APPROVED BY:
Michelle Sempsrott
COMMITTEE CHAIRMAN

FLOUNDER TECHNICAL TASK FORCE MEETING MINUTES
New Orleans, Louisiana
February 22 & 23, 2012

Introductions

VanderKooy opened the meeting and asked each participant to introduce themselves. The task force is made up of a scientific representative from each Gulf State, a recreational fishery representative, a commercial fishery representative, an economist, a habitat representative, and a law enforcement representative.

The following were in attendance:

Michelle Sempsrott, FWC, Panama City, Florida
Karon Aplin, AMRD, Gulf Shores, Alabama
Wes Devers, MDMR, Biloxi, Mississippi
Jason Adriance, LDWF, New Orleans, Louisiana
Mike Stahl, TPWD, Dickinson, Texas
Chuck Adams, Sea Grant, Gainesville, Florida
Scott Bannon, ADCNR/MRD, Dauphin Island, Alabama
Steve VanderKooy, GSMFC, Ocean Springs, Mississippi
Debbie McIntyre, GSMFC, Ocean Springs, Mississippi

VanderKooy asked the group to carefully review the membership roster and check individual contact information.

Adoption of Agenda

The agenda was reviewed and approved.

GSMFC Travel Policy

VanderKooy provided the group with a brief overview of GSMFC travel policies. The authorization and reimbursement procedures were explained and the group was referred to the *GSMFC Travel Guidelines* for detailed information. Any questions regarding travel should be addressed to Alyce Catchot, the Commission's travel coordinator.

Interjurisdictional Program Overview and FMP Process

S. VanderKooy, Program Coordinator, presented an overview of the Interjurisdictional Fisheries (IJF) Program and Commission development process for FMPs. The IJF Program is authorized through the Interjurisdictional Fisheries Act of 1986 (Public Law 99-659, Title III). The purpose of the Act was to promote and encourage state activities in support of management of IJF resources identified in interstate FMPs. The Act also promotes and encourages management of IJF resources throughout their range.

Funding under the Act supports states' long-term monitoring and assessment programs and other research. The Act also provides funding for the three interstate marine commissions (Atlantic, Gulf, and Pacific) to develop and revise management plans used by the states to enact appropriate management strategies to maintain harvestable stocks of commercial and recreational fish.

The Commission patterns its plans to those of the Gulf of Mexico Fishery Management Council (GMFMC) to ensure compatibility in format and approach between regional and federal FMPs. Since the passage of the IJF Act in 1986, the Commission has produced nine FMPs, three revisions, and one amendment. Critical components of FMPs are determined by ten national standards:

1. Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the U.S. fishing industry;
2. Conservation and management measures shall be based on the best scientific information available;
3. To the extent practicable, an individual stock shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination;
4. Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocations shall be:
    a. fair and equitable to all such fishermen;
    b. reasonably calculated to promote conservation; and
    c. carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.
5. Conservation and management measures shall, where practicable, consider efficiency in the utilization of the resources; except that no such measure shall have economic allocation as its sole purpose.
6. Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fisheries resources, and catches.
7. Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.
8. Conservation and management measures shall, where consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to:
    a. provide for the sustained participation of such communities, and
    b. to the extent practicable, minimize adverse economic impacts on such communities.
9. Conservation and management measures shall, to the extent practicable, minimize bycatch and to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.
10. Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

In order to alleviate confusion with the federal definition of essential fish habitat and its associated requirements, FMPs developed under the Commission program utilize the term "essential habitat."

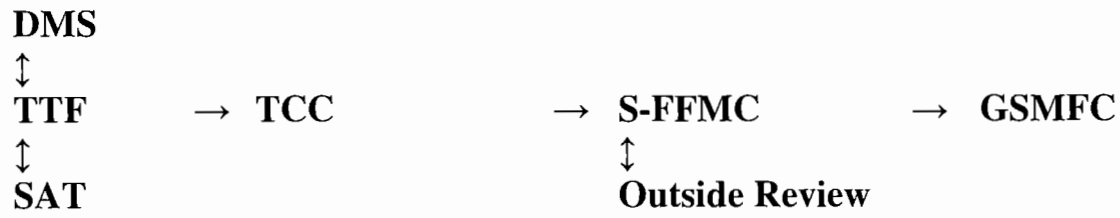
The development of FMPs begins with species prioritization. The State-Federal Fisheries Management Committee (S-FFMC) accomplishes this task and establishes a technical task force to review all technical material, draft a document incorporating current biological, sociological, economic, and fishery information. The TTF shall also provide management scenarios based on this information.

The TTF is composed of a core group of scientists from each Gulf state and is appointed by the respective state directors that serve on the S-FFMC. Also, a TTF member from each of the following GSMFC committees or subcommittees (Law Enforcement, Habitat, Commercial Fisheries Advisory, and Recreational Fisheries Advisory) is appointed by the respective committee. In addition, the TTF may include other experts in economics, socio-anthropology, population dynamics, and other specialty areas when needed. The TTF is responsible for development of the FMP and receives input in the form of data and other information from the DMS and the SAT.

Once the TTF completes the plan, it may be approved or modified by the Technical Coordinating Committee (TCC) before being sent to the S-FFMC for review. The S-FFMC may also approve or modify the plan before releasing it for public review and comment. After public review and final approval by the S-FFMC, the plan is submitted to the GSMFC where it may be accepted or rejected. If rejected, the plan is returned to the S-FFMC for further review.

Once approved by the GSMFC, plans are submitted to the Gulf States for their consideration for adoption and implementation of management recommendations.

The review process is outlined below:



DMS = Data Management Subcommittee
SAT = Stock Assessment Team
TTF = Technical Task Force
TCC = Technical Coordinating Committee
S-FFMC = State-Federal Fisheries Management Committee
GSMFC = Gulf States Marine Fisheries Commission
Outside Review = standing committees, trade associations, general public

FMP Table of Contents/Assignments

VanderKooy explained how most of this revision would simply be a rewrite, updating the individual sections with current references. It is hoped that there is better identification information in the fisheries data for the two species than there was in the first version. **VanderKooy** distributed the previous Table of Contents and reminded everyone that it should be used as a guide but each representative was welcomed to change their sections as appropriate. The revised copy with assignments is appended to the minutes as Attachment 1.

The importance of deadlines was explained as well as the importance of responding to the emails. Face-to-face meetings are necessary so that everyone is held accountable for their contributions to the document. It was discussed that there will probably be a total of three to four meetings per year while this revision is taking place, but there may also be webinars as needed for the purpose of touching base with each other while keeping expenses down.

The time frame for completion of this revision will be 12-14 months. Each state representative will be responsible for his fisheries data. One person will be responsible for the Fisheries section but all will contribute their individual state data. There will be some overlapping of landings and values by state. We will do our best to make these consistent.

Task Force Website

VanderKooy introduced the working website for use by the TTF to share literature, upload current drafts, and provide reviews of other sections when appropriate. **VanderKooy** walked the representatives through the website to show them how to use it.

VanderKooy asked that anyone who downloads a section to review, SEND the electronic copy back to the original author with track changes rather than reposting the edited section. Uploading the revisions will replace the version on the website and it is up to the individual authors to evaluate the suggestions from ALL the reviewers and make those that are appropriate.

There is an electronic library available there. There is a bibliography search on the GSMFC website which provides a vast amount of information – all things fishery related. **VanderKooy** gave the group instructions on how to use this database. Everyone was advised that if any explanation of how to use the website/database is needed to please contact **VanderKooy**. A PDF or hard copy can also be made available upon request. The group was instructed that, when writing their sections, they should not cite things on someone else's citing but should cite the original research. Do not use "as cited by so and so." Get PDFs for all of the literature you use. Everyone can share these working files with others.

Meetings, conference calls, and webinars will be posted on the working website. When something is added to this website, TTF members will receive an email. The document repository was pointed out. Upload what you are working on into the appropriate sub-section so that everyone else can see it. Downloads and changes can be made but you MUST send back to original author with track changes. Only the author re-uploads this information and then with a new date. The working website should serve as an excellent tool to the TTF. **VanderKooy** circulated a jump drive with all draft sections to all present for them to download onto their own computers.

Other TTF Membership

VanderKooy noted the TTF members who were not yet identified. A habitat representative would be determined in the next few weeks when the Commission's Habitat Subcommittee meets in March. There is still a need for a commercial rep and a recreational fishery rep on the task

force. Any suggestions should be vetted through the appropriate state agency/director prior to submitting the name for consideration. Also, most of the data we are going to present will not be confidential.

VanderKooy is also looking for a sociologist to join the TTF. There was a little discussion about possibilities within a couple of agencies and **Adams** indicated that the Gulf Council has a sociologist on staff that may be willing to participate. **VanderKooy** was not sure how the Commission would handle travel for someone on Council staff. He would check into it first.

Stock Assessment

VanderKooy spent a few minutes describing the Gulf Data, Assessment, and Review (GDAR) process and how it mirrors the federal SEDAR. Like the federal program, GDAR relies on the expertise available in the state marine agencies to develop an assessment through a transparent, open process. The completed stock assessments undergo a rigorous and independent scientific review to ensure consistent and appropriate use of all the available data pertinent to a specific fishery and establish population targets and thresholds for regional management.

GDAR follows a format organized around three workshops:

1. The *Data Workshop* (DW) where datasets are documented, analyzed, and reviewed and the data required for conducting assessment analyses are compiled and standardized.
2. The *Assessment Workshop* (AW) where quantitative population analyses are developed and refined and population parameters are estimated.
3. The *Review Workshop* (RW) where a panel of independent experts reviews the data and final assessment model and recommends the most appropriate values of critical population measures.

The Commission's Stock Assessment Team (SAT) will generally provide designees to participate in the DW as well as the AW and assist the panel in developing a base-run and written components for the modeling portion in the final draft stock assessment report for the RW through the IJF Program Coordinator.

Independent experts will be solicited by the IJF Program Coordinator in advance of the AW to serve as unbiased reviewers with expertise in population dynamics and assessment models. These reviewers need not be familiar with the Gulf populations specifically but have some familiarity with the same or related species from other areas or regions.

Upon completion of the RW and approval from the review panel, the assessment will be incorporated into the FMP for use in future management by the five Gulf states' marine agencies based upon the goals determined and recommended by the TTFs and various species subcommittees in the FMP.

Standard Format for FMP

VanderKooy explained that we will basically follow "Transactions of the American Fisheries

Society". **VanderKooy** pointed out that footnotes are not used. Members were instructed to cite everything as necessary. A glossary and short list of abbreviations will be included. All members should refer to the old FMP for examples.

Review of Original FMP Sections

The document setup was reviewed – section by section. **VanderKooy** advised the group to use the original sections as a guide when writing their individual sections.

Section 3, *Biology*: It will be necessary to recognize what additional research has been done since the last FMP, i.e. genetics, sub-species, spawning, etc.

VanderKooy will deposit all of the new references he can find since 1998 onto the website or mail out on DVD.

Section 4, *Habitat*: **VanderKooy** stated that, even though there will be a Habitat representative serving on this TTF who will work on updating this section, it would be helpful if each representative reviewed this section as well.

Section 5, *Enforcement*. **VanderKooy** pointed that this is to serve as a source document. Our purpose is not to send people to other resources for answers. This section always needs updating because every department has its own regulations and authority. Also historical changes to regulations need to be included to help interpret the fishing trends, i.e. effort, management, quotas, etc.

Section 6, *Description of the Fishery*. One person will be responsible for the Fisheries section but all will contribute their individual state data. There will be some overlapping of landings and values by state. We will do our best to make these consistent.

Section 7, *Economics*. Sections 6 & 7 should mirror each other. Data will be included through 2011. The recreational data is always more difficult to obtain and is always a weak component so **Adams** will be asking for a lot of help in this section. Please reply and be aware of deadlines.

Section 8, *Sociology*. The TTF is in need of a social anthropologist. Members were asked to network to try to locate someone to take over this section.

Sections 9 & 10, *Management Considerations & Recommendations*. These two sections have recently been combined into considerations and then recommendations resulting from those considerations. **VanderKooy** urged everyone to keep this section in mind while working on the rest of the document. **VanderKooy** will merge the original sections in advance of working on the updating.

Section 11, *Research & Data*. **VanderKooy** explained that this section should be a bulleted list that we would like to get done in a perfect world. Again, as sections are being worked on, these "wish list" should be kept in mind.

Section 12, *Review & Monitoring*. This is a section that is boilerplate and will be done by GSMFC staff.

Section 13, *References*. **VanderKooy** will send a DVD of our references to all TTF members. He asked that everyone provide very detailed and complete citations. He also asked that copies be kept of all references so they can be added to the literature database.

Section 14, *Appendix*. Everyone was advised to provide the most complete and clear definitions as possible and add or strike terms that do not apply or are missing.

Election of Chairman

Adams made a motion to elect Sempsrott as Committee Chair. The motion was seconded by Aplin and approved unanimously.

Next Meeting

The next meeting was tentatively scheduled for the week of May 14 or May 21 at the LaPlaya Resort in Naples, Florida with the second choice being the Gibson Inn in Apalachicola, Florida.

There being no further business, the meeting adjourned at 11:40 a.m. on Day Two.

APPROVED BY:
COMMITTEE CHAIRMAN

TCC DATA MANAGEMENT SUBCOMMITTEE
MINUTES
Tuesday, March 6, 2012
Gulfport, MS

Vice Chairman Christine Murrell called the meeting to order at 8:35 a.m. The following members and others were present:

Members
Chris Denson, AMRD, Gulf Shores, AL
Nicole Shaffer, 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
Vince Cefalu, LDWF, Baton Rouge, LA
John Froeschke GMFMC, Tampa, FL

Staff
David Donaldson, Assistant 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
James Ballard, Sport Fish Restoration/Aquatic Invasive Coordinator, Ocean Springs, MS
Cecil Bernhard, Metadata Coordinator, Ocean Springs, MS
Doug Snyder, RecFIN Survey Coordinator, Ocean Springs, MS
Bob Harris, FIN Database Manager, Ocean Springs, MS

Others
Terry Cody, TPWD, Rockport, TX
Joey Shepard, LDWF, Baton Rouge, LA
Nicole Smith, LDWF, Baton Rouge, LA
Ellie Roche, NOAA Fisheries, Saint Petersburg, FL
Rick Leard, GMFMFC, Tampa, FL
Bradley Randall, MDMR, Biloxi, MS
Bill Richardson, MDMR, Biloxi, MS
David McCarron, IA Team, Kennebunk, ME
Chris Blankenship, AMRD, Gulf Shores, AL
Claude Petersen, Bluefin Data, Gonzalez, LA
Robert Burmeister, Trace Register, Seattle, WA
Jaimy Norris, Trace Register, MO

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 17, 2011 in New Orleans, LA were approved as written.

Status of Biological Sampling Activities

G. Bray discussed 2011 biological sampling collections. **Bray** presented a matrix of data deliverables for 2004-2011 for each state. All data have been delivered or entered through 2011, except Louisiana still needs to provide 2011 sample data and they are working on getting that to GSMFC. Florida had numerous connection issues in 2011 so Florida is lacking 2010 and 2011 sample data. Age data has been entered through 2010 except for Florida. **D. Donaldson** reminded the states of the importance of getting sample and age data into the FIN Data Management System (DMS). **Donaldson** also stated that 2013 funding is in doubt and if no funding is secured, 2013 sampling will likely cease. He stated further discussions, at the upcoming FIN meeting, will determine whether eliminating species from the target list could reduce the costs of biological sampling allowing us to continue a minimum level of sampling. **R. Cody** asked if clearing the backlog by the end of this year would be good considering funding might be eliminated. **Donaldson** said that would be a good idea.

Discussion of National Registry Projects

D. Donaldson reported talking with **Gordon Colvin** with NOAA Fisheries about the 2012 request for proposals (RFP) for the National Registry Project. **Colvin** stated the deadline for project submissions will be extended. NOAA Fisheries hopes to complete an evaluation of the quality of current state license databases by the end of March. Once completed, that should assist states in coming up with further research ideas for improving the completeness and quality of their angler license databases. **Donaldson** suggested being able to provide all data elements suggested by NOAA along with the ability to accomplish monthly updates would be items to consider for submitting proposals. **Donaldson** also stated there are no additional funds for projects in the future. We are currently using 2011 funds and there have been no identified needs from the 2011 projects. If needs are identified, the FIN Cooperative Agreement could be modified.

Donaldson also stated he needs status reports for all the 2011 National Registry projects by March 31st. Texas has submitted their final report. Status reports will be necessary as **Donaldson** will be giving an update to **Colvin** in April. **Cody** stated that NOAA Fisheries needs to tell each state how they are out of compliance so that information can be provided to the state agency that manages their license database. Often times the license data are managed by divisions outside of the marine fisheries division.

Demonstration of Traceability Program

A. Miller presented three videos describing different aspects of Trace Register's involvement with the Traceability Program. The first video described how the electronic trip ticket software allows dealers to submit data to Trace Register. The second video describes how the Trace Register system works. The third video described the marketing module developed for sellers to provide information to consumers.

C. Peterson entered some fake data into the electronic trip ticket interface to demonstrate the data entry process for dealers participating in the traceability program. **Donaldson** asked if all electronic trip ticket users had access to the traceability component. Once electronic dealers have confirmed they want to participate in traceability, Trace Register develops an import key, provides it to **Peterson**, and he uses a FTP process to setup the electronic trip ticket software for traceability access. Trip ticket will not send anything to Trace Register without the import key. **Denson** asked if it was possible to send batches of tickets to Trace Register as opposed to one ticket at a time. **Peterson** stated that is possible but just has not been requested yet. **R. Burmeister** then showed how the data **Peterson** entered through the electronic trip ticket software is processed by Trace Register and how Trace Documents travel through the supply chain. **Burmeister** showed how the electronic ticket can be mapped to show where the dealer landings occurred and where the sample was sold and transferred to. Once you create product templates and contact lists you can create a Trace Document describing the product you are shipping to a specific buyer. **Bellais** asked how you handle multiple buyers of landings from an individual trip ticket. **Burmeister** stated you just create individual Trace Documents for each buyer referencing the same trip ticket number. **Burmeister** stated that buyers have the ability to send amended Trace Documents but the original still exists so the differences can be observed. **Burmeister** also demonstrated the marketing tool developed to provide QR codes allowing end users to query where and when the product was landed. The tool provided allows sellers to customize the information and data end purchasers will see by simply scanning the product QR code with a smart phone scanning app. This marketing information and code can be created in as little as 15 minutes. Company logo's, marketing messages, recipes, and tracking maps are some of the data routinely provided.

Update on MRIP Gulf of Mexico For-Hire Logbook Project

Bray gave a brief update on the status of the For-Hire Logbook Project. The team is currently working on producing the final report. Currently the introduction and methods section are essentially complete and ready to distribute to the MRIP team for review. Work continues on the results and recommendations sections. The red snapper analysis was rerun using the complete data set from the entire study period. A sample size analysis was also completed to help determine the proper sample sizes for the validation components based on potential future research. Once the results and recommendation sections are completed, the report will be sent to the MRIP Operations Team (OT) for final approval. The group hopes to have the final report to the MRIP OT by the end of April. **Froeschke** asked if cost analysis was part of the report. **Donaldson** stated that knowing the cost of the pilot study along with the estimated sample sizes needed for future validation work would provide a way to estimate total costs for an expanded logbook program.

Update on HMS Electronic Reporting Activities

Bellais stated the Highly Migratory Species (HMS) workgroup has been meeting via phone conferences to finalize much of the coding schemes and data elements that will be required for federal quota monitoring of highly migratory species. The group is bringing states online one at a time to make addressing problems and questions an easier process. Louisiana was the first state in the Gulf being brought online. The HMS workgroup will be meeting in the afternoon to discuss specific questions and problems.

Discussion of Adding Economic Questions to For-Hire Telephone Survey

S. Lovell gave a brief presentation about a proposal to add some economic questions to the for-hire telephone survey in the Gulf of Mexico and Atlantic Coast. A major concern is the need for better economic data for evaluating the importance of the for-hire industry. NOAA Fisheries proposes to collect the price of each charter trip using the existing FHS methodology. Using the existing for-hire survey (FHS) provides a consistent valid sample and allows for linking of price data to trip characteristics. Some of the benefits of having the data would be providing better results on the for-hire industry as a commercial for-profit industry. Also having data for many years across geographic locations will allow for analysis on price changes over time resulting from fishery management and or environmental changes. Data could also be used for forecasting future for-hire supply and demand along with regulatory analyses on specific species. **Denson** asked if any other economic data were being asked on the FHS. **Lovell** stated there currently were none. **Froeschke** asked if there was any way to know if captains would be willing to provide that information. Many of the states stated they felt trip fare would reduce response rates on the survey. **D. Carter** stated that outreach would be attempted to determine the feasibility of captains providing the trip fare data. **Carter** also stated another option would be for NOAA economists to develop a separate survey that could impact overall survey response rates. **Cody** stated it would be possible to mandate participation for those people with federal permits but he feels the impact on the guide fleet could seriously hamper voluntary participation. **Lovell** suggested sending out a letter to the charter captains explaining what NOAA economists would like to collect, and then following up on the next FHS telephone call with a question to gauge their willingness to provide trip fare data. The states agreed that the telephone query option would be a good first step. **Bray** will work with NOAA and the states to work out the details of collecting these willingness data.

Status of Metadata Data Compilation

Donaldson introduced **Cecil Bernhard** as the FIN Metadata Coordinator. **Bernhard** stated he has contacted all the states and has already collected a large amount of information that he has entered into Inport. He needs each state to review their data and edit it if necessary so it can be published. **Donaldson** suggested that states try to review their data by April 15th. Bernhard also provided a metadata hierarchy that is currently entered into the Inport system. **Cody** stated FWRI has a metadata system and can put **Bernhard** in contact with their coordinator at the state level. **D. McCarron** believes the newest version of Inport will allow for a direct import from the FWRI Mermaid system.

Other Business

Donaldson stated the vessel registry module with IA Team was designed to be expanded to dealers and fishermen too. Carry over money was available to enter into contract with IA Team to start work on module expansion. Each state should expect to be contacted from **McCarron** to start looking for data to populate the new modules.

Being no further business, the meeting was adjourned at 11:33 a.m.

HMS Electronic Reporting Work Group

C. Petersen gave a demo of the Louisiana version of Electronic Highly Migratory Species (HMS) Dealer Reporting module through Trip Tickets. The Federal HMS dealers will have an HMS tab for additional HMS required fields. In a subsequent version, the dealers will have the ability to submit negative reports. **C. Petersen** also stated that each state's version of Electronic HMS Dealer Reporting module will be different. The group reviewed the new HMS fields and provided ideas and concerns. **C. Denson** stated he has concerns over the dates because Alabama will have three different dates to deal with such as landed date, purchase date, and transaction date. **J. Wilson** told the group the HMS personnel would like to have a conference call with each state, along with Gulf States Marine Fisheries Commission, Southeast Fisheries Science Center, and Bluefin Data to discuss the potential changes that would allow Federally-permitted HMS dealers to fulfill both state and federal electronic dealer reporting requirements within one program. Florida will be the next version developed. **D. Gloeckner** wanted to know if the states thought the federal port agents reviewing the state trip ticket data would be useful. The States agreed that more communication between the states and federal port agents is needed for this to work. **C. Petersen** stated he needs a list of HMS species from each state without any unclassified species and a translation from state area codes to FIN area codes for Louisiana.

APPROVED BY:
COMMITTEE CHAIRMAN

LEC/LEAP Joint Meeting Minutes
Tuesday, March 6, 2012
Gulfport, Mississippi

Gulf Council Law Enforcement Advisory Panel (LEAP) Chairman, Walter Chataginer, and Gulf States Law Enforcement Committee (LEC) Chairman, Jeff Mayne, called the joint meeting to order at 8:30 a.m. The following members and others were in attendance:

LEAP/LEC Members:
Jeff Mayne, LDWF (LEC Chair)
Walter Chataginer, MDMR (LEAP Chair)
Leslie Casterline, TPWD
Rob Beaton, FWC
Cynthia Fenyk (for Karen Raine), NOAA
Carmen DeGeorge, USCG
Scott Bannon, ADMR

Others:
Kay Williams, *GMFMC Law Enforcement Committee Chair*
Gregg Houghaboom (for Otha Easley), NOAA OLE
Chris Blankenship, ADCNR/MRD, *GSMFC Commissioner*
David Heil, FWC, *GSMFC Commissioner*
Camp Matens, *GSMFC Commissioner*
Troy Williamson, *GSMFC Commissioner*
Jonathan Rusch, USDOJ
Kathleen Wylie, USDOJ/National Center for Disaster Fraud
Lauren Lugo, NOAA

Staff:
Larry Simpson, GSMFC
Rick Leard, GMFMC
Dave Donaldson, GSMFC
Steve VanderKooy, GSMFC
Debbie McIntyre, GSMFC

Adoption of Agenda

The agenda was adopted unanimously.

Approval of Minutes

Mayne *moved to accept the October 24, 2011 Joint Meeting minutes as written.* ***Beaton*** *seconded the motion which passed unanimously.*

Review of the Council's Action Schedule

Leard reviewed the action schedule for the Council for 2011 and 2012.

Status of Council FMP Amendments and Regulatory Actions

Leard provided an overview of the recent amendments from the Council as well as the regulatory actions.

Discussion of Enforcement Issues Related to the Gulf Council's IFQ Program

This agenda item was actually removed from the published agenda since there were ongoing investigations related to IFQs which could not be discussed at this time. It is expected that, in a few months, there will be much more to talk about in a regular LEAP meeting as the investigations are closed and allowed to be made public.

National Center for Disaster Fraud/Gulf Coast

Kathleen Wylie (Dept. of Justice – Baton Rouge) and Jonathan Rusch (Dept. of Justice – Washington, DC) presented an overview of the National Center for Disaster Fraud (NCDF) and the coordination efforts with local, state, regional, and federal agencies to examine and potentially prosecute many forms of disaster assistance fraud. The Baton Rouge office has been working with a number of regional and state agencies including LDWF related to hurricane and oil spill fraud. The other state agencies were encouraged to contact Wylie's office and make sure that their specific information was included in the program. In summary, complaints are made to the NCDF by anonymous contacts regarding fraud in all forms. The tips are then evaluated and sent to the appropriate enforcement body to investigate. When a tip comes back with a potential case, the NCDF either prosecutes the violators on its own or through a local or state court. A total of 10,941 complaints were made to the NCDF in 2011 in the Gulf Region. A number of these were forwarded to the FBI, the IRS, the USSS, and for fishery complaints, were referred to the appropriate state marine resource agency. Wylie would like additional information from the five Gulf State agencies to update and include their various enforcement capabilities in order to provide better referrals for future fraud complaints.

Joint Enforcement Agreements

The states took a few minutes to review the JEA man hours, boat hours, and contacts related to commercial and recreational enforcement activities. They also detailed a few of the bigger JEA cases and described any additional assets or equipment upgrades they have made related to JEA patrols. The LEC will likely make a formal JEA presentation at the October meeting. This presentation will cover the last year's activities and include total man hours, boat hours, and contacts related to commercial and recreational enforcement activities.

GSMFC's IJF Program Activities

VanderKooy, Beaton, and **Bannon** provided overviews of the FMP revisions that the LEC is currently providing task force representation for: **Beaton** (Blue Crab) and **Bannon** (Gulf & Southern Flounder.) The LEC will be asked to update each of their respective state rules and

regulations sections for the FMPs coordinated by **Beaton** and **Bannon.** Since both FMPs are early in the revision process, there will be more to report at later meetings.

GSMFC Annual Law Summary and Officers' Pocket Guide

VanderKooy reminded the LEC that the Commission would be requesting their 2012 regulations for inclusion in the Annual Law Summary (the Red Book). This is an electronic document that compiles the states' regulations over time. This is more of an archiving effort than anything else.

VanderKooy also asked the LEC to consider the Pocket Guide. All agreed that while it was technically out-of-date when it went to press, it still had value to officers on the water. They understand that there is never going to be an ideal time to print the latest version as there could be legislative changes throughout the year for any given state. It was agreed that the current schedule would remain the same; that **McIntyre** would ask for updates in the next month or so in anticipation of a July printing and distribution. The LEC did ask that a disclaimer be added to the pocket guide that the regs reflect the current regs at the time of printing and that any questions about regs should be addressed by the state in question directly. **VanderKooy** pointed out that the phone contacts in the front cover were provided to officers for that purpose.

Summer Work Session

VanderKooy noted that the current Gulf Strategic Plan and Operations Plan were both coming to an end this year. It is now time to revise these plans. He suggested that the LEC and LEAP hold a joint work session this summer to update the two documents. Therefore, ***Mayne*** *moved to request funding for a joint LEC/LEAP work session to update the Gulf of Mexico Cooperative Law Enforcement Strategic Plan for 2013-2016 and the Gulf of Mexico Cooperative Law Enforcement Operations Plan for 2013-2014 at a location to be determined later in July. In the past, the Commission and Council have split the costs associated with the meeting.* ***Beaton*** *seconded and the motion passed.*

Gulf Seafood Trace and Trip Ticket Enforcement

Alex Miller made a short presentation on the Gulf Marketing initiative using Trace Register to provide traceability to the seafood products from the Gulf of Mexico. There was considerable discussion generated regarding the effectiveness of the program and the potential of abuse by unscrupulous fishermen and/or processors and dealers. **Miller** tried to explain the benefit of the program and the products already using this type of tracking system in the grocery/retail industry. While there were mixed reviews, the program does provide a starting point for some very basic traceability and the potential for transparency in the future.

State Report Highlights

State reports were provided electronically prior to the meeting and are available from the Commission office.

LOUISIANA HIGHLIGHTS:

- LDWF became the first agency to implement the BOAT (Boat Operations and Training) administered by the National Association of Safe Boating Law Administrators. To date, LDWF has 25 agents certified in the BOAT program with plans to have every agent become certified in the next year.
- LDWF agents provided 38,497 patrol hours of search and rescue services, both on land and water, in fiscal year 2010-2011.
- LDWF agents worked a total of 33,349 hours during levee patrol in fiscal year 2010-2011 for the Mississippi River Flood event.
- The Wildlife and Fisheries Law Enforcement Academy graduated 15 agents in fiscal year 2010-2011.

TEXAS HIGHLIGHTS:

- Texas' Coastal Fleet now has 14 Safe Boats used for marine enforcement including a new 38 footer stationed in Rockport.
- A Finfish Tracking System is currently being developed for tracking commercially protected finfish. Funding for this project is being provided by GSMFC.
- JEA hours include 2,568 personnel hours and 995 vessel hours.

FLORIDA HIGHLIGHTS:

- The offshore patrol fleet continues to work contracted hours with a focus on IFQ and TED requirements. A continued increase of hidden fillets on both the Gulf and the Atlantic has been observed.
- A 12 meter Whaler was delivered.
- The vessel GUARDIAN, FWC's 45' catamaran stationed in Crystal River, is going through a major overhaul.

MISSISSIPPI HIGHLIGHTS:

- JEA hours in February, 2012, included 1051 sea hours and 3766 man hours with 1311 contacts, resulting in 55 violations. These violations mainly concerned red snapper, TEDs, and sharks.
- Purchases included the refurbishing of the Capt. Moose, a 33' patrol vessel.
- Three new patrol officers were hired during this time period.

ALABAMA HIGHLIGHTS:

- From October 1, 2011 to February 1, 2012, enforcement officers' activities included 4,695 commercial fishermen contacts and 6,749 recreational fishermen contacts. 5,518 patrol hours were conducted and 4,230 vessels were boarded resulting in 2,842 citations/warnings.
- MRD has proposed several regulation changes to the Alabama Dept of Conservation & Natural Resources' Conservation Advisor Board for consideration.
- MRD Enforcement recently purchased thermal imaging devices to assist with investigations.
- MRD Enforcement purchased several satellite phones for use in emergencies where communication is lost and during offshore patrols.

Other Business

Les Casterline (TPWD) presented a phone app version for the Department's Finfish Tracking System. The electronic version of the reporting system is being funded by the GSMFC to track commercially protected finfish. Reporting is required by state statute and proclamation. The electronic format eliminates paper copies and allows the user to print a tracking ticket that stays with the product as long as it is in Texas. The tracking information includes the point of sale for the seller, shipper, and recipient of the product within the state. The application could be used by other states, as well, to continue the tracking beyond the Texas state line whether exported or imported.

With no further business, ***Chataginer*** *made a motion that the meeting be adjourned. The motion was seconded by* ***Beaton*** *and the meeting was adjourned at 4:55 p.m.*

APPROVED BY
COMMITTEE CHAIRMAN

S-FFMC MENHADEN ADVISORY COMMITTEE
MINUTES
Tuesday, March 6, 2012
Gulfport, Mississippi

J. Smith 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
Corky Perret, MDMR, Biloxi, MS
Dale Diaz, MDMR, Biloxi, MS
Fernando Martinez-Andrade, TPWD, Corpus Christi, TX
Ed Swindell, Marine Process Services, Hammond, LA
Bob McMicheal, FWC, St. Petersburg, FL
Brittany Chudzick, MDMR, Biloxi, MS
Chad Hanson, Pew Environmental Group, Crawfordville, FL
Ben Landry, Omega Protein, Houston, TX
Scott Herbert, Daybrook Fisheries, New Orleans, LA
Dr. Paul Spitzer, Trappe, MD

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
Jeff Rester, Program Coordinator, Ocean Springs, MS

Introductions

Chairman Smith led the introductions of the MAC and the audience.

Approval of Agenda

Blanchet asked that the Louisiana Forecast (Agenda Item 6) be removed as the LDWF had not yet transitioned into the forecasting that used to be provided by Guillory in the past.

VanderKooy noted that Dr. Jacob was unable to attend due to an illness, therefore, **VanderKooy** would be presenting the social survey overview. ***Lukens*** *moved to adopt the agenda as modified,* ***Buchanan*** *seconded, and the agenda was adopted.*

Approval of Minutes (October 17, 2011)

The Committee reviewed the draft minutes. ***Wallace*** *moved to accept the minutes as written,* ***Lukens*** *seconded, and the minutes were accepted.*

Review of 2011 Gulf Menhaden Season and Forecast for 2012

Smith provided an overview of the 2011 fishing season. The final menhaden landings in the Gulf were around 613,000 mt which was up 62% over 2010 (BP year) and 41% over the previous 5-yr average. The weather was generally good in 2011. The season started with a windy April, but landings in May improved and the fleet enjoyed fair weather from June through August. There was rain in the mid-west in May which resulted in the opening of two Louisiana spillways in May and put a lot of fresh water on the fishing grounds. Fish were generally small with low fish oil yields and low protein content of fish meal. The landings peaked in August and remained relatively high in September and October. The Gulf fleet consisted of 37 regular steamers and four run boats operating out of four plants. The estimated effort for 2011 was 367,200 vessel-ton-weeks which was a 15% increase from 2010 and 3% from the previous 5-yr average. Coast-wide, the catch was dominated with age-1 fish which coincided with the fishery-independent data from 2010 suggesting a very strong year class. It is expected that this cohort should carry through as age-2 fish in 2012 and should be well-represented in the fishery in 2012.

Smith pointed out that 2012 marked the 40th anniversary of the NMFS menhaden prognostication; the first forecast was presented to the Menhaden Advisory Committee in 1973. In 2012, **Smith** estimates that with 4 factories, 38 vessels (35 steamers and 3 run boats) they should achieve 330,000 vtwks of fishing effort resulting in 482,000 mt of fish being landed.

Update on the Atlantic Menhaden Fishery

Smith also provided the summary of 2011 Atlantic menhaden fishing. The Reedville plant landed 174,021 mt of fish which was down 5% from 2011, but still higher than the previous 5-yr average by 9%. Eight Reedville vessels fished most of the season, along with five Virginia 'snapper' boats (bait vessels) and ~6-8 bait vessels fished off New Jersey.

There were a number of significant management-related items to report for the Atlantic fishery. The Atlantic Menhaden Management Board met in August and drafted Addendum V to Amendment 1 of the FMP. The addendum proposed establishing new interim fishing mortality thresholds (limit) and targets based on maximum spawning potential (MSP) with the goal of increasing abundance, SSB, and availability of menhaden as a forage fish. The draft addendum provided two options for an interim fishing mortality (F) threshold with an MSP of 8% [status quo] and 15%. It also provided four options for an interim F target; the current F, and an F based on MSPs of 20%, 30%, and 40%. The Board met in November to review public input and consider final action. The Board voted for F threshold of 15% and F target of 30% with

implementation in 2013. Based on this threshold, the current F exceeds the 15% threshold F and target, so the Board must take steps to reduce F to the new target level. The Board will meet in May 2012 to decide on an appropriate timeline to achieve the F target.

To help evaluate the timeline, a series of projections were developed to explore landings scenarios. The Board has pushed to fast-track the stock assessment update by mid-summer; current F for the fishery (through 2011) and the landings projections based are therefore subject to change.

Review of the Texas 'Cap' in 2011

Smith and **Mambretti** discussed the Texas Cap for 2011. The fleet managed to reach the quota within a percent by mid-September as menhaden were available much further west than in previous years. Communication between the fleet and the TPWD was very good and the quota was able to be monitored in nearly real-time using the CDFRs provided by the industry. Post-season verification by **Smith** indicated that the quota was fished at just short of the maximum, plus the previous year's underage 'credit'. The total removals from Texas waters were right at 34M lbs. Because the fleet achieved the cap in 2011, the quota in 2012 will not include a credit and therefore will be set at the 31.5M lbs.

Gulf Menhaden SEDAR and FMP Revision

VanderKooy updated the MAC on the status of the SEDAR27 and the plans to continue with a revision to the assessment. The SEDAR program does not have funding to update the assessment in a short time frame. The best option is to finish it through the Commission and go back into the SEDAR process in 5 or 6 years for a benchmark assessment. **VanderKooy** identified some of the data issues that the reviewers noted and that the state representatives and NOAA felt were relatively easy to address in the short term. He also explained how the model indices would be re-examined and retooled for inclusion in a re-run of the BAM model later this year. NOAA has indicated that there may be time after the Atlantic menhaden assessment (by Dr. Schueller) to revisit the gulf menhaden stock assessment, but that the agencies would have to do the legwork in advance. **VanderKooy** proposed holding a shortened version of the SEDAR process through the Commission, looking at an assessment workshop later this summer or early fall, and a review workshop by the end of the year. The completed assessment would satisfy the need for a population analysis in the FMP and be beneficial to the industry and state agencies in evaluating the current health of the stock.

Smith and **VanderKooy** would work with the industry this coming season to verify some of the fishery-dependent data elements that were questioned during the Review Workshop. This may include additional sampling of the catch for ageing purposes and the measuring of the dump bins/hoppers at the plants.

Menhaden Industry Social Survey

Finally, **VanderKooy** provided a PowerPoint presentation on results from the industry-wide social survey. Dr Steve Jacob, York College, PA, was unable to attend due to illness, but sent

the presentation ahead. **VanderKooy** collected 691 completed survey forms from the four Gulf plants and Dr. Jacob is currently analyzing the data. This is the first comprehensive attempt to describe the industry and the fishery participants. It should provide a baseline to quantify changes in demographics in the future.

Other Business

As a note, **Joseph Smith**, a dedicated NOAA employee, taking time to be here in Gulfport serving the Commission and the industry, missed the early birth of his first grandchild yesterday morning, a healthy baby girl. Congratulations, Joe.

Dr. Paul Spitzer was in the audience and briefly introduced himself and explained his interest in menhaden as they relate to overwintering loons in the Gulf.

Finally, **VanderKooy** had the MAC reexamine and talk about the menhaden plant photo he had come across a month earlier. It was determined that the location was not in Empire as it had been reported. No one knew what plant it was but would continue to investigate it. V**anderKooy** did ask the group to consider sending electronic, high resolution images of any and all menhaden plants that they might have. **VanderKooy** would like to create a photo archive on the GSMFC website to capture as many of the old, historical plants that the group could come up with. If anyone needed help scanning original photos, **VanderKooy** could arrange to do it.

With no further business, ***Lukens*** *moved to adjourn,* ***Wallace*** *seconded and the meeting closed at 11:55am.*

APPROVED BY:
COMMITTEE CHAIRMAN

TCC SEAMAP SUBCOMMITTEE
MINUTES – 62nd Annual Spring Meeting
Tuesday, March 6, 2012
Gulfport, Mississippi

Chairman R. Hendon called the meeting to order at 1:00 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
Myron Fischer, LDWF, Grand Isle, LA
John Froeschke, GMFMC, Tampa, FL
Butch Pellegrin, NOAA Fisheries, Pascagoula, MS

Others
David Hanisko, NOAA Fisheries, Pascagoula, MS
André DeBose, NOAA Fisheries, Pascagoula, MS
Ellie Roche, NOAA Fisheries, St. Petersburg, FL
Joey Shepard, LDWF, Baton Rouge, LA
Bradley Randall, MSDMR, Biloxi, MS
Jill Hendon, GCRL, Ocean Springs, MS
Joe Smith, NMFS, Beaufort, NC
Lance Robinson, TPWD, Dickinson, TX
Lauren Lugo, NOAA Fisheries/SERO, St. Petersburg, FL

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
Gregg Bray, *RecFIN(SE) Programmer/Analyst,* GSMFC, Ocean Springs, MS
James Ballard, *Sport Fish/Aquatic Invasives Coordinator,* GSMFC, Ocean Springs, MS
Cecil Bernhard, *Metadata Coordinator,* GSMFC, Ocean Springs, MS

Adoption of Agenda

J. Rester asked to discuss the Trawl Operations Manual under Other Business. **B. McMichael moved to adopt the agenda with this change. F. Martinez seconded and the motion passed.**

Approval of Minutes

B. McMichael moved to approve the October 17, 2011 minutes as submitted. J. Froeschke seconded and the motion passed.

Administration Report

J. Rester reported SEAMAP is beginning its 31st year of fishery independent sampling. Current surveys include a Spring and Fall Plankton Survey, Summer and Fall Shrimp/Groundfish Survey, Bottom Longline Survey, Vertical Line Survey, and Reef Fish Survey.

The SEAMAP FY2012 budget was cut by 4% from last year's amount. SEAMAP anticipated a budget cut last year and reviewed all SEAMAP funded fishery independent surveys. Some surveys will be discontinued in 2012, but this prioritization will allow SEAMAP to continue to collect high priority fishery independent data for the Gulf of Mexico.

While some surveys have been discontinued, the Vertical Line Survey is expanding. Currently, Alabama and Louisiana are surveying reef fish on artificial reefs and oil and gas platforms with bandit rigs. SEAMAP recently finalized their operations manual for this survey. The Artificial Reef Subcommittee has shown an interest in using the SEAMAP protocols for monitoring artificial reefs throughout the Gulf. Any data collected would be comparable to SEAMAP data and could be used by stock assessment scientists.

SEAMAP Plankton Sampling Review

D. Hanisko gave an overview of SEAMAP Plankton Sampling. The goal of the plankton surveys is to assemble a time series of data on the occurrence, abundance and geographical distribution of fish eggs and larvae, as well as to collect data on selected physical properties of their pelagic habitat. The SEAMAP plankton data are being used to help develop taxonomy, to identify essential fish habitat, to prepare environmental impact assessments, to determine time series of plankton surveys, to feed into ecosystem-based fisheries management, and to help in marine spatial planning. He showed a map of all of the SEAMAP plankton stations and said there are 368 cruises in the database.

D. Hanisko then gave an overview of the plankton data collection. He stated SEAMAP was collecting at two different levels, the NOAA vessels and state vessels. He said since 2000 NMFS has moved to electronic data collection and the state vessels were still using field data sheets and entering into an electronic data system. Everyone was collecting similar data on different levels. The samples are sent to the Polish Sorting Center where they are identified and then sent back to the archiving center in St. Petersburg with additional specimens going to GCRL. The coordination of the surveys among the SEAMAP partners is essential to complete the coverage of the survey areas and the timing of the surveys can also impact the estimates of annual larval indices of abundance. The samples are shipped to Poland twice a year, on June 15 and October 15. Samples not making the deadlines are held over until the next shipment potentially delaying the use of time series data. He said they have found some dried larvae in the samples and asked the Subcommittee to be extra diligent in rinsing the nets down as this results in cross contamination of samples. Another thing they have found, in very few incidences, is samples have been accidentally preserved in denatured alcohol. Only laboratory grade 95% ethanol should be used for sample preservation.

He said they look at a couple of variables mainly for QA/QC purposes. The gear location should be recorded but it has been left blank in the database in some instances. He stated valid values for bongo tows are left (L) or Right (R); Neuston tows are R for single neuston net, or L or R for double neuston nets. Another thing that is not consistently coming into the data is the amount of wire spooled out (WIREOUT) and wire angle. These values are used to determine maximum depth of tow when a depth sensor is not used. The wire out and angle should be recorded and/or entered in the electronic database for all net tows for which a maximum tow depth is required. In many cases the values are recorded in the opposite fields, i.e., ANGLE=WIREOUT. The maximum depth of tow is critical to the standardization of larval abundance to the number of larvae per 10 square meters of sea surface. He said maximum depth of tow is determined by direct observation of the net; directly observed from depth/pressure sensors; calculated using the maximum amount of wire out and the wire angle at the targeted maximum depth of tow. He said in some instances targeted depth of tow is being entered into the database as depth of maximum tow instead of the final calculated depth. He recommended they start quantifying the methods and code this in the database.

D. Hanisko said they are having problems with the historical data where there is wire out and angle in some places and others do not have it. He suggested to code in the data whether it is calculated or the bottom method so users would have some indication where depth came from. Another thing found is the variable is being inconsistently recorded but does not know if the database system is defaulting to a value or not.

D. Hanisko said he would like to have discussion on collection and collation of additional data. He said they have noticed comments on the original data sheets that were not entered in the database. He asked to make sure the notes/comments are transferred to the electronic database. He asked that copies/scans of the original field sheets be sent to them. He said they need to have consistent collection of wind speed, wind direction and Beaufort Sea Condition. Additional data he suggests to be collected is the presence or absence of jellyfish, quantification of Sargassum, detailed position and depths for individual plankton tows. They would also like to know the individual state database systems and data conversions each state is using. He then reviewed the information on Beaufort Sea Condition.

After discussion of the presentation, the Subcommittee decided to schedule a Plankton Work Group meeting including party chiefs and all field personnel to convene before summer sampling to discuss these issues and hopefully give training on SCS and FSCS. D. Hanisko's presentation will be emailed to all Subcommittee members. **B. Pellegrin** suggested including the Environmental Work Group for this meeting.

B. McMichael stated the Archiving Center is under new management.

Finalizing the SEAMAP Vertical Line Survey Operations Manual

The Subcommittee further reviewed the Vertical Line Survey Operations Manual. **J. Rester** stated they must finalize this document as soon as possible because the TCC Artificial Reef Subcommittee wants to use the same protocols to sample artificial reefs. More editorial changes were incorporated into the document. The Subcommittee discussed under the gear section the

deployment of two or three rigs at a station and decided on a preferred method and Option B. **J. Rester** added the appropriate verbiage to the document. There was also a discussion on how to assign the Fish ID number, the number used to identify each fish at each station and it was decided to use the source code followed by a three-digit number that increases with each fish. **J. Rester** will discuss this with Lloyd Kirk and let the Subcommittee know if this will be possible. They also discussed the gangion construction and decided to use the same language in the NOAA manual for this manual.

B. McMichael moved to accept the document with the changes discussed and then send it to T. Henwood for further review. J. Mareska seconded the motion and it passed.

Finalizing the SEAMAP Bottom Longline and Vertical Line Database Structure

J. Rester presented the Bottom Longline and Vertical Line Database Structure and stated the database structure for the Vertical Line is basically what is in the operations manual. He said they are having problems with fish id and will investigate this further. He said they have been doing the longline sampling for a while and the data they are receiving is not uniform between the states. Lloyd Kirk will provide the states with an example of how they wish to receive the data.

J. Mareska made a motion to accept the bottom and vertical longline database structure that was presented. B. McMichael seconded and the motion passed

Other Business

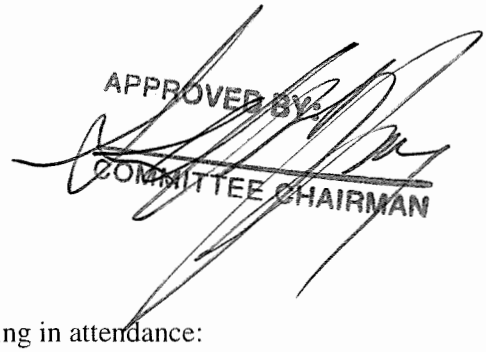
J. Rester reported the SEAMAP operations manual for trawl and plankton surveys is almost finalized. J. Rester will add a section on FSCS then send the manual to the Subcommittee for review. **D. Hanisko** will send J. Rester the latest NMFS biocode list and the Subcommittee will decide if this needs to be incorporated into the document.

M. Fischer stated Louisiana has another vessel available that could be used for SEAMAP sampling. He asked if comparative tows are necessary before using the vessel. He stated they feel the gear catches the samples, not the vessel, and comparative tows would be costly. After discussion, **B. McMichael moved to exempt Louisiana and all state partners from having to do the side by side comparisons. J. Rester** stated the data might not be used in stock assessments if they exempt the states from doing this. After further discussion, **B. McMichael withdrew the motion.**

The Joint annual SEAMAP meeting will take place in Savannah and tentative dates are July 31-August 1, 2012. J. Rester will inform the Subcommittee when the meeting arrangements are finalized.

F. Martinez stated that Texas would no longer conduct winter trawls and will increase the number of longlines and summer trawls. He asked the Subcommittee if there were any objections to this and they said no.

There being no further business, the meeting adjourned at 4:20 pm.



TCC CRAB SUBCOMMITTEE
MINUTES
Wednesday, March 7, 2012
Gulfport, Mississippi

R. Gandy called the meeting to order at 8:30 a.m. with the following in attendance:

Members
Martin Bourgeous, LDWF, Baton Rouge, LA
Jason Hermmann, AMRD, Dauphin Island, AL
Traci Floyd, MDMR, Biloxi, MS
Ryan Gandy, FWRI, St. Petersburg, FL
Harriet Perry, GCRL, Ocean Springs, MS

Others
Bill Richardson, MDMR, Biloxi, MS
Jeff Marx, LDWF, New Iberia, LA
Julie Anderson, LA Sea Grant, Baton Rouge, LA
Darcie Graham, GCRL, Ocean Springs, MS
Harry Blanchet, LDWF, Baton Rouge, LA
Caz Taylor, Tulane, New Orleans, LA
Bree Yednock, ULL, Lafayette, LA

Staff
Steve VanderKooy, GSMFC, Ocean Springs, MS
Debbie McIntyre, GSMFC, Ocean Springs, MS

Introductions

Chairman Gandy led the audience and the committee members in introductions.

Adoption of Agenda

Bourgeois *moved to adopt the agenda as written,* ***Perry*** *seconded the motion, and the agenda was adopted.*

Approval of Minutes

The Committee reviewed the Crab subcommittee minutes of the Oct 18, 2011 annual meeting. ***Bourgeois*** *moved to accept the minutes as written,* ***Gandy*** *seconded, and the minutes were approved.*

The Committee reviewed the Blue Crab TTF Minutes of the Dec 7-8, 2011 meeting in Apalachicola. ***Graham*** *moved to accept the minutes as written,* ***Perry*** *seconded, and the minutes were approved.*

GDAR Data Workshop

VanderKooy provided an overview of the GDAR (Gulf Data, Assessment, and Review) process which mirrors the federal SEDAR program. The Data Workshop is being planned for late April, an Assessment Workshop in mid-late summer, and a Review Workshop late this year. The Data Workshop was originally planned for New Orleans but may be held in Gulfport to reduce travel costs.

A. Speaker Invitations
VanderKooy explained that the Commission will cover the expenses of TTF members, the Stock Assessment Team, invited speakers, and others.

B. GDAR Pre-Reports Status – VanderKooy reviewed the Menhaden SEDAR process in detail, its plusses and minuses. Pre-reports will be needed prior to the data workshop. These reports can be edited along the way as sections are updated. VanderKooy would begin working on the pre-reports using section drafts provided by the TTF in the next few weeks.

C. Fishery-Independent Data Organization
There are already a number of activities related to the commercial and independent datasets which are ongoing in preparation for the DW. Sutton discussed a recent pre-DW webinar which included a number of state assessment people and the independent data experts in the state agencies. At this time, there is consensus to favor the Colle-Sissenwine similar to what the LDWF is using for its blue crab assessment submitted for MSC certification. Sutton discussed the set-up of the basic model which is hoped to allow each state to put in its own data and further modify the model based on any additional data elements that they have which are different from the other states.

D. GDAR Schedule
VanderKooy has started collecting a list of potential reviewers to participate in the Review Workshop. He asked the subcommittee to evaluate the individuals already listed and provide any additional people who may be willing and able to look at final product and evaluate it.

Presentations

Dr. Caz Taylor presented her work looking at the blue crab recruits in the Gulf of Mexico that may have been exposed to the Deepwater Horizon disaster which occurred April 20-July 15, 2010. Crab megalopae were collected from seven sites along the Gulf of Mexico, five days a week, from mid-May through October of 2010. The proportion of megalopae with orange droplets varied among sites and within sites over time. These drops occurred outside of the spill area and well after the spill ended. Therefore, it was concluded that there was no evidence of oil spill exposure in the tested megalopae. A strong correlation supports the hypothesis that BHT and nonylphenols come from the same source, likely an anthropogenic source such as wastewater effluents.

Ms. Bree Yednock presented her thesis work on the analysis of population genetic structure and natural selection in blue crabs along the Louisiana Coast. The objective was to characterize blue crab population genetic structure in Louisiana and investigate the potential for natural selection with protein coding genes. It was concluded that blue crabs in Louisiana show significant genetic differentiation.

State Report Summaries (Individual state reports available at GSMFC office)

Bourgeois reported that Louisiana hosted a public cleanup the last two weekends for derelict crab traps and pulled 2,000 traps in two days. Louisiana actually had a contact from the state of Maine who discussed the huge number of lobster traps they have working in a single year and how many are lost annually. The deep water (up to 300 ft) makes recovery nearly impossible. The LDWF could not give much advice. The Crab Task Force in LA has noted the difficulty in getting legal workers to work in processing. Immigrant workers are getting harder to find with legal work visas. In addition, imports of crab meats are coming from many other areas than they used to.

Gandy reported that Florida is continuing with its effort reduction. The derelict trap program has gone to an even/odd year closure by coast (odd years Gulf and even years Atlantic) in order to expend their funding in specific areas. A total of 1,583 derelict crab traps were removed in 2011.

Texas held its derelict trap cleanup this past spring and **Sutton** stated that 430 traps were removed, mainly from San Antonio and Galveston Bays. He pointed out that fewer and fewer traps are being recovered each year.

Alabama's last derelict trap removal occurred in March, 2010. **Herrmann** reported that, upon visual and aerial inspection of the main derelict trap removal sites, there were too few traps to warrant organizing a volunteer removal program for the spring of 2012. AMRD will continue to monitor these sites to see if removal will be necessary in the fall.

Mississippi removed 108 derelict traps during 2011. **Floyd** reported that the Commission on Marine Resources implemented a trip ticket program for all fisheries effective last week, March 1st, 2012.

There being no further business to discuss, ***Bourgeois*** *moved to adjourn,* ***Sutton*** *seconded, and the meeting was adjourned at 11:45 a.m.*

MEETING Minutes
Blue Crab Technical Task Force
September 25 & 26, 2012

Moderator, Steve **VanderKooy**, called the meeting to order at 8:30 a.m. The following Task Force members and others were in attendance:

Members Present

Jeff Marx, LDWF, New Iberia, LA
Glen Sutton, TPWD, Dickinson, TX
Ryan Gandy, FWRI, St. Petersburg, FL
Jason Herrmann, ADCNR, Dauphin Island, AL
Alex Miller, GSMFC, Ocean Springs, MS
David Capo, Capo Crab Ranch, Cross City, FL
Traci Floyd, MDMR, Biloxi, MS
Rob Beaton, FWC, Tallahassee, FL

Others

Steve VanderKooy, GSMFC, Ocean Springs, MS
Debbie McIntyre, GSMFC, Ocean Springs, MS

Introductions

In consideration of the new member to the TTF, David **Capo** (industry rep), the group introduced themselves and described their roles in the revision. **VanderKooy** asked those present to double check the roster list handout for accuracy.

Adoption of Agenda

The agenda was reviewed and it was agreed that it would be used as a guide for this meeting.

Approval of Minutes

The minutes from the Work Session held April 26, 2012 were reviewed by the group. *On motion by **Floyd**, seconded by **Marx**, the minutes were accepted as written with minor changes.*

GDAR Potential Reviewers

VanderKooy asked everyone to review the list of potential GDAR reviewers and make any recommendations regarding these suggestions. It is important that these names be reviewed as soon as possible and any other participants suggested so that **VanderKooy** can contact them to see if they would be agreeable to serve in this capacity.

General Discussion

VanderKooy explained that this TTF has been on task for one year. This is the second revision which is a bit easier than the last effort. The primary changes to the document are updating the landings information, adding any new biology and habitat information, and describing the changes to the fishery from the last decade. In addition, the TTF is repeating the social survey of the commercial fishery in an effort to really look at the changes resulting from the world economy and several natural and man-made disasters since the last revision.

To date, most of the effort by the TTF has been independent but we are getting to the point of reviewing relatively complete draft materials. **VanderKooy** noted that there are actually two separate efforts going on simultaneously: the revision of the FMP and the GDAR stock assessment (which will be included and help the TTF make recommendations).

Biology

Perry was not present at this meeting but **VanderKooy** reported that he met with her and she wanted to work on the layout of the biology section. **Perry**, **Graham**, and **VanderKooy** rearranged the overall structure of the section and it was a little different than the version the TTF has been working with. **Perry**, **Gandy** and **Graham** have been tasked with almost this entire section. **Perry** is the principle on combining the subsections as they are drafted, however, and once the restructuring is complete, it will be subject to review of the entire group.

Geography

At the GDAR Data Workshop, the TTF agreed that there is evidence and support for a natural, geographic break around Apalachee, Florida for a lot of species including blue crabs. Migration studies are weak but genetics data supports this theory. Therefore it was agreed that there really are two stocks in the Gulf, the 'Eastern Stock' which consists of Florida waters to the panhandle, and the 'Western Stock' which includes the other four western states. Joel Anderson (TPWD) has found a similar geographic break in other species data. **Gandy** questioned whether such a dividing mark could possibly have an influence on Florida assessment in the future, i.e. a disaster. **VanderKooy** stated that there are plenty of regional assessments and this should not be a problem. This is not a concrete barrier but **Gandy's** concern will be kept in mind as an approach is taken to this break. **Capo** is aware of this divide which actually looks like a tide line and he stated that once you reach Apalachee, the tide runs a lot less. The crabs drift in, swim in, and are either caught or die.

General Description

VanderKooy reviewed the general description section which has been worked on somewhat since the Data Workshop. There will be much more fleshing out of this section, using red snapper as a template. A map has been added to this section to illustrate the "break." This should be considered a work in progress.

Age and Growth

These sections were reviewed on the screen, allowing all to read. **Gandy** stated that there is a Steel study with tagging data available, but grid systems were used and the study is very difficult to figure out. He has not yet gotten the 'codes' required to properly interpret the data from the mid-1980s study.

Gandy reported that FWC's pond crabs are measured weekly for growth estimates. **Graham** has similar information for Mississippi but her measurements are total growth over a season. The group reviewed the summary of growth studies for blue crabs. Growth rate will never be exact due to temperature variables. **Graham** is still working on this table. Mississippi provided crabs to Auburn for a study, the results of which just came out last month. Potential recruitment to the fishery and ability to mature within the first year was some of the information provided by these studies. **Sutton** will have some new Texas data by the end of this year which he will provide to **Graham**. **Gandy** would like to reference some North Carolina data regarding crabs grown during the summer. This is good to use as reference information for comparison to the Gulf. **VanderKooy** reminded everyone that, while this is a management plan for the

Gulf, we do need to highlight, to some extent, how the Gulf is different.

Mating and Life Histories

Graham has also provided updates on mating and life histories.

Spawn and Recruitment

Graham will develop this section further. There will be a lot of overlap between **Marx's** section and this section, but there is room for overlap.

Factors Affecting Survival

VanderKooy reported that after much deliberation with **Perry** over the reorganization of Section 3, it seemed impossible to develop a separate section for threats. Therefore, the 'life history' threats (parasites, predation, disease, etc.) will be placed back into the Biology section and those 'habitat loss/environmental threats' will be returned to Section 4 Habitat.

Parasites and Disease

Gandy had pulled a lot of research on disease but most are region-specific. **Gandy** is in the process of restructuring some of the following:

1. Known diseases
2. Diseases of concern
3. The effect of disease on populations and fisheries and estimates of mortality
4. The table of all work on these subjects.

Weather and disease are the next levels of data to consider in the FMP.

Table 3.2 reflects review papers which indicate impacts of viruses on fisheries. This is basically a table of citations, i.e. for Hematodinium, there are at least 50 citations, all of which are important. This will provide a great resource for researchers. **Gandy** stated that this section snow-balled due to all of the very important data available. Blue crabs are so susceptible to disease because they are susceptible to all kinds of stress. **VanderKooy** suggested that this table be moved to the back as an appendix and only the Gulf-related diseases be addressed in detail in this section.

Gandy's table will be taken out of this section altogether and moved into an Excel document. This can all be formatted later if necessary.

Habitat

Gulf of Mexico General Description

Rester is in the process of updating this section. Every year, our marsh coverage changes due to land loss, habitat shifts, and storms; therefore, this needs to be continually updated. **Rester** is pulling information from other management plans, Sheepshead, Oyster, etc., to overlap them all and acquire more recent information.

It was suggested that we need to do a better description of Eastern vs. Western Gulf, descriptive enough to explain exactly what the difference is between the two areas. The dividing line should be described clearly.

VanderKooy informed the group that, although the Gulf Council did away with the Joint GSMFC/GMFMC Habitat Program, **Rester** is still the go-to person for habitat information. **Marx** is responsible for the remainder of the Habitat section specific to blue crabs.

Juveniles

Marx has added some information for juvenile and larvae but will probably not change anything in the opening section. He would appreciate any recent publications regarding adult crabs since he has not found many new ones. Gathering information about the critical habitats for each state, land loss rates, etc, has proven difficult. These changes are taking place so often and so rapidly, especially in the case that a storm occurs. This information has such an impact on the fishery.

Threats

This will now be added back to the end of the Habitat section. **Rester** will cover some of this section which is boilerplate but the TTF will have to qualify these impacts as negative or positive for blue crabs. Also, individual state examples of problem areas will be included. Changes to habitat, such as freshwater diversion, need to be tied into the boilerplate that **Rester** provides. **VanderKooy** reminded all not to simply reference other people's citations. Make it original, using the original source when you can.

Gandy pointed out that there is a ton of blue crab work in Mexico. We normally draw a line at the border of Texas but Mexican data may be very helpful. **VanderKooy** advised everyone to use any of this information they may be able to get. It would be interesting to begin to insert some of that information in our document. This should be included in management recommendations as well. It was also discussed that perhaps Cuba should be included in this information also. We do need to know what is happening south of Texas. This additional information may be helpful in all of our sections. **Capo** indicated that there is a huge amount of crabs landed and processed in Venezuela and, on his travels, although he hasn't seen many blue crabs in the Caribbean, the island locals certainly know what they are and recognize them. The extent of these 'fisheries' is unknown and it would be interesting to start to gather information on this.

Table 4.1- 4.5 from the old FMP was reviewed. **VanderKooy** will get the most recent updates from the Oyster FMP to **Sutton**. That FMP includes a lot of descriptions of bottoms. **Sutton** uses surface area to weigh populations. There must be similar methods to develop these surface areas in order for this data to be valid. Shorelines such as Louisiana's have changed drastically. Surface area would be a more accurate representation but we need a source for this information. **VanderKooy** will ask **Rester** about shoreline vs. surface and whether there is a standard. It is hoped that **Rester** can use GIS in some sort of trace function to measure open water or surface areas of the bays within the state boundaries. **Sutton** needs sub-region information which is tied to sampling areas. In this case, there would be one region in Mississippi, Biloxi Bay. Alabama would have three, Perdido, Mobile, and Mississippi Sound. **Sutton** stated that other bays need to be included in Mississippi as well. Each state will need to identify what they feel are individual regions in order to have **Rester** generate anything from GIS. This should be done directly on a map by each state rep who will forward this to **Sutton**. Each state rep will provide a map with suggestions for their state to **Rester** to digitize or redraw.

Capo stated that the Suwanee Sound estuary changes immensely which has a significant effect on blue crab. He asked whether these phenomena are taken into account. **Gandy** answered that the assessment guys are wrestling with this issue now. Most models today work with an animal to which an age can be assigned but with crabs, this cannot be done; hence, we are very limited in the models we can use.

Enforcement

VanderKooy has only received information for this section from Florida. **Beaton** will contact enforcement in the other four states and remind them to send in their parts of this section. **VanderKooy** again reviewed the working website and encouraged everyone to review their state's section to make sure that the information is inclusive to their satisfaction. Look at treaties, acts, and federal regulations that might apply to crabs for boilerplate input. Enforcement information should go through the end of 2011.

Fisheries Section

Floyd has incorporated some of the GDAR reports from the Data Workshop into this section. More descriptive language has been added but she still has to insert graphs and tables (the ones she presented at the GDAR). Derelict trap retrievals need to be updated. **Floyd** has inserted some of the data that she has been sent. She asked everyone to review their state information and make sure it is correct. DWH and hurricanes have been mentioned. The incidental catch summary needs to be added as well as license sales.

The mention of Mexico in this section was discussed. **VanderKooy** indicated again that he would be interested in Mexico's contribution to total catch for the entire Gulf of Mexico. **Capo** will generate a paragraph regarding anecdotal information from his experience in Jamaica and Haiti. **Capo** restated that there is a huge harvest of blue crab in Venezuela which is imported as an inexpensive but very good product. He will also include anecdotal information about Venezuela in his paragraph. A subsection of other sources of blue crabs in the GOM may be valuable in this FMP. The group agreed that it is necessary to expose potential changes in the market. **VanderKooy** suggested placing this particular paragraph under Commercial, Gulf US vs. Gulf non-US. **Miller** can also build this into the import side of the Economics section.

State-by-state Fishery Updates

Floyd has incorporated the updates she received from Florida and Louisiana. She is working on putting the boilerplate together. Mississippi is updated somewhat. The old Texas information can probably be replaced. **VanderKooy** asked that no integrity be lost in the replacement of information; everyone should try to include what was already in the document in an attempt to keep the historical information intact. We want to make sure that we cover all landings, trends, etc. There has to be a flow so that this sounds like one document rather than separate reports.

Floyd will keep the tables out of the main Word document as separate files for now, as should everyone else. **VanderKooy** reminded everyone that we need the original Excel files from which tables are generated if we need to reformat or adjust the layout of the tables and figures later. He would like to update the landings in these tables as soon as he has all of this data.

At this point, the TTF members took some time on their own to read through the Fisheries Section draft for the purpose of making sure the data is comparable between states. They were advised to make sure that necessary and accurate information is included.

Capo would review history of the fishery and come back with ideas about that. Anecdotal information is welcome.

Description of Fishery

After review of the Fisheries Section, **VanderKooy** voiced his concern with the state detail. There are

three or four paragraphs that describe landings only for each state which basically state that the landings have fluctuated. There is not specific information, by state, to describe what the fishermen actually do week by week, season by season, what the busiest months are and why, etc. **VanderKooy** suggested that there needs to be some qualification as to what the fishery is and how it actually works. Some of this is social but a lot of it involves describing how they fish their traps. This should be explained in detail. These descriptions will be different from state to state but that is what makes it interesting. Legal description and gear should be in the Enforcement Section, but we need to know specifically how these fishermen spend their time. For instance, how many traps are run, when the busy time of year is, trip tickets, and how the fisherman's time is spent when his effort is not on crabbing. **Gandy** stated that Florida has a vast difference across their state and that level of detail could become time restrictive. **VanderKooy** pointed out that this would be more of a general description in most cases. **VanderKooy** suggested that possibly by just reporting the upper, middle, and lower ends of the crabbing spectrum, it would help explain the differences between "way back when" and present day. Essentially, each state needs to 'narrate' their fishery. **VanderKooy** asked that everyone keep their state descriptions in mind and start on a baseline description.

VanderKooy removed the tables and graphics from the draft section, updated the landings and effort numbers, and will email the changed document back to TTF members.

History

VanderKooy reviewed changes to this section. **Capo** questioned what study indicated that using TEDs increased blue crab catch. **Gandy** researched the Guillory study and shared it with the group. As it turned out, this was basically an opinion paper so there was no actual proof to this statement. **Gandy** pointed out that it is very important that supportable facts are used in this document with research and citations. **Gandy** and **Floyd** will further develop this TED section. After further discussion in general about the use of TEDs and the willingness of fishermen to incorporate them into their traps, **Floyd** offered to send some TEDs to **Capo**. Floyd also agreed to send additional TED studies that illustrate increase in crab catch.

Bycatch species

Floyd reported that **Graham** has compiled a Mississippi list of 70 species in active traps but these are not listed in the FMP. **VanderKooy** pointed out that this should only be mentioned without getting too specific. **Capo** stated that sometimes bycatch is valuable and, as such, is not really bycatch. **VanderKooy** noted that the Flounder TTF had realized this only a few weeks before and that the difference in the terms 'bycatch' and 'incidental catch' should be made clear. 'Incidental take' may be a better term but the definitions need to be included in both this section and the Glossary. With that in mind, it may be worth adding another section such as "*Retention of other species.*" In addition, the real impact of crabbing on terrapins needs to be re-addressed in this section. **Sutton** volunteered to take on the project of updating and rebuilding this section.

