receive a  
43 call from this council asking me about anything prior to  
44 anything being adopted or even worked on. I don't see what the  
45 benefit of it is, especially in today's budgets.

46  
47 It's hard for me to justify to drive to Houston, Texas for a  
48 four-hour meeting or even get on an airplane and fly there for a

1 four-hour meeting and everybody knows that I don't fly.

2

3 Today, it wasn't so bad. It's only an hour-and-a-half or an  
4 hour-and-forty-five minutes from where I live and it's a minimal  
5 cost, but to travel across the southeastern region for a three-  
6 hour meeting here and a four-hour meeting there is just not cost  
7 effective. If that's the case, why don't we just do a webinar  
8 meeting or a phone conference or something such as that?

9

10 As it stands right now, I, as the representative from  
11 Mississippi, would like to see us go back, and you can poll the  
12 other people that are here today, but that's how Mississippi  
13 stands on the issue.

14

15 **CHAIRMAN WILLIAMS:** Thank you. Any other comments?

16

17 **MR. GOODRICH:** I think what I can see one of the things we  
18 wanted to get was not so much the meeting with the council, but  
19 we wanted information that was coming to the council for a  
20 decision or even to be reviewed, to allow us to have input as to  
21 the enforceability of issues. I think that's the main thing and  
22 I kind of reiterate what Tiny says. Budgets are kind of tight,  
23 but we've got other ways that we can meet and yet, we do need to  
24 get that information before a decision is made.

25

26 **CHAIRMAN WILLIAMS:** Thank you. Are there any other comments?

27

28 **MR. PEARCE:** I agree with enforcement. That was the main reason  
29 we started to try to meet, was to try to bring them into the  
30 loop. If we haven't brought them into the loop, that's our  
31 fault. We need to make sure they're involved before something  
32 happens, so they can give us their ideas whether this will work  
33 or it won't work.

34

35 Somewhere along the line as a council, we're going to have to  
36 step up to the plate and keep these guys informed and in the  
37 loop before we make our final decisions as to whether what we're  
38 going to do is even going to work and that was intention in the  
39 beginning of bringing everybody together, to try and get that  
40 done, but evidently we haven't been doing that and so I think  
41 that if anything comes out of today's meeting, it's that we make  
42 sure that staff keeps enforcement in the loop before we finalize  
43 plans.

44

45 **CHAIRMAN WILLIAMS:** Thank you and I agree, Harlon, because like  
46 I said, I went back and I read the earlier discussion and we  
47 actually did pass a motion to start having law enforcement meet  
48 with us jointly at the council meetings, as we are doing now.

1  
2 Like I said, it's not to take away from the earlier program, but  
3 it's just I think it helps them and I think that it helps us as  
4 a council and I also think it helps the public to be able to  
5 interact with law enforcement at these meetings.  
6

7 **MR. VANDERKOOY:** I think it's important for the LEAP to meet  
8 with the council occasionally. I think when we had that summer  
9 work session, where we worked on the strategic plan, one of the  
10 things that came out was there's not enough interaction between  
11 the enforcement guys and the council itself.  
12

13 One of the options that we talked about, besides meeting more  
14 often in conjunction with the council meetings, was to make sure  
15 that the committees themselves had the local enforcement  
16 representative attend each council meeting when it was in their  
17 state and I think we've talked about that before and if that's a  
18 good way to approach it, I think having at least an officer  
19 attending the meeting in each state would allow them to queue in  
20 on items that might end up becoming enforceability issues or  
21 things they want to get involved with, but it's the committee's  
22 responsibility to attend that one meeting in their state and  
23 come back to the rest of the committee.  
24

25 We continue to offer the conference call option and as of late,  
26 we've used it infrequently. Communication between the states  
27 has become so seamless, with internet and everything else, that  
28 honestly those kinds of special calls have not been required.  
29

30 If I can make the suggestion, I would just ensure that the host  
31 state is able to cover the cost of maybe one person and that  
32 representative from that state. When you're in Florida, the  
33 Florida representative would be -- The expectation is that they  
34 would attend that meeting and then report back to the rest of  
35 the enforcement committee and that would be my suggestion. If  
36 they want fewer meetings to have to attend, that's the most  
37 efficient way to get it done.  
38

39 **LCDR DEGEORGE:** I was just curious and I was wondering if the  
40 other state enforcement agencies get the synopsis that comes out  
41 from the council staff after every time we meet that gives a  
42 synopsis of everything that was talked about.  
43

44 One thought might be that gets emailed out to the enforcement  
45 entities, so they can review it, and if there's any issues, we  
46 can start an email dialogue to see if it's something we want to  
47 discuss.  
48

1 **CHAIRMAN WILLIAMS:** That's an excellent idea also. I think  
2 we've heard quite a few excellent ideas.  
3  
4 **DR. RICHARD LEARD:** I would also just like to add that all of  
5 the stuff that the council does is posted on our website. We  
6 actually send the briefing books to the Law Enforcement AP and  
7 all the minutes are posted up there and all of the public  
8 comments following the meetings.  
9  
10 As everybody knows, it typically takes us a period of about a  
11 year-and-a-half to two years to do an amendment. Sometimes  
12 we've gotten regulatory amendments through a little bit faster,  
13 but with the LEAP meeting every March and every October, they  
14 typically do see the very early draft, a scoping document or  
15 discussion paper, before we ever develop alternatives or an  
16 options paper.  
17  
18 In most cases, they get to see it again after it's been fleshed  
19 out by the council and so I would just like to remind everybody  
20 that our website is -- I think Charlene and then do a very good  
21 job of keeping that up to date and keeping the information there  
22 and they're welcome to look at all the comments and minutes, et  
23 cetera, that's posted there.  
24  
25 **CHAIRMAN WILLIAMS:** Thank you, Dr. Leard, and they do an  
26 excellent job, but still sometimes -- I can go on there and I  
27 can look and I can call one or two people, but it's just -- You  
28 just lose something there and that's why I think they need to  
29 work as a body.  
30  
31 **MR. CHATAGINER:** You know the website is good, but I think one  
32 of the things -- I agree with Steve, first of all, about  
33 attending the meetings, but we've got many other duties, as  
34 everyone does, and I think a good process might be to prompt  
35 that state's representative that when meetings are coming up in  
36 their state area that they need to attend and the issues that  
37 are going to be brought before. I know we should all go and  
38 look at everything that's there, but sometimes that's really  
39 hard to do and a good prompting would be good for that.  
40  
41 The other thing would be the issues that are coming up, if we  
42 can get that sent out to us, then I think that's better than us  
43 having to go on the website and try to dig it out. That would  
44 help us a lot.  
45  
46 **CHAIRMAN WILLIAMS:** That's great and thank you.  
47  
48 **EXECUTIVE DIRECTOR BORTONE:** We'll make sure that the state



1 representatives are contacted before every council meeting.

2  
3 **CHAIRMAN WILLIAMS:** Thank you, Dr. Bortone.

4  
5 **MR. PEARCE:** I think I'm hearing what's been said here today and  
6 I think the main intention was to keep you guys involved. That  
7 was the main goal, but I understand Mississippi's ideas and so  
8 with that, I would like to make a motion that the enforcement  
9 agency of the state that we're having our meeting in be the one  
10 that attends and keeps the rest of the agencies involved in  
11 understanding what's going on.

12  
13 **CHAIRMAN WILLIAMS:** Is there a second?

14  
15 **MR. GOODRICH:** I'll second it.

16  
17 **CHAIRMAN WILLIAMS:** Seconded by Robert. Any opposition? Seeing  
18 no opposition, the motion carries. I think we've had some  
19 really good discussions on that item and the Number XIII was  
20 some funding and that was a question that was coming up, is  
21 there funding or is there going to be funding there for --

22  
23 **MR. PEARCE:** Madam Chair, Kevin, I think you're the only one on  
24 the committee that can second this for me.

25  
26 **CHAIRMAN WILLIAMS:** Robert can't second it?

27  
28 **MR. PEARCE:** My committee is -- Carmen's group is on the  
29 committee and Mr. Foos and did --

30  
31 **CHAIRMAN WILLIAMS:** We're meeting jointly.

32  
33 **MR. PEARCE:** Yes and I don't know. Is that okay? I'm not sure.  
34 As the council, is that what we need to do or do we need to get  
35 a --

36  
37 **CHAIRMAN WILLIAMS:** I think as long as we're meeting jointly  
38 that the members, be it whichever panel, right?

39  
40 **MR. LARRY SIMPSON:** Whether or not, I'm on the committee and so  
41 I second it, Harlon.

42  
43 **MR. PEARCE:** That's fine. That will be good and thank you.

44  
45 **CHAIRMAN WILLIAMS:** That cleans up and thank you, Larry. I  
46 appreciate it. Just in case there is any question on that.  
47 Item XIII was the Discussion of JEA Funding and Other Potential  
48 Funding for Law Enforcement. Is Mr. Dunn present? He's not

1 present and so who is -- Trish is going to take care of it.

2  
3 **MR. LARRY SIMPSON:** Madam Chairman, while they're doing that,  
4 have you all done all the rest of agenda items, if you're down  
5 to the bottom?

6  
7 **CHAIRMAN WILLIAMS:** I moved them up, because I may get called  
8 away.

9  
10 **DISCUSSION OF JEA FUNDING AND OTHER POTENTIAL FUNDING FOR LAW**  
11 **ENFORCEMENT**  
12

13 **MR. OTHA EASLEY:** Tracy Dunn is not here, obviously. He's up at  
14 our headquarters office and I'm Otha Easley and I'm the other  
15 Deputy Special Agent in Charge at the St. Petersburg Office. I  
16 did not -- Of course, I'm not on the committee and I haven't  
17 been previously and I didn't get an email with the question, but  
18 I'm going to have to ask Jeff to help me out here, Jeff Mayne,  
19 but as far as JEA funding is concerned, the July -- This current  
20 fiscal year agreements have all been signed and funded, I  
21 believe, and we're good until mid-2012 and we don't expect any  
22 drops or reductions in JEA funding.

23  
24 This is where I'm going to ask Jeff to help me out here. This  
25 last week, there was a workshop, a working group meeting, of  
26 certain states that came up to headquarters, OLE's headquarters  
27 in Silver Spring, Maryland, to discuss different ways to divide  
28 the JEA spending provided to OLE to the states, nationally as  
29 well as, of course, as well as in this region. Jeff, can you  
30 share some details?

31  
32 **MR. JEFF MAYNE:** Sure. We had a good meeting in Washington, in  
33 Silver Spring. We're developing a new funding matrix to  
34 different allocations based on a state or territory's capacity,  
35 their equipment, whether they have overfished or populations of  
36 stocks that are undergoing overfishing and we're working through  
37 some fine points of the matrix.

38  
39 I guess the biggest point to make is since it's over ten years  
40 since JEA funding has been available to the states, the amount  
41 has stayed the same and in ten years, the amount of patrol  
42 effort that JEA has been able to fund has obviously decreased  
43 because of the amount of cost involved over the past ten years  
44 and so we're basically year after year the amount of patrol  
45 effort each state or territory is able to put in has decreased  
46 in patrol effort.

47  
48 We as the states are all trying to figure out a way to increase

1 the JEA funding. Over that same time period, the demands, the  
2 regulations, have continued to increase and the demands on law  
3 enforcement continue to increase, but the funding for the JEA  
4 patrol effort has not increased over that same period of time.

5  
6 **MR. SIMPSON:** I requested a year or so ago and we didn't have  
7 time to put on the Law Enforcement Committee agenda, but Chris  
8 Blankenship, about a year or so ago, had a slideshow that he  
9 showed at the commission meeting and I thought that would be  
10 quite useful for the councils to see. Maybe at some point you  
11 could update it again and show a little flavor of the assets,  
12 the boats, major cases and so forth. Do you remember what I'm  
13 talking about, Jeff? Anyway, that was an excellent PowerPoint  
14 and I think at some point maybe the committee ought to look at  
15 that.

16  
17 **MR. MAYNE:** We are actually developing that for I think the  
18 spring meeting.

19  
20 **MR. CHATAGINER:** Colonel Mayne, could you elaborate on what  
21 brought about the change into the matrix?

22  
23 **MR. MAYNE:** I think what happened is -- I don't know exactly  
24 what brought it about, but I guess some of the states felt that  
25 some states were getting more money and some states weren't  
26 getting enough money.

27  
28 I guess what has happened over time is the demands on the  
29 enforcement programs across the nation, since the money hasn't  
30 increased any, that everybody is trying to take everybody else's  
31 money at this point and so basically that's why the matrix is  
32 changing.

33  
34 NOAA is going to be sending out a new questionnaire to fill in  
35 some new information. We just recently did it and so part of  
36 what we did was identify some of the things that were -- Like  
37 type of boat or size of boat or how far a boat can travel and it  
38 was very speculative and so we cleared up some of those issues  
39 and so they're going to be sending out a new questionnaire.

40  
41 **CHAIRMAN WILLIAMS:** That's good to hear. Okay, I believe that  
42 takes us through those four items, X through XIII, and that  
43 brings us -- Now we'll go to Item III, which was the Texas  
44 Oyster Regulations and Robert is going to handle that.

45  
46 **TEXAS OYSTER REGULATIONS**

47  
48 **MR. GOODRICH:** The reason I wanted to just bring this before you

1 today, if everybody can see the screen, is we just recently had  
2 a Senate bill passed out of our Eighty-Second Legislature that  
3 funded an oyster shell recovery program.

4  
5 What we're doing under that, we had to create some proclamations  
6 based on that and what that's going to do is that program is  
7 going to allow us to have funding for oyster shell recovery and  
8 replacement out there on the reefs.

9  
10 Before that, we've only done it with grants. What this means to  
11 us in law enforcement is we also gain some emergency closure out  
12 of that situation. Prior to this time, we didn't have any  
13 emergency closures unless they were health department related.  
14 I'm going to kind of go over that part here in a minute, about  
15 what this is going to give us out there.

16  
17 We did get some daily sack limits that are going to change and  
18 also our fishing times are going to change. This program is  
19 going to give us dedicated funding for the purpose of shell and  
20 clutch, which our Coastal Fisheries Department hasn't had.  
21 They've always done it with grants before.

22  
23 It provides some of the substrate for spat settlement and we're  
24 going to establish in this a shell recovery tag. What this tag  
25 is going to do is it's going to document that they're out there  
26 and every sack has got to be tagged, but it's also going to  
27 replace the current health department harvester tag.

28  
29 There's been a little bit of a disconnect for us, and I don't  
30 know how it is for everyone else, but we had health department  
31 requirements and we didn't really enforce the tagging  
32 requirement as far as Parks and Wildlife.

33  
34 This is going to give us the ability to make sure oysters are  
35 tagged before they get to the dock, instead of after they get to  
36 the dock. That's going to bring our accountability level for  
37 enforcement way up on oysters.

38  
39 It's got to be attached to the sack when it's filled and it has  
40 to remain until it reaches the dealer and so there's a very  
41 likely possibility that some of the other states are going to  
42 see our tags and that was one of the reasons I wanted to bring  
43 that before you today.

44  
45 They have to be purchased from us, Parks and Wildlife law  
46 enforcement officers. It's twenty-cents a tag, in lots of 250.  
47 What I thought was noteworthy on this one was that it looks  
48 like, based on a five-year average, we're going to get about

1 \$170,000 every year out of these tags for oyster shell recovery  
2 and so it's a viable funding source for the oyster industry, to  
3 get the shell back on the reefs.

4  
5 White versus green tags, I'm going to show you what those look  
6 like and I hope you can see that. Basically, that's going to be  
7 what the shell recovery tag looks like and I'll be glad to send  
8 the tag thing out to everybody to look at, but if you see those  
9 tags from us, they're going to say -- The white tag is for the  
10 shell that's going to be out there that's live oysters in the  
11 shell. The green tag is for those that have to be shucked,  
12 because they didn't meet either the time/temperature situation  
13 or they're designated for shucking and so that's a tag you're  
14 going to see from us.

15  
16 We're going to enforce that a lot closer now. It used to be  
17 just enforced at the dock and now that's going to have to be on  
18 the sack before it leaves the area. The law says at the time of  
19 harvest at the location of harvest.

20  
21 We had some concerns about undersized oysters and I want to talk  
22 a little bit about that closure. What this gave us is the  
23 ability to set a regulation that we can close a reef that's  
24 being overharvested within three days, or seventy-two hours, of  
25 notice out there and our executive director can close it.

26  
27 Now, that's going to be based on some criteria that there will  
28 be some sampling from our Coastal Fisheries Division and they're  
29 also going to listen to us in law enforcement when we say we're  
30 starting to see a lot of undersized oysters.

31  
32 Just for your input, last year, the first two months of the  
33 season, we filed 126 cases of undersized oysters in the first  
34 two months. That means 126 vessels, 126 loads, had to go back  
35 out and be dumped on the reefs and so that's very time consuming  
36 for officers.

37  
38 That means two officers got onboard and had to measure the  
39 oysters and had to make the determination and had to go escort  
40 them back out to the reef for it to be dumped and so that's very  
41 time consuming and we're hoping that now we can look and  
42 identify those reefs and that reef can be closed. That was  
43 important for us and I wanted to share that with the rest of the  
44 law enforcement group.

45  
46 Daily sack limits and fishing times changed for us. The  
47 industry was behind that. They felt it was a part of the way to  
48 stabilize it, because you're going to see a chart. I'm not

1 chart and graph guy and I didn't develop some of this. Most of  
2 it came from Coastal Fisheries, but it's kind of like we all  
3 know, in law enforcement, the first month that harvest is going  
4 way up there and then it just plummets after that, because  
5 everybody goes out and everybody is an oyster fisherman.