Herrmann updated and further clarified some of Section 6.1.3, Crab Development and Research. He pointed out that Table 6.1 cannot be updated because NOAA stopped collecting this information and would provide historical information only. **VanderKooy** reviewed reports state-by-state. If there is a problem with the NOAA landings figures, we need to address them. Each state rep should be cross-checking their respective state's data. Generally speaking, Florida is not using NOAA data but relying on their own - derived from their Trip Tickets. While they should be the same numbers, NOAA's don't match more than they should. **VanderKooy** will rework the tables, including data through 2011.

VanderKooy reminded all that DWH should be mentioned as far as fishery closures in 2010 and the

redirection of fishermen's effort into disaster management and response. Each state should cover this as part of the description of their landings.

Marx will include specific discussion of Louisiana effort. Individual state changes can be described well in the state sections.

Soft Crab Production

Section 6.2, *Gulf Commercial Soft Crab Fishery*, may be a good place to report the non-US blue crab fishery.

Capo indicated that there may be a problem with the way NOAA is reporting the soft crab production. In the past, NOAA has sent him landings for soft crabs which were translated into pounds. However, the peeler fishery is based on individual crabs so how do they calculate weights? There have been times where the NOAA weights were actually **Capo**'s total numbers as though a single peeler was equal to one pound. It is unclear what this conversion method is so each state will check on how their peeler/soft crab production is converted and reported. **Capo** stated that a benchmark needs to be established for accuracy if they're not already. **Marx** stated that Louisiana trip tickets reflect pounds even though soft crabs are not sold by the pound but by the dozen. There may be an issue if NOAA is not converting correctly. A conversion matrix may need to be generated if each state and NOAA have different conversions.

Recreational Fishery

Perry was not present at the meeting, but **VanderKooy** reported that she has some Mississippi data from hands-on surveys she conducted of crabbers back in the 1980s. These were not trap fishermen but drop trap and 'chicken neckers'. **VanderKooy** will ask **Perry** to revisit this data. There should be some discussion explaining that while we can't get a handle yet on the total effort, the recreational fishery is much larger than it appears.

Mississippi sells a recreational license for trap crabbers and only requires a saltwater fishing license for hook-and-line crabbers. Likewise, Alabama crabbers just need a valid saltwater fishing license. Therefore, state-by-state descriptions need to be developed with this type of information.

It was decided that soft crabs should not be divided out here. There is not enough information available so we will combine soft and hard into a general discussion. **VanderKooy** will adjust the TOC to reflect these section changes, renumber, and send out to TTF members.

User Group Conflicts

VanderKooy stated that this may not be the place for this section anymore. This may need to have a "(see Section 8 for greater detail)" inserted. This is really part of the sociology section and we should get results from the survey for this. There may be a few 'fishery' issues worth mentioning but, again, providing the detail in the survey results.

VanderKooy reiterated that Section 6 will take the most time to develop. It falls to the group to provide their state information to **Floyd**.

Economics

Miller informed the group that he started adding data from the point that Walter Keithly had left off in 1997. **Miller** reviewed the table with the group, in both nominal and real dollars. **Miller** presented the

numbers in a graph and the data presented in that format. Bottom line: there are less crabs being sold for more money. **Capo** stated that blue crabbing today is more driven by market than abundance and estimated that nearly 50% of Gulf products go through Baltimore. At the request of the group, **Miller** will put two trend lines on the nominal dollars on the graph.

There is a similar table and figure for each state and the paragraphs are updated to correspond with tables. Louisiana production has steadily climbed and all others have steadily declined. Louisiana crabs seem to be preferred 'up east' because they are bigger and much more plentiful.

Miller reported that the processor data is not in yet but he should be getting it very shortly, as well as, the processor economic survey results.

Miller should develop this section however he sees fit and not feel constrained by Keithly's previous version. More information is needed on cost and earning data at the processor and harvester levels. Some of this will be gathered from the processor survey – the economics of the crabbing business.

Miller is working on processor history, products, soft shell product, and the marketing section at the back. The deadline for **Miller** to finish is December 31st. We will look at meeting again in mid to late January. Hopefully we will have results of our survey by then also. **VanderKooy** also expects that Dr. **Jacob** will glean some data from the previous crab survey.

The group discussed the question "What do we know about Mexican catch and catch from the islands?" Even anecdotal information may be helpful to find out how much of a fishery there is outside of the U.S. in the Gulf. David Yoskowitz is an economist who works with Mexico. **Miller** will contact him as a possible source for Mexican landings, effort, etc. **Miller** reported that there is a labor issue in that some crabs are being shipped to Mexico to be picked and the meat sent back and labeled the state it came from. **Capo** stated that tariff is non-existent on actual imported crab. Sometimes there is dumping and re-labeling. There is a chain of custody to prove that the crab came from each individual state. The whole concept of tariffs and market change should be included in this section.

Sociology

The "Commercial Blue Crab Survey" was reviewed by the group. Several additional questions have been added to the initial survey. The form is longer but still has the original questions intermixed so that some comparisons can be made. **Jacob** liked this survey and is providing it to his Social Science class for their feedback. This will be in an electronic form similar to a 'survey monkey' with response online or we can have a link to click on. The survey will be anonymous. Because it is web-based, it can be used on a smart phone, an I-Pad, etc. Those responding can go online at their homes or they can send a filled-out survey to the GSMFC or the state agency to submit. There will also be some paper copies available for pick-up at state agencies. An intro letter and follow-up post card will be sent out to all licensed fishermen in each state. All state representatives need to be notified prior to the letters being sent out with their contact information. In addition, the agency receptionists and other pertinent staff need to be informed about the survey and who to contact within the agency.

VanderKooy wondered what time of year would be best to send it out and were any of the questions too invasive. **Capo** indicated that they seemed reasonable from the industry side and wouldn't raise any concerns with most fishermen. **Capo** suggested that it might be more productive to send these surveys out in February because year-end information will be finalized for tax purposes and these figures would be more readily available. **VanderKooy** will forward copies of the surveys to all TTF members which will be color-coded by state. The introduction letters should be printed on each state's letterhead and mailed from the Commission office. **VanderKooy** will need permission from each state to be sent both

letterhead and window envelopes or permission to recreate letterhead and envelopes on Commission paper and blank window envelopes.

VanderKooy is going to travel to Pennsylvania to meet face-to-face with **Jacob** to go over the survey and discuss re-analysis of the old survey to use for contrast information.

Stock Assessment (GDAR01)

A GDAR analyst meeting was held in St. Petersburg in August and included Wade Cooper (FWC), Joe West (LDWF), Glen **Sutton** (TPWD), and Ralf Riedel (GCRL/GSMFC). Also in attendance were **VanderKooy** (GSMFC), Behzad Mahmoudi (FWC), Mike Murphy (FWC), and Bob Muller (FWC) who provided input. **Sutton** reviewed the results for the western stock and explained the data processing, standardization, and preliminary results. It was noted that for the GDAR, everything that is done to the data must be documented and reported for the review.

In reviewing the summary of total stations by state, each state was asked to check these station counts. **Perry** and **Floyd** will review Mississippi stations as turned in by Ralf Reidel. **Sutton** asked everyone to let him know if there are any factors that may affect catchability that need to be added to this work. **Sutton** explained that there are two approaches to getting these IOAs (Index of Abundance): 1) running a GLM for the entire western stock and 2) a GLM for each state in the western stock separately. After presenting both approaches, **Sutton** asked which approach everyone thought would be better.

Weighting of the IOAs was an issue that was discussed at length. It would be best to have actual habitat estimates for each bay and system by state but, without it, surface area may be a good proxy. **VanderKooy** requested the state reps to evaluate a series of state maps that **Rester** could digitize and perhaps capture the areas as defined by the state reps. **Sutton** pointed out that these IOAs and the weighting has to be finished by October 26th to conduct the assessment. We should be able to have an assessment review by April or May 2013. Mississippi sampling created a problem when compared with the other states trying to derive IOAs with their FID. Although not ideal, a decision was made to split Mississippi in half and combine their waters with Alabama to the east and Louisiana to the west. This would allow FID from the periphery of the other states to 'fill in' for Mississippi in areas other than just the Biloxi Bay Transect. **VanderKooy** will schedule a webinar soon to discuss this further with **Reidel** and the other analysts.

Next meeting

The Crab Subcommittee meeting is the morning of October 16 in association with the GSMFC Annual Meeting in Point Clear, Alabama. The GDAR01 Assessment Workshop will be held November 13-15 in Ocean Springs, Mississippi, at the Gulf Coast Research Lab and will be broadcast on the Commission's website on the GSMFC channel. Only **Perry** will be in attendance from the TTF but all are welcomed to watch on the webcast.

VanderKooy will send out a doodle calendar to see what dates work best for the TTF to meet again, possibly Galveston in January. Conference calls will probably be necessary between now and then.

In March of 2013, associated with GSMFC's annual meeting, a half-day work session may be held for the TTF in preparation for the GDAR01 Review Workshop. This would give everyone a chance to look at the final stock assessment report prior to the actual review. The final product may be finished in April or May of 2013.

There being no further business to discuss, the meeting was adjourned at 5:30 p.m.

EMERGENCY DISASTER RECOVERY PROGRAM (EDRP)
MINUTES – 62nd Annual Spring Meeting
Wednesday, March 7, 2012
Gulfport, Mississippi

APPROVED BY:
Ralph E Hode
COMMITTEE CHAIRMAN

The Gulf States Marine Fisheries Commission Fisheries Disaster Recovery Coordinator **Ralph Hode** called the meeting to order. The following state representatives, staff and other attendees were present:

States
Dale Diaz, GSMFC *Commissioner*, MDMR, Biloxi, MS
Lance Robinson, TPWD, Dickinson, TX
Richard Cody, FWC-FWRI, St. Petersburg, FL
Mike Ray, GSMFC *Commissioner,* TPWD, Austin, TX
Chris Blankenship, GSMFC *Commissioner*, ADCNR *Director*, Gulf Shores, AL
Joey Shepard, GSMFC *Commissioner*, LDWF, Baton Rouge, LA
Corky Perret, MDMR, Biloxi, MS
Mark Schexnayder, LDWF, Baton Rouge, LA
Mike Brainard, MDMR, Biloxi, MS
Rene LeBreton, LDWF, Baton Rouge, LA
Chuck Adams, FL Sea Grant, University of Florida, Tampa, FL
Jason Froeba, LDWF, Baton Rouge, LA
Chris Denson, AMRD, Gulf Shores, AL
Leslie Palmer, FDACS, Tallahassee, FL
David Heil, *GSMFC Commissioner*, FLFWF, Tallahassee, FL
Mark Berrigan, FLDACS, Tallahassee, FL

Others

Ellie F. Roche, NOAA Fisheries, SE Region, St. Petersburg, FL
David McCarren, IA Team, Kennebunk, ME
John Bell, LSU Ag Center, Baton Rouge, LA
Lauren Lugo, NOAA Fisheries, St. Petersburg, FL
Troy Williamson, *GSMFC Commissioner*, Corpus Christi, TX
Judy Jamison, GSAFF, Inc., Tampa, FL
Camp Matens, Houma, LA
Bryan Fluech, FL Sea Grant, University of Florida, Tampa, FL
Ebenezer Ogunyinka, LDWF, Baton Rouge, LA
Brittany Chudzik, MDMR, Biloxi, MS

Staff
Larry Simpson, GSMFC *Executive Director*, Ocean Springs, MS
Dave Donaldson, GSMFC *Assistant Director*, Ocean Springs, MS
Angela Rabideau, GSMFC *Financial Officer*, Ocean Springs, MS
Ralph Hode, GSMFC *EDRP Coordinator*, Ocean Springs, MS

Joe Ferrer, GSMFC *IT Coordinator*, Ocean Springs, MS
Alex Miller, GSMFC *Economist*, Ocean Springs
James Ballard, GSMFC *Sport Fish/Aquatic Invasives Coordinator*, Ocean Springs, MS
Virginia (Ginny) Herring, GSMFC *Administrative Officer*, Ocean Springs, MS
Greg Bray, GSMFC, Ocean Springs, MS

Opening Comments

R. Hode made opening comments thanking the states, NOAA-NMFS representatives, and the GSMFC staff for their attendance. Participants and visitors were introduced.

Agenda

R. Hode called for approval and/or amendments to the agenda. ***There being no further changes, a motion was made and seconded and the agenda was approved with changes.***

Approval of the Minutes

The minutes of the meeting of March 15, 2011 held in Houston, TX were presented for approval. ***There being no changes to the minutes, a motion was made, duly seconded and approved.***

Overview of Projects

EDRP I and EDRP II Spending

R. Hode gave a financial overview of each of the sub-award categories for both EDRP I and EDRP II. Specific emphasis was placed on the fact that EDRP I spending was at approximately 91% of its budget and the fact that only five months remained in the grant period while there was an unspent combined EDRP I balance of approximately $11 million through January 2012. Likewise, it was noted that the EDRP II program expired in September 2012 and there was an unspent combined balance of approximately $10 million through January 2012.

ODRP

Hode provided a financial overview of spending to date under the Oil Disaster Recovery Program noting that a total of twelve contracts and/or sub-award agreements were in place accounting for $9,353,372; plus there are three contract amendments/new contracts with existing prime contractors for enhanced trace projects. Exclusive of contracts currently in place **Hode** noted that an additional $1,585,760 is programmed for program administration and related costs.

R. Hode also provided an overview of ongoing programs/projects including:

- The Gulf and South Atlantic Fisheries Foundation's contract for marketing facilitation. Emphasis was placed on the upcoming rollout of the GOM Marketing Coalition which was slated for the Boston International Seafood Show in mid-March. It was also noted that Joanne McNeely was scheduled to make a more formal presentation of Marketing

Activities at the ODRP Ad Hoc Advisory Committee meeting scheduled to be held in Boston following the Trade Show.

- The Market Maker Program is now in place in all five states and supported in part by the ODRP marketing component. Dr. Ben Posadas, MSU Extension Service, also provided an overview of an ongoing analysis of the number of users who are beginning to utilize the Market Maker Program for promotion of local products and to make contact with buyers from across the country. While the analysis is not positioned to determine the number of sales derived from the program, there is evidence that the number of users is on the increase.

Alex Miller provided an overview of the Traceability program noting recent contract changes that provide for expanded electronic tagging programs for the oyster industry, an expanded marketing module that is being made available to up to 200 Gulf Processors, the roll out of the Gulf Trace Program at the Boston Seafood Show, and the fact that 12 of the leading industries in the Gulf has now signed up for and were participating in the trace program. A video in which the trace concept was explained at the lay level, prepared by GCR under an amended contract was shown to the work group. The video was prepared as part of the trace outreach effort and is to be shown at the BSS as the Gulf Trace initiative is rolled out.

Joey Shepard briefed the work group on a program that is being prepared for review by the Louisianan State legislature that would establish a "Gulf of Mexico Product Certification Program." The intent of the program is to establish standards and criteria by which Louisiana products may be certified as wild Gulf products in an effort to enhance demand. The proposal was presented for the benefit of the ODRP Ad Hoc Advisory members as well as the EDRP workgroups in an effort to encourage gulf wide acceptance/adoption of similar programs. While the initiative would provide verification of Gulf Caught Products, it would not be a substitute for pending initiatives for Sustainability Certifications of Gulf products. No action was taken but the AD Hoc Committee agreed to take the proposal under advisement and to discuss it again at the regular scheduled meeting in Boston.

Rene LeBreton presented a proposal that would address sustainability certification of Gulf Products through a tiered certification process – noting that some products did not need full certification but that a reduced level of certification would enhance marketing potential of some of the lesser recognized products. The proposal also addressed a concept of certifying "management for sustainability" in lieu of individual species sustainability certification. No action was taken but the AD Hoc Committee agreed to take the proposal under advisement and to discuss it again at the regular scheduled meeting in Boston.

Larry Simpson presented a proposal from a joint initiative involving the Sea Grant Agency of Texas and Dr. Ben Galloway for a Kemps Ridley Turtle/Shrimping Interaction stock assessment. The proposal presented a budget of approximately $265 thousand dollars with a request that funding for the assessment be provided under the ODRP program. No action was taken but the AD Hoc Committee agreed to take the proposal under advisement and to discuss it again at the regular scheduled meeting in Boston.

FINAL REPORTS

R. Hode reported that because the grant periods for EDRP I and II were scheduled to end in the fall of 2012, there was a need to begin plans for final reports. Final report guidelines generally reflecting NOAA expectations were distributed to workgroup members, PIs and Program Coordinators in order to assure uniformity in final report formats.

Recognizing that there was need for extended time on both programs in order to offset delays caused by the DWH oil disaster and recent flooding of the lower Mississippi River, it was noted that if extensions were granted the final reports would not be needed until the fall of 2013 (the anticipated extension date if an extension were granted). PIs and Coordinators were advised, however, that where projects and programs were expected to be completed on or before the existing end date, the reports should still be prepared and submitted to GSMFC at the earliest date possible. Doing so would aid in assuring that detailed information was less likely to be overlooked if the final report preparation was delayed through the expected extended end date.

NO COST EXTENSIONS

R. Hode indicated that both Texas and Florida had already formally requested time extensions on both EDRP I and II; and that both Mississippi and Louisiana were considering requests for extensions. In conjunction with the discussion on final reports, the likelihood of extensions for both supplemental agreements was discussed; and, according to the most recent information from NOAA it was reported that the prospects for another extension for EDRP I was low; but the probability for an extension to utilize the remaining funds in the EDRP II program was good. **On a motion duly made and seconded the Commission staff was requested to formally submit a request for no cost extensions on both EDRP I and II through September 2013.**

OVERVIEW OF STATE PROGRAMS/PROJECTS

In an effort to complete State overviews in a timely manner, and in order to obtain a better perspective on individual State needs for extensions, the PIs were requested to briefly discuss the work remaining under each program and indicate whether the work necessitated extensions.

Florida: **Mark Berrigan** reported that significant work remained in the Florida DACS plans for oyster cultch plants both under EDRP I and EDRP II. He indicated that some extensions were definitely in order and that the Department would be looking at options that would facilitate use of those funds likely to be lost prior to the current sub-award end dates.

Alabama: **Chris Blankenship** indicated that minor work remained under both EDRP I and II; but that plans were to utilize all unspent funds by the end of current periods.

Mississippi: **Dale Diaz** indicated that he thought funds under the EDRP I component were likely to be impacted if extensions could not be obtained. Most significant of these was a recently amended scope of work that would provide support for the re-installation of the Institute for Marine Mammals Studies as it addressed endangered sea turtle and dolphin recovery issues brought on by the DWH. **D. Diaz** advised that he would be working closely with the IMMS and

MDMR staff to address this issue, but an extension would significantly help to offset time lost to both the DWH incident as well as to recent flooding issues in the lower Mississippi River.

Louisiana: **Mark Schexnayder and Joey Shepard** both indicated that the State expected to complete use of the EDRP I program funds in a timely manner; but because of delays brought on by the DWH, unspent funds in the Domestic Product Marketing component and incomplete work in the ongoing Oyster hatchery program remain areas of concern for the LDWF.

Texas: **Lance Robinson** indicated that significant work remained in oyster cultch planting and habitat restoration because of time lost as a result of Hurricane Ikeand most recently because of red tide conditions in the Galveston Bay area. **Robinson** indicated that most reefs in the State had been closed since the fall of 2011 and that work associated with cultch plants and marsh restoration had been delayed. Additionally, **Robinson** indicated that because of equipment problems associated with the State's bottom mapping and profiling program progress on completing the mapping of Galveston Bay has been slowed.

There were no further questions, but it was the determination of the EDRP work group that given the need for extensions and recent issues related to the oil disaster in the Gulf, the need to meet at the October 2012 meeting in Alabama was justified. Additionally, the members of the workgroup who served on the ODRP Ad Hoc Advisory Committee were advised that the next meeting of the Committee would be March 13, 2012 following the Boston Seafood Trade Show.

There being no further business the meeting was adjourned.

APPROVED BY:
COMMITTEE CHAIRMAN

SEA GRANT FISHERIES EXTENSION ADVISORY COMMITTEE
MINUTES – 62nd Annual Spring Meeting
March 7, 2012
Gulfport, MS

Call To Order

Chuck Adams welcomed and called the meeting to order.
The group did introductions then Chuck Adams turned chair duties over to Tony Reisinger and Bryan Fluech became Vice Chair.

Adoption of Agenda and Discussion

The group reviewed the agenda and Chuck Adams made a correction; Judy Jamison and Ralph Hode will give brief remarks about Seafood coalition.

Julie Anderson moved to accept Dave Burrage seconded and all approved.

Dave Burrage moved to accept minutes Bryan Fluech seconded and all approved.

- Chuck initiated discussion about member rotation, whether it necessary to bring in "new blood" to meet others involved in fisheries around the Gulf. Most of the programs have relatively new faculty. Chuck mentioned Betty Staugler as a potential replacement for himself.
- Gary mentioned he might consider stepping down, but wasn't sure if there were people interested to replace him. Gary mentioned Rhonda Cummings. S
- Tony asked to each of reps to come back with a list of potential replacements.

- Tony asked if there were any issues the bylaws and the answer was no.

Climate change & Sea Level Rise Discussion
Tracy Sempier from MS/AL Sea Grant

- She is a coastal storm coordinator and discussed Climate change work she's been working on.
- She works with a variety of local municipalities' elected and appointed officials.
- She cooperates with counterparts from each of the Gulf States.
- Resilience index (http://masgc.org/ri)
- It's a self-assessment completed by local decision makers to ID a community's resilience to coastal hazards and the effort began in fall 2010.
- 30 communities have completed the Community Resilience Indexes (CRIs).
- 16 pilot communities
- They have been training facilitators to help communities develop an index.
- They discuss resiliency with communities in a way to ID their vulnerabilities and strengths.

- It's not really an ecological index, but gets them thinking about impacts.
- They assist communities in completing sections of index; including drop down menus for selecting state or areas and using GIS layers.
- The most common linkages to the coast are increased storm surge, sea level change, and storm water run-off. They try to relate these issues to coastal resiliency.
- Climate adaptation planning is a logical next step and fits with the hazard mitigation framework, which can be added to the comprehensive planning effort.
- Facilitators have to be sensitive about terminology used to make sure local entities will "come to the table" and discuss these topics.
- The resiliency plans can be implemented into local planning efforts.
- In Ocean Springs and Orange Beach: they used a "mental model" of climate change and asked how local officials thought about climate change along with their perspectives. Interviews and photo sorting helped to reveal the relationship between person's perceptions about their own acts and their consequences.
- Mental model results turned into an Action Project by looking at local levels of Sea Level Rise (SLR) and mapping critical facilities, which may be impacted by it in the future. Reports on likely outcomes with recommendations for mitigation actions were then generated for SLR.
- RFPs were sent to mayors of all coastal municipalities in AL and MS. Two responses were received from MS.
- CRIs: help expand the scope of hazard mitigation plans, ID future hazard prone areas and flooding conditions, and model climate change impacts on the cities helping create maps that include SLR to aid in future land use decision making allowing communities to ID adaptations, alternatives and prioritize needs.
- Biloxi, MS is using climate adaptation recommendations to be considered for inclusion in their 2012 Hazard Mitigation Plan and in other plans, policies, and codes.
- Climate Community of Practice (masgc.org/climate/cop) brings together local elected officials, city planners, local decision makers and scientists to share best practices, communicate clear messages and equip them with best scientific info. They hold quarterly webinars on climate topics in person once a year.
- There are many other projects that are addressing resilience or have done so;: Assessment of SLR in coastal MS, a resilient marinas project, GOMA resilience team, SLR funded projects via Sea Grant, past coastal storms programs, small grant projects - i.e. Sea Briefs, and a NOAA study in Florida
- Melissa Pringle will email Tracy about her contact info: 228-818-8829 tracie.sempier@usm.edu
- In addition there is a benchmark project with students utilizing a curriculum to show impacts of SLR in their communities.

Julie Anderson: LA Sea Grant

- Several Louisiana communities are involved with developing a resilience index.
- There is a draft of a somewhat peer-reviewed SE Climate Change Report that still has gaps and it does not include the whole Gulf, for example, TX is not included. One of

chapters addresses fisheries aquaculture. She can get draft out to everyone if needed. The goal is to use it as a working document for future climate change assessments

Chuck Adams: Fl Sea Grant

- Bryan Fluech mentioned T. Ruppert recently gave a workshop in Ft. Myers for lawyers on legal terminology and context for dealing with SLR and climate change
- Doug Gregory has worked with local government to incorporate climate change issues at local level in the Florida Keys
- Framing the message about seafood sustainability-Chuck Adams.
    - 2 meetings have been held so far to discuss project sustainability and they were well attended by industry reps. Steve Otwell is leading the issue. Chuck and Steve both gave public presentations on the issue.
    - Groups are starting to look for other acceptable certification programs.
    - Florida Sea Grant questioned the need for Gulf/US fisheries certifications asking how much more does a fishery need when NMFS manages it and being federally managed, a fishery is sustainable or on its way to sustainability.
    - Adams said a multi-tiered approach for certification might be possible, looking at national standards. Certification could be simple to complex, i.e. looking at comparing FAO guidelines to NOAA National Standards.
    - It's the buyers pushing sustainability, not the consumers and some are afraid of NGO defamation. Are buyers even interested in this? What do they really want?
    - Rex Caffey mentioned including sustainability having economic criteria saying there are many definitions of sustainability
    - An idea was presented for developing "statewatch" for each of Gulf states which could also address inter-jurisdictional issues for states
    - We are trying to get wide diversity of representation for certification and Florida Sea Grant is trying to facilitate the process. All agreed the idea has been around for years.
    - Chuck also gave overview of Steve Otwell's Seafood Heritage Program, an attempt to recognize the seafood industry for their contributions to the local coasts. Otwell got some major seafood suppliers to kick in money to help support program. Possible development of a website; and other recognition is in the works. They have a list of people who've been around the seafood business for a "long time". Logan Respess from TX Sea Grant related a similar program for Agricultural Heritage recognition he was familiar with. Wal-Mart provides assistance in helping to promote "heritage" crops. We need to provide a means of recognizing local seafood industry similarly.
    - Dave Burrage mentioned Biloxi has a seafood industry museum and there is another one in LA.

The Meeting took a short break.

Gulf Sea Grant Program Updates & Invasive Species Issues

- Bryan Fluech gave an overview of barotraumas project with Florida Sea Grant
- Gary Graham and Tony Reisinger gave an overview of the black tiger shrimp invasion in the GOM.
- LA seems to be epicenter for black tiger shrimp.
- TX is starting to see them.
- Native to Indo-west Pacific. 2nd widely cultured shrimp in the world.
- First escape in US from SC in 1988, then they disappeared from the East Coast after 2001.
- There have been over 200 catches in the Gulf since first appearing off Alabama in 2006, and the population could be around 1,000. They are now caught in all the SE states from NC to TX.
- Tiger shrimp are aggressive, cannibalistic, and compete with our native shrimp.
- State shrimp resource managers haven't seen gravid females or post larval shrimp. Fishermen mostly seem to be picking up large males and females. The smallest Graham has seen was a 6" one he picked up from a fish house in Louisiana.
- They are known to carry variety of diseases under culture conditions and the diseases do not seem to manifest themselves in the wild.
- The USGS trying to look at genetics and mapping the distribution of documented catches.
- Resource managers want to know: are they producing, where and what is the impact? Will they increase in population with climate change and if so, to what extent
- Will they outcompete natives? What impact will they have on foodweb?
- It was decided to encourage fishermen to collect them and turn over to Sea Grant agents. TX Sea Grant has developed wanted posters and promos. There was a request from Chuck Adams to form a committee to address the issue.
- In general recent catches are thought to be a small sample of what's really out there.

Dr. Rex Caffy and Michelle Savolainen:
Recreational For Hire Survey

- Economic and attitudinal perspectives for Rec for-hire fishing industry
- Socio economic study.
- 2 previous studies done in the past (87' and 97') 2009 data
- Apparent growth: general increasing trend in license sales (3315 gulf-wide)
- 1372 in Florida
- Included offshore, inshore operations
- Headboats, charter boats, guide boats
- Included recall bias in conjunction with oil spill.
- Cost and earning profiles, attitudinal and profiles including recall bias
- Most operations profitable.

Judy Jamison Gulf & South Atlantic Fisheries Foundation Seafood Marketing Efforts

- Described need for increased marketing for seafood

- Established a Gulf marketing coalition, received $4 million over 5 year period, 18 members of coalition made up of a variety of sectors.
- Launching Coalition Initiative at Boston Seafood Show, debuting video
- Described attributes of why people love Gulf seafood
- New G&SAFF website with wealth of information about coalition, for consumers and industry

Status of Trade Adjustment Assistance

- Tony Reisinger discussed the TAA status in Texas and the Gulf.
- The Southern Shrimp Alliance will have meetings around Gulf. They want TAA in the future. TAA passed this year, but is not funded at federal level, even though shrimp import tariffs continue.

Market Maker Updates

- TX has released the program but there is not much activity.
- FL is about to release it for agents and get it out to local wholesalers, relying on agents to push it.
- MS/AL: Ben Posadas related extension agents don't have a clue one what it is: and newsletters and workshops for faculty are planned.
- LA has a strong effort through Louisiana Direct and is doing it in parallel with the direct marketing program.

Kemp's Ridley Symposium

- Larry Simpson announced the symposium and a stock assessment to be conducted on the population.

Other Activities

- LA: Chuck Wilson is retiring and going to GFI. Louisiana Sea Grant is making the PIs include an outreach component with their research. They prefer to see Sea Grant visible and ready for calls if applicable and if the research fits within scope of Sea Grant faculty.
- TX: Gary Graham plans more TED outreach in LA. They are stepping up to the plate. Will also be coming to Ft. Myers, FL and will notify Bryan Fluech. Tony Reisinger reported on a major red tide event Nov-Jan that affected oyster industry. TX did have a minor oyster season and lost 4.5 million fish to the bloom. Texas Sea Grant is about to produce a DVD on freezer boat handling of shrimp and deck handling practices.
- MS/AL: 3 day oyster season; due to freshwater and related to BP spill impacts.
- FL: Rick O'Connor: Will send out most recent faculty list.

Upcoming Conference

- Fall GSMFC meeting will be held in October in Alabama.

APPROVED BY:
COMMITTEE CHAIRMAN

TECHNICAL COORDINATING COMMITTEE
MINUTES – 62nd Annual Spring Meeting
Wednesday, March 7, 2012
Gulfport, MS

Chairman Dale Diaz called the meeting to order at 1:30 p.m. The following members, staff and others were present:

Members
Dan Ellinor, FWC, Tallahassee, FL
Richard Cody, 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
Kerwin Cuevas, MDMR, Biloxi, MS
Harry Blanchet, LDWF, Baton Rouge, LA
Jerry Mambretti, TPWD, Austin, TX
Lauren Lugo, 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
Donna Bellais, GSMFC, FIN Data Base Manager, Ocean Springs, MS
Cecil Bernhard, GSMFC, FIN MetaData Coordinator, Ocean Springs, MS
Ralph Hode, GSMFC, Fisheries Disaster Program Coordinator, Ocean Springs, MS
Alex Miller, GSMFC, Economist, Ocean Springs, MS

Others
Mike Ray, TPWD, GSMFC Commissioner, Austin, TX
Camp Matens, GSMFC Commissioner, Baton Rouge, LA
Corky Perret, MDMR, Biloxi, MS
Chris Blankenship, ADCNR/MRD, Commissioner, Dauphin Island, AL
Michael Carron, GoMRI, Stennis Space Center, MS
Melissa Cook, NMFS, Pascagoula, MS
Ryan Gandy, FWRI, St. Petersburg, FL
Kevin Anson, ADCNR/MRD, Gulf Shores, AL
Christine Murrell, MDMR, Biloxi, MS

Adoption of Agenda

The Crab Subcommittee asked to have their report moved to immediately follow the Approval of Minutes agenda item. A motion to adopt the agenda, with this change, was made by Chris Denson and passed unanimously.

Approval of Minutes

A motion to approve the minutes as written for the October 18, 2011 meeting was made by Chris Denson and passed with no opposition.

Crab Subcommittee Report

Ryan Gandy stated that the subcommittee had an abbreviated agenda with no action items. The meeting started with an overview of the GDAR (Gulf Data Assessment and Review) process by Steve VanderKooy. The GSMFC is developing the GDAR process to mirror the federal SEDAR program. The crab stock assessment which will go into the revision of the FMP will be conducted using this format. The data workshop is being proposed for late April, with an assessment workshop in mid-late summer, and a review workshop toward the end of this year. Steve has started collecting a list of potential reviewers to participate in the review workshop and asked the Subcommittee to evaluate the individuals on the list and nominate any people that they feel would be good reviewers. The Subcommittee heard two presentations one from Dr. Caz Taylor on her work looking at the blue crab recruits in the Gulf of Mexico that may have been exposed to the Deepwater Horizon disaster and Ms. B Yednock presented her thesis work on the analysis of population genetic structure and natural selection in blue crabs along the Louisiana coast. Written state reports were provided to the Subcommittee and will be included in the minutes.

Harry Blanchet made a motion to accept the report and it passed unanimously.

Overview of Post Oil Spill Funded Research Projects

Michael Carron started his presentation by giving an overview of the events of the Deepwater Horizon oil spill disaster. On April 20, 2010 the Deepwater Horizon rig caught fire and sank. The riser continued to leak oil until July 15th when it was finally caped. Approximately five million barrels of oil escaped into the Gulf of Mexico during this time. Also, over a million gallons of dispersant were injected into the riser at a depth of about 5000 feet which had never been done before. Immediately following the spill, universities in the Gulf states tried to mobilize all their resources to started to collect baseline data. On May 24, 2010 BP announced they would make $500 million available for research in the Gulf of Mexico over the next ten years to study the impact of the oil spill. On June 15, 2010 BP issued the first round of grants to institutions & NIEHS in Gulf states and announced the names of the scientific experts that would form the independent research board that would later be expanded to 20 people with 10 appointed by Gulf Governors. After a lot of politics and negotiation, it was determined that the Gulf of Mexico Alliance would form an organization to manage the $500 million and the process of granting it out with the research board working independent of them as the science side. The Alliance formed the Gulf of Mexico Research Initiative (GoMRI) to fill this role. The mission of GoMRI is to implement an independent research program that will; study the effects of the Deepwater Horizon incident and the potential associated impact of this and similar incidents on the environment and public health, as well as, develop improvements for spill mitigation, oil detection and characterization, and advanced remediation

technologies. The ultimate goal of the GoMRI is to improve society's ability to understand, respond to and mitigate the impacts of petroleum pollution and related stressors of the marine and coastal ecosystems, with an emphasis on conditions found in the Gulf of Mexico. Knowledge accrued will be applied to restoration and to improving the long-term environmental health of the Gulf of Mexico. The GoMRI has five research themes 1) Physical distribution and ultimate fate of contaminants associated with the Deepwater Horizon incident, 2) Chemical evolution and biological degradation of the contaminants, 3) Environmental effects of the contaminants on Gulf of Mexico ecosystems, and the science of ecosystem recovery, 4) Technology developments for improved detection, characterization, mitigation, and remediation of offshore oil spills, and 5) Impacts of oil spills on public health. The GoMRI wanted to make sure all the outcomes had good scientific integrity so the National Science Board peer evaluation protocols were used to select all funded research and BP was completely separated from the work other then providing the funding. Some of the standards they followed were, independent reviews would be comprised of scientific peers not affiliated with institutions who lead proposed projects to avoid conflict of interest in the selection of funded research; all GoMRI-funded researchers conduct independent and objective work with no influence from BP; and researchers independently publish their results in peer-reviewed scientific journals with no requirement for PB approval. In order to start establishing critical baseline data as the foundation for subsequent research, PB provided $45 million in funding to five organizations in the Gulf region in the summer of 2010. On April 25, 2011 the GoMRI issued RFP-I to consortia in the Gulf region for $112.5 million for three years ($37.5 million/year) for which they received 77 proposals each about 1,000 pages long. To ensure continuity of observations and sampling while the peer-review process for RFP-I was underway, the GoMRI issued RFP-III on June 7, 2011 for $1.5 million and on June 30, 2011 they announced the 14 institutions that would receive funding. On August 31, 2011 the eight consortia that would receive the $112.5 million from RFP-I were Announced. All eight of the consortia selected were headed up by universities in the Gulf states. The research focus and the lead university for the eight consortia were:

- The Impact of Biological, Physical and Chemical Processes on the Fate of Oil Spills – Bridging Small-Scale Processes with Meso-Scale Modeling. University of Texas at Austin - Marine Science Institute,
- Gulf of Mexico Integrated Spill Response Consortium. Texas A&M University at College Station,
- Deepsea to Coast Connectivity in the Eastern Gulf of Mexico. Florida State University,
- The Effects of the Macondo Oil Spill on Coastal Ecosystems. Louisiana Universities Marine Consortium,
- Center for Integrated Modeling and Analysis of the Gulf Ecosystems. University of South Florida,
- Consortium for Advanced Research on Transport of Hydrocarbons in the Environment. University of Miami,
- The Science and Technology of Dispersants as Relevant to Deep-Sea Oil Releases. Tulane University,
- Ecosystem Impacts of Oil and Gas Inputs to the Gulf. University of Mississippi.

The GoMRI released RFP-II in December of 2011 for $7.5M/year for 3 years. With this RFP they were looking for individual research projects $100,000 - $1,000,000 each for 3 years. Michael stated that they have already received 629 letters of intention for this RFP so they are expecting around 600 proposals and are hoping to have recipients selected and awards made by July, 2012. Michael

pointed out that the next GoMRI annual meeting will be held at the New Orleans Marriot on January 21-25, 2013 and will be open to the public. This meeting will be focused around the GoMRI's five research themes and they will be putting out a request for papers around June or July, 2012. **Larry Simpson** asked Michael if he knew of any other pots of money that were available, if he knew of a schematic that outlines all the funding that has been made available as a result of the oil spill, and if he knew the point of contact within BP that knows all the funding avenues. Michael stated that he knew of four pots of money that are being spent. The $500 million that is being administered by the GoMRI, the $20 billion that Kenneth Feinberg is in charge of dispersing, there is the NRDA funding with some of that funding going to the states, and there is a pot of money that BP is using to do their own damage assessment. Michael said that he is not aware of a schematic or the correct point of contact within BP, but will check into it and get back with Larry.

Findings from the 2011 Expanded Annual Stock Assessment Longline and Bandit Project

Melissa Cook started with the history of the Expanded Annual Stock Assessment (EASA) project. She pointed out that NOAA's Pascagoula lab conducts annual surveys throughout the Gulf of Mexico; however, these surveys produce indices that often show high levels of variation. To lower this variation, Congress appropriated funds to expand the 2011 fishery-independent surveys conducted in the Gulf of Mexico. NMFS decided to focus on their annual bottom longline and bandit surveys to lower the variation in the annual abundance indices by increasing the survey sample size. The EASA project was a cooperative effort between NOAA, GSMFC, and the commercial fishing industry and it had 3 main objectives.

1. FMP Species:
    - Increase sample size and precision of all estimates
    - Age-specific indices of abundance, growth, & fecundity
    - Age structure
2. Habitats:
    - Map bottom topography using side scan sonar
    - Expand universe of reef habitats for annual reef fish surveys
    - Compare species composition on selected habitat types
3. Additional:
    - Biological samples (e.g. tissues, otoliths, gonads)
    - Gear comparison between bottom longline and bandit gears, as well as hook selectivity

Melissa pointed out that this project utilized two main gear types: bottom longline used on unobstructed bottom habitats and bandit reel that were used to target reef habitats. Sampling took place from April – October with 20 days of fishing each month. The bottom longline component of the project used the same methodology as NMFS' annual surveys. Each month 162 new stations were selected using a stratified random design and sampling occurred 20 days per month on the four bottom longline vessels. Bandit sampling was carried out using a slightly different methodology. The Gulf was divided into 10x10 nautical mile grids. Of these grids, 158 were identified by commercial fisherman as having reef habitat. From the 158 grids, 82 were randomly selected for side scan and associated bandit reel fishing. For this reef sampling they only targeted natural reefs, no artificial reefs of oil structures were included in the sampling universe. Melissa stated that this project generated a lot of data that they are still working on analyzing; however, she provided the following summary:

- Stations completed (822 sea days)
  - Longline – 1,171
  - Bandit - 1,939 (5,817 reel drops – 3 reels/station)
- Side scan surveyed 67 grids
  - 207 total transects
  - 613 reef/non-reef stations fished
- Fish captured
  - Longline – 11,454 finfish & sharks
  - Bandit – 3,872 finfish & sharks
- Samples collected
  - Otoliths – 5,153
  - Gonads – 1,726
  - Fin clips – 3,464
  - Whole fish/sharks saved – 702

On the bottom longline 145 different taxa were collected with Atlantic sharpnose shark, red grouper and red snapper being the top three species collected. On the bandit gear 66 taxa were collected with red snapper, vermilion snapper, and red porgy making up the three most abundant species. Melissa also covered some of the preliminary results that they have gotten from their analysis of the data from this sampling effort. When they compared the red snapper collected on the two gear types using the same hook size, they found that the bottom longline collected larger red snapper. Two outstanding hypotheses are 1) heavy fishing mortality for older fish on reefs or 2) ontogenetic shift of older fish off of reef habitat and out onto mud lumps or at least just not on reefs. Comparison between bottom longline catches and catches using bandit gear suggests that the two gears are not comparable in terms of species composition or size of individuals caught. This suggests that the two gears must be combined to get a true picture of the species population size/age structure. They have also learned new things about the red snapper population in the Gulf. They have discovered differences in size and possibly age structure, but found that the length frequency data is showing almost identical trends to their ongoing reef fish survey (camera gear) and annual longline survey. **Kevin Anson** asked if this data would be ready in time for the benchmark stock assessment of red snapper that will be taking place in the summer of 2012 and if they observed any fish with noticeable lesions. Melissa stated that they are going to try and have the data ready in time for inclusion in the red snapper assessment and that no fish were found with lesions throughout the entire study.

Status of State Early NRDA Restoration Projects

Below is a list of the projects that have been approved for funding:

- Louisiana Oyster Cultch Project: St. Bernard, Plaquemines, Lafourche, Jefferson, and Terrebonne Parishes, Louisiana; approximately 850 acres of cultch placement on public oyster seed grounds and construction of improvements to an existing oyster hatchery on Grande Isle. Oyster cultch is fossilized shell, coral or similar materials produced by living organisms placed on the sea floor that provide points of attachment for oysters as they grow; estimated cost: $14,874,300.
- Lake Hermitage Marsh Creation: Plaquemines Parish, Louisiana; approximately 104 acres of marsh creation in Barataria Bay; benefitting brackish marsh in the Barataria Hydrologic Basin; estimated cost: $13,200,000.

- Mississippi Oyster Cultch Restoration: Hancock and Harrison Counties, Mississippi; 1,430 acres of cultch restoration; benefitting oysters in Mississippi Sound; estimated cost: $11,000,000.
- Mississippi Artificial Reef Habitat: Hancock, Harrison, and Jackson Counties, Mississippi; 100 acres of nearshore artificial reef; benefitting nearshore habitat; estimated cost: $2,600,000.
- Marsh Island (Portersville Bay) Marsh Creation: Mobile County, Alabama; protecting 24 existing acres of salt marsh; creating 50 acres of salt marsh; 5,000 linear feet of tidal creeks; benefitting coastal salt marsh in Alabama; estimated cost: $9,400,000.
- Alabama Dune Cooperative Restoration Project: Baldwin County, Alabama; 55 acres of primary dune habitat; benefitting coastal dune and beach mouse habitat in Alabama; estimated cost: $1,145,976.
- Florida Boat Ramp Enhancement and Construction: Escambia County, Florida; four boat ramp facilities; benefitting human use in Escambia County, Florida; estimated cost: $4,406,309.
- Florida (Pensacola Beach) Dune Restoration: Escambia County, Florida; 20 acres of coastal dune habitat; benefitting coastal dune habitat in Escambia County, Florida; estimated cost: $585,898.

Update on the ODRP Program

Ralph Hode gave a brief overview of the Oil Disaster Recovery Program (ODRP). He stated that Congress through NOAA Fisheries provided the GSMFC with $15 million to address fisheries recovery following the April 2010 oil disaster. Oversight for this program is provided through the Oil Disaster Ad-hoc Advisory Committee that is made up of the marine directors from the five Gulf state. Ralph states that their primary objective was to put together a marketing effort to define and promote the uniqueness, quality and source of wild caught Gulf products so as to increase market demand. To achieve this objective the program was broken into three main components seafood marketing, seafood testing, and seafood certification/traceability. Under the marketing component there is a contract with the Louisiana Wildlife and Fisheries Foundation for culinary events like the Great American Seafood Cook-off. Another contract under this component is with the Gulf and South Atlantic Fisheries Foundation (GSAFF) that are charged with expanding the existing marketing coalition. Ralph pointed out that the GSAFF will be introducing the expanded marketing coalition and the Gulf of Mexico marketing strategy at the 2012 International Boston Seafood Show. In addition to these two contracts, the marketing component also has a web based marketing aspect under which they have entered into contracts with all five of the state Sea Grants across the Gulf and have funded Market Maker in two states. Under the seafood testing component of this program each state was given the opportunity to acquire seafood testing equipment and place it at a state lab, industry facility, or university of their choice. At this time only Alabama and Mississippi have chosen to participate in this component of the program. **Alex Miller** gave a presentation on the seafood certification/traceability component of the ODRP program. He stated that the traceability aspect of this component is much more developed at this time then the certification aspect. For traceability they have entered into a contract with Trace Register, implemented a marketing module, brought on an outreach consulting firm, and added a video outreach component. For certification, all that has been completed is a rapid assessment. Alex stated that the name of the traceability program that they are rolling out is Gulf Seafood Trace. This is a web based program that links dock side catch data to a product and tracks the product all the way to the consumer. They have had ten companies that have agreed to be program pioneers that will use this program for all of their seafood products. This system also has a data confirmation component built in that uses algorithms to try and validate all the information that is entered into the system. There is also a large marketing aspect of this program that uses QR codes that the consumer can scan with a smart phone and instantly get a

map and the associated information that links that product all the way back to the location that is was caught. Alex pointed out that this program will also be rolled out at the 2012 International Boston Seafood Show. **Richard Cody** expressed his concern that with a program like this that is increasing the marketability and possibly the price of a product, there has to be some component of quality control and enforcement of the data or people will start to take advantage of it.

Subcommittee Reports

SEAMAP

Jeff Rester reported that the Subcommittee heard a presentation from David Hanisko on the state plankton sampling efforts. This was followed by a discussion of haw to address some of the problems that have been identified. They also discussed the final edits to the SEAMAP Vertical Line Survey Operations Manual and finalized the draft document. They will be sending this draft to the NMFS for them to review the methodology and identify any problems that would prevent the data from this sampling from being used in future stock assessments. They also discussed the SEAMAP bottom longline and vertical line database structure.

A motion to accept the report was moved by Kerwin Cuevas, and passed without opposition.

Habitat

Jeff Rester stated that the Subcommittee started off with a discussion with Tom Mohrman from the Nature Conservancy on the conservation action plan for the salt marsh topminnow. This is a species that they don't know much about that is only found in the northern Gulf of Mexico and is being considered for listing under the endangered species act by the USFWS. The Subcommittee also had a discussion of the Gulf of Mexico Ecosystem Restoration Strategy and the next steps for this strategy. They stated that it is not clear what the future direction of this effort will be, because it is hard to get clear answerers. They heard an update on NRDA and discussed the early NRDA restoration projects and ways they could be involved with the work. They also discussed considerations for repairing and reducing propeller scars in seagrass beds and a restoration project for critical manatee habitat at Fanning Springs State Park, FL.

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

Data Management

Christine Murrell reported that the Subcommittee covered the following agenda items.

- Status of Biological Sampling Activities: Gregg Bray presented a matrix of data delivery and data entry for 2004-2011. Dave Donaldson stated that 2013 funding is in doubt and if no funding is secured 2013 sampling will likely cease. He stated further discussions will determine whether eliminating species from the target list could reduce the costs of biological sampling allowing us to continue a minimum level of sampling.
- Discussion of National Registry Projects: Dave Donaldson reported talking with NOAA Fisheries about the 2012 request for proposals for the National Registry Project. NOAA Fisheries hopes to evaluate the quality of current state license databases by the end of March and once completed that should assist the states in coming up with further research ideas for improving their databases. Status reports for all the 2011 National Registry projects need to be submitted by March 31st.
- Demonstration of Traceability Program: Three videos describing different aspects of Trace

Register's involvement with the Traceability Program were presented by Alex Miller. Representatives from Trace Register and Bluefin Data went through the entire process of entering landings data in the electronic trip ticket interface, showing how the data is processed by Trace Register, how Trace Documents travel through the supply chain and how the electronic ticket can be mapped to show where the dealer landings occurred and where the sample was sold and transferred to.

- Update on MRIP Gulf of Mexico For-Hire Logbook Project: Gregg Bray stating that the team is currently working on producing the final report. Once the results and recommendation sections are completed the report will be sent to the MRIP Operations Team (OT) for final approval, scheduled for the end of April.
- Update on HMS Electronic Reporting Activities: Donna Bellais stated the Highly Migratory Species (HMS) workgroup have been meeting via phone conferences to finalize the coding schemes and data elements that will be required for federal quota monitoring of highly migratory species. The workgroup met yesterday afternoon to discuss specific questions and problems.
- Discussion of Adding Economic Questions to For-Hire Telephone Survey: S. Lovell gave a brief presentation about a proposal to collect the price of each charter trip using the existing for-hire telephone survey in the Gulf of Mexico and Atlantic Coast. A major concern is the need for better economic data for evaluating the importance of the for-hire industry. After some discussion it was suggested to send out a letter to the charter captains explaining what NOAA economists would like to collect and then following up on the next FHS telephone call with a question to gauge their willingness to provide trip fare data.
- Status of Metadata Data Compilation: Cecil Bernhard, the FIN Metadata Coordinator stated he has contacted all the states and has collected and entered a large amount of information. Each state needs to review their data and edit it if necessary by April 15th so it can be published.
- Other Business: Dave Donaldson stated the vessel registry module with IA Team was designed to be expanded to dealers and fishermen too. Carry over money was available to enter into contract with IA Team to start work on module expansion.

A motion to accept the report was moved by J. Mambretti, and passed without opposition.

Harry Blanchet made a motion to have the Commission send a letter to the NMFS stating the significance of the biological sampling program and its associated long term data set, and strongly urge them to find methods to fund this program. Joey Shepard seconded the motion and after a lengthy discussion it passed unanimously.

Artificial Reef

James Ballard reported that the Subcommittee had not met since the last TCC meeting, however, it is continuing to develop a standard protocol for artificial reef monitoring. They will be incorporating the vertical line protocol that SEAMAP recently finished. The Subcommittee will be holding a joint meeting with the ASMFC's Subcommittee next week. This meeting will address regional issues affecting artificial reefs and there will also be a discussion about the details of the monitoring protocol.

Fisheries Outreach

James Ballard stated that the Subcommittee had not met since the last TCC meeting. He also pointed out that due to limited funding there were no plans to hold regular meetings of this group, however, if the TCC has anything come up that they feel this Subcommittee should address, he would coordinate meetings on an as needed basis. James also reported that in response to a motion from the

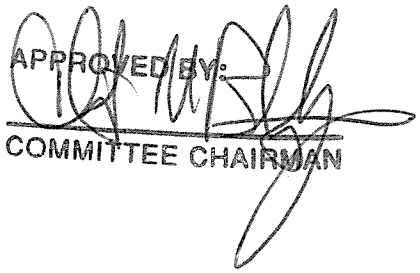
October TCC meeting, the Commission has launched a facebook page. This page is being accepted well by the public and has approximately 100 people following it at this time. The Commission staff has also laid out a plan to keep this page up to date with new information.

State/Federal Reports

Written reports were provided to the TCC members and during the meeting the members only briefly read through the highpoints in their reports. To see the full reports covered during this section of the meeting, please see the minutes from the Commission Business meeting held on Thursday, March 8, 2012.

With no further business to discuss, Dale Diaz adjourned the meeting at 5:00 p.m.

COMMISSION BUSINESS MEETING
STATE-FEDERAL FISHERIES MANAGEMENT COMMITTEE
MINUTES – 62nd Annual Spring Meeting
Thursday, March 8, 2012
Gulfport, Mississippi



Chairman C. Blankenship 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
Joey Shepard, LDWF, Baton Rouge, LA
Camp Matens, Baton Rouge, LA
David Heil, FWC, Tallahassee, FL (*Proxy for Nick Wiley*)
Mike Ray, TPWD, Austin, TX (*Proxy for Carter Smith*)
Troy Williamson, Corpus Christi, TX
Joe Gill, Jr., Joe Gill Consulting, LLC, Ocean Springs, MS
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
Ginny Herring, Administrative Officer, 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
James Ballard, SFP/ANS Program Coordinator, Ocean Springs, MS
Ashley Lott, FIN Staff Assistant, Ocean Springs, MS
Debbie McIntyre, Staff Assistant, Ocean Springs, MS
Alice Catchot, Staff Assistant, Ocean Springs, MS
Cecil Bernhard, Metadata Coordinator, Ocean Springs, MS

Others
Lauren Lugo, NOAA Fisheries – Southeast Region, St. Petersburg, FL
Forbes Darby, NOAA Fisheries, Silver Spring, MD
Ellie F. Roche, NOAA Fisheries – Southeast Region, St. Petersburg, FL
Karyl Brewster-Geisz, NOAA Fisheries, Silver Spring, MD
Gary Graham, Texas Sea Grant
Tony Reisinger, Texas Sea Grant, San Benito, TX
Jean Cowan, NOAA Restoration Center
M.E. Rolle, NOAA General Counsel for Natural Resources

Adoption of Agenda

The agenda was presented for adoption. C. Blankenship noted that there were two changes to the agenda. The Menhaden Advisory Committee report would be given after the Law Enforcement Committee report. The Discussion of NOAA's Restoration Process and Funding would be given after the Sea Grant Fisheries Extension Meeting Report. **J. Gill** moved to adopt the agenda as amended. **J. Shepard** seconded the motion. The motion passed unanimously.

Approval of Minutes

The minutes of the Commission Business Meeting held on October 19, 2011 in New Orleans, LA were adopted as presented without objection.

GSMFC Standing Committee Reports

Law Enforcement Committee (LEC) – **S. VanderKooy** reported that the LEC met on Tuesday, March 6, 2012.

He briefly reviewed several topics discussed by the LEC which included an overview of the National Center for Disaster Fraud, an overview of the crab and gulf and southern flounder FMP's as well as the GSMFC Annual Law Summary and Officers' Pocket Guide. It was noted that a disclaimer will be added to the pocket guide referring any questions about the regulations should be addressed by the state in question directly.

S. VanderKooy noted that the current Gulf Strategic Plan and Operations Plan were coming to an end this year. The Commissions LEC suggested that the LEC and LEAP hold a joint work session this summer to update these two documents. The costs of the work session would be split equally among the Gulf Council and the Commission. **C. Perret** questioned the cost of the meeting and was concerned about if enough funds were being allocated for this activity. After some discussion, **C. Perret** moved to budget up to $3,000 for this meeting. **M. Ray** seconded. **C. Blankenship** questioned if this was enough money. **S. VanderKooy** said yes, if the Council put in money as well. The motion passed unanimously.

State-Federal Fisheries Management Committee

Menhaden Advisory Committee – **J. Smith** reported that the Committee met on Tuesday, March 6, 2012.

J. Smith provided an overview of the 2011 fishing season. The final landings of the Gulf menhaden were around 613,000 MT which was up 62% over 2010 (BP year) and 41% over the previous 5-yr average.

S. VanderKooy updated the MAC on the status of the SEDAR27 and the plans to continue with a revision to the assessment. The SEDAR program does not have time and the schedule does not permit it to update the assessment in a short time frame. The best option is to finish it through the Commission and go back into the SEDAR process in 5 or 6 years for a benchmark. **S. VanderKooy** proposed holding a shortened version of the SEDAR process through the Commission, looking at an assessment workshop later this summer or early fall and a review workshop by the end of the year. The completed assessment would satisfy the need for a population analysis in the FMP and be beneficial to the industry and state agencies in evaluating the current health of the stock.

Finally, **S. VanderKooy** provided a PowerPoint presentation on results from the Industry-wide social survey. This is the first comprehensive attempt to describe the industry and the fishery participants. It should provide a base-line to quantify changes in demographics in the future.

Technical Coordinating Committee – D. Diaz reported that the Committee met on Wednesday, March 7, 2012.

A brief overview of the post oil spill funded research projects was given by **M. Carron**. He reported on the Gulf of Mexico Research Initiative (GoMRI). The mission of the Gulf of Mexico Research Initiative (GoMRI) is to implement an independent research program that will:

1. Study the effects of the Deepwater Horizon incident and the potential associated impact of this and similar incidents on the environment and public health and;
2. Develop improvements for spill mitigation, oil detection and characterization, and advanced remediation technologies.

The GoMRI has five research themes:

1. Physical distribution and ultimate fate of contaminants associated with the Deepwater Horizon incident;
2. Chemical evolution and biological degradation of the contaminants;
3. Environmental effects of the contaminants on Gulf of Mexico ecosystems, and the science of ecosystem recovery;
4. Technology developments for improved detection, characterization, mitigation, and remediation of offshore oil spills; and
5. Impacts of oil spills on public health.

Data Management – **G. Bray** discussed the status of Biological Sampling Activities and presented a matrix of data delivery and data entry for 2004-2011. **D. Donaldson** stated that 2013 funding is in doubt and if no funding is secured, 2013 sampling will likely cease. He stated further discussions will determine whether eliminating species from the target list could reduce the costs of biological sampling allowing us to continue a minimum level of sampling.

A. Miller presented three videos describing different aspects of Trace Register's involvement with the Traceability Program. Representatives from Trace Register and Bluefin Data went through the entire process of entering landings data in the electronic trip ticket interface, showing how the data is processed by Trace Register, how Trace Documents travel through the supply chain and how the electronic ticket can be mapped to show where the dealer landings occurred and where the sample was sold and transferred to.

G. Bray gave a brief update on the status of the MRIP Gulf of Mexico For-Hire Logbook Project, stating that the team is currently working on producing the final report. Once the results and recommendation sections are completed the report will be sent to the MRIP Operations Team (OT) for final approval. This is scheduled for the end of April.

S. Lovell gave a brief presentation about a proposal to collect the price of each charter trip using the existing for-hire telephone survey in the Gulf of Mexico and Atlantic Coast. A major concern is the need for better economic data for evaluating the importance of the for-hire industry. After some discussion it was suggested to send out a letter to the charter captains explaining what NOAA economists would like to collect and then following up on the next FHS telephone call with a question to gauge their willingness to provide trip fare data. **D. Diaz** made a motion on behalf of TCC to send a letter to NMFS stating the significance of the biological sampling program and its associated long term data set, and urge them to find methods to fund this program. **M. Ray** seconded the motion and the motion carried.

SEAMAP - Had a presentation from **D. Hanisko** on the state plankton sampling efforts. This was followed by a discussion of how to address some of the problems that have been identified. The committee also discussed the final edits to the SEAMAP Vertical Line Survey Operations Manual and finalized the draft document. They will be sending this draft to NMFS for them to review the methodology and identify any problems that would prevent the data from this sampling from being used in future stock assessments. They also discussed the SEAMAP bottom longline and vertical line database structure.

Crab – **S. VanderKooy** provided an overview of the GDAR (Gulf Data Assessment and Review) process which the GSMFC is developing to mirror the federal SEDAR program. The crab stock assessment, which will go into the revision of the FMP, will be conducted using this format. The data workshop is being proposed for late April, with an assessment workshop in mid to late summer, and a review workshop toward the end of this year. He has started collecting a list of potential reviewers to participate in the review workshop. **Dr. Caz Taylor** presented her work looking at the blue crab recruits in the Gulf of Mexico that may have been exposed to the Deepwater Horizon disaster.

Habitat-The Subcommittee heard a presentation from **Tom Mohrman** and had a discussion on the conservation action plan for the salt marsh topminnow. They also had a discussion of the Gulf of Mexico Ecosystem Restoration Strategy and the next steps for this strategy. They stated that it is not clear what the future direction of this effort will be, because it is hard to get clear answers. They also discussed considerations for repairing and reducing propeller scars in seagrass beds and a restoration project for critical manatee habitat at Fanning Springs State Park, FL.

Sea Grant Fisheries Extension Meeting Report – **T. Reisinger** reported that the committee met on Wednesday, March 7, 2012.

Several topics were discussed including the Black Tiger Shrimp invasion. The Black Tiger Shrimp have been found in all southeastern states. As of yet, no juveniles have been detected in any state. The status of the Gulf For-Hire Vessel Survey was also given. Major points from this survey include: increase in artificial reefs; concern over catch shares; and concern over fuel cost.

J. Jamison gave an update on the Gulf Seafood Marketing Coalition. 73% of the U.S. population is still concerned with the safety of Gulf Seafood. A program promoting Gulf Seafood will be launched at the Boston Seafood Show.

Discussion of NOAA's Restoration Process and Funding Opportunities – **J. Cowan** from NOAA presented a power point presentation called "Deepwater Horizon NRDA: Restoring the Gulf Coast". The main points of the presentation consisted of the following:

- NRDA Process
- Injury Assessment
- Restoration Planning
- Conceptual Fish Restoration
- Conceptual Recreational Restoration
- Opportunities to Engage

NOAA Fisheries Southeast Regional Office Comments – **L. Lugo** updated the Commission on the following:

Gulf Amendment 32 for Gag and Red Snapper - NOAA Fisheries Service published a final rule with the Office of the Federal Register implementing measures from the Gulf of Mexico Fishery Management Council's (Council) Amendment 32 to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico. The rule adjusts the commercial gag quota and recreational annual catch target for 2012 through 2015 and subsequent fishing years, consistent with the gag rebuilding plan established in Amendment 32. The rule is effective March 12, 2012.

Gulf of Mexico Red Snapper - At its February 2012 meeting, the Gulf of Mexico Fishery Management Council approved a regulatory amendment, which if approved and implemented, will increase the total allowable catch for red snapper from 7.185 million pounds to 8.08 million pounds. The goal is to finalize the rule by late April to become effective for June 1, the expected opening of the season.

Gulf Shrimp-Turtle Lawsuit - The Turtle Island Restoration Network brought a challenge against the National Marine Fisheries Service alleging NMFS failed to comply with the Endangered Species Act in authorizing the continued operation of the shrimp trawl fisheries in the Gulf of Mexico and South Atlantic. Specifically, the complaint alleges that NMFS has failed to timely complete the consultation it reinitiated for various species in 2009 and 2010, and has otherwise failed to take additional regulatory action to protect listed species from adverse effects associated with shrimp trawl activity. The NMFS Southeast Region is preparing a new Biological Opinion for the reinitiated consultation for the taking of sea turtles and other listed species in the Southeast shrimp fishery. At the same time, the agency is working on a rulemaking to address sea turtle takes by skimmer trawls, including a requirement to use TEDs in skimmer trawl gear, which is not currently required.

NOAA Fisheries Budget Update – L. Simpson and L. Lugo gave an update on the NOAA Fisheries Budget.

NOAA is looking at staff reductions but most of these will come through attrition and relocation of personnel. NOAA has questions/concerns regarding how these cuts will affect the goals of NOAA.

It was reported that there are increases in stock assessments by about $4 million. This builds upon the $10 million increase in 2012. It was noted that the job of the Commission is to express the need of not only stock assessment but data collection as well.

Several cuts in the budget were pointed out. The council's budget was cut by about $4 million while the Atlantic Coast Commission was reduced by about $1 million. IJF and FIN budgets were also reduced slightly for 2012. SEAMAP is slated for a modest increase for 2012.

L. Simpson noted that we are going back to the Reagan years and the funding provided back then. He does not see a huge problem with this amount of funding and things can and will still be done on this funding level. This is a reflection of our nation's economy. We will just have to do more with the little we got.

Legislative Issues – Two legislative issues were discussed during the meeting. The first is the **Restore Act**. This Act refers to the BP fine money and the 80-20 split of that money, with 80% of that money going back to the states and 20% to the treasury. There is some feeling in the Senate that the Act will pass most likely toward the end of the fiscal year.

House Bill 3410, **Revenue Sharing,** was also looked at. This bill would require the Secretary of

the Interior to conduct certain offshore oil and gas lease sales, to provide fair and equitable revenue sharing for all coastal States.

Presentation of MRIP New Method for Improving Recreational Catch Estimates – **F. Darby** from NOAA Fisheries presented a power point presentation titled "MRIP Improved Recreational Catch Estimates". The main points of the presentation consisted of the following:

- The Science Side
  - Why a new estimation method
  - What we found
  - What's driving the changes

- The Management Side
  - How changes affect management and stock assessments
  - What we're doing to transition to the use of MRIP estimates

- The Path Forward
  - Next Steps

Presentation of NMFS HMS Division Amendment 6 – Catch Shares in Atlantic Shark Fisheries – **K. Brewster-Geisz** from NOAA Fisheries presented a power point presentation on Catch Shares in Atlantic Shark Fisheries. She stated that work on this amendment started two years ago and what they are looking at are quota structures, permit structures and catch shares in the shark fishery. The results from this study have been presented to an advisory panel and notice has gone out that catch shares are being considered. Currently, scoping workshops are being held and the comment period ends March 31, 2012.

Status of Kemp's Ridley – Shrimp Fishery Interaction Workshop – **L. Simpson** updated the commission on the status of the Kemp's Ridley turtles. They are trying to come to a better understanding of the health of the Kemps Ridley sea turtle population in the Gulf of Mexico. It was noted that **C. Perret** has been working on getting NMFS to look into the relative health of the turtles in the Gulf for some time now. ODRP funds will be used to also address this issue. ODRP feels a region wide group would be useful in addressing this issue.

A 14-month effort has been established to address this issue. Several workshops, meetings and public forums will be held to address the issues. Final details for this will be worked out at the Boston Seafood Show.

Jeff Rester will do the GIS work and will manage the project through the GSMFC office. Benny Galloway, Pam Plotkins, John Cole, William Gazey, Scott Rayborn and Charles Caillouet will also be working on the project. All meetings will be held in the Gulf Region, perhaps Houston or New Orleans. The goal is to have a stock assessment for Kemp Turtles when completed.

Interjurisdictional Fisheries Program Report – **S. VanderKooy** reported on the various IJF activities planned for the spring/summer 2012. He reported that there are four FMP's in various states of revision: Oyster FMP; Gulf Menhaden FMP; Blue Crab FMP; and the Gulf and Southern Flounder FMP. The Oyster FMP was brought before the Commission for consideration and action. Pending approval of the Commission, the Oyster FMP will go out for bid and press. **D. Heil** made a motion to accept the Oyster FMP as is and **D. Diaz** seconded motion. Motion carried.

Two handouts were provided to the Commission. The first was a Summary of Changes to the IJF Compliance Matrix. This showed all changes made to the matrix since the last time the Commission had looked at them. A handout on FMP Compliance in the Gulf of Mexico was also provided in a new format.

SEAMAP Program Report – **J. Rester** provided the SEAMAP report.

SEAMAP is beginning its 31st year of fishery independent sampling. Current surveys include a Spring and Fall Plankton Survey, Summer and Fall Shrimp/Groundfish Surveys, Bottom Longline Survey, Vertical Line Survey, and Reef Fish Survey.

The SEAMAP FY2012 budget was cut by 4% from last year's amount. SEAMAP anticipated a budget cut last year and reviewed all SEAMAP funded fishery independent surveys. Some surveys will be discontinued in 2012, but this prioritization will allow SEAMAP to continue to collect high priority fishery independent data for the Gulf of Mexico.

While some surveys have been discontinued, the Vertical Line Survey is expanding. Currently, Alabama and Louisiana are surveying reef fish on artificial reefs and oil and gas platforms with bandit rigs. SEAMAP recently finalized their operations manual for this survey. The Artificial Reef Subcommittee has shown an interest in using the SEAMAP protocols for monitoring artificial reefs throughout the Gulf. Any data collected would be comparable to SEAMAP data and could be used by stock assessment scientists.

Sportfish Restoration Program Report – **J. Ballard** provided the Sportfish report.

To continue the effort of establishing a Gulf-wide Artificial Reef monitoring program, the Artificial Reef Subcommittee held a Reef Monitoring Workshop at the GSMFC 62nd Annual Meeting. 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 also 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 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. This draft protocol will be discussed in length and revised at the Joint Artificial Reef Subcommittee meeting that will be held March 13-14, 2012 in St. Petersburg, Florida.

The Program Coordinator is exploring funding opportunities to support the previously mentioned Gulf-wide artificial reef monitoring program.

Following the recommendation that the Technical Coordinating Committee passed at the GSMFC 62nd Annual Meeting, to establish a social media presence for the GSMFC, the Program Coordinator with help from other GSMFC staff, has launched a facebook page for the GSMFC. It is our hope that this new form of outreach will help us to keep all of our constituents up to date with the actions of the Commission, as well as supply another venue for members of the public and interested parties to provide us with their input.

Fisheries Information Network Program Report – D. Donaldson updated the Commission on the status of FIN.

Year in Review – FIN consists of two major components: ComFIN and RecFIN. This past year in the Recreational catch/effort, over 51,000 interviews were conducted, including in Puerto Rico. This exceeds the 2011 quotas for all modes by almost 40%.

For Trip Tickets, Texas, Louisiana, Alabama and Florida are fully implemented. Mississippi is still in the process of fully implementing the program.

The FIN Data Management System has almost 29 million records loaded into the system. This information is available to confidential and non-confidential users.

For Biological Sampling, FIN has collected over 33,000 otoliths for almost 70 species.

Future Program Funding – FIN can fund biological sampling this year by using alternative funding sources. Unfortunately, if additional funding is not secured, FIN may not be able to continue this critical activity in the future.

Habitat Program Report – J. Rester reported on the Habitat Program.

The Joint Habitat Program between the Commission and the Gulf of Mexico Fishery Management Council (Council) that began in 1997 was cancelled on February 10, 2011. The Council stated that funding reductions led to the contract not being renewed for 2012. The Council stated that they would be handling habitat issues with their existing staff.

One of the last things worked on for the Council was a mapping effort to analyze fishery-independent data to compare densities of larvae and adult organisms before and after the Deepwater Horizon oil spill. SEAMAP trawl data was used to map sand seatrout, silver seatrout,

spot, Atlantic croaker, gulf butterfish, gray triggerfish, red snapper, vermilion snapper, lane snapper, brown shrimp, pink shrimp, and white shrimp. NMFS bottom longline data was used to map yellowedge grouper, red grouper, red snapper, blacknose shark, blacktip shark, and Atlantic sharpnose shark. SEAMAP plankton data was used to map larval red snapper, vermilion snapper, king mackerel, red drum, Spanish mackerel, and penaeid shrimp larvae. The same format as the maps is being used for the updated NOAA Data Atlas, so the map products produced will be added to the Data Atlas. The Data Atlas released their first draft last fall, and it can be viewed at http://gulfatlas.noaa.gov/. The Data Atlas has six categories with detailed data for each category. The categories are physical, biotic, living marine resources, economic activity, environmental quality, and jurisdictions.

Last fall J. Rester began working on the Commission's Blue Crab Technical Task Force as the habitat representative. The Commission is updating their Blue Crab Fishery Management Plan. J. Rester is responsible for drafting a habitat section detailing blue crab habitat throughout the Gulf of Mexico and also detailing threats to these habitats.

Aquatic Nuisance Species Program Report – **J. Ballard** reported to the Commission on the Aquatic Nuisance Species Program.

The Gulf and South Atlantic Regional Panel (GSARP) on Aquatic Invasive Species held its fall meeting on October 4-5, 2011 in Austin, Texas.

The Program Coordinator attended/participated in the Aquatic Nuisance Species Task Force's (ANSTF) fall meeting held November 2-3, 2011 in Washington, D.C.

State Aquatic Nuisance Species Plans:

- Georgia, Louisiana and South Carolina have completed plans and are actively implementing them.
- Alabama's and Texas' Plans have been conditionally approved.
- 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.
- 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 Invasive Lionfish Control Ad-Hoc Committee's (ILCAC), that is coordinated by the GSMFC's ANS Program Coordinator, 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 ANSTF accepted the ILCAC's recommendation to move forward with the development of the National Prevention and Management Plan for Invasive Lionfish in U.S. waters. This effort will be carried out by the ILCAC which has been expanded to 20 members from several federal/state agencies, universities, Canada, PIJAC and NGOs.

Several Panel members are also collaborating on efforts to understand more about the Asian tiger shrimp (*Penaeus monodon*). There had been a slow steady increase in the number of *P. monodon* sightings in the Gulf and South Atlantic region from 2006-2009. In 2010 there was a slight decrease in sightings from 47 (2009) to 32 (2010). In 2011 there was a significant increase in sightings, with well over 400 reports. It is unclear if this invasive species has established a breeding population in this range or if they are being introduced. Also, it is uncertain what impacts it may have on the invaded environment or native species.

The second issue of the Panel's newsletter "Water Watch" was finished and distributed in January and is available on the Panel's website. This newsletter is provoking good discussions about aquatic invasive species issues in the Gulf and south Atlantic region and helping to spread the word about the Panels activities and accomplishments.

The Program coordinator will be developing a database of completed invasive species risk assessments that will be housed at the GSMFC. To get this effort started representatives from Texas offered to supply the 250 completed assessments that they currently have on invasive plants. The goal of this database is to have a clearing house that is searchable by species name that will help reduce duplication of efforts among states in the Gulf and South Atlantic region.

The Program Coordinator is working on acquiring the data collected during the resent TexRAT in Galveston and the RAT that was carried out in LA. Once this data is ready it will be entered into the current database of RAT data that is housed at the GSMFC. This will provide one central location for all RAT data that has been collected in the Gulf states.

The Program Coordinator will establish a database of AIS project reports that were funded by Region 4 FWS and make it available on the GSARP website.

Subcontract Awards

1. The Invasive Species Traveling Trunk: This project is nearly complete. Final report will be given at the GSARP's spring 2012 meeting.

2. Trojan Y Chromosome Eradication of Invasive Fish – Development of Sex-specific DNA Markers: The PI is halfway through this two year project and has made good progress towered the final goals. Snails have been irradiated at different radiation doses using two different methods and it has been determined that a gamma dose range of 100Gy – 130Gy is a workable range for sterilization of adults. As an alternative to radiation-induced sterility, methods to induce triploidy in snails are also being explored.

3. Reproductive Sterility as Tool for Prevention and Control of Invasive Aquatics: At the end of year one of this two year project, the sex-specific DNAs for three invasive fish species (Nile tilapia, African jewelfish, and Silver carp) were used in PCR reactions containing random 10-mer oligonulcleotides to produce DNA fragments for analysis by gel electrophoresis. Approximately 50 primers were designed for screening and are now being applied towards the isolation of sex-specific markers in the three invasive fish species. At this time, no sex-specific markers have been identified for any of the three species of invasive fish.

• The Spring GSARP meeting is set for April 2-4, 2012 in Mobile, AL.

• The Spring ANSTF meeting is set for May 2-3, 2012 in Annapolis, Maryland.

A power point presentation was also given on Tiger Shrimp.

Emergency Disaster Recovery Program Report – R. Hode updated the Commission on EDRP and ODRP

The Fisheries Disaster Recovery workgroups met on Wednesday, March 7, 2012, to review program progress in EDRP I and EDRP II Grant awards covering 35 plus sub awards with State Marine Agencies across the Gulf.

Most of the GSMFC commissioners as well as most of the State Principal Investigators were present to receive reports; and detailed reports are included in the Commissioner briefing books under Tab R for those who were unable to attend the workshop.

SIGNIFICANT DETERMINATIONS:

1. EDRP I

   - Financial summaries indicate that approximately 90 percent of the combined funds for all States have been reimbursed through Jan 2012.
   - Unspent fund balances amounting to nearly $11 M remain a point of concern since the EDRP I grant effectively ends in August.
   - There are indications also that most states expect to utilize the remainder of their respective balances by Aug 2012; and preliminary figures indicate that of the $11 M currently unspent only about 3 to 5 M remain a matter of concern. GSMFC staff is working closely with these to expedite spending.

2. EDRP II

   - Financial summaries for EDRP II indicate that approximately 87 percent of the combined funds for all States have been reimbursed through Jan 2012.
   - Unspent funds balances amount to nearly $10 M; however, because EDRP II remains in its original budget time period extensions are "probable".

3. On a motion duly made and seconded, the Workgroup requested that a one year no cost grant extension requests be made for both EDRP I and EDRP II.

The Ad Hoc Advisory Committee for the ODRP also met to review program progress in grants and contracts currently in place under the $15 M post Oil Disaster Fisheries Recovery Program (ODRP) Grant approved by Congress in September 2010.

All of the State Marine Directors or their designated were present as well as many of the

GSMFC Commissioners. Detailed progress and financial reports on the existing 14 contracts/awards currently in place were provided by GSMFC staff covering:

- Marketing and public relations – including Web based marketing and Culinary events
- Traceability programs and related sustainability certification efforts
- Seafood Testing equipment contracts

Summaries are also included in the Commissioner briefing books under Tab T for those who were unable to attend the workshop.

Proposals and other Actions:

- A follow up proposal was presented for discussion by Louisiana regarding use of a regional "Wild Gulf" approach to branding and marketing gulf products. No action was required but the Committee agreed to further discuss the proposal/concept at the upcoming Committee meeting in Boston.
- A "Responsible Management" concept to address sustainability certification issues in the Gulf was presented by Rene LeBreton, LDWF as an alternative to existing options regarding certification. No action was required but the Committee agreed to further discuss the concept at the upcoming Committee meeting in Boston.
- The Sea grant et al proposal for a Kemps Ridely/Shrimping Interaction study and stock assessment, which was discussed in previous meetings and conference calls, was presented for information and discussion purposes by Larry Simpson. No action was required but the Committee agreed to further discuss the concept at the upcoming Committee meeting in Boston.

Economic Data Program Report – **A. Miller** updated the Commission on the Economic Data Program.

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 2011 and early 2012.

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 or completed during late 2011 and early 2012 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 for data year 2008 was completed and finalized in late 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 provided a systematic economic analysis of an important economic segment—the inshore shrimp industry—which had not previously been examined with such depth and rigor. Existing economic data for commercial shrimping in state waters had traditionally been piecemeal, outdated, or not fully relevant. Having economic data from year 2008 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.

The GSMFC, in collaboration with the Louisiana Department of Wildlife and Fisheries, 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 that 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 complied 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 is 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 likely 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 data entry phase during late 2011 and early 2012. 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 early 2011 to review the Gulf States Seafood Processor Survey instrument and final plans for testing and full deployment of the survey instrument. The survey packet was 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 continued through the end of 2011 and into early 2012. Periodic conference calls have been conducted to ensure

consistency and successes throughout the region. Completed surveys from each of the GSMFC's contractors have been sent to LDWF, a database has been developed, and data have been entered. The preliminary raw regional response rate is around 45%. The raw response rate for individual states is as follows: Alabama – 42%, Florida- 47.6%, Louisiana – 69.2%, Mississippi – 17.6%, Texas – 45.4%.

A similar survey instrument and supporting materials, which is shorter and largely based on the processor survey was finalized for seafood dealers in 2011. A sampling frame was also developed during 2011 using a database of seafood dealers from each of the states. Throughout late 2011 the dealer survey questionnaire, cover letter, and other materials were produced and assembled in survey packets. The dealer survey was distributed in early 2012.

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. During 2011 and early 2012, the GSMFC and NOAA solicited 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 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. The percentage of completed intercept surveys from January through December 2011 throughout the

Gulf was 69% (either fully or partially complete). Cumulatively, from early 2011 through early 2012, the percentage of completed mail/web surveys is 29%.

Data collection for the intercept survey has been completed and the follow-up mail survey will conclude in early 2012. Data cleaning and analysis will be conducted throughout 2012, with a final report likely to be published in 2013. 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.

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. The survey package was approved in late 2011 by OMB. Throughout early 2012 the GSMFC and the NMFS have worked with Knowledge Networks in order to develop a contract and begin the data collection process. The contract is still in the development process and it is anticipated that data collection will commence during the first half of 2012.

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 in 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 and early 2012 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. A fisheries economics workshop is planned for March 6th at the GSMFC's 62nd Annual meeting in Gulfport, MS.

Oil Disaster Recovery Program – R. Hode and A. Miller gave an update on ODRP.

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. Subawards or contracts are currently in place which address the following elements of the overall program:

Direct Marketing

• The Gulf and South Atlantic Fisheries Foundation continues to work through the Gulf Marketing Coalition and contractors to introduce the Gulf Brand logo at the Boston Seafood show in March as it hosts a breakfast for industry leaders across the country. As part of the Gulf Brand roll out a number of Gulf processors will also participate in a panel discussion to address questions regarding gulf products.

Additionally, the Coalition has begun the process of developing video material that will be used in TV and related commercials.

Web Based Marketing

• All five Gulf States now have the Market Maker web based advertising program in place. Visits to the sites indicate significant use of them by agricultural interests, but a growing number of seafood processors are participating. Most states now have a staff person dedicated either full time or part time to providing outreach to seafood interests as they begin to populate their individual web pages. Unfortunately, reports by Sea Grant indicate that the number of hits is low but they are optimistic that use of the sites by buyers and sellers will increase over time.

Louisiana's Delcom Direct program is continuing to move forward as initiatives are in place to implement port direct web sites at other coastal locations.

Culinary Events

• Two culinary events hosted by the Louisiana Oyster Council and supported by the ODRP have been conducted in Washington since the ODRP program began. This event uses local chefs to introduce media and restaurant leaders to Gulf oysters and has been held for years. Support of this event through the ODRP is programmed through 2013.

• Additionally, ODRP support for the Louisiana Seafood Show is scheduled to begin in2012 and will carry through 2013.

Sustainability and Traceability

• As the commission is aware, the Trace element of this initiative is moving forward rapidly. In addition to having the trace component proper nearly in place across the gulf, contracts have been amended to:

1. Provide up to 200 marketing modules tied to the trace effort order to allow additional Gulf Processors the opportunity to highlight their businesses and to "tell their stories." The original contract provided for only ten modules.

2. Provide an outreach component designed to promote participation in the trace program and to work as necessary with individual users to establish marketing modules and assist in the registering for the Trace component. This contract was further amended to include the development of video designed to introduce the overall concept of the Trace initiative.

3. A demonstration/pilot program aimed at expanded electronic tagging capabilities in the oyster industry to reduce costs and provide improved tracking capabilities as the industry moves forward in meeting recent FDA quality control requirements

Seafood Testing

• Only two of the five Gulf States chose to participate in this opportunity. The Mississippi State Chemical Lab has completed most of its equipment purchases and is positioned to provide testing as needed on a continuing basis. To date we have received no requests for reimbursement from the Alabama Department of Public Health.

A video from Gulf Trace promoting gulf seafood was shown to the Commissioners.

***Charles H. Lyles Award* Recipient Selection** –

C. Perret moved to nominate Vernon Minton, posthumously. **J. Gill** seconded the motion. The motion was approved and Vernon Minton will be the 2012 *Charles H. Lyles Award* recipient posthumously.

State Director's Reports

FLORIDA – D. Heil provided the following written report for the Florida Fish and Wildlife Conservation Commission.

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 an 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 incorporated 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 hardbottom 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-feet-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 24° 27.60' N latitude and 81° 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 km2 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 of 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, 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/o 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 2,641 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 microgrants and other fundraisers 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. Biol. 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 (*New*= 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 (*Neh*= 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 postretrofitting 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

Adam H. Putnam, Commissioner

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 5L-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 pubic 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.

ALABAMA – C. Blankenship provided the following written report for the Alabama Department of Conservation and Natural Resources/Marine Resources Division.

The ground breaking ceremony for a new laboratory and office facility located at Claude Peteet Mariculture Center (Gulf Shores) was conducted in December 2011. Once completed, the laboratory will encompass approximately 23,000 square feet and will house hatchery rearing tanks and equipment. Funding for construction activities are derived (in part) from the Coastal Impact Assistance Program (CIAP). Hatchery equipment for the lab is being acquired using Emergency Disaster Recovery Program (EDRP) funds.

Renovations of the Dauphin Island primary boat basin are nearing completion. Funding for construction activities are derived primarily from the CIAP.

MRD continues to improve and update the Division's website allowing for faster and easier access to MRD activities and regulations. Improvements are being made to the existing sections and a new Fisheries section to highlight the sampling and public relations efforts is being developed.

A publicity campaign to disseminate information regarding the Angler Registration Program and its requirements is underway. Exempted individuals such as lifetime license holders and residents over the age of 64 are required to register annually at no cost to them.

Fisheries Section

MRD has received a grant through the National Fish and Wildlife Foundation (a USFWS foundation) to quantify the bycatch and turtle interaction of skimmer trawls using turtle excluder devices. The grant will also allow for workshops to assist fishermen on the proper installation of the gear and the vetting of possible logistic issues. This project is anticipated to begin in early spring.

Construction of a 32.5 ft research/survey vessel has been completed; the vessel has been delivered to MRD. This vessel, paid with CIAP funds, will be used for a variety of projects including submerged habitat evaluation (side scan sonar work) and video sampling. Side scan surveying equipment to be used onboard this vessel has been acquired using EDRP funds.

The construction of an oyster management barge has been completed. The barge will allow for cultivating, planting, relaying and assessment of Alabama's oyster reefs. Barge is 45' in length and 14' wide to allow for shallow water operation and was purchased using EDRP funds.

MRD opened three public oyster reefs for harvest this past fall. Harvest was closely monitored through Alabama's recently implemented Oyster Management Program and oyster management stations. With the exception to short-term harvest permitted on a new reef created through two relay projects, these openings marked the first harvest from Alabama's public reefs since their closure in March 2009. Overall, just over 48,300 sacks were harvested from public reefs.

MRD observed an increase in documented reports of tiger prawn (*Penaeus monodon*) encounters in Alabama waters during 2011. Twenty-seven confirmed reports have been documented from October 2011 to present (total 39 confirmed reports since 2006 to present). Tiger prawn

specimens are being stored and processed for genetic investigation to determine linkages with tiger prawns encounters throughout the Gulf of Mexico and Atlantic.

MRD has received 6 reports from SCUBA divers of occurrences of lionfish (*Pterois volitans*) in Alabama's offshore reef zones between June 1, 2011 and October 31, 2011. Coordination is ongoing to develop a management plan to address the lionfish invasion.

SEAMAP fall ichthyoplankton and trawl cruises were completed without incident. Additionally the SEAMAP vertical line sampling program in Alabama's offshore artificial reef zones continues. The vertical line sampling program addresses reef fish abundances on various structured 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.

Otter trawl data from a temporary no-trawl zone in the northern portion of Mobile Bay was evaluated to determine if establishing the closure was beneficial to submerged aquatic vegetation, groundfish, shrimp, and crab production. Findings indicated community composition, recruitment, and seagrass production did not significantly increase after six years of excluding shrimping activities, however, certain portions of the closure consistently possessed sub-legal shrimp. A recommendation from MRD was made to the Conservation Advisory Board during the February meeting to reopen the closed area along the Eastern shore.

White shrimp harvest in Alabama waters during the fall was relatively low compared to historic catches. The cause of the reduction in harvest is unknown; however, bryozoans (*Zoobotryon sp.*) and moon jellies (*Aurelia aurita*) were exceptionally abundant during the fall, which may have hindered harvest effort.

MRD staff has participated in several outreach events. These events consisted primarily of presentations addressing conservation activities and issues.

Enforcement Section

From October 1, 2011 to February 1, 2012, MRD enforcement officers conducted 4,695 commercial fishermen intercepts, 6,749 recreational fishermen intercepts, 5,518 patrol hours, and 4,230 vessel boardings.

MRD has proposed several regulation changes to the Alabama Department of Conservation & Natural Resources' Conservation Advisor Board for consideration. These changes include the following:

1. Clarification of closure lines for closed areas in the gillnet regulation.
2. Addition of sheepshead to the Creel and Size limit regulation restricting harvest to 10 fish per person and setting a minimum size limit of 12" FL.
3. Addition of Sandbar shark as a prohibited species to the Creel and Size limit regulation.
4. Clarification of the requirements for vessel and crab float identification in the crab regulation.

5. Clarify and further define two live bait areas
6. Establishing a limit on the amount of shrimp caught by a castnet to 5 gallons per person, clarification of existing shrimp closure lines, and updating trawl requirements for live bait dealers to match the revised live bait law.
7. Removal of Saturday harvest of oysters and reducing sack limit to 6 per person / 12 per boat.

MRD Enforcement recently purchased thermal imaging devices to assist with investigations.

MRD Enforcement purchased several satellite phones for use in emergencies where communication is lost during offshore patrols.

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), has implemented 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 are testing polycyclic aromatic hydrocarbons (PAH) levels using the LC-Florescence method, dispersants and key heavy metals. The Direct Sampling Effort Project, operated by MRD and ADPH, is testing seafoods collected directly from Alabama waters or reef zones. The Dealer/Processor Sampling Project, operated by ADAI, is testing seafoods obtained from processors and dealers regardless of harvest location. The results of this program will be distributed to the public. MRD has submitted 170 composite samples for testing.

Alabama has established a seafood promotional campaign under the direction of the Alabama Seafood Marketing Commission and managed by the Marine Resources Division.

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

MISSISSIPPI – D. Diaz presented the following written report for the Mississippi Department of Marine Resources.

Marine Patrol

The Office of Marine Patrol, Marine Law Enforcement JEA activities for this time period consisted of 3,478 man hours with 1,216 contacts which resulted in 53 citations issued

Shrimp and Crab Bureau

Mississippi Territorial Waters North of the Intracoastal Waterway closed to shrimping at 12:00 a.m. on January 1, 2012. Shrimping will remain open south of the ICW until April 30, 2012. These seasonal area closures occur annually to protect the coming season's shrimp crop. Since late July, there have been a total of 13 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.

In 2010 and 2011 a large number of sea turtle strandings occurred in the Northern Gulf of Mexico and many of these turtles were found in Mississippi territorial waters. The Shrimp and Crab Bureau continues on-going proactive measures to decrease fishery and sea turtle interaction including the January 2012 distribution of NOAA turtle excluder device (TED) instructional videos to all licensed resident commercial shrimp fishermen. This video, which MDMR had translated into Vietnamese, shows the proper installation and use of TED's in the Northern Gulf of Mexico shrimp fishery. Mississippi shrimp fishermen have also recently received angle meters as part of the shrimp and crab bureaus many efforts to address sea turtle strandings with fishermen in Mississippi waters. These angle meters help to insure compliance with NOAA regulations.

The MDMR and partners held a "Spotted Seatrout in Mississippi" Seminar on November 17, 2011. This seminar is the seventh part of an ongoing series aimed at enhancing familiarity between interested groups and increasing awareness of the programs, needs and opportunities that are relevant to marine research in Mississippi waters. Prior seminars in the series include: "Oyster Resource Management and Associated Environmental Monitoring", "Hypoxia", "Harmful Algal Blooms", "MS Coastal Invasive Species", "Mississippi Artificial Reefs" and "Mississippi Living Shorelines".

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 consumption. To date, none of the 466 samples has been found to contain PAH concentrations above the FDA levels of concern.

The Bonnet Carre' Spillway was opened from May 9, 2011 to June 20, 2011. In the western Sound, salinities were reduced to as low as 1ppt. Based on 2001-2009 averages, Mississippi crab landings were down 35% for May 2011 (44% loss in value), 68% for June 2011 (71% loss in value), 59% for July 2011 (61% loss in value), 45% for August 2011 (51% loss in value), 74% for September 2011 (75% loss in value), 58% for October 2011 (55% loss in value), and 45% for November 2011 (41% loss in value). MDMR has submitted a request to NOAA to declare the level of injury to the fishery, and congress must approve any recovery funding. MDMR is investigating evidence of a possible inshore shrimp fishery injury as well and based on results may submit a request to NOAA.

A crab and shrimp trip ticket program was implemented at the request of the Commission on Marine Resources. The program requires all sales made by a fishermen to the public or restaurants (not to included sales to seafood dealers) to be documented on a trip ticket. This information will give fisheries managers valuable data on the amount of seafood landed in Mississippi, which was not previously being captured, as well as assist fishermen in documenting their livelihood. All commercial crab and shrimp license holders were sent a mail

out to inform them of the change for 2012. Currently MDMR staff is available to issue trip tickets and explain the process one on one with the individual fishermen.

Artificial Reef Bureau

The Artificial Reef Program worked on three projects during this time period. Artificial reef personnel deployed material offshore, the Katrina Key was extended and constructed juvenile reef fish habitat. These three offshore reef deployments were: NASA BRT (Big Round Tank), LOX (Liquid Oxygen) tank, and the Beer Can on FH-13 south of Horn Island.

Katrina Key had another 60 foot section completed on the west end. The concrete material used for this new section came from the demolition of breakwater from the Biloxi Small Craft Commercial Harbor. There were 30 juvenile reef fish habitats constructed at this time. These cage like structures are made of 3/8 inch round bar. Most will have spaces at 3 inches 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.

FINFISH BUREAU

The Marine Recreational Information Program (MRIP) collected 407 interviews between November 1, 2012 to February 20, 2012, surpassing quota in shore mode for both Wave 6 in 2011 and Wave 1 in 2012. The quota for private boat mode was also met in Wave 6, 2011 and we are only one interview away from quota in Wave 1, 2011 with nine days left in the wave. Only 12 party/charter interviews were collected in Wave 6 2011, and only two have been collected so far for Wave 1, 2012. Traditionally the Mississippi charter industry slows down in the winter months, but it seems to have been slower this winter than in the past.

Five new recreational fishing records were accepted for conventional tackle and two new records were accepted for fly fishing tackle from November 1, 2011 to February 20, 2012

Conventional Tackle:
- Vermillion Snapper (*Rhomboplites aurorubens*) 5 lbs. 1 oz.
- Atlantic Cutlassfish (*Trichiurus lepturus*) 2 lbs. 9.44 oz.
- Blackfin Tuna (*Thunnus atlanticus*) 33 lbs. 0.8 oz.
- Bigeye Tuna (*Thunnus obesus*) 203 lbs. 14 oz.
- Shortfin Mako (*Isurus oxyrinchus*) 550 lbs. 0 oz.

Fly Fishing Tackle:
- Lemon Shark (*Negaprion brevirostris*) 11 lbs. 15 oz.
- Black Drum (*Pogonias cromis*) 58 lbs. 0 oz.

SHELLFISH BUREAU

The Shellfish Bureau staff continued its oyster reef monitoring efforts by conducting one-minute dredge tows. Weekly water samples and bi-weekly phytoplankton samples were collected in compliance with the National Shellfish Sanitation Program.

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 R/V Reef keeper and R/V Stewardship are continuing the NRDA sampling protocols as well as I.J. sampling and the 60-site intensive reef analysis. The mission of these trips are to determine the condition and present status of the oyster reefs. Staff has also collected oyster tissue samples for the seafood safety program with MDEQ.

LOUISIANA – J. 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: No additional re-openings or changes to waters closed to recreational and commercial fishing have taken place since 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).

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 BP. 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 for human consumption. 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. Analysis consists of measurement of a number of different polycyclic aromatic hydrocarbons, as well as the major component of oil dispersants. 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) has been created where the public can access information on the results of those samples.

Crab	Atchafalaya Vermillion 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	1
Sep 2011	1	1	1	1	1
Oct 2011	1	1		1	1
Nov 2011	1	1		1	
Dec 2011	1	1		1	1
totals	**10**	**10**	**3**	**9**	**9**

Shrimp	Atchafalaya Vermillion 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	19
Sep 2011	1	1		1	1	5
Oct 2011	1	1		1	1	29
Nov 2011	1	1	1	1	1	11
Dec 2011	1	1	1	1	1	10
totals	**11**	**10**	**5**	**10**	**10**	**141**

Fish	Atchafalaya Vermillion 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
Sep 2011	6	7	5	7	7	38
Oct 2011	7	7	3	7	7	18
Nov 2011	6	7	6	7	7	7
Dec 2011	7	7	3	6	6	4
totals	**66**	**70**	**46**	**65**	**60**	**225**

Habitat issues: LDWF representatives have been working closely with other state and federal trustees on cooperative assessment plans for the Natural Resources Damage Assessment (NRDA) for the BP Deepwater Horizon spill. Staff are assisting with the development and implementation of study plans for assessing damages to natural resources including: fishery resources, marine mammals and turtles, oysters, SAV, benthic habitats, shoreline (including marsh and mangrove vegetation) and marsh edge/sandy shore habitats.

Marine Mammal and Turtle Issues: The Louisiana Department of Wildlife and Fisheries continues to receive and investigate all strandings of marine mammals and sea turtles. These reports are received from members of the public, local government officials, and Natural Resource Advisors still working out on barrier islands and beaches. 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. These critical investigations are related to the Deepwater Horizon Oil Spill and are informing the Natural Resource Damage Assessment; in addition, the marine mammals are under a formally declared Unusual Mortality Event (UME).

Response for marine mammals and sea turtles for the Deepwater Horizon Oil Spill was initiated the first week of May 2010. Since that time, LDWF and other entities have investigated over 579

total marine mammal and sea turtles throughout the entire coast of LA including offshore. Of these animals, the following are included:

-252 marine mammals (including dead and live animals)
-327 sea turtles (including dead and live animals)

The Louisiana Department of Wildlife and Fisheries is the lead stranding response organization in the state of Louisiana and continues to collect and sample these animals, utilizing proper protocols such as chain of custody.

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 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. Since October, data management has completed approximately 487 data requests, bringing the total to 4,456 total requests.

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. At this time, we are reviewing our sampling efficiency for the inshore sampling portion of the program. Using a year's worth of data that encompassed newly selected stations and historic fixed stations, we are conducting power analyses to determine an appropriate number of stations that can be sampled to achieve a targeted level of accuracy and precision in species CPUE and community composition. It was decided that a completely randomized design for selecting sample stations would be more appropriate for this monitoring program, as opposed to a stratified design. The nearshore sampling program is underway, however, we will be analyzing these data in March, after a year of sampling has been completed, and the entire coastline has been covered.

Hurricane 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 completed and met all the requirements of the full MSC assessment of Louisiana's blue crab fishery. The final full assessment has gone through public comment and peer review and LDWF hopes to announce this February that Louisiana's blue crab fishery is the first MSC certified blue crab fishery in the world.

LDWF continues to work with Louisiana Sea Grant to develop a professionalism program for Louisiana's commercial fishing industry. LDWF recently hired one full time position completely dedicated to this task. We are developing "test" classes that will be presented to certain portions of the industry and in certain areas of the State. The "test" classes" purpose is to collect feedback from the industry on the relevancy and effectiveness of our approach which can be used to develop a more effective full program.

The Louisiana Wild Seafood Certification Program (LWSCP) is in the final stages of development with a Notice of Intent containing program rules being submitted for publication in the February edition of the Louisiana Register. In the meantime LDWF continues to develop material associated with the program and has executed administrative and database / audit tracking contracts to develop the process and tracking required in administering such a program. LDWF also plans on holding public outreach / training meetings across the state beginning in March. The final rule should be ratified in June at which time the program will be launched. LDWF is also working through the Louisiana Seafood Promotion and Marketing Board with the Food Group, Inc. to develop marketing materials to advertise the program. Discussions about the premium program are ongoing and LDWF has meetings set up with the industry starting February 15th.

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. Currently CASM modeling is being used to study the changes a proposed diversion at Myrtle Grove would bring to the Barataria basin.

LA recently released the draft Comprehensive Master Plan for a Sustainable Coast. LDWF fisheries staff participated in initial meetings regarding the wildlife and fish inputs to Habitat Suitability modeling for the effort, and served on the Framework Development Team that helped to oversee and inform this effort. In addition, members of Fisheries habitat staff helped to form and serve on the Fishery focus group that provide fishing stake holder input to the Master Plan. 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 November 2011, staff have reviewed and commented on 189 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).

The spotted seatrout is one of the most popular sport fisheries in Louisiana. A stock assessment of this fishery has been completed (still in „draft" state though). In this assessment, a statistical catch-at-age model (ASAP2) is used to estimate status of the stock. Previous assessments employed "unturned" virtual population analysis.

An oyster stock assessment model for the Calcasieu Lake oyster fishery has been developed (still in „test phase" though). Through this process, important life history parameters specific to GOM populations have been identified (growth, longevity, sex ratio, fecundity) where additional research is needed.

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, rive 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 agestructured 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. But, freshwater otoliths are obtained through independent sampling, done by our field biologists. That requires the field Inland biologist to go out and target a particular species. Therefore, our lab usually receives otoliths (and spines) throughout the month.

So far in the calendar year of 2011 the Fish Assessment lab in Baton Rouge has received 9,700 otoliths and 30 Gray Triggerfish spines. Out of the 9,730 structures received 6,184 have been aged. Within that total 2,827 of those otoliths were fresh water. We have received otoliths/spines for each species, during last year. However, Largemouth Bass are our most collected species, for the year. The totals for each species are: Black Crappie-531; Black Drum-1,021; Gray Snapper-381; Greater Amberjack-98; Gray Triggerfish-30; King Mackerel-204; Large Mouth Bass-1,845 Red Drum-1,605; Red Snapper-571; Sheepshead-698; Southern Flounder-518; Striped Mullet-215; Spotted Seatrout-1,544; Vermilion Snapper-18; White Crappie-451.

These numbers are preliminary because otoliths for each species are still being collected from the last month of the year. In 2011 we received a large amount of all three of the freshwater species that were collected earlier, in the spring. It is a very good possibility that we will receive a lot more of these freshwater otoliths, because they are independently sampled and are usually delivered to our lab in large batches.

Fisheries Research Lab

Personnel from the Fisheries Research Laboratory in Grand Isle are currently involved in a variety of projects in support of their mission to conduct resource monitoring and research. Additionally, personnel from the lab continue to conduct oil monitoring and tracking along with dolphin/turtle associated monitoring. The following sections include short descriptions of current research and monitoring activities.

- The SEAMAP cruise is designed to collect fisheries-independent data on shrimp, plankton, and groundfish associated with abundance and distribution west of the Mississippi River. Surveys are made in summer and fall at approximately 22 randomly assigned sample locations. Additionally, plankton samples are collected at seven set locations off the Louisiana coast and

environmental parameters are recorded for each sample site. Shrimp and groundfish samples are taken using a 42-ft trawl in water depths up to twenty fathoms, while plankton samples are acquired by 60 cm bongo and neuston nets. Environmental data and water samples are collected via CTD rosette. The fall SEAMAP cruise was conducted during this report period with 24 groundfish stations and 7 plankton stations completed
(Figure 1).

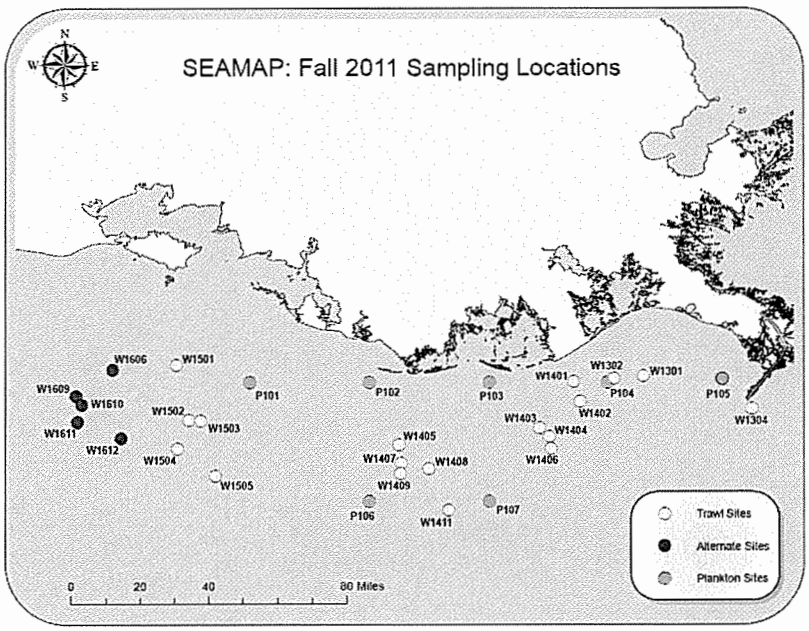


Figure 1. SEAMAP fall sampling locations

- The Near Shore groundfish and shrimp cruises are conducted to provide fisheries independent monitoring and assessment information essential to the management of Louisiana's Gulf of Mexico fisheries resources in light of the oil spill. LDWF personnel are conducting trawl surveys to collect information on shrimp and groundfish abundance and distribution with a standard SEAMAP 42-ft semi-balloon trawl. Samples are collected within random zones (Eastern, Central, and Western) and along four random sampling corridors within the selected zone. Samples are collected at each of eight depth strata along a transect line beginning at five fathoms and continuing up to forty fathoms water depth, with collections every five 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. Since the fall TCC report, six monthly sampling cruises have been conducted. In addition to the standard samples obtained, sub-samples of penaid shrimps (i.e. pink, white, and brown) are submitted for the Louisiana Seafood Safety Plan. Also, sub-samples of penaid shrimps are sent for testing at the LSU Food Science Center for the Shrimp Certification Seafood Project.

- The Rigs/Reef Biodiversity and Relative Abundance project will develop and test methods to evaluate species distributions, diversity, and relative abundance of the 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 man-made structures. Three pairs of upright oil platforms and nearby artificial reefs will be sampled quarterly using subsea video coupled with metering lasers. SCUBA divers will also conduct roving fish and invertebrate identification to document the presence or absence of species. Camera drops and visual validation cruises are ongoing.

- As part of SEAMAP resource monitoring, our Vertical Line project is collecting information on the spatial and temporal distribution of commercially and recreationally important reef species off the Louisiana coast. Lab personnel are obtaining fisheries-independent data characterizing population dynamics of fish assemblages on structured bottom habitat in offshore waters along the Louisiana coast. Sampling site selection is randomized. Scheduled sampling is conducted monthly utilizing standard commercial methods in compliance with protocols established by the SEAMAP subcommittee. During this reporting period, 77 sites have been sampled over three cruises. All fish were weighed and measured with otoliths and gonads also extracted for further analysis in the laboratory.

- The Vertical Line project incorporates a Hook Selectivity study. Lab personnel are collecting 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 is randomized and sampling is scheduled monthly, utilizing standard commercial harvest methods (i.e. bandit rigs).

- Bottom Longlining is associated with the SEAMAP monitoring project. It is conducted to provide fishery-independent monitoring and assessment information essential to management of Louisiana Gulf of Mexico fishery resources, mainly targeting coastal pelagic species. The main objective is a research focus 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. A variety of reef fish and pelagic species have been captured to date. Three sampling cruises have been conducted since October 2011 and are scheduled for eight consecutive months annually.

- 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 will be used to contribute to the calculation of fecundity at age and total fecundity, identification of genetic markers, escapement, and determination of nursery ground site fidelity / identification of discrete stocks. Through the sampling period, 58 trips yielded 829 samples for further analysis.

- The lab recently installed a complete histology section. Staff has been trained in the preparation and analysis of fish gonad slides. They have processed tissues and prepared slides of red drum gonads collected during the last spawning season in Louisiana's territorial waters and adjacent Exclusive Economic Zone (EEZ). In addition, staff has prepared slides of gonads

collected from the 2011 SEAMAP Vertical Line project's red snapper. Analysis of slides relating to fecundity studies is ongoing.

- Lab staff is engaged in a Tarpon DNA Tagging project. The objective is to calculate the geographic range of the Atlantic Tarpon using DNA fingerprinting techniques. This project will yield valuable information relating to the recapture rates and migratory paths. This project will also provide fishery managers with necessary information needed to make decisions regarding management of this species. Tarpon season was winding down by October, with 112 Tarpon DNA kits given out and 75 samples sent to Florida for further analysis.

- Working jointly with the Oyster section and Bivalve Hatchery, staff has been working on an Oyster Seed Project. The goal of this project is to supplement the amount of live oyster seed at various estuarine locations throughout coastal Louisiana. Project objectives are to test the success of oyster settlement on alternative cultch materials, determine the feasibility of producing oyster spat at LDWF Fisheries Laboratory, develop and test appropriate techniques for deploying oyster spat and larvae, and to test the survival of hatchery-reared oyster spat at deployment locations. Experimental testing for oyster settlement on alternative cultch materials has already been completed. Spat reared at the Grand Isle Oyster and LSU Bivalve Hatchery has been dispersed and is being monitored for survivorship.

- Working in conjunction with the National Marine Fisheries Service Office of Highly Migratory Species, lab staff is characterizing the catch and bycatch of green-stick fishing gear when used to target Atlantic tunas in the northern Gulf of Mexico. Data collection focuses on reporting the features which contribute to the gear's success at catching target tuna species, incidentally caught species, and bycatch. Catch condition, release condition, and post release survival data are also collected to help evaluate the gear's ability to target commercial species and provide lower incidental bycatch mortality. Economic variables are also collected in order to evaluate the economic feasibility of using this gear type in the region. Short-duration pop-up satellite archival tags will also be used to assess post-release survival of particular bycatch species (including billfishes and bluefin tuna).

• Construction of the labs Research Tank Systems is nearing completion. Four separate systems will be in place to give flexibility for various research/hatching/larval rearing projects. Open flow systems will consist of a series of eight 10"X2"open raceways. Closed/recirculation systems will consist of four, 10.5"X4" tank systems, a series of eight, 4.5"X4" round tanks, and six, 25 gallon cone tank systems. These closed recirculating systems will each be run though separate sump tanks, polygeyser bead filters, UV sterilizers, and heating/cooling units. Closed system equipment will provide stable and adjustable water quality values, allowing for fish breeding, holding, grow out, and research projects where
such controls are required.

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. Since October, the development of the relational data base structures has been completed. Data security and access routines are being refined. The final phase of moving trip tickets, age & growth and MRIP into the new system has begun.

Artificial Reef Program

The Artificial Reef Program continues to assess and permit reef deployments related to offshore oil and gas structures. The Program accepted 28 new structures in 2011. Eight new structures have been recently added to the queue of 52 structures permitted for deployment as permanent artificial reefs. Permitting of an additional 15 structures is currently underway.

In addition to the offshore reefs, the Program is developing several inshore artificial reefs to facilitate access and create additional fishing opportunities. The creation of the second inshore artificial reef from the demolition of the hurricane damaged I-10 bridges is under construction. The 4 acre reef will be developed with 10-12,000 tons of bridge rubble. The Program in collaboration with the Coastal Conservation Association of Louisiana is also seeking permits for the development of two inshore artificial reefs, one in Lake Calcasieu and the other in Breton Sound.

Shrimp Fishery

The fall inshore shrimp season opened coastwide on August 22 and closed on December 20 except for that portion of Shrimp Management Zone 1 north of the southern shore of the Mississippi River Gulf Outlet (MRGO) including the Gulf Intracoastal Waterway (ICWW) north of the Parish Road Bridge, and the open waters of Breton and Chandeleur Sounds as described by the double rig line in R.S. 56:495.1(A)2. In conjunction with this closure, a portion of state outside waters seaward of the inside/outside shrimp line from the U.S. Coast Guard navigational light off the northwest shore of Caillou Boca at 29 degrees 03 minutes 10 seconds north latitude and 90 degrees 50 minutes 27 seconds west longitude westward to the western shore of Freshwater Bayou Canal at 92 degrees 18 minutes 33 seconds west longitude were also closed to shrimping on December 20, 2011.

Statewide shrimp landings (all species combined) for January-July, 2011 totaled 54.4 million pounds, the second lowest total reported among years, excluding 2010 which was impacted by extensive fishery closures associated with the Deepwater Horizon oil spill disaster. In comparison with the average, 2011 landings were 8% below the twelve-year January-July average. Largest declines occurred in May and June, historically, the two highest landings months of the year.

Shrimp landings from federal offshore waters for January-July, 2011 (NOAA statistical grids 13-17) contributed 12.5 million pounds to statewide shrimp landings and accounted for approximately 23% of the total. Landings from federal waters were significantly below levels reported in earlier years. In comparison with the January-July average, shrimp landings in 2011 were lower than in any of the years, excluding 2010 and measured 42% below the 2000-2009

average. Landings from grid 13 in 2011 exhibited the largest deviation from the 2000-2009 average among grids, declining over 5 million pounds from the 6.1 million pound average.

2011 Louisiana shrimp landings from January-July are reported as the lowest total among the twelve-year period examined. The most significant decreases in 2011 Louisiana shrimp landings from January-July occurred in federal offshore waters. Landings from federal waters accounted for 23% of 2011 shrimp landings but measured more than 40% below the January-July average. In comparison with earlier years, shrimp landings from the state's major estuarine basins showed broad variation in 2011.

The LDWF has continued to receive reports of Asian tiger prawns (*Penaeus monodon*) in commercial shrimp catches which now number in excess of 50 reports since the August 22, 2011 fall inshore shrimp season opening, One shrimp dock owner located in Dulac has claimed to have received over 100 reports from his fishermen alone. All specimens have been large ranging in size from 3-20 count per pound. All reports continue to be forwarded to the USGS for inclusion in their database and LDWF is continuing to encourage fishermen to report captures.

Below are preliminary shrimp landings data for January through November, 2011 (all species combined / heads-off weight). Landings through November of this year total approximately 47 million pounds and are below levels reported for the same periods in 2007, 2009 and 2010.

Louisiana Shrimp Landings, (all species, headless, thousands of pounds):

	2007	**2008**	**2009**	**2010**	**2011**
Jan	1,711	2,389	1,818	1.170	1,395
Feb	974	745	1,072	617	460
Mar	368	247	685	349	354
Apr	508	510	1,109	356	1,247
May	10,684	8,614	12,701	4,136	10,630
Jun	14,835	9,930	10,903	4,966	12,431
Jul	5,185	3,833	4,338	1,326	4,067
Aug	4,962	3,211	5,257	3,598	3,736
Sep	5,730	2,457	5,746	4,939	3,493
Oct	8,325	7,501	7,337	6,181	5,346
Nov	5,515	6,154	4,542	6,071	3,807
Total	**58,797**	**45,591**	**55,508**	**33,709**	**46,966**

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 four occasions; April 21, May 10, August 18, 2011 and most recently on November 29. 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 September measure approximately 31.1 million pounds and are approximately 23% above levels reported for the same time last year and about 11% above 2008 levels but considerably below those reported in 2009 (+24%).

Louisiana monthly blue crab landings:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
2011	1.968	1.843	1.828	2.908	3.483	5.179	5.632	5.182	3.122	**31.147**
2010	1.93	1.333	1.778	2.396	3.609	3.567	3.082	3.225	3.033	**23.956**
2009	3.504	2.555	2.135	3.47	5.658	7.146	5.728	6.223	4.289	**40.708**
2008	1.739	1.868	1.350	2.709	3.672	4.882	4.476	4.388	2.531	**27.615**
2007	2.456	2.521	1.797	2.477	4.078	5.687	6.389	5.889	3.628	**34.922**

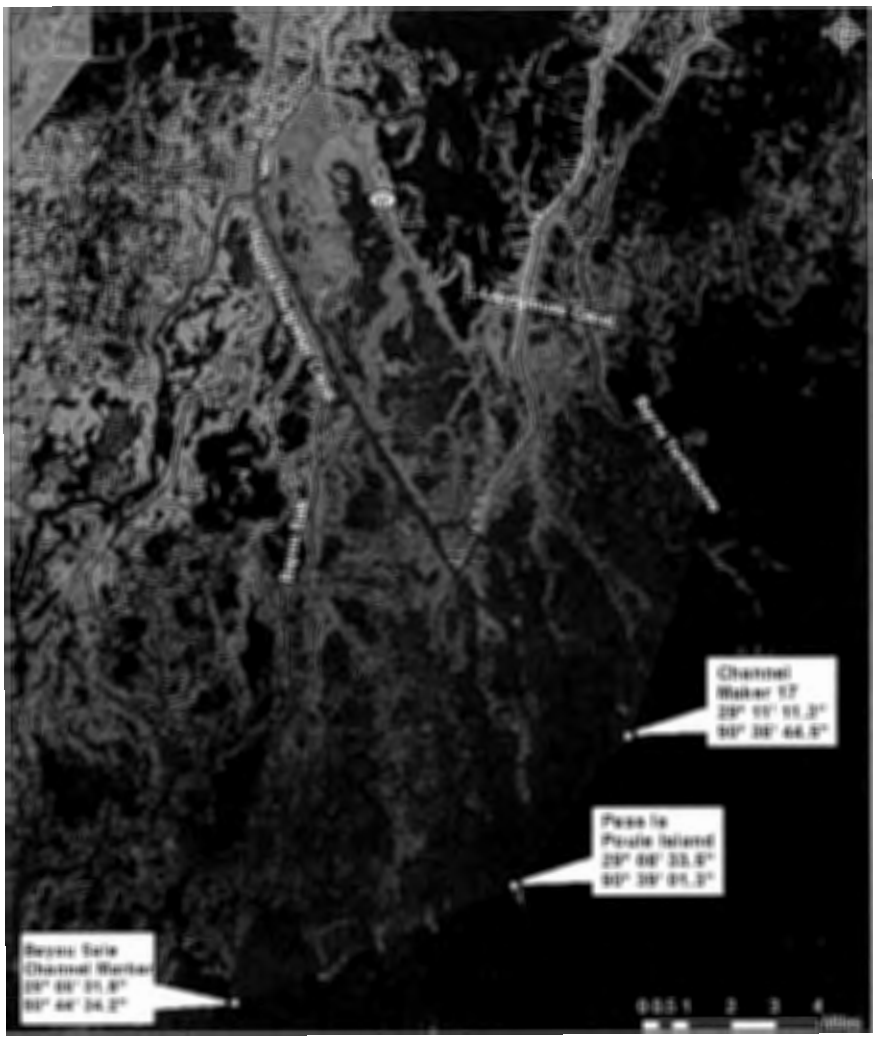
Source: LDWF trip ticket data

In September, 2011, the Wildlife and Fisheries Commission adopted a notice of intent (ratified in January, 2012) 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. All crab traps must be removed from the closure area during the closure period and any remaining crab traps within the closure area during the closure period will be considered abandoned and subject to removal. However, crab fishermen will be allowed to remove their traps from the water and stack them on the bank within the closure areas, provided they have permission from the landowner. During the crab trap closures, traps may be removed only between one-half hour before sunrise to one-half hour after sunset. Anyone may remove these abandoned crab traps from within the closed area. Abandoned traps must be brought to LDWF designated disposal sites and may not be taken from the closed area.

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 and planning activities remain ongoing.

Maps of the areas to be temporarily closed to the use of crab traps are below:

St. Bernard/Plaquemines
Crab Trap Closure
(February 25, 2012 6:00 am
March 5, 2012 6:00 am)



Terrebonne Crab Trap Closure

(March 17, 2012 6:00 am
March 26, 2012 6:00 am)

Oysters

The 2011/2012 oyster season for the majority of the public oyster areas opened on October 31 and the west cove portion of the Calcasieu Lake Public Oyster Area opened on November 1. Despite a low overall oyster stock size on public grounds in Louisiana and numerous recent closures, commercial harvest has been relatively strong thus far during the season. As of January 22, 2012, it is estimated that nearly 225,000 sacks of oysters had been harvested along with over 55,000 barrels of seed (1 barrel = 2 sacks).

Biological sampling of oysters continues with positive results occurring in many of the public oyster areas of Louisiana. Healthy spat sets (the recruitment of baby oysters into the population) were noted in samples from Hackberry Bay, Lake Chien, Sister Lake, Calcasieu Lake, and Sabine Lake. However, there has been a virtual lack of spat in dredge sampling on public grounds east of the Mississippi River. For example, 33 dredge samples in November 2011 yielded only 10 total spat with an overall live oyster average length of 3.7 inches. This large

average size indicates very few small oysters in the population and apparent reproductive failures in the recent past. This could lead to much reduced oyster stocks in the coming years. In an attempt to reverse the bleak outlook of the public grounds east of the Mississippi River, LDWF constructed two oyster rehabilitation projects (cultch plants) during the fall of 2011. Approximately 24,000 cubic yards of crushed concrete was spread over 293 acres in Mississippi Sound just south of Halfmoon Island in St. Bernard Parish. An additional 28,000 cubic yards was spread over 297 acres in California Bay. Both cultch plants were constructed during environmental conditions conducive for oyster spatfall; however, biological sampling in December 2011 did not indicate the presence of a successful spat set. It is hoped that a spat set on these areas will occur in the spring of 2012.

Finfish

Louisiana closed the 2011-2012 commercial king mackerel season consistent with Federal regulations on September 16, 2011.

Louisiana closed the 2011 commercial greater amberjack season consistent with Federal regulations on October 19, 2011.

The LWFC adopted a Notice of Intent (ratified in December 2011) to modify the regulations for the commercial harvest of mullet per Act 65 of the 2011 regular session of the Louisiana Legislature. Act 65 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 adopted a Notice of Intent (ratified in December 2011) to modify the regulations for the recreational harvest of bluefin tuna. The changes in recreational harvest regulations for bluefin tuna establish consistency with current Federal regulations regarding size and possession limits.

Louisiana extended a closure of the recreational gag grouper fishery consistent with Federal regulations. This closure expires June 2, 2012. NOAA Fisheries service, after a short 2011 recreational season from September 16 through November 15, 2011, extended a temporary rule closing Federal waters to the recreational harvest of gag grouper until June 2, 2012 pending the implementation of permanent rules.

Louisiana set the 2012 recreational red snapper season with creel and size limits consistent with Federal regulations. The recreational red snapper season is scheduled to open June 1, 2012.

Louisiana set the 2012 commercial greater amberjack season consistent with Federal regulations.

Louisiana set the 2012 recreational greater amberjack season with creel and size limits consistent with Federal regulations, including a June 1 through July 31 closure. Louisiana set the commercial king mackerel season for 2012-2013 consistent with Federal regulations. The commercial king mackerel season is scheduled to open July 1, 2012.

The commercial season for Large Coastal Sharks in Louisiana opened on February 15, 2012, consistent with federal regulations. All Louisiana state waters are closed to the recreational and commercial harvest of all sharks between April 1 and June 30 of each year.

The LWFC issued a Notice of Intent, on December 5, 2011, to establish a no cost permit for recreational anglers who fish for Highly Migratory Species in the following species groups: tunas, billfish, and swordfish. Any person possessing Highly Migratory Species, as listed above, on board a vessel would be required to have the permit in their immediate possession. The no cost permit will be valid for one year and will need to be renewed annually. Public comments on the Notice of Intent were accepted until Thursday February 2, 2012. Public meetings regarding this permit will be held in March.

The LWFC issued a Notice of Intent, on December 5, 2012, to modify existing tuna harvest regulations. The proposed modifications incorporate changes relative to a proposed requirement for a state issued recreational offshore landing permit when possessing, in immediate possession or on board a vessel, any of the following species: Atlantic bluefin tuna, yellowfin tuna, bigeye tuna, skipjack tuna and albacore. Other modifications in the Notice of Intent include reporting requirements and validation procedures for recreationally harvested yellowfin tuna. Proposed changes in the regulations would require that a written harvest report be maintained on a vessel recreationally possessing yellowfin tuna as well as require the validation of yellowfin tuna caught or possessed prior to offloading. Public comments on the Notice of Intent were accepted until Thursday February 2, 2012. Public meetings regarding these reporting requirements will be held in March.

An annual Assessment of Striped Mullet in Louisiana Waters was completed and presented to the LWFC on February 2, 2012 prior to transmittal to the Louisiana Legislature. Based upon this assessment of striped mullet, for all natural mortality rates examined, if fishing mortality rates continue at current levels, then striped mullet are not being harvested at a rate that would drive the stock below the target SPR of 30% established by the Louisiana Legislature.

TEXAS – M. Ray presented the following written report on behalf of the Texas Parks and Wildlife Department (TPWD).

REGULATORY ISSUES

Clarify proclamation regarding take during a freeze events by changing the rule from "No person shall fish with a hook and line, pole and line, or throwline in an affected area during a freeze…" to read: No person shall take or attempt to take any aquatic life by any means in an affected area during a freeze…

Coastal Fisheries proposed the migration existing rules regarding alternate license system and license log because two fishing regulations overlooked in restructuring process have the potential to affect the red drum tag.

Coastal Fisheries explored the protection of seagrass in the JFK causeway area using a regulation similar to the one that created the state scientific area in Red Fish Bay, but decided to proceed

with a voluntary education and outreach campaign to achieve the protection of seagrass in that area and other areas along the coast.

Menhaden Total Allowable Catch
During the 2011, Gulf purse-seine menhaden fishery estimated, using Captain Daily Fishing Reports (CDFR's), catching 34,344,200 pounds of gulf menhaden in Texas waters. This represented 99.1% of this year's 34,650,000 pound Texas Total Allowable Catch, which included the '+10% rule' above the base 31,500,000 pound limit. After the season, Joseph Smith, NOAA Beaufort Lab, adjusted the reported landings using CDFRs and catch records of actual fish unloaded from the vessels to estimate 33,630,000 pounds of menhaden were caught in Texas waters and offloaded in Louisiana. This total is about 97% of the adjusted Texas TAC established for the 2011 fishing season. The Texas TAC for the 2012 fishing season will set at the normal base of 31,500,000 pounds.

COASTAL FISHERIES PROGRAMS & PROJECTS

Fish stocking efforts
Coastwide 2011 production totals
Red drum total: 15,866,993
Spotted seatrout total: 7,881,670
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. Additional samples were collected from San Antonio Bay and Matagorda Bay systems.

Gray Snapper samples continue to be processed for a life history study.

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

The GSFC funded FIN-Biological Sampling project for otolith collection and processing for various marine species was continued, all 2011 samples and data were successfully processed and entered in the FIN database.

A report on temperature tolerance studies of juvenile spotted seatrout was drafted. Experimental apparatus was designed and tests were planned for temperature tolerance studies of two size classes of juvenile southern flounder at two salinity levels.

Genetics Research at Perry R Bass Marine Fisheries Research Station
Sample collection and processing for alligator gar genetic variation studies continue.

Sample collection and processing for southern flounder genetic variation studies was completed and a report was drafted.

A project to track oyster disease severity using QPCR and partially funded by the Texas Water

Development Board was completed and a draft report on the genetic component of the report was written.

Artificial Reef Project

The Program responded to comments on Louisiana State Senator Vitter's Rigs-to-Reefs bill (S. 1555) and companion bill H.R. 3429 being reviewed by U.S. Representative Blake Farenthold's (Texas District 27) staff. Both bills are being studied and moving through Washington at this time. These bills could have some important impacts on artificial reefing in Texas. Many Texas groups where originally in support of the proposal but some, like Saltwater-fisheries Enhancement Association, are backing off as more details are released. These bills are designed to save rigs as habitat, which is a good thing, but the language and lack of details raise many questions for implementation which has caused much concern among many groups, the petroleum industry, and other state reefing programs. The bills basically state that a platform must remain standing until a federal agency clears if for removal (concerns over endangered/protected species such as corals). At the same time, companies would pay the federal government the funds needed for reefing it. If it is to be reefed later and states want the platform in its reef program, they would have to apply to the federal government for the funds. Questions remain as to who does the work and maintains the liability while the structure is still standing.

RIGS-TO-REEFS: During October 2011 – February 2012, 3 petroleum platforms were reefed, generating $515,000 in donations. Another 9 new projects began and are in various stages of completion.

The Reef Program has been working with USFWS since October 2010 for approval to use SWG (T-61) funds to place predesigned reefs at Corpus Christi nearshore reef (MU-775). The entire reefing contract will be $500,000 or more and the grant will cover $300,000. This event will allow us to place the first material at the newly permitted 160 acre reef. The USFWS contact has asked for outside consultation from NOAA on the impacts of artificial reef materials accumulating fishing gear (broken off monofilament) and the perceived mortality on sea turtles from this line (entanglement). The NOAA contact was also critical of how the USACOE issued our reef permit and stated the Endangered Species Division is different from the EFH Division. NOAA is stating we need a Section 7 review of this reef site and the entire reefing program if federal funds are used. TPWD is now gathering information from all other Gulf States to see if there is any evidence that backs up this turtle entanglement claim. At this writing, the Reef Program Leader has talked with all Gulf States and NO entanglements have been documented or heard of from discarded fishing line. This information will be forwarded to Robin Riechers, Division Director, for follow-up discussions with NOAA.

The Artificial Reef Program continues to work with the Port Aransas Boatmen's Association, Saltwater-Fisheries Enhancement Association (SEA), Coastal Conservation Association (CCA), and the Texas Shrimp Association to plan for "Planning Zones" off Corpus for future Rigs-to-Reefs sites. The planning zones are required by the Bureau of Safety and Environmental Enforcement (BSEE) 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. 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 BSEE. TPWD submitted their plan in February 2012. Follow-up discussions with BSEE are planned.

TPWD Artificial Reef Program will have an exhibit again this year at the March 2012 4th Annual Decommissioning Conference in Houston. The conference brings together hundreds of companies and individuals who are involved in petroleum platform decommissioning work and it is a good networking tool for the Rigs-to-Reefs program.

Work continues on the new Artificial Reef Program website. It is being developed by TPWD Media Services and an outside consultant (Sherry Matthews Advocacy Group). We hope to have a version available by this April. A Google Earth map was developed last year and is available through links at www.tpwd.state.tx.us/artificialreef. We continue to make it more user-friendly and update the information. The map has been well received even if we have "walk" customers through it.

Oysters

Coastal Fisheries hosted 4 oyster informational meetings along the coast to introduce the commercial oyster fishery to recent changes approved by the Interstate Shellfish Sanitation Conference. The purpose of these changes is to reduce the illnesses from consumption of raw oysters created by the bacterium *Vibrio* vulnificus, a naturally-occurring marine pathogen that typically occurs when long-term average water temperatures remain above 68° F.

In late October, the Texas Department of State Health Services' Seafood and Aquatic Life Group provided notice that this years' public oyster season opening, scheduled for November 1st, would be delayed in all oyster producing bays in Texas due to red tide blooms. Normally, the public can harvest oysters from November 1st through April 30st. The season remained closed until brevitoxin levels cell counts in oyster meats fall below 5 cells/ml. In mid-January, one of the longest outbreaks of Red Tide in Texas history started to let up in some areas along the Texas coast, but not in time to save this season's $30-million dollar Texas oyster industry. The Texas Department of State Health Services reopened Espiritu Santo Bay and a portion of San Antonio Bay to the harvesting of oysters and other molluscan shellfish on 27 January 2012. In early February 2012, bioassay samples from Galveston were free of toxin allowing the Department of State Health Services reopened a large portion of Galveston Bay to the harvesting of oysters and other molluscan shellfish. However, some upper areas remained closed due to high river stages on the Trinity River which resulted in bacteriological closures.

SPECIAL EFFORTS, STUDIES, AND TOPICS

One of the longest lasting red tide events in Texas started in mid-September with reports of stressed and/or dead fish in the Brownsville Ship Channel area. Water samples confirmed high concentrations of *Karenia brevis* as well as *Prorocentrum micans,* a nontoxic species, at lower concentrations. By early October, aerosols and dead fish were reported from Brownsville to Port Aransas and low red tide cell concentrations were found as far north as southern Galveston Bay. By late-October, TPWD estimates the red tide had killed 4.2 million fish along the Texas coast. Species that are showing up in the highest numbers include Gulf menhaden, striped mullet, ladyfish (skipjack), spot, pinfish, kingfish (Gulf whiting), and Atlantic bumper. While

significant, this number is a far cry from the 22 million fish killed during the 1986 red tide.

'OTHERS'

During 2010-11, the coastwide response to Coastal Fisheries' trip satisfaction question asked during creel interviews was at its highest level ever (mean of 6.5 on a scale of 0 to 10 with 0 being the least and 10 being the most). During the 24 years that trip satisfaction has been asked, the lowest level (mean of 4.6) occurred during 1990-91 after the coastal freezes in February and December of 1989. The combination of red drum and spotted seatrout remained the most-sought (37.4%) species category followed by "no particular species" (19.7%), red drum (17.8%), and spotted seatrout (14.4 %).

Future Meetings

The 63rd Annual Fall Meeting will be held October 15-18, 2012 at the Grand Hotel Marriott Resort, Point Clear, AL.

The 63rd Annual Spring Meeting will be held March 19-21, 2013 in Florida. Virginia Herring will coordinate with the Florida Commissioners to secure a meeting location.

Publications List

A new listing of publications was provided for informational purposes.

Other Business

The Commissioners discussed making an addition to the retirement plan for GSMFC employees to include retirement for part-time employees. **C. Blankenship** moved to adopt the change in the GSMFC retirement plan to include part-time employees and it was seconded by **M. Ray.** The motion passed unanimously.

An Employee Protection (Whistleblower) Policy was also discussed by the Commissioners. **J. Gill** moved to adopt the Whistleblower policy and it was seconded by **D. Heil**. The motion passed unanimously.

There being no further business, the meeting was adjourned at 3:13pm

JOINT GSMFC & ASMFC ARTIFICIAL REEF SUBCOMMITTEE MINUTES
Tuesday, March 13 and Wednesday, March 14, 2012
St. Petersburg, Florida

Chairman Doug Peter 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
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
Jeff Tinsman, DE DWF, Dover, DE
Ryan Yaden, SC DCNR, Charleston, SC
Erik Zlokovitz, MD DNR, Annapolis, MA

GSMFC Members
Dale Shively, TX PWD, Austin, TX
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
Ali Catchot, GSMFC, Ocean Springs, MS

Others
Larry Beggs, Reef Innovations/Reef Ball Foundation, Sarasota, FL
Steve Bortone, GOM Fishery Management Council, Tampa, FL
Glen Caristinos, Presidents Reef Memorial, Safety Harbor, FL
Jeffrey C. Dey, Reefmakers, Moorestown, NJ
Vaughan Douglas, US FWS, Hadley, MA
George Frankel, Eternal Reefs, Decatur, GA
Laura Johnson, U.S. EPA, Washington, DC
Joe Kalista, VA Marine Resources Commission, Newport News, VA
Sean Keenan, FL FWC, St. Petersburg, FL
Herb Leedy, BSEE, New Orleans, LA
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
Todd Phillips, Ocean Conservancy, Austin, TX

Alex Roberts, Hillsborough County EPC, Tampa, FL
Phil Rubin, Hernando County Port Authority, Brooksville, FL
Brooke Shipley, TPWD, Dickinson, TX
John Stevely, University of Florida, Palmetto, FL
Laura Thorne, Hillsborough County EPC, Tampa, FL
Joe Weatherby, Reefmakers, Key West, FL

Adoption of Agenda

Carberry asked that his presentation scheduled for Tuesday at 1:00 p.m. be moved to Wednesday. **The agenda was adopted as modified.**

Approval of Minutes

The minutes from the meeting held on March 1-2, 2011 in St. Petersburg, FL were approved with minor changes. Bailey made a motion to adopt the minutes. Anson seconded and the minutes were approved.

Update on the ex-Arthur W. Radford Project in the Mid Atlantic

Tinsman gave 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. The Navy designated the Arthur W. Radford for reefing in 2003. The Radford was sunk on August 10, 2011. Shortly afterwards, Hurricane Irene hit and the ship broke up into three pieces.

Many lessons were learned from the process. In the Mid-Atlantic, the transfer date matters, and it should be specified. Efficient work cannot be conducted in some winter months due to unfavorable weather conditions, and delays cost money. The EPA should be engaged prior to beginning the project, and a contact person established. The fine print in the Navy Transfer Agreement regarding monthly reporting should be read closely. A contractor should be hired who is vigilant and adamant about keeping the project going.

Some of the Regulation Challenges Involved with Reefing Ships

Mullane explained that the current cleaning and preparation process for reefing ships is much more meticulous than in previous years. More money is being spent on testing and removal of asbestos and PCB-contaminated ship parts, and to ensure that the ship is exceptionally well-cleaned.

Regulatory agents are backlogged with reviewing permits for reefing ships.

The reefing of large ships is under fire at the moment from the scrapping industry, which feels scrapping the ships is the preferred method. **Tinsman** suggested forming a subcommittee to create a document that fully explains the value of reefing ships over scrapping them. **Peter** suggested tabling the issue until later in the meeting.

Update on the Navy/MARAD Reefing Programs

Meier reported that he was informed that the Navy currently has no ships available for use as reef material, and they were responding to Congressional pressures, industry pressures, and

environmental NGO pressures not to reef ships, but to provide them for scrapping instead. No time-frame was given as to when this might change, if ever.

Ballard reported that he spoke to MARAD at an Artificial Reef Summit and a list was supplied of all of the ships that were available and possible candidates for reefing. **Ballard** attempted to obtain an updated list from MARAD, but was informed that MARAD was currently in the process of evaluating their policy for determining how non-retention vessels are evaluated for reefing. They will not be able to provide a list of ships available for reefing until the policy is completed.

Meier made a motion to create a subcommittee to write a white paper on the benefits of reefing ships. The motion was seconded, and the motion passed.

Update on the Spiegel Grove and Hoyt Vandenberg Reefs

Horn gave a PowerPoint presentation entitled "Florida's Ships-2-Reefs Projects". The objectives are to review Florida's three large ships projects since 2002; compare and contrast ship projects; review management and oversight; review costs and expenditures; review lessons learned; compare monitoring results.

Pre- and post-sinking biological fish census monitoring on the Vandenberg and Spiegel Grove was done by the Reef Environmental Education Foundation (REEF). For the first year, quarterly monitoring trips were made by REEF's advanced assessment team. For the past three years, it has been done annually. The roving diver method was used to monitor the Spiegel Grove. The roving diver method and point census was used to monitor the Vandenberg. In the past two years, fish species recruitment has increased significantly since the reefs were created.

Bob Leeworthy from NOAA oversaw the monitoring project and processed the socio-economic data from 1-year pre-sinking monitoring, and 1-year post-sinking monitoring on the Vandenberg and Spiegel Grove.

After one year, the economic increase to the local economy (local income; local sales/output; local expenditures) was significant. There were 68 new local jobs generated from the Spiegel Grove, and 105 from the Vandenberg. There has been a significant increase in charter boat and diver activity on the new reefs, and overall on all of the artificial reefs. Diving activity has increased since the Vandenberg was sunk, and the number of new dive boats has doubled. One of the justifications of creating the artificial reefs was to decrease diving activity on natural reefs. After the sinking of the Spiegel Grove and the Vandenberg, diving activity on natural reefs has decreased. Information on the reef projects is available on the FL FWCC website.

Presentation from the US EPA on Reefing Programs

Johnson gave a PowerPoint Presentation entitled "Management of Obsolete Vessels – Vessels-to-Reefs". Johnson discussed vessel disposal versus vessel reefing. The intent of ocean dumping is to dispose of the vessel in ocean waters. The intent of vessel reefing is to change bottom elevation and create habitat. Either disposal or reefing of vessels is done – not both.

The key statutory and regulatory authorities for vessel-to-reef projects include the Clean Water Act, Section 404; the Liberty Ship Act; the National Fishing Enhancement Act; the Rivers and Harbors Act (RHA), Section10; Corps Regional or Programmatic General Permits; Toxic Substance Control Act.

Vessels are prepared for reefing by following guidelines in the joint EPA/MARAD document entitled *National Guidance Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs* (BMP Guidance). The Navy is required to prepare a vessel stricken from the Naval Vessel Register for use as an artificial reef in accordance with the BMP Guidance.