6  
7 We hope it will lengthen the productive part of the season and  
8 stabilize it and so we're going to work that. There's that  
9 graph I was talking about. As you can see, there's November  
10 when it opens. Our season usually opens November 1 and it's way  
11 up there and then you start looking at long about April and it's  
12 just rocketed downward, as well as the price, if you'll see that  
13 on the side. The average price of a sack plummets as well and  
14 so it's kind of one of those stabilizing issues, we're hoping,  
15 that it will do.

16  
17 We've done this. We went from ninety sacks to fifty sacks a  
18 day. That's what our harvest is going to be. We reduced our  
19 fishing time from sunrise to 3:30 and that's it. After 3:30,  
20 there's no dredging on the reefs and there's no harvest of  
21 oysters.

22  
23 That's going to help our enforcement group a lot too, because  
24 you can see that before we were from sunrise to sunset and that  
25 puts you out there a long time and you're just kind of waiting  
26 on when they're going to start and when they're going to finish  
27 and so we worked that in and that's going to help us immensely  
28 and it's going to help the industry actually, because they're  
29 going to have their captains on a schedule there.

30  
31 This was just an information insert that we sent out to the  
32 fishermen and the dealers. It's basically talking about harvest  
33 times and limits and some of the refrigeration issues from the  
34 health department.

35  
36 I don't know how it works in the rest of your states, but for  
37 us, it's a health department regulation for them to meet time  
38 and temperature, but we report that by -- We board the vessels  
39 and check the captain's log and if we see that he's not keeping  
40 a log, we're going to report it to the health department and  
41 there's going to be a sanction from them on that and so we work  
42 closely with our health department and we just try to put out  
43 some information.

44  
45 We are holding four workshops this week on the coastline to  
46 educate the oyster harvesters and so we're holding those to make  
47 sure they understand these regulations, which I think is an  
48 important part.

1  
2 There's the hour of harvest for the not refrigerated and that  
3 was a big issue, by the way. I went to the ISSC meeting here a  
4 few weeks ago and attended that in Seattle. The time and  
5 temperature of harvest is something we're really going to work  
6 hard to make sure that our people our meeting. I think the  
7 tagging operation is going to help us and the restricted hours  
8 are going to help us in that area as well.

9  
10 Again, that's what our tags are going to look like and I'm going  
11 to give all the law enforcement people one of these pages, so  
12 they can see that. If you see those tags coming from us, it's  
13 something new, but it is going to help us in the enforcement  
14 part of it. That's pretty much what I had and I'll be glad to  
15 answer any questions about the program.

16  
17 **MR. KEVIN ANSON:** Thank you, Mr. Goodrich, for your  
18 presentation. How much of the money that's being collected  
19 under the sack fees is going to put shell back on the reef?

20  
21 **MR. GOODRICH:** The way it's designated under the statute, all of  
22 it. We're probably having -- Maybe Robin can help me here a  
23 little bit, but it's probably one of those things where we are  
24 getting the printing costs out if and all that, but the rest of  
25 that money in law enforcement -- We got the duty of selling them  
26 at our offices and we got nothing out of it.

27  
28 **MR. ANSON:** Then one more question. What's currently the use of  
29 that shell? Is it being sold as a commodity or used as a  
30 commodity on the open market for various other purposes besides  
31 building oyster reefs?

32  
33 **MR. GOODRICH:** Yes, I think that's a common practice, a lot of  
34 times. We try to recover shell and that shell recovery has  
35 always been a priority, but it's got a value and if you can't  
36 buy it and you can't get funding for it, then you're not going  
37 to get it and so I think that's pretty much a given.

38  
39 **MR. ROBIN RIECHERS:** I will help clarify that, Kevin. 100  
40 percent is going towards shell recovery. That's the way the  
41 bill was written. As far as costs for law enforcement, we're  
42 going to recover the costs of printing, but no other costs.  
43 They already had those deputies there set up to do that and so  
44 we're not going to charge anything extra for that. We're trying  
45 to put as much back into habitat restoration as we can.

46  
47 **MR. GOODRICH:** We supported that. We took it on to sell it at  
48 the law enforcement offices so we can get as much money back to

1 the reef as possible.

2  
3 **MR. RIECHERS:** Just as a follow-up to the second, Robert is  
4 right. Obviously the reason we had to go ahead and try to raise  
5 money is because there was a benefit to people selling that  
6 shell in the past. Under our state law, we don't own the shell  
7 once it's shucked, once it goes past first sale. Basically,  
8 this allows us to get in that market.

9  
10 **MR. CHATAGINER:** Robert, the green tag you said is during the  
11 time/temperature months, when it's warmer. Are these shells --  
12 You said it has to be shucked and are they also going to be  
13 marked for cooking only?

14  
15 **MR. GOODRICH:** Whatever the shucking requirements of the health  
16 department, that's where that tag mandates it go, to that  
17 shucking requirement.

18  
19 **MR. CHATAGINER:** The reason being because we have people that  
20 bring oysters into Mississippi from Texas and so now we're going  
21 to look at a white tag during the regular cold months and the  
22 green tag during the warmer months, but on some of our  
23 regulations on the time/temperature matrix, if it's not  
24 refrigerated by a certain period, it has to be marked on there  
25 "Not for Raw Consumption" and it has to be a cooked product.

26  
27 I'm wondering in these green tags coming into Mississippi on a  
28 refrigerated truck, am I looking at they're going to be -- I  
29 know you've got to shuck them, but you could still eat them raw  
30 out of the gallon and so they're even requiring the gallons be  
31 marked for cooking purposes only.

32  
33 **MR. GOODRICH:** Now you're getting into a marking requirement by  
34 our health department, which this is just a harvester tag.  
35 That's all it is. You may see it and you'll probably see more  
36 white ones that you would anything, but if it doesn't meet  
37 requirements by the health department, then the receiving dealer  
38 is going to have to retag the product, especially after it's  
39 shucked. Then it comes under the same shucking requirement and  
40 those containers are all marked.

41  
42 **MR. CHATAGINER:** This will probably help clear my question up.  
43 We shouldn't see any green tags coming across state lines,  
44 correct? Those are going to have to be shucked in Texas?

45  
46 **MR. GOODRICH:** Yes, I would be alerted if I saw a green tag in  
47 Mississippi.

48



1 **MR. CHATAGINER:** Those oysters are going to have to be shucked  
2 before they can leave the state?

3  
4 **MR. GOODRICH:** That should be shucked, correct.

5  
6 **MR. PEARCE:** I think, Jeff, we've got every color in the rainbow  
7 in our state I think lately and so it's getting kind of  
8 difficult to figure it out. The one problem we're having a lot  
9 is getting those oysters to temperature within the allotted five  
10 hours I think it is.

11  
12 We're having difficulties getting them down to that fifty-five-  
13 degree core temperature and we're working right now on some new  
14 refrigeration techniques on the boats. We're going to have to.  
15 Otherwise, FDA is going to really give us fits, but we have too  
16 many colors in Louisiana.

17  
18 **MR. GOODRICH:** That definitely was an issue at the ISSC, was how  
19 to get it to that temperature. It was really hard and there  
20 were several ideas that came up out there. One of the ones we  
21 looked at, and I believe it was from Virginia, was about layered  
22 icing on one of the vessels and I just hadn't seen the whole  
23 part of that yet, because that could be fraught with problems  
24 from the ice melting, but we weren't the only states that had  
25 that issue. Thank you.

26  
27 **CHAIRMAN WILLIAMS:** Thank you. Tab H, Number 3, who is going to  
28 handle that one? Is it Dr. Leard or Steve? Go ahead, Steve.

29  
30 **INTERJURISDICTIONAL FISHERIES PROGRAM ACTIVITY**

31  
32 **MR. VANDERKOOY:** For those of you not familiar with the IJF  
33 Program, the Interjurisdictional Fisheries Program, at the  
34 commission, the primary function of my program is to develop  
35 regional management plans for various state water fisheries in  
36 the Gulf of Mexico, fish that cross jurisdictions either  
37 naturally or in coolers or trucks, however.

38  
39 The main part of my program -- Of course, being management  
40 plans, we've got a number of items that we've been working on.  
41 We actually currently have five documents either in the final  
42 printing stage or the getting ready to put the task force  
43 together.

44  
45 We just approved, last week, a profile for sand and silver  
46 seatrout in the Gulf of Mexico and, of course, the way that the  
47 process works is we put a task force together of the experts  
48 from each of the states. We have representation from all five

1 states.

2

3 We also have a representative, we hope, from the recreational  
4 sector, from the commercial sector. We have an enforcement  
5 representative and we have a habitat representative and we have  
6 a sociologist, when possible, an economist, when necessary. In  
7 the case of something like oysters, we actually have FDA  
8 representation and we have entertained the possibility of adding  
9 NGOs.

10

11 We bring all these people together and they draft these  
12 documents and they put together the documents similar to what  
13 the council's FMPs are, but the states actually do the  
14 development and not the staff. By doing that, we don't require  
15 the alternatives and options. We provide direct management  
16 recommendations that are provided back to the state upon  
17 approval of that FMP.

18

19 Our sand and silver seatrout, which we just got approved last  
20 week by the commission, included enforcement representation from  
21 -- I believe Robert served on that task force. We are currently  
22 in the -- He was on white trout and he's on oyster. That's the  
23 one that we currently have in review, is a revision to our 1991  
24 oyster plan.

25

26 It required a massive rewrite. There's obviously been a lot  
27 that has happened in the last two decades on the oyster front in  
28 the Gulf of Mexico. We've had health department representation  
29 and we've had a lot more information on Vibrio and Vibrio  
30 management, which seems to be really the thrust of most of our  
31 management scenarios in the Gulf now.

32

33 That is in the review process. We are currently undergoing a  
34 revision to our Gulf menhaden management plan. Again, our  
35 enforcement committee, the Law Enforcement Committee of the  
36 commission, serves to update the enforcement section of that and  
37 provide any input along the way.

38

39 That is the drafting stages and we should have that complete by  
40 the end of this year. We've just begun the revision to the blue  
41 crab management plan. That was completed about a decade ago. I  
42 think it was published in 2000.

43

44 We have serving on that Rob Beaton from Florida. He's the  
45 enforcement representative and his role is to come to our task  
46 force activities and participate and provide input along the way  
47 and as the enforcement section needs updating, he handles that  
48 part of it, but likewise, he takes these issues back to the

1 enforcement committee and they discuss things about things like  
2 enforceability and they come back with their own suite of  
3 recommendations that are included in the FMP.

4  
5 The final thing that we are beginning to put into motion is an  
6 update to our Gulf and southern flounder management plan. We're  
7 going to start that this coming spring, probably shortly after  
8 the first of the year. We've had a few representatives already  
9 designated and one of which is Scott Bannon, who is the new  
10 committee member for the State of Alabama, replacing Chris, and  
11 we're going to anoint him immediately. We're throwing him right  
12 into the mix.

13  
14 The intention is to, again, get the input from this committee.  
15 I don't think that requires any action at this time. We keep  
16 track of a rotation of which enforcement member has served in  
17 the rotation and it was Alabama's turn and so Scott was sort of  
18 designated and Chris seemed to be perfectly happy making that  
19 designation.

20  
21 There's a few other activities going on. Less of those are  
22 enforcement related, but we do -- I'm just going to go straight  
23 into the next item, if that's all right, and I'll take questions  
24 after that.

#### 25 26 **GSMFC'S ENFORCEMENT PUBLICATIONS**

27  
28 We have a number of documents that we do every year in the  
29 commission related to things like licensing fees around the Gulf  
30 States, the law summary for the Gulf, and we've actually  
31 completed, just recently -- This is the hot-off-the-press 2010  
32 licensing fees.

33  
34 What we do is we collect the information from the states license  
35 frames and how many licenses were sold at what cost and what the  
36 total revenue was. We keep this every year, so that we can go  
37 back in time and track changes in the fishery. We use it a lot  
38 in our management plans, talking about participation, license  
39 sales obviously driving that.

40  
41 It also goes along with things like effort management scenarios.  
42 You can actually track, over time, the success of effort  
43 management. You can see when it was put into place and how it's  
44 working and so these are the kind of documents that we maintain  
45 and we update every year. It's a minimal effort on our part  
46 and, again, I thank the Enforcement Committee for the commission  
47 who continuously provides us, if not directly then indirectly,  
48 the information that we need.

1  
2 For years, we did a law summary, which was all the rules and  
3 regulations in the Gulf of Mexico for the five states, as well  
4 as the federal regulations. Over time, that got to be a  
5 cumbersome effort, simply because the states were going to these  
6 magazine formats and you very seldom see the little single-page  
7 pamphlets handed out at Wal-Mart and at your sport tackle  
8 counters.

9  
10 In an effort to make something that was more useful to the  
11 officers, we started producing this officers' pocket guide.  
12 This is a thirteen or fourteen-page and we laminate it. It's  
13 waterproof with a waterproof binding and it's a small, pocket-  
14 type guide.

15  
16 It has all of the regulations for every state and for every  
17 species and it's got the -- We try and keep up with the  
18 prohibited species and the federal species as well and this is  
19 made in a format that it actually can be put into any officer's  
20 ticket book and they've got it available on the water at any  
21 time.

22  
23 If a Mississippi officer encounters an Alabama fisherman or a  
24 Louisiana fisherman traversing through and they say, well, this  
25 is what I was fishing for and the regulations are this, they can  
26 simply pull this out and say, well, actually, it's this.

27  
28 We also provide, in the front, quick contact references and all  
29 the phone numbers for the state agencies. A lot of these are  
30 after-hours numbers. If there's ever a question, any officer on  
31 the water should be able to get a hold of any of the agencies in  
32 fairly short order.

33  
34 This is what we've done instead of producing the traditional law  
35 summary. Some people referred to as the red book. It always  
36 had a red cover with a shrimp boat on it. We still have it, but  
37 we do it completely electronically. We don't print it and any  
38 of these documents are available on our website.

39  
40 If you go to the [www.gsmfc.org](http://www.gsmfc.org), you can go to the front page,  
41 under Publications, and you can select -- There's a filter at  
42 the top of the publications page for things related to SEAMAP,  
43 things related to RecFish or RecFIN and specifically, any of our  
44 enforcement documents. I think I'll leave it at that and if  
45 there's any questions, I will be happy to answer them.

46  
47 **CHAIRMAN WILLIAMS:** No questions? You did a great job  
48 explaining it. Dr. Leard, I assume you will be taking Tab A,

1 Number 7.

2  
3 REVIEW OF GULF COUNCIL ACTION SCHEDULE  
4

5 DR. LEARD: Yes, Madam Chairman. If you look at Tab A, Number  
6 7, what we do after every council meeting, depending on the  
7 actions and any changes in the priorities that the council may  
8 develop, we try to revise the timeline of the amendments,  
9 discussion papers, options papers, whatever we're working on,  
10 and revise the timeline as to when we expect to finish various  
11 stages of those documents, the options paper, a draft amendment,  
12 when we will go to public hearings, when we will have Scientific  
13 and Statistical Committee reviews, and when we anticipate taking  
14 final action and submittal to National Marine Fisheries Service.

15  
16 Tab A-7 is, in essence, what we have been working on in 2011 and  
17 what we anticipate to be doing in 2012 and I'll just run through  
18 this rather quickly. A lot of these documents, if you want to  
19 review where they're at, they're in Tab B of the briefing book.

20  
21 The first one there is Reef Fish Amendment 33 and this is called  
22 our LAPP program and in essence, what this is is we have an  
23 individual fishing quota program that's been established for red  
24 snapper for a number of years and we also have an individual  
25 fishing quota program that's been established for several years  
26 now for grouper and tilefish.

27  
28 The council's desire here is to bring in the other reef fish  
29 species into some type of a limited access privilege program or  
30 the IFQ program and primarily, this is going to be directed at,  
31 I guess, the other species that are targeted and caught fairly  
32 frequently, namely vermilion snapper, greater amberjack, and  
33 probably triggerfish.

34  
35 As you can see, we're still basically just in the discussion  
36 phase and we plan to be that way until at least the  
37 January/February meeting.

38  
39 Amendment 34 deals with the crew size and the income requirement  
40 and I think we talked a little bit about that before, but, in  
41 essence, what the council is looking at there is whether or not  
42 they should change the crew size restriction. Currently, for a  
43 dual-permitted vessel that has both a charter permit and a  
44 commercial permit, if they're on a commercial trip, they can  
45 only have three people onboard.

46  
47 The council is considering whether or not to change that. Also,  
48 the council is considering whether to modify or to eliminate the

1 current earned income requirement in order to maintain a  
2 commercial reef fish permit.

3  
4 With amberjack, you can see there that we had scheduled for a  
5 public hearing draft at this particular meeting and this  
6 amendment would revise the greater amberjack rebuilding plan.  
7 Recently, we got an update which indicates that greater  
8 amberjack are still undergoing overfishing and are overfished  
9 and that rebuilding plan is going to have to be modified.

10  
11 Our Scientific and Statistical Committee met, but they really  
12 didn't get around to amberjack and so we're going to have to  
13 have them meet again in January and so this timeline on greater  
14 amberjack and this amendment is going to shift further into the  
15 spring, after the council gets the Scientific and Statistical  
16 Committee report.

17  
18 Amendment 36 looks at restrictions on the red snapper IFQ  
19 transfer. Currently, I believe as of January 1, the current  
20 restriction on transfer of shares to only reef fish permit  
21 holders will expire and shares can be transferred to anyone.  
22 The council is considering whether or not to implement  
23 additional restrictions on the transfer of those shares.