The *BMP Guidance* on Materials of Concern identify materials or categories of materials of concern that may be present aboard vessels, and where these materials may be found; describes the potential adverse impacts if such materials are released into the marine environment; provides general clean-up performance goals and information on methods to address these goals and information on methods to address these goals prior to sinking.

Two key elements of the *BMP Guidance*: documentation of the clean-up procedures used and how the clean-up goals were achieved, and documentation of the contaminants that will remain onboard the vessel; vessel walkthrough for visual observations to verify whether and how the vessel was prepared.

Mohawk in Lee County: Some Goals

Weatherby gave a PowerPoint Presentation on the Ex-USCGC Mohawk Project and its goals. The primary project goals are the protection of public health and the environment, and the economic success at local, county, state, and federal levels. Additional goals are to maximize cultural attraction opportunities, environmental research, and the educational platform.

Economic success depends on the design factor, ship selection, and always being cognizant of the finished product in terms of usability, structural soundness, aesthetic appeal, and durability. Cooperation with stakeholders such as fishermen, divers, veterans, scientists, and students is also important. Local entities want very much to be involved. Outreach events enhance the experience and value in the community and also provide a cultural tourism opportunity. It also drives a lasting interest, which leads to participation and funding.

Marketing and the media are also necessary for maximum economic success, as they drive funding. Typical community advertising budgets are very high. Highly visible successes of these projects generates interest from the public for more projects, which will benefit Lee County by providing jobs, tax revenue, and media coverage. This also helps solve funding problems faced by most artificial reef programs.

Conflicts Between Recreational and Commercial Fishing on Artificial Reefs Established Utilizing Sport Fish Restoration Funds

Tinsman presented a PowerPoint Presentation entitled "Delaware Reef Program. Request for Special Management Zone (SMZ) designation for five artificial reefs in the EEZ-June, 2012". The goals of the Delaware Reef Program are to enhance fish habitat by providing protective structure and trophic support for fish; increase invertebrate biodiversity; increase invertebrate biomass; provide hook and line fishing opportunities. The criteria for reef site selections is to select sites with no existing structure, avoiding "live bottom"; avoid existing shipwrecks; avoid areas supporting existing commercial fishing; avoid navigational conflicts.

Conflicts over reef site usage are that commercial pots and lines foul hook-and-line fishing gear, resulting in lost rigs and making drift fishing impossible. Ghost pots continue to foul hook-and-line gear after active pot fishing ends. Conflicts at reef sites in state waters are caused by commercial toadfish potters. Conflicts at reef sites in the EEZ are caused by commercial sea

bass, lobster, and conch potters. The USFWS is aware of these conflicts and has informed states that they must be able to control gear types on their reefs in order to use Sportfish Restoration funds for reef development activities. At reef sites in state waters, control of gear types is done by state regulations. At reef sites in the EEZ, control of gear types is done by SMZ designation, through the MAFMC.

Delaware House Bill 270 was passed and signed by the Governor in April 2010 giving the Division of Fish and Wildlife authority to manage gear types on permitted reef sites in state waters by regulation. Regulation 3536, section 5.0 states: "It shall be unlawful to take or attempt to take any finfish within the geographical boundaries of any artificial reef site under Delaware jurisdiction by any means other than hook and line or spear". This regulation is expected to go into effect on July 11, 2011 and will control gear conflicts at reef sites in state waters.

The origin of SMZs in Federal waters is the Snapper-Grouper Plan (SAFMC). The Black Sea Bass Plan contains language allowing reef permit holders to petition the MAFMC for SMZ designation for their permitted sites. Once a reef site has been designated an SMZ, gear restrictions can be used to eliminate conflicts with recreational and commercial hook and line fishing. This will control gear conflicts in the EEZ.

The benefits of SMZs are the elimination of gear conflicts resulting in the enhanced hook-and-line fishing opportunities; hook and line and pot fishermen are not competing on a level playing field; Delaware's tautog stock would benefit from the elimination of quota-based out-of-state fish potters using ocean reef sites; Delaware could continue to manage ocean reefs with sportfish funds for both recreational and commercial hook and line fishermen, and conduct many other surveys and activities that are essential to fisheries management.

The Commercial Fisheries Side of the Story

Meier reported that there is a growing conflict between recreational and commercial fishermen, and presented an audio commentary and a PowerPoint Presentation entitled "The Elephant in the Artificial Reef Management Room" created by Walter Chew, a retired commercial fisherman, that addressed SMZ issues for artificial reefs being used by both recreational and commercial fishermen. Mr. Chew's opinion was that it is not practical or worthwhile for a commercial fisherman to use hook and line for black sea bass, and restricting use to hook and line would cause commercial fishermen to lose the utilization of the reef areas. He stressed that a "common ground" should be found that will benefit both recreational and commercial fishermen and enhance fishery resources to the maximum extent practicable.

Meier pointed out that not all fish are found on artificial reefs. Natural reefs and areas not often fished have consistently produced an abundance of large fish. He is re-examining the standards for creating artificial reefs covered in the Magnuson-Stevens Act.

Discussion of Marine Debris Accumulation on Artificial Reefs – Initial Prevention, Subsequent Removal Options, Liability Issues, OSHA Questions, Section 7 Issues, Etc.

Dodrill stated that they have received reports of monofilament fishing line accumulating on some of the larger artificial reefs. There have been some instances of sea turtles entangled in fishing line. **Dodrill** said that they were looking at the possibility of doing small-scale fishing line removal on artificial reefs where fishing line had become accumulated. However, issues of liability, boat rental, and payment for volunteers were brought up. **Dodrill** discovered that there is an association of professional diving instructors who are members of "Project Aware" which

promotes divers removing fishing line from artificial reefs. Many local dive shops encourage divers to remove small-scale marine debris from artificial reefs.

Shively reported that in Texas, there is a 160-acre near-shore reef site where he proposed to use tri-pod limestone reefs that have openings cut in them. The permit was previously approved. However, state wildlife grant money would be used that is administered through the Fish and Wildlife Service, and they were not comfortable with making a decision to issue approval to use the funds for that purpose until they had a review by NOAA. The issue is that people will be fishing on the artificial reefs, snagging their lines, and then sea turtles will become entangled in the fishing line and die. The permit is on hold, pending further review.

Glen Caristinos of *Reef Monitoring* in Clearwater, Florida stated that they participated in a well-publicized clear-water reef clean-up in September 2011. There were 210 divers involved, and 1,600 pounds of entanglement was removed. They are looking into "adopting" a reef to keep clean.

Yaden reported that in South Carolina, the SC DNR has an annual "Beach Sweep" and reef cleanups on several reefs near Charleston.

Discussion of Advertising and Outreach Efforts for Artificial Reef Programs

Yaden stated that SC DNR prints a brochure every three years that lists map coordinates of artificial reefs. They are distributed to tackle shops, fishing clubs, etc.

There was a suggestion that information from the white paper that is to be created can be utilized for outreach purposes also.

Several agencies are now creating apps for smart phones that identify artificial reef sites in their states.

Shively stated that last year they placed a Google earth map of the Gulf of Mexico on their website. It shows the locations and coordinates of artificial reefs in the Gulf. There are also pictures and links to videos. They are also in the process of creating an app for smart phones.

Zlokovitz stated that they have updated their Reef Guide, and it is given to people when they renew their fishing licenses. Their website has a Google earth map that shows locations and coordinates of artificial reef sites, and these can be printed. There are also pictures and links to videos. They are involved in outreach efforts at fishing shows, fishing clubs, and various fishing organizations.

Converting Old Estuarine Tire Reefs into Enhanced Fishing Opportunities

Francesconi reported that in December 2008, funding cuts were made to artificial reef programs. The reef program was redirected towards oyster rehabilitation, since that was the most directly affected by budget cuts. Current reefs already in place were utilized as testing opportunities in the estuarine environment, using materials that had been previously used in the ocean. Three preexisting artificial reefs with tires on them, plus a new inshore reef with processed bridge material on it, were used. Typically in the past, whole bridge structures, pilings, etc. were used at reef sites. For the shallow reef site, 750 tons of riff raff was used. Concrete pipe and reef balls were also used on the artificial reefs. Side scans were done of the reef sites. The reef sites appear

to be successful. The reefs are very beneficial to gag grouper and black sea bass. The fouling community on the reefs is made up of algae, barnacles, and mussels.

Post Oil Spill Artificial Reef Work in the Gulf of Mexico

Dodrill presented a PowerPoint Presentation entitled "Natural Resource Damage Assessment (NRDA) Framework Agreement – Early Restoration Projects Update". The assessment and restoration process is long-term and can take decades to complete. NRDA's legal process determines the type and amount of restoration needed to compensate the public for harm done to natural resources or loss of human uses of those natural resources. It specifically addresses injuries that occurred as a result of the spill, response activities, and lingering effects. Economic damages are not natural resource damages, and are handled through processes separate from the NRDA process. The Oil Protection Act of 1990 states that natural resource damage must be addressed by responsible parties according to the NRDA process. It is managed by the Deepwater Horizon Oil Spill Trustee Council, made up of trustees from Texas, Louisiana, Mississippi, Alabama, Florida, the DOI, and NOAA. Public input is required.

On April 21, 2011, the Framework Agreement was signed by the Trustees and BP to provide $1 billion for early restoration projects. This type of agreement allowing for early restoration is unprecedented in the history of NRDA. This represents a down payment by BP, but does not affect their overall ultimate liability for natural resource or other damages. The Trustees will complete project selection and negotiations with BP so the first set of early restoration projects can be released for public comment in December 2011.

More than 200 potential Florida restoration projects have been submitted, totaling $2.2 billion. The Oil Pollution Act and Framework Agreement require certain criteria for the Early Restoration Project and the Early Restoration Review Process. List 2 of approximately 152 projects that initially appear to meet the Framework criteria, and total more than $1.5 billion in costs. Projects will continue to be accepted throughout the NRDA process. The FWC is working with DEP to select projects submitted through a public input process for early restoration. Lists under consideration can be viewed by visiting http://www.dep.state.fl.us/deepwaterhorizon/projects.htm.

Shively reported that they are finalizing a project to place pyramid reefs at an inshore reef site. He also stated that other projects will be completed shortly.

Peter reported that all of their natural resource agencies are involved in post oil spill work, and field sampling is ongoing.

Other Business/Public Comment

There being no further business to discuss, Peter recessed the meeting at 5:00 p.m.

Wednesday, March 14

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

State/Federal Artificial Reef Program Updates

North Carolina:
Francesconi reported that they have had major funding cuts, and their Oyster Rehabilitation/ Sanctuary Group lost funding. Tires from artificial reefs washed ashore on Atlantic Beach due to Hurricane Irene. DMF staff worked with jail inmates to remove the tires. Additional mounds were added to several existing reef sites. Bonner Bridge, which connects the mainland to Hatteras Island, is being demolished and replaced, and material from the bridge will be used to repurpose several existing reef sites.

Alabama:
Anson reported that last August, they started construction on two inshore artificial reefs. Last year, DCNR acquired a new 32 foot research vessel. They anticipate expanding their existing inshore reefs, and will focus on the Western Mobile Bay and the Mississippi Sound. Final approval has been received to develop two nearshore reef zones off of Orange Beach. Some offshore reef zones will be restructured. Recently passed oyster legislation has placed a $2.00 per sack (approximately one bushel) fee for oyster sales. Part of the money collected from the fee will be used towards oyster reef enhancement.

Florida:
Dodrill reported that last year they completed 10 artificial reef construction projects. They are working with the non-profit Reef Ball Foundation to deploy modules. There were Memorial Reef projects involving several families. Two monitoring projects were done last year on the Oriskany reef site. **Mille** reported that several research projects will soon begin in southwest Florida.

South Carolina:
Yaden reported that funding continues to be cut by approximately 20%. They are also having a difficult time finding marine contractors to work on the artificial reefs. SC DNR is partnering with the SC Army National Guard to deploy 40-50 armored personnel carriers onto artificial reefs in the Georgetown area. The deployment is part of their public outreach efforts, and the local media will be invited to cover it. SC DNR has partnered with a concrete company in Myrtle Beach to use leftover concrete for artificial reef material that would normally be discarded.

Louisiana:
Peter reported that they are developing more nearshore artificial reef sites that will be more accessible to recreational fishermen. The amount of decommissioned platforms increased last year. They are working with CCA to develop artificial reefs using concrete rubble. They are each contributing $250,000 towards the project. A project to use multi-beam technology to examine offshore reef sites will begin shortly. An ROV will be used to survey existing structures to obtain biological information. There are currently 295 structures in the program.

Virginia:
Meier reported that no new artificial reefs have been established. Materials for opportunity are getting scarce. They have recently used 3,000 tons of granite rock to create several new stacks for reefs. A future project will be undertaken to develop a new artificial reef. The project will take approximately one year.

Texas:
Shively reported that they have 66 reef sites. In August 2011, the SALT Reef Project was completed. The reef is made up of 200 open pyramids and 200 Florida limestone pyramids. Reefing for an expansion to the George Vancouver Artificial Reef Site is planned for spring 2012. In August 2011, the Port Mansfield nearshore reef project was completed. The reef is made up of over 4,000 culverts. There are proposed reef sites for Matagorda County and Corpus Christi (Mustang Island 755).

Maryland:
Zlokovitz reported that they have completed several projects. Reef ball deployment projects are continuing. Over 500 reef balls per year are being deployed on two different reef sites. Limestone is being researched as a source for artificial reefs to create more natural oyster reefs. A small "test" reef using limestone will be deployed in June. It will be compared to reefs that were created using granite. Limestone is preferable because the calcium carbonate in the limestone tends to attract oyster spat. DNR is continuing to work with the Ocean City Reef Foundation on projects.

Delaware:
Tinsman reported that they have been developing artificial reef sites since 1995. There are 14 sites, of which 12 are developed. Their funding is stable at this time. The sites are beneficial habitats for young black sea bass. A five-year monitoring project will soon begin on the Radford site. It will include side-scan monitoring. Biological sampling will also be done. Aerial flight surveys are ongoing. Material from the old Indian River Inlet Bridge is slated for the restructuring of existing reefs.

New Jersey:
Carberry reported that last April, they lost their Wallop-Breaux funding from USFWS. Many projects have been discontinued. The *Reef News* newsletter is not being printed any more, which has upset their constituents.

Massachusetts:
Rousseau reported that they have been using a portion of funds collected through recreational saltwater fishing licenses to create and promote artificial reefs as a means for public access. New artificial reefs are being created, and existing ones will be expanded. Currently, there is no official funding mechanism for artificial reefs in Massachusetts.

BSEE:
Leedy reported that more interest from the public has been shown for the "Save the Blue" initiative. They have also received complaints from sport fishermen about the explosive removal of oil platforms. In the next few years, rulemaking regarding this practice will be undertaken. New artificial reefs are being developed.

NOAA:
Bailey stated that he is Co-Chairman of the Entanglement Working Group, which is a partnership between NOAA Fish and Wildlife Services and several NGO partners. More information can be obtained by visiting their website at *fishinglinerecycling.org*. **Bailey** spoke on NOAA's new "BookletChart". It is a nautical chart in a booklet form that helps recreational boaters locate themselves on the water. Download for free as Adobe Acrobat files and print the charts on any ordinary printer. Wreck sites and artificial reef sites are also listed. The charts are

updated weekly with Notices for Mariners. Information on the product is available on NOAA's website.

Discussion of Inshore Artificial Reef BMPs Document: How to Move Forward

Ballard reported that the BMP document was sent back to the Habitat Subcommittee with the comments that had been added to it. The Habitat Subcommittee returned it with instructions to change it into a document that the Joint Artificial Reef Subcommittee was satisfied with, or make the next decision on it. **Ballard** asked the Subcommittee members what their recommendations were for the document. After a general discussion by the members, it was decided that **Ballard** would suggest to the Habitat Subcommittee that since artificial reef development plans are already covered by each state, a document through the Commission that restates the plans is not really needed. **Ballard** will provide a compilation of each of the five state's plans to the Habitat Subcommittee. He informed the members that he will be contacting them to request a copy of their state's plan.

Discussion of Gulf-Wide Artificial Reef Monitoring Protocol

Ballard reported that a monitoring workshop was held at the GSMFC Annual Fall meeting. Since then, the SEAMAP Subcommittee developed a standard protocol on vertical long line surveys. **Ballard** has been working with the SEAMAP Subcommittee as they developed the protocol, which would be incorporated into the Artificial Reef Monitoring Protocol. NOAA will also be adopting the protocol. The GSMFC's database coordinators will develop a database of artificial reef sites and will input data from the protocol. **Ballard** requested that the members provide him with their state's artificial reef sites/coordinates so that the data can be put into the database. Gear will be made available in the future for those states that want to participate in the surveys.

Election of Officers – GSMFC Subcommittee

Chairman – **Kerwin Cuevas.**
Vice Chairman – **Kevin Anson.**

Next Meeting/Other Business/Public Comment

The next meeting location suggestions were St. Petersburg or Sarasota, Florida

The next meeting date will be either February or March.

There being no further business to discuss, Peter adjourned the meeting at 5:00 p.m.

APPROVED BY:
COMMITTEE CHAIRMAN

OIL DISASTER RECOVERY PROGRAM (ODRP)
MINUTES of the Ad Hoc Advisory Committee Meeting
March 13, 2012
Nine Zero Hotel, Boston, Massachusetts

The Oil Disaster Recovery Program Ad Hoc Committee convened a meeting at the Nine Zero Hotel in Boston, Massachusetts at 1:00 PM, March 13, 2012. 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 October 18, At the Royal Sonesta Hotel in New Orleans, LA 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

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

Others
Malinda Kelly, GCR and Associates, Inc., New Orleans, LA
Mike Voisin, Motavatit Seafood, Houma, LA
David Heggelund, Trace Register
Frank Helies, GSAFF, Tallahassee, FL
Judy Jamison, GSAFF, Tallahassee, FL
Joanne McNeely, GSAFF, Tallahassee, FL
Dag Heggelund, Trace Register
Bob Trumble
Patrick Riley, Western Seafood Company, Lake Jackson, TX

Introductions were made and the agenda was approved as presented.

On a motion duly made and seconded the minutes of the ODRP Ad Hoc Committee meeting of October 18, 2011 at the Royal Sonesta Hotel, in New Orleans, LA were approved as submitted.

Reports/Presentations/Proposals

ODRP BUDGET OVERVIEW

Ralph Hode provided an overview of overall programs funded under the Oil Disaster supplemental. A total of fifteen contracts or sub awards are currently in place totaling $9.3 Million. Nearly $1.7 million or 11.34% has been reimbursed to date *(updated to reflect spending though March, 2012).*

TRACEABILITY AND SEAFOOD CERTIFICATION

Traceability Initiative:

Alex Miller provided a report on the Traceability element of the ODRP noting that a total of 15 of the Gulf's leading seafood industries had already signed agreements for participation in the trace program and that Trace Register was working with them on providing landings data to the trace program and in setting up the trace marketing modules. It was also reported, based on actions of the Ad Hoc Committee via a conference call meeting of January 10, 2012, and duly recorded in the minutes thereof, that a contract was now in place with Trace Register for the offering of the Trace Marketing Module to up to 200 of the Gulf's processors and/or dealers. Use of the module is contingent upon execution of agreements to participate in trace program.

Additionally, the Committee was briefed on the ongoing activities of the outreach and training component being implemented through a contract with GCR, Inc.; including the production of a trace video to show in lay terms what the trace program was about. Both the video and the overall trace component was rolled out at the Boston Seafood Show.

In other matters, **Miller** addressed the need for a peer review committee that would oversee acceptance into the trace program – noting that the program was specifically designed to provide product traceability for seafood harvested from the Gulf by licensed Gulf fishermen; but that there existed the possibility for some processors to participate in the program while processing non-gulf seafood. A peer group, having firsthand knowledge of local/Gulf processors, would be ideally positioned to assure that trace users were indeed offering Gulf products.

No action was taken, but Committee members generally agreed that review by peer groups would be beneficial in assuring that the program is not paying for ineligible participation. Miller agreed to follow up on this with individual States.

Regarding other trace initiatives:

- **Trace Register** provided a report on the findings and recommendations of Phase I of the expanded electronic tagging pilot study for the oyster industry. Amendments to the Trace contract for the conduct of the pilot study were approved by the Ad Hoc at the October 18, 2011 meeting of the Ad Hoc Committee at the Royal Sonesta Hotel, in New Orleans.
- **TR** also presented a presentation/proposal that would address Phase II of the electronic oyster tagging program along with an estimated cost $475,000 for implementation of the

program in select industries that could showcase the program. The original plan was to install the expanded program including necessary equipment for tracking and tagging oyster products for 6 harvesters, 4 dealers, 3 processors, 2 distributors, 1 retailer, and 1 restaurant.

Action:

On a motion duly made and seconded, the Ad Hoc Committee approved the TR proposal as submitted to begin Phase II of the electronic tagging program; and, further approved an additional $75,000 to fund additional equipment for smaller processors across the Gulf who may choose to participate in the upgraded tagging initiative. The intent of the amended proposal amount was to assure that all five states had an opportunity to participate in the electronic tagging component and that a broader cross section of processors were included.

Proposal for Assessment of Framework for FAO eco-labeling – Ocean Trust

A proposal was presented by **Mark Schexnayder** for ODRP funding of an assessment of existing fisheries management systems, rules, and regulations from across the Gulf, to determine the degree to which current practices would be in compliance with FAO guidelines for sustainable fisheries. The intent is to determine the feasibility of achieving acceptable eco-labeling through management certifications in lieu of individual species certification.

Action:

On a motion duly made and seconded, the Commission Staff was requested to prepare a request for proposals for the Conduct of the study.

Wild Gulf concept for Gulf branding

Schexnayder also presented a follow up of an earlier briefing defining a program that is being implemented by the State of Louisiana to make a wild Gulf branding label/brand available for LA producers. The intent of the program is certify via the branding program that products being labeled as "Wild Louisiana" products are certified as being caught by LA fishermen from LA/GOM waters. A detailed set of guidelines and procedures were made available to the Ad Hoc Committee for review and discussion. The intent of the presentation is to determine if there is interest in establishing a Gulf wide program of this nature. No action was taken; but committee members agreed to review the LA guidelines and procedures and to re-visit the concept at some point during the upcoming months.

Kemps Ridley/Shrimp Interaction study

Larry Simpson presented a proposal from Dr. Ben Galloway and LLG Ecological Research Associates, Inc. Bryan, TX for the conduct of a stock assessment of the Kemps Ridley Turtle and related impacts that may have led to recent increases in mortality. There was general consensus that due successful hatches on the upper Mexico beaches over recent years there is little

information on the current stock in the Gulf. There was also consensus that because of the work being done by Dr Galloway and the LGL Ecological Research group that they were ideally suited to conduct the necessary stock assessment. *(note: The proposal was originally thought to be a product of the Texas Sea Grant agency; however, it was subsequently determined that the assessment was intended to be conducted by LGL with support from TX Sea grant in concert with existing turtle recovery efforts in the lower Texas coast – as a result, an RFP was not proposed because of ongoing work by Dr Galloway and the LGL group; and because of the need to maintain continuity with ongoing programs.)*

Actions:

On a motion duly made and seconded the Ad Hoc Committee approved the proposal for the conduct of the assessment for an amount not to exceed $300, 000.

Marketing Coalition Briefing

Joanne McNeely briefed the Committee on recent accomplishments and immediate plans of the GOM Marketing Coalition. Given the roll out of the Gulf Marketing logo and introduction of the Coalition at the Boston Seafood Show, which the Ad Hoc Committee attended, the report was synopsized. It was noted that the Show was the result, in part, of past efforts to date - reflecting the combined work of the Coalition, the GSAFF and contractual work being performed to identify needs and to develop strategies that would promote gulf products.

Immediate and long term plans included continued updating and refinement of the Coalition web page, participation in a number of culinary events and seafood shows, and the promotion of Gulf products through social media. Additionally, the Coalition would be working through its consultants to create a presence, utilizing local and nationally known chefs, on a number of television network programs such as the Today Show and others.

Future Directions of the ODRP

Larry Simpson pointed out to the Committee that based on ongoing contracts and programs that were pending there were approximately $4.6 million in the overall ODRP that were yet to be committed. Given the fund balances and existing grant time frames, there was justification in looking at future directions of the program. While there were no actions to be taken, Committee members agreed to begin looking at options and to be prepared to discuss future use of the program funds sooner rather than later.

National State Directors Meeting – Washington

Larry Simpson reminded the Committee members of the joint meeting of NOAA Fisheries and National State Directors scheduled for the week of March 19, in Alexandria, VA. At issue was NOAA Fisheries budget cuts that would impact the Interjurisdictional Fisheries (IJF) programs across the Gulf as well as in the Pacific and Atlantic states. There was consensus that a letter in support of keeping IJF program should be endorsed by each of the Gulf States and sent to the Congressional leadership.

Next Meeting of the Ad Hoc Committee

There being no further business, the meeting was adjourned until October, 2012 - time and place to be determined.

OIL DISASTER RECOVERY PROGRAM (ODRP)
Summary of Actions of the Ad Hoc Advisory Committee Conference Call
9:00 AM CST July 30, 2012

The facilitator, **Larry Simpson**, called the meeting to order at 9:00 a.m. The following members and others were present

Members
David Heil, FWC, Tallahassee, FL
Mike Ray, TPWD, Austin, TX
Chris Blankenship, ADCNR, Gulf Shores, AL
Randy Pausina LDWF, Baton Rouge, LA
Dale Diaz, MDMR, Biloxi, MS

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

Others

Rene LeBreton, LDWF, Baton Rouge, LA
Mike Brainard, MDMR, Biloxi, MS

Purpose:

To consider actions and proposals regarding Gulf wide seafood certification, product marketing opportunities and other matters pertaining to the Oil Disaster Recovery Program.

I. **Consider a proposal from Gulf and South Atlantic Fisheries Foundation for expanded marketing.**

At issue was a proposal from GSAFF wherein the marketing Coalition requested an additional $603,681 of supplemental funding to facilitate:

- Increased Coalition meetings
- Increased branding and social media channels for Gulf seafood
- Expanded partnerships with retailers, restaurants and distributors of Gulf seafood
- Related administrative costs

The Ad Hoc Committee took no action on this proposal but did express an interest in expanded partnerships with retailers, restaurant, and distributors through promotional incentives. Staff was directed to meet with the Gulf and South Atlantic Fisheries Foundation to obtain more detailed information and costs breakdowns for this segment of

the request; and to have the Foundation prepare an alternate proposal that would address this marketing element.

Further, it was suggested that funds be allocated to buy product for events that the States are participating in as a group.

II. **Consider recommendations from LDWF for additional/supplemental ODRP support in the amount of $900K for Gulf wide certification and port direct marketing initiatives.**

At issue is the need to develop a Gulf wide approach to providing eco-labeling opportunities for Gulf harvested seafood products. LDWF proposed a collaborative approach that would result in the development of responsible management standards that could be recognized in all five Gulf States, and by which select species could qualify for eco-labels. There was discussion regarding the use of qualified consulting firms and/or a committee of key State specialists to develop these standards based on guidelines for eco-labeling as adopted by the FAO. Committee members recognized that the seafood trace component of the ODRP was based on voluntary participation; but that a part of the responsible management standards should address product traceability - essentially requiring trace participation as a condition to eco-labeling under the proposed GOM plan.

Participants were reminded, and acknowledged, that there was an ongoing GAP analysis being conducted under contract with GSMFC by Ocean Trust Inc. that would lend itself to defining improvements in current State marine management systems that could position the States and related species for qualifying for eco-labeling opportunities. Utilizing this approach expectations are that the standards could be applied at multiple levels dependent upon the need; or, in keeping with eco-label expectations from the retail/wholesale sectors.

Ad Hoc Committee members recognized that some level of certification by third party professionals would likely be required; and, as a result, concluded that there was merit in maintaining setting aside ODRP funds to assist with third party certification/review requirements where States were financially unable to fund these requirements in a timely manner.

There was no formal action regarding the proposal. The Committee requested, however, that $900,000 of the currently uncommitted ODRP funds be held aside for support of this initiative.

The LDWF proposal also addressed the successes of port direct marketing initiatives funded in part by the ODRP under its web-based marketing component. The proposal recommended an additional $200K per year for three years for expanded port direct marketing programs. It was reported that the Delcambre Direct Seafood Program and subsequent expansions of dockside marketing efforts have been the single most effective tool in Louisiana to increase dockside prices for gulf harvested products.

While there was consensus regarding the benefit of initiatives of this nature, there was also consensus that the use of additional ODRP funding for this type of marketing should be for Gulf

wide use. Staff was directed to meet with the Louisiana Sea grant/Extension service port direct leaders to discuss ways and means of developing an expanded program to address this concept on a regional basis.

III. **Consider a proposal from GCS, Inc. for expanded Trace outreach to meet retail needs and expanded processor emphasis**

This proposal sought additional funding though the ODRP to expand the Gulf Seafood Trace outreach component to the retail sector; and to place further effort towards the processor and dock sector by going "door to door" in the industry explaining the traceability program. . There was general consensus that individual, one on one contact with processors such as was presented in the proposal would be the most beneficial. It was noted that while approximately 37 of the Gulf's leading processors and docks were currently engaged in the traceability program there were many more that were not.

No action was taken on this proposal but staff was directed to meet with GCR to discuss and develop an alternative proposal that would address further emphasis directed at the processor and docks rather than retailers.

IV. **Consider proposal from GCS, Inc. for Phase I of the Gulf Fish Watch**

There was general consensus that the development of a Gulf Fish Watch website would capabilities complement the NOAA Fish Watch website; and subsequently benefit the Gulf seafood industry. The Gulf Fish Watch website, as proposed, would provide up to date State level information regarding, histories, scientific information, landings data, and responsible management practices that are currently in place in State waters of the Gulf for select species. It was also noted that as a result of GCR previously preparing a Gulf Fish Watch web page mock-up at the request of GSMFC, and there current working relationship with Ocean Trust, Inc, they are ideally suited to conduct Phase 1 of the pilot study and to work with GSMFC staff to develop and initially maintain a long term Gulf wide Fish Watch website.

Committee members were also made aware that the proposal was for Phase 1 which is aimed at developing the requirements necessary to construct an information technology platform through the use of State data and associated information. The Committee also understood that a Phase II proposal was expected wherein the web information system requirements developed under Phase I would be utilized to develop a full Gulf wide website ultimately populated to reflect data and responsible management practices for multiple species currently harvested in the Gulf.

Mike Ray moved to approve the Phase I pilot study by GCR at a cost of approximately $60,650. The motion was seconded and passed unanimously.

There being no further business, the conference call was adjourned at 10:30 a.m.

APPROVED BY:
Leslie D. Hart
COMMITTEE CHAIRMAN

GULF & SOUTH ATLANTIC REGIONAL PANEL
ON AQUATIC INVASIVE SPECIES
MINUTES
Monday, April 2 & Tuesday, April 3, 2012
Mobile, AL

On Tuesday, April 3, Chairman **Leslie Hartman** 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
Tim Bonvechio, GA DNR, Waycross, GA
David Britton, USFWS, Arlington, TX
Rick Burris, MDMR, Biloxi, MS
Earl Chilton, TPWD, Austin, TX
Rob Emens, NC DENR, Raleigh, NC
Chris Furqueron, National Park Service, Atlanta, GA
Dewayne Hollin, TX Sea Grant, College Station, TX
Leslie Hartman, TPWD, Palacios, TX
Robert Bourgeois, LA Dept. of Wildlife & Fisheries, Baton Rouge, LA
Chuck Jacoby, At-Large Member, Palatka, FL
Tom Jackson, NOAA Fisheries, Miami, FL
Peter Kingsley-Smith, SCDNR, Charleston, SC
Herb Kumpf, At-Large Member, Panama City Beach, FL
Robert McMahon, UT Arlington, Arlington, TX
Doug Nemeth, U.S. Navy, Jacksonville, FL
Craig Newton, AMRD, Dauphin Island, AL
Chris Page, SC Department of Natural Resources, West Columbia, SC
Steven Rider, AL DCNR, Montgomery, AL
Don Schmitz, FWC, Tallahassee, FL
John Teem, FL DOA, Tallahassee, FL

Staff
Alyce Catchot, GSMFC, Ocean Springs, MS

Others
Lad Akins, REEF, Key Largo, FL
Matt Cannister, USGS, Gainesville, FL
Susan McCarthy, FDA, Dauphin Island, AL
Matt Neilson, USGS, Gainesville, FL

Public Comment
Chairman **Hartman** provided the opportunity for public comment. No public comments were received.

Adoption of Agenda
For the Tuesday, April 3, 2012 agenda, presentations by L. Akins and T. Jackson were added.

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

Approval of Minutes
The minutes of the meeting of the October 4-5, 2011 meeting in Austin, TX were presented for approval.

After minor changes to the minutes, a motion was made to approve the minutes. Furqueron seconded the motion, and the motion passed.

Apple Snail Control/Sampling in Langan Pond and Three Mile Creek
Dave Armstrong presented a PowerPoint Presentation entitled "Control Methods & Status of Non-native Island Apple Snails in Southwest Alabama". Island Apple Snails (*Pomacea insularum*) were reported and documented in Langan Municipal Lake in June, 2008. They were likely released via the aquarium/pet trade. These exotic, non-native "aquatic nuisance species" are native to South America. They are capable of producing offspring at less than one year of age, and females lay 1000's of eggs annually. Apple snails destroy wetland habitats by consuming native aquatic plants. They destroy agricultural crops primarily in the Southern U.S., the Philippines, and Southeast Asia. Native aquatic life is displaced through competition for food, space, and habitat. Apple snails are a potential carrier of rat ringworm, intestinal fluke, and rat lungworm.

Several approaches have been undertaken to control apple snail population. Copper sulfate, an EPA-approved chemical, is being applied to control the adults. Egg-laying substrates are being reduced by applying EPA-approved herbicides on emergent aquatic plants at wetted banks. Low water levels are being maintained in Langan Lake. Egg masses are being scraped. Population changes are being assessed by trapping.

Two infestation locations in Southwest Alabama include the Threemile Creek watershed from upper pool Langan Municipal Lake downstream through approximately eight step pools to the tidal portion of the creek which empties into the Mobile River, and the Blakely Forest Pond watershed (a residential retention) which drains to Bay Minette Creek, a major creek in the Mobile-Tensaw delta system. From 2009-2011, a total of 714 lbs. of copper sulfate treatments were applied to Blakely Forest Pond; 9,759 lbs. were applied to Langan Municipal Lake; 9,780 lbs. were applied to Threemile Creek. Numerous chemical control agents have also been applied and this has resulted in the control of aquatic vegetation used as egg-laying substrate by the apple snails, including Giant cutgrass which accounts for 80-90% of apple snail egg mass substrate.

From 2010-2011, five emergent weed applications were applied to Langan Municipal Lake, and 12 applications were applied to Threemile Creek. No treatments were applied to Blakely Forest Pond, as residents were instructed on how to mow and remove brush weed growth at the pond's bank edge without the use of chemicals.

From 2009-2011, snail traps were placed in Langan Lake. A total of 762 snails were collected. From August – December, 2010, five traps were placed in Blakely Forest Pond, where trap sample data was collected by local residents.

To date, repeated treatments, emergent plant control, and lower summer-fall water levels (due to below-average rainfall) appear to have substantially reduced snail abundance. Partnerships forged between ADCNR, USFWS, the City of Mobile, and various NGO's have helped to fund work and/or provide manpower in order to continue keeping snail populations at low densities. Current funding by USFWS should allow control work to continue through FY 2012 at an adequate level.

Hartman asked Armstrong if he anticipated any consequences such as erosion problems by removing large quantities of emergent vegetation along the pond banks. Armstrong replied that erosion is an issue; however, it is not being monitored at this time. There has been some erosion, but the exact cause is not clear.

Impacts and Control of Cogongrass in the Southeast

Nancy Loewenstein gave a PowerPoint Presentation entitled "Cogongrass (and tallowtree) Identification and Control". Cogongrass (*Imperata cylindrica*) is a Federal Noxious Weed that displaces native plants, is a poor wildlife habitat, is an extreme fire hazard, reduces forest productivity, and possibly increases pine tree susceptibility to pine decline. It originated from Asia and was first introduced into Grand Bay, AL in 1912. As reported to state authorities by May 2010, all known infestations in South Carolina, Georgia, and Tennessee are under treatment.

Cogongrass has showy white flowers that are 2-8 inches long, and blooms in the spring or after a disturbance. Just-opened cogongrass flowers are often more purple than white. Cogongrass grows 1-5 feet tall, often in circular patches. The rhizomes are dense and matted with very sharp points and are segmented with papery scales. Over 50% of the biomass is underground.

Cogongrass burns very hot. Even fire-adapted plants such as longleaf pine can be killed by cogongrass fires. Within weeks of a fire, cogongrass will re-sprout; however, many other plants are killed.

Several grasses are often mistaken for cogongrass: Johnson grass, Vasey grass, Silver beardgrass, Broomsedge, and Yellow Indiangrass.

Cogongrass seed is dispersed via wind, vehicles, equipment, clothing, and agronomic products.

Cogongrass is also dispersed via rhizomes. Repeated, frequent tillage that breaks up the rhizome mass, followed by glyphosate, has proven to be an effective control method of cogongrass. However, infrequent tillage only spreads cogongrass. Equipment must be cleaned after tillage to prevent rhizome spread. Mowing cogongrass stimulates flowering and should be avoided during flowering. This method is for suppression only. Most grazing animals find cogongrass unpalatable, and grazing is useful for suppression only. Fire also cannot be used for control; however, it can be used to reduce thatch before chemical treatments, but caution should be used.

Herbicide control can be used to eradicate cogongrass on individual sites. One application per year of glyphosate can control cogongrass, but two applications are more effective. Imazapyr is consistently more effective than glyphosate, but soil residual activity and sensitivity of hardwoods and longleaf pine is a potential issue. Combining the two herbicides did not provide better control than either used alone.

Objectives are to study the impacts of cogongrass invasion on insect communities of southeastern pine forests; the influence of cogongrass management strategies on insect diversity and abundance; the influence of cogongrass on pine tree susceptibility to pine decline.

Loblolly Pine decline is an increasingly important issue in the southeast. It is caused by a complex of abiotic and biotic stressors. Stressed trees attract root-feeding bark beetles. Does cogongrass increase tree stress? Does cogongrass impact bark beetle population levels? Does cogongrass increase susceptibility to pine decline?

Preliminary conclusions from the study:

- Ecologically-based integrated treatment
  - Seeding alone had little impact on cogongrass cover
  - Seeding, when combined with burning and glyphosate treatments, may contribute to control

- Response of insect communities to cogongrass and its treatment is as yet unclear

- Several root feeding beetles were found in greater abundance in cogongrass-infested pine stands
  - ~10% were infected with the fungi associated with pine decline
  - More tree roots had fungal infections in infested plots
  - No overt signs of pine decline in the stands

Control recommendations are not to enter infestations when seed heads are present; not to work in cogongrass when soil is muddy; not to grade or push roads or fire lines through cogongrass; not to use contaminated fill dirt. Cogongrass seed heads should be removed by cleaning vehicles, equipment, and clothing before moving to an un-infested site. Planting cogongrass and cultivars such as Japanese blood grass 'Red Baron' in residential lawns should be avoided.

Cogongrass infestation sites should be treated as soon as possible. The smaller an infestation is, the easier it is to control. The entire plant must be destroyed because otherwise the rhizomes will re-sprout. Sites need to be monitored for re-growth or new infestations. Fast-growing native plants should be established and/or released to stabilize and protect the soil, to outcompete and shade out any surviving cogongrass, and to prevent new cogongrass or other invasive plants from getting established. For more information on cogongrass, visit www.cogongrass.org.

Loewenstein next reported on Chinese tallow tree (*Triadica sebifera*). Also known as popcorn tree, this invasive tree was first introduced as an ornamental tree. It now occupies 596,238 forested acres in the southeast. There has been a 2,000+ acre increase in Alabama since 2008.

There has been a 500% increase in tallowtree in Louisiana, and is now the 4th most common tree in southern Louisiana. A large tree can produce over 100,000 seeds. To view a map of the infested areas of the southeast, visit http://www.invasive.org/fiamaps/.

There will be a joint meeting of the Southeast Exotic Pest Plant Council (SE-EPPC) & Alabama Invasive Plant Council (ALIPC) – "Past, Present & Future: Invasive Plants of the Southeast". It will take place in Auburn, Alabama from May 8-10, 2012. For more information on the meeting, visit http://www.se-eppc.org/2012/.

Zebra Mussels in Texas: Implications for Southern States

Robert McMahon gave a PowerPoint Presentation entitled "Zebra Mussels in Texas: Implications for Southern States". Zebra mussels (*Dreissena polymorpha*) and quagga mussels (*Dreissena rostriformis bugensis*) were originally endemic to Europe and were introduced to North America via the Black Sea around 1986. They were found in Lake St. Clair and the eastern basin of Lake Erie in 1989. They rapidly spread throughout major U.S. and Canadian drainage systems east of the Rocky Mountains. There was rapid dispersal through navigable waterways via commercial vessels, and slower dispersal into isolated water bodies via overland transport. They are the most costly macrofouling and ecological pests ever introduced to North American freshwaters. Quagga mussels were recently found in Lake Mead, the lower Colorado River, and lakes in southern California. Zebra mussels were recently found in the San Justo Reservoir in Central California. Large stable rivers and lakes with reduced level fluctuations are most prone to invasion. There has been limited success in rivers prone to extensive flooding and lakes with large annual level fluctuations.

Zebra and quagga mussels both efficiently filter bacterioplankton. Large adults may filter up to 1 L/hour. This results in rapid clarification of infested waters and removes phytoplankton, impacting energy flow through food webs. Quagga mussels are more efficient at filtering bacteria, which leads to the eventual replacement of zebra mussels by quagga mussels.

The maximum adult size of zebra mussels is 2.5 – 4.0 cm, dependent on population. The growth rate declines with increasing adult size. Their maximum age is 3 – 5 years, depending on population. The survival rate is low across year classes. Adult growth rates and population density are dependent on temperature and phytoplankton and bacterioplankton productivity. Fecundity is as high as 1,000,000 eggs per adult female per year. High fecundity and rapid growth rate leads to the development of massive populations within 3-5 years of initial introduction.

Water quality factors affect dreissenid mussel distribution and invasion. They inhabit waters with pH < 7.4 and attain the highest densities at pH > 8.0. They do not spawn or successfully fertilize above salinity of 7 ppt. The larvae do not develop at > 8 ppt, and juveniles and adults do not survive > 5 ppt (14% SW). Turbidity is unlikely to be a factor in limiting distribution, and the mussels thrive in the lower Ohio and lower Mississippi Rivers at > 80 NTU units. Organic enrichment does not generally limit distribution except when associated with hypoxic conditions, and will accelerate growth. The mussels are intolerant of waters with natural potassium concentrations of > 30 mg/L K. In rivers that are prone to extensive flooding, and lakes with large annual level fluctuations, infestation is less likely. Large stable rivers and lakes with

reduced level fluctuations are the most prone to invasion. They are generally as tolerant of industrial and municipal water pollution as are native unionid and Asian clams but will not invade waters made chronically hypoxic by receipt of organic pollutants.

The genetic diversity of 16 zebra mussel and 6 quagga mussel populations was analyzed for comparison of genetic differences using AFLP (Amplified Fragment Length Polymorphism) analysis. Populations of either species could not be distinguished. All showed high levels of genetic diversity, which suggests that there are no genetic bottlenecks or founder effects in recently established populations. A large number of mussels are required to establish a population.

In the invasion of southern water bodies by zebra mussels, it is generally agreed that the long-term incipient upper thermal temperature limit is 28 - 30°C. The generally agreed-upon temperature for initiation of spawning is 16 -18°C. These temperature limits were used to predict potential zebra mussel distribution in North America based on maximum summer surface water temperatures. Recent successful establishment of zebra mussels in Texas requires a re-examination of these assumptions. Experiments done on temperature tolerance in zebra mussels revealed that 25°C acclimated mussels exposed to a lethal temperature of 33°C. The control sample was held at 33°C until 100% mortality ensued. The second sample was held at 33°C which was long enough to induce partial sample mortality, and the surviving individuals were allowed to recover at 25°C. Chronic thermal tolerance at 33°C of the surviving mussels was retested. The experiment was repeated three times.

An adult zebra mussel was discovered in the lower end of Lake Texoma on the Red River on April 3, 2009. Lake Texoma was considered thermally resistant to zebra mussel invasion. Its surface water temperatures reach or exceed 30°C in mid-summer. Mussels have now been recorded at numerous sites in the lower end of the lake. Populations are rapidly expanding and increasing in density. The mussels likely have evolved increased thermal tolerance in nearby southwestern water bodies in Kansas and Oklahoma.

If zebra mussels can thrive in the warm waters of Lake Texoma, can they invade other Texas lakes with similar annual temperature profiles? Through the Quagga-Zebra Mussel Action Plan (Q-ZAP), the USFWS funded an effort to develop and test a zebra mussel monitoring and risk-assessment system for 13 lakes in northeastern Texas receiving recreational boat traffic from Lake Texoma. The system design requirements are that it must be simple, accurate, cost-effective, and easily applied. It must also provide rapid risk assessment and detection and be readily applied by TPWD personnel.

Fourteen lakes were sampled in the spring and fall of 2011 when larvae were present (surface water temperature of 18-28°C). Physical data was recorded for risk assessment and the ambient water temperature was recorded hourly. Plankton net sampling was done for mussel veliger larvae. Scouring pad pediveliger settlement monitors were deployed for 3-4 weeks. Microscopic examination of live and preserved plankton samples revealed the presence of veliger larvae from June – November only at Lake Texoma. No veligers were observed in either spring or fall samples from the 13 other examined lakes. Settled juvenile mussels were recorded only on Lake Texoma monitors that were immersed from 6/2/2011 – 6/30/2011. The mean water

temperature was 25.3°C over 28 days of immersion. Juveniles were relatively densely settled on the monitor. No settled juvenile mussels were recorded on Lake Texoma monitors immersed from 8/10/2011 – 8/24/2011 (mean water temperatures 30.12°C) or 10/21/2011 – 11/19/2011 (mean water temperatures 18.67°C). Viable veligers were present in the water column during both periods.

In conclusion, zebra mussels appear to have evolved increased thermal tolerance in the warm water bodies of Kansas and Oklahoma. This may allow zebra mussels to invade Lake Texoma and other warm southern water bodies. Lake Texoma could become an epicenter for zebra mussel dispersal to other warm water bodies in Texas and the Gulf States. Because of the increased potential to invade warm water bodies, water bodies in the Gulf States should undergo invasion risk assessment for zebra mussels. Risk assessment indicated that 11 of 13 lakes in northeastern Texas could support zebra mussels. Nine of 13 Texas lakes appeared to be at high risk of invasion. Lake Bob Sandlin, Lake O' the Pines, and Caddo Lake are all unlikely to support zebra mussels due to their low calcium concentrations and high water temperatures. Boaters appeared to be the major vectors for mussel movements between water bodies. Zebra mussel monitoring programs for warm southern water bodies should include juvenile settlement monitors, and plankton net sampling for veliger larvae. It is imperative that zebra mussel risk assessment and monitoring programs be developed for southern water bodies in order to identify those most vulnerable to invasion. This allows early detection and rapid response to mussel invasion, and prevention and education programs to be focused on water bodies most at risk.

Teem asked that since zebra mussels appear to have evolved increased thermal tolerance, wouldn't they also develop a tolerance for lower calcium levels and move into water bodies with lower calcium levels? **McMahon** replied that there has been no indication of that.

McMahon stated that in the western basin of Lake Erie in the Great Lakes, Diving Ducks feed on the mussels, and thousands of the ducks re-shifted their migration patterns in order to feed on the mussels. However, this has not caused a major decline in the mussel population.

McMahon reported that in Lake Texoma, the worst cyanobacteria bloom in record occurred and people were warned not to go into the water. **McMahon** stated that it can almost certainly be attributed to zebra mussels.

D. Hollin asked if outreach efforts have worked. **McMahon** stated that many positive changes have taken place since their outreach and awareness efforts began.

Update – Reproductive Sterility as a Tool for Prevention/Control of AIS

J. Teem gave a PowerPoint Presentation entitled "Reproductive Sterility as a Tool for Prevention and Control of Invasive Aquatics". The USDA currently allows only *P. brigesii* to be sold and shipped in the U.S. *Pomacea brigesii* will leave aquatic plants intact and are produced in Florida. There are some established populations recorded in the USGS database. *Asolene spixi* eats aquatic plants and is no longer in trade. There are no established populations recorded in the USGS database. Can reproductively sterile *P. brigesii* and *A. spixi* be produced as new ornamental snail products? Sterile *P. brigesii* could be sold without any requirement for USDA

approval. Is there a potential market for sterile *P. brigesii*? Sterile *A. spixi* cannot be sold without USDA approval. Is there a potential market for *A. spixi*?

What dose of radiation (x-rays) will render snails reproductively sterile? The snails are radiated, the radiated snail is mated with a wildtype, the eggs are collected, and a determination is made as to whether or not the eggs hatch into snails that survive. Dave Rawlins of Rawlins Tropical Fish Farm in Lithia, Florida monitors the snail mating chambers for mortality and fertility

The viability of irradiated *P. brigesii* adults decreases at radiation doses above 130 Gy. Fertility in irradiated snails is reduced by a decrease in egg production and a reduction in fertility of eggs. To produce sterile snails, two genetic alternatives to radiation are triploidy and chromosomal translocations. Drug intervention during fertilization is used to produce triploids. However, fertilization is internal in apple snails, complicating the use of drug treatments.

Mating snails provide a source of zygotes for drug intervention to induce triploidy. If triploids are produced following fertilization, they should be detectable in the egg mass. The mating snails were drug treated, the eggs were harvested, and the eggs were analyzed by flow cytometry. No triploids were observed in the egg masses. Can the cells in the gonad be treated with drugs to induce ploidy changes in gametes? Additional work is required to determine whether these changes reflect a change in the ploidy of sperm.

In conclusion, no triploids have been generated yet. However, more work is needed to determine whether gonadal drug treatment could be a potential route to produce triploid apple snails. Fertility and viability are being assessed in irradiated *P. brigesii*. *A. spixi* irradiation dose determination experiments are under way.

Bonvechio asked if the effort and costs put into irradiating the snail would drive the cost up of the snail to the point that they would no longer be marketable. **Teem** stated that it is a possibility.

Update – Trojan Y Chromosome Eradication of Invasive Fish Project

J. Teem gave a PowerPoint Presentation entitled "Trojan Y Chromosome Eradication of Invasive Fish: Sex-specific sex Markers in Tilapia". Females with two Y Chromosomes produce only male progeny, half of which are Myy. Myy males are viable and produce only male offspring. Four different matings are possible, leading to increased male production. The addition of a Trojan Y female (Fyy) to a target population will cause females (Fxx) to become extinct over time. The carrying capacity of the system becomes occupied by Myy fish (males with two Y chromosomes).

A Trojan Y chromosome strategy might be an appropriate technique for controlling invasive species. It is species specific; requires no new technology development; involves standard aquaculture techniques with no recombinant DNA; Trojan Y chromosome fish have already been produced in one species (*Oreochromis niloticus*); it is reversible. TYC requirements are that 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. 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 time, sex-specific DNA markers have been identified by using the RAPD PCR method. The process for this method is to first create a DNA pool from only females, and another from only males. Each pool is then tested with PCR using a collection of short DNA primers that will amplify sequences at different locations in the genome. For each primer, female-specific DNA is compared with male-specific amplified products using gel electrophoresis. A primer is found that gives a band in one DNA pool, but not the other.

Three invasive fish species were screened for sex-specific DNA markers using RAPD PCR: Nile Tilapia, African Jewelfish, and Silver Carp. A male-specific DNA marker for common carp was identified. Could this same DNA marker be used to identify males in silver carp, tilapia, or African jewelfish? A male-specific carp marker can be used to design 10-mer RAPD PCR primers. No sex-specific markers have been isolated as of yet for African jewelfish, silver carp, or tilapia. Larger numbers of fish will be included in pooled male-specific and female-specific DNA pools. Screening will continue for all three invasive fish, with help from USGS on African jewelfish.

Final Report on the AIS Traveling Trunk Project

H. Kumpf gave a PowerPoint Presentation entitled "Traveling Trunk of Invasive Species". **Kumpf** reported that it is because of the alarming numbers and impact of invasive species that information was compiled and the "Traveling Trunk" was produced for the GSARP. The trunk is intended to serve as outreach and an educational resource from the panel. The trunk consists of three sections: (1) "Traveling Trunk of Invasive Species" talking points manual (2) A PowerPoint Presentation on compact disc (CD) of the manual contents (3) Samples of embedded and laminated invasive species specimens for "hands-on" use. The manual suggests that trunk users 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 secondary school students, gifted programs, and interested lay people. There have already been requests by several educators and organizations that want to utilize the trunk. Because of the large amount of interest expressed, collection of materials for four additional trunks has begun. Suggestions, comments, and ideas are appreciated and can be emailed to the Regional Panel at www.gsarp.org or by contacting the authors at hkumpf3474@aol.com or ecoedgraphics@yahoo.com.

Invasive Species are described as exotic, alien, non-native, introduced, and a nuisance. There are several pathways/sources of invasives. Intentional pathways are by stocking, food importation, aquaria/pet stores, personal release, and property development. Non-intentional pathways are by ballast water, aquaculture, shipping, boat movement, and naturally.

Ecological impacts from invasive species include habitat degradation, food chain alteration, and competition with native species. Economic impacts include increased management costs, economic losses, and reduced natural productivity.

Invasive plants highlighted in the trunk include Kudzu (*Pueraria montana*), Chinese Tallowtree (*Triadica sebifera*), Water Hyacinth (*Eichhornia crassipes*), Hydrilla (*Hydrilla species*), and Salvinia (*Salvinia molesta*). Topics to be discussed are their native range, route of introduction, purpose/use, brief life history, and economic and ecological impacts. Invasive invertebrate animals highlighted in the trunk include Orange Cup Coral (*Tubastraea coccinea*), Green Mussel (*Perna viridis*), and Zebra Mussel (*Dreissena polymorpha*). Topics to be discussed are their native range, route of introduction, purpose/use, brief life history, and economic and ecological impacts. Invasive vertebrate animals highlighted in the trunk include Pacific Lionfish (*Pterois volitans/miles*), Burmese Python (*Python molurus bivittatus*), and Nutria (*Myocastor coypus*). Prevention, education, and observing and reporting are all ways to fight the spread of invasives.

Emens asked about the availability of the trunk and how its whereabouts are tracked. **Kumpf** stated that a Notice of Availability has been created. The trunk will be distributed at no cost and will be available for use for a maximum of 10 days. A reservation calendar with instructions on how to reserve the trunk will be created on the GSARP's website. Shipping of the trunk will be handled by the GSMFC office. **Ballard** stated that before the trunks are made available to the public, the GSARP's Education and Outreach workgroup is going to do a final review of all of the talking points that accompany the PowerPoint Presentation. Once this review is completed, the finished "Traveling Trunk" will be made available through the GSMFC. **Ballard** stated that his initial plan was to see how much interest the trunk generated. If enough interest and need is shown, he will proceed with obtaining items to produce additional trunks. **Jackson** stated that several Dade County teachers have expressed interest to him in getting the trunks for their classrooms.

Update on Penaeus monodon Activities

P. Kingsley-Smith gave a PowerPoint Presentation entitled "An Update on the Asian Tiger Shrimp, (*Penaeus monodon*). The native range of the Asian tiger shrimp is east Africa, Southeast Asia, Japan, China, Korea, Australia, Fiji, and the Philippines. They were first recorded in U.S. coastal waters off of Georgia in 1988 following the accidental release of approximately 3,000 of the shrimp from the SCDNR Waddell Mariculture Center. However, after their release in 1988, they were not seen in U.S. southeastern waters again until 2006. They are found in muddy and sandy bottoms and prefer depths from 0 m to 110 m. As juveniles, they occur in estuaries, and in marine waters as adults. *P. monodon* have several physiological tolerances. They have a salinity tolerance >10ppt, and a temperature tolerance approximately 13-33°C. Estimates of tolerance are preliminary for juveniles/adults, and testing of different life history stages is needed.

There are many concerns surrounding recent reports of *P. monodon*. The re-appearance of them in South Atlantic Bight was sudden and currently not well understood which causes fear. Based on the biology of *P. monodon* in its native habitat, the potential for its interactions with native penaeid shrimp in the southeast U.S. seems high. Interactions may be indirect such as competition for space, food, etc., or direct such as *P. monodon*'s diet in native habitat of shrimp and other crustaceans. *P. monodon* are potential hosts of viral diseases, which could possibly lead to transmission to native species. Reported collections of this species increased dramatically between 2010 and 2011. In 2010 there were a total of 32 collected. In 2011 there were 331 collected, with the majority coming from South Carolina and Louisiana.

Ballast water is one of the potential sources of *P. monodon* transport and delivery. The escapement of *P. monodon* in 2007from a Caribbean aquaculture farm due to Tropical Storm Noel, and the migration from wild Caribbean or African populations are other potential sources. One hypothetical mechanism for transport of *P. monodon* to the U.S. east coast is the entrainment of them from established populations in The Gambia via trans-Atlantic (North Equatorial) currents. This is consistent with reports of *P. monodon* in the southeastern region since 2006. Is there now an established breeding population of *P. monodon* somewhere along the southeastern U.S. coast? The answer will require more specimens and further genetic analyses.

Current efforts and future needs include: recognition flyers distributed to boat docks; more systematic data collection and reporting; size/weight/sex/condition data for specimens; standardized data recording cards to biologists; tissue collection, DNA sequencing, analysis. Microsatellites and single nucleotide polymorphisms provide sufficient markers for assessing phylogeographic and population genetic structuring among *P. monodon* collections from the southeast U.S. When people collect tissue samples, they are being asked to store them in 95% non-denatured ethanol. The samples are then submitted to the genetics lab for testing. When whole samples are collected, the first two pairs of pleopods are desired for testing. **Kingsley-Smith** stated that they have established a key point-person in each state who already works with the USGS database and coordinates the tissue collection and shipping process so that it stays manageable. More tissue samples are also needed.

REEF Lionfish Update

L. Akins gave a PowerPoint Presentation entitled "REEF Lionfish Update". **Akins** reported that lionfish are now invading the Gulf of Mexico and are a cause for concern. In the future, more work will go into assessing what is happening in the Gulf relative to lionfish. They are voracious predators and there is concern about the damage they can do to native ecosystems with that predation.

Recent publications have been released relative to lionfish. Topics include consumption rates, the decline in prey fish, climate changes affecting local control, sting paralysis, site fidelity, and diets.

Collecting/handling workshops were held in west Florida, southeast Florida, the Keys, and at the GCFI Conference. A collecting/handling workshop will be held in the Bahamas in May. REEF derbies will be held in Abaco, Palm Beach, Fort Lauderdale, Miami, and Key Largo, as well as many other international locations. The derbies do not control lionfish populations, but they are a valuable tool that provides a good opportunity to engage the community, teach people about the issue, provide samples for researchers, develop the market by allowing people to taste lionfish, and get people involved in collecting lionfish year round. The derbies are more of an outreach tool than a control tool.

Reports of lionfish sightings are being received daily and are primarily received via the internet reporting system. A phone app for reporting sightings is being developed. The app will also

allow access to recent reports and assist with targeting removal efforts based on those recent reports. **Akins** will report more on the app at the next GSARP meeting.

Akins stated that standardized reporting should be considered. All of the reports received by REEF go directly to the USGS and get incorporated into their NAS system.

The NPS Lionfish Response Plan has gone through extensive development.

A regional Best Practices Manual is being developed. There will be five primary chapters (Management Framework, Education/Outreach, Control, Monitoring, and Research). It is the first in a series of new books published through GCFI. It will be available this summer.

Akins reported that current research is underway that include a lionfish by-catch study in the lobster fishery; removal frequency in order to minimize the populations; microhabitat associations of lionfish and other competitor species; a target density model project that looks at how many lionfish a reef could support and how much effort it takes to maintain the lionfish population at a density; re-colonization and the impacts to the native fish community. Future research include acoustic tagging to look at movement and behavior; derby effectiveness; movement of lionfish; target densities.

There is still a lot of media interest in the lionfish issue. A NOS Podcast on lionfish will be out shortly. The lionfish cookbook has done well and there was recently a second printing of it.

Local control has proved to be effective. Populations of lionfish have been greatly reduced where removal efforts are being done on an active, ongoing basis.

Many local restaurants are offering lionfish on their menus. Local lobster fishermen are getting significant enough lionfish by-catch to supply the restaurants with them. One local lobster fisherman in the Florida Keys has caught over 6,000 lbs. of lionfish by-catch.

In the aquarium trade, there is a strong interest in supplying clients with local Atlantic lionfish instead of importing Pacific lionfish.

International training workshops will soon be held.

Internet-based training tools are being developed.

A regional strategy workshop will be held on regional strategy and development of a web portal as part of the GCFI.

Bonvechio asked **Akins** if he was familiar with studies being done on ciguatera toxin associated with lionfish consumption. **Akins** replied that researcher Bill Davin, an associate biology professor at Berry College in Mount Berry, Georgia, has been examining lionfish samples supplied by the Cayman Islands to see if they contain the naturally occurring toxin. **Akins** is not aware of the research findings, but pointed out that all fish caught for consumption where ciguatera is very prevalent could also contain the toxin.

Schmitz asked how many species there are of lionfish in the aquarium trade and if those species are also an invasion risk. **Akins** replied that there are approximately13. **Jackson** stated that there is an invasion possibility.

Teem asked if lionfish could be cultured in a lab and a full cycle of reproduction done. **Akins** replied that rearing lionfish in captivity has not been successful.

National Invasive Lionfish Prevention and Management Plan Update

Ballard reported that they made a recommendation to the ANSTF in May 2011to form a committee to explore the lionfish threat in the region and the need for a national lionfish control plan. The Task Force accepted the recommendation and formed the Invasive Lionfish Control Adhoc Committee. **Ballard** was elected Chairman. The committee presented a report to the ANSTF in the fall of 2011with a recommendation to move forward with a national control plan on lionfish and to include all other species in the trade instead of limiting it to the two species in the wild, and to address all species of lionfish known to be in the trade in the U.S. The ANSTF accepted the recommendation and the committee is now working on the draft of the National Invasive Lionfish Prevention and Management Plan. Working groups are being formed to draft the goals section of the plan and hopefully by the fall meeting of the Task Force, a completed draft will be presented to them for review and to vote on.

Akins added that, as part of this Plan, he is working on a section entitled "Regulatory Issues and Hurtles". He stated that he will be contacting panel members regarding what issues or regulatory policies currently in effect in their state may prohibit lionfish control and management.

AFS Southern Division Resolution on AIS State Plan and Panel Funding

Riecke was unable to attend the meeting, but copies of the AFS Division Resolution were provided in each member's folder. **Ballard** reported that the Resolution has passed the Southern Division and is moving on to the parent society of AFS, who will do an electronic vote. The Resolution has also been sent to Association of Fish and Wildlife agencies. The three marine commissions are also sending it through. All approved state plans will receive one million dollars yearly, and all six of the regional panels will receive one million dollars yearly.

Ornamental Zooanthids & Palytoxin: Importing Without Oversight and Risk to Consumers and Environment as a Potential Invader

Jackson gave a PowerPoint Presentation entitled "Ornamental Zooanthids & Palytoxin: Importing without Oversight and Risk to Consumers and Environment as a Potential Invader". From the 1950's to the early 1980's, the pet industry influx was a "static" industry made up of importers, wholesalers, and dealers (pet shops). For the most part, it was supply-driven. If someone wanted to purchase a pet, they had to actually go to the pet shop or live near an importer. In the 1990's, overnight shipping and global shipping were available. Next came the internet, and pets could be purchased online and shipped to the purchaser overnight. Hobbyists and the pet industry created blogs. Specialty internet sites were created. The pet industry went from *supply* driven to *demand* driven.

Jackson next reported on Orange Cup Coral (*Tubastraea coccinea*). It is believed that orange cup coral entered Atlantic waters as a fouling organism in shipping. It was first identified in 1943 in Curacao and Puerto Rico and can inhabit both shallow and deep habitats. *T. coccinea* is highly toxic and produces allelopathic chemicals that are toxic to neighboring native corals. Populations of *T. coccinea* have been observed on artificial reef habitats in Florida. It readily settles on newly available artificial substrates, exhibiting high survivorship and growth rates. In the aquarium trade, it is sold as an ornamental. It easily reproduces in captivity.

An ornamental group of Pacific organisms called zooanthids is entering the ornamental trade. Pacific zooanthids are highly marketable because of their bright multi-colors and their ability to easily reproduce. On the other hand, Atlantic zooanthids are not colorful and have not been a target of sale. **Jackson** reported that he learned that zooanthids are potentially dangerous in an article he read in *Coral* magazine in 2010. The article cautioned readers about handling zooanthids because "many Palythoa spp. zooanthids contain a highly toxic, potentially deadly toxin know as palytoxin (PTX). Zooanthus spp. haven't yet been confirmed to contain this toxin, but caution should still be applied". The article advised readers to wear gloves and eye protection and to wash their hands afterwards with warm, soapy water.

Palytoxin is one of the most toxic non-peptide substances known. Just 9ug can kill a 140lb. person. It operates at the sub-cellular level, affecting the transmembrane sodium pump into a non-specific "open only" ion channel, causing an increase in internal calcium and cell death. It is produced by dinoflagellates and can bioaccumulate via the food web. It is significantly toxic to vertebrates and anthropods (crustaceans, etc.). It is unknown how long zooanthids retain palytoxin, but cultured zooanthids have been found to continue to contain it. Is it bioaccumulated from consumption, or is it produced by an intrinsic dinoflagellate? More investigation is needed to examine the length of time the palytoxin is retained. Zooanthids are being sold with no oversight as to their toxicity, and no required handling guidelines. Poisonings, but no deaths, from palytoxin exposure via aquariums have been reported. The solution to this would be to require safe handling guidelines at all points of sale.

Jackson stated that intentional or unintentional release of zooanthids onto reefs could introduce a new organism that harbors toxin. The zooanthids could then be consumed by sea turtles. There could also be a change/increase of bioaccumulation on the food change, thereby being another risk to human health.

Public Comment

Hartman provided the opportunity for public comment. No comments were received.

The meeting recessed at 5:00 p.m.

Wednesday, April 4, 2012

The meeting reconvened at 8:30 a.m. The Chairman again provided the opportunity for public comment. No comments were received.

Discussion of Coast Guard's Final Rule on Ballast Water

P. Carangelo was unable to attend the meeting, but submitted a written report on the Coast Guard's final rule to establish a numeric standard for living organisms in ships ballast water discharged in U.S. waters that was published in the Federal Register. **Ballard** included the report in each member's folder and discussed the final rule. For informational purposes, **Ballard** asked the Task Force if the GSARP could make comments or recommendations to the Federal Register as an organization, and the Task Force said no. Comments and recommendations regarding the final rule can only be made at GSARP meetings and through state agencies. **Carangelo** wrote that the final Coast Guard rule sets a standard that is consistent with the standard set in the International Maritime Organization (IMO) ballast water treaty. The rule will go into effect "on or about June 20". The standard is consistent with recommendations made by the National Academy of Sciences and the Environmental Protection Agency (EPA) Science Advisory Board in terms of what is technologically achievable right now and for the reasonably foreseeable future.

Carangelo wrote that he has consistently stated to the Regional Panel that he feels the U.S. should adopt the IMO numeric criteria, which is now officially proclaimed in the final rule. The final rule states that "setting the numeric, concentration-based ballast water discharge standards in this final rule is the best approach to reducing the threat of the introduction and spread of NIS into the waters of the United States".

Carangelo wrote that the Coast Guard rule is an important step in unifying regulation of ballast water, which is currently regulated by the Coast Guard, the EPA, and state agencies under various statutes. The EPA is currently revising its Vessel General Permit (VGP), which is how the agency regulates ballast water under the Clean Water Act, and it may choose to set a standard consistent with the Coast Guard standard.

Carangelo's recommendation to the Regional Panel and state panel members has been and continues to be that were they to consider promulgating a state numeric standard for ballast water, that it should mirror the IMO standard that is now the USCG's final numeric discharge standard and implementation schedule.

State Reports

Alabama

Newton reported that several invasive species have been documented in Alabama waters. The Bocourt swimming crab (*Callinectes bocourti*), tessellated blenny (*Hypsoblennius invemar*), Australian spotted jellyfish (*Phyllorhiza punctata*), and Asian green mussel (*Perna viridis*), have recently been spotted. Prey of Australian spotted jellyfish include early life history stages of many commercially and recreationally important finfish. The temporal/spatial distribution of Australian spotted jellyfish could drastically increase finfish larvae/egg mortality rates if spawning events coincide with swarm activities. Similarly, the Bocourt swimming crab could compete for resources of the native blue crab. However, the current status of the Australian spotted jellyfish and the Bocourt swimming crab does not indicate that these two invasive species pose an imminent concern. Two invasive species of heightened concern are the giant

tiger prawn (*Penaeus monodon*) and the lionfish (*Pterois volitans/miles*), and their distribution warrants investigation.

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. After the first tiger prawn was documented, captures of *P. monodon* have incrementally increased. From 2006 to 2009, their distribution was primarily restricted to Alabama's southern inshore waters. However, in 2011, distribution extended to northern Mobile Bay and into Perdido and Wolf Bays. The 43 confirmed reports during 2011 indicate the giant tiger prawn has become established in all of Alabama's primary estuary basins. This has caused a shift of the focus of the Marine Resources Division management agency from documenting the occurrence, to characterizing the population structure and processing samples for genetic investigation. Male specimens recovered ranged in length from 154mm to 251 mm, while female lengths ranged from 141mm to 284mm.