24  
25 Amendment 37, again, that's just noted for discussion. I'm not  
26 real sure about what that actually is and whether or not it will  
27 result in an amendment, but we are required to review our red  
28 snapper IFQ plan every five years and so we will be conducting  
29 this review and depending on what that review comes out, as well  
30 as some additional analysis that the Southeast Science Center is  
31 doing, and we will also be starting a new benchmark Southeast  
32 Data Assessment and Reporting stock assessment for red snapper  
33 beginning next year and completing about midyear in 2013.

34  
35 We're also, again, in the discussion phase of looking at  
36 potential paybacks for overages on red snapper. This is  
37 particularly in regard to the recreational sector.

38  
39 Currently with the IFQ program, we pretty much are holding the  
40 commercial sector to their allocation of that total allowable  
41 catch, but the recreational sector has been exceeding theirs in  
42 about three of the last four years and they're expected to  
43 exceed it actually again this year. The council is looking at  
44 possible provisions for paybacks of those overages, which we  
45 haven't done in the past.

46  
47 Another discussion paper that we're looking at deals with a  
48 generic amendment to require dealer permits. I think there are

1 dealer permits for reef fish, but not for the other stocks.  
2 Also, electronic reporting as opposed to the paper logbook  
3 reporting that's going on now, but, again, we don't have a slate  
4 of options or anything developed for that as yet.

5  
6 We're also looking at a generic amendment that would look at  
7 this practice that is going on in some cases of contractual  
8 services for for-hire.

9  
10 Currently in the regulations of for-hire or a headboat vessel,  
11 it's basically defined as one that takes people out to fish for  
12 a fee, which means money, but the council has -- It's been  
13 brought to their attention that in some cases they are taking  
14 people out basically as a contractual service for some other  
15 bartered or contracted exchange as opposed to money and so we're  
16 looking at possibly addressing that.

17  
18 With the coastal migratory pelagics, we're actually looking at  
19 possibly three different amendments that our committee will be  
20 discussing at this meeting, which is just a discussion paper,  
21 but splitting up a number of things that the council has  
22 considered in the past, going back to about 2004, dealing with  
23 permits and sales of bag-limit-caught fish.

24  
25 Another amendment will likely address boundary issues and  
26 another one would address the trip limits, bag limits, and those  
27 types of things, but, again, we're at the very early stages of  
28 seeing what the council really wants to address and what the  
29 South Atlantic Council wants to address at their December  
30 meeting with regard to these activities.

31  
32 The council has also asked that we consider a limited access  
33 privilege program for king mackerel and we are doing some  
34 assessing around with the permittees. The South Atlantic  
35 Council, I believe a few weeks ago, decided not to proceed  
36 forward with a limited access program for king mackerel.

37  
38 There's some problems with dealing with this between both of the  
39 councils, because in the Gulf, if we do do a limited access  
40 program, it will require a referendum and so we're trying to get  
41 some information from the industry as to whether or not there is  
42 interest in that program, to determine whether or not and when  
43 to proceed.

44  
45 Spiny Lobster Amendment 11 was basically taken out of the annual  
46 catch limit because of issues dealing with protected resources  
47 and namely, what this is addressing is marking of trap lines and  
48 identifying areas that have coral or other types of sensitive

1 bottom that we want to prohibit the setting of traps in that  
2 area.

3  
4 We're still awaiting some analysis from the Regional Office and  
5 for some others in order to complete this and so we're not going  
6 to really have a public hearing draft unless we get that  
7 analysis or the council determines that we can move forward and  
8 schedule those public hearings, assuming that we'll get that  
9 data and be able to plug it in and then move forward to taking  
10 final action maybe in January/February or possibly April.

11  
12 There's also an ongoing discussion of sector separation,  
13 primarily within the recreational sector's allocations between  
14 for-hire and recreational anglers, but, again, that's still a  
15 continuing discussion.

16  
17 The other documents down there, Amendment 10 to the Spiny  
18 Lobster, the Generic ACL/AM Amendment, and Coastal Migratory  
19 Pelagics Amendment 18, these established annual catch limits and  
20 accountability measures and the councils took final action in  
21 August on this and they have been transmitted and we expect them  
22 to be implemented by the end of the year.

23  
24 The same thing is true for Reef Fish Amendment 32, which is a  
25 modification to the gag rebuilding plan as well as red grouper.  
26 There's also a regulatory amendment that we have submitted that  
27 would modify the red grouper bag limit to four fish within the  
28 four fish aggregate limit.

29  
30 I should also say that we are working on developing a strategic  
31 plan for ecosystem management and moving forward with a pilot  
32 program, but that's a little further behind the rest of the  
33 items on our schedule and that's about it, Madam Chairman.

34  
35 **CHAIRMAN WILLIAMS:** Thank you, Dr. Leard. I think you explained  
36 that and I don't see any hands up that anyone wants to ask  
37 questions and so that now brings us to your next presentation,  
38 Tab H, Number 4.

39  
40 **STATUS OF FMP AMENDMENTS AND REGULATORY ACTIONS**

41  
42 **DR. LEARD:** With regard to Tab H, Number 4, this is Dr.  
43 Crabtree's normal report to the council on the activities that  
44 have been submitted and that NMFS is moving forward with  
45 implementing. I usually supply this to the Law Enforcement  
46 Advisory Panel and, of course, he provides these reports  
47 directly to the council.



1 I'll run through these briefly. Most of them deal with pages 1  
2 and 2 under Sustainable Fisheries and the regulatory actions  
3 there. As noted, the Deepwater Horizon Oil Spill, National  
4 Marine Fisheries Service has reopened all of that as effective  
5 April 19 and it remains open.

6  
7 There's still a number of ongoing studies to try to determine  
8 what impacts, if any, the spill had or will have in the future  
9 on the stocks that the council manages.

10  
11 Also, we had a slight increase this year in the total allowable  
12 catch for red snapper. The recreational sector increased their  
13 catch slightly, but as a result of that and as a result of even  
14 some additional fish that were given to the recreational sector,  
15 they still met and even exceeded their allocation of the total  
16 allowable catch by July 19, 2011.

17  
18 Greater amberjack seasonal closure, currently that's in effect  
19 from June 1 to July 31 and there is some consideration by the  
20 council now, possibly as part of Amendment 35, to revise those  
21 closed seasons to some other times.

22  
23 Accountability measures for greater amberjack in the commercial  
24 sector, National Marine Fisheries Service published the rule of  
25 April 29 of 2011 adjusting the quotas. As I said, both sectors  
26 have exceeded their quotas in 2010 and so it's expected that  
27 there will be payback accountability measures enacted in 2011  
28 and possibly later.

29  
30 There was an interim rule for gag to reset the commercial  
31 allocation to 430,000 pounds and continue the suspension on the  
32 use of red grouper multiuse individual quota commercial  
33 allocation and to set a gag recreational season from September  
34 16 to November 15 and this rule expires November 28. However,  
35 and it probably will, because it's probably going to be shortly  
36 after the first of the year before Amendment 32 is approved.

37  
38 Red snapper, again, I mentioned before that there was a  
39 secondary increase, but this 345,000 pounds that was added was  
40 actually caught before the normal closing of the season on July  
41 19.

42  
43 I think I mentioned before the regulatory amendment for red  
44 grouper resulted in a slight increase there and the TAC levels,  
45 which also resulted in increasing the bag limit from two to four  
46 fish within the four fish aggregate bag limit.

47  
48 Also, as I reported, we have finished our three amendments to

1 implement annual catch limits and accountability measures for  
2 the species that we had not already approved those and so we are  
3 -- I believe when those go into effect that we will be in full  
4 compliance with the Magnuson Act.

5  
6 Again, as I mentioned before, Amendment 32 is still in the  
7 development process and in the approval process, but it is  
8 scheduled for implementation by the end of 2011 and there's  
9 other information here on catch limits to date on various reef  
10 fish species and some others, but I think I'll stop there and  
11 you can, at your leisure, read the rest of Dr. Crabtree's  
12 report.

13  
14 **CHAIRMAN WILLIAMS:** Thank you, Dr. Leard. The next item for  
15 discussion is State Violation Search Methods. Will you be doing  
16 that, Dr. Leard?

17  
18 **DISCUSSION ON STATE VIOLATION SEARCH METHODS**

19  
20 **DR. LEARD:** I guess I can lead into it and then the committee  
21 and the Law Enforcement Advisory Panel can weigh in. I think,  
22 as most people know, in April of odd years, we reappoint all of  
23 our advisory panels, Scientific and Statistical Committees, et  
24 cetera.

25  
26 As part of our Statement of Operating Practices and Procedures,  
27 we have a proviso in there that if you have a fishery-related  
28 violation in the past five years that you're not eligible to  
29 serve.

30  
31 We found that the process of trying to determine whether or not  
32 these people have violations -- What we have done in the past is  
33 we've contacted the states and we've contacted National Marine  
34 Fisheries Service and asked them to search their records and  
35 find out if the people that we intend to put onto those panels  
36 have these violations or if they do not.

37  
38 Essentially, that's the issue. I guess we found out this year  
39 that Texas, in one case, was able to identify a violation from I  
40 believe it was Louisiana and so the impression, I believe, that  
41 at least the council, or maybe some members of the council, has  
42 is that the method of search, the databases that are used,  
43 between the states and the National Marine Fisheries Service,  
44 may be potentially different. The idea is to try to get an  
45 understanding of what these differences are and where the  
46 council wants to go with regard to this provision of the SOPPs.

47  
48 **CHAIRMAN WILLIAMS:** Thank you, Dr. Leard. I believe that there

1 was maybe some issues of certain things not matching up, where  
2 maybe perhaps they knew of a violation but -- We have this five-  
3 year date and there was some issues with the dates and I guess  
4 being able to really look at did the violation occur and was it  
5 within the five years.

6  
7 I think there will maybe be some discussion on that a little  
8 later, but that's really all I know about it as far as the  
9 search part of it, unless someone else as far as law enforcement  
10 has something that they want to add.

11  
12 **MR. RIECHERS:** Correct me if I'm wrong, Rick, but I think the  
13 goal here was, because we're going to address this in the  
14 Administrative Policy Committee, was to actually have a  
15 discussion about the search methods and why in fact we might  
16 have gotten some different results from Texas, for instance, in  
17 how we searched as compared to violations that were showing up  
18 in other states.

19  
20 I assume you all were asked to come prepared to do that. I  
21 don't know that that happened or not. If not, then we may want  
22 to address that at a different time, but we are going to be  
23 trying to deal with this later.

24  
25 **CHAIRMAN WILLIAMS:** I don't think they came prepared. I don't  
26 know that they really knew that it was an issue and that we were  
27 wanting them to do that and I know Administrative Policy will be  
28 looking at that, because there were some issues. Robin, what  
29 would you recommend us doing, since they really aren't prepared  
30 to address that right now?

31  
32 **MR. RIECHERS:** I don't know that we're going to make a lot of  
33 headway in determining what the discrepancies were if they  
34 weren't asked to be prepared to discuss the database searches  
35 that they do and how there could be discrepancies and so I'm at  
36 a loss at this point if we didn't go ahead and ask them to do  
37 that.

38  
39 **MR. CHATAGINER:** I'm not going to answer for the other states,  
40 but in our situation, it's an in-house database. We don't put  
41 violators on the NCIC, where Louisiana could type in a name and  
42 it would come up showing all the Mississippi violations. I  
43 don't know if Louisiana puts theirs on the NCIC, but anything  
44 you're going to get from us is strictly going to be an in-house  
45 search as far as tickets.

46  
47 Now, if there's some other crime that was committed, a felony,  
48 because we will run them on NCIC at times too and if there's a

1 felony committed, maybe in Alaska -- A fishing violation in  
2 Alaska that might be deemed a felony, that will show up, but  
3 just from us, you're going to get an in-house search and nobody  
4 else is going to get our information.

5  
6 **CHAIRMAN WILLIAMS:** In Mississippi, would it show the actual  
7 date that the crime --

8  
9 **MR. CHATAGINER:** It shows the date of the ticket and it --  
10 They'll actually bring the ticket up and put it in their hand  
11 and it can show them the date of the ticket, the officer that  
12 wrote it, where the violation occurred. If it's been to court,  
13 it will show the court date and it will assess a guilty or not  
14 guilty or found guilty in his absence and the fine amount.

15  
16 **CHAIRMAN WILLIAMS:** Okay, because I know here at the council we  
17 actually have to look -- They have to be charged and it can't  
18 just kind of be waiting.

19  
20 **MR. CHATAGINER:** A ticket is charged. It's a violation, but if  
21 you're found not guilty, then it's not a violation. If it  
22 represents not guilty on a ticket, we're not going to record  
23 that to you all, because you're asking for violations.

24  
25 **CHAIRMAN WILLIAMS:** Right and so if you were given a ticket and  
26 it hadn't been to court yet, would you show that as a violation?

27  
28 **MR. CHATAGINER:** We might give you the information and tell you  
29 that this thing has not been finalized. Everybody is innocent  
30 until proven guilty. You're not going to be proven guilty until  
31 a judge puts his signature on it.

32  
33 Yes, we would tell you he's been charged with something and  
34 there's cases where he could have been charged and it's not gone  
35 to court yet. Mississippi is not always the fastest. I held a  
36 ticket for eleven years before the judge finally decided to  
37 dismiss it, because it was his friend. You're going to run into  
38 that kind of stuff all the time, especially in the lower court  
39 level.

40  
41 One guy might hold five or six charges on him at one time. As a  
42 matter of a fact, we have one right now that's got five charges  
43 on him and four of the violations that are four years old and he  
44 hasn't been to court on them yet. He still oysters and he comes  
45 every commission meeting and complains about how bad BP screwed  
46 the Gulf up, but that's beside the point. He keeps postponing  
47 it and so it's kind of like crime on time in Mississippi.

48

1 **CHAIRMAN WILLIAMS:** Thank you. Do you know -- Is there anyone  
2 else that would like to tell us how it's done in their state  
3 that they're aware of?  
4

5 **MR. GOODRICH:** We're much like what Tiny said. We have an in-  
6 house database that we run everybody through and then if it's  
7 requirements that we run them through NCIC, we do that, to  
8 identify. We're not the final decider. We just provide the  
9 information to the council and we advise them of the situation  
10 that we found.  
11

12 I don't know about the rest of them, but I get a long list and I  
13 have to send that out to our communications division to run that  
14 and it's very time consuming and then we've got to sit there and  
15 review it and so I don't know if there's a way to streamline it  
16 in any way, but you have a lot of people you have to run  
17 sometimes, but we do look at everything that comes through there  
18 and identify it.  
19

20 **MR. RIECHERS:** Robert, so you definitely take it against and we  
21 run it through the NCIC, too?  
22

23 **MR. GOODRICH:** Yes, we do. We follow the guidelines that are  
24 given to us. We probably want to review those guidelines a  
25 little bit.  
26

27 **MR. RIECHERS:** Trish can speak to those again. She did at our  
28 last meeting, but it may be worthwhile to clarify what we ask  
29 for as well.  
30

31 **CHAIRMAN WILLIAMS:** I know on some that I've seen that it will  
32 say violation within the last five years, but we don't have a  
33 date and so I don't know how you can say there's a violation  
34 within the last five years if you don't know what the date is,  
35 but they're saying they provide the date, right?  
36

37 **MR. RIECHERS:** If they've been given the notion of the violation  
38 has been finished, whatever it is -- Getting at his point a  
39 while ago, it may be on the books longer than five years, but  
40 all of a sudden within the last five years the case has been  
41 concluded and it's been found guilty, that's what I assume we're  
42 asking for, but Trish is going to help us here.  
43

44 **MR. CHATAGINER:** I'm not sure that's what you're asking for, but  
45 you could clarify it. Violations are just violations and do you  
46 want to know if the person was found guilty of that violation?  
47 That's all you need to know, if he was guilty of a violation.  
48 He could have a hundred violations and never be guilty. If

1 you're just looking for the people that has been found guilty --

2

3 **MS. TRISH KENNEDY:** The email that I send out to the five states  
4 says we would like your staff to check the attached list to see  
5 if any of the individuals have been convicted of a felony  
6 offense or is determined to have violated any federal or state  
7 marine resource law or regulations within the previous five  
8 years. Such violations should be related to fishing or record  
9 keeping.

10

11 The problem we had was all five states came back and said Mr.  
12 Smith in my state had a violation, but then Texas came back and  
13 said we also found Mr. Smith to have had a violation in Florida,  
14 but Florida didn't come back and say Mr. Smith had a violation.

15

16 Because the council did not ask for details of the violation,  
17 because they didn't want staff to go in and be nitpicking  
18 through everybody's business, Florida is like, well, we didn't  
19 have that guy show up and then the question was why did Texas  
20 have him show up but then Florida didn't have him show up?

21

22 That's where the confusion was amongst the council and why we're  
23 back to the LEAP asking if you can tell us how you get your  
24 staff to us, based on this one or two sentences we ask you, and  
25 we did have 245 names that we asked them to check and so the  
26 list is rather lengthy.

27

28 **MR. GOODRICH:** I think that one showed up because we ran it  
29 through NCIC. That's how those other state things show up. We  
30 just report it and we're not the final decider of it. If NCIC  
31 puts something on there, it's going to show whether it's a  
32 conviction or not and we just forward the information. We felt  
33 like they were going to dig into it a little more and that's the  
34 way I felt about it.

35

36 **MR. PEARCE:** I think the real problem for the council is we've  
37 become judge and jury and we really don't want to be doing that  
38 and I don't think it's these guys -- It's not their problem of  
39 what's happening, but it's that we have to look at what we  
40 really want to do and the direction we want to go.