The first report (non-validated) of lionfish was in 2009 by a recreational scuba diver 16 miles south-southeast of Orange Beach at an area of natural hard-bottom referred to as the Trysler Grounds. The first confirmed report was documented in June 2011 by a spear fisherman who collected a lionfish from an oil/gas platform approximately 43 miles south of Dauphin Island. Lionfish are now abundant on Trysler Grounds, and inhabiting oil/gas platforms at low densities. They have also been reported in inshore waters and within Alabama's territorial seas.

The DCNR/MRD has increased efforts to enhance public awareness of these two invasives. An invasive species page has been added to their website. A notification that describes the giant tiger prawn and provides information concerning proper reporting has been distributed to the shrimping community. Also, a page in 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 a variety of establishments where it becomes readily available to DCNR/MRD constituents. The DCNR/MRD has contacted the Mobile Jaycees about adding a lionfish category to their deep sea fishing rodeo. The Gulf Coast Divers group has been contacted about shooting lionfish on sight and possibly holding a derby.

Teem asked if there was any evidence of diseases caused from *P. monodon*. **Newton** explained that they have not seen any evidence in Alabama waters.

Rider reported that a third population of Island Apple Snails (*Pomacea insularum*) was discovered by a conservation officer in a private pond in Coffee County in southeastern Alabama. The officer noticed large snail shells that raccoons had been feeding on. The local fisheries biologist was contacted and he verified the species. Also noticed were two locations where pink eggs were attached to stumps protruding from the water. The pond drains into an intermittent unnamed tributary of the Pea River. Two copper sulfate treatments 10 days apart were applied from mid to late November. Local biologists plan on sampling the pond within the next few weeks to assess the treatment.

In February, **Rider** received a phone call from a congressional aide of Senator Sessions regarding Apple Snails and ANS issues that the Senator was interested in. He requested a

meeting and sight visit. After his visit, the aide emailed a request for additional information and literature.

There is no longer an aquatic plant program in Alabama, even though it is their biggest ANS issue. This program will not be reinstated.

The first population of Island Apple Snails found in Alabama continues to spread. Biologists from local districts have been continually spraying vegetation and applying copper sulfate to control their spread; however, pink eggs far downstream less than 0.5 miles from where Three Mile Creek enters the Mobile River were observed on March 7, 2012.

A Banded Leporinus (*Leporinus fasciatus*) was caught by an angler from a city park pond in Montgomery. Blueback Herring (Alosa aestivalis), a prohibited species in Alabama, have been confirmed in Lewis Smith Reservoir. Striper anglers are more than likely to blame for this illegal introduction. Several Bighead Carp have been caught by anglers in the Tombigbee River.

Schmitz asked which aquatic invasive plant species are of concern in Alabama. **Rider** replied that milfoil and hydrilla are a problem, as well as Cuban bulrush, which is moving up the Tombigbee River.

Florida

Schmitz reported on *Phragmites* in Florida. *Phragmites* is a tall, perennial, wetland grass that occurs in both fresh and brackish waters. North American *Phragmites* can be divided into three genetic lineages; native North America types, a Gulf Coast type, and a Eurasian type. The native types are found in the northeast, Midwest, and western USA, but not in the southeast. The Gulf Coast lineage occurs widely from the Atlantic Coast of Florida, along the Gulf Coast from Florida to Texas and south into Mexico and Central and South America. The Eurasian lineage was introduced into Philadelphia with ships ballast in the 1800s, and has become increasingly abundant and widespread in North America. It is now the dominant type along the Atlantic coast from Georgia northwards, and has moved into the Midwest, the Mississippi River Delta, and western states. A 2009-2010 *Phragmites* survey conducted in coastal areas from South Carolina to Louisiana did not find Eurasian plants in Florida. However, populations of Eurasian *Phragmites* were identified in Louisiana, Mississippi, South Carolina, and Georgia. Due to the proximity of the Eurasian type to Florida, it would seem likely that it will eventually invade the state.

There are reports of prolific seed production in some populations of *Phragmites*, but in the Gulf Coast, little or no seed production has been observed. *Phragmites* spread through the growth of rhizomes, and it is thought that the majority of spread within a population is due to clonal growth. How Gulf Coast *Phragmites* became so widespread in the southeastern U.S. with little or no seed production is unknown.

The Eurasian type of *Phragmites* has proven to be a highly aggressive invader, particularly in the northeastern and mid-Atlantic states, where it has largely displaced native *Phragmites*. A study conducted in the Mississippi River Delta in Louisiana demonstrated that the exotic type can out-compete the Gulf Coast type. If the exotic *Phragmites* invades Florida, it may have the potential

to displace Gulf Coast *Phragmites* and other wetland plants. Gulf Coast and Eurasian *Phragmites* are morphologically distinct, and can be separated by stem structure, panicle form, and stem color.

Schmitz discussed **Scott Hardin**'s written summation of his ongoing three-year study on introduced *Pomacea*. **Hardin** recently retired from the FWCC and will no longer serve on the GSARP panel. The final report is forthcoming, but some conclusions are worthy of note.

Plant species typically used in restoration activities such as bulrush, water lily, spikerush, Canna, arrowhead, spatterdock, and eelgrass are readily consumed by exotic *Pomacea*, particularly new growth of emergent macrophytes. Exotic apple snails will move to depths greater than 6.5 m to obtain food. The status of exotic *Pomacea* populations in areas earmarked for restoration should be determined prior to planting, and plants should be tall enough to have stems and/or leaves above the waterline at the time of planting. Exotic *Pomacea* consume roots of many plant species; therefore, leaving roots exposed during restoration planting provides an opportunity for snails to damage/kill plants. To minimize damage to restoration areas where exotic *Pomacea* are present, multi-species plantings are recommended.

Substantial impacts from exotic apple snails in large lake and marsh systems have not been observed. An extensive predator base (alligators, wading birds, fish, turtles, etc.) is probably at least partially responsible for controlling exotic apple snail populations in large freshwater ecosystems. Impacts seem to be limited to small ponds, including storm water retention ponds, in part because of palatial plant species present as well as a lack of apple snail predators. Research to assess potential impacts of *P. insularum* on the native *P. paludosa* in controlled laboratory situations has shown that the exotic apple snail outlives the native Florida apple snail. However, lab and mesocosm studies have not been inconsistent with observations in larger natural systems that suggest so-occurrence without impacts to native or exotic apple snail populations.

Control and possible eradication can be achieved in urban systems, or small systems with easily accessible shorelines, through a hand removal program in which snails and egg masses are removed on a regular basis (e.g., weekly or monthly). Eradication attempts in large, eutrophic Florida lakes will most likely be unsuccessful, and are not recommended because of the prolific nature of the snails, their ability to spread rapidly over large areas, their physiological tolerances, and potential impacts of treatments to non-target organisms. Eradication attempts using copper sulfate are not recommended. Copper sulfate treatments have not been successful in controlling exotic apple snails and can result in substantial impacts to non-target organisms.

Florida FWCC was notified by the Idaho State Department of Agriculture about two boats that had been on Lake Mead and were destined for Florida. Even though the boats had been inspected and treated in Nevada for quagga mussels, the effectiveness of the hot water treatments has not been consistent. One of the boats was to be dry-docked, but the owner was contacted by FWCC's invertebrate specialist and asked if the boat could be inspected. During the initial inspection, no evidence of quagga mussels was found in the bilge pump, bilge pump drain line, hull, water intake ports, or exhaust ports. However, during a second inspection, dead quagga mussels were found in the air conditioning system. The mussels were present in a water filter

through which water from outside the boat passes en route to a heat exchanger that cools the compressor. The unit was located beneath the deck inside the hull of the boat. It was felt that the mussels were likely not killed during the treatment, but from the boat being in transit for several weeks. The second boat arrived in Florida, but the owner was contacted and revealed that the boat was docked in saltwater in the Lower Keys and so posed no threat of infestation. This is an excellent example of a cooperative rapid response approach to head off potential threats.

Teem briefly reported on the rat lung worm. The rat lung worm has not been found in apple snails. A new snail, the giant African land snail, has appeared in Miami. Samples from the giant African land snail have been studied by **Teem** and no evidence of rat lung worm was found in those samples. However, it could be an issue in the future, since snails are a host for the rat lung worm. **Teem** explained that the rat lung worm is a nematode that infects both rats and snails and is a parasite that is normally found in Asia, but now exists in Louisiana. Humans who consume infected raw snails can contract eosinophilic meningitis, an inflammation of the membranes surrounding the brain.

Schmitz commented that he noticed that Florida Department of Agriculture workers who were removing the African land snails wore gloves and asked **Teem** if it was for protection from rat lung worm. **Teem** explained that it was, as the nematode can also be transmitted through the slime of the snails.

Schmitz asked what the status is of the removal effort of the giant African land snail. **Teem** explained that there are 14 core locations in Miami that they are aware of where the snails are present, and they are treating the locations with Molluscicides and monitoring the locations. Approximately 30 thousand snails have been removed. The fear is that the snails will eventually invade the Everglades and numerous Florida cities, and eradication will be virtually impossible.

Schmitz told the panel about a free iPhone app called "I've Got One". It is produced by the University of Georgia's Center for Invasive Plants and lists invasive animal and plant species in Florida.

Schmitz briefly spoke on the Everglades Cooperative Invasive Species Management Area (ECISMA) newsletter that he is Editor of. The newsletter highlights present control efforts and projects for invasive animal and plant species.

Kingsley-Smith asked what the status was of AVM research. **Ballard** stated that he has spoken to Rebecca Haynie, a researcher from UGA who gave a presentation on AVM at the last GSARP meeting, and there are new findings from their research. She will attend the next GSARP meeting and share the findings with the panel members.

<u>Georgia</u>
Bonvechio stated that they plan to submit a funding proposal for their ANS plan to the ANS Task Force.

Bonvechio reported on the Satilla River Flathead Removal Project. The presence of illegally introduced flathead catfish (*Pylodictis olivaris*) was first observed in 1996. During the mid-2000s, declines in the abundance of redbreast sunfish (*Lepomis auritus*) and bullhead catfish (*Ameirus spp.*) coincided with significant increases in the abundance of flathead catfish. The Satilla River has historically been one of the premiere sunfish fisheries in Georgia, with redbreast sunfish being one of the most sought-after species. In an effort to negate the impacts on native fish populations, existing Wildlife Resources Division (WRD) Waycross Fisheries staff began aggressive removals of the flathead catfish via electrofishing in 1996. Despite these removal efforts, the number and size of flathead catfish continued to increase. In 2006, the Georgia legislature appropriated funding for three new personnel (reduced to two in 2009) who were assigned the task of reducing the flathead catfish population levels through direct removal while searching for a long-term population control.

Crews removed 3,469 catfish for the 2011 sampling season (May-October). More than 23,000 fish have been removed since the implementation of the full-time flathead management program in 2007. The size structure of the population has declined, with the average size fish dropping from 5.8 lbs. in 2007 to 2.7 lbs. in 2011. In addition, the average length fish has fluctuated from 512 mm TL in 2007 to 354 mm TL in 2011. Age structure has also changed. In 2007, 15% of the population was made up of age-1 & age-2 fish. In 2009, the age-structure data revealed a typical population that had received high exploitation, characterized by over 80% of the fish being age-1 or age-2, and only 3% of the population being age-6 or older. In 2011, the age-structure appears to be rebuilding. Only 66% of the fish are age-1 or age-2, 22% are age-3, and 12% are age-4 or older. There also appears to be a compensatory shift in sexual maturity due to a decade of increased exploitation.

Water levels appear to affect recruitment. During the drought years, catch rates (CPUE) were down, but were considerably higher in the high water years of 2009-2010.

Maintenance control and/or suppression of flathead catfish in the Satilla River is possible, given the reported changes in biomass, size, and age-structure, but higher recruitment and earlier maturation was demonstrated. As a result, this will require intensive maintained harvest to prevent the population from rebuilding within 2-5 years.

During sampling in 2011, the WRD removal crew documented the non-indigenous range expansion of the Blue Catfish (*Ictalurus furcatus*) in the Satilla River. Seven catfish were recovered this season. This is the second non-native riverine catfish to be found existing in the Satilla River basin.

Coastal Georgia is forming a Cooperative Invasive Species Management Area (CISMA). A meeting was held in March

The USFWS at the Warm Springs Fish and Technology Center are in the process of developing eDNA markers for field use for ANS. They are currently working on bulls-eye snakehead, Mayan cichlid, and African jewelfish.

Teem asked about the flathead catfish triploid program. **Bonvechio** replied that a lack of funding and a cut in the annual budget are the main obstacles to the program.

Louisiana

R. Bourgeois reported that LDWF treated 57,218 acres of nuisance aquatic weeds in fiscal year 2010-2011. Decreases in coverage of these plants (except giant salvinia) are the result of a combination of LDWF control efforts and cold winters in 2009-2010 and 2010-2011.

In past years, the US Army Corps of Engineers (USACE) has provided approximately 30,000 acres of annual aquatic plant control in south Louisiana. Their Removal of Aquatic Growth Program did not receive funding for future efforts, and their plant control program ceased operation in December 2011.

Since 2006, giant salvinia has been a major focus of aquatic plant control efforts in Louisiana. In Lake Bistineau, water fluctuation and herbicide applications have reduced giant salvinia to approximately 150 acres. In Turkey Creek Lake, strategic boom placement to restrict plant movement, a drawdown, and a fluoride treatment have reduced giant salvinia to approximately 50 acres. In Toledo bend, the recent drought and a drawdown have drastically reduced the amount of giant salvinia present.

LDWF continues to train interested members of the public in spraying. Three training sessions have been held in the Lake Bitineau area, with over 100 attendees. As long as the public continues to show interest, these training sessions will be held.

A large effort is being made for better public outreach/education. Joint booths with LDWF Aquatic Outreach section have been put up at boat shows and the Bassmaster Classic. New brochures/handouts have been printed on Northern Snakehead vs. Bowfin. LDWF is taking full advantage of facebook. Brochures, links, and articles about ANS species/concerns are being posted, as well as information on tiger prawn and northern snakehead.

Following the 2011 flooding of the Mississippi River, Asian carp have located in a few new water bodies in both northern and southern Louisiana. Biologists continue to track their progression throughout the state.

Mississippi

R. Burris reported on DMR's coordination and outreach activities. An existing part-time invasive species ecologist has been hired to take on the additional role of part-time aquatic invasive species coordinator as per the Coastal Impact Assistance Program (CIAP) project objective.

DMR met with reviewers of the Draft Mississippi State Management for Aquatic Invasive Species, and assisted the MS Aquatic Invasive Species Task Force Co-Chairman in incorporating reviewers' comments and editing the prohibited species list.

At the first Northern Gulf interagency multi-state, invasive "Lionfish Strike Force" planning meeting, DMR participated as a charter member.

Interviews were given to reporters from WLOX television station, the Sun Herald newspaper, the Mississippi Press newspaper, the Mississippi Business Journal, and the Sea Coast Echo newspaper about the Asian tiger shrimp and lionfish invasions. The stories appeared in each of these media outlets, resulting in increased public awareness about the problem with aquatic invasive species.

Literature was provided about giant salvinia, lionfish, Asian tiger shrimp, and silver carp invasions for distribution to Mississippi legislators during Capital Day.

Forms and procedures were developed to comply with new NPDES (National Pollution Elimination System) permit regulations regarding the application of herbicides/pesticides in aquatic environments.

Tissue samples from Asian tiger shrimp were preserved and sent to the NOAA laboratory for population genetic analysis.

An article about invasive lionfish in the Northern Gulf of Mexico was produced for an upcoming issue of MDMR's quarterly newsletter *Coastal Markers*.

The "Aquatic Invasive Species Status Update" was presented at the DMR Commission meeting.

Six hundred "Invasive Asian Tiger Shrimp" decals were produced and distributed to licensed shrimp fishermen and seafood processors to aid in accurate identification and to encourage reporting of this new exotic shrimp species.

Distribution of "Invasive Lionfish" decals to dive shops to aid in identification and to encourage reporting of this new exotic fish species has continued.

Silver Carp flyers have been distributed to local sporting goods stores.

DMR reps attended National Invasive Species Awareness Week meetings and activities in Washington, D.C.

Twenty field surveys totaling 279 miles were conducted for early detection of AIS.
An aerial photo survey totaling 117 miles was performed to aid in the early detection of AIS. As a result of this aerial survey, a previously undetected accumulation of giant salvinia was found in the Pascagoula River marsh. Treatment of this patch is underway.

Eleven sightings of invasive Asian tiger shrimp were reported to the NAS database. Information and specimens were given to DMR by local fishermen.

Five herbicide applications were applied to giant salvinia on the Pascagoula River. Two herbicide applications were applied to common salvinia in Bogue Houma in the Pearl River, and Robinson Bayou in the Pascagoula River. Three herbicide applications were applied to cogon

grass on Deer Island. One herbicide application was applied to Brazilian waterweed in a residential runoff collection pond that discharges directly into the Tchoutacabouffa River.

Dennis Riecke was unable to attend the meeting, but provided a written report. The prohibited, restricted, and approved species lists in the Mississippi State Management Plan for Aquatic Invasive Species were reviewed and updated.

A letter of support for funding was written for the USGS ANS database.

At the annual meeting of SDAFS, **Riecke** presented the SDAFS *Resolution on the Federal Funding for Programs to Prevent, Control, and Manage Aquatic Invasive Species* to the SDAFS members. The Resolution was approved, and the members voted to send it to the AFS Resolutions Committee. The Resolution has not yet been distributed to federal congressional representatives in the SDAFS states. The approved Resolution is under committee review, and **Riecke** expects it to be approved for submittal to the national AFS members for a vote in the next few months. It has been amended to include an additional 2 million dollars; 1 million for the zebra/quagga mussel control plan, and 1 million for the USGS ANS database.

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 MS Department of Environmental Quality will soon be submitting the plan to the National ANS Task Force for approval.

Riecke represented the MS Department of Wildlife, Fisheries and Parks on the MS Aquatic Invasive Species Task Force.

"Stop Aquatic Hitchhikers" cards are continuing to be printed and distributed to boat owners when their boat registrations or renewals are mailed out.

The "Stop Aquatic Hitchhikers" logo and bullet list are continuing to be printed in the *Mississippi Outdoor Digest* and *Guide to Mississippi Saltwater Fishing.*

Links to the MS 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 all on the Department's website.

The yellow plastic "Stop Aquatic Hitchhikers" posters are being used by MS DWF boat ramp construction crews for posting on boat ramp access signs.

The activities specified in the MS State Management Plan for Aquatic Invasive Species will be implemented.

Freshwater fishing bait regulations to specify what bait can be legally sold, possessed transported, and used in MS will be composed. Revisions to a state law were drafted and

submitted, but it was decided that no agency-sponsored legislation for the 2012 legislative session will be presented.

Licensing of retail bait outlets that sell live freshwater fishing bait will be pursued. Draft regulations have been composed.

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 will be adopted. The list of approved, restricted, and prohibited species as specified in the public notice that regulates aquaculture activities in MS will be amended. State ANS Task Force members approved this list.

The MS Department of Marine Resources secured MS Coastal Impact Assistance Program funding to hire a Conservation Resource Biologist, Mike Pursley, under a 4-year contract to form an Aquatic Nuisance Species Advisory Council. This Biologist will begin implementation of action items contained in the MS State Management Plan for Aquatic Invasive Species.

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.

Information for MS contacts listed in the Expert Taxonomic Database will be updated and expanded.

All reports of nonnative species collected from field reports over the last several years will be sent to the USGS.

North Carolina

R. Emens stated that he manages the NC DENR's Aquatic Weed Control Program. The program provides assistance to units of local government, public utilities, and miscellaneous state agencies that are plagued by aquatic weeds which are recognized by the department as being noxious. The majority of the program funding goes toward hydrilla control.

Emens reported that over the last three years, funding has been reduced by approximately 40%. Several positions have been eliminated, and travel authorizations for attending meetings have been cut.

A small population of giant hydrilla that was persistent in NC for over a decade has recently been extricated.

A "Stop Aquatic Hitchhikers" guide is being distributed to specifically target boaters.

A hydrilla "hunt" card is being distributed. The card has identification pictures and information on why hydrilla is an invasive plant. There is a tear-off section that can be filled out with a person's name and the location of where hydrilla was located. A hydrilla sample can be submitted along with the card to North Carolina State University.

A state-wide ANS plan has not been developed yet. Grant money will be applied for in order to secure the services of a firm to write a plan.

Kumpf asked the panel members to submit their state's outreach materials in printed form to **Ballard** to include in the "Traveling Trunk".

South Carolina

P. Kingsley-Smith reported on the impacts of the invasive swim bladder parasite, *Anguillicoloides crassus* (Phylum Nematoda) on populations of the American eel, *Anguilla rostrata* in South Carolina estuaries. American eel populations in South Carolina estuaries have been in decline since at least 2001. A potential contributing factor to the decline is the *Anguillicoloides crassus* that infects the eel's swimbladder. *A. crassus* is endemic to East Asia, where it infects the Japanese eel without causing serious pathology; it is, however, extremely pathogenic to other eel species. *A. crassus* was first reported in the U.S. in 1995 in an aquaculture facility, and in 1996 it was recorded for the first time in wild U.S. American eel populations in Winyah Bay, South Carolina. *A. crassus* has since been reported in American eels along the Atlantic coast.

The goal of the present study on the impacts of *Anguillicoloides crassus* is to survey the presence and health effects of *A. crassus* on *A. rostrata* populations in two National Estuarine Research Reserves (ACE Basin NERR and the North Inlet-Winyah Bay NERR), and to compare them with anthropogenically-impacted areas of Winyah Bay and the Cooper River. Eels were collected between January 2011 and January 2012 to determine the prevalence and intensities of *A. crassus* at each site. Swimbladder damage was evaluated to determine whether infection by *A. crassus* was associated with any discernable effects on host health.

Prevalence of infection in the eels showed no significant difference between the four sites. Further analysis revealed that salinity has a significant effect on mean intensity, with mean intensity significantly increasing at higher salinities. Overall prevalence of infection was 46%. Eels < 300 mm had a higher prevalence of infection than eels > 300 mm. Eels at higher salinity sites had higher intensities of infection than eels collected at lower salinity sites.

Kingsley-Smith next reported on the impacts of the Asian seaweed, *Gracilaria vermiculophylla.* During the last decade, it has rapidly proliferated along high-salinity mudflats in several South Carolina and Georgia estuaries. Using next-generation sequencing, microsatellite loci have been developed for *Gracilaria vermiculophylla* that will allow the route by which it invaded estuaries worldwide to be reconstructed. Domestic samples along the east and west coasts of the U.S. will be collected for genetic comparison this summer.

Next discussed was the increase of Asian tiger shrimp (*Penaeus monodon*), catches from the southeast region. Ongoing monitoring of the Asian tiger shrimp has revealed a notable increase in the number of shrimp collected along the U.S. southeast coast in 2011. A total of 331 shrimp were collected from the region in 2011, compared to 32 in 2010. Reports have ranged from North Carolina to Texas. A greater diversity of habitats has been observed, specifically including near-shore estuarine habitats from which *P. monodon* reports prior to 2011 were rare.

In March 2012, the presence of *P. monodon* in seagrass habitat in Discovery Bay, Jamaica was confirmed.

A growing working group of collaborators from the SC DNR, USGS, NOAA-NMFS, and TPWD continues to coordinate reports of *P. monodon*, standardize data collection, and increase the acquisition of tissue samples for genetic analyses. A tiger shrimp tissue repository has been established at the NOAA-NMFS laboratory in Beaufort, NC. It is hoped that these genetic approaches will help to answer questions surrounding the geographic origin(s) of this recent invasion, as well as its temporal and spatial dynamics. D. Knott and others have compiled a comprehensive list of literature on *P. monodon*, including information on its general biology, reproduction, diseases, genetics, and aquaculture history.

Kingsley-Smith provided a lionfish update from MARMAP (Marine Resources Monitoring, Assessment and Prediction Program) data from 2011. MARMAP is a fishery-independent collaboration between the SC DNR Marine Resources Research Institute and NOAA Fisheries. Approximately 600 sites are sampled each year from Cape Hatteras, North Carolina to Cape Canaveral, Florida between May and September using the R/V Palmetto. Targeted areas are live bottom (sponge, soft coral, algal growth), rocky outcrops and reef habitat on the continental shelf, shelf edge, and continental slope. In 2011, MARMAP collaborated with the Southeast Fishery-Independent Survey (SEFIS) to collect lionfish images, and processing of the video should be completed in a few months. More information on 2011 lionfish observations by MARMAP researchers will be presented at the fall 2012 GSARP meeting.

C. Page reported that they have completed their annual state Aquatic Plant Management Plan and it is posted on their website.

Hydrilla continues to spread in the Santee Cooper lake system. Three years ago there were 800 acres of hydrilla; there are now over 4,000 acres. Thurman Lake now contains over 7,000 acres of hydrilla.

Outreach activities were done at The Southeast Wildlife Expo in Charleston and the Palmetto Sportsman's Classic in Columbia.

Measuring cups have been created with a "Protect your Waters" logo. Printed on the cups are instructions on how to disinfect boat live wells.

Texas

L. Hartman reported that the *P. monodon* issue has been featured in the news, which has helped their outreach efforts.

E. Chilton reported that to date, adult zebra mussels have been found only in Lake Texoma and Sister Grove Creek, although zebra mussel DNA has been detected at a number of other locations.

The budget for aquatic invasive plant management currently stands at about $0.7 million, as opposed to $1.7 million in FY 2011.

Giant hydrilla has been found in Lake Livingston, a 90,000 acre reservoir.

TPWD successfully submitted all necessary materials to comply with new National Pollutant Discharge Elimination System regulations.

The Texas Aquatic Nuisance Species Management Plan was submitted to the Governor's office and is awaiting his approval.

Notice of a new Guidance Document for Aquatic Vegetation Management in Texas was recently published in the Texas Register for a public comment period. The document should go into effect early this summer.

A zebra mussel awareness campaign is scheduled for May, June, and July 2012.

Dr. Shiyou Li, research professor of the Stephen F. Austin State University's National Center for Pharmaceutical Crops (NCPC) has now discovered that chemical compounds from giant salvinia can effectively inhibit growth of cancer tumor cells with minimum damage to normal cells. To date, more than 30 different compounds, including four new compounds, have been isolated from the giant Salvinia. TPWD has been collecting and supplying salvinia to Dr. Li.

Teem asked about salvinia weevils as a means of salvinia control. **Chilton** replied that two salvinia weevil production facilities have been built.

Members Forum

Bonvechio asked what they could do as a panel about the invasive ornamental aquatic issue. **Schmitz** stated that at a past meeting, it was decided that a "watch list" of potential invasive plant and animal species should be created. The watch list would also include ornamentals.

Ballard explained that the GSARP is a working arm of the National Task Force and therefore, can make recommendations to the National Task Force as to what GSARP feels the Task Force should be doing that affects this region. **Ballard** suggested that as a panel, GSARP can make the recommendation to the Task Force that they should address the ornamental issue. A general recommendation can be made at the upcoming spring meeting, or a formal session can be held at the next GSARP meeting to address the ornamental issues, and a well-rounded recommendation can be created and then presented to the Task Force at their annual fall meeting in Washington.
It was decided that a formal session would be held at the next GSARP meeting to address the ornamental issue, and a well-rounded recommendation would be created. It will then be presented to the Task Force at their annual fall meeting in Washington.

Kumpf suggested utilizing a previously created "watch list" from 2000 and adding species to that list.

Hartman reminded the panel that at the last meeting, **Herod**, **Jacoby** and **Schmitz** all volunteered to serve on a work group to create a watch list that would be incorporated into the Rapid Response Plan. **Hartman** was elected to head the work group.

National Park Service Activities - C. Furqueron reported on National Park Service activities. The Park Service has been working since last spring on developing a Lionfish Management Plan. Lionfish have been documented in seven parks.

A workshop was held in Miami last September. Twenty-nine people participated. Representatives from NOAA, REEF, state agencies, and the Park Service attended. A plan was developed that focuses on lionfish management to protect and maintain the park ecology, cultural resources, and visitor experience. Also, to identify research opportunities with park partners.

The Plan went through several reviews and has now been published. It is available on the Park's website at www.nature.nps.gov/water/marineinvasives/lionfish.cfm.

An Asian swamp eel project is being worked on at the Chattahoochee River National Recreation Area in Atlanta, Georgia.

Hydrilla is in the Obed Wild & Scenic River.

D. Britton reported that there are some positive developments regarding zebra mussels in north Texas. At the last GSARP meeting, **Britton** reported on the discovery of zebra mussels in Lake Texoma in 2009 which led to the North Texas Municipal Water District's (NTMWD) decision to discontinue pumping water from the lake into the Trinity River Basin. Despite these efforts, zebra mussels were then found in Sister Grove Creek. In February 2011, The Tulsa District USACE suspended the DA permit to transfer water from Lake Texoma into the Trinity River Basin. In August 2011, NTMWD submitted a proposal to USACE to resume pumping water into the Trinity River Basin. As of October 2011, the pipeline remains closed, awaiting USACE authorization. **Britton** announced that the USFWS has been working closely with NTMWD and the USACE to formulate a reasonable plan that would prevent zebra mussels from being introduced into the Trinity River Basin. **Britton** also announced that a proposal previously deemed too costly by the NTMWD in which the pipeline that pumps water from Lake Texoma into the Trinity River Basin would be rerouted through a water treatment facility has now been approved, and the project should be completed by July 2013.

The development of a "Train the Trainer" course that **Britton** suggested at the last GSARP meeting has been canceled due to lack of funding and other issues. However, he is hopeful that it will come to fruition in the future.

An Interagency Giant Salvinia Control Team meeting will be held shortly and **Britton** invited panel members to attend. Information can be obtained from salvinia.org, which is the website for the Giant Salvinia Control Team.

Kumpf commented that there will be a review of the "Traveling Trunk". **Ballard** will email the Talking Points to the members of the Education/Outreach Committee. Reviews should be sent to **Ballard** within 7-10 days. **Kumpf** thanked the panel for their support and assistance with the "Traveling Trunk".

Update on New Introductions

M. Cannister gave a PowerPoint Presentation entitled "GSARP Species Updates". A Nile tilapia was identified in an unnamed lake near Hampstead, North Carolina. In Miami-Dade County, Florida a Nile crocodile was found at Fruit and Spice Park. In White Trout Lake, a freshwater jellyfish was found. In Little Schultz Creek in Alabama, a convict cichlid was found. A green mussel was found in Perdido Bay. In Lake Sherwood in Louisiana, a Rio Grande cichlid was found. A silver carp was found in St. Mary Parish. A red-bellied pacu was found in Bayou Boeuf. In Houston, Texas, a greenhouse frog was found at the Cockrell Butterfly Center.

Cannister reported on species that were found outside of the Gulf and South Atlantic region. In October, two silver carp were found in the James River in North Dakota. In September, a Chinese mystery snail was collected from Lake George in New York. A butterfly peacock bass was collected from Maryland. Chinese softshell turtles were seen in ponds in Central Park in New York.

For the first time, zebra mussels have moved into the northern section of Chesapeake Bay. A dead zebra mussel was found attached to a dock in the Sassafras River.

Schmitz suggested that USGS email alerts also include where a species is native to.

Aquatic Nuisance Species Task Force Update

D. Britton reported that the next ANSTF meeting will be held on May 2-3, 2012 in Annapolis, Maryland. The decision to approve or reject the 2013-2017 ANSTF Strategic Plan and updated recreational guidelines will be made. Other agenda items will include lionfish and snakehead management and control plans, the Government Accountability audit, National Invasive Species Awareness Week, a national ocean plan, the NEMESIS database system, landscape conservation cooperatives, the spread of invasives through fish passage, and decisions on various panel recommendations.

Britton reported that ANS Task Force-approved management plans will receive funding, and RFPs for the ANS Task Force management plans will be posted on www.grants.gov in the near future as soon as the fisheries budget has been approved by their Director.

Britton informed the panel that USFWS has some funding available relating to state management plans, and even if their state does not have a problem with zebra or quagga mussels, verbiage in their state management plan does not have to include zebra and quagga mussel issues in order to qualify for the funding. However, funding must be requested in the RFP.

Britton reported that they are leading an inspection and decontamination effort in the Lower Colorado River and have received one million dollars to be used towards the effort. The focus is on the Lake Mead National Recreation Area, where there has been a large effort to stop the movement of trailered boats coming out of Lake Mead that are contaminated with quagga mussels from moving into other states. Boats moored at Lake Mead are now required to decontaminate before they leave. More information about the effort can be obtained by contacting **Britton** directly.

Britton gave an update on the Federal budget for the Aquatic Invasive Species Program within the Fish and Wildlife Service. Budgeting for FY 2012 was cut, but 2.9 million dollars was received specifically for Asian carp monitoring, prevention, and control. For FY 2013, the President's budget does not include any funding for state management plans. Over $500,000 was cut from Control and Management for zebra/quagga mussels, snakehead, Chinese mitten crab, apple snails, and lionfish. The remaining funding for Control and Management will focus primarily on preventing Asian carp in the Mississippi River from entering the Great Lakes.

Discussion of the 2010-2014 GSARP Strategic Plan

Ballard briefly discussed the strategic plan and explained that there are several actions laid out for each individual work group to address over the course of the 5-year plan.

Teem pointed out that a "watch list" of species still has not been created, and suggested that the current "species of concern" list be utilized and placed on the website. **Hartman** agreed and announced that before it is put on the website, **Teem** will email the list to **Ballard**, who will forward the list to the panel members for suggestions, changes, and updates to the list. The timeframe for completion is two months. The "watch list" will be officially named and put on the website by the next GSARP meeting.

Hartman asked **Hollin** to inquire if Sea Grant has a Spanish translator who could assist the panel with translating outreach materials into Spanish for distribution to Spanish-speaking Americans and to Mexico.

Invasive Species Advisory Committee Update

E. Chilton briefed the panel on the recommendations previously made by the ISAC Control and Management Subcommittee to NISC (National Invasive Species Council). The first recommendation asked 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. It would require integrating biological control with other management options to achieve maximum effectiveness. NISC presented the recommendation to the agencies and were told that they are still gathering information from other agencies.

The second recommendation asked 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. The IPM approach should emphasize partnerships with local controlling authorities, post-release monitoring, and collaborative programs with other stakeholders in other pest management disciplines. NISC responded that it was a good idea that all agencies agree with, but there is an issue with resources and how the data is shared.

The third recommendation asked that NISC support the www.invasivespecies.gov website 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. There was a rumor that the NISC website was going to be taken off the internet, but the leadership at the

Department of the Interior supported keeping the NISC website separate, and it has remained on the internet with the goal being to improve the NISC website.

The fourth recommendation from ISAC asked that, in accordance with the National Environmental Policy Act (NEPA), NISC departments, agencies, and their contractors assess the risks of invasiveness whenever their activities lead to the introduction of non-native species or their sub-sets (moving organisms) from where they occur to where they have never historically occurred. The response from NISC was that the Executive Order requires agencies to address invasive species, and the issue is how the EO is being implemented from agency to agency. The focus needs to be on the models for agencies to follow.

The fifth recommendation asked that NISC adopt the ISAC white paper entitled "Marine Bio Invasions and Climate Change" and the recommendations therein. NISC responded that the National Oceans Council has been developing ocean action plans and looking at concepts in the white paper.

Chilton noted that the Department of Transportation is looking at various ways to eliminate potential invasive insects via aircraft that come from overseas. Air curtains are being considered as one method of preventing insects from gaining entry into aircraft, and preliminary tests have shown that they are effective.

Chilton highlighted four new recommendations that were made at the last ISAC meeting. The first recommendation was from the ISAC Early Detection and Rapid Response Subcommittee and asks that NISC support and encourage the National Research Council of the National Academy of Sciences' review of frameworks for validation of advanced molecular assays for aquatic invasive species detection technologies and their protocols. The recommendation passed.

The second recommendation was from the Research Subcommittee. Expanding trade across the Pacific poses a dual challenge to the control of invasive species. There is a high potential for introductions of new species in both directions, and a high potential that some introduced species will become invasive because of similarities of climates and ecology of Central and Eastern Asia and North America. In light of these challenges and the potential negative impacts of such introductions on the economies and environment of the U.S. and its trading partners in Eastern Asia, ISAC recommends that the Department of State seek the cooperation of appropriate agencies in convening a multi-lateral meeting of scientists and governmental representatives from APEC (Asia-Pacific Economic Cooperation) to develop measures to prevent the introduction of invasive species in the course of trans-pacific commerce. A decision by NISC is expected by the next meeting

The third recommendation from ISAC asked that the USACE immediately reinstate funding for the Aquatic Plant Control Research Program due to its national importance in the control and management of aquatic invasive plants. The recommendation passed.

The fourth recommendation from ISAC asked for full funding in FY 2012 for ARS research programs in biological control and other invasive species programs and projects, including systematics. The recommendation failed.

Work Group Updates

Hartman reported that she contacted all of the current work group chairmen and found that since the last GSARP meeting, there has been no definitive action on any work group. **Kumpf** pointed out that the Education/Outreach Work Group produced the "Traveling Trunk".

Hartman announced that she has made changes to the Early Detection/Rapid Response Plan for the region. She will submit the plan to the panel members for review at the next GSARP meeting.

Hartman pointed out that there are seven new panel members who are not assigned to any work groups. She also stated that work group membership is not restricted to panel members only. **McMahon** and **Bonvechio** will serve on the Eradication/Control/Restoration work group. **McMahon** will also serve on the Early Detection/Rapid Response work group. **Schmitz** will serve as the Chairman of the Information Management work group. **Kingsley-Smith** will serve on the Research/Development work group. Cannister will serve on the Information Management work group. **Hartman** asked that each work group chairman contact the members of their group.

Discussion of ANSTF Recommendations

Ballard asked the panel members if they had any recommendations to present to the Task Force at their May 2012 meeting. **Ballard** suggested recommending that funding be made available to support the state plans for FY 2013. He asked for input as to what projects would be impacted if funding was no longer available. Georgia's flathead study would be impacted. **Chilton** stated that zebra mussel, snakehead, and Asian carp projects would be impacted.

Schmitz recommended that a survey mechanism be developed that can be utilized by each state to submit what their annual expenditures are for aquatic invasive species issues. This information would be beneficial when requesting funding in the future.

Schmitz made a motion to make a recommendation to the Task Force that a standardized survey mechanism be developed that can be utilized by each state to submit their annual expenditures on aquatic invasive species issues. Bonvechio seconded and suggested that a feature to input whether the expenditure is from state or federal funding be added. Ballard asked the state representatives if they were prepared to begin collecting the data if the Task Force were to accept the recommendation and wanted to test the survey. Hartman called for a vote from the panel members. The motion was approved.

Ballard asked the panel if they also wanted to make a recommendation to the Task Force that they do everything in their power to secure state funding for FY 2013.

Kumpf made a motion to make a recommendation to the Task Force that they do everything in their power to secure state funding for FY 2013. Bonvechio seconded. Hartman called for a vote from the panel members. The motion was approved.

Other Business

Ballard noted that there is an open seat on the environmental user group and asked the panel members what process they wanted to use to fill the seat.

Schmitz suggested that a representative from the Center for Invasive Species and Ecosystem Health at the University of Georgia be considered. **Ballard** asked **Schmitz** to locate a person at the Center for Invasive Species and Ecosystem Health at the University of Georgia who would be interested in serving on the environmental user group and email him their information. **Ballard** will then email the information to the panel members.

Ballard stated that he will email a candidate request for the open seat to the panel members and a vote will be made on which candidate to elect for the seat.

Next Meeting Time and Place

Ballard noted that he has been in discussion with the Mississippi River Basin Panel and they have expressed an interest in meeting jointly with GSARP. There was no opposition from the panel members, and **Hartman** proposed that the next GSARP meeting be set up as a joint meeting with the Mississippi River Basin Panel. **Ballard** will work out the details with the Mississippi River Basin Panel.

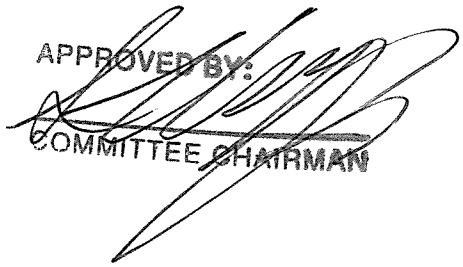
It was decided that Louisiana would be the location of the next meeting.

The next meeting will take place the first week in October.

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.



Blue Crab Technical Task Force
MINUTES
April 26, 2012
MS Department of Marine Resources
Biloxi, Mississippi

Moderator, Steve ***VanderKooy***, called the meeting to order at 8:30 a.m. The following Task Force members and others were in attendance:

Members Present
Harriet Perry, USM/CMS Gulf Coast Research Laboratory, Ocean Springs, MS
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
Darcie Graham, USM/Gulf Coast Research Laboratory, Ocean Springs, MS
Jeff Rester, GSMFC, Ocean Springs, MS
Alex Miller, GSMFC, Ocean Springs, MS

Others
Steve VanderKooy, GSMFC, Ocean Springs, MS
Debbie McIntyre, GSMFC, Ocean Springs, MS

VanderKooy asked those present to double check the roster list handout for accuracy.

Adoption of Agenda
The agenda was reviewed and it was agreed that it would be used as a guide, allowing for changes and also allowing for review of ideas and discussion from the previous two days' GDAR Workshop.

Work Session Summary (March 7, 2012)
The summary from the work session held March 7, 2012 was reviewed by the group and accepted as written without changes.

GDAR Data Workshop
VanderKooy stated that he had hoped to have more preparation done prior to the GDAR Data Workshop. It is unfortunate that the GDAR and FMP revision happened this way, running almost simultaneously.

VanderKooy explained that finishing up work on information for the FMP should be a priority to task force members rather than spending time on the pre-reports for the assessment. While the assessment is essential for the FMP, VanderKooy hopes that the section drafts will be in their final stages during the 2012 calendar year since there is no certainty of IJF funding in 2013. Therefore, everyone was encouraged to focus concentration back on completing their section drafts.

It had been agreed at the GDAR Workshop that the sexes would be combined since there was concern that there was not enough data available related to commercial catch. After discussion today, however, it turned out that there is more data available than had been originally thought. Perry indicated that she has male vs. female fishery dependent data dating back to the early 70s that may never have been entered but she will check and see. This was part of studies she was conducting at fish houses. Graham reminded the group that GCRL also has four full years of data that could be compared with Perry's historical data. Herrmann was not sure if AL has commercial catch data but he will check. Gandy recalled there was some fish house sampling along the FL west coast prior to his arrival at FWC. Upon further investigation, it was discovered that FL does have data of samples from a number of fish houses from the panhandle to south FL from 2002 to 2004 which included size, weight, length, width, and sex of the commercial catch. Gandy will send the data file that he found to Cooper for possible inclusion in a sex-specific index and will copy to VanderKooy, West, and Mahmoudi.

Sutton suggested that exploitation rate be researched and possibly some sex ratio data for this year could be gathered this summer and/or fall by the state agencies. Clearly, exploitation rates will differ based on sex. Perry would like to see some fish houses visited and Marx indicated LDWF may be able to sample using commercial traps over the summer. VanderKooy thinks this would have to be a summer project and not go into the fall due to time constraints. It was suggested that this data can be compared to Perry's old data if she is able to find it.

Any new survey information should include soft shell and sponge crabs that are being thrown back from the commercial catch. A sensitivity study would be good because it may be that females need better protection. This could be a tool that can be used to make recommendations in the FMP.

Gandy pointed out that fleshing this all out full circle, from the last FMP publication until now, can help improve sampling, modify protocols, and serve as a good opportunity for making recommendations for changes.

VanderKooy noted that the goal of the stock assessment reviewers is to determine the status of the population, not to recommend targets. It is up to the managers to decide what the management goals are. Managers will set limits and thresholds which is where the recommendations will come from. Stock assessment reviewers will provide a list of long-term needs.

Perry stated that we are not recruitment limited and she would prefer to not use Chesapeake Bay information or depend on their reasoning. All agreed that Gulf data was critical and could be provided for most of the assessment.

VanderKooy suggested combining management concerns and recommendations into one section. VanderKooy assured the group that recommendations made in the FMPs are reviewed by the TCC. Subcommittees can make recommendations to the TCC who can then make recommendations to the Commission. Some of these recommendations are management based and some are more scientific. The FMP report card was displayed indicating existing FMPs and Profiles and the progress made on the recommendations to date on each. The group was made

aware that the Commission does go back and follow up on recommendations made through these publications. Gandy pointed out that when reports are given to the TCC by the committees, this would be a good opportunity for the representative to point out some recommendations that have been made and are not being addressed. Some gaps in the Gulf-wide studies can be addressed in this manner.

VanderKooy indicated that the Commission is attempting to become a repository for all five states' fishery-independent data for all species, and all years. The states have agreed and entire data bases will be uploaded to the Commission. There will be a data base manager who will manage this project eventually.

Habitat

Rester gave the group a progress report on his work and asked them for feedback as to how much detail is needed in these sections and if there are any other threats about which he should be aware. Gandy suggested that dividing habitat into east and west, or regionally, may be helpful. It was decided that Rester would go into greater detail. He reviewed bottom sediments – dominant bottom types and habitats, all of which is published material. Everyone felt that the most up-to-date information as well as an overall picture should be included. Rester will use whatever updated information he receives from the individual states. With Marx contributing the habitat requirements, the habitat section will be complete. Marx indicated that he is making progress on this section and will likely finish it up in the next month or so.

Each state representative needs to get info for essential habitats of particular concern (specific examples of areas or habitat types by state). Rester will work on Loss of Wetlands.

Threats Section

Rester pointed out that he has most of these covered. The possibility of the Richton Project taking place was discussed and it was suggested that this threat be included just in case it does come to fruition. Potentially, this project could cause an alteration of fresh water inflow and high salinity discharge. Perry stated that opposition to such projects need as much printed material as possible to support that position. It was suggested that such events as the Deep Water Horizon disaster should be included in this section. Rester requested that TTF members send their state's updated information to him and he will send out what he has. HABs will be added to 4.5.1 list.

Economics Section

VanderKooy appealed to the group to add ideas to the survey and also asked them to suggest some additional questions. It was suggested that the following questions be added to the survey:

- "How do you think that the MSC has helped or do you think it would?"
- "Do you think traceability would help your sales?"
- "Do sponge crabs need protecting?"

It is anticipated that the social/economic survey will be completed over the summer. TTF members will get the word out and postcards will be sent out which will have a website on it for easy participation. It was suggested to take the "other" answer and combine the most common

issues into another question and also to analyze which questions are not getting answered at all and may be too intrusive, then possibly to eliminate those. VanderKooy will ask Dr. Jacob to reanalyze this data accordingly and the two will get together on this issue in the next month or two.

Miller stated that, basically, he is getting data from NMFS and updating it. The processor survey is complete but the data is being cleaned and entered. Miller should have these results and a draft available before the end of the year. Gandy stated that economics is a big question in determining recommendations and it would be helpful if some economics basics could be provided to the TTF by mid-summer so that members can determine what questions need to be asked on the survey. VanderKooy pointed out that everyone can still be working on their other assignments as well. Therefore, a deadline of July, beginning of August (August 1) was set for Miller to provide basic economics information. VanderKooy stated that the June deadline is partly to push the economics section. Miller is going to have a lot of interesting, brand new stuff.

Miller indicated that it is too early to know the effect of MSC certification on the crab industry. There is a broader sustainability, not only in crabs.

Biology

Perry stated that the bulk of Section 3 is fairly complete except for what she will incorporate into "Growth" that she is expecting from Graham and Gandy. Graham indicated that stock recruitment is almost complete. Additional information should be sent to Perry who will send to VanderKooy to post on the website. VanderKooy reminded everyone to continue to send him either PDFs or paper copies of references and to add all citations to the end of each section as it is being updated. These will be removed at the end.

Gandy reported that the publication on Lipofuscin for age should be done close to the end of the year. There are growth estimates for one stand-alone pond and one population. Cooper is going to try to work this into the model.

Regarding width/weight relationships, Graham will send West some of this data because he is going to rebuild his and add Graham's data.

Fecundity is almost complete. Graham has yet to review spawning and mating. Gonadal description may have some change from Sook's work.

Gandy has gotten feedback from Eric Shott regarding parasites. Gandy presented Table 3.2 from VanEngel which is 4 pages of disease. Gandy indicated that this will take some time to investigate. Perry will add this to the environmental section. Gandy will forward this information to Perry. Graham and Gandy will finish this up.

Perry will update the food habits section. Gandy and Perry are working on modifying the tagging studies. The deadline for good rough draft updates of section 3: June 29th.

Perry will send climate change section to Jeff Marx. Another section is needed for global

climate issues. Perry will do this section.

Ralf needs to look at the recruitment and juvenile abundance information for further evaluation.

Enforcement
VanderKooy will get with Rob Beaton regarding the enforcement section.

Description of the Fishery
State representatives are to provide state fishery information (backgrounds and oral histories) to Floyd. This information should continue from the last FMP and introduce new information since that time. It was discussed that soft crab and peelers are lumped together in most of the landings data. Some detail needs to be included specific to soft shells.

Recreational Fishery
LA has recreational crab trap licenses now. They have sold 5,000 and each license is allowed to use 10 traps.

Aquaculture
Graham has been working on this section and has the majority done. She has some new data to incorporate into the old.

Research & Data requirements
Everyone will be expected to contribute to this huge section.

Stock Assessment
It was decided that, over the next 6-8 months, the group should collect as much commercial catch data as possible with the goal to get the assessment passed by the end of this year or early next year.

Misc
The GDAR reference points and management goals were reviewed. VanderKooy reviewed potential approaches and discussed the development of complete ecosystem based on reference points. A target should be decided upon that should not be exceeded. Management measures must be put in place to bring effort and landings down into an acceptable level. Sutton displayed a curve of fishing mortality limit. VanderKooy shared with the group the North Carolina Traffic light model example for assessment. He also showed a schematic fisheries control rule of fishing mortality.

Next meetings
The late August, early September date should give everyone time to get their first cuts out by June 29th. The likely places being considered to hold this meeting are Apalachicola, Point Clear, Orange Beach, New Orleans, or Galveston. VanderKooy will send out a doodle calendar to see what dates work best for most. Conference calls will probably be necessary between now and then.

The meeting was adjourned at 4:20 p.m.

FIN Otolith Processors Training Workshop
Meeting Summary
May 8-9, 2012
St. Petersburg, Florida

The meeting was called to order at 9:00 a.m. and the following people were present:

Alison Amick, FWRI, St. Petersburg, FL
Jessica Carroll, FWRI, St. Petersburg, FL
Kristen Wolfgang, FWRI, St. Petersburg, FL
Kristin Cook, 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 Chudzik, MDMR, Biloxi, MS
Wes Devers, MDMR, Biloxi, MS
Andy Fischer, LDWF, Baton Rouge, LA
Isis Longo, LDWF, Baton Rouge, LA
Prince Robinson, LDWF, Baton Rouge, LA
Kym Walsh, LDWF, Baton Rouge, LA
Keycha Johnson, LDWF, Baton Rouge, LA
Kathy Brown, TPWD, Palacios, TX
Morgan Cason, TPWD, Palacios, TX
Robert Allman, NMFS, Panama City, FL
Beverly Barnett, NMFS, Panama City, FL
Chris Palmer, NMFS, Panama City, FL
Hannah Trowbridge, NMFS, Panama City, FL
Liz Herdter, USF, St. Petersburg, FL
Gregg Bray, GSMFC, Ocean Springs, MS
Dave Donaldson, GSMFC, Ocean Springs, MS

Conducting Otolith Reading Exercises for Black Drum, Red Drum, Spotted Seatrout, Gray Triggerfish, Greater Amberjack, King Mackerel, Southern Flounder, 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), greater amberjack, 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 4:00 p.m.

May 9, 2012
The meeting was reconvened at 9:00 a.m.

Please note that this summary includes tables that outline the reference sets APEs, by year as well as the agency contacts and responsible person(s) for each of the reference sets. This information can found at the back of the document.

Discussion of Greater Amberjack Reference Set

D. Donaldson stated that D. Murie was unable to attend this year's meeting due to class scheduling issues. In discussion with her, she stated that she is finalizing the greater amberjack training CD and it should be ready to distribute to the group by June. She is hopeful that she will be able to attend the otolith processors meeting next year.

Discussion of Southern Flounder Reference Set

A. Fischer distributed documentation regarding the set. There are a total of 199 otoliths in the set and 100 otoliths were replaced this year. There was a significant decrease in APE from 7.24% to 2.59% for all agencies. The improvement was due to an error in the spreadsheet that calculated APE. This error may have also lead to higher APEs in previous years. While the APE has improved, there still appears to be some issues regarding assigning the correct margin codes, specifically in Texas. 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 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of King Mackerel Reference Set

C. Palmer stated that he has been extremely busy with various SEDARs and has not had a chance to distribute the set to all of the states. So far, Louisiana and Texas have read the reference set with an APE of 3.6% and 7.5%, respectively. The reference set will be distributed to the other agencies and once completed, **C. Palmer** will calculate an APE and distribute to the group. Some of the damaged otoliths will be replaced this year. It was noted that king mackerel is slated for a SEDAR in November 2013 so it is important that all agencies read the reference set quickly to ensure that an APE is available for this meeting. 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 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Red drum/Spotted Seatrout/Striped Mullet Reference Sets

J. Carroll stated that all agencies have read the various sets and the APEs are 7.96%, 6.78% and 6.87% for red drum, spotted seatrout and striped mullet, respectively. As with other species, there are issues regarding correctly identifying the marginal increment for these species. It was noted that readers need to be very careful when determining the margin code since misidentifying the code can have a big impact on the APEs for the various species. The reference sets will again be distributed to the various agencies and the results of the readings will be presented to the group at the May 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Sheepshead Reference Set

W. Devers reported that a new reference set has been developed and was distributed and read by all agencies. The overall APE was 4.64% and as with other species, the main issue is correctly identifying the margin code. 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 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Red Snapper Reference Set

R. Allman stated that the reference set has been reconstructed and has been distributed and read by Florida and Alabama. So far, the APEs have been under 3%. Once the rest of the states have read the set, **R. Allman** will distribute the final APE to the group. It was noted that the agencies that have not read the set do so quickly since there is a Red Snapper SEDAR coming up in August 2012. In order to ensure that all the data are available and utilized, it is imperative that there is a complete and final APE calculated prior to the SEDAR. 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 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Vermilion Snapper Reference Set

B. Barnett reported that a new reference set had to be developed and it has been completed. Due to other priorities, the set was not read in time for this meeting but will be distributed to the appropriate agencies and the results of the readings will be presented to the group at the May 2013 meeting. Since the readings have not been completed, there are no historical APEs for this species.

Discussion of Black Drum Reference Set

D. Donaldson stated that the responsibility for the reference set was transferred to GCRL (**Gary Gray**) but unfortunately, he was unable to attend this meeting. **D. Donaldson** will contact Gary Gray to determine the status of the reference set. The set will be distributed (by **G. Gray**) to the various agencies and the results of the readings will be presented to the group at the May 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Gray Triggerfish Reference Set

B. Barnett stated that the reference set has not been distributed to the various agencies due to other commitments by C. Fioramonti. Because of this fact, an APE has not been calculated. It was noted that since the spines are difficult to read, the target APE for this species is 10% not the 5% standard. 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 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Development of Other Reference Sets for FIN Priority Species

D. Donaldson stated that this issue has been discussed in the past but due to prior commitments, this issue was tabled. Because it has been some time since this issue was discussed, the group wanted to readdress this topic. There are three (3) FIN priority species that do not have an associated reference set: red grouper, gray snapper and gag grouper.

Regarding red grouper, **C. Palmer** stated that he believes that a reference set has already been developed by NMFS. He will discuss this issue with the Panama City personnel and touch base with **D. Donaldson** in the summer about its status. Only Alabama and Florida encounter red grouper with any regularity with the majority being landing in Florida. **It was determined that only Florida needs to annually read this set. Any otoliths collected by Alabama will be sent to Florida for analysis.**

Regarding gray snapper, **A. Amick** will take the lead on developing this reference set.

Once it is developed, it will be distributed to the various agencies for reading. **It was determined that all states need to annually read this set.** The set will be distributed to the various agencies and the results of the readings will be presented to the group at the May 2013 meeting.

Regarding gag grouper, **B. Barnett** stated that she believes that a reference set for this species may also already have been developed by NMFS. She will discuss this issue with the Panama City personnel and touch base with **D. Donaldson** in the summer about its status. Only Alabama and Florida encounter red grouper with any regularity with the majority being landing in Florida. **It was determined that only Florida needs to annually read this set. Any otoliths collected by Alabama will be sent to Florida for analysis.**

Discussion of Tracking System for Reference Sets

D. Donaldson stated that since several reference sets have been lost in the past, the group implemented a tracking system for these sets to ensure that everyone knows the location of each set at any point in time. This system requires that Agency A notify (via e-mail) Agency B when it is sending a reference set to Agency B as well as Agency B notifying Agency A when it receives the set. All the applicable personnel from Agency A and B as well as FIN staff should be included in the e-mail chain. **D. Donaldson** noted that it is important to make sure these e-mails are sent to all the appropriate personnel and the group needs to be diligent about utilizing the system.

Discussion of the Future of Biological Sampling under FIN

D. Donaldson stated funding for FIN has been level-funded since 2005 and due to increased costs of operational activities, it has been more and more difficult to fund the on-going FIN activities, including biological sampling. Fortunately, there have been other sources of funds available to cover some of these funding gaps, however, these sources may not always be available. In 2012, biological sampling was actually funded via another source of funds and this source should be able to cover biological sampling (partially) in 2013. However, after 2013, the status of biological sampling is uncertain without an increase in base funding via the GulfFIN line item. **D. Donaldson** is notifying the group of this situation, not to scare everyone, but to prepare them for the potential that biological sampling may not be continued after 2013.

Discussion of Future Training Meeting

The group discussed the date and location for the next otolith meeting processors training workshop. It was decided that it should be held at Florida Fish and Wildlife Research Institute during the first part of May 2013. **D. Donaldson** stated that the meeting would be shortened from 2 days to 1½ days since there appears to be a lot of down time.

D. Donaldson stated that there has been several requests over the years from various agencies (mainly universities and colleges) to have personnel, not associated with the FIN, attend this meeting. There has been some confusion about the purpose of this meeting from those requesting other personnel to attend, believing that it was a workshop to learn how to read otoliths. The main purpose of the meeting is to ensure there is compatibility among the various agencies reading otoliths. So, one way to minimize the confusion is to actually change the name of the meeting from Otolith Processors Training Workshop to Otolith Processors QA/QC meeting. The QA/QC descriptor is a more accurate representation of the purpose of the meeting and could minimize confusion. It was noted by several group members that having outside participants at this meeting is not only inappropriate but could potentially jeopardize the intent of the meeting. **After some discussion, the group agreed that requests from outside agencies/organizations to participate in this meeting should not be granted and if these**

agencies/organizations are interested in otolith analysis training, they should be referred to the appropriate local state or federal agency conducting this work.

Other Business

G. Bray mentioned that FIN recently became aware that some agency personnel were obtaining lengths from filleted carcasses. He noted that this practice was not allowed and any questions about biological sampling procedures should be referred to the FIN staff at the GSMFC. He also noted that there have been some issues with the data entry program that FIN is continuing to work on and that the delivery of biological data is supposed to be on a monthly basis. While these activities and protocols have been disrupted by the oil disaster, it is time to get back to these deadlines and asked everyone involved to adhere to these protocols.

B. Barnett stated that in the past, personnel from NMFS-Beaufort Laboratory have participated in this meeting. **D. Donaldson** stated that he has included them in past meeting notices but since they have not been participating recently, he discontinued this action. After some discussion, the group believed it would be beneficial to include these personnel and asked staff to reengage Beaufort personnel to attend this meeting. **D. Donaldson** stated that he would make sure they were included in the planning of the May 2013 meeting.

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, A. Amick, K. Wolfgang and K. Cook 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*	*2011*	*2012*
Black drum					0.67	0.21	2.67	0.00	3.93	4.69
Red drum					0.52	4.35	1.63	2.83	1.04	1.48
Spotted seatrout					0.00	4.55	1.17	1.44	1.64	0.86
Southern flounder		10.54	9.51	4.00	2.86	8.78	3.03	6.48	6.81	1.70
Striped mullet					6.97	7.48	9.84	2.87	2.72	2.08
Sheepshead					0.42	8.72	2.96	4.12	4.36	2.07
Red snapper	16.01	4.97	5.58	3.32	1.14	6.04	3.55	1.30	4.03	2.74
Gray snapper					3.19	9.22	1.80	3.41	1.34	1.36
Vermilion snapper					6.10	16.32	8.54	7.02	12.97	9.37
King mackerel			13.60	2.88	11.51	6.48	13.12	10.26	10.12	2.86
Greater amberjack									16.43	9.07
Gray triggerfish					16.81	21.79	16.02	10.18	28.58	23.95

After the comparison exercise, otoliths, where there were differences among the groups, were identified and everyone examined these otoliths (as a group) to determine where each group had differed. The group believed this was a useful activity and it helped everyone identify where errors can (and were) made while reading the otoliths. It was noted that having the groups mark where they counted the rings on print outs was also very helpful during the discussions. Overall, the APEs for most of the species were at or below the 5% threshold. Where the APEs did exceed the 5% standard, it was due to several issues: 1) difficulty in identifying the first annulus (vermilion snapper and greater amberjack) and 2) general difficulty in identifying what is considered a ring (gray triggerfish). There was a brief discussion about gray triggerfish related to reading otoliths vs. spines but it was pointed out that the otoliths are harder to read than the spines.

Being no further business, the meeting was adjourned at 10:20 a.m.

Reference Sets APEs, by Year

REFERENCE SET	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Black drum					7.93		
Red drum				2.36	3.82		7.96
Spotted seatrout				3.15	3.73		6.78
Southern flounder	6.71	18.89*	7.35	3.22	8.32	7.24	2.59
Striped mullet				7.12	5.88		6.87
Sheepshead				3.91			5.05
Red snapper	2.74	4.90	4.34	5.01			
Vermilion snapper							
King mackerel (overall)			5.83	7.45	5.92		
King mackerel (sectioned)			3.39	4.87	0.68		
King mackerel (whole)			9.13	10.04	13.83		
Greater amberjack							
Gray triggerfish						20.80	

*data transcription errors resulted in elevated APE

AGENCY CONTACTS FOR REFERENCE SETS

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION: FISH AND WILDLIFE RESEARCH INSTITUTE
Jessica Carroll
Florida Fish and Wildlife Commission
Fish and Wildlife Research Institute
100 Eighth Ave., SE I1-FDM
St. Petersburg, FL 33701-5020
(727) 896-8626
(727) 894-6181 FAX
jessica.carroll@myfwc.com

NATIONAL MARINE FISHERIES SERVICE
Robert Allman
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, Florida 32408-7403
(850) 234-6541 x 206
(850) 235-3559 FAX
Robert.Allman@noaa.gov

ALABAMA MARINE RESOURCES DIVISION
John Mareska
Alabama Department of Conservation and Natural Resources
Marine Resources Division
2 North Iberville
Dauphin Island, AL 36528
(251) 861-2882
(251) 861-8741 FAX
john.mareska@dcnr.alabama.gov

MISSISSIPPI DEPARTMENTOF MARINE RESOURCES
Wes Devers
Mississippi Department of Marine Resources
1141 Bayview Ave., Suite 101
Biloxi, MS 39531
(228) 523-4063
(228) 374-5005 FAX
wesley.devers@dmr.ms.gov

LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES
Andy Fischer
Louisiana Department of Wildlife and Fisheries
2000 Quail Drive
Baton Rouge, LA 70808
(225) 765-2381
(225) 765-2489 FAX
afischer@wlf.louisiana.gov

TEXAS PARKS AND WILDLIFE DEPARTMENT
Britt Bumguardner
Texas Parks and Wildlife Department
Perry R. Bass Marine Fisheries Research
3864 FM 3280
Palacios, TX 77465
(361) 972-5483
(361) 972-6352 FAX
britt.bumguardner@tpwd.state.tx.us

GULF COAST RESEARCH LABORATORY
Gary Gray
USM/Gulf Coast Research Laboratory
703 East Beach Drive
Ocean Springs, MS 39564
(228) 872-4202
(228) 872-4204 FAX
gary.gray@usm.edu

RESPONSIBLE PERSON FOR REFERENCE SETS

BLACK DRUM (read by all agencies)
Gary Gray
USM/Gulf Coast Research Laboratory
703 East Beach Drive
Ocean Springs, MS 39564
(228) 872-4202
(228) 872-4204 FAX
gary.gray@usm.edu

SOUTHERN FLOUNDER (read by all agencies)
Andy Fischer/Isis Longo
Louisiana Department of Wildlife and Fisheries
2000 Quail Drive
Baton Rouge, LA 70808
(225) 765-2381
(225) 765-2489 FAX
afischer@wlf.louisiana.gov
ilongo@wlf.louisiana.gov

GRAY TRIGGERFISH (read by all agencies)
Carrie Fioramonti
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, Florida 32408
(850) 234-6541 x 207
(850) 235-3559 FAX
Carrie.Fioramonti@noaa.gov

KING MACKEREL (read by all agencies except MS)
Chris Palmer
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
(850) 234-6541 x 209
(850) 235-3559 FAX
Chris.Palmer@noaa.gov

RED DRUM/SPOTTED SEATROUT/STRIPED MULLET (read by all agencies except TX for striped mullet only)
Jessica Carroll
Florida Fish and Wildlife Commission
Fish and Wildlife Research Institute
100 Eighth Ave., SE I1-FDM
St. Petersburg, FL 33701-5020
(727) 896-8626
(727) 894-6181 FAX
jessica.carroll@myfwc.com

RED SNAPPER (read by all agencies)
Robert Allman
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
(850) 234-6541 x 206
(850) 235-3559 FAX
Robert.Allman@noaa.gov

VERMILION SNAPPER (read by all agencies except MS)
Beverly Barnett
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
(850) 234-6541 x 232
(850) 235-3559 FAX
Beverly.Barnett@noaa.gov

SHEEPSHEAD (read by all agencies)
Wes Devers
Mississippi Department of Marine Resources
1141 Bayview Avenue, Suite 101
Biloxi, MS 39531
(228) 523-4063
(228) 374-5005 FAX
wesley.devers@dmr.ms.gov

GREATER AMBERJACK (read by FL and LA only)
Deb Murie
University of Florida
Fisheries and Aquatic Sciences
7922 NW 71st St.
Gainesville, FL 32653
(352) 273-3601
(352) 392-3672 FAX
dmurie@ufl.edu

RED GROUPER (read by FL only)
TBD
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
(850) 234-6541
(850) 235-3559 FAX

GAG GROUPER (read by FL only)
TBD
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
(850) 234-6541
(850) 235-3559 FAX

GRAY SNAPPER (read by all agencies)
Alison Amick
Florida Fish and Wildlife Commission
Fish and Wildlife Research Institute
100 Eighth Ave., SE I1-FDM
St. Petersburg, FL 33701-5020
(727) 896-8626
(727) 894-6181 FAX
alison.amick@myfwc.com

APPROVED BY:
COMMITTEE CHAIRMAN

Flounder Technical Task Force Meeting Minutes
Point Clear, Alabama
May 22 and 23, 2012
The Grand Hotel

Introductions

Chairman **Sempsrott** called the meeting to order at 8:30 a.m.

The following were in attendance:

Michelle Sempsrott, FWC, Panama City, Florida
Karon Aplin, AMRD, Gulf Shores, Alabama
Wes Devers, MDMR, Biloxi, Mississippi
Jason Adriance, LDWF, New Orleans, Louisiana
Mike Stahl, TPWD, Dickinson, Texas
Scott Bannon, ADCNR/MRD, Dauphin Island, Alabama
Cherie O'Brien, TPWD, Dickinson, Texas
Ava Lasseter, Gulf Council, Tampa, Florida
Steve VanderKooy, GSMFC, Ocean Springs, Mississippi
Debbie McIntyre, GSMFC, Ocean Springs, Mississippi

The committee members introduced themselves. **VanderKooy** introduced the two new members to the group. **Cherie O'Brien** is from TPWD in Dickinson, Texas, and joins the Committee as Habitat Representative. **O'Brien** has worked on the Commission's Oyster Technical Task Force, providing the Habitat Section for the *Oyster FMP*. Her expertise will transition easily to the Habitat Section of the *Flounder FMP*. **Ava Lasseter** is from the Gulf Council in Tampa, Florida, and joins the Committee as Sociology Representative. **VanderKooy** encouraged **Lasseter** to review previous FMPs to become familiar with the effects of change on community vs the effect on the individual people.

Approval of Minutes

*The minutes of the TTF Meeting on February 22-23, 2012 were approved as written on a motion by **Adriance** and a second by **Devers**.*

Adoption of Agenda

*On motion by **O'Brien**, seconded by**Adriance**, the agenda was accepted.*

Housekeeping Issues

VanderKooy reviewed the GSMFC travel policies. Authorization and reimbursement procedures were explained for the benefit of the TTF's new members and each member was provided a copy of the *GSMFC Travel Guidelines* for reference. **VanderKooy** urged the group to send in travel expense reports ASAP following the meetings. Questions regarding travel

should be directed to the Commission's travel coordinator, Alyce Catchot.

VanderKooy asked the group to review the membership roster for errors and/or changes.

The "Flounder Website" created by **VanderKooy** was reviewed. This website serves as a discussion board and information repository. This is an excellent tool for sharing information with each other and reviewing what has been posted by others.

VanderKooy pointed out that DVDs have been placed in each member's meeting folder. These DVDs hold all of the Commission's database papers. Everything cited on the prevous Flounder FMP is on these DVDs. There is also a lot of new data on these DVDs related to bycatch, some of which came out of the Arenarius, Sheepshead, and Speckled Trout FMPs. Publications from the last five to ten years are on there too. The Gunter (Gulf Coast Research Laboratory) library is a phenominal resource. **VanderKooy** indicated that he can obtain most of this information electronically quickly, free of charge. **VanderKooy** requested that everyone send him an electronic copy of new sources being used as sections are being developed. It would be advisable to keep a running tab of all of all literature you are using as you are working on your draft. **VanderKooy** asked that if anyone comes across an error in the information that he has provided, please send any corrections.