41

42 Every time we look at these situations, we have major  
43 discussions and we have major problems and so I think Robin is  
44 right that we've got to look at Administrative Policy and figure  
45 out the direction we want to go with these violations, if any at  
46 all, and just decide that.

47

48 **CHAIRMAN WILLIAMS:** That's true. I think we've had plenty of

1 discussion on that.

2  
3 **MR. SIMPSON:** As I remember, Madam Chairman, there was another  
4 issue too and that was the names that were submitted were not  
5 the individuals who we were asking for on the review and I know  
6 some of them were Asian and they have a lot of similar names,  
7 but there was one of them who was a former council member and  
8 chairman of the council who had no idea what we were talking  
9 about.

10  
11 **MR. ROB BEATON:** I was just going to chime in. We're a lot like  
12 everybody else and it's an in-house database. What we'll do is  
13 we'll get that list of names and if we get a hit, then we'll run  
14 that name for a disposition and so then we'll know whether it  
15 was withhold adjudication, adjudicated guilty, dismissed, the  
16 gamut of dispositions that they can be.

17  
18 One of the problems we've had is we get a list of names without  
19 a date of birth and I've got emails that say just do the best  
20 you can and you can't run Bob Smith without a date of birth,  
21 because there's no way of knowing which Bob Smith and so it  
22 comes to question of how much do you really need to know this  
23 information if we're getting asked to run names without dates of  
24 birth.

25  
26 **CHAIRMAN WILLIAMS:** I agree and even with a date of birth, you  
27 could have an instance where someone just happened to have the  
28 same name and date of birth. You almost would have to go to  
29 Social Security numbers or something to be able to nail it down  
30 for certain.

31  
32 **MR. CHATAGINER:** Something else you have to realize is NCIC is a  
33 federal program and it's very strict. We get audited on this.  
34 You can't just for fun give me your name and Social Security  
35 number and just run it. There has to be a purpose for that and  
36 a reason and if they come in and catch you running some girl's  
37 tag that went down the highway, they'll pull your NCIC fine,  
38 plus the person that ran it just committed a felony and they  
39 will arrest you.

40  
41 When we go to run all these things on NCIC -- Like NCIC can't be  
42 used for employment. I can't run a background on NCIC for  
43 employment for some private sector or something and so you can  
44 get yourself in a pretty bad situation, like Rob said, without  
45 the suspect's Social Security number and date of birth.

46  
47 My name is probably hard to find, but Larry Simpson, I bet I  
48 could run him and find 5,000 Larry Simpson's and do I have to

1 look through every one to find out which one has got a fisheries  
2 violation? We need to get it a little bit more detailed, which  
3 helps keep what we do -- In-house data searching is not too bad,  
4 but when you start messing with NCIC and running people, these  
5 other law enforcement people will tell you that you've got to  
6 really be careful what you're doing with it.

7  
8 If they come up with a hit, the first thing the FBI of that  
9 state is going to want is do you have your hands on the  
10 individual and will he be extradited and if you find out that  
11 it's the wrong person, then you have to call them and go through  
12 this whole thing and explain why you hit on this person's name.

13  
14 When you all do your little committee thing and try and find out  
15 just what it is you need, it would probably help us and keep us  
16 a little bit more straight with the NCIC rules and regulations  
17 as well.

18  
19 **CHAIRMAN WILLIAMS:** Thank you. We appreciate those suggestions  
20 and we're going to keep those in mind. Are there any other  
21 comments? That now brings us to Individual State and Federal  
22 Enforcement Report Highlights. There is no Tab H, Number 5 and  
23 it's my understanding that we haven't been given those as to  
24 date. We've asked for them but haven't received them and so  
25 there will be no report given on Tab H, Number 5, or that's my  
26 understanding.

27  
28 There's one item left on the agenda and that was under Other  
29 Business and Mr. Pearce added to the agenda BRDs and TEDs  
30 Discussion. Harlon, we're now at your TED and BRD Discussion.

31  
32 **OTHER BUSINESS**  
33 **DISCUSSION OF TEDs AND BRDs**  
34

35 **MR. PEARCE:** It's been brought to my attention since this last  
36 lawsuit was filed that we've got another problem with TEDs and  
37 BRDs with compliance and since we've got all the enforcement  
38 guys here, I wanted to kind of talk about that and we've got  
39 people here from the Louisiana Shrimp Association and I've got  
40 Gary Graham here to talk about what the compliance problems  
41 really are.

42  
43 I think we're ramped up our enforcement situation since this  
44 turtle situation came up and I really believe that we've got a  
45 success story with Kemps Ridley and not a problem with Kemps  
46 Ridley and we should be looking at delisting them, but what I  
47 would like to do is ask Clint to give us a quick idea of what  
48 his problems have been with trying to do compliance and I've got



1 Gary Graham that's been in Texas, Alabama, and Florida, to let  
2 you know what they found as problems with the nets and how they  
3 were made.

4  
5 **MR. CLINT GUIDRY:** Thank you, Madam Chair, and thanks to members  
6 of the committee for having me. My name is Clint Guidry and I  
7 am President of the Louisiana Shrimp Association and also the  
8 Vice Chairman of the Louisiana Shrimp Taskforce.

9  
10 We had a meeting the other day and I think some of the issues  
11 that came up concern the compliance rates in the shrimp fishery  
12 right now and Harlon made the suggestion that I come here and  
13 open up the discussion with you guys and I think it was a very  
14 good suggestion.

15  
16 Basically, I think it's complacency. We changed TEDs in 2003,  
17 if I'm not mistaken, and since then, we really haven't had any  
18 issues. People were monitoring the nesting sites and the  
19 nesting turtles and everything was working pretty good.

20  
21 The strandings and the mortalities were down and it suddenly  
22 became an issue last year with the BP oil spill and the number  
23 of turtles, stranded turtles, and turtles that were found dead,  
24 oiled. There were a lot of oiled turtles found and for some  
25 reason, people seemed to blame that on fishermen and it launched  
26 a new awareness of inspections and TED inspections.

27  
28 During the inspections, I think we found a lot of problems and I  
29 think it was needed. I really believe it was needed that we  
30 needed to get back and do a little bit more outreach. If I had  
31 to make one good suggestion, I think outreach to the fishermen  
32 and the net shops and the industry is very much needed and we're  
33 working on that.

34  
35 We have some meetings scheduled and I think Gary and Julie  
36 Falgout could speak to those issues a little bit better than me,  
37 but some of the things I'm hearing from the fishermen and I  
38 think by far the largest compliance issue was the angle  
39 violations.

40  
41 A lot of it came out of the net shops and a lot of it was from  
42 the fishermen. We had some outright disregard of the  
43 regulations, but I think you're going to have that a lot in  
44 different things that you just have been so complacent on that  
45 you're really not pushing the issue and I think that we need the  
46 industry as a whole to come up to speed and we have to have  
47 maybe yearly sessions, where we bring everybody back up to speed  
48 on what the regulations are and what's required of everybody.

1  
2 I think the angle violation inspection probably could be  
3 changed. I think a lot of the inspections were done at open sea  
4 conditions. It's a very flexible piece of equipment and I have  
5 some issues with the inspection, the angle violations.  
6  
7 Some of the things that came out of the public meetings by the  
8 fishermen themselves were certification. I think if we could  
9 come up with some sort of yearly certification, TED  
10 certification, either do it at the net shop level or -- We don't  
11 have many fishermen my age that work on nets anyway and most of  
12 these guys get their TEDs from net shops and so I think that's a  
13 good place to start.  
14  
15 If we could come up with a program where we had some sort of  
16 certification for TEDs every year, I think that would go a long  
17 ways on the compliance and it would go a long ways on relieving  
18 a big part of the responsibility on you guys.  
19  
20 If you got up there and you had the little seal on there showing  
21 that the guy -- It's no different than a Coast Guard inspection  
22 sticker that we get yearly and if we had a TED inspection yearly  
23 before we went fishing, I think that would be a very, very good  
24 idea. I think it would be well worth the money and the effort  
25 to do it.  
26  
27 Also, we've had some issues with tow time restrictions on  
28 skimmers and TEDs and I think a lot of this is because we have  
29 not had any issue in so long and we have not been proactive in  
30 making sure that the industry understood what the regulations  
31 were and what the consequences were.  
32  
33 I think that since this started -- I've done a lot of mail-outs  
34 and I've done emails and I've tried to bring the guys that I  
35 could reach back up to speed on where they need to be, but I  
36 think we need more outreach. We definitely need more outreach  
37 and I think that's in the planning and that's going to happen.  
38  
39 When it all is said and done, prior to the oil spill, if you  
40 look at the turtle strandings and if you look at the nesting  
41 sites and if you look at the nesting females, everything that we  
42 were doing was working.  
43  
44 Up until April 20 of last year, everything that we were doing  
45 was working. You could see it in the populations and it's not  
46 just us. There's a lot of people involved in this. Some of  
47 these environmental groups feel really strongly about what  
48 they're doing and rightfully so.

1  
2 Some of the agreements with the Mexicans to protect the Kemps  
3 Ridley nesting sites went a long ways in helping and I think it  
4 was a group effort and I think whatever everybody was doing was  
5 working and so I think with a little more outreach and maybe  
6 some more different way to certify TEDs and be able to make sure  
7 that everything is right, I think all of this can work out, I  
8 really do. Thank you.

9  
10 **MR. PEARCE:** Clint, one second. Talk to them about the  
11 difference in violations from no TED to just having a TED  
12 onboard, but -- We shouldn't have one violation, basically.

13  
14 **MR. GUIDRY:** We also discussed maybe different levels of  
15 noncompliance. A gentleman that goes out to a net shop and buys  
16 a TED, thinking that it's the right one and puts it on a boat  
17 and when he does get inspected and finds out that it's not on  
18 the right angle, I think that should be like a misdemeanor and a  
19 felony. I think you should have different classes.

20  
21 I think you probably have some of that now, but I believe that  
22 until we can get the certification program in and until we can  
23 get a more definite way to be sure of this angle that these guys  
24 deserve a little bit of credit for trying their best to not  
25 disregard the regulation, but to obey it.

26  
27 They go to the net shop and they spend money and they do this  
28 and through whatever process, they find out the angle is wrong  
29 and I just think there should be some different levels in the  
30 regulation that allows for the noncompliance.

31  
32 **MR. BILL TEEHAN:** I'm not on your committee and thanks for your  
33 testimony. When you were mentioning the problems with the  
34 angle, is it possible that you can go into the net shop and get  
35 a new net, new webbing, new dip and everything else and it's at  
36 the proper angle, but after it's been towed for a while that  
37 that angle will come out of compliance?

38  
39 **MR. GUIDRY:** I'm an old fisherman myself and I'm not just a  
40 representative and I've been fishing all my life. It's a very  
41 flexible piece of equipment and that's why I think that the  
42 certification is really needed and I think that the  
43 understanding that when you catch it with a whip line and you're  
44 going to check it on the back deck of a shrimp boat -- When  
45 you're going to do the hook around and you're going to grab it,  
46 you're automatically pulling off of one side of the webbing.

47  
48 I'm not trying to put the blame on anybody, but I just think

1 that whole process is flawed and I think that we should come up  
2 with a different process to be able to certify these TEDs angle-  
3 wise.

4  
5 **MR. PERRET:** Clint, let me ask you a question and I know while  
6 you're with Louisiana shrimp and so on that you're darned sure  
7 smart enough to know that you can't speak for a thousand  
8 fishermen or a hundred fishermen or something.

9  
10 Two weeks ago, and I think it was two and it might have been  
11 three, but I was at a meeting in Seattle where we met with  
12 shellfish people, interstate shellfish sanitation. FDA, it  
13 looks like, and they've got that heavy handle of public health  
14 and all that good stuff, but it looks like the states are going  
15 to be required that before we will issue a commercial oyster  
16 license that that person buying the license is going to have to  
17 have a two-hour or one-hour or three-hour certification on how  
18 to handle his product, due to this refrigeration thing and all  
19 that.

20  
21 I got to thinking that we've got these issues with TEDs and BRDs  
22 and shrimping and so on and I mentioned this to Dr. Crabtree  
23 last week, and he's the only one I've talked to about this and  
24 it kind of scares me, because he thought it might be worth  
25 pursuing and so I'm not so sure it's a good idea now, but what  
26 do you think the chances would be of getting support from the  
27 commercial shrimpers that to buy your license you're going to  
28 have to have a -- I don't know if it's going to take a day or  
29 half-a-day or two hours or whatever, but this is what you've got  
30 to do with the TEDs and this is how they've got to be placed and  
31 that sort of thing. What do you think?

32  
33 **MR. GUIDRY:** I think that any kind of regulation that you put on  
34 a fisherman that they're going to squawk about it, but this is a  
35 new world. We have been discussing training for fishermen and  
36 other aspects and I think they're going to be more willing to do  
37 that, but if it's a requirement that they have to do it, it's no  
38 different than in Louisiana we have the laws for the guns and  
39 young kids and sooner or later, you're going to have to require  
40 an operators permit to get in the boat and I don't think it's a  
41 bad thing. I think it's something that more education is never  
42 bad.

43  
44 **MR. PERRET:** I prefer voluntary to mandatory, but the more I  
45 think about it, the more I think it might be advantageous to the  
46 fishermen as well as to government and so on, but it's something  
47 we can all think about and maybe work on for the future.

48

1 MR. GUIDRY: You know I also participate in a lot of other  
2 meetings. Economic development, we're concerned about the money  
3 that's coming out of coastal restoration and we're trying to set  
4 up programs for our fishermen to be able to get the necessary  
5 training and licenses that if they so with they can alternate  
6 between fishing and working those jobs. It's not out of the box  
7 and I think it's entirely possible.

8  
9 MR. CHATAGINER: In reference to what you said, there's a lot of  
10 truth in that. I know during the BP oil spill and all the  
11 turtles dying, law enforcement took a bad rap, especially in  
12 Mississippi, because we had dead turtles washed up in our state,  
13 that we weren't doing our job.

14  
15 We did find some violations and the majority, 99 percent, of the  
16 violations were just what you said, the TED angle was wrong.  
17 The first question was where did you buy your TED at and we  
18 bought it from this outfit in Alabama and the next shrimper,  
19 where did you buy your TED at and he bought it from this outfit  
20 and I even had the federal agents with me and they said they're  
21 trying to shut this guy down, because he can't make the TEDs  
22 right.

23  
24 It's still the fisherman's responsibility. If you go buy a  
25 twenty-five-foot trawl, it's your responsibility, in  
26 Mississippi, to measure that thing to make sure you don't exceed  
27 the cork limit and the lead line.

28  
29 In our case, we wrote maybe zero tickets for TED angles, because  
30 all we want to do is get the fishermen in compliance and we took  
31 a bad rap for this too, but most of the fishermen came into  
32 compliance. The only problem we're having with TEDs now is  
33 people still decide to just tie them up. They think the turtle  
34 has some mysterious way of being able to untie these things with  
35 zip ties on their nets.

36  
37 What you said, there's a lot of truth in it, but it goes back to  
38 these are certified shops that the federal people have gone and  
39 inspected and said, okay, you know what you're doing and you're  
40 making these TEDs and you get there and every one of them is the  
41 exact same angle and they're all five degrees or four degrees  
42 and so it's not just the states.

43  
44 I think we need some help on the federal side too in staying on  
45 top of these shops in the southeast region or wherever they're  
46 making them on the east coast too, to stay on top of these  
47 people that are putting these bad TEDs out.

1 The thing with the certification you're talking about, we do  
2 that with gillnets and so they bring in a non-biodegradable  
3 gillnet and they get their certification seal on it and then  
4 they go back and cut that part off with fifty foot of netting  
5 and sew it back on the monofilament net and so the guy walks by  
6 and says, yes, it's certified.

7  
8 People change shrimp trawls two or three times during the night  
9 and so I don't know what putting a certification on the TED is  
10 going to be. It's going to have to be measured.

11  
12 On a boat trying to measure one when it's rocking, it's not the  
13 easiest thing in the world, but it's better than bringing you  
14 back to the dock to do it. There's all kinds of solutions, but  
15 there's still a lot of problems, but the fishermen need to take  
16 responsibility before they leave the dock to make sure their TED  
17 angles are right.

18  
19 **MR. GUIDRY:** I totally agree with you. Ultimately, it is the  
20 fishermen's responsibility, even if he got a faulty TED from the  
21 net shop. I think that's where the outreach and the extra  
22 training or informational meetings that we're going to be  
23 holding is going to come in handy and I think we're going to get  
24 away from a lot of it by doing that.

25  
26 We used to do all kinds of seals with the little stainless wire  
27 and with the lead and the crimp when I worked in the oil  
28 refineries and I just think it's possible. I just think we can  
29 do something like that, come up with some kind of idea. Not  
30 necessarily that one, but something that will last.

31  
32 **MR. PEARCE:** There's some situation we can think about and maybe  
33 giving a little more tolerance to the angles could help, because  
34 if it does bend, that might be part of it, but I think what  
35 Corky is talking about and I think the education component is  
36 very, very important.

37  
38 We need to make sure -- I think professionalization is a big  
39 idea. It's a big word, but I think the shrimper is responsible,  
40 in the long run, and so he has to understand what's going on and  
41 I know there are some shrimpers that have no TEDs at all. We  
42 had that in Vermilion Bay just last week, I think, but the bulk  
43 of it is problems with the nets and problems with tying it.

44  
45 The bottom line is I think compliance is about 87 percent now  
46 and we've got to get it into the upper nineties in order to  
47 solve our problems with the turtles. No matter how many we've  
48 got out there, we're still got to get compliance up.