Section Drafts

VanderKooy reminded everyone that most of their time since the last meeting should have been focused on reviewing and becoming familiar with any new research. Everyone was encouraged to use the Table of Contents as a guide – a basic formula to go by.

Devers stated that he had done some literature searches and did not come up with anything recent for the Biology section, particularly in South Florida. He was looking specifically for some explanation of why southern flounders are not found in south Florida. **Sempsrott** will try to get some information for **Devers**. She stated that the last stock assessment for flounder in Florida was in 1993.

Aplin reported that the Classification and Morphology section's basic layout does not need to be changed. Most of the information there is still relevant. She has found some papers regarding the effect of temperature on the sexes of larvae. There will probably be an overlap with Age and Growth but that is not a problem. **Adriance** and **Aplin** will work together to assure that the appropriate information is placed in each section. **Aplin** will evaluate to see if any other flounder should be included besides gulf and southern. **O'Brien** will check to see if Brenda Bowling from TPWD in Dickinson has any descriptions on flounder that **Aplin** can use. **Aplin** has found new data available to research for the Anomalies and Abnormalities section regarding hyperpigmentation and pseudoalbinism.

Adriance reported that there is a lot of new information available for the Age and Growth section but most of the information in this section still holds true. There may be larger flounder per Andy Fisher. There are some newer studies that also fall into these growth rates and there are updates available to the Von Bert perameters. These tables can be updated to include more

Gulf information. **Adriance** has found data to add to this section but asked that everyone send any more recent age and growth data from any of the five states to him. He also pointed out that an Age and Growth "efforts" paragraph may need to be added.

VanderKooy explained the difficulty of blending two species, gulf and southern, and putting it into the same document. There almost always has to be a differentiation.

Stahl stated that there is some new gonad information available for the Reproduction section. There is not much data available on gulf flounder, most is on southern flounder. He also pointed out that some of the tables in the old FMP may not be needed. **Stahl** was successful in finding a study regarding courtship behavior in tanks as well as updated information regarding where spawning takes place in lower salinity offshore and then return inshore.

It was discussed that the DWH disaster will have to be mentioned with examples but no conclusions. The long-term and short-term anthropogenic effects of petroleum on the environment and on flounder should be mentioned but less about DWH specifically.

Sempsrott posted a section to the Website regarding southern flounder genetics which was done by Joel Anderson. He will be recognized under "Others" in the contributor credits.

Devers informed the TTF that a new parasite has been discovered which he will research for the Parasite and Diseases section. **Devers** asked that if anyone has any anecdotal information, published or unpublished, for the Feeding, Prey, and Predators section, please forward it to him.

O'Brien will update vegetation amounts for the Habitat section if there is some data available. **VanderKooy** pointed out that some of this information may have been updated in the recent *Arenarius Profile*. Ron Mezich from Alabama wrote that section of the Profile and may be of help to **O'Brien**. **O'Brien** pointed out that sections 4.3-4.8 probably will not change much. **VanderKooy** will send **O'Brien** the trout and sheepshead background information. Specific examples of how the fishery is being effected should be mentioned also here. **Adriance** will try to get some information from research done by Alford regarding diversion. **O'Brien** may find it necessary to separate out the Threats section as was done in the Oyster FMP. **VanderKooy** will also get degradation issues to **O'Brien**. The Petroleum in the Environment section may be divided into short-term and long- term.

Bannon pointed out that every state will have updates to the Enforcement section. **VanderKooy** will provide recent enforcement boilerplate samples to **Bannon**. **Devers** and **Bannon** will contact Chatigner for Mississippi information which is still needed. The amount of detail included in trip tickets was discussed and whether or not gulf and southern flounder are being differentiated. It has been ten years since the last FMP, and we are still not able to differentiate well. Starting in 2004, speciating between the two started. The otolith targets for gulf flounder are zero in all states but Louisiana who has a target of 255. **VanderKooy** pointed out that if the fishery is really only Southern Flounder, it may be appropriate to eliminate the two species approach.

Aplin and **Devers** are waiting on the states to supply them with information for the Fisheries

section. They are not writing these for each state. TTF members have been provided with the old FMP information and it is necessary that they each update their own state's data and contrast the past 10 years or so; contrast the 2000s with the 1990s. Make note of hurricanes, spills, and floods to supply reasons for the changes in data. Do not just extend landings, rather compare and contrast the last 13 years, i.e., the way the fishery is executed and the people represented in the fishery in an explanation of why certain changes have taken place. Commercial and recreational representatives will help greatly with this information. It would be very helpful to have good representation. **Aplin** has possible prospects, both commercial and recreational. **Devers** may have a good person to suggest also. **VanderKooy** noted that once we have some suggested members, we will run their names by the Commercial/Recreational Fisheries Advisory Panel. He said that it would be nice to have representation by hook and line as well as giggers. **Adriance** will check with a gigger he knows as well.

Sempsrott will update the bycatch landings. Such data as incidental mortality, which is high in trawls, will be useful to have summarized when the stock assessment is being done. Texas tracks dead discards. **Stahl** will find out how the incidental bycatch mortality data was tracked. It is important that we have gulf flounder in the fishery other than just the west coast of Florida. This may end up being a southern flounder FMP alone rather than both. It may be that gulf flounder is a Florida fish only. Mike Murphy is doing a small assessment this fall from which we may be able to draw some information.

Adams was not present to review the Economics section. He will soon ask TTF members for their input regarding this section.

Lasseter pointed out that the fishery has changed hugely in the past five to ten years, especially in light of recent hurricanes. It will be difficult for her to compare now to five and ten years ago. **Lasseter** will need to research the relevance of ethnicity and how it has changed. These data should be compared over the years. **Lasseter** will need a lot of help from all of the other committee members. **VanderKooy** suggested that Lasseter contact Traci Floyd from DMR to get some background information as oral history of commercial fishing. **Joe Jewel** also did some study on his masters that may be helpful for this section, looking at fish in Indian middens. The only socio-economic interviews following Katrina are currently being transcribed and **Lasseter** will look into those and see if flounder is mentioned. She will also spend some time with **Adams** to talk about the dealers/processors. If anyone has specific groups who support or share an interest, they should forward that information to **Lasseter** along with any extra or updated information they may have.

VanderKooy mentioned that he would like to combine the Considerations and Recommendations sections. There must be well-detailed recommendations in the FMP document. He asked that everyone consider a combination of sections 9 and 10 into one section.

The stock assessment report will likely be a part of the appendix.

VanderKooy pointed out that it will be necessary for the group to set some management goals. The assessment does not *generate* a management goal, it only *assesses*. There are a lot of other considerations that could be included, i.e. eco-system interactions or service, problems with the

fishery, perceived problems, what recommendations to make to address the concerns that fishermen, etc. have. By tying these together, the Task Force can then make recommendations to improve our data, our issues, etc.

Lastly, the group should establish a bullet list of what we need, i.e., wish list for the Regional Research Priorities and Data Requirements section. As you are drafting your sections, make a note of what we need to have in terms of research.

Review of Assignments/Deadlines

VanderKooy suggested approximately the end of September for the next meeting. This meeting will likely take place the week of September 17 or 24, or maybe the first week of October, possibly in Biloxi. The first upload of rough cut revisions will be July 27th just so that **VanderKooy** knows where everybody stands on their progress. This will include everyone getting their historical updates for the fisheries section to **Aplin** and **Devers** prior to that.

Stock Assessment GDAR Overview

VanderKooy stated that the group needs to talk about data in advance to see what we can expect when we do the assessment next year. Assessment for this Flounder FMP will probably take place in late 2013, but what can be put together between now and then will serve as our source for defending the model.

A lot of flounder data is available. **VanderKooy** refreshed everyone on how SEDAR works and is funded. The GDAR overview handout was reviewed. Our process, GDAR, is not as complicated as SEDAR but patterned similarly. At the end of this year, the TTF will start gathering the people who may have data on flounder, environmental impact, habitat preference, etc. These people will be invited to come and participate and share that data. Our biologists will be a big part of the assessment.

Lasseter requested a social data collection to update the report that **Adams** did 20 years ago for Florida but, instead, this would be for all five states. It was suggested that possibly GSMFC's Alex Miller might tackle this project. **Lasseter** will confer with **Adams** about this possibility.

Other Business

VanderKooy reminded everyone to use the "Transactions of the American Fisheries Society" as an example, a copy of which was provided in meeting folders.

There being no further business, the meeting was adjourned at 10:40 a.m.

APPROVED BY:
COMMITTEE CHAIRMAN

FISHERIES INFORMATION NETWORK (FIN)
MINUTES
June 6, 2012
Charleston, SC

Chairman **Tom Sminkey** called the meeting to order at 9:00 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
Nicole Shaffer, AMRD, Gulf Shores, AL
Ken Brennan, NOAA/NMFS, Beaufort, NC

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
Cecil Bernhard, GSMFC, Ocean Springs, MS
Ashley Lott, GSMFC, Ocean Springs, MS

Others
Todd Phillips, Ocean Conservancy, Austin, TX
David McCarron, IA-Team, ME
Sam Milora, IA-Team, NJ
Beverly Sauls, FWC/FWRI, St. Petersburg, FL
Mike Cahall, ACCSP, Arlington, VA
Jackie Wilson, NMFS/HMS Management Division

Approval of Agenda

The agenda was approved as presented.

Approval of Minutes

The minutes of the Fisheries Information Network (FIN) meeting held on June 22, 2011 in San Juan, PR were approved as presented.

Status of Atlantic Coastal Cooperative Statistics Program (ACCSP)

M. Cahall gave a presentation regarding the status of ACCSP. A quick review of the 2011 funded projects was given. It was noted that the ACCSP system is a modular system where the focus is primarily catch and effort but they do biological sampling as well. However, additional funding is needed to do more biological sampling. **M. Cahall** stated the benefits of SAFIS, Standard Atlantic Fisheries Information System, and provided a list of agencies involved in SAFIS. **R. Cody** expressed concerns over the SAFIS recreational volunteer survey.

A review of Atlantic Coast Fisheries Data Collection Standards was then given by **M. Cahall**. A new electronic process was added for confidentiality. For recreational catch and effort data collection standards, the dual frame effort survey method is the standard method used and sampling went from two months to one month. A workshop will be held later in the year. For the for-hire data collection standards, the quota monitoring section was removed because a consensus could not be reached. A quick look at updates to biological collection standards and socio-economic data was also given. Other updates included permit and vessel registration, metadata, and updates to the glossary where the definition of "team fish" was added as well as the bycatch definition being updated. Future plans include a review of the Fisheries Independent Data and PSE within recreational and for-hire data.

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 review the list and provide the necessary corrections to either **D. Donaldson** or **D. Bellais.**

Status of FIN DMS – **D. Bellais** reported on the status of the FIN DMS. A handout was given reflecting all data as of May 2012. The delayed Oracle 11G upgrade for the FIN databases and new severs with more CPU, disk space and memory is moving forward with an expected completion date of June 30, 2012. After this completion date, Oracle Discoverer and Forms will be phased out and Oracle APEX will be the new reporting and data entry tool. This should be completed by the end of 2012. **D. Bellais** gave a review on biological sampling and pointed out that there is a lag in biological data being entered for Florida and Louisiana. **R. Cody** stated Florida is having issues due to compatibility and technical issues and they are trying to get the data into the corrected format so it can be loaded into the FIN system. **M. Harden** stated Louisiana had issues due to personnel changes and changing to a new system. **G. Bray** noted that he has received 2012 biological data from Louisiana. **D. Bellais** gave a review on marine

recreational fishery catch estimates, marine recreational fishery effort estimates and menhaden data.

NMFS Data Sharing Policy – **T. Sminkey** reported briefly on the NOAA Data Sharing Policy for Grants and Cooperative Agreements. Per this procedural directive, all NOAA grantees must share data produced under NOAA grants and cooperative agreements in a timely fashion. Grantees must address this requirement formally by preparing a Data Sharing Plan as part of their grant project narrative. **T. Sminkey** stated he is not sure what this exactly means for the FIN program. At this point, there is no time line as to when this directive will come down. Once the directive does come down, he will get with the GSMFC staff. **C. Denson** had a question as to whether or not licensing data was covered under this directive and whether or not states can get that data back. T. Sminkey stated that he does not think licensing data is covered under this directive.

Status of Commercial Vessel, Dealer, and Fishermen Registries – **D. McCarron** updated the Committee on the Commercial Vessel, Dealer and Fishermen Registries. The website and information are fully coded but not yet tested. They are still waiting for updates to test with live data. **D. McCarron** pointed out that a couple of problems exist. On the vessel side, how do we handle a vessel registered in two states and on the dealer side, how do we maintain the NMFS permit number. As to the vessel registered in two states, the key to the problem needs to be state or coast guard registered numbers. It should be on a first come first served basis, which ever state registers first, that is where the boat will be documented. **D. McCarron** noted that the 11G upgrade should be finished by the end of June 2012. As for the vessel registry, he is waiting to get on the GSMFC infrastructure and do the install. The vessel registry should be operational by August 2012.

Discussion of Economic Activities – **A. Miller** presented Power Point presentations on the various economic projects. All of the projects presented are in the preliminary stages.

Preliminary Results of Fishing-Related Businesses Project – This survey effort obtained responses from 106 seafood processors who were selected from a pool of seafood processors who participated in the NMFS survey of seafood processors in 2009. The preliminary analysis is based off of the responses of 77 respondents from Alabama, Louisiana, Mississippi and Texas. Florida is not included in the analysis due to incomplete surveys. All of the data used in this survey is from 2009. A final report will be presented at the June 2013 FIN meeting.

Preliminary Results of 2011 National Marine Recreational Fishing Expenditure Study– The objective of this survey is to provide consistent and reliable estimates of marine recreational angler expenditures every five years. The first nationwide survey was conducted in 2006. The survey is also used to determine the economic impacts associated with marine recreational

angling based on updated expenditures and more recent information on the structure of the economy. Preliminary results show the number of Socio-Economic Add-on Surveys (SEAS) completes (out of all MRIP interviews) at approximately 70% for Alabama, Florida, Louisiana, Mississippi, and Puerto Rico. The preliminary results for the percent of contact information collected via the SEAS (which was used for the mail survey) is about 23% (SEAS completes only). A non-response survey was conducted for the follow-up survey. **A. Miller** noted that there is no perfect solution to collect economic data. A final report will likely be distributed before the end of 2013.

Status of For-Hire Add-on Questions – This issue was discussed at the March Data Management Subcommittee meeting. NOAA proposed adding an economic question to the for-hire telephone survey in the Gulf of Mexico and Atlantic Coast. A major concern is the need for better economic data for evaluating the importance of the for-hire industry. NOAA Fisheries proposes to collect the price of each charter trip using the existing for-hire survey methodology. In March, the Gulf Geographic Subcommittee suggested sending out a letter to the charter captains explaining why NOAA economists would like to collect this information and then follow-up on the next for-hire survey telephone call with a question to gauge their willingness to provide the trip fare data. However, at this time NOAA is considering running a pilot study for a limited time in one state to ask for charter trip prices. The question would be added to the for-hire survey and a letter would likely be sent out explaining the reasons for asking the question. The overall concern at the FIN meeting was that the states feel that this question would impact the response rate for the for-hire survey and are not keen on doing this. No state at this time stated that they are willing to be a pilot state for the add-on question to the for-hire survey.

SEFSC + SERO

Plans for Conducting Inshore Shrimp Survey – **A. Miller** stated that round two of the Inshore Shrimp Economic Survey is planned. Funding is available to conduct another round and GSMFC and the Louisiana Department of Wildlife and Fishery are planning on sending out the survey in April 2013.

Status of Federal Quota Monitoring/Electronic Reporting Activities – **D. Gloeckner** gave an update on quota monitoring. The draft joint dealer reporting amendment will be presented at the next Gulf Council meeting. The draft amendment covers generic federal dealer permit, additional variables, weekly (or daily) reporting period and penalties. He stated that they are nearing the end of development for the Commercial Landings Monitoring (CLM) system. CLM compiles electronic dealer data from ACSSP, NEFSC and Claude Petersen, soon to be Gulf FIN. CLM checks for validation errors and scans for duplicates and updates, bins data for each quota/ACL, forecast for delinquent reports and compiles projections using several methods to allow NMFS to avoid overages. Data is stored in Oracle and the reporting and maintenance of quota/ACL definitions is through APEX. **D. Gloeckner** pointed out that being able to tie a

federal number to a permit number is very important and that compliance for federal quota monitoring will be from Texas to Maine.

Status of HMS Electronic Reporting Activities –

J. Wilson gave an update on electronic reporting for HMS. She stated that the Northeast uses SAFIS while the Southeast is reporting via the electronic trip ticket tool developed by BlueFIN Data. By 2013 there will be mandatory electronic reporting for HMS within current systems. For those that only do HMS, they are building an HMS only reporting system. There have been many challenges due to trying to standardize data collection processes from Texas to Maine. They will be working with the states and Claude Petersen to get the data. **J. Wilson** stated that they are hoping for a final rule to come out in August 2012 with training workshops to follow. Mandatory reporting will begin in January 2013.

Discussion of Data Delivery issues into FIN DMS –

Biological Data – **G. Bray** noted that states are not turning their data in to GSMFC in a timely manner. Data needs to be delivered by the 15th of each month. GSMFC staff will be sending out reminders to those who do not turn in their data and continue to do so until that data is in. If states are behind in getting data in then they need to get caught up and stay up to date. **G. Bray** noted that turning in data in a timely manner is a requirement through the FIN cooperative agreement.

Commercial Data – **D. Bellais** noted that the commercial data loads need to be kept up to date and turned in timely as well. States will be hearing from her monthly between the 15th and 20th to insure data is delivered.

D. Donaldson stated that if FIN and GSMFC are going to continue to represent themselves as a data repository, data needs to be submitted in a timely manner. States need to meet the deadlines.

Update on Traceability Program – **A. Miller** gave an update on the traceability program. This program came out of the Oil Disaster Recovery Program and is a partnership between GSMFC, GCR, Bluefin Data LLC, Trace Register and MRAG. The intent of the program is to distinguish Gulf seafood from other seafood in the world. The website for the program is gulfseafoodtrace.org and the program was launched at the 2012 International Boston Seafood Show. There are currently 36 different seafood businesses using the program throughout the Gulf. Major retailers are asking for the list of enrollees in the program. They want to buy traceable Gulf seafood. This program is completely voluntary and provided at no cost to the participating seafood businesses through 2014.

Discussion of MRIP Gulf Logbook Pilot Project

B. Sauls presented the key findings of the MRIP Gulf Logbook pilot project. This data collection project was focused on federally permitted for-hire vessels in the Panhandle of Florida and the Corpus Christi area in Texas. Sampling began in September 2010 and concluded in August 2011. Charter boats with federal permits were required to report activity or inactivity on a weekly basis using electronic or paper logbooks. Weekly and monthly tracking of missing reports was kept and a non-compliance list was established. This was given to NMFS and permits for those boats in non-compliance were not renewed until the reports were turned in. By the end of the study, there was 100% compliance in Texas but they had issues with the timeliness of the reports. Florida had non-compliance issues and 39 vessels were still in non-compliance by the end of the study. Validation was done by three methods: effort, dockside and at-sea. Some of the recommendations to come out of the study include:

- require electronic reporting with built-in quality control;
- allow for data entry at-sea;
- quick response rate if early compliance is low;
- must have methods to quickly identify missing/late reports with timely follow up procedures, using a multi-tiered approach;
- weekly reporting frequency combined with a daily reporting requirement is recommended as the most feasible both in terms of cost and minimizing recall bias for a census;
- work with a statistician to develop estimators and a report will be provided to the MRIP Operations Team by the end of summer;
- reducing dockside sampling and /or replacing it with at-sea sampling; and
- add to enforcement powers including civil penalties, permit suspension and termination.

As to the feasibility of regional implementation it is recommended that large scale implementation should be phased in so adequate resources can be focused on up-front efforts for outreach and follow-up with non-respondents.

A final report of the findings is nearing completion and will be submitted to MRIP Operations Team for review and approval. **R. Cody** asked about delinquent reports and if they were included in the analysis. **B. Sauls** stated they were included if reported by late 2011.

Update on New MRIP Intercept Survey Design –

T. Sminkey gave an update on the new intercept survey design. A new site register web tool is being designed and should be completed sometime in July. The goal is to collect angler interviews and count all anglers within the target mode that have completed fishing. The methodology will no longer use individual sites but instead use a site cluster approach with up to

three sites in a cluster. NMFS is still working out issues regarding whether to do boat based interviews or angler trip interviews. NMFS is also still working on issues concerning sample size and precision. **T. Sminkey** stated that NMFS is still on schedule to have this new intercept survey implemented in January 2013. NMFS is currently working on the necessary tools and programs to run the survey online and hope to have it ready for testing by the end of the summer. The plan is to produce clusters and a sample draw for wave 6 and have the states do pilot testing in wave 6. **K. Brennan** asked how will they determine who is an angler. To determine this, a sampler will need to approach each boat and confirm whether they fished or not. The sampler will likely include both fishing vessel counts as well as angler counts. **G. Bray** asked about training. T. Sminkey stated that there will be some training at the fall wave meeting. Extensive training will be done in the Gulf for waves 5 and 6.

Discussion of Next Round of States' National Registry Projects –

D. Donaldson reported that money has been received from NMFS for the next round of states' national registry projects. The RFP deadline has been extended due to the fact that the states are waiting on the assessments from NMFS regarding the quality and completeness of their licensing databases. Currently Florida is working on developing a proposal and Louisiana is talking about submitting one as well. So far we have not heard from the Virgin Islands. **D. Donaldson** stated that subawards will go out later this year once the proposals have been reviewed and approved. **R. Cody** asked if the Florida data was entered. **D. Bellais** stated that the Florida data was in the system and it was sent to S. Sauri to do the evaluations.

Status of Metadata Compilation and Reporting –

C. Bernhard reported to the Committee on the status of metadata compilation and reporting. He has met with all the states and received and entered all the data into InPort. The states have reviewed the data and it has been published. There was a question regarding how often he should be in contact with the states concerning changes to data. **R. Cody** noted that the data does not change that much and quarterly updates should be sufficient. However, updates can be given at anytime. So for now it was determined that quarterly updates/contact will be enough. **C. Bernhard** will be contacting the states in September to see if they have any changes and/or updates.

Review and Approval of 2011 FIN Annual Report –

FIN Committee members were provided with copies of the draft 2011 FIN Annual Report. It was noted that Tables 9 and 10 are summaries from 2010 due to the fact that the 2011 data is not yet complete. **D. Donaldson** requested that members of the Committee review the Annual Report and provide comments, revisions or corrections to staff by July 9, 2012. **K. Cuevas moved to accept the FIN 2011 Annual Report with pending editorial changes. The motion was seconded by P. Campbell and was 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 2011 and March 2012. No significant motions or action items needed to be addressed at the FIN meeting. **D. Donaldson moved to accept these reports. C. Denson seconded and the motion passed unanimously.**

Otolith Processors Training Workshop – (Attachment B)

The Otolith Processors Training Workshop was held in May 2012 in St. Petersburg, Florida. It was a productive workshop with the normal otolith reading exercises. The workshop did not address greater amberjack, however they hope to do that at the next meeting. As for gray trigger fish, it was noted that they are difficult to read so the target APE for this species is 10% and not the standard 5%. **V. Swann moved to accept the report. P. Campbell seconded and the motion passed unanimously.**

Data Collection Plan Work Group –

This Work Group is tasked with evaluating current targets for otoliths and to make any necessary changes. This group has not had a conference call yet this year due to trouble accessing the data. The Work Group will have a conference call later this year and a summary of the call will be provided to the FIN Committee. It was suggested that the FIN Committee could routinely review the target levels at their annual meeting instead of convening the Work Group. If there are specific issues the Work Group needs to address, a meeting can be convened, but the Committee believed they could address the target sampling levels annually. **It was recommended that the review of biological sampling targets become a standing agenda item for the annual FIN meeting.**

Recreational Technical Work Group – (Attachment C)

The FIN Recreational Technical Work Group met via conference call in April 2012. The purpose of this conference call was to explore the feasibility of improving the timeliness and compatibility of Texas recreational data. Texas is likely not willing to change the design of their current survey so improving the compatibility of the data with MRIP data is highly unlikely. G. Bray asked if the current TPWD design would facilitate monthly estimates if the data were entered or captured electronically with a faster method. V. Swann mentioned that the current design is based around producing reliable estimates for each fishing season so monthly estimates may be highly inaccurate. This basically eliminates the ability to produce more timely estimates. **B. Sauls** stated that Texas was excited to be involved with the pilot for-hire logbook program.

D. Donaldson moved to accept the report. P. Campbell seconded and the motion passed unanimously.

Operations Plan

Status of 2012 Activities – The FIN Committee was provided with the status of the 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. There was a question concerning Task B17: Review Detailed Effort Module and why the Commercial Technical Work Group did not follow through with this task. It was discussed that the need for this task may have been taken care of with the electronic trip ticket program with area fish and gear (the unified trip ticket). It was also stated that there has been significant advancements in the collection of effort data and there may be a better method for collecting these data. **The Committee decided that the Commercial Technical Work Group would meet later this year to discuss this task and present its findings at next year's meeting.**

Review and approval of 2013 Operations Plan – The FIN Committee was asked to review the 2013 Operations Plan. The Plan is in preliminary form and will be finalized later this year when the State/Federal Fisheries Management Committee (S/FFMC) decides what activities will be funded in 2013. It was noted that Task B26: Improve Timeliness and Compatibility of Texas Recreational Data should be removed based on discussions from earlier in the day. **A. Strelcheck** had a question concerning Task B23: Exploration of Strategies for In-Season Quota Monitoring. Since this task is handled at the regional level, **A. Strelchck** asked that this item be removed from the plan. **D. Donaldson** stated that Task B23 should be removed from the plan but keep it in the timeline. Any edits to the 2013 Operations Plan should be sent to GSMFC by July 9, 2012. **P. Campbell moved to approve the 2013 Operations Plan as modified. D. Matos seconded and the motion passed unanimously.**

Discussion of Funding Issues –

As the Committee is aware, FIN has been level funded since 2005. In the past, NMFS has been able to provide some supplemental funding, but FIN is at a point where new monies need to be appropriated so FIN can continue these important activities. The 2013 federal budget is not looking promising and depending on the outcome of the presidential election it could get worse. **D. Donaldson** mentioned that the states need to keep in mind that they may have to complete the necessary tasks at status-quo levels. However, it is important to develop budgets that reflect the actual costs to conduct these activities so arguments can be made that increased funding is needed.

Discussion of 2013 FIN Priorities –

Committee members were provided with a list of items for funding consideration in 2013. The final prioritized list will be forwarded to the S/FFMC for their meeting in August 2012. At that time, they will decide which items will be included in the 2013 FIN Cooperative Agreement. All items listed as high priority will require budgets and statements of work by July 23, 2012. **A. Strelcheck** asked about the cost of reinstating programs. **D. Donaldson** gave the group estimates of the cost of the programs and the cost of new programs. **D. Donaldson** stated that there is funding for head boat sampling through June 2013 (via a MRIP project), but funding will be needed for July-December 2013. It was also noted that the Collecting, Managing, and Disseminating of Marine Recreational Fisheries Data activities has been pre-funded from January-June 2013. So as with the head boat task, funding will be needed for July-December 2013 for this activity. **C. Denson moved to list as high priority all ongoing activities and the first three items under reinstating. All other activities will be listed as low priority. P. Campbell seconded and motion passed unanimously. The list that will be presented to the State/Federal Fisheries Management Committee is as follows:**

Ongoing

H - Coordination and Administration of FIN Activities
H - Collecting, Managing and Disseminating Marine Recreational Fisheries Data
H – Operation of FIN Data Management System
H – Trip Ticket Program Operation in Texas, Louisiana, Mississippi and Alabama

Reinstating

H – Head Boat Port Sampling in Texas and Florida
H – Gulf Menhaden Port Sampling
H – Biological Sampling of Commercial and Recreational Catches
L – Detailed Effort Sampling of Shrimp Fishery in Louisiana

New

L – At-sea Sampling for Catch and Discards Data from Large-Capacity For-Hire Boats in TX, LA, MS, AL and FL
L – Collection of Catch and Effort Data via Logbooks for For-Hire Boats in TX, LA. MS, AL and FL
L – Highly Migratory Species Sampling in the Gulf of Mexico
L – Biological Sampling for FIN Secondary Priority Species

J. Froeskle wanted it noted that the Council would like logbooks to be a high priority.

Time Schedule and Location for Next Meeting –

The Committee agreed to target the first week in June 2013 for the next FIN meeting. Possible locations suggested for the next FIN meeting are Key West, FL, St. Petersburg, FL and New Orleans, LA.

It was discussed having the meeting over two days but the consensus of the Committee was to keep the meeting to one full day.

Other Business –

The Committee was asked to review the committee listings to make sure all the information was correct. If changes need to be made, please contact the GSMFC staff.

There being no further business, the meeting was adjourned at 4:22 pm.

ATTACHMENT A

GULF OF MEXICO GEOGRAPHIC SUBCOMMITTEE REPORT

October 2011 and March 2012

GULF OF MEXICO GEOGRAPHIC SUBCOMMITTEE (TCC DATA MANAGEMENT SUBCOMMITTEE)
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 too. 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 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. **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.

TCC DATA MANAGEMENT SUBCOMMITTEE (TCC DATA MANAGEMENT SUBCOMMITTEE)
Tuesday, March 6, 2012
Gulfport, MS

Vice Chairman Christine Murrell called the meeting to order at 8:35 a.m. The following members and others were present:

Members

Chris Denson, AMRD, Gulf Shores, AL
Nicole Shaffer, 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
Vince Cefalu, LDWF, Baton Rouge, LA
John Froeschke GMFMC, Tampa, FL

Staff

David Donaldson, Assistant 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
James Ballard, Sport Fish Restoration/Aquatic Invasive Coordinator, Ocean Springs, MS
Cecil Bernhard, Metadata Coordinator, Ocean Springs, MS
Doug Snyder, RecFIN Survey Coordinator, Ocean Springs, MS
Bob Harris, FIN Database Manager, Ocean Springs, MS

Others

Terry Cody, TPWD, Rockport, TX
Joey Shepard, LDWF, Baton Rouge, LA
Nicole Smith, LDWF, Baton Rouge, LA
Ellie Roche, NOAA Fisheries, Saint Petersburg, FL
Rick Leard, GMFMFC, Tampa, FL
Bradley Randall, MDMR, Biloxi, MS
Bill Richardson, MDMR, Biloxi, MS
David McCarron, IA Team, Kennebunk, ME
Chris Blankenship, AMRD, Gulf Shores, AL
Claude Petersen, Bluefin Data, Gonzalez, LA

Robert Burmeister, Trace Register, Seattle, WA
Jaimy Norris, Trace Register, MO

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 17, 2011 in New Orleans, LA were approved as written.

Status of Biological Sampling Activities

G. Bray discussed 2011 biological sampling collections. **Bray** presented a matrix of data deliverables for 2004-2011 for each state. All data have been delivered or entered through 2011, except Louisiana still needs to provide 2011 sample data and they are working on getting that to GSMFC. Florida had numerous connection issues in 2011 so Florida is lacking 2010 and 2011 sample data. Age data has been entered through 2010 except for Florida. **D. Donaldson** reminded the states of the importance of getting sample and age data into the FIN Data Management System (DMS). **Donaldson** also stated that 2013 funding is in doubt and if no funding is secured, 2013 sampling will likely cease. He stated further discussions, at the upcoming FIN meeting, will determine whether eliminating species from the target list could reduce the costs of biological sampling allowing us to continue a minimum level of sampling. **R. Cody** asked if clearing the backlog by the end of this year would be good considering funding might be eliminated. **Donaldson** said that would be a good idea.

Discussion of National Registry Projects

D. Donaldson reported talking with **Gordon Colvin** with NOAA Fisheries about the 2012 request for proposals (RFP) for the National Registry Project. **Colvin** stated the deadline for project submissions will be extended. NOAA Fisheries hopes to complete an evaluation of the quality of current state license databases by the end of March. Once completed, that should assist states in coming up with further research ideas for improving the completeness and quality of their angler license databases. **Donaldson** suggested being able to provide all data elements suggested by NOAA along with the ability to accomplish monthly updates would be items to consider for submitting proposals. **Donaldson** also stated there are no additional funds for projects in the future. We are currently using 2011 funds and there have been no identified needs from the 2011 projects. If needs are identified, the FIN Cooperative Agreement could be modified.

Donaldson also stated he needs status reports for all the 2011 National Registry projects by March 31st. Texas has submitted their final report. Status reports will be necessary as **Donaldson** will be giving an update to **Colvin** in April. **Cody** stated that NOAA Fisheries needs to tell each state how they are out of compliance so that information can be provided to the state agency that manages their license database. Often times the license data are managed by divisions outside of the marine fisheries division.

Demonstration of Traceability Program

A. Miller presented three videos describing different aspects of Trace Register's involvement with the Traceability Program. The first video described how the electronic trip ticket software allows dealers to submit data to Trace Register. The second video describes how the Trace Register system works. The third video described the marketing module developed for sellers to provide information to consumers.

C. Peterson entered some fake data into the electronic trip ticket interface to demonstrate the data entry process for dealers participating in the traceability program. **Donaldson** asked if all electronic trip ticket users had access to the traceability component. Once electronic dealers have confirmed they want to participate in traceability, Trace Register develops an import key, provides it to **Peterson**, and he uses a FTP process to setup the electronic trip ticket software for traceability access. Trip ticket will not send anything to Trace Register without the import key. **Denson** asked if it was possible to send batches of tickets to Trace Register as opposed to one ticket at a time. **Peterson** stated that is possible but just has not been requested yet. **R. Burmeister** then showed how the data **Peterson** entered through the electronic trip ticket software is processed by Trace Register and how Trace Documents travel through the supply chain. **Burmeister** showed how the electronic ticket can be mapped to show where the dealer landings occurred and where the sample was sold and transferred to. Once you create product templates and contact lists you can create a Trace Document describing the product you are shipping to a specific buyer. **Bellais** asked how you handle multiple buyers of landings from an individual trip ticket. **Burmeister** stated you just create individual Trace Documents for each buyer referencing the same trip ticket number. **Burmeister** stated that buyers have the ability to send amended Trace Documents but the original still exists so the differences can be observed. **Burmeister** also demonstrated the marketing tool developed to provide QR codes allowing end users to query where and when the product was landed. The tool provided allows sellers to customize the information and data end purchasers will see by simply scanning the product QR code with a smart phone scanning app. This marketing information and code can be created in as little as 15 minutes. Company logo's, marketing messages, recipes, and tracking maps are some of the data routinely provided.

Update on MRIP Gulf of Mexico For-Hire Logbook Project

Bray gave a brief update on the status of the For-Hire Logbook Project. The team is currently working on producing the final report. Currently the introduction and methods section are essentially complete and ready to distribute to the MRIP team for review. Work continues on the results and recommendations sections. The red snapper analysis was rerun using the complete data set from the entire study period. A sample size analysis was also completed to help determine the proper sample sizes for the validation components based on potential future research. Once the results and recommendation sections are completed, the report will be sent to the MRIP Operations Team (OT) for final approval. The group hopes to have the final report to the MRIP OT by the end of April. **Froeschke** asked if cost analysis was part of the report. **Donaldson** stated that knowing the cost of the pilot study along with the estimated sample sizes needed for future validation work would provide a way to estimate total costs for an expanded logbook program.

Update on HMS Electronic Reporting Activities

Bellais stated the Highly Migratory Species (HMS) workgroup has been meeting via phone conferences to finalize much of the coding schemes and data elements that will be required for federal quota monitoring of highly migratory species. The group is bringing states online one at a time to make addressing problems and questions an easier process. Louisiana was the first state in the Gulf being brought online. The HMS workgroup will be meeting in the afternoon to discuss specific questions and problems.

Discussion of Adding Economic Questions to For-Hire Telephone Survey

S. Lovell gave a brief presentation about a proposal to add some economic questions to the for-hire telephone survey in the Gulf of Mexico and Atlantic Coast. A major concern is the need for better economic data for evaluating the importance of the for-hire industry. NOAA Fisheries proposes to collect the price of each charter trip using the existing FHS methodology. Using the existing for-hire survey (FHS) provides a consistent valid sample and allows for linking of price data to trip characteristics. Some of the benefits of having the data would be providing better results on the for-hire industry as a commercial for-profit industry. Also having data for many years across geographic locations will allow for analysis on price changes over time resulting from fishery management and or environmental changes. Data could also be used for forecasting future for-hire supply and demand along with regulatory analyses on specific species. **Denson** asked if any other economic data were being asked on the FHS. **Lovell** stated there currently were none. **Froeschke** asked if there was any way to know if captains would be willing to provide that information. Many of the states stated they felt trip fare would reduce response rates on the survey. **D. Carter** stated that outreach would be attempted to determine the feasibility of captains providing the trip fare data. **Carter** also stated another option would be for NOAA economists to develop a separate survey that could impact overall survey response rates. **Cody** stated it would be possible to mandate participation for those people with federal permits but he feels the impact on the guide fleet could seriously hamper voluntary participation. **Lovell** suggested sending out a letter to the charter captains explaining what NOAA economists would like to collect, and then following up on the next FHS telephone call with a question to gauge their willingness to provide trip fare data. The states agreed that the telephone query option would be a good first step. **Bray** will work with NOAA and the states to work out the details of collecting these willingness data.

Status of Metadata Data Compilation

Donaldson introduced **Cecil Bernhard** as the FIN Metadata Coordinator. **Bernhard** stated he has contacted all the states and has already collected a large amount of information that he has entered into Inport. He needs each state to review their data and edit it if necessary so it can be published. **Donaldson** suggested that states try to review their data by April 15th. Bernhard also provided a metadata hierarchy that is currently entered into the Inport system. **Cody** stated FWRI has a metadata system and can put **Bernhard** in contact with their coordinator at the state level. **D. McCarron** believes the newest version of Inport will allow for a direct import from the FWRI Mermaid system.

Other Business

Donaldson stated the vessel registry module with IA Team was designed to be expanded to dealers and fishermen too. Carry over money was available to enter into contract with IA Team to start work on module expansion. Each state should expect to be contacted from **McCarron** to start looking for data to populate the new modules.

Being no further business, the meeting was adjourned at 11:33 a.m.

HMS Electronic Reporting Work Group

C. Petersen gave a demo of the Louisiana version of Electronic Highly Migratory Species (HMS) Dealer Reporting module through Trip Tickets. The Federal HMS dealers will have an HMS tab for additional HMS required fields. In a subsequent version, the dealers will have the ability to submit negative reports. **C. Petersen** also stated that each state's version of Electronic HMS Dealer Reporting module will be different. The group reviewed the new HMS fields and provided ideas and concerns. **C. Denson** stated he has concerns over the dates because Alabama will have three different dates to deal with such as landed date, purchase date, and transaction date. **J. Wilson** told the group the HMS personnel would like to have a conference call with each state, along with Gulf States Marine Fisheries Commission, Southeast Fisheries Science Center, and Bluefin Data to discuss the potential changes that would allow Federally-permitted HMS dealers to fulfill both state and federal electronic dealer reporting requirements within one program. Florida will be the next version developed. **D. Gloeckner** wanted to know if the states thought the federal port agents reviewing the state trip ticket data would be useful. The States agreed that more communication between the states and federal port agents is needed for this to work. **C. Petersen** stated he needs a list of HMS species from each state without any unclassified species and a translation from state area codes to FIN area codes for Louisiana.

ATTACHMENT B

FIN Otolith Processors Training Workshop
Meeting Summary
May 8-9, 2012
St. Petersburg, Florida

The meeting was called to order at 9:00 a.m. and the following people were present:

Alison Amick, FWRI, St. Petersburg, FL
Jessica Carroll, FWRI, St. Petersburg, FL
Kristen Wolfgang, FWRI, St. Petersburg, FL
Kristin Cook, 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 Chudzik, MDMR, Biloxi, MS
Wes Devers, MDMR, Biloxi, MS
Andy Fischer, LDWF, Baton Rouge, LA
Isis Longo, LDWF, Baton Rouge, LA
Prince Robinson, LDWF, Baton Rouge, LA
Kym Walsh, LDWF, Baton Rouge, LA
Keycha Johnson, LDWF, Baton Rouge, LA
Kathy Brown, TPWD, Palacios, TX
Morgan Cason, TPWD, Palacios, TX
Robert Allman, NMFS, Panama City, FL
Beverly Barnett, NMFS, Panama City, FL
Chris Palmer, NMFS, Panama City, FL
Hannah Trowbridge, NMFS, Panama City, FL
Liz Herdter, UFS, St. Petersburg, FL
Gregg Bray, GSMFC, Ocean Springs, MS
Dave Donaldson, GSMFC, Ocean Springs, MS

Conducting Otolith Reading Exercises for Black Drum, Red Drum, Spotted Seatrout, Gray Triggerfish, Greater Amberjack, King Mackerel, Southern Flounder, 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), greater amberjack, 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 4:00 p.m.

May 9, 2012

The meeting was reconvened at 9:00 a.m.

Please note that this summary includes tables that outline the reference sets APEs, by year as well as the agency contacts and responsible person(s) for each of the reference sets. This information can found at the back of the document.

Discussion of Greater Amberjack Reference Set

D. Donaldson stated that D. Murie was unable to attend this year's meeting due to class scheduling issues. In discussion with her, she stated that she is finalizing the greater amberjack training CD and it should be ready to distribute to the group by June. She is hopeful that she will be able to attend the otolith processors meeting next year.

Discussion of Southern Flounder Reference Set

A. Fischer distributed documentation regarding the set. There are a total of 199 otoliths in the set and 100 otoliths were replaced this year. There was a significant decrease in APE from 7.24% to 2.59% for all agencies. The improvement was due to an error in the spreadsheet that calculated APE. This error may have also lead to higher APEs in previous years. While the APE has improved, there still appears to be some issues regarding assigning the correct margin codes, specifically in Texas. 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 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of King Mackerel Reference Set

C. Palmer stated that he has been extremely busy with various SEDARs and has not had a chance to distribute the set to all of the states. So far, Louisiana and Texas have read the reference set with an APE of 3.6% and 7.5%, respectively. The reference set will be distributed to the other agencies and once completed, **C. Palmer** will calculate an APE and distribute to the group. Some of the damaged otoliths will be replaced this year. It was noted that king mackerel is slated for a SEDAR in November 2013 so it is important that all agencies read the reference set quickly to ensure that an APE is available for this meeting. 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 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Red drum/Spotted Seatrout/Striped Mullet Reference Sets

J. Carroll stated that all agencies have read the various sets and the APEs are 7.96%, 6.78% and 6.87% for red drum, spotted seatrout and striped mullet, respectively. As with other species, there are issues regarding correctly identifying the marginal increment for these species. It was noted that readers need to be very careful when determining the margin code since

misidentifying the code can have a big impact on the APEs for the various species. The reference sets will again be distributed to the various agencies and the results of the readings will be presented to the group at the May 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Sheepshead Reference Set

W. Devers reported that a new reference set has been developed and was distributed and read by all agencies. The overall APE was 4.64% and as with other species, the main issue is correctly identifying the margin code. 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 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Red Snapper Reference Set

R. Allman stated that the reference set has been reconstructed and has been distributed and read by the Panama City lab, Florida, Alabama, Mississippi and Louisiana. Texas has the collection now. So far, most of the APEs have been near 3% with the exception of Mississippi whose APE is 5.60%. Once Texas has read the set; **R. Allman** will distribute the final APE to the group. It was noted that reading the reference collection was important this year since the Red Snapper SEDAR is scheduled for August 2012. In order to ensure that all the data are available and utilized, it is imperative that there is a complete and final APE calculated prior to the SEDAR. 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 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Vermilion Snapper Reference Set

B. Barnett reported that a new reference set had to be developed, which it has not been completed as of the date of this meeting. Due to other priorities, the set was not read in time for this meeting but will be distributed to the appropriate agencies and the results of the readings will be presented to the group at the May 2013 meeting. Since the readings have not been completed, there are no historical APEs for this species.

Discussion of Black Drum Reference Set

D. Donaldson stated that the responsibility for the reference set was transferred to GCRL (**Gary Gray**) but unfortunately, he was unable to attend this meeting. **D. Donaldson** will contact Gary Gray to determine the status of the reference set. The set will be distributed (by **G. Gray**) to the various agencies and the results of the readings will be presented to the group at the May 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Gray Triggerfish Reference Set

R. Allman stated that the reference set has not been distributed to the various agencies due to other commitments by C. Fioramonti. Because of this fact, an APE has not been calculated. It was noted that since the spines are difficult to read, the target APE for this species is 10% not the 5% standard. 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 2013 meeting. The historical APEs for this species can be found at the back of this document.

Discussion of Development of Other Reference Sets for FIN Priority Species

D. Donaldson stated that this issue has been discussed in the past but due to prior commitments, this issue was tabled. Because it has been some time since this issue was discussed, the group wanted to readdress this topic. There are three (3) FIN priority species that do not have an associated reference set: red grouper, gray snapper and gag grouper.

Regarding red grouper, **C. Palmer** stated that he believes that a reference set has already been developed by NMFS. He will discuss this issue with the Panama City personnel and touch base with **D. Donaldson** in the summer about its status. Only Alabama and Florida encounter red grouper with any regularity with the majority being landing in Florida. **It was determined that only Florida needs to annually read this set. Any otoliths collected by Alabama will be sent to Florida for analysis.**

Regarding gray snapper, **A. Amick** will take the lead on developing this reference set. Once it is developed, it will be distributed to the various agencies for reading. **It was determined that all states need to annually read this set.** The set will be distributed to the various agencies and the results of the readings will be presented to the group at the May 2013 meeting.

Regarding gag grouper, **B. Barnett** stated that she believes that a reference set for this species may also already have been developed by NMFS. She will discuss this issue with the Panama City personnel and touch base with **D. Donaldson** in the summer about its status. Only Alabama and Florida encounter red grouper with any regularity with the majority being landing in Florida. **It was determined that only Florida needs to annually read this set. Any otoliths collected by Alabama will be sent to Florida for analysis.**

Discussion of Tracking System for Reference Sets

D. Donaldson stated that since several reference sets have been lost in the past, the group implemented a tracking system for these sets to ensure that everyone knows the location of each set at any point in time. This system requires that Agency A notify (via e-mail) Agency B when it is sending a reference set to Agency B as well as Agency B notifying Agency A when it receives the set. All the applicable personnel from Agency A and B as well as FIN staff should be included in the e-mail chain. **D. Donaldson** noted that it is important to make sure these e-mails are sent to all the appropriate personnel and the group needs to be diligent about utilizing the system.

Discussion of the Future of Biological Sampling under FIN

D. Donaldson stated funding for FIN has been level-funded since 2005 and due to increased costs of operational activities, it has been more and more difficult to fund the on-going FIN activities, including biological sampling. Fortunately, there have been other sources of funds available to cover some of these funding gaps, however, these sources may not always be available. In 2012, biological sampling was actually funded via another source of funds and this source should be able to cover biological sampling (partially) in 2013. However, after 2013, the status of biological sampling is uncertain without an increase in base funding via the GulfFIN

line item. **D. Donaldson** is notifying the group of this situation, not to scare everyone, but to prepare them for the potential that biological sampling may not be continued after 2013.

Discussion of Future Training Meeting

The group discussed the date and location for the next otolith meeting processors training workshop. It was decided that it should be held at Florida Fish and Wildlife Research Institute during the first part of May 2013. **D. Donaldson** stated that the meeting would be shortened from 2 days to 1½ days since there appears to be a lot of down time.

D. Donaldson stated that there has been several requests over the years from various agencies (mainly universities and colleges) to have personnel, not associated with the FIN, attend this meeting. There has been some confusion about the purpose of this meeting from those requesting other personnel to attend, believing that it was a workshop to learn how to read otoliths. The main purpose of the meeting is to ensure there is compatibility among the various agencies reading otoliths. So, one way to minimize the confusion is to actually change the name of the meeting from Otolith Processors Training Workshop to Otolith Processors QA/QC meeting. The QA/QC descriptor is a more accurate representation of the purpose of the meeting and could minimize confusion. It was noted by several group members that having outside participants at this meeting is not only inappropriate but could potentially jeopardize the intent of the meeting. **After some discussion, the group agreed that requests from outside agencies/organizations to participate in this meeting should not be granted and if these agencies/organizations are interested in otolith analysis training, they should be referred to the appropriate local state or federal agency conducting this work.**

Other Business

G. Bray mentioned that FIN recently became aware that some agency personnel were obtaining lengths from filleted carcasses. He noted that this practice was not allowed and any questions about biological sampling procedures should be referred to the FIN staff at the GSMFC. He also noted that there have been some issues with the data entry program that FIN is continuing to work on and that the delivery of biological data is supposed to be on a monthly basis. While these activities and protocols have been disrupted by the oil disaster, it is time to get back to these deadlines and asked everyone involved to adhere to these protocols.

B. Barnett stated that in the past, personnel from NMFS-Beaufort Laboratory have participated in this meeting. **D. Donaldson** stated that he has included them in past meeting notices but since they have not been participating recently, he discontinued this action. After some discussion, the group believed it would be beneficial to include these personnel and asked staff to reengage Beaufort personnel to attend this meeting. **D. Donaldson** stated that he would make sure they were included in the planning of the May 2013 meeting.

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, A. Amick, K. Wolfgang and K. Cook 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***	***2011***	***2012***
Black drum					0.67	0.21	2.67	0.00	3.93	4.69
Red drum					0.52	4.35	1.63	2.83	1.04	1.48
Spotted seatrout					0.00	4.55	1.17	1.44	1.64	0.86
Southern flounder		10.54	9.51	4.00	2.86	8.78	3.03	6.48	6.81	1.70
Striped mullet					6.97	7.48	9.84	2.87	2.72	2.08
Sheepshead					0.42	8.72	2.96	4.12	4.36	2.07
Red snapper	16.01	4.97	5.58	3.32	1.14	6.04	3.55	1.30	4.03	2.74
Gray snapper					3.19	9.22	1.80	3.41	1.34	1.36
Vermilion snapper					6.10	16.32	8.54	7.02	12.97	9.37
King mackerel			13.60	2.88	11.51	6.48	13.12	10.26	10.12	2.86
Greater amberjack									16.43	9.07
Gray triggerfish					16.81	21.79	16.02	10.18	28.58	23.95

After the comparison exercise, otoliths, where there were differences among the groups, were identified and everyone examined these otoliths (as a group) to determine where each group had differed. The group believed this was a useful activity and it helped everyone identify where

errors can (and were) made while reading the otoliths. It was noted that having the groups mark where they counted the rings on print outs was also very helpful during the discussions. Overall, the APEs for most of the species were at or below the 5% threshold. Where the APEs did exceed the 5% standard, it was due to several issues: 1) difficulty in identifying the first annulus (vermilion snapper and greater amberjack) and 2) general difficulty in identifying what is considered a ring (gray triggerfish). There was a brief discussion about gray triggerfish related to reading otoliths vs. spines but it was pointed out that the otoliths are harder to read than the spines.

Being no further business, the meeting was adjourned at 10:20 a.m.

Reference Sets APEs, by Year

REFERENCE SET	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*
Black drum					7.93		
Red drum				2.36	3.82		7.96
Spotted seatrout				3.15	3.73		6.78
Southern flounder	6.71	18.89*	7.35	3.22	8.32	7.24	2.59
Striped mullet				7.12	5.88		6.87
Sheepshead				3.91			5.05
Red snapper	2.74	4.90	4.34	5.01			
Vermilion snapper							
King mackerel (overall)			5.83	7.45	5.92		
King mackerel (sectioned)			3.39	4.87	0.68		
King mackerel (whole)			9.13	10.04	13.83		
Greater amberjack							

Gray triggerfish						20.80	

*data transcription errors resulted in elevated APE

AGENCY CONTACTS FOR REFERENCE SETS

FLORIDA FISH AND WILDLIFE RESEARCH INSTITUTE
Jessica Carroll
Florida Fish and Wildlife Commission
Fish and Wildlife Research Institute
100 Eighth Ave., SE I1-FDM
St. Petersburg, FL 33701-5020
(727) 896-8626
(727) 894-6181 FAX
jessica.carroll@myfwc.com

NATIONAL MARINE FISHERIES SERVICE
Robert Allman
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, Florida 32408-7403
(850) 234-6541 x 206
(850) 235-3559 FAX
Robert.Allman@noaa.gov

ALABAMA MARINE RESOURCES DIVISION
Jaime Miller
Alabama Department of Conservation and Natural Resources
Marine Resources Division
2 North Iberville
Dauphin Island, AL 36528
(251) 861-2882
(251) 861-8741 FAX
Jaime.Miller@dcnr.alabama.gov

MISSISSIPPI DEPARTMENTOF MARINE RESOURCES
Wes Devers
Mississippi Department of Marine Resources
1141 Bayview Ave., Suite 101
Biloxi, MS 39531
(228) 523-4063
(228) 374-5005 FAX
wesley.devers@dmr.ms.gov

LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES
Andy Fischer
Louisiana Department of Wildlife and Fisheries
2000 Quail Drive
Baton Rouge, LA 70808
(225) 765-2381
(225) 765-2489 FAX
afischer@wlf.louisiana.gov

TEXAS PARKS AND WILDLIFE DEPARTMENT
Britt Bumguardner
Texas Parks and Wildlife Department
Perry R. Bass Marine Fisheries Research
3864 FM 3280
Palacios, TX 77465
(361) 972-5483
(361) 972-6352 FAX
britt.bumguardner@tpwd.state.tx.us

GULF COAST RESEARCH LABORATORY
Gary Gray
USM/Gulf Coast Research Laboratory
703 East Beach Drive
Ocean Springs, MS 39564
(228) 872-4202
(228) 872-4204 FAX
gary.gray@usm.edu

RESPONSIBLE PERSON FOR REFERENCE SETS

BLACK DRUM (read by all agencies)
Gary Gray
USM/Gulf Coast Research Laboratory
703 East Beach Drive
Ocean Springs, MS 39564
(228) 872-4202
(228) 872-4204 FAX
gary.gray@usm.edu

SOUTHERN FLOUNDER (read by all agencies)
Andy Fischer/Isis Longo
Louisiana Department of Wildlife and Fisheries
2000 Quail Drive
Baton Rouge, LA 70808
(225) 765-2381
(225) 765-2489 FAX
afischer@wlf.louisiana.gov
ilongo@wlf.louisiana.gov

GRAY TRIGGERFISH (read by all agencies)
Carrie Fioramonti
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, Florida 32408
(850) 234-6541 x 207
(850) 235-3559 FAX
Carrie.Fioramonti@noaa.gov

KING MACKEREL (read by all agencies except MS)
Chris Palmer
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
(850) 234-6541 x 209
(850) 235-3559 FAX
Chris.Palmer@noaa.gov

RED DRUM/SPOTTED SEATROUT/STRIPED MULLET (read by all agencies except TX for striped mullet only)
Jessica Carroll
Florida Fish and Wildlife Commission
Fish and Wildlife Research Institute
100 Eighth Ave., SE I1-FDM
St. Petersburg, FL 33701-5020
(727) 896-8626
(727) 894-6181 FAX
jessica.carroll@myfwc.com

RED SNAPPER (read by all agencies)
Robert Allman
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
(850) 234-6541 x 206
(850) 235-3559 FAX
Robert.Allman@noaa.gov

VERMILLION SNAPPER (read by all agencies except MS)
Beverly Barnett
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
(850) 234-6541 x 232
(850) 235-3559 FAX
Beverly.Barnett@noaa.gov

SHEEPSHEAD (read by all agencies)
Wes Devers
Mississippi Department of Marine Resources
1141 Bayview Avenue, Suite 101
Biloxi, MS 39531
(228) 523-4063
(228) 374-5005 FAX
wesley.devers@dmr.ms.gov

GREATER AMBERJACK (read by FL, LA and NMFS)
Deb Murie
University of Florida
Fisheries and Aquatic Sciences
7922 NW 71st St.
Gainesville, FL 32653
(352) 273-3601
(352) 392-3672 FAX
dmurie@ufl.edu

RED GROUPER (read by FL and NMFS)
TBD
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
(850) 234-6541
(850) 235-3559 FAX

GAG GROUPER (read by FL and NMFS)

TBD
National Marine Fisheries Service
SEFSC, Panama City Laboratory
3500 Delwood Beach Road
Panama City, FL 32408
(850) 234-6541
(850) 235-3559 FAX

GRAY SNAPPER (read by all agencies)

Alison Amick
Florida Fish and Wildlife Commission
Fish and Wildlife Research Institute
100 Eighth Ave., SE I1-FDM
St. Petersburg, FL 33701-5020
(727) 896-8626
(727) 894-6181 FAX
alison.amick@myfwc.com

ATTACHMENT C

FIN Recreational Technical Workgroup
Conference Call
April 3rd 2012, 1:30p.m.

The following workgroup members were present:

Craig Lilyestrom, PRDNER, San Juan, PR
Michael Harden, LADWF, Baton Rouge, LA
Rob Andrews, NOAA Fisheries, Silver Spring, MD
Vicki Swann, TPWD, Austin, TX

Staff
Dave Donaldson, GSMFC, Ocean Springs, MS
Gregg Bray, GSMFC, Ocean Springs, MS

The purpose of this conference call was to explore the feasibility of improving the timeliness and compatibility of Texas recreational data. This topic was identified as a high priority during the most recent FIN Facilitated Session. **Swann** asked how often Texas provided estimates to Gulf States Marine Fisheries Commission (GSMFC). **Bray** stated that estimates were provided only after low-use and high-use seasons were completed. **Swann** stated the biggest delay in producing estimates is the staff time it takes to collect, enter, and edit the data. In most cases those tasks are completed by the same personnel. **Donaldson** asked if GSMFC could assist with the process of entering the data. He mentioned that Texas Parks and Wildlife were not in favor of receiving assistance from GSMFC in past years but **Swann** mentioned she would inquire with supervisors again. Texas is likely not willing to change the design of their current survey so improving the compatibility of the data with MRIP data is highly unlikely. **Bray** asked if the current TPWD design would facilitate monthly estimates if the data were entered or captured electronically with a faster method. Swann mentioned that the current design is based around producing reliable estimates for each fishing season so monthly estimates may be highly inaccurate. This basically eliminates the ability to produce more timely estimates.

There being no further business the call was adjourned at 1:49 p.m.

Gulf States Marine Fisheries Commission
State Directors Meeting
Sarasota, Florida
June 12-15

Participants

David Heil - FL
Dan Ellinor - FL
Kevin Anson - AL
Dale Diaz - MS
Mike Ray – TX
Corky Perret - MS
Mark Schexnayder - LDWF
Larry Simpson - GSMFC
Steve VanderKooy - GSMFC
Dave Donaldson – GSMFC
Ralph Hode - GSMFC

Itinerary

June 12, 2012	3:00PM Arrive at Sarasota/Bradenton Airport 6:00PM Dinner 8:00PM Evening discussion in *Manatee Boardroom*
June 13, 2012	6:00AM FWRI Tarpon Genetics Program 6:00PM Dinner 8:00PM Evening discussion in *Manatee Boardroom*
June 14, 2012	9:00AM Discussion wrap-up in *Manatee Boardroom* 11:00AM Lunch and leave for afternoon in St. Petersburg delivering tarpon tissue samples, 7:00PM Dinner and return to Sarasota.
June 15, 2012	7:00AM Breakfast and depart Marriot for Sarasota Airport

Discussion Items

FWC Tarpon Genetics and Tagging Program

Funding Issues
- *EDRP I & II*
- *IJF*
- *FIN*

Funding and Legislation from Oil Disaster/Future Activities
- *Marketing*
- *Certification/Traceability*

State Fish Watch Mock Up

APPROVED BY:
COMMITTEE CHAIRMAN

GMFMC's Law Enforcement Advisory Panel
Thursday, July 26, 2012
LDWF Grand Isle Marine Lab
Grand Isle, LA

LEAP Members:

Walter Chataginer, MDMR (LEAP Chair)
Jeff Mayne, LDWF
Brandi Reeder, TPWD
Rob Beaton, FWC
Karen Raine, NOAA
Jason Brand, USCG
Scott Bannon, ADMR
Otha Easley, NOAA OLE

Others:

Jessica Stephen, NOAA SERO
Myron Fischer, GMFMC
Debbie McIntyre, GSMFC
Steve VanderKooy, GSMFC
Charles England, USCG
Julie Falgout, LA Sea Grant
Julie Anderson, LA Sea Grant
Greg Abram, Panama City FL
Russell Stewart, Panama City FL
Russell Underwood, Lynn Haven FL
Jack Melancon, Golden Meadow LA
Billy Broussard, Kaplan LA, *LWF Commissioner*
Archie Dantin, Golden Meadow LA

Welcome and Introductions

Walter Chataginer called the meeting to order at 8:25am and started the introductions. **Steve VanderKooy** (GSMFC Staff) would serve as facilitator but **Chataginer**, as the LEAP Chair, would actually run the meeting. **VanderKooy** pointed out to all that the agenda was published and therefore the topics were set. He asked that comments be constructive and related to the issues at hand and reminded the audience that this is not intended as a platform for complaints. **Myron Fischer**, (GMFMC member) stated there will be open floor at the August meeting of the Gulf Council for comments and suggestions on the IFQ issues also.

Adoption of Agenda

Chataginer asked if the agenda could be accepted as published. **Steve VanderKooy** noted that there was one item from the previous day's Joint LEC/LEAP Work Session that had not be completed and would only take a few minutes. The audience had no objection to wrapping up that one item before starting the LEAP agenda. ***Jeff Mayne*** *moved to accept the agenda as*

modified, ***Scott Bannon*** *seconded and the modification was approved.*

JEA Presentations

VanderKooy went over the need to agree on the best way to present patrol hours, contacts, etc. since in the past there have been noted differences between the states in how they were recording their respective information. **VanderKooy** would like to present a single calendar year's statistics but it was agreed that, since some state contracts are on different calendars, each state would provide the data for their last completed JEA annual contract regardless of start dates. Finally, the presentation would be provided to the Commissioners at the annual meeting and the Council members at their meeting two weeks later. **VanderKooy** wondered if the Commission's luncheon might be appropriate to give a little better, expanded overview of the JEA program and the state accomplishments. **Otha Easley** indicated he might be able to attend and provide more background narrative. **VanderKooy** would find out whether the Commission would prefer a lunch keynote presentation or leave it as part of the LEC report during the Business Session.

With no further Work Shop business, the LEAP session resumed at 8:50am.

Individual Fishing Quota (IFQ) Discussion

Jessica Stephen (NOAA SERO) presented an overview of the issues currently being discussed regarding the existing IFQ Program and some options to address the issues. These options were based on recommendations already received from Council staff, fishermen, dealers, as well as federal and state enforcement agents.

The administrative changes being considered are related to the *Landing Notifications* and include the 'landing time specifications', making revisions to notifications, and the underestimating of weights on the Landing Notification. There are other issues related to the *Landing Transactions* and include when no notification is given, the landing transaction timeframe/duration, the captain's presence/absence at offloading, duration to complete and offload, weighing at sea, practice of deducting ice/water weight, and how to report IFQ and non-IFQ species catches.

Issue

Time specified for landing: Current regulations at 622.16 and 622.20 state: The owner or operator of a vessel landing IFQ species is responsible for ensuring that NMFS is contacted at least 3 hours, but no more than 12 hours, in advance of landing to report the time and location of landing, estimated landings in pounds gutted weight, vessel identification number (Coast Guard registration number or state registration number), and the name and address of the IFQ dealer where the fish are to be received. There is no specific regulation indicating when a vessel may land during this notification window. To assist law enforcement, regulations would need to be amended to require vessels to land within X hours/minutes of a submitted landing time. If a vessel plans to land after the original time reported (+ X hours/minutes) then an amended notification would have to be made. Regulations would need to be clarified regarding when a notification can be amended without a vessel having to wait an additional three hours to land. For example, if the dealer is changed or the pounds being reported changes, this may not require an amended notification. Lastly, law enforcement would like to receive a call back number for

3-hour notifications in the event that they need to reach the vessel captain prior to landing.

Discussion

There was significant discussion regarding the time specified for landing and the timing of the notification itself. After much input from the LEAP and the audience, the LEAP makes the following recommendation to the Council: **under the IFQ, there should be a 30 minute window past the reported landing notification time to adjust for prevailing conditions or situations. If arrival is later than 30 minutes, another notification should be made through the IFQ notification system with a revised time.** *Mayne moved to include a ± 30 minute window, Bannon seconded. Following more discussion Mayne amended to only include 30 minutes past, Bannon seconded the amendment and the recommendation passes.*

In addition, the group discussed if the three-hour window was absolute. It was generally agreed that the landing was up to the discretion of the officer on site so the LEAP makes the following recommendation to the Council: **under the IFQ, if there is an officer present prior to the notified landing time, the vessel should be allowed to land and offload with the officer's permission.** *Bannon moved, Mayne seconded and the recommendation passes.*

In the event that a boat encountered problems and was close to the notification time, it was suggested that there be some allowance for a later arrival before a new notification and new three-hour window be required. Upon discussion, the LEAP makes the following recommendation to the Council: **under the IFQ, a landing notification may be amended without a new three-hour minimum as long as there is no change in the 'pre-approved landing location' and the original notification time has not passed. If a '30 minute window' is adopted and the new arrival does not exceed the window, then re-notification is not required. Arrival past the 30 minute window requires a landing notification amendment prior to the expiration of the original landing time notification. A change in location requires a new notification with the 3-12 hour time limit.** *Bannon moved, Mayne seconded and the recommendation passes.*

Issue

Requirement for captain to be at landing site during offload: Currently, regulations in 622.16 and 622.20 require the fisherman validate each landing transaction using a unique vessel personal identification number. Regulations specifically state: "The fisherman must validate the dealer transaction report by entering his unique PIN number when the transaction report is submitted." However, often fishermen leave the site and the dealer completes the landing transaction without the fisherman present. Having the captain present at the time of offload would assist law enforcement if there is a violation or a problem with the landing transaction/offload. Consideration should be given to fishers who do not land and/or offload at a dealer and for dealers that are landlocked. In addition to the use of the word 'offload', a definition may need to be added for transporting fish to a dealer once a landing transaction has been completed.

Discussion

Stephen pointed out that under the current protocols, the dealer alone is responsible for completing the landing transaction but there have been occasions where the captain was not available to question during offloading if problems or inconsistencies came up. While it was agreed that this was probably not a common problem, the LEAP makes the following recommendation to the Council: **under the IFQ, the landing notification must include the captain's name and phone number to be able to reach the captain.** *Reeder moved, Mayne seconded and the recommendation passes.*

Issue

Offloading: Current regulations do not require an offload to be completed once it has started. Should a vessel land at a location and choose not to offload the entire catch at once, the entire catch on the vessel will be subject to inspection. This will provide OLE with additional regulatory authority in instances when fish have been partially offloaded and a landing transaction has already been completed. In drafting regulations, sale to multiple dealers should be considered as well as completion of multiple transactions due to different size grades/price grades of fish.

Discussion

If the vessel lands and the dealer can't unload for a day or two (weekend, holiday, several vessels at the dock), should there be a requirement to offload and complete the landing transaction within a certain time limit? It was agreed that the officer is still able to ask the crew to break the hold if it is believed that there is something requiring examination; offloading is not required. The group didn't feel that this was something that could be required by enforcement, it's an industry issue so **no action or recommendations were offered.**

Issue

Weighing fish at sea: IFQ regulations currently state: "The dealer is responsible for completing a landing transaction report for each landing and sale of [IFQ species] via the IFQ Web site .... at the time of the transaction in accordance with the reporting form(s) and instructions provided on the Web site. This report includes, but is not limited to, date, time, and location of transaction; weight and actual ex-vessel price of [IFQ species] landed and sold; and information necessary to identify the fisherman, vessel, and dealer involved in the transaction."

The language is not overly specific as to requiring the vessel and fish to be at the dock before the transaction is entered. The language does say "at the time of the transaction," which does not preclude the transaction from occurring while the vessel is at sea. The information required in the report does include the weight of the fish "landed," and since a vessel has yet to land it certainly argues against allowing a landing transaction at sea. Additionally, landing locations must be approved and those do not include at sea locations, so how can a vessel report a weight of fish landed at an approved location when the fish are still at sea? Regulations may need to be clarified to prohibit landing transactions at sea.

Discussion

There have been cases where the boat attempts to expedite the landing transaction prior to landing at the 'pre-approved landing location.' This is simply a way to tighten the law

and is related to day trippers. They are supposed to weigh the fish on land with compensating scales but it is not explicitly stated in the rule, it's implied. The only reason to weigh at sea is to determine an estimated weight in some cases for the call-in and to help determine the crew shares. This is about working on the landing transaction at sea issue. The scales on the boat are not the issue because they still will be reweighed at the dealer in order to pay the vessel appropriately.

The LEAP makes the following recommendation to the Council: **under the IFQ, all landing transactions must take place at the 'pre-approved landing location' indicated in the landing notification.** *Chataginer moved, Beaton seconded and the recommendation passes.*

Issue

Receiving fish if no 3-hour notification is made: IFQ regulations state: "Failure to comply with [an] advance notice of landing requirement is unlawful and will preclude authorization to complete the landing transaction report … and, thus, will preclude issuance of the required transaction approval code." The IFQ online system does not currently preclude landing transactions from being made if a landing notification is not made. There is concern that precluding transactions from being made will result in landing transactions not being reported. Southeast Regional Office (SERO) staff regularly audit landing notifications and transactions. If a vessel is found to not be reporting a landing notification, it is referred to enforcement and it is also contacted by SERO staff and informed of the reporting requirements. Would it be beneficial to set up the online system to preclude landing transactions without a notification or should this provision be removed from the regulations given the current auditing and administrative process in place?