1  
2 I appreciate you coming out here and letting us know that the  
3 shrimp industry in Louisiana would like to try to do that and  
4 help us trying to get things done. I think, Corky, during the  
5 Shrimp Advisory Panel -- As our Shrimp Panel, we might decide to  
6 do an AP for the shrimpers, to figure out how to help them do a  
7 better job with the TEDs and the BRDs. That's all I have for  
8 him and I would like to have Gary Graham say some things.

9  
10 **CHAIRMAN WILLIAMS:** We have one other question.

11  
12 **MR. BEATON:** I was just going to stand up for law enforcement a  
13 little bit. The shrimp industry is just like every other  
14 industry we deal with. 95 percent are the folks who are either  
15 doing the right thing or trying real hard to do the right thing.

16  
17 I know our officers, we always throw this word "discretion". If  
18 we've got a TED that's a degree or two degrees, that's not going  
19 to be a ticket. That's going to be a fix it and document it and  
20 go on.

21  
22 The issue with tow times, we can't make a tow time case in court  
23 unless we can swear and testify that we documented when the net  
24 went in and documented when it came out and so if the law  
25 enforcement is there watching the tow time, what do you think  
26 the trawl is going to do? It's going to abide by the trawl  
27 times.

28  
29 The only way we can make a TED case is to interrupt the effort  
30 and make the net all come up and that's the only way you can  
31 make a TED case. You can't make a TED case on a dry net at the  
32 dock and so we're caught in this trying to work with industry  
33 and not interfere with the way you do business, but the only way  
34 we can make a TED case is to have the gear pulled in the middle  
35 of the run.

36  
37 It's a tough case for us to make to start with and so those  
38 cases that are being made, with the difficulty of making the  
39 case and with that discretion in there, I think those are valid  
40 cases.

41  
42 **MR. GUIDRY:** I didn't say there was any fault in what the agents  
43 are doing. I know you guys are kind of shorthanded and you're  
44 working on short budgets from year to year and I think you're  
45 doing a hell of a job, I really do.

46  
47 **MR. GOODRICH:** I just wanted to provide you some things that our  
48 industry down there got not only with us, but with National

1 Marine Fisheries and NOAA and we put on many training events on  
2 the TEDs and the BRDs.

3  
4 NOAA was very cooperative in sending us people and I'm sure you  
5 all have seen them too, the guys that are out there doing that.  
6 They came down and put on these training sessions and that  
7 brought our compliance level way up and so I would look to  
8 getting some help from NOAA and National Marine Fisheries. It's  
9 there and that helped us in our state.

10  
11 **MR. SCOTT BANNON:** I agree with you about the education portion  
12 of that and in Alabama, we are much like Texas. We're going to  
13 hold some public training sessions and we are going to go to the  
14 shops and meet with those guys.

15  
16 I think there was a challenge with one of the shops and National  
17 Marine Fisheries gear specialists went by and spoke with those  
18 folks and so it is very important to us and to go to bat for law  
19 enforcement a little bit, under the guidelines there are some  
20 variances.

21  
22 I agree with Rob that when we go onboard, if it's out a little  
23 bit, that's a tough case to make, if we're saying it's got to be  
24 right here. I agree with you as well. You're on a very dynamic  
25 environment and that shrimp boat is all over the place and the  
26 net is hanging and generally, we operate as two-person patrols.

27  
28 If one person is measuring that trawl, where do you think the  
29 other person is? He's following them in the boat and so it is a  
30 very challenging environment and so our efforts are going to be  
31 concentrated on some dockside inspections and say, hey, let's  
32 check your equipment before you go out and let's prevent this  
33 violation.

34  
35 We were provided a little bit of funding and I think all of the  
36 states here also have different minority communities that we  
37 have to make sure that we ensure that they're given their fair  
38 share and the same information and so we're going to do it in  
39 multiple languages and we're going to have some translators and  
40 then we're going to also provide -- Actually, beforehand, we're  
41 going to redo the training for our officers.

42  
43 If the officers are not enforcing it correctly, then it's not  
44 helping the shrimping community and so I think a lot of those  
45 plans are in place even in several of the other states and so I  
46 think we, from what I'm gathering in here, is we are in  
47 agreement with the training. Whether or not we get to a  
48 certification process, I don't know, but we are working very



1 hard to correct some of those problems.

2

3 **MR. EASLEY:** I had several comments to make on several of the  
4 topics that everyone else hit on and so I won't sound redundant,  
5 but I just expand on just one and that deals with the officer  
6 discretion aspect, when there's smaller violations or smaller  
7 degrees or larger flaps or smaller openings versus others.

8

9 The Science Center, those gear specialists work with NOAA  
10 General Counsel for enforcement litigation and they've come up  
11 with a sort of matrix or a sheet to help law enforcement that  
12 has four categories to delineate the potential effect on the  
13 take of turtles.

14

15 Based on those four categories, the enforcement officer or agent  
16 will then decide whether this is just a warning or this is a  
17 more serious violation and it's also directions for the General  
18 Counsel attorney.

19

20 If a case does fall into one of the lower categories, he or she  
21 can -- In our case in NOAA, it's pretty much Duane and he can  
22 determine what's -- He can suggest a certain degree of penalty  
23 for that particular violation, for instance if it's sewn shut  
24 versus not in there at all versus the flap is sixteen inches  
25 versus fifteen or whatever it happens to be. I just wanted to  
26 share that with you.

27

28 **MR. CHATAGINER:** I would like to direct this question to Dr.  
29 Crabtree and Otha and they can kind of get together on it. NOAA  
30 declares what TEDs can be used and can't be used and you all  
31 certify the type of TED.

32

33 Do you all actually go and certify the shops that install these  
34 TEDs or is there a way that you could implement a plan where you  
35 had to be a certified shop putting these TEDs together and if  
36 some violations came back to where the shop was building them  
37 wrong, there would be some type of federal violation that you  
38 could cite the shop owner for building the TED wrong and selling  
39 it wrong?

40

41 **DR. ROY CRABTREE:** You're right that we do certify the TEDs and  
42 do that testing. We have not, in the past, certified the TED  
43 makers. We're having some discussions about that. I'm not sure  
44 if we could require certified TEDs outside of the federal  
45 fishery, but perhaps we could under ESA rulemaking sorts of  
46 authority.

47

48 That's the kind of question I would have to rely on the

1 attorneys to advise us, as to what we can and can't do. It  
2 might be worth some of the states looking at similar sorts of  
3 things where the TEDs are made. For example, we talked about  
4 one net maker in Alabama and I'm sure Alabama could probably  
5 certify something like that, but we're looking at it and talking  
6 about it.

7  
8 **CHAIRMAN WILLIAMS:** Thank you. Gary Graham?

9  
10 **MR. PEARCE:** Gary Graham is going to come up and I think he's  
11 going to accentuate the problem with the net manufacturers.  
12 He's going to tell you about he's been traveling the Gulf and he  
13 will let you know about the situations he's found in the Gulf.

14  
15 **MR. GARY GRAHAM:** Thank you. I'm Gary Graham and I wear several  
16 hats and the hat I'm wearing today is Gulf Coordinator for the  
17 Gulf and South Atlantic Fisheries Foundation. I'm also a  
18 professor and marine fisheries specialist with the Texas Sea  
19 Grant Program.

20  
21 I want to start off by saying one of the issues is that we also  
22 changed BRDs. Nobody has said anything about that and there's  
23 been a lot of educational effort out there for the new BRDs and  
24 probably in that process -- We've spent a lot of time on the  
25 waterfront getting guys re-rigged and educated with the new  
26 bycatch reduction devices for fish and probably redirected -- We  
27 should have stayed with the TED situation as well and we didn't,  
28 but we're back into it.

29  
30 The National Marine Fisheries Service, because of this issue,  
31 has given the Foundation some funding for outreach efforts and  
32 we've been doing a lot of that through the years and just  
33 recently, to kind of give you an idea of what we've done --  
34 We're trying to hurry up and get this done right in the middle  
35 of the shrimp season and that is very, very difficult to do,  
36 when it came down.

37  
38 Texas, we were able to get six workshops in and we had between  
39 400 and 500 people that attended those workshops this year and  
40 it was a little bit different.

41  
42 I was kind of able to get in there and include this in what's  
43 called TAA training, where fishermen were mandated to get  
44 training and to get money. I'm an old-timer. I'm forty-one  
45 years out here doing this stuff and I'm kind of against somebody  
46 getting paid to hear me talk. At first, I kind of shook my head  
47 about it, but it worked in certain ports.

1 I would use Port Arthur probably as one of my best examples.  
2 You've got to understand that things have been happening fast.  
3 I'm trying to do these workshops and I'm getting people from all  
4 over the Gulf calling me and asking me to actually come down and  
5 look at their boats and look at their stuff.

6  
7 For example, after the Port Arthur workshop that I gave, the  
8 fishermen came up to me and said they have the TEDs and they've  
9 gone over everything and they said we're not right and we need  
10 some help and we need somebody to come down there and look at  
11 our gear. I said I've got to be in Ft. Myers tomorrow and you  
12 talk about collaboration.

13  
14 We've worked a lot with Texas Parks and Wildlife and I'll tell  
15 you it's been great and our history with collaboration with  
16 National Marine Fisheries Service goes back for many decades,  
17 but just to give you an idea of what I think -- I'm really proud  
18 of this.

19  
20 I picked up the telephone and said I need help in Port Arthur  
21 and I flew to Ft. Myers and National Marine Fisheries Service  
22 was down there the next day. They brought in people and the  
23 Asian-Americans were organized and had their boats lined up and  
24 they found the problem and it traced back, just like you said,  
25 back to the net shop. It went right back to the net shop.

26  
27 I had pushed that net shop in the past. What it takes sometimes  
28 is somebody that has got some bite. I don't have bite and  
29 Special Agent Campbell, when he got through with it, I think  
30 that problem has been ameliorated. In fact, he told the people  
31 anybody that's got a TED that you just built, if they bring it  
32 back, I expect you to fix it. That's some of the issues.

33  
34 By the way, I've had feedback that the boats have been inspected  
35 in Port Arthur, which has been problematic, and they're looking  
36 pretty good. I don't know if you all have got any comments on  
37 that or not.

38  
39 What has happened though is -- You mentioned ignorance is no  
40 excuse and there is some ignorance out there. I guarantee you  
41 that nobody is going to ask you to come down and look at their  
42 TEDs if they know they're wrong and I won't mention any names or  
43 any places, but I only found a fleet with 140 TEDs that were  
44 incorrect and the owners freaked out, absolutely freaked out,  
45 when I took them down there on the boats and put the angle  
46 meters and showed them and said your angles are too steep.

47  
48 One net shop was involved, one net person, and I, again, think

1 that problem has been solved and it's just to give you an idea  
2 of some of the things we've looked at.

3  
4 Workshops aren't the best thing this time of year and I'll be  
5 quite frank with you. I've tried to have a workshop in  
6 Louisiana, Mississippi, and Florida and attendance was zero and  
7 that's fishermen are out fishing. Fishermen are out trying to  
8 make money this time of year and you just can't expect that.

9  
10 What we have found, and we have done this for many years, is the  
11 least efficient, but most effective, and that is to get down to  
12 the waterfront. Take your gear down there and get the fishermen  
13 and get them in little groups and get on the boats and look at  
14 their gear and have some TEDs that are right with you and show  
15 them how to measure the angle.

16  
17 Quite frankly, there's some ways you can save fishermen some  
18 money. There's a way that that flap can go on a TED and if it's  
19 put on one way, it's going to open and you're going to lose  
20 shrimp and if it's put on another way, if it's flipped over, it  
21 will stay closed and it has nothing to do with sea turtle  
22 conservation, but it has something to do with shrimp retention.  
23 We still find those mistakes and we're able to help them.

24  
25 The angles are the problem. That's the biggest issue we're  
26 finding. We're finding a few openings that are not quite bit  
27 enough, but if I had to pick any particular thing, it's that of  
28 the angles.

29  
30 We've had a major, major positive thing that's took place this  
31 year regarding outreach and that is a very excellent video that  
32 National Marine Fisheries Service has put together. It's a  
33 thirty-minute video and you watch that video and if you pay  
34 attention to it, you're going to know something about TEDs and  
35 the angles and that sort of thing. It's very, very good.

36  
37 National Marine Fisheries Service produced it in English and in  
38 Spanish. I've found that the Vietnamese, in the workshops I've  
39 been having -- I've been paying, through the Foundation,  
40 interpreters to do it in Vietnamese and we're in an effort --  
41 We're collaborating with Mississippi DNR to have this video  
42 translated into Vietnamese. We think that's a pretty important  
43 thing. We're having some difficulty with it, but the Foundation  
44 is -- Judi is supporting that right now and I look forward to  
45 getting that.

46  
47 Harlon, we're going to be in Louisiana and doing this dockside  
48 work the week of November 7 and the week of November 28, just to

1 let you know, and we're going to be -- Right now, we don't have  
2 these formal workshops and Julie Falgout says we don't call them  
3 workshops, but we call them informational exchanges.

4  
5 Right now, we have none scheduled, because of the season, but  
6 we'll be down there, like we've done in the past, really putting  
7 in a dedicated effort to get on boats and sit there and we'll be  
8 mixing it up there, but we're going to put a pretty concerted  
9 effort into Louisiana this month.

10  
11 **MR. PEARCE:** Gary, I think what you're saying is exactly right.  
12 We've got to get it done, get these educational workshops done.  
13 You've got Clint Guidry sitting right here and he's ready to  
14 work with you.

15  
16 **MR. GRAHAM:** Clint has already said -- Clint is aboard and he  
17 said whatever we can do to help you and like I said, it's the  
18 least efficient, but most effective as far as the waterfront  
19 work. We've done that with BRDs and TEDs and everything else  
20 through the years.

21  
22 One of the things that I would like to bring out -- I'm finding  
23 a lot of problems, but there's something else that really  
24 disconcerts me tremendously. I've been in this issue ever since  
25 the get-go and in 1986 or 1987 and I can't remember -- I'm sorry  
26 that my memory is not that good, but we had a huge amount of  
27 strandings and this turtle issue was very hot at that time on  
28 the upper Texas coast in April, a huge amount of strandings.

29  
30 Boy, the environmentalists were out there and my God, shrimping  
31 and shrimping and I'm wondering, where is the boats? There were  
32 no boats up there and we have all these strandings.

33  
34 I was talking to Bonnie Ponwith the other day and I said,  
35 Bonnie, there's some kind of phenomena taking place. I'm not  
36 trying to say that fishermen are not playing a role here, but  
37 there is a phenomena that I have marked through the years of  
38 April strandings and I would love to get a handle on it.  
39 There's something that needs to be done with this.

40  
41 You're too young and you don't remember that, Corky, but anyhow,  
42 the situation was that it's happening and I've watched it happen  
43 through the years and I'm not going to say there's culpability  
44 this go-round or not, but I do know this year it sure it hard to  
45 find a smoking gun.

46  
47 It's easy to go out and find some TED angles that are off, but  
48 to try to find some boats that contributed to those strandings

1 this year is probably going to be pretty difficult, from what I  
2 understand.

3  
4 I would love to see something there put towards this particular  
5 phenomena and I don't know how to approach it, but there's  
6 something there. I've looked at it too long. I think that's  
7 all the notes that I've made right now and do we have any  
8 questions?

9  
10 **CHAIRMAN WILLIAMS:** I don't know that we have any questions.

11  
12 **MR. GOODRICH:** Hi, Gary. I wanted to first of all recognize you  
13 and all the appreciation for everything you've done for Parks  
14 and Wildlife and the game wardens and keeping us abreast of all  
15 of this.

16  
17 Just to let everyone else know, all those workshops he put on  
18 for the fishermen, he as well put on workshops with the NOAA  
19 gear specialists for our game wardens, so that they would be  
20 proficient when they go out there.

21  
22 I'm going to share -- Some of you know in law enforcement know  
23 this, but it's kind of like when a warden or an officer makes  
24 his first boating while intoxicated case. He's really nervous  
25 about making sure he's checked everything and done it right and  
26 done the right thing and this is really kind of like that.

27  
28 If you don't feel comfortable, you're not going to do it and so  
29 they might veer off and go check another boat or this or that,  
30 but what they've done with the gear specialists and Gary is  
31 they've made it so our officers feel comfortable about knowing  
32 what the regulations are and how to inspect a TED and a BRD and  
33 that's important and we didn't just do it once.

34  
35 We've done it many times because it's like anything else. If  
36 you don't use it, you lose it and so we reinvest in those skills  
37 with your cooperation and help and we want to keep doing that  
38 and I think that's part of the commitment from the law  
39 enforcement end that we have to do, is make sure that our  
40 officers know the right things to check and inspect.

41  
42 At the same time, I have to echo what the other officers said.  
43 We don't just find us one little angle. Lots of times when  
44 those cases are made, there are multiple violations before we  
45 actually file a charge. A lot of is education.

46  
47 What is really unique in these last few workshops is we have not  
48 separated commercial fishermen and the wardens. We've had

1 wardens in those workshops as well, standing side-by-side  
2 watching the TED or the BRD hanging up there and seeing angles  
3 and checking it and everyone is agreeing this is how you need to  
4 look at it.

5  
6 It brings us together out there and I think we've got to do that  
7 so they know that this is what we're looking at and we all got  
8 the same training and so I just wanted to say thank you, Gary,  
9 for everything you all have done.

10  
11 **MR. GRAHAM:** I'll tell you in my forty-something-year career, if  
12 I had to pick an example of collaboration between various  
13 groups, this would be it. It really is great.

14  
15 **MR. BEATON:** Gary, I wanted to ask, how do we get your scheduled  
16 and to know if you're going to be in Florida, because, like  
17 Robert's folks, I would like my folks to be there too.

18  
19 **MR. GRAHAM:** We hammered Florida pretty well already. If I go  
20 back over there, I'll let you know, but the only place I haven't  
21 been is Key West and it's pretty well dried up down there, to be  
22 honest with you. I can't get the Foundation to really just want  
23 to send me to Key West. I keep wanting to do it, but --

24  
25 I will be back down doing some work. I missed a few boats in  
26 Tarpon Springs the other day that didn't have people aboard that  
27 I wanted to hit, but I'm down in the -- Tell you what. I'm  
28 doing work sometimes in Tampa and if I slide down to Tarpon or  
29 back to the docks there, I'll give you a call. I'll get your  
30 card, Rob, and I would be glad to do it.

31  
32 **DR. CRABTREE:** I just wanted to thank you, Gary, for all the  
33 effort you've put into this over the years and anytime we've had  
34 something like this come up and needed help with, Gary has  
35 always been right there and he's always enthusiastic about it  
36 and we really do appreciate it.

37  
38 **MR. GRAHAM:** Appreciate the Foundation. They're the ones that  
39 have kept this going for us there.

40  
41 **MR. TEEHAN:** I'm not on the committee, but I'll just pile on to  
42 Gary and also the NOAA gear specialists in Pascagoula. They've  
43 always been cooperative with Florida. Rob, when the BRD issues  
44 first came up, they did quite a few workshops through there and  
45 we've actually asked them to come in at a night's notice to come  
46 check things and so I think there are resources there if we want  
47 to get together and get some workshops set up.

1 UNIDENTIFIED: To jump on that, the Pascagoula folks come to  
2 every one of our academies and spend a good portion of a day  
3 just on TEDs at every single training academy and so we  
4 appreciate that.

5  
6 MR. PEARCE: Let me try and wrap it up. I just want to thank  
7 everybody for coming, Gary and Clint both, and I just want this  
8 council and this committee to see how serious we are about  
9 getting compliance up in the shrimp industry.

10  
11 It's just something that snowballed on us and it's getting  
12 better and better every day and I want you to understand that  
13 everybody is trying hard to get their job done in the right way,  
14 so that we don't have a turtle problem. Clint is here and if  
15 you need to get him to do anything or Gary, they're here to  
16 help. We want to make sure we do it the right way and that's  
17 all.

18  
19 CHAIRMAN WILLIAMS: Thank you, Harlon. I've actually found out  
20 that our state officers has their reports and while they did not  
21 turn it in, they do have something that they can supply to all  
22 of us and we are way ahead and so if you'll bear with us, Steve,  
23 why don't you handle this?

24  
25 MR. VANDERKOOY: I appreciate that. If you don't mind, we'll go  
26 ahead and go back to the state reports and the federal reports.  
27 I think that our guys have enough information that they would  
28 like to share and, Robert, you had a presentation and why don't  
29 we go ahead and start with Texas and work our way back to  
30 Florida, if that's okay, and then, Carmen, if you have anything  
31 or OLE, we'll go from there.

32  
33 INDIVIDUAL STATE AND FEDERAL ENFORCEMENT REPORT HIGHLIGHTS  
34 TEXAS

35  
36 MR. GOODRICH: Thank you and first of all, just a little  
37 background on us. I'm kind of going to go over our JEA and some  
38 of our efforts out there, because I think that kind of ties in  
39 more to what we're doing in the coastal world.

40  
41 Again, this is just the background of what our JEA is about. I  
42 think every department and every state has that. We're trying  
43 to enforce all these different laws under these acts out there.

44  
45 We use the JEA and we use the monies in it and we use it towards  
46 the enforcement plan and, of course, TEDs and BRDs are a big  
47 part of that, but, again, we get our officers and they're all  
48 federally deputized, as all the officers usually are in most



1 states. They carry a dual-certification and we administer that  
2 plan. I'm not going to dwell on a lot and I'm going to get  
3 right down to the meat of it, because I think most everyone  
4 knows in here of our JEA effort.

5  
6 Again, we went out there to get compliance and that's what every  
7 agency is trying to do. We've got the regulations and we want  
8 to gain compliance and a lot of that is -- I'm going to kind of  
9 go over a little bit of how we do that.

10  
11 The big part of that is education, it is. In fact, when I  
12 talked a little bit earlier about education, our land and water  
13 plan that we do in Parks and Wildlife is a required plan and  
14 part of that plan is education of commercial fishermen and so we  
15 have to report every three months to our commission where we are  
16 on educating commercial fishermen and that's a valuable thing to  
17 have out there, because it makes everybody responsible to know  
18 that we've got a responsibility to make sure everybody  
19 understands the law and what they need to do to be compliant.

20  
21 Again, the TEDs and BRDs and reef fish and the dealers. We go  
22 out on the TEDs and BRDs and we're enforcing that not only in  
23 our waters, but, of course, offshore. We do go out and if we're  
24 called out beyond nine nautical miles, our position is we do go  
25 out there when there's something that's immediately right there.

26  
27 The reef fish commercial and recreational part, we do get boats  
28 coming in on the IFQ. We have a lot of vessels coming in. Our  
29 IFQ level is very high and most of it is centered around  
30 Galveston. That's where most of the vessels come in.

31  
32 We've conducted several operations where we targeted dealers  
33 around the state and not just on the coastline. We're tracking  
34 fish where it comes inland and so what we do is we've had some  
35 dealer efforts, some taskforces, where we'll bring in ten to  
36 twelve wardens into an area, like San Antonio or Dallas, and  
37 we'll come in there and we'll check for compliance to licenses  
38 and during the course of that, we'll be tracking some fish that  
39 came off the Gulf.

40  
41 Oftentimes, we've found violations of that nature, where fish  
42 have come in and we can track it back and we've got an illegal  
43 harvest situation that's went all the way inland or maybe an  
44 illegal import. We're finding a lot of imported fish, too.

45  
46 That's been very -- We intend to go forward with that and do  
47 more of that, because what it's going to help us do is build a  
48 problem -- What we're absolutely working towards is the ability

1 to track fish from the sea to the plate.  
2  
3 That's a big program and we're working with Coastal Fisheries  
4 and our Inland Fisheries Division too, to try to track that  
5 through dealers and the trip ticket program and develop our own  
6 system as well, where we can document what fishermen catch, what  
7 they do when they sell it to the dealer, who they sell it to,  
8 and then we capture all of the information on our trip ticket  
9 program of where their harvest was, what the vessel was, what  
10 the gear.  
11  
12 It's a big program for us to try to do. We're working on it and  
13 it's been tough. I'm a little frustrated with it, because I  
14 want it to go forward, but it takes a lot of effort and the  
15 information is only as good as what you put in there and so  
16 that's one of our efforts that we're going to double up on this  
17 next year and try to see if we can't move that program further  
18 along.  
19  
20 Our trip ticket program is very beneficial, because it's letting  
21 us making accountability to the fishermen out there. I'm sure  
22 all of you had where you've sold -- You're tracked cash sales  
23 receipts where a fisherman sold to one house in the morning and  
24 then to another house in the afternoon and he went over the  
25 limit, in shrimp or whatever it was. We're pretty much nailing  
26 that down and we're going to document where they can't do that.  
27 Again, that's one of our dealer efforts.  
28  
29 There's some statistics up here about how many hours we put in  
30 on our docksides and how much effort we've really done at sea.  
31 We even went aviation this year a little bit on our TEDs. That  
32 was a really good effort.  
33  
34 We got our planes out there and let me tell you, that was a real  
35 good deal to be able to know where the vessels were, rather than  
36 just go offshore and try to find them. We're working towards  
37 that, but that was a very expensive effort, but we did get some  
38 funding for it this year and JEA helped us get through that.  
39  
40 As you'll notice at the bottom down there, we have direct  
41 purchases. One of our great direct purchases, and I'll show it  
42 to you here at the end, is our thirty-eight-foot SAFE boat. We  
43 just took delivery of that a couple of weeks ago and that's for  
44 our middle coast.  
45  
46 What we're trying to do is we've had a sixty-five footer on the  
47 lower end of our coast and a sixty-five footer on the upper end,  
48 but we've kind of been a little bit lax in that middle area and

1 we're going to take this boat and that's going to give us a  
2 little more offshore capability and so that's going to fill a  
3 hole for us right there.

4  
5 We did some -- As I said, these were special amendments that  
6 came along in our JEA and these were available. We got an offer  
7 that said, hey, if we can come up with some more funds, can you  
8 go out there and do some more patrol for the TED violations and  
9 absolutely.

10  
11 We readapted and we looked at what we could do and we brought in  
12 some people and made it happen and it was a successful event,  
13 because we ended up finding some violations out there in the TED  
14 world that we would not have been able to get to without some  
15 additional funds for patrol.

16  
17 When we talk about additional funds, we're putting them to work  
18 and most of those funds went for fuel. That's what most of it  
19 went for and the officers that were required to be out there.  
20 We didn't buy things with it like motors and all that. We put  
21 boots on the ground and that's what we were doing out there.  
22 Actually, it was boots in the boat. We look to do more of that.  
23 Again, the aircraft hours that were financed were very  
24 successful.

25  
26 These are just some parts about our direct purchases that we did  
27 to get our SAFE boat. That's about half the price of what a  
28 SAFE boat was, but that thirty-eight footer was very expensive,  
29 but, again, we got some allocation for it and we reallocated our  
30 dockside parts to some of that, but we ended up paying the  
31 difference.

32  
33 This gives our offshore and midrange patrol hours. Some of you  
34 -- I know all of the law enforcement people are aware that we  
35 are committed to certain percentages of offshore and midrange  
36 patrol and that's all part of our contractual agreement and  
37 that's what this is. It's a contract. It's not a grant and  
38 I've had to tell so many people in our organization and they  
39 want to look at it like a grant and it's not a grant. It's a  
40 contract.

41  
42 We agree to do so much for so much money and that's what we  
43 produce and we're reviewed monthly by NOAA and they say, hey,  
44 where's your monthly report and we want to see where you're at.

45  
46 One thing I will share with the states that has helped us a lot  
47 is we have held supervisor meetings and made sure that the  
48 supervisors knew where they were on the projected plan, so that

1 they could go out there knowing that to meet the projected plan  
2 that I need to make sure we patrol these areas or do dockside  
3 inspections to this amount or outreach programs. That's even in  
4 this plan, too.

5  
6 We get funded for so much outreach and so it's important to make  
7 sure that everyone knows where they stand, so you don't come  
8 along at the end of the year and say we've got to run out there  
9 and do some patrol and that's not effective. We want to do it  
10 when it needs to be done in a planned manner and so that's what  
11 we looked at.

12  
13 This, again, is just more of our distribution of our hours. I  
14 know it's a lot of statistics and it's part of our report and so  
15 we send that in. I wanted to get to the end here.

16  
17 I've got a lieutenant that creates these pie charts. I'm not a  
18 pie chart person and so I'm not going to go over that, but it's  
19 a really good thing, because if you're looking at it as you go  
20 through the process, you see how you're allocating it and it  
21 helps you keep track of the allocations and that's important to  
22 do.

23  
24 I want to tell you about our effort on the outreach. Seventeen  
25 outreach training operations and events and all of these courses  
26 weren't with Sea Grant or with NOAA. Some of them were our own  
27 that we did outreach events on.

28  
29 Some of them we go in and we have an outreach event and get  
30 commercial fishermen in there and teach them about certain  
31 things. We're doing four of those this week down along the  
32 coastline about oysters. We're going to go have an outreach  
33 event and we're going to do some training about it and so we  
34 document that.

35  
36 Again, we had about 500 commercial fishermen in some of those  
37 and about forty game wardens that attended as well, learning  
38 about TEDs and BRDs.

39  
40 We did do thirty-two citations and we had 517 commercial shrimp  
41 contacts and 70,000 pounds of shrimp was seized, with an  
42 approximate market value of \$107,000. I'll tell you a little b  
43 it about one of those cases here in a minute.

44  
45 We had some TED-focused operations and I think that was  
46 important for us. We focused the operations on TEDs and that's  
47 what we did with the aerial patrol and so we felt like we were  
48 going to target it and make sure and what this has done is

1 really bring up our compliance. It really is. We're finding  
2 out that they know that we're going to be there and so they're  
3 going to comply.

4  
5 I don't know if you can see that. That's one of our near-shore  
6 midrange and that's our long-range offshore sixty-five footer  
7 there at the bottom. We are getting the new SAFE boats, a lot  
8 of them in the twenty to twenty-nine-foot group, that are really  
9 helping us a lot with patrol.

10  
11 If you haven't ridden in a SAFE boat, that's a great boat. I'm  
12 telling you that it is a lot safer and I never thought -- I'm  
13 one of those guys that started out in a flat bottom twenty-five  
14 years ago and so I guarantee you that SAFE boat is like a  
15 Cadillac driving out there, but it gives the officers a lot more  
16 ability to be out there.

17  
18 That's our new one, right there. We just took delivery of it.  
19 That's the thirty-eight footer there in Rockport and, again,  
20 that's -- I wish I could have shown you one in the water, but it  
21 is quite an event to get that thing off of the trailer and get  
22 it on its trailer and then launch it and we had to purchase --  
23 We didn't do this with JEA money, but we had to purchase a one-  
24 ton dually just to be able to launch that and we have a couple  
25 of those on the coast now, so we can launch the bigger vessels.

26  
27 I did want to just go over a couple of cases that we made that  
28 were significant. Again, we made some really good shrimp cases  
29 like back in December. We did one that this particular vessel  
30 had like six TED and BRD violations. It was out in the Gulf,  
31 about eight miles out.

32  
33 We had 14,000 pounds of shrimp that was seized off of that  
34 vessel. Tiny talked about court trials and that one was last  
35 December and we haven't got a court ruling yet and so it takes  
36 time, but that particular vessel was a lot of violations.

37  
38 Another one we had, we were notified about some illegal landings  
39 in January of fish from National Marine Fisheries and they  
40 boarded it with us and I believe they filed this charge on red  
41 snapper. There was 5,000 pounds of red snapper in violation  
42 with a value of about \$20,000. That was a really good case.

43  
44 Another one was in another vessel, where we seized 2,200 pounds  
45 of shrimp. Again, this is various violations of TEDs and state  
46 and federal regulations and a lot of angles. Yes, that is a  
47 violation, but while I'm up here, I'm just going to reiterate  
48 what some others have said.

1  
2 When you board the vessel and the net is in use, you've got to  
3 inspect it and when it's out of compliance, it's never one or  
4 two, usually. It's several violations that institute a seizure  
5 and a charge and so we work closely with them, but when we board  
6 it, it needs to be right.

7  
8 Another one we did, I talked a little bit about that. We did an  
9 operation in Houston and San Antonio on fish dealers and those  
10 were quite productive. I think on the San Antonio one we filed  
11 twenty-five charges in one weekend and a lot of those were  
12 license violations, just unlicensed dealers.

13  
14 A lot of them, so that you all will know this, what we do is we  
15 found people making deliveries from out of state and I'm talking  
16 all the way up from Maine and Boston and they brought some  
17 trucks down here and were actually making deliveries and we  
18 charged them for not having dealer licenses, because they need  
19 to be licensed.

20  
21 One of the cases we filed here recently, last August, we seized  
22 44,000 pounds of shrimp with a market value of \$76,000 from a  
23 vessel, all TED violations. They actually had three illegal  
24 escape openings and one completely illegal trawl and so all the  
25 shrimp was seized and, again, that hasn't been adjudicated yet.

26  
27 We did have some recreational cases, a lot of filleting aboard  
28 vessels out there and bringing the fish in filleted. Those were  
29 snapper and cobia and, again, I just want to reiterate that we  
30 did a lot of outreach.

31  
32 It's been great for us to work with the Sea Grant people and  
33 NOAA, but it's important for our officers. Now they feel  
34 comfortable getting onboard a vessel and checking everything and  
35 that's all I have and thank you.

36  
37 **MR. VANDERKOOY:** Any questions for Texas? All right, Jeff.

38  
39 **LOUISIANA**

40  
41 **MR. MAYNE:** I'll be real brief. I don't have too much new  
42 things to report. We did just finish one of our JEAs and are  
43 working into the next one. This last JEA, we had over 600  
44 cases. Currently, we have six vacancies and like everybody  
45 else, we're going through some budget issues and some cutbacks,  
46 in addition to not having merit increases for our officers.  
47 Their pay was actually reduced by 9 percent.

1 On a training note, the National Association of Boating Law  
2 Administrators, we're the first state in the nation to receive  
3 accreditation for our boat training program, which is boat  
4 operation, tactical driving, boat crewmen, and search and  
5 rescue.

6  
7 We also finished the development of our MSRT Team, which is the  
8 Maritime Special Response Team, that's trained jointly with our  
9 state police and so when we have issues dealing with critical  
10 infrastructure on the water, we can merge with our state police  
11 in that special response situation.

12  
13 Then we recently, just kind of keeping up with technology, we  
14 have an app where you can go in and the app is basically our  
15 shield, where you can report violations and actually get  
16 involved with the dialogue, with a Smartphone or a laptop, with  
17 our officers in the field. If somebody sees something illegal  
18 going on, they can take a picture of it and talk real-time with  
19 our officers, to help stop poaching, in a sense, but that's all  
20 I have. Any questions?