Discussion

The specific situation was discussed where there have been communication issues between the VMS and the IFQ servers therefore, when the dealer goes to complete the landing transaction, there is no number to include from the IFQ even though it was submitted. Technically, the dealer couldn't do the transaction because it could be an illegal landing of an IFQ species no matter how much effort the fisherman made through the system. The IFQ staff wants the transaction record regardless so it needs to continue to be allowed but might need an option to allow it so they don't lose those fish from the quota. Again, at this time the system doesn't prevent the transaction but perhaps there is way you can fix it.

In addition, the VMS desk is not manned 24/7 and it has led to problems with no notification getting through to IFQ as well as amendments to the landing notification or new landing notifications with officers in the field. This tends to be a weekend issue. Because a VMS confirmation number is provided to the vessel, there should be a way to at least verify that contact was made even if there was a failure to generate a landing notification. If the call is made through the VMS but no IFQ confirmation, the vessel will have a 'green check' which is easily identifiable by the dealer and any officer who happens to be at the dock and is concerned about the lack of a notification.

The Transaction Report dropdown menu doesn't have a place to put in the VMS number, it only allows the IFQ number or they must select 'no notification'. The 'green check' is a four letter confirmation that can easily be entered. Allowing the VMS number to be entered gives a 'breadcrumb' trail to get the IFQ and VMS information to match, even if it's at a later date. The software needs to be modified to allow for the legitimate transaction to continue despite a server miscommunication.

The LEAP makes the following recommendation to the Council: **under the IFQ, in instances where there is a miscommunication between the VMS server and the IFQ server, the notification code on the VMS device should be entered by the dealer as the 'landing notification' confirmation number instead of selecting "no notification".** *Beaton moved, Chataginer seconded and the recommendation passes.*

Issue

<u>If IFQ species landed, cannot offload IFQ or non-IFQ species between 6 pm and 6 am</u>: IFQ regulations prohibit offloading between 6 pm and 6 am; however, non-IFQ species can be offloaded during that time. To prevent IFQ species from being removed from vessels when non-IFQ species are offloaded, it has been suggested that all offloads be restricted between 6 pm and 6 am if IFQ species are onboard the vessel and being landed.

Discussion

There is generally officer discretion that if the vessel has begun to unload, they can allow it to continue. Extending the time with a 'window' would not be helpful to officers but it is not unreasonable to allow a vessel some latitude. There are instances when multiple boats come in at the same time and a dealer can't get to the vessels until the following morning because a 6pm stoppage is a problem.

With the existing flexibility, there is not an actual stop time while unloading; the dealer just can't start another vessel. To make this more clear, the regulation should be made clearer. The existing language is also specific to red snapper and not all IFQs so there may be more language changes needed.

The LEAP makes the following recommended changes to the IFQ regulations for offloading:

<u>Time Restriction on Offloading</u>

"For the purpose of this paragraph, offloading means to remove IFQ ~~red snapper~~ ***species*** **from a vessel. IFQ ~~red snapper~~** ***species*** **may be offloaded only between 6am and 6pm local time." [add language]** ***An offloading of a vessel which commenced prior to 6pm may continue until no later than 9pm.*** *Chataginer moved, Mayne seconded and the recommendation passes.*

Issue

<u>Requirement for captain to be at landing site during offload</u>: Currently, regulations in 622.16 and 622.20 require the fisherman validate each landing transaction using a unique vessel

personal identification number. Regulations specifically state: "The fisherman must validate the dealer transaction report by entering his unique PIN number when the transaction report is submitted." However, often fishermen leave the site and the dealer completes the landing transaction without the fisherman present. Having the captain present at the time of offload would assist law enforcement if there is a violation or a problem with the landing transaction/offload. Consideration should be given to fishers who do not land and/or offload at a dealer and for dealers that are landlocked. In addition to the use of the word 'offload', a definition may need to be added for transporting fish to a dealer once a landing transaction has been completed.

Discussion

The LEAP had already addressed this earlier and recommended that there should be a requirement for a phone number to reach the captain to be included in the notification in the event of a question during the offload. Again, this is not a common problem and with a phone number, the issue is likely resolved so the LEAP took **no further action and no recommendation was made regarding the captain being present at offload.**

Issue

Prohibit dealers from deducting water/ice weight from total fish weight: Dealers, primarily in Texas, have been deducting 2-3% of the weight of IFQ species landed before completing a landing transaction. The practice of deducting water/ice weight from total fish weights has evidently been common practice since prior to the IFQ program. However, there are inconsistencies among dealers. Some dealers do not deduct ice/water weight while others do. There is no standardized amount that is deducted and it is unclear how dealers arrived at deducting 2-3% of the total weight for ice/water. Regulations may be necessary to prohibit this activity or to standardize it across all dealers.

Discussion

This is less of an enforcement issue than a Council issue. Officers cannot determine what is an appropriate weight for water/ice. It is also not specifically addressed in the regulation but if it is an industry practice, it should be consistent across the Gulf. Whether they do it or not is up to the dealer but the adjustment needs to be standardized.

The LEAP recommends to the Council that: **the 'adjustment' for ice/water off the weight of IFQ species should be standardized or prohibited in the IFQ language. This needs to be investigated to generate a realistic value since there is no consistency or agreement within the industry.** *Mayne moved, Reeder seconded and the recommendation passes.*

Issue

If IFQ species landed, cannot offload IFQ or non-IFQ species between 6 pm and 6 am: IFQ regulations prohibit offloading between 6 pm and 6 am; however, non-IFQ species can be offloaded during that time. To prevent IFQ species from being removed from vessels when non-IFQ species are offloaded, it has been suggested that all offloads be restricted between 6 pm and 6 am if IFQ species are onboard the vessel and being landed.

Discussion

There are a couple additional issues related to the VMS call out. When a commercial trip is declared on the VMS by an IFQ participant, is that individual required to provide a landing notification regardless of whether they actually fished for any IFQ species? If so, can they declare a zero pound estimate and not have to follow the three-hour requirement? At this time, it is okay to offload if they aren't on an IFQ trip. When they catch non-IFQ AND IFQ, can they offload the non-IFQ or does the protocol apply to the whole catch regardless?

The LEAP recommends to the Council that: **any commercial trip which includes non-IFQ and IFQ species will fall under the IFQ offloading regulations.** *Reeder moved, Mayne seconded and the recommendation passes.*

The NOAA OLE would like to see a stronger stand to ensure that any IFQ participant should be required to provide a landing notification regardless of the species. There may be too much of an opportunity to land IFQ species without following IFQ reporting procedures.

The LEAP recommends to the Council that: **any vessel that holds a Gulf reef fish permit, has an IFQ account, and declares a commercial trip shall provide landing notification regardless of species or quantity on board.** *Easley moved, there was no second but a substitute was offered.*

This recommendation puts an undue burden on the captain to require IFQ protocols regardless of their commercial trip. The VMS system might need to allow for making the declaration of an IFQ trip up front. The way the system is set up now, if it's not going to be an IFQ trip, the commercial declaration forces the IFQ notification question regardless. If the trip is declared as an IFQ trip but fails to harvest any IFQ species (weather related, mechanical issues, emergency return, etc), the requirements to make a landing notification remain, even with a zero estimate of IFQ to be able to confirm zero catch.

The following substitute recommendation was made that: a **change should be made in the VMS system so that a fisherman can declare a commercial trip versus a commercial IFQ trip prior to departure. If they declare an IFQ trip or retain an IFQ species, they must follow the IFQ landing regulations.** *Mayne moved, Reeder seconded and the substitute recommendation passes.*

Issue

Pre-Approved Landing Locations: As of June 2012, there are 332 locations listed in the IFQ database of which 70 have not been used since 2010.

Discussion

At this time there is no ability for the IFQ program to evaluate the existing locations and determine if they should remain on the list or be removed. There is a desire to reduce the list to a more manageable number of locations by everyone but no mechanism exists to

verify a location and determine if it needs to remain on the list. If a location is removed, it will need to be re-inspected to determine if it's still an accessible, viable site.

The LEAP recommends to the Council: **to give NOAA OLE the authority to modify or remove from the list of 'pre-approved landing locations', any locations that have had two years of inactivity. This includes locations that have already been dormant for the past two years or more retroactively.** *Chataginer moved, Reeder seconded and the recommendation passes.*

Louisiana State Water Extension

Mayne provided a briefing on the extension of Louisiana's state waters. At this time the state regulations are now applicable out to three marine leagues or 10.357 miles based on recent action by the Louisiana Wildlife and Fisheries Commission. With this action, all state regulations (boating and fishing) previously enforced within the three mile boundary will be applicable to the expanded waters. This will require Louisiana recreational and commercial licenses for all residents and non-residents out to 10.357 miles. Until the time when the US Congress confirms the commission's action, fishermen are urged to use caution and their own personal judgment when fishing beyond the three mile boundary that is currently recognized as federal waters, as it is fully expected that federal agents and the U.S. Coast Guard will continue to enforce federal law. **Mayne** indicated that current state regulations are concurrent with all federal regulations and the LDWF officers will continue to enforce those regulations in the new zone.

Other Business

VanderKooy reminded the audience that there will be additional opportunities to provide comment to the Gulf Council related to the proposed IFQ changes. The next Gulf Council meeting is scheduled for August 20-24 in New Orleans. In addition, written comments may be provided directly to the Gulf Council via mail or e-mail and their contact information is on the Council website at **www.gulfcouncil.org**. Any additional questions on the IFQ program may be addressed to the Southeast Regional Office of NOAA at **http://ifq.sero.nmfs.noaa.gov** or 1-866-425-7627 (opt. 2).

With no further business, the LEAP/LEC Joint meeting adjourned at 3:00pm.

APPROVED BY:
COMMITTEE CHAIRMAN

TCC SEAMAP SUBCOMMITTEE
MINUTES
Tuesday, July 31, 2012
Savannah, Georgia

Chairman R. Hendon called the meeting to order at 8:30 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
Chloe Dean *(proxy for Myron Fischer)*, LDWF, Grand Isle, LA
John Froeschke, GMFMC, Tampa, FL
Butch Pellegrin, NOAA Fisheries, Pascagoula, MS

Others
Terry Henwood, NOAA Fisheries, Pascagoula, MS
Kelly Donnelly, NOAA Fisheries, St. Petersburg, FL

Staff
Jeff Rester, GSMFC, Ocean Springs, MS
Cheryl Noble, GSMFC, Ocean Springs, MS

Adoption of Agenda

J. Mareska moved to adopt the agenda as submitted. B. McMichael seconded and the motion passed.

Approval of Minutes

J. Mareska moved to approve the March 6, 2012 minutes as submitted. B. McMichael seconded and the motion passed.

Administration Report

J. Rester reported the spring plankton survey and summer groundfish survey were completed. The bottom longline survey began in March and is currently ongoing in Mississippi, Alabama and Texas. The vertical line and reef fish survey are currently being conducted off Alabama and Louisiana. All data have been received for the 2010 Environmental and Biological Atlas of the Gulf of Mexico. A draft copy will be distributed for review within a of couple weeks. The Bottom Longline and Vertical Line Databases have been finalized and will be sent to the Subcommittee for review and approval. **J. Rester** stated there have been quite a few data requests and reminded the Subcommittee to send in cruise reports and data as soon as possible after the cruise is completed. Seven real time data mailings and an end of survey report were

produced and distributed to approximately 100 recipients this summer. **J. Rester** stated that a Plankton Work Group meeting was held in April.

Survey Activities and Budget Needs for FY2013

Florida - B. McMichael said Florida would continue maintaining the archiving center, doing the trap/camera work, and the summer trawling survey. They can probably continue with a 4% cut, but if it is more than that, they will have to reduce or cancel something at some point. He said Florida should receive the 46-foot boat within two weeks and it will be used for the trap/camera survey. Florida's current budget is $537,610.

Alabama - J. Mareska said Alabama will continue the summer and fall groundfish trawl surveys, the inshore bottom longline and vertical line surveys, and the late summer/early fall ichthyoplankton survey. They were going to expand on the vertical longline but that is not an option with current funding. Alabama's current budget is $213,889.

Mississippi – R. Hendon said Mississippi would continue to do the summer/fall groundfish, the inshore bottom longline, and the spring/fall plankton surveys. He said they would like to start vertical line sampling but that is not possible at this point due to a lack of funding. **R. Hendon** said that in the near future, Mississippi should receive funding for a replacement vessel for the R/V TOM MCILWAIN but it would take approximately one year to build. Mississippi's current funding is $424,853.

Louisiana – C. Dean said Louisiana would continue to do the summer/fall groundfish cruises and the vertical and bottom longline cruises. She said they are over budget but if they can use another vessel other than the PELICAN, it would cut costs. Louisiana's current funding is $429,960.

Texas – F. Martinez said Texas plans to do the same activities with the current budget. He said they recently expanded the summer trawl, summer longline, and fall trawl surveys because they stopped the winter trawl surveys. **J. Rester** asked if it was possible to get more longline sampling instead of the July trawl survey. **F. Martinez** said it may be possible but the vessel has been down for about a year and that is why there has not been more longline data. **J. Rester** then asked if it would be possible for Texas to start vertical line sampling. **F. Martinez** said it should be possible with more funding because that would be a completely new survey. The current funding for Texas is $131,976.

GSMFC – J. Rester said the GSMFC would continue all activities at the current level of funding which is $249,348.

NMFS – B. Pellegrin said NMFS would continue the fall and summer trawl surveys, the spring and fall plankton surveys and winter every other year, and the reef fish activities at the current funding level of $815,140.53.

SEAMAP Vertical Line Survey Issues

Applicability of SEAMAP VLL into Next Red Snapper Assessment

J. Mareska reported he met with SEFSC personnel to discuss incorporating the bottom longline, vertical line, ROV, all artificial reef data from SEAMAP into the next Red Snapper stock assessment. He said SEFSC seemed open to reviewing this data and possibly accepting it. He said there is the issue of the time series, specifically with the vertical line data. They were also concerned about the spatial coverage because Alabama and Louisiana are the only states participating and they would like to see that expand to all states. He said they are not sure how they will use the ESA vertical line data in the current assessment, but if the spatial coverage can be expanded and they can determine how to use it, it would be good to go forward. He said it looks like NMFS will continue their vertical line sampling so that dataset will be there so in the future, it probably will be incorporated.

A possible use for the vertical line data would be to make estimates of discards from the commercial fisheries. They can look at the size and age structures of what is caught and compare that to fishery independent size and age structure, to determine what the discard rate would be with commercial fisheries. The ROV work is great but the vertical line data has to be with it to get the age structures, species composition, etc. They also decided to target both natural and artificial reefs, not to exclude anything.

Gangion Length and Hook Code for Double Hooked Fish

The Subcommittee discussed whether to keep the 18-inch gangion length or to change it. **C. Dean** said Louisiana had problems with the 12-inch gangion. There have been a few times when one fish bit two hooks. **B. McMichael** suggested keeping the protocols as is, and add a double hooked code and assign it to the shallower or deeper hook based on the discretion of the field party chief. **R. Hendon** said the Vertical Line Work Group could discuss this further and give their recommendation to the Subcommittee.

Formation of Vertical Line Work Group

R. Hendon asked the Subcommittee to appoint someone to the vertical line work group and send the name to J. Rester. Any non-state member will be welcomed if there are any suggestions. He asked to have the names to J. Rester by August 15 then they will decide when and how the work group will meet.

Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program

J. Rester stated this new program is under the Restore Act in the Transportation Bill section. He read the bill and stated in summary, under this act, there will be a large amount of funding (approximately $125-$525 million) for fishery independent sampling and SEAMAP would be the obvious program for the data collection. The funds would be distributed by the GSMFC.

J. Rester then asked the Subcommittee to review the SEAMAP fishery independent sampling expansion priority list and decide if they are still in agreement that these are priority and if the funding stated is sufficient:

Expanded Trawl Surveys on the west Florida shelf **$350,000**

The Subcommittee agreed this is a priority. **B. McMichael** said the funding would probably be $350,000 instead of $550,000.

Expanded Reef Fish Trap/Video and Vertical Line Sampling **$700,000**

The Subcommittee agreed this is still a priority and decided to add side scan sonar to this section. They agreed the fish trap work is not as much a priority as the video. There are huge gaps throughout the gulf with side scan sonar. The Subcommittee discussed the costs to add this but everyone was in agreement they could not give an exact amount today. **J. Mareska** stated Alabama samples three times a year - twice before the recreational season and once afterwards. It was suggested to sample twice a year, summer and fall, in conjunction or close proximity within the same grids as the trawls. They will have to determine how many sites to do, determine a sample size that would be beneficial, sea time, etc. They also agreed that they would have to have another fishery independent workshop to decide where to do the side scan sonar as other programs have mapped some sections of the Gulf. The Subcommittee will determine the amount needed to do this and will break down the cost of each activity. **J. Mareska** stated Alabama does 30 stations a year which costs $5,000/cruise. They sample 12 stations a cruise. The ballpark figure to do this will be $1 million dollars.

Juvenile Menhaden Sampling **$255,000**

J. Rester read the section on the juvenile menhaden sampling. The net would be towed with two boats or a single boat would use a push net. **R. Hendon** said he is not comfortable with the sample size. After discussion, the Subcommittee decided to change the amount to **$255,000**.

Otolith Processing **$500,000**

The Subcommittee agreed this is a priority. It was suggested to have a centralized processing facility. The Subcommittee must decide if they want to concentrate on just the high priority species or all species collected by SEAMAP. **T. Henwood** suggested hiring people to do otolith processing at the Panama City facility or any other established facility. **B. McMichael** said in previous meetings they had discussed hiring extra people to go on the boat to collect the otoliths. **J. Mareska** recommended changing this section to Hard Part Processing instead of otolith, or Age and Growth Collections and Processing. After discussion, the Subcommittee decided most of the states could expand their processing that it would not have to be in one location just use the same protocols gulf wide. **J. Rester** will investigate the processing cost per sample then the Subcommittee will decide how much to request for this section.

Dietary Analysis **$350,000**

The Subcommittee agreed this is still a priority. **B. McMichael** said Florida can handle some increase to do this but not for the whole Gulf. **T. Henwood** said NMFS has started keeping stomachs and suggested Brittany, who works for B. Pellegrin, give a presentation at the October meeting. **J. Rester** will also investigate how much this will cost per sample then the Subcommittee will submit a final amount.

Reproductive Histology **$160,000**

This is also a priority but this amount does not include collection of the samples. The Subcommittee will have to collect these samples during spawning time and for some species that will be in the winter.

J. Rester asked if there are any other priorities that need to be included in the list. Quarterly/seasonal trawl and plankton sampling was suggested. **J. Rester** stated winter is the only time they do not sample. The need for another vessel or two was suggested. **J. Mareska** submitted a proposal for $6 million to have a vessel built to be used by all of the states. This amount will be reevaluated as the proposal was submitted two years ago.

J. Rester will revise the priority list and include vessel and collection costs. He will then send this to the Subcommittee for review and input. He asked that each member send him their costs for each item. **T. Henwood** suggested putting in the number of people it would take to do the extra work. After J. Rester receives all of the information from the Subcommittee, he will incorporate it into the document and the Subcommittee will review this again.

Louisiana Comparative Tows

C. Dean reported Louisiana did a comparative tow study in June 2012 using the ***Pelican*** and the ***Blazing Seven***. The two boats did the summer SEAMAP groundfish survey side by side and they will statistically analyze the results. If comparable, they request to begin using the ***Blazing Seven*** for the SEAMAP groundfish surveys. The data will be analyzed and presented by Dr. Brian Alford at the next SEAMAP meeting.

Review of the Trawl and Plankton Operations Manual

J. Rester reported the FSCS information has been added to the manual. He has received some changes that he will incorporate. He asked the Subcommittee to send any other changes to him as soon as possible. After he incorporates those changes, he will send the manual to the Subcommittee for a final review. The Subcommittee will vote to accept or reject the manual at the October 2012 meeting.

There are still issues with certain sections of the Vertical Line Operations Manual. **R. Hendon** suggested having the vertical line group and NOAA review the manual, give input, incorporate suggestions into the document, then the Subcommittee will vote to accept or reject. He asked

everyone to send in their appointment for the work group so they can meet via webinar or conference call by the end of August or in September.

Other Business

B. McMichael moved that the FY2013 budget allocation for the Gulf components be the same as FY2012. J. Mareska seconded and the motion passed.

J. Mareska moved to request at the Joint Meeting the four SEAMAP components keep the same budget allocation percentages in FY2013 as FY2012. C. Dean seconded and the motion passed.

B. McMichael asked if funds are still available for a fall trawl survey in the eastern Gulf this year. **J. Rester** said they are not available.

T. Henwood stated they are concerned that the edit packages for the NMFS database and GSMFC database are different. J. Rester and T. Henwood along with the data analysis personnel will meet to resolve any problems they may have with the edit packages to ensure the data is the same from NMFS and GSMFC.

B. Pellegrin informed the group that the FSCS 2.0 system will be closed down. They are considering having Chuck Schroeder write a new software program that will be tailored to SEAMAP needs in the Gulf of Mexico. He will keep the Subcommittee informed. The Subcommittee supports this 100%.

B. Pellegrin also informed the Subcommittee that NMFS personnel gave a presentation on electronic measuring boards that were developed in house. This would be a less expensive alternative than purchasing elsewhere. He will keep the Subcommittee informed. **K. Donnelly** suggested adding this to the agenda under other business at the joint meeting because the other components have been investigating purchasing new measuring boards.

There being no further business, the meeting adjourned at 12:01

Flounder Technical Task Force Meeting Minutes
Gulfport, Mississippi
September 11 and 12, 2012
Courtyard Marriot

Chairman **Sempsrott** called the meeting to order at 8:15 a.m.

The following were in attendance:

Michelle Sempsrott, FWC, Panama City, Florida
Karon Aplin, AMRD, Gulf Shores, Alabama
Wes Devers, MDMR, Biloxi, Mississippi
Jason Adriance, LDWF, New Orleans, Louisiana
Scott Bannon, ADCNR/MRD, Dauphin Island, Alabama
Cherie O'Brien, TPWD, Dickinson, Texas
Ava Lasseter, Gulf Council, Tampa, Florida
Chuck Adams, Florida Sea Grant, Gainesville, Florida
Steve VanderKooy, GSMFC, Ocean Springs, Mississippi
Debbie McIntyre, GSMFC, Ocean Springs, Mississippi

Approval of Minutes

*The minutes of the Flounder TTF Meeting held on May 22-23, 2012 were approved with minor changes on a motion by **Adams** and a second by **Adriance**.*

Adoption of Agenda

*On motion by **Aplin**, seconded by **Sempsrott**, the agenda was accepted.*

Housekeeping Issues

VanderKooy asked the group to review the membership roster for errors and/or changes.

VanderKooy urged the group to send in travel expense reports ASAP following the meetings. Questions regarding travel should be directed to the Commission's travel coordinator, Alyce Catchot.

Commercial and Recreational Representation

VanderKooy explained the role of the commercial and recreational representatives to the TTF. **Aplin** has spoken with Wes Rozier, a recreational guide fisherman, who is agreeable to serving in this capacity. Per **VanderKooy's** request, **Aplin** will ask Rozier for a basic biography/resume' which **VanderKooy** can submit for the approval of the Commission's Commercial/Recreational Fisheries Advisory Panel. If approved, Rozier will be invited to attend the TTF's next meeting which may be before the end of this calendar year, depending on IJF funding. Otherwise, the next meeting would be held in early February of 2013. **Aplin** pointed

out that, if Rozier does not work out, she has another person who would be interested in taking part in this TTF.

Lasseter stated that it would be helpful to have access to a couple of 'key informants' from another part of the Gulf to supply her with some necessary social data. She would like each state to supply her with the name of a contact who would be able to give her information such as a description of the process and what they encounter. **Lasseter** noted a couple of commercial fishermen that might be interested in participating as well: Steve Rash from Waterstreet Seafood (Florida) and a dealer in Louisiana at Spicer Seafood. **Adriance** will do some research on the Louisiana contact and report back to **Lasseter**. **VanderKooy** noted that there are some high-tech Mississippi giggers who fish off of Cat Island who may be a potential as a key informant for that commercial sector; he also will report back to **Lasseter**. **VanderKooy** encouraged everyone to pave the way for **Lasseter** to speak with informants from each state and to provide her with names, if possible. **Lasseter** will forward the questionnaire she will use in her interviews to everyone for their input. She also plans to contact some private fishermen regarding gigging, Jubilees, Gulf Coast Fishing Connection, etc.

VanderKooy encouraged everyone to speak up if they feel that there is any other representation needed on this TTF to better develop a complete picture of this fishery.

Draft Discussions

Section 03

Biology – **Aplin** stated that there may be more changes necessary in Section 3.1 as several overlaps occur. **VanderKooy** pointed out that repitition is not a problem because people will only read one section at a time, making repitition necessary to some extent. **Aplin** will need to "beef up" the abnormalities section. **VanderKooy** will provide **Aplin** with AFS names book soon, he should have it electronically. If not, **Adriance** will upload it up as a PDF or will send a CD to **VanderKooy** to distribute.

VanderKooy pointed out the original distribution map which was not done in GIS and asked the state reps to provide maps with their own interpretation of where their species overlap. He will ask Jeff Rester to develop something better.

Age and Growth – **Adriance** had nothing new to report on his section. He asked that everyone send him any new information they may have on growth rates in their states. **Lasseter** will send three new papers by Bridget Freske to everyone as soon as they are ready to distribute.

Adriance will update the tables in this section. **VanderKooy** will send Section 3 tables to **Adriance** electronically. **Aplin** is checking the FAMP samples to see if there is any new information available on Gulf flounder.

Gonadal Development – **Stahl** was not present but **Sempsrott** reviewed her own comments in the document with the group. **Stahl** will catch up on this section at the next meeting.

Geographic Distribution – **VanderKooy** reviewed Section 3 assigments. **Devers** stated that some of the work that he and **Aplin** did separately should be combined. The two will work together to accomplish this. **Devers** noted that, with the current size restrictions on 'flounders', there are a number of species being excluded from the fishery. Because of this, the list will be reduced down to about six or seven species. **Aplin** suggested that, perhaps in section 3.2.1.1 Classification, there should be a complete list of all the flatfish species. **VanderKooy** stated that if there was potential for other species to be included in the landings, that may be necessary, but this does not appear to be the case now.

A question was raised regarding the source for most people's landings data. **Lasseter** has been using the ALS (Accumulative Landing System) out of the Miami Science Center and wants to make sure that everyone is using the same sources. The ALS breaks down landings by community and seems to match the NOAA landings data which is summarized on the Office of Science and Technology – Fisheries Statistics Division (ST1).

Genetics – **Sempsrott** acknowledged contributions from Joel Anderson (TPWD) for this section. She has tried to contact Ivonne Blandon (TPWD), as well as Mike Tringali (FWC), but with no success. She will continue to try to reach them both.

Parasites and Disease – **Devers** stated that he has not made much progress on this section. **Sempsrott** will get some information to **Devers** regarding parasites and diseases of interest in Gulf flounder and flounder in general from the FWC's parasite lab.

Misc - The group discussed whether or not culturing flounder should be included in this section since there is a lot of information on foraging in culture. It may be worthwhile to compare natural vs tank growth rates even just for informational purposes. While we should not consider 'how to aquaculture,' there is not a reason to exclude information on things like growth since much of the published literature includes captive-based life history information. **Adriance** will look at what literature is available and work it into the growth section if appropriate. **Adams** will be developing the culture viability in his economics section.

Section 04

O'Brien reported that there will not be much change in the information in the Habitat section. Once **Rester** provides **VanderKooy** his blue crab data, **O'Brien** will review it for possible inclusion in this document. Other information that may need to be included in this section includes: the effects of the oil spill, awareness of salt domes, and a paragraph on LNG.

Section 05

Bannon has received all of the input that he needs and his section is almost complete. He will forward his section to **VanderKooy** who will disperse to the individual state representatives for their review to make sure that everything is covered as necessary.

Section 06

Historical Perspective - **Aplin** and **Devers** are working together on the history of the commercial and recreational fisheries. They will continue to update the original material as needed.

Florida Fishery - **Sempsrott** has updated a lot of the Florida material already. The commercial licenses included a lot of licenses that didn't really apply. **Sempsrott** has now included only the Number of Saltwater Products and Restricted Species license. So based on the community distribution in Table 6, this might fit in the socio-economic section. She has added a figure which depicts the flounder species by the area. This figure is the result of **Sempsrott**'s use of Florida trip ticket and port sampler data. There were a number of unidentified species which are listed as 'misc flounder'. Pensacola seems to be the break point but Orange Beach ,AL should be southern and not Gulf as reported in the FWC data.

Sempsrott noted that the NMFS landings do not match the NMFS website but should. Therefore, she has been using landings directly from the Florida trip tickets. **VanderKooy** pointed out that everyone really should be using the NMFS website for overall landings and values, however, upon looking at the website, there are clear issues with NMFS data sometimes. Because the numbers are so far off for Florida, **Sempsrott** will likely use their own data but will note the source in the table. Not until 2000 did NMFS start listing out southern flounder as well. In order to get the total landings for either, you need to get BOTH "Flatfish" and "Southern Flounder." Louisiana is the only state that NMFS lists as Southern. The FWC landings will need to be provided to **Adams** to generate dock-side prices if he cannot use NMFS for Florida.

One of the NMFS issues is that FWRI made a big gear correction in their own data but the landings website has not been corrected. The states have better gear, participation, and trips information that NMFS will ever have. **VanderKooy** recommended using the state's own data when there are clear errors in the NMFS data.

VanderKooy reminded everyone that if they needed their license sales from years past, the Commission collects that info in the annual license and fees reports. They are available on the GSMFC website.

Texas Fishery – **Stahl** was not present to report but **VanderKooy** shared some of the information that **Stahl** had sent to him ahead of time., i.e. a current table of landings. Southern flounder is most frequently landed recreationally in Texas.

Alabama Fishery – **Aplin** reviewed the Alabama section and is trying to determine if that fishery reflects both southern and gulf flounder. She ran the list of flatfish through NMFS and reviewed some of the trends. **Aplin** will get with law enforcement to make sure whether any regulatory changes have taken place. Additionally, she would like to collect more anecdotal information from Alabama giggers.

Louisiana Fishery – **Adriance** went over the Lousiana section and explained some of the swings in their commercial and residential landings, etc. **Adriance** shared updated tables reflecting commercial and recreational licenses, as well as, saltwater and freshwater licenses. Updates include the addition of regulation changes since the last FMP such as the changes to the allowable retention in the commercial trawl bycatch.

Mississippi Fishery – **Devers** will work on this section in the next month or so.

Incidental Catch (commercial and recreational) – **Sempsrott** reported that incidental catch is broken out into commercial and recreational. She researched all of the Gulf states' websites for their bycatch information. **VanderKooy** will provide **Sempsrott** with the most recent derelict crab trap removal numbers.

Sempsrott broke the data out into states in reference to the most fish caught as bycatch when targeting flounder. These fish are: Atlantic croaker, black drum, gray snapper, ocellated flounder, pig fish, red drum, etc. **Adriance** will massage the Louisiana information contained here.

Sempsrott will add a statement to the effect that the trawl fishery is not all bycatch. The pros and cons of BRDs was discussed at length. The U.S. National Bycatch Report is now available. A discussion ensued as to the difference between "bycatch" and "incidental catch." It was decided that some research will need to be done to determine, historically, what the difference has been. **Devers** and **Aplin** will work on good definitions for these terms. Essentially, *bycatch* is what is thrown overboard from culling. *Incidental* or 'retained' catch is lagniappe landings… bycatch which is valuable, retained, and taken to the dock for sale or personal consumption – not really bycatch then.

Section 07

Lasseter asked the group the best way to organize her landings data and how to break it down, possibly by county. **VanderKooy** advised that this information has never been broken down by county in the past and that this method would probably be too refined. Without going too far down the 'community' road, this may be a good opportunity to establish a good baseline on our coasts without going overboard on the detail. **VanderKooy** is preparing to conduct a Crab survey which may be of help to **Lasseter** in her research since it asks about 'other' fisheries activities.

Lasseter, **VanderKooy**, and **Adams** will work together to figure out what to include in the new flounder survey that **Lasseter** would like to conduct. It was agreed that this survey must be brief, and must include a description of participants as best as possible. **Lasseter** requested that each state representative provide her with a contact who can help her gather some insight into different components of the fishery. **Lasseter** will also talk to Alex Miller for some input regarding his processor survey.

Section 08

Economics Section – **Adams** will soon update existing text and tables in this section. These tables should include historical information up until the end of 2011, at least in one table. Additional tables could be added which are more specific to the last decade or so for comparisons. **Adams** will review existing charts to see which ones should be left in. The bycatch data from Gregg Bray may be helpful, the numbers from the MRFS data base. The

USFWS recreational fishing survey findings will be released this Fall. **VanderKooy** will contact Bray regarding MRIP data for **Adams**. **Adams** asked that if anyone knows of any other information out there that may be helpful, they would post it to the website.

Adams would be interested in looking at the statistics from each state regarding the eonomic impact assessments where they are required when changing or implementing any regulations.

GDAR Data Requests

VanderKooy explained that, in an FMP, a stock assessment is desired in order to make reasonable management recommendations in an effort to reach a sustainable fishery. The Commission will be implementing the GDAR process which includes three components: a Data Workshop, Assessment Workshop, and a Review Workshop. **VanderKooy** will be working with the Commission's Stock Assessment Team (SAT) to determine the best models which will allow us to assess both species, either separately or in combination. Once the assessment is complete, the TTF will be able to generate recommendations.

VanderKooy plans to put out a request for data related to flounder right after the first of the year. This data will be examined in the Data Workshop to determine what is applicable and should be used for the stock assessment. **VanderKooy** will need every source that TTF members can come up with for this data query. Sources may include the state and federal resource agencies, colleges and universities, and NGOs.

The Data Workshop will be held in February, March, or April of 2013, preferrably at the DMR in Biloxi. Funding will come into play when making these decisions.

Next Meeting

The next meeting of this TTF will be planned for either the week of December 3rd or the week of December 10th in Galveston. **VanderKooy** will send out a Doodle calendar.

Other Business

VanderKooy reminded everyone, as they are drafting their sections, to make notes of anything missing that may help us to paint the picture of this fishery better. All recommendations will be heard and are welcomed. Also, everyone should keep in mind that all of this information will ultimately be needed for the stock assessment. In addition, any terms we consider common but that might need defining, should be provided to **VanderKooy** for inclusion in the glossary.

VanderKooy reminded the group, once again, to turn in their travel as soon as possible to Alyce Catchot at the Commission.

There being no further business, the meeting was adjourned at 5:00 p.m.

MEETING Minutes
Blue Crab Technical Task Force
September 25 & 26, 2012

Moderator, Steve **VanderKooy**, called the meeting to order at 8:30 a.m. The following Task Force members and others were in attendance:

Members Present

Jeff Marx, LDWF, New Iberia, LA
Glen Sutton, TPWD, Dickinson, TX
Ryan Gandy, FWRI, St. Petersburg, FL
Jason Herrmann, ADCNR, Dauphin Island, AL
Alex Miller, GSMFC, Ocean Springs, MS
David Capo, Capo Crab Ranch, Cross City, FL
Traci Floyd, MDMR, Biloxi, MS
Rob Beaton, FWC, Tallahassee, FL

Others

Steve VanderKooy, GSMFC, Ocean Springs, MS
Debbie McIntyre, GSMFC, Ocean Springs, MS

Introductions

In consideration of the new member to the TTF, David **Capo** (industry rep), the group introduced themselves and described their roles in the revision. **VanderKooy** asked those present to double check the roster list handout for accuracy.

Adoption of Agenda

The agenda was reviewed and it was agreed that it would be used as a guide for this meeting.

Approval of Minutes

The minutes from the Work Session held April 26, 2012 were reviewed by the group. *On motion by **Floyd**, seconded by **Marx**, the minutes were accepted as written with minor changes.*

GDAR Potential Reviewers

VanderKooy asked everyone to review the list of potential GDAR reviewers and make any recommendations regarding these suggestions. It is important that these names be reviewed as soon as possible and any other participants suggested so that **VanderKooy** can contact them to see if they would be agreeable to serve in this capacity.

General Discussion

VanderKooy explained that this TTF has been on task for one year. This is the second revision which is a bit easier than the last effort. The primary changes to the document are updating the landings information, adding any new biology and habitat information, and describing the changes to the fishery from the last decade. In addition, the TTF is repeating the social survey of the commercial fishery in an effort to really look at the changes resulting from the world economy and several natural and man-made disasters since the last revision.

To date, most of the effort by the TTF has been independent but we are getting to the point of reviewing relatively complete draft materials. **VanderKooy** noted that there are actually two separate efforts going on simultaneously: the revision of the FMP and the GDAR stock assessment (which will be included and help the TTF make recommendations).

Biology

Perry was not present at this meeting but **VanderKooy** reported that he met with her and she wanted to work on the layout of the biology section. **Perry**, **Graham**, and **VanderKooy** rearranged the overall structure of the section and it was a little different than the version the TTF has been working with. **Perry**, **Gandy** and **Graham** have been tasked with almost this entire section. **Perry** is the principle on combining the subsections as they are drafted, however, and once the restructuring is complete, it will be subject to review of the entire group.

Geography

At the GDAR Data Workshop, the TTF agreed that there is evidence and support for a natural, geographic break around Apalachee, Florida for a lot of species including blue crabs. Migration studies are weak but genetics data supports this theory. Therefore it was agreed that there really are two stocks in the Gulf, the 'Eastern Stock' which consists of Florida waters to the panhandle, and the 'Western Stock' which includes the other four western states. Joel Anderson (TPWD) has found a similar geographic break in other species data. **Gandy** questioned whether such a dividing mark could possibly have an influence on Florida assessment in the future, i.e. a disaster. **VanderKooy** stated that there are plenty of regional assessments and this should not be a problem. This is not a concrete barrier but **Gandy's** concern will be kept in mind as an approach is taken to this break. **Capo** is aware of this divide which actually looks like a tide line and he stated that once you reach Apalachee, the tide runs a lot less. The crabs drift in, swim in, and are either caught or die.

General Description

VanderKooy reviewed the general description section which has been worked on somewhat since the Data Workshop. There will be much more fleshing out of this section, using red snapper as a template. A map has been added to this section to illustrate the "break." This should be considered a work in progress.

Age and Growth

These sections were reviewed on the screen, allowing all to read. **Gandy** stated that there is a Steel study with tagging data available, but grid systems were used and the study is very difficult to figure out. He has not yet gotten the 'codes' required to properly interpret the data from the mid-1980s study.

Gandy reported that FWC's pond crabs are measured weekly for growth estimates. **Graham** has similar information for Mississippi but her measurements are total growth over a season. The group reviewed the summary of growth studies for blue crabs. Growth rate will never be exact due to temperature variables. **Graham** is still working on this table. Mississippi provided crabs to Auburn for a study, the results of which just came out last month. Potential recruitment to the fishery and ability to mature within the first year was some of the information provided by these studies. **Sutton** will have some new Texas data by the end of this year which he will provide to **Graham**. **Gandy** would like to reference some North Carolina data regarding crabs grown during the summer. This is good to use as reference information for comparison to the Gulf. **VanderKooy** reminded everyone that, while this is a management plan for the

Gulf, we do need to highlight, to some extent, how the Gulf is different.

Mating and Life Histories

Graham has also provided updates on mating and life histories.

Spawn and Recruitment

Graham will develop this section further. There will be a lot of overlap between **Marx's** section and this section, but there is room for overlap.

Factors Affecting Survival

VanderKooy reported that after much deliberation with **Perry** over the reorganization of Section 3, it seemed impossible to develop a separate section for threats. Therefore, the 'life history' threats (parasites, predation, disease, etc.) will be placed back into the Biology section and those 'habitat loss/environmental threats' will be returned to Section 4 Habitat.

Parasites and Disease

Gandy had pulled a lot of research on disease but most are region-specific. **Gandy** is in the process of restructuring some of the following:

1. Known diseases
2. Diseases of concern
3. The effect of disease on populations and fisheries and estimates of mortality
4. The table of all work on these subjects.

Weather and disease are the next levels of data to consider in the FMP.

Table 3.2 reflects review papers which indicate impacts of viruses on fisheries. This is basically a table of citations, i.e. for Hematodinium, there are at least 50 citations, all of which are important. This will provide a great resource for researchers. **Gandy** stated that this section snow-balled due to all of the very important data available. Blue crabs are so susceptible to disease because they are susceptible to all kinds of stress. **VanderKooy** suggested that this table be moved to the back as an appendix and only the Gulf-related diseases be addressed in detail in this section.

Gandy's table will be taken out of this section altogether and moved into an Excel document. This can all be formatted later if necessary.

Habitat

Gulf of Mexico General Description

Rester is in the process of updating this section. Every year, our marsh coverage changes due to land loss, habitat shifts, and storms; therefore, this needs to be continually updated. **Rester** is pulling information from other management plans, Sheepshead, Oyster, etc., to overlap them all and acquire more recent information.

It was suggested that we need to do a better description of Eastern vs. Western Gulf, descriptive enough to explain exactly what the difference is between the two areas. The dividing line should be described clearly.

VanderKooy informed the group that, although the Gulf Council did away with the Joint GSMFC/GMFMC Habitat Program, **Rester** is still the go-to person for habitat information. **Marx** is responsible for the remainder of the Habitat section specific to blue crabs.

Juveniles

Marx has added some information for juvenile and larvae but will probably not change anything in the opening section. He would appreciate any recent publications regarding adult crabs since he has not found many new ones. Gathering information about the critical habitats for each state, land loss rates, etc, has proven difficult. These changes are taking place so often and so rapidly, especially in the case that a storm occurs. This information has such an impact on the fishery.

Threats

This will now be added back to the end of the Habitat section. **Rester** will cover some of this section which is boilerplate but the TTF will have to qualify these impacts as negative or positive for blue crabs. Also, individual state examples of problem areas will be included. Changes to habitat, such as freshwater diversion, need to be tied into the boilerplate that **Rester** provides. **VanderKooy** reminded all not to simply reference other people's citations. Make it original, using the original source when you can.

Gandy pointed out that there is a ton of blue crab work in Mexico. We normally draw a line at the border of Texas but Mexican data may be very helpful. **VanderKooy** advised everyone to use any of this information they may be able to get. It would be interesting to begin to insert some of that information in our document. This should be included in management recommendations as well. It was also discussed that perhaps Cuba should be included in this information also. We do need to know what is happening south of Texas. This additional information may be helpful in all of our sections. **Capo** indicated that there is a huge amount of crabs landed and processed in Venezuela and, on his travels, although he hasn't seen many blue crabs in the Caribbean, the island locals certainly know what they are and recognize them. The extent of these 'fisheries' is unknown and it would be interesting to start to gather information on this.

Table 4.1- 4.5 from the old FMP was reviewed. **VanderKooy** will get the most recent updates from the Oyster FMP to **Sutton**. That FMP includes a lot of descriptions of bottoms. **Sutton** uses surface area to weigh populations. There must be similar methods to develop these surface areas in order for this data to be valid. Shorelines such as Louisiana's have changed drastically. Surface area would be a more accurate representation but we need a source for this information. **VanderKooy** will ask **Rester** about shoreline vs. surface and whether there is a standard. It is hoped that **Rester** can use GIS in some sort of trace function to measure open water or surface areas of the bays within the state boundaries. **Sutton** needs sub-region information which is tied to sampling areas. In this case, there would be one region in Mississippi, Biloxi Bay. Alabama would have three, Perdido, Mobile, and Mississippi Sound. **Sutton** stated that other bays need to be included in Mississippi as well. Each state will need to identify what they feel are individual regions in order to have **Rester** generate anything from GIS. This should be done directly on a map by each state rep who will forward this to **Sutton**. Each state rep will provide a map with suggestions for their state to **Rester** to digitize or redraw.

Capo stated that the Suwanee Sound estuary changes immensely which has a significant effect on blue crab. He asked whether these phenomena are taken into account. **Gandy** answered that the assessment guys are wrestling with this issue now. Most models today work with an animal to which an age can be assigned but with crabs, this cannot be done; hence, we are very limited in the models we can use.

Enforcement

VanderKooy has only received information for this section from Florida. **Beaton** will contact enforcement in the other four states and remind them to send in their parts of this section. **VanderKooy** again reviewed the working website and encouraged everyone to review their state's section to make sure that the information is inclusive to their satisfaction. Look at treaties, acts, and federal regulations that might apply to crabs for boilerplate input. Enforcement information should go through the end of 2011.

Fisheries Section

Floyd has incorporated some of the GDAR reports from the Data Workshop into this section. More descriptive language has been added but she still has to insert graphs and tables (the ones she presented at the GDAR). Derelict trap retrievals need to be updated. **Floyd** has inserted some of the data that she has been sent. She asked everyone to review their state information and make sure it is correct. DWH and hurricanes have been mentioned. The incidental catch summary needs to be added as well as license sales.

The mention of Mexico in this section was discussed. **VanderKooy** indicated again that he would be interested in Mexico's contribution to total catch for the entire Gulf of Mexico. **Capo** will generate a paragraph regarding anecdotal information from his experience in Jamaica and Haiti. **Capo** restated that there is a huge harvest of blue crab in Venezuela which is imported as an inexpensive but very good product. He will also include anecdotal information about Venezuela in his paragraph. A subsection of other sources of blue crabs in the GOM may be valuable in this FMP. The group agreed that it is necessary to expose potential changes in the market. **VanderKooy** suggested placing this particular paragraph under Commercial, Gulf US vs. Gulf non-US. **Miller** can also build this into the import side of the Economics section.

State-by-state Fishery Updates

Floyd has incorporated the updates she received from Florida and Louisiana. She is working on putting the boilerplate together. Mississippi is updated somewhat. The old Texas information can probably be replaced. **VanderKooy** asked that no integrity be lost in the replacement of information; everyone should try to include what was already in the document in an attempt to keep the historical information intact. We want to make sure that we cover all landings, trends, etc. There has to be a flow so that this sounds like one document rather than separate reports.

Floyd will keep the tables out of the main Word document as separate files for now, as should everyone else. **VanderKooy** reminded everyone that we need the original Excel files from which tables are generated if we need to reformat or adjust the layout of the tables and figures later. He would like to update the landings in these tables as soon as he has all of this data.

At this point, the TTF members took some time on their own to read through the Fisheries Section draft for the purpose of making sure the data is comparable between states. They were advised to make sure that necessary and accurate information is included.

Capo would review history of the fishery and come back with ideas about that. Anecdotal information is welcome.

Description of Fishery

After review of the Fisheries Section, **VanderKooy** voiced his concern with the state detail. There are

three or four paragraphs that describe landings only for each state which basically state that the landings have fluctuated. There is not specific information, by state, to describe what the fishermen actually do week by week, season by season, what the busiest months are and why, etc. **VanderKooy** suggested that there needs to be some qualification as to what the fishery is and how it actually works. Some of this is social but a lot of it involves describing how they fish their traps. This should be explained in detail. These descriptions will be different from state to state but that is what makes it interesting. Legal description and gear should be in the Enforcement Section, but we need to know specifically how these fishermen spend their time. For instance, how many traps are run, when the busy time of year is, trip tickets, and how the fisherman's time is spent when his effort is not on crabbing. **Gandy** stated that Florida has a vast difference across their state and that level of detail could become time restrictive. **VanderKooy** pointed out that this would be more of a general description in most cases. **VanderKooy** suggested that possibly by just reporting the upper, middle, and lower ends of the crabbing spectrum, it would help explain the differences between "way back when" and present day. Essentially, each state needs to 'narrate' their fishery. **VanderKooy** asked that everyone keep their state descriptions in mind and start on a baseline description.

VanderKooy removed the tables and graphics from the draft section, updated the landings and effort numbers, and will email the changed document back to TTF members.

History

VanderKooy reviewed changes to this section. **Capo** questioned what study indicated that using TEDs increased blue crab catch. **Gandy** researched the Guillory study and shared it with the group. As it turned out, this was basically an opinion paper so there was no actual proof to this statement. **Gandy** pointed out that it is very important that supportable facts are used in this document with research and citations. **Gandy** and **Floyd** will further develop this TED section. After further discussion in general about the use of TEDs and the willingness of fishermen to incorporate them into their traps, **Floyd** offered to send some TEDs to **Capo**. Floyd also agreed to send additional TED studies that illustrate increase in crab catch.

Bycatch species

Floyd reported that **Graham** has compiled a Mississippi list of 70 species in active traps but these are not listed in the FMP. **VanderKooy** pointed out that this should only be mentioned without getting too specific. **Capo** stated that sometimes bycatch is valuable and, as such, is not really bycatch. **VanderKooy** noted that the Flounder TTF had realized this only a few weeks before and that the difference in the terms 'bycatch' and 'incidental catch' should be made clear. 'Incidental take' may be a better term but the definitions need to be included in both this section and the Glossary. With that in mind, it may be worth adding another section such as "*Retention of other species.*" In addition, the real impact of crabbing on terrapins needs to be re-addressed in this section. **Sutton** volunteered to take on the project of updating and rebuilding this section.

Herrmann updated and further clarified some of Section 6.1.3, Crab Development and Research. He pointed out that Table 6.1 cannot be updated because NOAA stopped collecting this information and would provide historical information only. **VanderKooy** reviewed reports state-by-state. If there is a problem with the NOAA landings figures, we need to address them. Each state rep should be cross-checking their respective state's data. Generally speaking, Florida is not using NOAA data but relying on their own - derived from their Trip Tickets. While they should be the same numbers, NOAA's don't match more than they should. **VanderKooy** will rework the tables, including data through 2011.

VanderKooy reminded all that DWH should be mentioned as far as fishery closures in 2010 and the

redirection of fishermen's effort into disaster management and response. Each state should cover this as part of the description of their landings.

Marx will include specific discussion of Louisiana effort. Individual state changes can be described well in the state sections.

Soft Crab Production

Section 6.2, *Gulf Commercial Soft Crab Fishery*, may be a good place to report the non-US blue crab fishery.

Capo indicated that there may be a problem with the way NOAA is reporting the soft crab production. In the past, NOAA has sent him landings for soft crabs which were translated into pounds. However, the peeler fishery is based on individual crabs so how do they calculate weights? There have been times where the NOAA weights were actually **Capo**'s total numbers as though a single peeler was equal to one pound. It is unclear what this conversion method is so each state will check on how their peeler/soft crab production is converted and reported. **Capo** stated that a benchmark needs to be established for accuracy if they're not already. **Marx** stated that Louisiana trip tickets reflect pounds even though soft crabs are not sold by the pound but by the dozen. There may be an issue if NOAA is not converting correctly. A conversion matrix may need to be generated if each state and NOAA have different conversions.

Recreational Fishery

Perry was not present at the meeting, but **VanderKooy** reported that she has some Mississippi data from hands-on surveys she conducted of crabbers back in the 1980s. These were not trap fishermen but drop trap and 'chicken neckers'. **VanderKooy** will ask **Perry** to revisit this data. There should be some discussion explaining that while we can't get a handle yet on the total effort, the recreational fishery is much larger than it appears.

Mississippi sells a recreational license for trap crabbers and only requires a saltwater fishing license for hook-and-line crabbers. Likewise, Alabama crabbers just need a valid saltwater fishing license. Therefore, state-by-state descriptions need to be developed with this type of information.

It was decided that soft crabs should not be divided out here. There is not enough information available so we will combine soft and hard into a general discussion. **VanderKooy** will adjust the TOC to reflect these section changes, renumber, and send out to TTF members.

User Group Conflicts

VanderKooy stated that this may not be the place for this section anymore. This may need to have a "(see Section 8 for greater detail)" inserted. This is really part of the sociology section and we should get results from the survey for this. There may be a few 'fishery' issues worth mentioning but, again, providing the detail in the survey results.

VanderKooy reiterated that Section 6 will take the most time to develop. It falls to the group to provide their state information to **Floyd**.

Economics

Miller informed the group that he started adding data from the point that Walter Keithly had left off in 1997. **Miller** reviewed the table with the group, in both nominal and real dollars. **Miller** presented the

numbers in a graph and the data presented in that format. Bottom line: there are less crabs being sold for more money. **Capo** stated that blue crabbing today is more driven by market than abundance and estimated that nearly 50% of Gulf products go through Baltimore. At the request of the group, **Miller** will put two trend lines on the nominal dollars on the graph.

There is a similar table and figure for each state and the paragraphs are updated to correspond with tables. Louisiana production has steadily climbed and all others have steadily declined. Louisiana crabs seem to be preferred 'up east' because they are bigger and much more plentiful.

Miller reported that the processor data is not in yet but he should be getting it very shortly, as well as, the processor economic survey results.

Miller should develop this section however he sees fit and not feel constrained by Keithly's previous version. More information is needed on cost and earning data at the processor and harvester levels. Some of this will be gathered from the processor survey – the economics of the crabbing business.

Miller is working on processor history, products, soft shell product, and the marketing section at the back. The deadline for **Miller** to finish is December 31st. We will look at meeting again in mid to late January. Hopefully we will have results of our survey by then also. **VanderKooy** also expects that Dr. **Jacob** will glean some data from the previous crab survey.

The group discussed the question "What do we know about Mexican catch and catch from the islands?" Even anecdotal information may be helpful to find out how much of a fishery there is outside of the U.S. in the Gulf. David Yoskowitz is an economist who works with Mexico. **Miller** will contact him as a possible source for Mexican landings, effort, etc. **Miller** reported that there is a labor issue in that some crabs are being shipped to Mexico to be picked and the meat sent back and labeled the state it came from. **Capo** stated that tariff is non-existent on actual imported crab. Sometimes there is dumping and re-labeling. There is a chain of custody to prove that the crab came from each individual state. The whole concept of tariffs and market change should be included in this section.

Sociology

The "Commercial Blue Crab Survey" was reviewed by the group. Several additional questions have been added to the initial survey. The form is longer but still has the original questions intermixed so that some comparisons can be made. **Jacob** liked this survey and is providing it to his Social Science class for their feedback. This will be in an electronic form similar to a 'survey monkey' with response online or we can have a link to click on. The survey will be anonymous. Because it is web-based, it can be used on a smart phone, an I-Pad, etc. Those responding can go online at their homes or they can send a filled-out survey to the GSMFC or the state agency to submit. There will also be some paper copies available for pick-up at state agencies. An intro letter and follow-up post card will be sent out to all licensed fishermen in each state. All state representatives need to be notified prior to the letters being sent out with their contact information. In addition, the agency receptionists and other pertinent staff need to be informed about the survey and who to contact within the agency.

VanderKooy wondered what time of year would be best to send it out and were any of the questions too invasive. **Capo** indicated that they seemed reasonable from the industry side and wouldn't raise any concerns with most fishermen. **Capo** suggested that it might be more productive to send these surveys out in February because year-end information will be finalized for tax purposes and these figures would be more readily available. **VanderKooy** will forward copies of the surveys to all TTF members which will be color-coded by state. The introduction letters should be printed on each state's letterhead and mailed from the Commission office. **VanderKooy** will need permission from each state to be sent both

letterhead and window envelopes or permission to recreate letterhead and envelopes on Commission paper and blank window envelopes.

VanderKooy is going to travel to Pennsylvania to meet face-to-face with **Jacob** to go over the survey and discuss re-analysis of the old survey to use for contrast information.

Stock Assessment (GDAR01)

A GDAR analyst meeting was held in St. Petersburg in August and included Wade Cooper (FWC), Joe West (LDWF), Glen **Sutton** (TPWD), and Ralf Riedel (GCRL/GSMFC). Also in attendance were **VanderKooy** (GSMFC), Behzad Mahmoudi (FWC), Mike Murphy (FWC), and Bob Muller (FWC) who provided input. **Sutton** reviewed the results for the western stock and explained the data processing, standardization, and preliminary results. It was noted that for the GDAR, everything that is done to the data must be documented and reported for the review.

In reviewing the summary of total stations by state, each state was asked to check these station counts. **Perry** and **Floyd** will review Mississippi stations as turned in by Ralf Reidel. **Sutton** asked everyone to let him know if there are any factors that may affect catchability that need to be added to this work. **Sutton** explained that there are two approaches to getting these IOAs (Index of Abundance): 1) running a GLM for the entire western stock and 2) a GLM for each state in the western stock separately. After presenting both approaches, **Sutton** asked which approach everyone thought would be better.

Weighting of the IOAs was an issue that was discussed at length. It would be best to have actual habitat estimates for each bay and system by state but, without it, surface area may be a good proxy. **VanderKooy** requested the state reps to evaluate a series of state maps that **Rester** could digitize and perhaps capture the areas as defined by the state reps. **Sutton** pointed out that these IOAs and the weighting has to be finished by October 26th to conduct the assessment. We should be able to have an assessment review by April or May 2013. Mississippi sampling created a problem when compared with the other states trying to derive IOAs with their FID. Although not ideal, a decision was made to split Mississippi in half and combine their waters with Alabama to the east and Louisiana to the west. This would allow FID from the periphery of the other states to 'fill in' for Mississippi in areas other than just the Biloxi Bay Transect. **VanderKooy** will schedule a webinar soon to discuss this further with **Reidel** and the other analysts.

Next meeting

The Crab Subcommittee meeting is the morning of October 16 in association with the GSMFC Annual Meeting in Point Clear, Alabama. The GDAR01 Assessment Workshop will be held November 13-15 in Ocean Springs, Mississippi, at the Gulf Coast Research Lab and will be broadcast on the Commission's website on the GSMFC channel. Only **Perry** will be in attendance from the TTF but all are welcomed to watch on the webcast.

VanderKooy will send out a doodle calendar to see what dates work best for the TTF to meet again, possibly Galveston in January. Conference calls will probably be necessary between now and then.

In March of 2013, associated with GSMFC's annual meeting, a half-day work session may be held for the TTF in preparation for the GDAR01 Review Workshop. This would give everyone a chance to look at the final stock assessment report prior to the actual review. The final product may be finished in April or May of 2013.

There being no further business to discuss, the meeting was adjourned at 5:30 p.m.

APPROVED BY:
Leslie D. Hartman
COMMITTEE CHAIRMAN

GULF & SOUTH ATLANTIC REGIONAL PANEL
ON AQUATIC INVASIVE SPECIES
MINUTES
Thursday, October 11, 2012
New Orleans, LA

On Thursday, October 11, 2012, Chairman **Leslie Hartman** called the meeting to order at 8:00 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
Tim Bonvechio, GA DNR, Waycross, GA
David Britton, USFWS, Arlington, TX
Rick Burris, MDMR, Biloxi, MS
Earl Chilton, TPWD, Austin, TX
Pam Fuller, USGS, Gainesville, FL
Chris Furqueron, National Park Service, Atlanta, GA
Lisa Gonzalez, HARC, The Woodlands, TX
Jeffrey Herod, USFWS, Atlanta, GA
Dewayne Hollin, TX Sea Grant, College Station, TX
Leslie Hartman, TPWD, Palacios, TX
Robert Bourgeois, 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
Susan McCarthy, FDA, Dauphin Island, AL
Robert McMahon, UT Arlington, Arlington, TX
Roberto Mendoza, University of Nuevo Leon, Nuevo Leon, Mexico
Steve Rider, AL DCNR, Montgomery, AL
Dennis Riecke, MS DWFP, Jackson, MS
Don Schmitz, FWC, Tallahassee, FL
Kristen Sommers, FL FWC, Tallahassee, FL
John Teem, FL DOA, Tallahassee, FL
Linda Walters, UCF, Orlando, FL

Staff
Alyce Catchot, GSMFC, Ocean Springs, MS

Others
Julie Anderson, LSU, Baton Rouge, LA
Matt Cannister, USGS, Gainesville, FL
Kevin Leftwich, USFS, Asheville, NC
Tom Lorenz, UNO, New Orleans, LA
Susan Mangin, USFWS, Washington, D.C
Matt Neilson, USGS, Gainesville, FL

Mike Pursley, MS DMR, Biloxi, MS
Manalle Salamah, UNO, New Orleans, LA

Public Comment
Chairman **Hartman** provided the opportunity for public comment. No public comments were received.

Adoption of Agenda

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

Approval of Minutes
The minutes of the meeting of the April 2-3, 2012 meeting in Mobile, AL were presented for approval.

A motion was made to approve the minutes as written. The motion was seconded, and the motion passed.

Year-long Absence of an Invasive Species in LA: Current Status of Introduced Tilapia
T. Lorenz gave a PowerPoint Presentation entitled "Year-long Absence of an Invasive Species in LA: Current Status of Introduced Tilapia". A sampling project of Nile tilapia and Blue tilapia was done in Port Sulphur, LA. In 2009, a Rotenone treatment was done on canals, drain pipes, and other water bodies/waterways. Over a million tilapia were recorded in borrow pits and canals. There were roughly 200,000 Rio Grande cichlids. Only one Lepomis was recorded. On the marsh side of pumps, there were mostly native fish, and several tilapia.

A restocking effort was done in the Port Sulphur canal from July through August, 2009 of native fish that were mostly collected from various areas in the Atchafalaya Basin and the Bonnet Carre spillway. Bowfin, alligator gar, catfishes, spotted gar, sunfishes, and largemouth bass were all stocked into the canal.

Two cold winters with freezing temperatures, in January 2010 and January/February 2011, aided in the control of tilapia. Temperatures between 6-8 degrees Celsius are lethal to tropical fish.

Stocked native fishes did well after the cold winters. After the Rotenone treatment, native small fishes repopulated in the treated zone. Habitats outside of the Rotenone zone also had a variety of fish. No tilapia were observed for approximately 10 months. In October of 2010, tilapia were observed and/or caught in temperatures below 10 degrees C. In Fall/Winter of 2010, Rio Grande cichlids were caught. In 2011, no tilapia were caught since April. There was no funding from January 2011 through October 2011. In 2012, no tilapia were caught. Seasonal sampling was done from October 2011 through August 2012. Rio Grande cichlids were caught consistently in small numbers. After Hurricane Isaac, the numbers have suddenly risen.

There are reasons for optimism in the control of tilapia in Louisiana. There have been no sightings of tilapia for 18 months. In the last 12 months, sampling has been the most intense, efficient, and in the most locations. Some cichlid avoidance of electrofishing has been observed,

but Rio Grande cichlids are being shocked. Many managed and natural factors have worked against tilapia. Rotenone treatments have reduced tilapia numbers to a level that was either difficult to recover from, or susceptible to biotic/abiotic factors. Aggressive and predatory stock fish were purposely chosen. They increased in numbers, and had multiple reproductive events for several species. Cold winters occurred immediately after eradication and Rio Grande cichlid numbers decreased dramatically. In lab studies, it was found that all F1 offspring have gill deformities, either from Rotenone and/or initial stock.

There was one significant change between tilapia before and after eradication efforts. The morphology change (body-height/body-length) of pre-rotenone tilapia was always less than 45%. In 2010 tilapia, it was always greater than 45%. Stocking of predatory fish has been shown to affect body depth, and swimming performance in prey fish. It can also be affected by conditions. The 2009 tilapia were overcrowded and reproducing heavily.

Monitoring is ongoing until funding ends in August 2013. Sites within and outside of the rotenoned areas will continue to be monitored. If populations return, management plans should be considered. More stocking of predatory fish should be considered. Rotenone treatments should be done if necessary.

Riecke asked how it is believed that the tilapia were introduced. Lorenz stated it was most likely from people stocking ponds with them to feed bass.

Previous and Ongoing Behavioral Studies of Invasive Cichlids in Louisiana

Al-Salamah gave a PowerPoint Presentation entitled "Previous and Ongoing Behavioral Studies of Invasive Cichlids in Louisiana". Rio Grande cichlids were introduced about 20-30 years ago in New Orleans. Since 1997, they have spread and increased in numbers. There are dense populations in canal systems, and they are commonly found to be the most abundant a fish species. They are increasingly found beyond canal systems. Studies done on the effects of salinity on the growth of cichlids have shown that it has little effect on their growth up to at least 16ppt. Other invasive cichlids have been shown to tolerate salinities above 35ppt, and Rio Grande cichlids might be able to withstand higher salinities. Ongoing studies include a pit tag array to determine if temperature variations during winter can affect cichlid survival outside of the city. Artificial canals and culverts were created, and the movements of the cichlids in and out of the culverts were measured. This can indicate ideal places to manage populations during colder months. Another ongoing study is the cichlid's diet and its impact on smaller species. Preliminary data shows that diet varies dramatically between sites. There is a potential overlap with diets of native species and consumption of native species. Ongoing studies are being done to determine what other impacts cichlids have on smaller, native Poeciliids. The Poeciliid's weight and fecundity were measured before and after the introduction to cichlids. These studies can determine whether or not cichlids have any effect on stress levels of the Poeciliids, which may be causing the disappearance of the Poeciliids. Future cichlid studies will involve genetics, salinity, and diets.

Louisiana's Aquatic Plant Control Program

Bourgeois gave a PowerPoint Presentation entitled "Louisiana's Aquatic Plant Control Program". **Bourgeois** spoke on Water Hyacinth, Common Salvinia, Giant Salvinia, Alligator

Weed, American Lotus, and Hydrilla. He provided data of total acres of infestation of Water Hyacinth, Hydrilla, Common Salvinia, and Giant Salvinia. He also provided fiscal year data of aquatic plant control budgets and the acreage of aquatic plants treated by LDWF, including the herbicide costs.

The multiple aquatic plant control approaches undertaken were chemical, mechanical, and biological. Chemical control consisted of herbicide applications. Mechanical control approaches consisted of drawdowns and containment booms. Biological control approaches focused on species-specific control. Triploid grass carp, common and giant salvinia weevils, alligator weed flea beetles, and water hyacinth planthoppers were all used as biological control.

Giant salvinia has been especially invasive and is present in numerous lakes, rivers, bayous, and other bodies of water in Louisiana. It can double biomass every 5-7 days, and its surface hairs can make chemical control difficult. The main control methods used on Giant salvinia are foliar applications, whole waterbody treatment, water fluctuation, and giant salvinia weevils. Possible long-term control would involve more weevils and a greater stocking effort. Another salvinia control effort is the removal of beaver dams, which removes backwater ponding areas that harbor giant salvinia.

Chilton asked what other plants are being treated. **Bourgeois** stated that they have also treated Cuban Sedge and Water Lettuce.

Update – Reproductive Sterility as a Tool for Prevention and Control of AIS

Teem gave a PowerPoint Presentation entitled "Reproductive Sterility as a Tool for Prevention and Control of Invasive Aquatics". **Teem** noted that the USDA currently allows only *P. brigesii* to be sold and shipped in the U.S. *Pomacea brigesii* will leave aquatic plants intact and are produced in Florida. There are some established populations recorded in the USGS database. *Asolene spixi* eats aquatic plants and is no longer in trade. There are no established populations recorded in the USGS database. Can reproductively sterile *P. brigesii* and *A. spixi* be produced as new ornamental snail products? Sterile *P. brigesii* could be sold without any requirement for USDA approval. Is there a potential market for sterile *P. brigesii*? Sterile *A. spixi* cannot be sold without USDA approval. Is there a potential market for *A. spixi*?

What dose of radiation (x-rays) will render snails reproductively sterile? The snails are radiated, the radiated snail is mated with a wildtype, the eggs are collected, and a determination is made as to whether or not the eggs hatch into snails that survive. Dave Rawlins of Rawlins Tropical Fish Farm in Lithia, Florida monitors the snail mating chambers for mortality and fertility

Teem reported that the viability of irradiated *P. brigesii* adults decreases at radiation doses above 130 Gy. Fertility in irradiated snails is reduced by a decrease in egg production and a reduction in fertility of eggs. To produce sterile snails, two genetic alternatives to radiation are triploidy and chromosomal translocations. Drug intervention during fertilization is used to produce triploids. However, fertilization is internal in apple snails, complicating the use of drug treatments.

Mating snails provide a source of zygotes for drug intervention to induce triploidy. If triploids are produced following fertilization, they should be detectable in the egg mass. The mating snails were drug treated, the eggs were harvested, and the eggs were analyzed by flow cytometry. No triploids were observed in the egg masses. Can the cells in the gonad be treated with drugs to induce ploidy changes in gametes? Additional work is required to determine whether these changes reflect a change in the ploidy of sperm.

In conclusion, **Teem** noted that mortality is high when snails are irradiated to produce translocation chromosomes. Drug treatment of snail gonads with colchicine has not produced triploids. Directed recombination is being investigated as an alternative to irradiation treatment to produce chromosomal translocations.

Britton asked if hybridization had been considered. **Teem** explained that hybridization was attempted but he was not successful in producing hybrids. Also, the snail hybrids are not considered viable.

Update – Trojan Y Chromosome Eradication of Invasive Fish Project

Teem gave a PowerPoint Presentation entitled "Trojan Y Chromosome Eradication of Invasive Fish: Sex-specific DNA Markers for Tilapia". **Teem** explained that Females with two Y Chromosomes produce only male progeny, half of which are Myy. Myy males are viable and produce only male offspring. Four different matings are possible, leading to increased male production. The addition of a Trojan Y female (Fyy) to a target population will cause females (Fxx) to become extinct over time. The carrying capacity of the system becomes occupied by Myy fish (males with two Y chromosomes).

Teem stated that a Trojan Y chromosome strategy might be an appropriate technique for controlling invasive species. It is species specific; requires no new technology development; involves standard aquaculture techniques with no recombinant DNA; Trojan Y chromosome fish have already been produced in one species (*Oreochromis niloticus*); it is reversible. TYC requirements are that 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. 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 time, sex-specific DNA markers have been identified by using the RAPD PCR method. The process for this method is to first create a DNA pool from only females, and another from only males. Each pool is then tested with PCR using a collection of short DNA primers that will amplify sequences at different locations in the genome. For each primer, female-specific DNA is compared with male-specific amplified products using gel electrophoresis. A primer is found that gives a band in one DNA pool, but not the other.