21  
22 **MR. DOUG BOYD:** I'm not on the committee, but I just had a quick  
23 question. Where someone would report a violation, all of that  
24 data would be kept someplace and does that bother people to  
25 submit a report like that, knowing that their personal data  
26 would be kept and it would not be anonymous?

27  
28 **MR. MAYNE:** It is all anonymous and their information is not  
29 kept.

30  
31 **MR. VANDERKOOY:** Anyone else? Go ahead, Tiny.

32  
33 **MISSISSIPPI**

34  
35 **MR. CHATAGINER:** We had a few legislative changes that came  
36 about this year and you all might know about them and I'm sure  
37 you do by now, but the commission changed the opening dates for  
38 all our fisheries that fish with a quota. They moved that from  
39 October 1 and all these quota dates will start January 1 now and  
40 run until the quota is met.

41  
42 In our last legislative session, we set a free saltwater fishing  
43 weekend in June, to coincide with the National Fishing and  
44 Boating Week. We did some clarification in our area about  
45 commercial fishing above the railroad bridges in the three  
46 coastal counties, to clarify that.

47  
48 Right now, we just had our commission and it just got finalized

1 and we're waiting on the Secretary of State to certify it.  
2 Before, in Mississippi, if you came over from a visiting state  
3 and bought a non-resident crab trap license, you couldn't run  
4 your crab trap from the boat you brought with you, because our  
5 law said that all recreational crab traps had to be run from a  
6 Mississippi-registered vessel.

7  
8 We got the word "Mississippi" taken out of that ordinance in two  
9 different places and so if you come over camping from Louisiana  
10 and Alabama and you bring your vessel, you can buy that license  
11 and you can run your crab traps from your boat.

12  
13 As far as office business, we hired four new officers, two of  
14 them in March and two of them in August. We refurbished one of  
15 our offshore patrol boats, a thirty-three-foot boat, through our  
16 JEA program.

17  
18 We took \$98,000 and refurbished a seventeen-year-old boat that  
19 would have cost me about \$300,000 to replace and now it's in  
20 top-notch condition and we have another one that's being  
21 refurbished right now with this current JEA and hopefully our  
22 JEA funding will stand as it has in the last few years. I have  
23 one more thirty-three-foot boat that needs to be refurbished.

24  
25 We made several JEA cases. One of the cases we made was a  
26 shrimp boat in federal waters with no federal shrimp permit. We  
27 ended up seizing 4,000 pounds of shrimp off of his boat, but one  
28 of the highlights of the case was this boat held two endangered  
29 species of Atlantic angel shark in the hold of a boat. I don't  
30 know why they were keeping them, but they did keep them and they  
31 were charged with that.

32  
33 We have several shrimp permit cases we've made in federal  
34 waters. We have several undersized snapper, over the limit  
35 snapper, and cobia. It seems to be a big problem for us.

36  
37 We really haven't had any problem with the groupers or anything,  
38 the reef fish, but it's just been the undersized snapper and the  
39 cobia and one of our most recent cases was in state waters just  
40 the other day.

41  
42 We had one guy fishing with his TEDs sewed up, which other than  
43 the angles, that's usually the flap or they've got them sewed up  
44 and that's pretty much it from Mississippi, if anybody has any  
45 questions.

46  
47 **MR. VANDERKOOY:** All right. Scott.

48



ALABAMA

1  
2  
3 **MR. BANNON:** Unlike my esteemed colleague from Texas, I don't  
4 have a lieutenant to do slides for me either, Tiny, and so we're  
5 kind of in the same boat. This last year, we're kind of in the  
6 same position, where we're transitioning from one JEA to the  
7 next.

8  
9 Under last year's we had purchased an inshore patrol boat and in  
10 the past, we have purchased some offshore patrol boats and our  
11 definitions vary a little bit. We don't have the big sixty-  
12 five-footers. Our largest ones are around thirty-six feet. We  
13 do only have a three-mile jurisdictional line, but we work  
14 outside of that pretty regular.

15  
16 We're seeing the same kinds of cases that most of the other  
17 states do. Snapper is always a big issue. We did not see the  
18 challenges with the other closures, like grouper and amberjack,  
19 as much as we do the snapper.

20  
21 We see a lot of frustration in that and we've issued citations  
22 to folks who have in years past just have not even thought about  
23 breaking the law and so a lot of weighted bags and when we make  
24 an offshore patrol, we can tell where we've been by the trail of  
25 red snapper from boats that we pass and that we encounter.

26  
27 That's a challenge for us, but in order to help prosecute some  
28 of those cases, we have developed a state law that we can claim  
29 jurisdiction over an Alabama vessel in federal waters. What it  
30 is, it allows that burden of proof to stay in state court. We  
31 don't have to make quite as large a case and we've found that to  
32 be very helpful.

33  
34 We have a line that splits our two court districts, Mobile and  
35 Baldwin Counties, because we only have two counties that border  
36 saltwater. We're able to prosecute some cases in state court at  
37 a smaller level. The more egregious cases, we work together  
38 with our NMFS partners and prosecute those federally.

39  
40 We have made an effort to make focused patrols, due to the TEDs  
41 issues. We did not find a lot of noncompliance, as some of the  
42 other folks did, but we also did not have near the fishery in  
43 the time period as we have in years past. We attribute most of  
44 that to the BP challenges and so our shrimping effort was down  
45 considerably over this past year.

46  
47 We also have been working closely with our federal partners with  
48 the oyster challenges that the other states are having as well.

1 It's a very serious challenge, this *Vibrio vulnificus* and the  
2 challenges we face with that. We actually are working some  
3 joint operations with several of our partner states and  
4 agencies, federal agencies, because deaths are attributed to  
5 those violations and so we continue to work with them on that.

6  
7 We also in-house, in state waters, we've just recently opened  
8 our state waters to oystering, today. With that, we have an  
9 oyster management station, similar to some of the other states,  
10 where we're trying to monitor the amount of material that is  
11 being brought off of our reefs and a better system for tracking  
12 it. Once again, to attribute to those to anyone that has gotten  
13 sick or somewhere we need to be able to track it back.

14  
15 Tiny, you won't see green tags from us just yet. You will see a  
16 stamp that says "Restricted Use" and "Post-Harvest Processing  
17 Only" and so we're all partnered in that.

18  
19 On this year in our JEA projects, we were given a little bit of  
20 funding, as I said earlier, to do that outreach with the  
21 shrimping community. Much like you said earlier, you can't  
22 target those guys while they're working.

23  
24 It's just not going to pay off and so during the winter months  
25 here, when the season is slowed down in state waters, there's  
26 still the offshore boats that will travel, but we will try and  
27 make efforts to reach out to the different communities and  
28 provide some literature, provide some training, and much like  
29 Texas, we will ensure that our officers are there alongside  
30 them, because we have found that that works a lot better, to  
31 develop those relationships if we all work through it together.  
32 Unless there's any questions, that's all we have for Alabama.

33  
34 **MR. VANDERKOOY:** All right. Robert.

35  
36 **FLORIDA**

37  
38 **MR. BEATON:** I've got one pretty picture and no PowerPoint.  
39 I've got hard copies of this and Steve has it electronically if  
40 you want it emailed. The first bullet I'm going to touch on  
41 goes in hand with what I talked about in industry.

42  
43 85 percent of industry is doing the right thing and 10 percent  
44 is trying hard to do the right thing and 5 percent is not trying  
45 at all and then there's that 1 percent that's just a flagrant  
46 violator.

47  
48 Two weeks ago, we had a successful prosecution of a subject who

1 shot one of our officers six times with a 45-caliber handgun  
2 back in 2009. Christopher Eddy was found guilty of Count 1 of  
3 Attempted Second Degree Murder, Count 2 of Attempted First  
4 Degree Murder of a Law Enforcement Officer with Discharge of  
5 Firearm Causing Great Bodily Harm, Count 3 of Aggravated Battery  
6 and LEO with Discharge of Firearm Causing Great Bodily Harm,  
7 Count 4 of Resisting Officer with Violence with Firearm or  
8 Aggravated Battery, Count 5 of Aggravated Assault with Firearm  
9 with Actual Possession of Firearm and Count 6 of Armed Trespass  
10 of a Conveyance.

11  
12 I get a little choked up when we do this, because we forget that  
13 there's bad people out there and 99.9 percent of the people are  
14 good people. Our officers are trained to respect everybody that  
15 way, but you never know if one boat stop, one inspection at the  
16 shoreline who is going to be that 0.1 percent and that's who all  
17 of our people train for and I just wanted to get that out.

18  
19 The Division of Law Enforcement just went through the mock  
20 assessment for our accreditation process. We are an accredited  
21 agency. Mock assessments went well and we'll have our final  
22 formal assessment in 2012.

23  
24 Much like Louisiana with their notification of violations, we've  
25 had a toll-free phone line, but now we've just added texting and  
26 with the younger generation, they seem to adapt to texting well  
27 and so you can send a text now with all of the violation  
28 information and we're hoping that because you'll be even more  
29 anonymous that we'll get even better results, but we've been  
30 very successful with our Wildlife Alert Program.

31  
32 Investigations, we're working several deep covert investigations  
33 with National Marine Fisheries Service agents, focusing on  
34 several different issues.

35  
36 We're going to have a boat training scheduled in November, where  
37 all twenty-six of our JEA staff will be down at National Marine  
38 Fisheries Service SERO Office in St. Pete for a week. They'll  
39 be going through TED enforcement, shark identification, high-  
40 risk boardings, helicopter lift operations with the Coast Guard,  
41 case package preparation, IFQ and VMS refresher, and then  
42 they'll also get a certificate for their standards of training  
43 watchkeeping with the Coast Guard.

44  
45 JEA fleet update, we're building a twelve-meter with Boston  
46 Whaler. It's nearing completion and it will be here in New  
47 Orleans November 30 through December 2, at the workboat show.

48

1 Our Patrol Vessel Guardian, which is in Crystal River, the Big  
2 Bend area of Florida in the Gulf, is going through a major yard  
3 package, engine replacement along with some other cosmetic  
4 issues. So far in 2011, FWC has purchased seventy new vehicles  
5 and thirty-three outboards. Future vessel purchases are unknown  
6 at this time.

7  
8 We have a huge captive wildlife issue in Florida and as you can  
9 imagine with what happened in Ohio, our agency phones have been  
10 ringing off the hook. Our executive staff has been called to  
11 the Governor's Office to discuss our rules that are in place and  
12 so far, I think they're happy and we don't have any lions and  
13 tigers and bears running around in Florida, at least not ones  
14 that were captive.

15  
16 I had in here that we survived another hurricane season, but I  
17 guess there's a little storm called Rina that is potentially  
18 going to impact south Florida and the Keys come Friday, as a  
19 Category 2 as some of the predictions have it.

20  
21 The last bit of news, the last legislative session the task  
22 force was created to look at consolidating all of state  
23 government and long story short, it looks like we'll have  
24 another merger.

25  
26 The task force has recommended to the Governor's staff that  
27 integration of the Department of Environmental Protection,  
28 Division of Law Enforcement, in its entirety, be brought into  
29 the Fish and Wildlife Conservation Commission. That's 175  
30 positions, as well as law enforcement positions with the  
31 Department of Agriculture would be brought into FWC and that's  
32 fifteen positions.

33  
34 It still has a long way to go through session, but if it  
35 happens, since it's a recommendation to the Governor from a task  
36 force that the Governor created, FWC could be looking at being  
37 an agency of 915 positions and so that's good news, I think.  
38 That's all I have, unless there's any questions.

39  
40 **MR. BANNON:** Rob, with the inclusion of those other officers,  
41 does that expand the duties of FWC? Already you guys do a lot,  
42 like the rest of us, but does that expand it even more?

43  
44 **MR. BEATON:** If this happens, anything that's on public land or  
45 private state-managed land or any water in the State of Florida  
46 will be the responsible of FWC Division of Law Enforcement and  
47 so we literally will be all woods and waters, including the  
48 state parks. That's where the DEP piece comes in. They have

1 the Florida Park Patrol that patrols the parks. Their forestry  
2 positions within DACS, we'll be taking all that. It will be  
3 everything except for national land.

4  
5 **MR. VANDERKOOY:** Any other questions? Carmen, would you like to  
6 take a minute?

7  
8 **COAST GUARD**

9  
10 **LCDR DEGEORGE:** Thanks, Steve. I just have a few items here I  
11 would like to cover. First of all, I would like to thank our  
12 state partners for all the assistance we get from the Coast  
13 Guard and our partners with NOAA Office of Law Enforcement and  
14 General Counsel.

15  
16 I think it's those partnerships and that relationship building  
17 that really creates the synergy to get operations done and to  
18 project law enforcement presence into the EEZ, because without  
19 that, it would be very hard to do and so thank you very much.

20  
21 I know just off the top of my head with Alabama and Florida that  
22 we've conducted several reef fish-targeted operations, focused  
23 on Madison-Swanson and Desoto Canyon, and they've been very  
24 successful.

25  
26 With Mississippi and Louisiana, we've done some targeted shrimp  
27 operations and they've been fantastic and I know with Texas, a  
28 lot of shrimp operations and then, of course, our southwest  
29 border, the maritime boundary line, we rely heavily on our  
30 partnership with Texas Parks and Wildlife to get the job done  
31 down there. It's an ongoing challenge, as you can imagine.

32  
33 Of interest maybe to the council is we've actually reached out  
34 to our partners in DHS, Customs and Border Protection, Office of  
35 Air and Marine. We've recently found out that they do a lot of  
36 flights in the Gulf of Mexico, obviously a different mission  
37 area.

38  
39 They're focused on counterdrug and customs type things, but we  
40 realized that although their authorities and jurisdictions don't  
41 really lend themselves to the fisheries mission, their  
42 surveillance packages do and so we've reached out to them and  
43 we've done some training with CBP, to show them what fishing  
44 should look like and what fishing shouldn't look like and what  
45 are our closed areas and what are not closed areas.

46  
47 We've been able to take that information and use that as a force  
48 multiplier and so that's worked out well for us and we've

1 actually had some good intelligence that's come from CBP.  
2 Granted, they're not fisheries experts, but they see something  
3 that doesn't look right or they see somebody trawling in the  
4 Flower Garden Banks, we're able to act on that and so that's  
5 good stuff.

6  
7 With regards to TEDs, just to echo what everybody else has been  
8 saying already, from the Coast Guard we realize the  
9 sensitivities and we realize it's front stage right now and  
10 really what we're seeing right now is not the big issues where  
11 they don't have TEDs altogether, but it's the bar spacing or  
12 angles. We've really tried to use that as a platform to do some  
13 more education and outreach, more written warnings versus full-  
14 blown violations.

15  
16 With regards to the southwest border, I just wanted to remind  
17 everybody again that it is a challenge down there. We do have a  
18 challenge with Mexico down there and Mexican fishing vessels. I  
19 would say on average we have one to two seizures a month, with  
20 Mexican shark boats coming across and fishing in our waters.

21  
22 Just last month, we had a Mexican shrimper about a mile over the  
23 line shrimping in our waters. We were able to chase him back,  
24 but not stop him in time before he got into Mexican territorial  
25 seas, but we do have a challenge down there. Once again, our  
26 partnership with Texas Parks and Wildlife is critical down  
27 there.

28  
29 Many of you may have heard the story. We retrieved some gear  
30 down there. I think TP&W, we did this together. There was a  
31 gillnet with several thousand sharks in there.

32  
33 **MR. GOODRICH:** I think they stopped counting after 800 sharks on  
34 that gillnet. It was just unbelievable.

35  
36 **LCDR DEGEORGE:** Really, that's it. The Coast Guard is, once  
37 again, committed to the fisheries mission. It's one of our  
38 eleven statutory missions and we're going to continue to focus  
39 resources and personnel to this mission and do what we can to  
40 help with the natural resource enforcement. Any questions for  
41 me?

42  
43 **MR. VANDERKOOY:** Otha, do you have anything for OLE?

44  
45 **NOAA OFFICE OF LAW ENFORCEMENT**

46  
47 **MR. EASLEY:** I have a short report. The topic of the day seems  
48 to be TEDs and so I'll give you some data on that. TED

1 enforcement is OLE's number one priority and we depend a lot on  
2 the efforts that are provided by the Coast Guard and the states,  
3 particularly the states. You know your industry pretty closely.

4  
5 I'll put away the other information and share with you some of  
6 our concentrated TED efforts and where they are. Agents from  
7 across the country have come down to spend some dedicated time  
8 in the Gulf of Mexico and I have some of their statistics on the  
9 number of boardings.

10  
11 This effort, this concentration, started about April 13 and we  
12 have conducted 482 -- This is as of last week, but 482 boardings  
13 and of those, we've had seventy verbal warnings, twelve written  
14 warnings, and fifty-six cases that potentially will go to  
15 General Counsel or possibly the Department of Justice for some  
16 of the more egregious offenses, one violator with multiple  
17 violations, for instance. A few of those have happened. 159 of  
18 those inspections were dockside and 323, the balance, were at  
19 sea.

20  
21 Compliance, from the NOAA effort, has been at 71 percent and  
22 that's the average across the Gulf and we will not be able to  
23 keep up this concentrated effort indefinitely and so it will  
24 depend on either some additional funding or some additional  
25 support from states as time goes by and so I guess we'll have  
26 some meetings and some discussions to see how we go about doing  
27 that. That's all I have, unless there's any other questions.

28  
29 **MR. PEARCE:** Thank you, Otha. How many of those violations were  
30 TEDs?

31  
32 **MR. EASLEY:** These are all TED violations.

33  
34 **MR. VANDERKOOY:** You actually brought officers in from elsewhere  
35 in the country to do this high contact?

36  
37 **MR. EASLEY:** Correct. I don't have the number of agents that  
38 were onboard at any particular time, but it was in the twenties,  
39 but overall, we were just burning out. We were burning out our  
40 local agents and so we had to bring in some from outside and  
41 give them some training and then buddy up with a local agent or  
42 officer to do some of these TED inspections.

43  
44 **MR. PEARCE:** I just wanted to follow up. Was there any  
45 concentration of violations in any particular state?

46  
47 **MR. EASLEY:** Concentrations, what exactly do you mean?  
48

1 MR. PEARCE: On the TED violations, were they all across the  
2 board or was there any one area that was more prevalent?  
3  
4 MR. EASLEY: As we get closer to our hosting state now, the  
5 violations did increase.  
6  
7 MR. PEARCE: Yes, that's what I was asking.  
8  
9 MR. GOODRICH: Where was your concentration of your effort?  
10  
11 MR. EASLEY: It was throughout the whole Gulf. The first few  
12 months it was pretty homogeneous. We had several teams out  
13 hitting from Texas to Alabama all at the same time and as the  
14 months, those first few months, proceeded, compliance began to  
15 increase.  
16  
17 Then we concentrated our efforts in a couple of states, for  
18 various reasons. In your particular state, we concentrated a  
19 few teams and compliance was pretty good there and then we moved  
20 further east.  
21  
22 MR. TEEHAN: To Harlon's question, the inference was Louisiana,  
23 I believe, but is there any way of knowing whether all those  
24 vessels are Louisiana-registered or whether they're coming from  
25 other states and just violating in these waters?  
26  
27 MR. EASLEY: I'm sure there is a way to know, but I don't have  
28 that data with me though.  
29  
30 MR. PEARCE: Can we get that answer?  
31  
32 MR. EASLEY: I will give it a shot. I don't know if I will be  
33 able to get it before this week is over.  
34  
35 MR. PEARCE: No rush. I'm just curious.  
36  
37 MR. EASLEY: Sure thing.  
38  
39 MR. VANDERKOOY: Are there any other comments or questions about  
40 any of the state reports or the federal partners?  
41  
42 MR. PEARCE: I just have one comment. I just want to thank you  
43 guys for all the hard work you guys do. We've got to work  
44 together to get these jobs done and the closer we get together,  
45 I think the better it's going to be for everybody and I do  
46 appreciate what you guys do.  
47  
48 MR. VANDERKOOY: Chairman Williams had to step out and I think



1 we've gone through the entire agenda. I think we've satisfied  
2 all the LEAP requirements and the LAC requirements. Rick, does  
3 that sound about right? Okay. Tiny would like to say a few  
4 things before we wrap up and then if there's no further  
5 business, I guess you guys can move to adjourn.

6  
7 **MR. CHATAGINER:** I should have done this earlier, but I would  
8 like to welcome two of the new members on these committees and  
9 that's Scott Bannon, who took Chris Blankenship's position after  
10 Chris jumped ship on us and decided to be an administrator  
11 instead of a lawman. Scott will be a great asset to this  
12 committee, as well as Rob Beaton from Florida.

13  
14 Rob has sat on this board all the way back when the new chief of  
15 law enforcement for NOAA was sitting on it and he'll also be a  
16 great asset for us and if you all haven't met them, you need to  
17 take the time to introduce yourselves to them. They're two  
18 really great professional law enforcement officers that will go  
19 out of their way to help you.

20  
21 Other than that, I don't think I have any more business as the  
22 chairman for -- I'm not sure if this is the LEAP or the LEC. I  
23 never can remember those, but whatever it is, that's it for me.

24  
25 **MR. VANDERKOOY:** Rick or Trish, is there anything else that  
26 needs to be done? Okay. We are adjourned.

27  
28 (Whereupon, the meeting adjourned at 3:50 p.m., October 24,  
29 2011.)

30  
31 - - -  
32

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PAGE 9: Motion that the enforcement agency of the state that we're having our meeting in be the one that attends and keeps the rest of the agencies involved in understanding what's going on. The motion carried on page 9.

- - -



APPROVED BY:

COMMITTEE CHAIRMAN

## BLUE CRAB TECHNICAL TASK FORCE MEETING MINUTES

December 7 & 8, 2011

Apalachicola, Florida

**S. VanderKooy (moderator)** called the meeting to order at 8:15 a.m. The following were in attendance:

Jeff Marx, LDWF, New Iberia, LA  
Darcie Graham, GCRL, Ocean Springs, MS  
Harriet Perry, GCRL, Ocean Springs, MS  
Rob Beaton, FWC, Tallahassee, FL  
Ryan Gandy, FWC, St. Petersburg, FL  
Alex Miller, GSMFC, Ocean Springs, MS  
Jason Herrmann, AMRD, Dauphin Island, AL  
Glen Sutton, TPWD, Dickinson, TX  
Steve VanderKooy, GSMFC, Ocean Springs, MS  
Debbie McIntyre, GSMFC, Ocean Springs, MS

**VanderKooy** asked those present to carefully review the TTF membership roster to assure accuracy.

*The agenda was adopted unanimously. Marx moved to accept the October 18, 2011 TCC Crab Subcommittee Meeting/TTF minutes as written. The motion was seconded by Graham and passed unanimously.*

**McIntyre** would e-mail all of the state reports from the October, 2011, Crab Subcommittee Meeting in New Orleans to each member of Crab TTF upon return from Apalachicola.

The group welcomed **Alexander Miller** from GSMFC as task force economist. **Jeff Rester**, also from GSMFC, will take care of the habitat section generically, but not specific to blue crabs. **Rester** was not present at this meeting. **Marx** will handle the crab habitat portion of that section.

**VanderKooy** explained that **Pellegrin** is still going to serve on this task force but was not able to attend this meeting. The Curriculum Vitae of Dr. Steve Jacob, Associate Professor of Sociology at York College in York, Pennsylvania, was distributed and reviewed by the task force members. Dr. Jacob's background includes familiarity with the Gulf. He has expressed a real interest in blue crabs. His data is not threatened because the information is voluntary. **Graham** made a motion to invite Dr. Jacob to join this TTF as a regular member. The motion was seconded by **Marx** and passed unanimously. A letter of invitation will be sent to Dr. Jacob by **VanderKooy**.

**VanderKooy** gave an overview of what he would like to see accomplished during the course of this meeting. Data issues are the most pressing at this time. A GDAR (Gulf Data, Assessment, and Review) workshop was discussed and it was decided that two full days would be necessary. This Data Workshop was originally planned for February of 2012 but, after much discussion, it was decided that an April workshop would be scheduled, sometime after the GSMFC annual March meeting. Suggestions were welcomed for others to attend who could add to our data information.

It is intended for the information that is gathered during the social survey to be compared and tied into the old data from the first survey in 1998. Much discussion took place as to how to do the survey, i.e., postcards, barcodes, upload information. **VanderKooy** stated that we can't afford to do a mail survey. This will need to be introduced to fishermen at each individual state's crab task force meetings and will remain confidential. The timeline for the survey would be about April or May of 2012. Dr. Jacob can help us figure out the best way to distribute the survey which would only be for commercial crab fishermen. **Miller** would like to see a couple economic questions added to the end of the survey instrument as well.

**Perry** and **Graham** have been working on genetics in the Biology Section. **Perry** stated that someone from UL or Caz Taylor at Tulane may be good to present to our group at the next Crab Subcommittee meeting. **Perry** will also speak to Taylor about attending the GDAR Data Workshop. **Sutton** will check to see if there is any recent information available from Texas.

**Gandy** reported that the growth side of the "Age and Growth" information is ready. **Graham** agreed to take on the project of making a table by state, reflecting different growth rates. **Gandy** stated that the expected time frame for this would be January, 2012. **Graham and Perry** asked that information, including soft crab data, be sent to them.

**Perry** stated that she will give some thought to the consolidation of the section regarding threats into a single, stand-alone section. **VanderKooy** would discuss this further later.

**Gandy** said there is a lot to update re: Parasites & Disease. **Gandy** suggested that we may want to get a disease expert involved as a contributor. **VanderKooy** suggested that **Gandy** write this part of the section and then ask this expert to make changes/corrections/additions as he feels necessary. Updating will continue. **Perry** suggested that Dr. Overstreet may be helpful and will talk with him in advance. Anyone helping from outside the TTF would be listed as a contributor. **Gandy** should have some of this information for the next meeting.

Tagging studies which are currently being done by **Sutton** will be provided to **Perry**.

Section 4 – Habitat **Marx** reported that he posted changed information on the website. The group then took a look at the website and **VanderKooy** gave a refresher on how to go on to the website and the make the most of it.

**Marx** and **Rester** will be working on this section. **Rester** provided a handout for the group. **VanderKooy** reviewed the habitat information provided by **Rester** in his absence.

**Gandy** will forward information for **Rester** to use re: blue crabs on the east coast.

Section 5 – Enforcement **VanderKooy** spoke about boilerplate examples. **Beaton** reported that he has an intern working on this as a project with a deadline of February 17<sup>th</sup>.

**VanderKooy** predicts that we can finish this up by the end of 2012. He suggested a time frame of the end of calendar year 2011 for this data, etc. The economic data, license fees, and sales & landings will reflect 2011 year-end. **VanderKooy** stated that it would be nice to be able to reflect historical management changes as well in bullet form as this helps so much in interpretation.

Section 6 – Fisheries **VanderKooy** reviewed a handout provided by **Floyd** who was not able to attend this meeting. He pointed out that a discrepancy has existed between NOAA published information vs state data. **Floyd** will be asked to explain in further detail to the committee. Each state's historical background and current fishery is to be provided to **Floyd** by the individuals on this TTF. When graphs are generated, TTF members should provide **VanderKooy** with the Excel spreadsheets as well. **VanderKooy** will put the Excel files on Fisheries from the old FMP on the website. **VanderKooy** will consult with **Floyd** regarding the issues at the end of this section. Everyone should keep in mind that all figures and graphs need to be in black and white or grayscale.

Section 7 – Economics **Miller** will tackle this section, starting with NOAA data, then proceeding to state data. It was decided that both graphic and table representation are needed.

Fishing expenditures: Florida survey results were provided by **Gandy** "Commercial Blue Crab Survey". **Gandy** combined several surveys to form a Florida-specific survey. It was voluntary with a 40% return rate. The last of these surveys came in Spring 2011. Analysis/report should be complete within a year from now (mid-late 2012). Both the Florida and Commission Surveys were reviewed. Timing and analysis of **Miller's** dealer/processor survey works well. We will be able to use some of that data and it will give us a better picture of what is going on. The goal was set for a February deadline.

**Miller** indicated that inflation adjustments will use the CPI for 2011. **Miller** will talk with Keithly to find out what year would be best for sure and why Keithly did it the way he did in the earlier FMP. Deadline for **Miller**: December 31<sup>st</sup>.

Section 8 – Sociology **VanderKooy** will schedule a conference call in January involving Steve Jacob regarding some particulars. **VanderKooy** will try to dredge up the old data to see if Jacob can use some of that.

Section 9 – Management Considerations and Recommendations **VanderKooy** was supposed to blend the two previous section into one but had not yet. He pointed out that any background info included to set the stage for a recommendation has to be in the document already before any recommendations are made.

**VanderKooy** expects the results of the GDAR to become a separate section on the status of the stocks. It will cover some general information on crab assesment in general but also specific data to the Gulf. **Sutton** offered to do this section and blend it with the old information. **VanderKooy** will send oyster assessment section to **Sutton**.

Section 11 will be a laundry list of research needs related to blue crabs; what we would do if funding were not an issue.

Appendix: Aquaculture – **Graham** stated that this will not be a huge section. **VanderKooy** will send the modified table of contents back out following this meeting.

**VanderKooy** showed the crab illustration that he plans to use for the cover once again to the group. He encouraged the group to send him any photos or artwork that they would like to recommend for use as the cover art.

#### **Review of Assignments/Deadlines:**

**VanderKooy** noted that, by the March meeting, all the TTF members should have starting points on paper for their assigned sections. This can all be discussed and revamped when necessary but the GDAR will require some short background reports, so updating the draft sections is critical in the short term. **VanderKooy** will move the Crab Subcommittee meeting to day 2 of the GSMFC annual meeting and allow the afternoon for a separate work session at an offsite location, possibly the DMR. Please have preliminary drafts in **February** ready to pass out to everyone.

#### **GDAR Overview**



**VanderKooy** gave a background look at how to do a SEDAR. The group reviewed responses from our requests for data for the GDAR and identified additional individuals to invite to the Data Workshop in April.

**VanderKooy** reviewed the responses (copies provided to group) received from the data request he sent out in November.

- **Perry** will go through references and see what we can use from Dr. Jordan and the US EPA.
- **VanderKooy** will contact re: National Coastal Assessment Data 1991-94 and 2000-2006.
- Pascagoula lab does not give much information but states that **Pellegrin** is on our task force.
- **VanderKooy** will ask **Rester** to look at SEAMAP data and see what we can use.
- Nancy Rabalais sent three papers. **VanderKooy** will scan these and make available as PDF files. There is no additional raw data.
- **VanderKooy** will get with Bree on her crab genetics project to see what she had and maybe invite her to make a presentation at the GSMFC Annual Meeting along with Cas on megalope.
- **Perry** and **Graham** have all kinds of data which is not digitized. **VanderKooy** suggested that perhaps we can get that information scanned for future use.
- Minello from the Galveston lab has some data and pubs we can use also. **VanderKooy** downloaded several PDFs from the Galveston pubs list.

**VanderKooy** asked that each state take responsibility for updating their independent data sets with **Sutton**. Our data needs to be ready to go prior to the GSMFC March meeting and certainly before the Data Workshop in April.

The Florida data from **Pellegrin** was reviewed. **Gandy** will sit down with his guys to figure out raw data forms from **Pellegrin**. **Sutton** and **Pellegrin** need to talk to figure out how to pick up and get these issues worked out. **Gandy** suggested possibly just asking for information anew rather than try to clean up the old data. We really need fishery- independent data clean. **Gandy**

will check with Wade (from FL) to help with GDAR workshop. **VanderKooy** will also try to get Joe West to help with the model and share how Louisiana is using data.

The Alabama data goes through 2007. **Perry** said they have AL, TX, and LA data through 2009 or 2010. 2011 will need to be added. Alabama's Craig is working on their data set. We need similar formats used by all states. We need Ralf from Mississippi to come to the meeting also. Committee members need to consider having a conference call with Ralf, Craig, Wade, and TTF members to talk about these formats.

**Sutton** walked everyone through a Collie-Sissenwine model that he had access to and explained how they use it in Texas.

**VanderKooy** reviewed Joe West's presentation from the annual meeting in New Orleans with the TTF. It was decided that we definitely need to have Joe/Behzad/etc. to help us interpret data. **VanderKooy** will talk to Ralf, add Florida info, and see if Ralf can standardize and maybe combine MS, LA and AL.

#### **Tasks for Stock Assessment:**

##### **State Data**

Ralf for combined independent data set/verify CPUE & potential for TX and FL data

**Gandy** to coordinate FIM data & independent to possibly merge with Ralf's

Talk to Wade re: model and Data workshop participation

**Perry** to check Guillermo's data set for sex data, size intervals, etc. for LA & other states

Review literature suggestions from Gulf Breeze & Galveston NOAA labs

Request data from Heck re: settlement stuff, Caz, and others

**VanderKooy** to invite West, Fisher, Sutton, and Pelegrin et al on conf call re:

Collie-Sissenwine

Respond to Linda Harwell for referenced data NCA & EMAP

Talk to Ralf

SEDAR data standardization protocol document to all data holders for GDAR

Send out the background report used for Menhaden SEDAR, pre-reports, building blocks, etc.

**Sutton** to learn everything about CS & NOAA Toolbox

**ALL** to update data after we review what we've got.

##### **Data Workshop:**

**VanderKooy:** Doodle a date & location for workshop

Send invites

Figure out funding

Collect pre-reports

**ALL:** Provide updated summary of life history & habitat as requested, simple better than detailed. **VanderKooy** to request  
Review independent sampling protocols by state respectively for accuracy & crabbiness. **VanderKooy** to send out.  
Be ready to make short powerpoint presentations if needed on various life history information.

### Next Meetings:

A TTF meeting will be held in conjunction with the Crab Subcommittee the week of March 6<sup>th</sup> in Gulfport, Mississippi.

It was decided that a February GDAR Data Workshop would not be feasible and all agreed to set it for later in April, likely in New Orleans.

**VanderKooy** to send out cleaned-up list of to-dos to TTF. Everyone get organized and get it together in preparation for the GDAR. Sutton will run the Collie-Sissenwine and hopefully use that. **Perry** and **VanderKooy** will meet Monday, December 12, at the GCRL in follow-up.

SJV reviewed some of the Menhaden SEDAR process with the group and pointed out that the Data Workshop and the Assessment Workshop recommendations resulting from the GDAR are critical for the FMP.

**VanderKooy** pointed out that finalization of sections is not necessary with this document but that it is better if each person begins typing on the old section & **VanderKooy** will start gleaning in February for the Data Workshop reports.

### Summary

A TTF Meeting in conjunction with the Crab Subcommittee the week of March 6<sup>th</sup> will be scheduled. A GDAR data review will be scheduled in April, probably in New Orleans. **VanderKooy** asked that members reply to his correspondence even when they do not have anything to report.

The need for a commercial representative on this TTF was discussed and **VanderKooy** asked the TTF members to think about an appropriate individual.

There being no further business to discuss, **Perry** made a motion to adjourn the meeting and it was seconded by **Beaton**.