Teem reported that three invasive fish species were screened for sex-specific DNA markers using RAPD PCR: Nile Tilapia, African Jewelfish, and Silver Carp. A male-specific DNA marker for common carp was identified. Could this same DNA marker be used to identify males

in silver carp, tilapia, or African jewelfish? A male-specific carp marker can be used to design 10-mer RAPD PCR primers. No sex-specific markers have been isolated as of yet for African jewelfish, silver carp, or tilapia. Larger numbers of fish will be included in pooled male-specific and female-specific DNA pools. Screening will continue for all three invasive fish, with help from USGS on African jewelfish.

Update on GSARP Rapid Response Plan and Plans for Completing

Hartman reported that the Rapid Response Plan is still being finalized. She explained to the panel that the intention for the Plan is that it will be a functional document, instead of just informative. She also reported that the plan is to develop a web page and put part of the Rapid Response Plan on the web page simply for contact information. The eight GSARP states would be pictured, with the ability to click on a particular state, where links would be provided showing names of appropriate people to contact for particular issues. **Herod** asked how this would be different than the Task Force's contact information on their website. **Hartman** explained that she would like to brand GSARP. She envisions the ability to have all of the appropriate contact people listed for each state on a "one-stop shop" web page that would not only cover major agencies, but secondary agencies as well.

Schmitz suggested that a coordinator be chosen from the panel who would implement the process and cover all of the states.

Hartman asked for volunteers to be on a work group to complete the Plan. **Herod** and **Fuller** volunteered to serve on the group.

Hartman reminded the panel that it was previously decided that a hard copy of the Rapid Response Plan would be created, but the web page could be shelved if the panel did not feel that it was beneficial. She stated that a finished Plan would hopefully be presented at the next meeting.

Update on *Penaeus monodon* Activities

Kingsley-Smith gave a PowerPoint Presentation entitled "An Update on the Invasive Asian Tiger Shrimp (*Penaeus monodon*). The native range of the Asian tiger shrimp is east Africa, Southeast Asia, Japan, China, Korea, Australia, Fiji, and the Philippines. They were first recorded in U.S. coastal waters off of Georgia in 1988 following the accidental release of approximately 3,000 of the shrimp from the SCDNR Waddell Mariculture Center. However, after their release in 1988, they were not seen in U.S. southeastern waters again until 2006.

There are many concerns surrounding recent reports of *P. monodon*. The re-appearance of them in South Atlantic Bight was sudden and currently not well understood which causes fear. Based on the biology of *P. monodon* in its native habitat, the potential for its interactions with native penaeid shrimp in the southeast U.S. seems high. Interactions may be indirect such as competition for space, food, etc., or direct such as *P. monodon*'s diet in native habitat of shrimp and other crustaceans. *P. monodon* are potential hosts of viral diseases, which could possibly lead to transmission to native species. Reported collections of this species increased dramatically between 2010 and 2011. In 2010 there were a total of 32 collected. In 2011 there were 331 collected, with the majority coming from South Carolina and Louisiana.

Ballast water is one of the potential sources of *P. monodon* transport and delivery. The escapement of *P. monodon* in 2007 from a Caribbean aquaculture farm due to Tropical Storm Noel, and the migration from wild Caribbean or African populations are other potential sources. One hypothetical mechanism for transport of *P. monodon* to the U.S. east coast is the entrainment of them from established populations in The Gambia via trans-Atlantic (North Equatorial) currents. This is consistent with reports of *P. monodon* in the southeastern region since 2006. Is there now an established breeding population of *P. monodon* somewhere along the southeastern U.S. coast? The answer will require more specimens and further genetic analyses. The goals of genetic analyses are to determine the number of populations, identify dispersal pathways, and identify founding populations. Results from Phylogenetic studies so far have shown that there are no genetic variations; samples are genetically the same. Individuals are likely highly related or inbred. Founding individuals may have originated from a single culture facility or related populations. Additional samples will be analyzed this fall, and current testing of additional genetic markers is being performed to identify phylogenetically informative loci.

Current efforts and future needs include: recognition flyers distributed to boat docks; more systematic data collection and reporting; size/weight/sex/condition data for specimens; standardized data recording cards to biologists; tissue collection, DNA sequencing, analysis. Microsatellites and single nucleotide polymorphisms provide sufficient markers for assessing phylogeographic and population genetic structuring among *P. monodon* collections from the southeast U.S. When people collect tissue samples, they are being asked to store them in 95% non-denatured ethanol. The samples are then submitted to the genetics lab for testing. When whole samples are collected, the first two pairs of pleopods are desired for testing. **Kingsley-Smith** stated that they have established a key point-person in each state who already works with the USGS database and coordinates the tissue collection and shipping process so that it stays manageable. More tissue samples are also needed. A centralized storage of collection information by USGS can be found at http://nas.er.usgs.gov. New reports of *Penaeus monodon* are continually being added by USGS.

Schmitz asked if there were any marine animals that consume tiger shrimp. **Fuller** stated that there was a report from Florida of a sea trout caught that had a tiger shrimp in its stomach.

McMahon asked if genetic testing was going to be performed on tiger shrimp from the Caribbean and South America. **Kingsley-Smith** stated that they have been attempting to obtain samples from those locations. **Fuller** stated that the USGS has not received any reports of sightings or captures from the Caribbean. However, they do intend to obtain specimens from where the tiger shrimp are established, such as West Africa and the North coast of South America so that they can be compared.

Mendoza asked if tiger shrimp were being screened for viruses. **Knott** replied that they sent a shrimp to a lab in Arizona to be tested that appeared to have white spots on its shell, which was indicative of a possible virus,. The results were negative. There is no routine screening effort being done on tiger shrimp to look for viruses.

National Invasive Lionfish Prevention and Management Plan Update

Ballard reported that the Invasive Lionfish Control Adhoc Committee that was formed last year is drafting the Plan, and it is hoped that the Plan will be finalized by the end of the year so that it can be presented to the Task Force for review at their spring 2013 meeting. The anticipated timeframe for the approved, completed Plan is fall 2013.

Ballard stated that there is a section in the Plan entitled "Leadership, Communication, and Coordination" that will cover each state that is affected by lionfish. He asked that each state member of those affected states provide a short paragraph with what agency is handling the coordination of responsibilities, roles, prevention and control, regulatory effects, research, etc. Also, if there are any regulatory hurdles stopping people from collecting lionfish. **Ballard** will be contacting each state representative to obtain this information.

The Use of AIS for Biofuels in Texas

Chilton gave a PowerPoint Presentation entitled "Use of AIS for Biofuel in Texas". According to the U.S. Energy Information Administration, Texas ranked number one nationally in 2011 with eight biodiesel refineries producing 328 million gallons of annual production capacity. In the first quarter of 2012, the National Institute of Food and Agriculture (NIFA) awarded more than one million dollars in bio-energy grants in Texas to extend separate studies at Texas A&M and Rice Universities. In 2011, the Texas Commission on Environmental Quality (TCEQ) began allowing biodiesel to be blended at any ratio into any compliant fuel. The most common plants used are soybeans, peanuts, rapeseed, corn, palm, canola, sorghum, cottonseed, and sunflower.

Chilton reported that Giant Cane (*Arundo donax*) is being targeted by Texas Agrilife Research as a source for future biofuel production. The waste byproduct can be redirected into a new pathway that will create terpenes. Terpenes are energy-dense fuel molecules that can be converted into jet or diesel fuel. This strategy will first be applied to tobacco. If successful, the approach will be translated into *Arundo donax* for fuel production. Texas A&M University is testing Chinese tallow on several plots as a biofuel.

Chilton next covered the development of the white list regulations. During the 2009 legislative session, TPWD was directed to publish a list of exotic aquatic plants that would be approved for use in Texas without a permit. Exotic and genetically modified algae used in biofuel production would have been regulated. There is escalating interest for algae use in biofuels. There are special concerns related to microalgae, such as its toxicity to humans, animals, and other plants. There is also a concern due to its propensity to bloom, and its competition with native species. In January 2011, TPWD was directed to discontinue the development of the white list regulations. SB 1480 directed TPWD to return to the use of a prohibited plant.

Exxon/Mobile is collaborating with Synthetic Genomics on a $600 million algae project near Houston. The project will utilize open algae ponds. Joule Unlimited just partnered with Audi, with operations in Leander, TX, Hobbs, NM, and the Netherlands. The project utilizes algal reactors.

Chilton spoke about the Renewable Fuel Standard Program that was created under the Energy Policy Act of 2005. It originally required 7.5 billion gallons of renewable fuel to be blended into

gasoline by 2012. The Energy Independence and Security Act (EISA) of 2007 expanded the RFS Program to include diesel. EISA increased the volume of renewable fuel required to be blended into transportation fuel from nine billion gallons in 2008 to 36 billion gallons by 2022. Texas, Arkansas, Nebraska, and South Carolina are considering renewing a petition to waive the RFS mandate.

Ballard asked what bio security standards are in place at the plants that are using algal reactors to ensure that there is no leakage into open water systems of the genetically-altered algae that produces fuel directly. **Chilton** explained that if there are strains of algae that will not be used, they are pumped directly from the reactor into a secure vat that kills the strain, which is then pumped into another vat that breaks down the DNA. Furthermore, to produce fuel the algae are programmed to require certain nutrients, and those nutrients would not be present in open water. Therefore, the algae would die.

Update on AIS Activities in Mexico

Mendoza gave a PowerPoint Presentation entitled "Increase the Capacities of Mexico to Manage Invasive Species through the Implementation of the National Invasive Species Strategy". He reported that the Global Environmental Facility (GEF) has approved the University's 6 million dollar project that will implement their strategies for invasive species. They will be partnering with several agencies, Universities, etc. Mexico contributed 2 million dollars. The objectives of the project are to provide knowledge and information for decision makers; strengthen the legislative and regulatory framework; improve the inter-agency coordination mechanism to prevent, detect, and reduce the risk of introduction, establishment, and spread of invasive species; prevent new introductions through activities of key productive sectors; prevent, control, and eradicate invasive species in biodiversity priority areas through integrated management and development of early detection and rapid response systems.

Mendoza reported that under a new Mexican law for invasive species, there is a mandate requiring lists of invasive species that are or are not being allowed into Mexico. It has not been decided if the lists will be black or white. **Mendoza** was in charge of creating the first list corresponding to fishes. A rapid assessment tool was created for not only invasive fish, but also insects, plants, etc. A risk analysis of the possible impacts of the Australian crayfish was also published. A book was published about the history of the aquarium trade in Mexico, with a special emphasis on invasive species.

A "Weeds across Borders" conference was held in April 2012 in Cancun, Mexico with the theme "Meeting the Challenge of the Future". Ten sessions were held on topics of policy making, regulation, and border control; invasive species and climate control; early detection and rapid response; reports from Canada, Mexico, and the USA; tri-national partnerships; socio-cultural topics; economic impacts; invasive plant diversity; invasion ecology; management and control.

Mendoza reported that lionfish have invaded mangroves in protected areas of Mexico. There is also an invasion of plecos and African jewelfish.

The 40-Year Plan

Hartman gave a PowerPoint Presentation entitled "2052? Dreams? Goals?". **Hartman** reminded the Panel that knowledge of invasive species and their consequences is not enough if there is no intention of making changes. She requested the Panel to engage in a discussion of GSARP's goals over the next 40 years, and to create a plan on reaching those goals.

McMahon stated that he would like to see the whole invasive species issue shift from being reactive to proactive. This would include white lists and regulations. More emphasis should also be put on prevention.

Hartman suggested that the Panel seek the services of a professional marketer. She also suggested adding more seats to the panel.

Schmitz suggested creating a report that describes the state of the Gulf, identifies some of the economic impacts from invasives, and makes moderate predictions of what the future holds.

Riecke suggested holding periodic conferences, and having representatives from GSARP, the pet industry, the aquatic industry, and other work groups, and hold work sessions on issues, ideas, etc.

Sommers suggested that at the next GSARP meeting, a facilitated, structured meeting be held to discuss strategies and goals. She volunteered to be the facilitator for the meeting. **Hartman** will incorporate the facilitated meeting into the next GSARP meeting.

State Reports

Alabama

Newton reported that several invasive species have been documented in Alabama waters. The Bocourt swimming crab (*Callinectes bocourti*), tessellated blenny (*Hypsoblennius invemar*), Australian spotted jellyfish (*Phyllorhiza punctata*), and Asian green mussel (*Perna viridis*), have recently been spotted. However, the current status of the Australian spotted jellyfish and the Bocourt swimming crab does not indicate that these two invasive species pose an imminent concern. Two invasive species of heightened concern are the giant tiger prawn (*Penaeus monodon*) and the lionfish (*Pterois volitans/miles*), and their distribution warrants investigation.

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. After the first tiger prawn was documented, captures of *P. monodon* have incrementally increased. From 2006 to 2009, their distribution was primarily restricted to Alabama's southern inshore waters. However, in 2011, distribution extended to northern Mobile Bay and into Perdido and Wolf Bays. The 43 confirmed reports during 2011 indicate the giant tiger prawn has become established in all of Alabama's primary estuary basins. However, the concern for *P. monodon* has decreased within the commercial shrimping community, which has resulted in fewer validated reports. There have been 16 Asian tiger shrimp acquired by AMRD from January 1 through September 20, 2012. AMRD continues to focus on documenting occurrence, characterizing the population structure, and processing samples for genetic investigation.

Obtaining validated reports of lionfish continues to be an issue. The first report (non-validated) of lionfish was in 2009 by a recreational scuba diver 16 miles south-southeast of Orange Beach at an area of natural hard-bottom referred to as the Trysler Grounds. The first confirmed report was documented in June 2011 by a spear fisherman who collected a lionfish from an oil/gas platform approximately 43 miles south of Dauphin Island. Lionfish are now abundant on Trysler Grounds, and inhabiting oil/gas platforms at low densities. SCUBA divers reported observing up to 30 lionfish during single dives in this area during the 2011 dive season, and are now more abundant than previous years. They have also been reported in inshore waters and within Alabama's territorial seas. After a month-long lionfish rodeo in June and July 2012, 26 lionfish were donated to AMRD by a local dive shop.

The DCNR/MRD has increased efforts to enhance public awareness of these two invasives. An invasive species page has been added to their website. A notification that describes the giant tiger prawn and provides information concerning proper reporting has been distributed to the shrimping community. Also, a page in 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 a variety of establishments where it becomes readily available to DCNR/MRD constituents.

Rider reported that the Alabama Aquatic Nuisance Species Management Plan has been conditionally approved by the Aquatic Nuisance Species Task Force. The ANSTF has asked for a revised plan before official approval is granted. The revised plan will be resubmitted in early 2013 for review, and approval at the spring 2013 ANSTF meeting.

Twelve Midas cichlids were discovered in little Schultz Creek in August 2011 by a graduate student from the University of Alabama. Subsequent sampling trips through the end of August 2012 have not yielded any additional cichlids.

Control and eradication efforts continue in Langan Park and Three Mile Creek in Mobile for island apple snails. Two copper treatments were conducted this summer, along with three treatments to reduce emergent vegetation. Over 30 volunteers assisted with egg scraping and adult collection along Three Mile Creek last summer. There were 427 apple snails collected.

Three large bighead carp were collected below Coffeeville Lock & Dam on the Tombigbee River in the spring during paddlefish sampling.

In August, two small tilapia were collected during river IBI sampling below Claiborne Lock & Dam on the Alabama River.

Florida

Schmitz reported that there were no new invasive plant species to report, but some recently arrived non-native aquatic plant species are expanding their ranges in Florida. *Azolla pinnata* is a non-native species that can quickly spread to cover open areas of water, and forms dense surface mats that impede water flow, navigation, and clogs irrigation pumps. The mats reduce oxygen levels and light available to other aquatic organisms. *Luziola subintegra* was first reported in Florida and the U.S. in 2007 in Lake Ocheechobee. It grows in both deep water and

in terrestrial forms, spreads vegetatively and by seed, and aggressively competes with other native and non-native species. The species was included on the Florida Exotic Pest Plant Council's 2009 List of Invasive Plant Species as a Category I species. *Phyllanthus fluitans* (floating spurge) is a fresh-water species that was found growing in a canal and tributaries in and near the Peace River in 2010. It is a popular aquarium plant, and scientists believe it may have been introduced via the aquarium plant trade. There is fear that it may become as problematic in Florida as water lettuce and water hyacinth. *Nymphoides cristata* is a rapidly-spreading species introduced via the ornamental plant trade that shades out underwater plants. It is well-established in South Florida canals, storm water treatment areas, several central Florida canals, and has made its way into South Carolina into the Santee-Cooper reservoir. *Ludwigia grandiflora* is a non-native plant species which has been in Florida for over 20 years, but has recently become problematic in that it is rapidly expanding its range and population sizes. The reasons for this expansion are unknown.

Sommers spoke on Florida FWCC's Annual Standardized Electrofishing Survey for non-native freshwater fish. The program was designed to monitor native and non-native fish populations in southeast Florida urban canals. It is comprised of one-day samples consisting of 3 daytime and 6 nighttime transects. FWC has collected almost 200 samples from 39 canals since 1997. A total of 2,872 fish were collected from 6 core canals. Native fish made up 77% of the total catch, and exotic fish the remainder. Native sportfish comprised 87% of the native fish catch. Mayan cichlid, African jewelfish, spotted tilapia, and butterfly peacock bass were the principal exotic fish species that made up 82% of the non-native fish collected. This year's catch rate of largemouth bass was the highest since sampling began in 1997. Butterfly peacock bass appear to be recovering from the 2010 winterkill. The 2011 composite catch rate of native and exotic bream was 12% higher than in 2010.

Sommers next reported on largemouth bass and bullseye snakehead in the Hillsboro Canal. Preliminary findings indicate fish, crayfish, and insects were the primary prey items found in 173 largemouth bass stomachs. Native fish were found in 46% of stomach contents, while exotic fish were found in 54% of stomach contents. Largemouth bass was the dominant prey fish by frequency and number, and gizzard shad by volume. Spotted tilapia was the primary exotic prey fish by frequency and number, and Mayan cichlid by weight.

Stomach contents from 292 bullseye snakeheads contained fish, crayfish, and insects as the primary prey items. However, they also consumed a variety of other prey, including snakes, lizards, frogs, and turtles. Exotic fish species were more commonly found in the stomachs than native species (59% vs 48%). Mayan cichlid was the most frequently consumed exotic, while spotted tilapia was the primary fish by volume and number. Largemouth bass and sailfin molly were the native fish found in the most bullseye snakehead stomachs. Brown bullhead was the dominant native fish by weight, and eastern mosquitofish by number. Despite the presence of large numbers of non-native fishes in the canal, standardized sampling in May 2011 and 2012 revealed that largemouth bass catch rates averaged 165% greater than in 1986.

Sommers gave an overview on FWC's research group in the Florida Wildlife Research Institute that has been working on exotic apple snail research since 2006. The research was concluded in June 2012, and staff is currently completing a final report detailing their studies on food

preference, feeding rate, depth preference, non-chemical control, snail kite utilization, and impacts on native apple snails.

Sommers spoke on lionfish and the concern of the FWC about potential ecological, social, and economic impacts the species may have in Florida. In an attempt to generate a more coordinated effort within their agency to address lionfish, FWC reconvened the FWC internal Lionfish Team in August. Also in August, an Executive Order was issued that will increase lionfish harvesting opportunities. A recreational fishing license is not required for recreational fishers targeting lionfish while using a pole spear, a Hawaiian Sling, a handheld net, or any spearing device that is specifically designed and marketed exclusively for lionfish. There is no recreational or commercial harvest bag limit for lionfish in Florida.

Next discussed was the Non-native Pet Amnesty Program. A total of 544 animals were surrendered through the program. Five amnesty events were held during 2011-2012. Two events were sponsored by FWC, and 3 were hosted by outside parties with reduced support from FWC. There were 268 animals surrendered via the amnesty events. The playbook for hosting an amnesty day event has been completed and is available upon request. Through the Everglades National Park grant, 2 events were held, and 3 events remain. A phone operator was hired to answer the hotline (1-888-Ive-Got1) and facilitate pet placement. There were 276 animals surrendered via the hotline. Five outreach events were attended to solicit adopters and to promote the pet amnesty program. A total of 282 people signed up at these events to receive more information about the pet amnesty program.

The Non-native Fish Laboratory hosts an Open House during each fiscal year. This year, the staff also participated in the first annual Exotic Fish Roundup hosted by the Everglades Cooperative Invasive Species Management Area.

Georgia

Bonvechio spoke on the Satilla River Flathead Removal Project. The presence of illegally introduced flathead catfish was first observed in 1996. During the mid-2000s, observed declines in the abundance of redbreast sunfish and bullhead catfish coincided with significant increases in the abundance of flathead catfish. In an effort to negate the impacts on native fish populations, existing Wildlife Resources Division (WRD) Waycross Fisheries staff began aggressive removals via electrofishing in 1996. Despite these removal efforts, the number and size of flathead catfish continue to increase. The Georgia legislature appropriated funding for several new personnel positions, who were assigned the task of reducing the flathead population levels through direct removal, while searching for a long-term population control.

For the 2012 sampling season (May – October), crews removed 2,861 flathead catfish. More than 66,500 pounds of flathead catfish have been removed from the Satilla River since the implementation of the full-time flathead management program in 2007. Also, the size structure of the population has declined, with the average-size fish removed dropping from 5.8 pounds in 2007, to 1.2 pounds in 2012. In addition, the average length, biomass, and age structure have all been truncated by the removal efforts. Water levels also appear to affect recruitment. During drought years, catch rates were down, but considerably higher in 2009 during the high water

years of 2009 and 2010. To prevent the flathead population from rebuilding within 2-5 years, intensive harvest must be maintained.

During sampling in 2011, the WRD removal crew documented the non-indigenous range expansion of the blue catfish in the Satilla River. Seven blue catfish were recovered this season. No blue catfish were recovered during sampling in 2012.

The Natural Resources Program Manager for the Chattahoochee River National Recreation Area recently received a grant for developing a control strategy for Asian rice eel, an introduced fish on NPS lands.

Pacu were reported in ponds in Hall and Carrol County, Georgia. Reproducing populations are highly unlikely at this point.

Divers have reported multiple sightings of lionfish off Georgia's coast.

The University of Georgia is working on a channeled apple snail project in St. Marys, GA, funded by the USFWS.

Louisiana

Bourgeois reported that in order to restrict the commercial sale of "Louisiana Wild Caught" apple snails into the pet trade, the existing regulations have been modified to only allow the possession of dead apple snails. This action was the result of a fisherman asking what permits and regulations were in place so that he could legally harvest and sell apple snails to local pet stores.

An existing regulation was amended to allow only the possession of dead Rio Grande cichlids. Under the previous laws, a fisherman could not release the Rio Grande cichlid back into the water, nor could he possess it.

LDWF staff continues to monitor the spread of lionfish in the Gulf of Mexico. Fish assemblages at oil rigs are being monitored through the LDWF research dive program. Distribution and numbers at the rig sites are being documented. Recreational divers and spear fishermen have reported additional sightings.

LDWF has received reports of tiger shrimp harvests. The number of sightings has increased since August. LDWF staff is collecting specimens to be included in a study looking at the genetic structure of the shrimp in the Gulf.

In August, two other exotics were reported to LDWF. A gaint land crab was confirmed on Grand Isle, LA, and a pacific swimming crab was captured in Barataria Bay.

Apple snails have been reported in the upper Barataria Basin and more of the canals around the New Orleans area. This indicates either range expansion, or improved reporting by the public. A new, confirmed site of apple snails has been found in LaPlace, LA near New Orleans. A site inspection is planned for next spring to investigate the effects of the recent floods from

Hurricane Isaac on the distribution of apple snails. A site in Lafayette, LA appears to be apple snail free, without any known treatment. This site and downstream drainages will be monitored to determine if the population has been expatriated.

In Lake Verret, LA a single Rio Grande cichlid was found. No additional cichlids were found after follow-up electro-shocking was done in the area. Following the 2011 flooding of the Mississippi River, Asian carp have been located in a few new water bodies in both northern and southern LA. Biologists continue to track their progression throughout the state.

Next spring, LDWS will utilize their 2012 ANS grant to begin drift net sampling for Asian carp, and to look at ichthyoplankton to determine the status, relative abundance and distribution of Asian carp.

The LDWF treated over 75,000 acres of nuisance aquatic weeds in fiscal year 2011-2012. Much of the estimated 32,237 acres is located in the Barataria-Terrebone marsh and the Atchafalaya Basin in south Louisiana. In past years, the U.S. Army Corps of Engineers (USACE) has provided approximately 30,000 acres of annual aquatic plant control in south Louisiana. However, their Removal of Aquatic Growth Program did not receive funding for 2012, and LDWF has assumed the plant control responsibilities in these areas despite no increased budget.

Giant salvinia has been a major focus of aquatic plant control efforts in Louisiana since 2006. The combination of water level fluctuations, herbicide applications, and biological control is being used to keep giant salvinia coverage at a level that allows for recreational use of the waterbodies. Floating boom material is being used on several lakes to restrict the movement of giant salvinia from shallow nursery areas to main lake areas where much of the boating and recreation takes place. The collected salvinia is then treated repeatedly with herbicides.

The stocking effort of the giant salvinia weevil has increased over the past year. The LDWF has entered into a contract with the USACE experiment station in Lewisville, TX to raise the weevils in greenhouses and to stock them and monitor population levels in area lakes. Weevil transplants will continue in spring 2013. An agreement with the LSU Agricultural Center provides giant salvinia weevils that are stocked in Barataria and Terrebone marshes, and the Atchafalaya Basin.

A large effort is being made for better public outreach and education. Booths have been set up at expos, boat shows, tournaments, rodeos, festivals, and fairs. New brochures and handouts on northern snakehead vs bowfin are being distributed. New brochures and posters are being developed to raise awareness about lionfish and to educate the public on the proper disposal of unwanted aquatic pets. The LDWF has begun a "Fall Rio Grande Rodeo" to try to reduce the number of large overwintering cichlids. The LDWF has responded to media requests for apple snails, tiger shrimp, giant salvinia, and Rio Grande cichlids. The social media network is being utilized by LDWF through their facebook site, where brochures, links and articles about ANS species/concerns are being posted. Information on tiger shrimp, Rio Grande cichlids, and northern snakehead has also been shared there.

Mississippi

Burris reported that 36 field surveys totaling 594 miles were conducted for early detection of AIS. As a result, new infestations of water hyacinth were discovered in Gulfport Lake and Bernard Bayou.

An aerial photo survey of 160 miles was performed to aid in early detection of AIS and to monitor on-going control efforts.

A new, small infestation of common salvinia was discovered in Bluff Creek, but was manually removed and destroyed.

Twenty-two confirmed sighting of invasive Asian tiger shrimp were reported to NAS database from specimens given to DMR by local fishermen. One specimen was a rare red-stripe color variant. A live specimen was observed eating live native white shrimp while in captivity. **Burris** showed a short video of the tiger shrimp consuming the white shrimp. Tissue samples for population genetic analysis have been preserved and sent to NOAA/USGS.

Herbicide was applied to control giant salvinia in the Pascagoula River, Pearl River, and Robinson Bayou. Herbicide was also applied to control water hyacinth in Bernard Bayou and Gulfport Lake.

The AIS Coordinator attended SE-EPPC in Auburn, AL, participated in a USFWS Asian carp management working group, a SARP ANS working group, and is serving as Outreach Director of the newly-formed interstate/interagency Mississippi Bight Lionfish Response Unit (MBLRU).

An experimental UAV (unmanned aerial vehicle) flight was conducted over the Pascagoula River in accordance with FAA regulations to determine the suitability of this technology to detect giant salvinia infestations in difficult to access marsh areas.

A public outreach visit was paid to a group of shrimp fishermen in Pass Christian to learn about the extent of the Asian tiger shrimp infestation in Mississippi waters.

An article was published in MDMR's quarterly newsletter *Coastal Markers* to alert citizens about a possible silver carp infestation in coastal Mississippi waters and to ask boaters to report any sightings.

Ballard mentioned a project being conducted in cooperation with MS DMR, AL DMR, and the National Park Service that is being funded by FWS. Lionfish densities off the coast of Mississippi and in the National Park will be observed. Divers from state and federal agencies will be used. Gear for the dives has recently been obtained. This project will begin shortly. No lionfish have been reported in Mississippi waters. The reasons for the lack of reports are possibly because Mississippi is not a popular diving location, and the state waters are more shallow and cloudy until deeper depths with good clarity are reached by the oil platforms, which are federal waters.

Riecke reported that as the Southern Division AFS Resolutions Chairman, he worked to guide consideration and voting on the SDAFS *Resolution on the Federal Funding for Programs to Prevent, Control, and Manage Aquatic Invasive Species*. In January 2012 the SDAFS membership approved the resolution and voted to send it to the Parent Society for consideration. In July 2012, the AFS Resolutions Committee sent a revised version of the resolution to the AFS Governing Board. The AFS Governing Board approved sending the resolution to the AFS membership for a vote in August 2012. The resolution should be published in a future issue of *Fisheries*, along a 30-day online comment period and a 30-day online voting period. The resolution urges Congress to appropriate $61,000,000 on an annual basis to fund the Regional Panels, the State/Interstate Plans, the Quagga-Zebra Mussel Action Plan, and the USGS Aquatic Nuisance Species Database f or prevention, control, and management of non-native aquatic invasive species.

The SDAFS *Resolution on Federal Funding for Implementation of the Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States* was published in the summer of 2012 SDAFS newsletter, and advertised for comment on the SDAFS website. The next step is submission to the SDAFS membership for a vote. The resolution urges Congress to appropriate $286,000,000 over 20 years to fully implement all the strategies and recommendations contained in the *Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States* as approved by the Aquatic Nuisance Species Task Force in 2007.

Riecke reported that an estimated 20,000 nutria were killed along the Mississippi Gulf Coast in August 2012 due to heavy rainfall from Hurricane Isaac.

In January 2010, the *Mississippi State Management Plan for Aquatic Invasive Species* was sent to the National ANS Task Force for their review. Extensive comments were received, and these comments were addressed in the revised plan document. The plan will again be submitted to the ANS Task Force at their next meeting for approval.

Continued posting of the "Stop Aquatic Hitchhikers" signs is being done at new boat ramp sites.

Reprinting and continual distribution of "Stop Aquatic Hitchhikers" cards with all mailed boat registrations/renewals is being done.

Continued printing of the "Stop Aquatic Hitchhikers" logo and bullet list in the annual regulation guides (*Mississippi Outdoor Digest* and *Guide to Mississippi Saltwater Fishing*) is being done.

Links to 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 websites are on the department website.

The Mississippi Museum of Natural Science has a permanent exhibit on exotic species.

The MS Department of Marine Resources has been monitoring and treating giant salvinia and other invasive plants in the Pascagoula River system.

The MS DMR plans to implement the activities specified in the Mississippi State Management Plan for Aquatic Invasive Species.

Freshwater fishing bait regulations will be composed that specify what bait can be legally sold, possessed, transported, and used in Mississippi.

The MS DMR will seek approval of legislation required to initiate licensing of retail bait outlets that sell live freshwater fishing bait.

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, will be adopted.

An EDRR monitoring program will be established that is comprised of state and federal personnel who sample aquatic species in Mississippi public waterways on a routine basis.

Information for Mississippi contacts listed in the Expert Taxonomic Database will be updated and expended.

Riecke mentioned that in Mississippi, if more than 80 acres of weeds are sprayed with pesticides per year, an NPDES permit must be obtained.

North Carolina

Hart was unable to attend the meeting, but his report was provided in each panel member's folder. Staff from NC Division of Marine Fisheries (NCDMF), NC Wildlife Resources Commission (NCWRC), and the NC Division of Water Resources (NCDWR) have been working together to determine the best route for developing a NC Aquatic Nuisance Species Plan.

Since 2008, North Carolina has seen an increase in the number of tiger shrimp. In 2011, 257 tiger shrimp were reported to NCDMF. The reason for this increase is unclear. It is hoped that the results from a USGS study looking at the potential reasons for an increase in tiger shrimp observations will provide answers.

North Carolina has seen an increase in the presence of hydrilla, specifically in the Albemarle Sound, its associated tributaries, and in water withdrawal impoundments. NC has been treating for hydrilla with pesticides. The NCDMF is working to design and construct containment barriers to minimize the potential impacts to native aquatic vegetation outside of the impoundments. Hydrilla has been spreading in NC. It has been confirmed in Lake Santeetlah, the Cheoah River, Lake James, Lake Santeetah, and the NC shoreline.

One report of a box jellyfish in Bogue Sound was received this summer.

South Carolina

Kingsley-Smith reported on catches of Asian tiger shrimp from South Carolina in 2012. As of September 10th, a total of 28 Asian tiger shrimp have been reported to the USGS. The past two years yielded earlier reports of tiger shrimp and higher numbers of small ones than the previous years of 2009 and 2010. Specimens have been collected statewide, from the Georgetown jetties in the north, to Beaufort and Hilton Head in the south. It is speculated that the milder winters of 2010 and 2011 likely contributed to a greater overwintering capacity of the Asian tiger shrimp in South Carolina and possible reproductive activity within coastal waters of the state. Efforts to coordinate reports from across the southeast and Gulf region are continuing, with the goal being to address some of the many unanswered questions about the dynamics and implications of this invasion. Tissue samples are being sent to USGS geneticists to determine population structure of *P. Monodon* within the region, and to possibly identify the geographic source of *P. Monodon* collected in coastal states in the southeast and Gulf region.

Kingsley-Smith gave an update on the impacts of the invasive swim bladder parasite, *Anguillicoloides crassus* (Nematoda) on the American eel, *Anguilla rostrata*, in South Carolina estuaries. Research projects are being done in the SCDNR Inshore Fisheries laboratory by college grad/intern students on the biology of the American eel, *Anguilla rostrata*. SCDNR's interest in this species stems from its drastic decline since 1980, and a 2011 petition to list the American eel as an endangered species. The data collected from the projects was used in support of a successful application for a 1-year State Wildlife Grant in the amount of $47,612 recently awarded to the SCDNR. Eels collected between January 2011 and January 2012 were used to determine the prevalence and intensity of *A. crassus* infection and how it varies by locality, salinity, and seasonality. Important discoveries were made from the research projects. The overall prevalence of adult A. crassus was 45.1% and larval was 28.5%; 24% of eels examined showed severe swimbladder damage; infections in eels collected from the Little Pee Dee River has increased from 25% to 40% in 12 years; neither seasonality nor salinity affected the prevalence or infection intensity of adult parasites; locality significantly affected both the prevalence and mean intensity of infections by adults and prevalence of larvae; spleen weights were significantly higher in infected eels.

Next discussed were the impacts of the Asian seaweed, *Gracilaria vermiculophylla*, on estuarine community dynamics. NSF-funded research on this invasive seaweed was done, and a manuscript was recently published. The non-native Asian seeweed has proliferated on estuarine mudflats throughout the southeastern U.S., including areas such as South Carolina and Georgia that historically were extremely low in seaweed biomass. *Gracilaria* has the potential to transform southeastern U.S. estuaries.

Kingsley-Smith spoke on lionfish and MARMAP. The Marine Resources Monitoring, Assessment, and Prediction (MARMAP) Program is a fishery-independent collaboration between the South Carolina Department of Natural Resources Marine Resources Research Institute and NOAA Fisheries. Video and still photograph data have been collected for 2011, but not yet analyzed. MARMAP staff hope that an update on lionfish CPUE from the video will be available in the near future.

Master's thesis research is being done by a College of Charleston Graduate Program in Marine Biology student on invasive lionfish. Originally her research centered on investigating the feeding biology of lionfish on SCDNRE artificial reefs, but due to difficulties in obtaining samples from these habitats, her direction shifted. She will now be investigating the effects of lionfish size and habitat on diet composition, with an interest in lionfish consumption of Federally-managed and overfished species. Lionfish samples collected between January 2011 and January 2012 from Biscayne National Park will used for this research.

The Marine Resources Research Institute (MRRI) of the SCDNR successfully acquired State and Interstate Aquatic Nuisance Species Management Plan Program funds in the amount of $25,473. These funds will be used to implement a program to conduct targeted field sampling of fouling communities in the ACE (Ashepoo-Combahee-Edisto) Basin National Estuarine Research Reserve in the spring and summer of 2013.

On June 6, 2012, Titan acorn barnacles were collected off Port Royal Sound from an aluminum quadrapod deployed in March 2012.

A SCDNR officer received a call that possible red-bellied pacu were released into a tributary of the Reedy River. Upon investigation, the fish were not seen. However, many pacu have been collected over the years and none have ever shown signs of reproduction or self-sustaining populations. If the released fish were indeed pacu, they are not expected to survive winter.

Texas

McMahon reported that zebra mussels have now been discovered in Lake Ray Roberts. It is likely that more lakes and reservoirs will become infested. A newspaper reporter from the *Fort Worth Star Telegram* is going to accompany **McMahon** on one of his sampling trips in the next few weeks.

Texas received the final letter of approval from the NAS Task Force for the Texas State Comprehensive Management Plan for Aquatic Nuisance Species.

The Texas budget for aquatic nuisance species has been reduced to approximately $600,000 for FY 2013.

Lionfish and tiger prawn sightings continue to increase.

Hartman mentioned that through a lionfish outreach mechanism to dive shops, she receives reports from commercial divers from Houston when they observe lionfish while diving around oil rigs. They also provide the name of the oil rig. This information has been very helpful for the information database.

Hollin reported on the Texas "Clean Marina" Program. There are 350 marinas in Texas, and 1/3 of them are involved in the program, which is the highest percentage of any other state. Many of these marinas are also monitoring their launching facilities for aquatic invasive species.

Hollin also spoke about Texas water codes, which regulate what can be discharged into coastal and inland waters. Texas formed a partnership with the Marina Association, several boating groups, and the Galveston Bay Foundation. They went before the Texas legislature with a proposed water code revision, which was passed. A clean water certification program was created for Texas. Discharge of sewage from boats within three miles of the coast is now prohibited.

National Park Service

Furqueron reported that the Everglades Cooperative Invasive Species Management Area in South Florida is a good example of getting support and having public involvement. They have pulled together 18 county agencies and various user groups to look at managing invasive species in their area. They have put a lot of effort into outreach and education by holding pet amnesty days, fishing rodeos, and creating smart phone apps. **Furqueron** and another NPS staff member, along with a Florida Fish and Game Commission staff member, presented them with a Department of Interior Partnership Award. **Furqueron** suggested having someone from the program come and speak at a future GSARP meeting.

Discussion of ANSTF Recommendations

Ballard reintroduced the earlier discussion regarding the recommendation that a state funding survey be done. **Ballard** asked the panel if they wanted to table the discussion.

Riecke suggested that the Education and Outreach work group be given the task of developing a data structure of what should be collected for particular state funding categories, and present a draft at the next meeting.

Knott made a motion to table the discussion until a later date. Riecke seconded the motion. The motion passed.

Ballard asked the Panel if they wanted to send a recommendation to the Task Force to incorporate into their new recreational guidelines a pre- and post-evaluation of what impacts the guidelines are having on the public.

Sommers made a motion to send the recommendation to the Task Force. Knott seconded. The motion passed.

Next Meeting Time and Place

It was decided that Atlanta, GA would be the location of the next meeting.

Schmitz suggested a field trip. **Furqueron** volunteered to set up a possible field trip to the Georgia Aquarium or the Chattahoochee River.

The next meeting will take place during the first week in April.

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 4:30 p.m.

TCC CRAB SUBCOMMITTEE MEETING
MINUTES
Tuesday, October 16, 2012
Point Clear, Alabama

In Chairman Ryan **Gandy**'s absence, **Steve VanderKooy** called the meeting to order at 8:30 a.m. The following were in attendance:

Members
Martin Bourgeois, LDWF, Baton Rouge, LA
Jason Hermmann, AMRD, Dauphin Island, AL
Traci Floyd, MDMR, Biloxi, MS
Steve Brown, FWRI, St. Petersburg, FL (for Ryan Gandy)
Harriet Perry, GCRL, Ocean Springs, MS
Glen Sutton, TPWD, Dickinson, TX

Others
Bill Richardson, MDMR, Biloxi, MS
Julie Anderson, LA Sea Grant, Baton Rouge, LA
Darcie Graham, GCRL, Ocean Springs, MS
Harry Blanchet, LDWF, Baton Rouge, LA
Robert Leaf, GCRL, Ocean Springs, MS
Joseph Smith, NMFS Beaufort Lab

Staff
Steve VanderKooy, GSMFC, Ocean Springs, MS
Debbie McIntyre, GSMFC, Ocean Springs, MS

Introductions

In Chairman **Gandy's** absence, **VanderKooy** led the audience and the committee members in introductions. **VanderKooy** introduced Dr. Leaf from GCRL to the group.

Adoption of Agenda

Floyd *moved to adopt the agenda as written,* ***Graham*** *seconded the motion, and the agenda was adopted.*

Approval of Minutes

The Committee reviewed the Crab subcommittee minutes of the March 7, 2012 annual meeting in Gulfport. ***Floyd*** *moved to accept the minutes as written,* ***Graham*** *seconded, and the minutes were approved.*

The Committee reviewed the Blue Crab TTF Minutes of the September 25-26, 2012 meeting in Apalachicola. ***Floyd*** *moved to accept the minutes with minor changes,* ***Perry*** *seconded, and the minutes, with corrections, were approved.*

FMP Review

VanderKooy reported that the Blue Crab TTF held a very productive meeting in Apalachicola in September of this year. The group reviewed the *Table of Contents* and rearranged it somewhat from the previous version. The *Considerations and Recommendations* section will include a summary of all or a separate summary section may be added. The *Parasites* section will cover those parasites of greatest concern to us in the Gulf. The *Fisheries* section was reviewed in depth and also reworked somewhat. The idea is to have more general information about how each state fishery evolved, etc. **Perry** stated that she should have Section 3 complete by the end of November. The next TTF meeting is proposed for January 2013 in Galveston. **VanderKooy** will drive the Commission van and welcomed TTF members to join him.

GDAR Preliminary Model Results

VanderKooy stated that much time has been spent on this project. **Reidel** has been putting forth a huge effort for this task.

Sutton explained that he is trying to reflect the Chesapeake Bay assessment. This is called a multiple catch survey analysis. Wade Cooper (FWC) is setting up the model for getting the system running. **Sutton** reported that gathering the data has proven to be the biggest challenge.

Sutton reviewed details with the Committee of how this model works and what information he has acquired. This method standardizes gears, etc. between the states. The analysts tried to get a mean for the Gulf but were unable to get a satisfactory result. **Sutton** plans to have all data verified by October 30th at which time he will rerun the standardized indices using the non-weighted GLM model and have this information ready for the GDAR Assessment Workshop scheduled for November in Ocean Springs. After that, **Sutton** hopes to start running the stock assessment model.

Dr. Leaf asked **Sutton** whether the catch survey analysis handles multiple inputs. **Sutton** explained that this model can handle and separate out survey indices. The purpose is to come up with one index of abundance for the Gulf of Mexico. Dr. Leaf will attend the GDAR Assessment Workshop in November at the Gulf Coast Research Lab.

The issue of "weighting" was discussed. **VanderKooy** displayed a GIS map with plotted sampling stations and surface area estimates in the GOM that was prepared by **Rester**. The regions in each state were separated out and the areas were estimated in km^2.

Dr. Amy Schueller (NOAA Beaufort) is using a similar data model for the menhaden SEDAR project. Dr. Leaf will also work with our groups on this project as well. There is a lot of overlap between these two projects and, as a result, some of the same data can be used for both species. Both products (GDAR and SEDAR) will be better as a result of sharing information and ideas.

The GDAR process begins with the collection of data which is then brought to the workshop. Currently, we are working toward the Assessment Workshop by putting all of this data together. **Perry** stated that she also will attend the Assessment Workshop in November.

Blanchet asked if there would be some base models ready. The analysts are actually accumulating base runs now. This Assessment Workshop will actually be a webcast to allow those interested to participate and call in with questions or input. All information contained in the FMP now provides the background needed for the Assessment Report which will be reviewed sometime next year at the Review Workshop. The model results will go into the report as well as the decisions that were made and how these summarizations were reached.

GDAR Reviewers

VanderKooy pointed out that potential reviewers are being considered. The problem is that there is no money to fund this. SEDAR is supported by NOAA. The invited reviewers will come together with the analysts and discuss the findings in detail. Ultimately, they provide their final input and either approve or disapprove the assessment. It is hoped that the Review Workshop will take place in April of 2013. **VanderKooy** advised that it is necessary to have at least three reviewers and, if anyone has a suggestion for a reviewer, please make that suggestion known ASAP so that the person can be contacted now. Comments regarding the potential list of reviewers are welcome.

The draft agenda for the Assessment Workshop in November was reviewed with the Committee. It was explained that this workshop is an opportunity to ground truth the information collected and the models run. These models will then be compared. The final goal is to end up with some sort of stock status. These results will be taken back to managers to determine what recommendations should be made so that MSY is not exceeded. This should be addressed at a meeting in March, prior to the Review Workshop.

Derelict Trap Cleanups

Derelict traps in the Gulf of Mexico do not pose the same problem that they did historically. In the five Gulf States, the removal programs have resulted in a great reduction in the number of traps remaining in the water annually. **VanderKooy** gave a brief summary of where we stand across the Gulf with this ongoing project. He said that it is good to keep track of official numbers from individual states - a continuing tally. This is a program that is unique to the Gulf and we want to continue to publicize our results.

Herrmann reported that Alabama's last cleanup was in March 2010. Upon visual and aerial inspection of the main derelict crab trap removal areas, there were too few derelict traps to warrant organizing a volunteer removal program for the Fall of 2012. AMRD will continue to monitor these sites to determine if a removal will be hosted in Spring of 2013.

In order to reduce disruptions to commercial blue crab activities, Florida changed its trap retrieval program to an "odd/even year" closure by coast (odd years Gulf and even years Atlantic). **Brown** reported that 139 traps have been removed in 2012. In 2013, traps will be removed on the Gulf side of Florida.

Bourgeois stated that Louisiana's 2012 Spring report did not include results from the state's last cleanup which was held in March in Cocodrie. To date, 2708 traps have been retrieved this year. Plans are to continue this program, returning to Plaquemines Parish mid-February, 2013 and St. Bernard Parish mid-March, 2013. Portions of the Plaquemines area were cleaned up last year but the areas were very large and not done completely. Also, more traps have accumulated since

Hurricane Isaac earlier this year. **Bourgeois** indicated that partnering with Louisiana SEAGRANT was a huge help to this cause.

Julie Anderson (Louisiana SEAGRANT) indicated that Louisiana is creating a new report regarding crab traps being used in Louisiana. She will keep the group updated on this process. Anderson will be added to GSMFC's Blue Crab Subcommittee roster under "Others".

Floyd reported that the Mississippi Crab Task Force (along with weather and tides) will determine when the Spring 2013 cleanup will take place, but most likely in February. This will be voluntary only, Coast-wide, with a 10-day closure. In 2012, 23 derelict traps were removed from Mississippi waters. **Floyd** indicated that she is aware of only one crabber who lost his traps during Hurricane Isaac.

VanderKooy suggested that state-wide marketing might be helpful in appealing to volunteers for assistance with the retrieval effort. With the BP Oil Disaster and recent hurricanes, this may be a good opportunity to heighten awareness through outreach and advertisement. **Floyd** will check to see if there is any money available to help with this effort. **Bourgeois** and Anderson will also check for resources to assist with this outreach.

Texas' 12th annual crab trap closure took place in late February, 2012. There was a large interest from local stakeholders, but heavy rains and winds turned away a lot of the planned volunteer effort the first weekend. **Sutton** reported that despite a slow start, staff and volunteers managed to collect about 430 traps during the 10-day closure. Plans are in place to continue this program in 2013 during the last 10 days of February.

State Report Summaries (Individual state reports available at GSMFC office)

Herrmann reported that Alabama landings have decreased over the last few years. Many crabbers are not getting the numbers of crabs they have in the past and are not seeing females. Total catch is down for both males and females. He is not sure of the factors contributing to this, but curious to know if any other Gulf states are experiencing this.

Alabama is working closely with their Department of Public Health in continuing commercial and recreational monthly tissue testing. In January-September of 2012, 432 individual blue crabs were collected from eight statistical zones in Alabama waters to be tested for the presence of various chemicals. 40-50 crabs per month are sent up for tissue testing. **Herrmann** did not have these results yet.

Brown reported that Florida implemented an effort management program in 2007 to address problems of seasonal crowding of traps in confined waterways, lost traps, bycatch, overcapitalization, latent endorsements that are unused, and conflict between hard shell and soft shell blue crab producers.

Florida's preliminary 2011 blue crab landings suggest a continuation of landings volume below its historic average. Overall, the years with lowest landings appear in 6-10 year intervals. The trend of landings for these lowest landing years appears to be declining over time.

The number of trips for hard shell crabs in Florida ceased their four-year decline in 2010 and continued to increase in 2011 by approximately 2,000 trips. The number of trips for soft shell crabs ended the second year of increase by 2010 and declined significantly in 2011.

Bourgeois reported that Louisiana now has had four areas closed since the BP oil spill, one of which was just added since Hurricane Isaac. The latest closure mainly impacts shrimpers and recreational fishermen. Preliminary trip ticket landings data indicate that blue crab landings for January through June, 2012 measure approximately 17.8 million pounds are near identical to levels reported for the same time period last year and about 800,000 pounds or 4.5% below the 10-year average.

Hurricane Isaac impacted infrastructure supporting the crab fishery in several parishes. In addition, crab fishermen suffered widespread trap losses and the cost of replacement has resulted in fewer fishermen immediately returning to the fishery.

Louisiana's crab task force continues to meet. The task force endorsed House Bill 538 but opposition from several crab fishermen and crab dealers resulted in the bill's withdrawal.

In March, 2013, the fishery will undergo its first annual surveillance audit and report progress made to the certifying body on the required conditions identified in maintaining MSC certification of the Louisiana blue crab fishery. To date, only one crab dealer in Louisiana is "chain of custody certified" and reports that sales are very successful especially for specific markets such as restaurants and certain retailers. LDWF is encouraging other crab dealers/processors to pursue chain of custody certification. **Bourgeois** will provide everyone with the MSC report. **VanderKooy** pointed out that our regional Gulf assessment could be a plus or it may jeopardize how Louisiana looks to the Certification Board. **Blanchet** stated that getting this additional information could be an issue, but the auditors will probably want Louisiana-specific data.

"Certified Authentic LA" is something new. Seafood has to be landed, processed, and packaged in the state to be marketed under that designation/label. This can be caught somewhere else but landed at a Louisiana dock.

License sales are average. The number of traps seems to be increasing.

Bourgeois also reported that they are developing a bycatch survey using LDWF traps which will attempt to mimic the fishery itself with a full work-up of whatever is in the experimental traps. This information need is also identified in MSC. The timeline for implementing this is November 2012, so there should be a complete year of data next November.

Bourgeois stated that fishermen in Louisiana have questioned the absence of female crabs similar to findings for female crabs in Alabama. They do intend to investigate this soon.

Floyd reported that Mississippi commercial license sales are down from 223 to 156. Mississippi recently implemented a mandatory trip ticket program and cooperation from fishermen seems to be good with very little opposition. Landings data reflects the additional reporting that occurred due to trip tickets.

Preliminary landings for 2012 were up from 2011. The heavy influx of fresh water from the Bonnet Carre' in 2011 made for poor conditions and the crab landings were over 50% lower than the 10-year average. NOAA declared the crab fishery a disaster and funding, if any, is to be determined by Congress in 2013.

Floyd is trying to start interviewing some crabbers again for the historical video series. They continue tissue sampling shrimp, crab, finfish, and oysters. There have been no levels of concern for toxins.

The accidental catch of diamondback terrapins continues to be addressed by distribution of TEDs. The MDMR continues to install TEDs in recreational and commercial crab traps at no cost to the volunteer fishermen to deter incidental catch.

Both **Graham** and **Perry** have noticed a lower female yield in Mississippi.

Sutton stated that Texas has had quite a reduction in effort over the past seven years.

Fishery-independent monitoring data for 2011 are complete. The indices have changed slightly from the March 2012 report, but trends remain unchanged. Overall, the gears are in general agreement with trends seen in commercial landings after 2006. The population has not rebounded dramatically, but appears to be maintaining a steady to slightly upward momentum.

Commercial landings data for 2011 have been revised slightly since the March report. An additional 8,079 pounds of landings from late reporting was counted, raising the total for 2011 to 2,886,942 pounds, valued at $2,839,183.

A project to estimate growth of blue crabs in the wild using Coded Wires tags was approved for funding in April. Sixty-four tagged crabs have been recovered to date, although most were juveniles between 20-40 mm. Preliminary results fitting growth increment data suggests crabs are capable of reaching harvestable size within one year, but this is dependent on the estimate of Lmax used (168 mm in this analysis). Also, results show growth is highly variable averaging 0.68 mm per day or approximately 20 mm per month. It was agreed that the subcommittee would invite this TPWD intern to the GSMFC Annual Meeting in October 2013 to present to them the results of this work.

Sutton will check to see if there have been any trends regarding low catch of female crabs in Texas.

Election of Chair

Perry *made a motion to table the election of a chairman and, instead, to retain* ***Gandy*** *as chair.* ***Floyd*** *seconded the motion and it was unanimously agreed that* ***Gandy*** *would remain committee chairman.*

Other Business

VanderKooy reminded everyone of the GDAR assessment workshop in November 2012 at GCRL.

The proposed "Commercial Blue Crab Survey" was distributed. **VanderKooy** would like to start this process in February. This survey includes what was on the 1998 survey plus other questions contributed by **Miller**. These will also be available in the state offices if fishermen want to pick one up. This will be in a data Survey Monkey format which can be accessed on computer, smart phones, etc. It is necessary that we have approval from each state to use their letterhead and envelopes for sending the survey information out. **VanderKooy** must have this permission by December as well as the letterhead, etc. There will be a follow-up post card sent out also. We will have to try to distinguish between the Atlantic and Gulf fishermen in Florida. These letters will be signed and mailed back to each state's individual reps.

VanderKooy encouraged all to outreach at their local meetings and make sure that the local fishermen know that this survey is coming and its purpose. It may also be helpful to send out press releases.

VanderKooy hopes to have all forms returned and in the database by the end of March, 2013. This information is vital for our FMP.

There being no further business, ***Perry*** *moved to adjourn,* ***Sutton*** *seconded, and the meeting was adjourned at 11:45 a.m.*

APPROVED BY:
Christin Murrell
COMMITTEE CHAIRMAN

TCC DATA MANAGEMENT SUBCOMMITTEE
MINUTES
Tuesday, October 16th, 2012
Point Clear, AL

Chairman David Gloeckner called the meeting to order at 8:35 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
Vicki Swann, TPWD, Austin, TX
Kerwin Cuevas, MDMR, Biloxi, MS
Christine Murrell, MDMR, Biloxi, MS
Michael Harden, LDWF, Baton Rouge, LA
Vince Cefalu, LDWF, Baton Rouge, LA
John Froeschke GMFMC, Tampa, FL
David Gloeckner, SEFSC, Miami, FL

Staff
David Donaldson, Assistant Director, Ocean Springs, MS
Larry 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
James Ballard, Invasive Species/Artificial Reef Coordinator, Ocean Springs, MS
Ralph Hode, Fisheries Disaster Recovery Coordinator, Ocean Springs, MS

Others
Terry Cody, Rockport, TX
Kevin Anson, AMRD, Gulf Shores, AL
Ron Lukens, Omega Protein, FL
Joseph Smith, NOAA Fisheries, Beaufort, NC
Ralf Riedel, GCRL, Biloxi, MS
Dale Diaz, MDMR, Biloxi, MS
John Guarisco, ADPH, Montgomery, AL

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 6, 2012 in Gulfport, Mississippi were approved as written.

Status of Data Management Projects

D. Bellais reported on the program status report provided to the committee. The Oracle upgrade is still in progress and Gulf States Marine Fisheries Commission (GSMFC) plans to be fully migrated to Apex by the end of 2012. GSMFC continues to receive commercial federal dealer data from Bluefin which NOAA Fisheries then accesses for quota monitoring purposes. Highly Migratory Species (HMS) data flow still needs to be determined between NOAA, state agencies, and GSMFC. Work on the Fishery One-Stop Shop (FOSS) continues. The commercial vessel registry database is completed and **Bellais** is just waiting for the contractor to transfer the database to GSMFC servers pending the Oracle 11 upgrade. Data still continues to flow into the angler registry database from each state in the Gulf of Mexico. **Bellais** is working to upgrade queries to utilize the revised MRIP estimate data for 2004-2012. The biological data entry system is being modified and will be published and in the testing phases in the near future. **Bellais** also mentioned that the states have been doing a better job of getting monthly commercial data delivered to GSMFC in a timely fashion. **Donaldson** stated that the Atlantic Coast Cooperative Statistics Program (ACCSP) has historical commercial data back into the 1950's and he asked if the FIN Data Management System should be including those data too. The subcommittee agreed this would be good for GSMFC to include in the FIN Data Management System (DMS).

Status of Biological Sampling Activities

G. Bray discussed 2012 biological sampling collections. **Bray** presented a matrix of data deliverables for each state. All Gulf States are up to date with data entry and otolith analysis except for Florida. Florida has not provided any data since 2009. Problems with computer access to the FIN DMS along with staffing issues have prevented Florida staff from keeping up with data deadlines. **Donaldson** stated that with the changes to the biological data entry system, it is hoped that this will accommodate the needs of Florida staff and improve the timeliness of biological data entry

Donaldson stated that the last red snapper SEDAR process identified a need for being able to associate biological data records with unique trip identifiers. Likely too many issues exist to be able to identify fish records to unique vessel or angler trips from recreational trips. **Gloeckner** stated that NOAA would like to be able to link all the additional trip data with the biosampling data and attempt a trip level analysis of the age-length distribution. The committee discussed many of the problems with trying to obtain this for biological sampling data. **Donaldson** suggested a conference call in December 2012 to further discuss this with NOAA Fisheries personnel and the Data Management Subcommittee. **Donaldson** also mentioned that during the red snapper SEDAR review, the analysts had to deal with multiple file types from the Gulf States. FIN delivered data for Alabama, Louisiana, Mississippi, and Texas. Florida delivered data in a different format. For further assessments, we hope to provide Florida data with the FIN data in a standardized format. GSMFC will also coordinate with NOAA Panama City Lab staff to confirm proper file formats.

Discussion of Quality Management Concept

Donaldson stated this issue arose through the Fisheries Information System (FIS) process. This is a process that helps ensure that data collection methods are quality controlled

and quality assured properly. FIS and NOAA Fisheries are both involved in this process. **Donaldson** believes this concept could also help with the data collection methods utilized by FIN. In the future, FIN may hear an in depth discussion and presentation on this issue. **Gloeckner** stated it basically requires data managers to document the process of how you quality assure and quality control (QA/QC) data and ensure that you are following that specific process. **Donaldson** stated FIN and GSMFC have not decided to use this process yet, but would like to learn more about what Quality Management has to offer.

Status of Commercial Electronic Reporting

D. Gloeckner briefly discussed the recent federal dealer reporting amendments going through the councils. NOAA Fisheries is working on modifying the current regulations. One change would require weekly reporting instead of bi-weekly reporting for all commercial federal finfish permit holders. Some additional data fields will also be required through a change by Bluefin data to the trip ticket system. Another change will be dealer permits will be suspended if dealers are not reporting under the weekly reporting requirement. **Cefalu** asked if NOAA Fisheries plans to inform dealers with suspended permits that they can no longer purchase seafood until reporting requirements have been met. **Gloeckner** plans to produce a list that is provided to law enforcement and allow them to notify the delinquent dealers. **Donaldson** asked if delinquent dealers could be locked out of the data entry system. **Gloeckner** stated that would be difficult if not impossible under the current Bluefin system, but would be possible with a move to web based reporting in the future. Most of the changes in regulations will be implemented in the spring of 2013. **Denson** asked if there would be outreach regarding the regulatory changes. **Gloeckner** said if money is available they will be doing outreach efforts. **Gloeckner** also gave a presentation of how NOAA is monitoring annual catch limits (ACL's) in the Gulf of Mexico and South Atlantic. NOAA can monitor ACL's daily by logging into a new web interface they have developed. NOAA is currently monitoring 58 ACL's with over 100 species in the Gulf and South Atlantic.

Update on Traceability Program and Presentation of Trip Ticket Inventory Module

A. Miller presented details on the recent updates to the GSMFC's traceability program (Gulf Seafood Trace). The program was officially launched in March 2012 and currently 44 companies have signed up for the traceability program. About two-thirds of these companies are active users of the Trace system. The participating companies are located from Brownsville, TX to Marathon, FL. **Miller** stated that about 5 million pounds of product have been entered and uploaded via Trip tickets for Trace users and about 2 million pounds have been pulled or sent forward as Trace documents through the supply chain as a traceable product. **Anson** asked why 3 million pounds of product were not picked up by processors in the traceability system. **Miller** stated that the processors decided not to pickup or send forward that product for traceability purposes. **Donaldson** asked if Trace Register has researched why traceability information for some products was not picked-up and sent forward by processors. **Miller** said they have not, and it could be attributed to a variety of reasons. **Miller** stated that work is being done to make it easier for processors to work with their internal inventory software packages used to communicate with Trace Register. **Bray** asked if specific retailers prefer to use a product that is traceable for their consumers. **Miller** said absolutely and that there needs to be a business incentive or consumer demand for processors to get behind the traceability program. **Hode** believes that as more consumers utilize the QR code scanning process to trace products that new

incoming processors will hopefully sign up for the Trace program. **Miller** also provided some details and a brief video on the new trip ticket inventory module. **Denson** stated that they tried implementing an inventory module in past years and dealers were hesitant because the inventory module would not be compatible with their pre-existing inventory systems. **Miller** stated Bluefin Data and Trace Register are working to provide a module that can better communicate with their internal software packages. **Miller** presented some improved data checks that are being implemented in the traceability system. **Miller** also discussed some new marketing methods that Trace users are implementing to increase awareness among consumers.

Update on MRIP Activities

T. Sminkey provided an update on the implementation schedule for the 2013 dockside intercept survey. The angler questionnaire is essentially unchanged. The biggest change to sampling will force samplers to use clusters of samples instead of drawing individual sites. Sites will be clustered in similar ways as samplers currently select alternate sites. Samplers will also no longer be able to select sampling times and the draw process will predetermine sampling time intervals when samplers will be required to be sampling. All samples drawn will be required to be completed, and there will be no rescheduling of assignments. Samplers will spend time collecting angler interviews along with time spent counting anglers that have completed fishing. Night intervals are intended to be covered by 2 samplers and unsafe night sites will not be included in the draw. The sample draw program will require an input of available staffing for each monthly draw. It will constrain the draw and ensure that all samples will be completed. Shore sampling will be clustered regardless of whether they are beach/bank, man-made or both. If a beach/bank site is included, then incomplete trip interviews can be obtained during the second half of the time interval. Incomplete interviews are not limited in number or based on time the angler has already spent fishing as in past years. The site register web tool has most of the features necessary for moving forward into 2013. NOAA Fisheries hopes to have some additional functionality for end users in the first quarter of 2013. **Denson** asked when NOAA hoped to have the new procedures in place. **Sminkey** stated the Gulf is proposed to start on January 1, 2013. **Anson** asked if the night sites were given equal weighting as day sites. **Sminkey** said the two night time intervals will be grouped to essentially lower the probability of night sample selection. **Anson** also asked how the site pressure affects the clustering process. **Sminkey** stated that sites with a pressure of 4 or larger will be a single site cluster. Sites with a pressure lower than 4 in it will build clusters of 3 sites based on mode, proximity, and pressure. **Denson** asked if samples cannot be rescheduled are the draws going to produce additional assignments if samples need to be canceled. **Sminkey** said that no additional assignments will be drawn and states will need to be accurate with their input of available sampler days as an input each month. **Anson** asked how sampling could be impacted if a string of bad weather comes up. **Sminkey** stated that assignments should not be cancelled unless the bad weather is a life threatening situation and if the weather is rough and anglers are not fishing the value zero interviews or zero completed fishing trips is a valid and useful day of sampling. **G. Colvin** gave a brief update on the angler license database. Work is continuing to improve data quality and a meeting will likely be held to discuss where this database is going in the future. **Colvin** also stated that there is more money available for state license database improvement projects. **Colvin** stated a pilot project is underway for a dual frame pilot project in the four southeastern states. Another pilot project will begin wave 6, 2012 with an address based mail survey utilizing

the angler license database. NOAA Fisheries hopes by fall of 2013 they will have a good idea of the method that will be used for effort survey data collection.

Status of Recreational Choice Experiment Survey

A. Miller discussed the need for collecting data to value changes in recreational management regulations for key federal and state species. **Miller** is working with NOAA Fisheries Economists at the Southeast Fishery Science Center (SEFSC) and the Gulf MRIP states to conduct this survey research. The survey is a mail survey and will ask private and charter anglers to choose between different trips and assumptions to allow values to be placed on different trip types and modes for various recreational species. The mail survey is being tested through three focus groups in Florida. The mail survey will utilize the angler license database for addresses in private boat mode. For charter mode, addresses will need to be collected as a dockside survey add-on form. The goal is to collect 3,000 addresses in charter mode. Address goals are distributed by state based on historical sampling productivity. Address collection in charter mode is proposed to begin in March 2013. Attempts will be made after every successful angler interview until the target sample size is reached for a particular time period. E-mail addresses will not be collected during this survey. **Froeschke** asked if the choice options in the mail survey were static or different throughout the survey. **Miller** stated there are several different options provided throughout the survey. **Froeschke** also asked how they decided which choices to offer. **Miller** stated he would double check with NOAA Fisheries economists at the SEFSC as to how the selected choice options were chosen, but thought it was based off of the experimental design. **Froeschke** also asked how the target goal of 3,000 addresses was determined. He believes that target sample size is too low. **Miller** stated NOAA SEFSC and GSMFC economists determined 3,000 to be sufficient using the population and standard errors, but would explore this again based on the subcommittee concerns. **Donaldson** asked if collecting the 3,000 addresses in two or three months of sampling could bias the results based on the fishing season which they are collected. Many of the subcommittee members agreed that the demographics of the angling population could be much different depending on the fishing season and time of the year in charter mode specifically. **Miller** agreed that it might be better to collect the addresses throughout the year and stated he would discuss this with NOAA SEFSC economists. After further discussion, all of the Gulf States that participate in MRIP agreed to work with GSMFC and NOAA on collecting this information. **Miller** will also contact Florida again as they were not present at the subcommittee meeting.

Status of Metadata Data Compilation

Ralf Riedel talked briefly about his current role as metadata coordinator. The fishery dependant and independent data collection information is complete but needs to be reviewed one additional time. **Riedel** is currently entering data about the history of recreational fishing regulations. Determining the proper structure for housing the data in a usual fashion is taking some time. **Riedel** expects to have the recreational regulations finished by November of 2012. He then plans to work on the commercial regulations, licenses and fees, and possibly a table detailing weather anomalies. All of the data are being housed in InPort.

Election of Officers

Christine Murrell was nominated for Chairman by **Page Campbell** and seconded by **Dave Gloeckner**. **Vince Cefalu** was nominated for Vice-Chairman by **Chris Denson** and seconded by **Page Campbell**. **Murrell** was approved as Chairman and **Cefalu** as Vice-Chairman.

Being no further business, the meeting was adjourned at 11:33 a.m.

Review of 2011 Commercial Data

Each state provided feedback based on a review of the spreadsheets sent out prior to the meeting by **Bellais**. 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 FIN DMS as needed. All necessary corrections will be made at the state data level and submitted to GSMFC for loading into the FIN DMS.

It was decided by the TCC Data Management Subcommittee (DMS) that there was a need for a review of the FIN standard codes to help with the quality assurance and quality control of the commercial data. The FIN standard codes review will be conducted by DMS, in conjunction with the commercial data review at the fall GSMFC meeting.

APPROVED BY:
COMMITTEE CHAIRMAN

S-FFMC MENHADEN ADVISORY COMMITTEE MINUTES
Tuesday, October 16, 2012
Point Clear, Alabama

J. Smith called the meeting to order at 1:05 p.m. with the following in attendance:

Members
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
Harry Blanchet, LDWF, Baton Rouge, LA
Ron Lukens, Omega Protein, Inc., Gainesville, FL
Borden Wallace, Daybrook Fisheries, Inc., Empire, LA

Others
Corky Perret, MDMR, Biloxi, MS
Dale Diaz, MDMR, Biloxi, MS
Fernando Martinez-Andrade, TPWD, Corpus Christi, TX
Tommy Williams, Daybrook Fisheries, Empire, LA
Ellie Roche, NOAA Fisheries, St. Petersburg, FL
Mark Schexnayder, LDWF, New Orleans, LA
Robert Leaf, GCRL, Ocean Springs, MS
Read Hendon, GCRL, Ocean Springs, MS
Ed Swindell, Marine Process Services, Hammond, LA
Ed Cake, Gulf Environmental Associates, Ocean Springs, MS
Julia Lightner, LDWF, New Orleans, LA
Dave Garforth, Global Trust Certification, Dundalk, Ireland
Christina Cossich, Belle Chasse, LA
Walter Keithly, LSU, Baton Rouge, LA
Ben Landry, Omega Protein, Houston, TX
Scott Herbert, Daybrook Fisheries, New Orleans, 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
Jeff Rester, Program Coordinator, Ocean Springs, MS

Introductions

Chairman Smith led the introductions of the MAC and the audience.

Approval of Agenda

Lukens *moved to adopt the agenda,* ***Buchanan*** *seconded, and the agenda was adopted.*

Approval of Minutes (March 6, 2012)

The Committee reviewed the draft minutes. ***Wallace*** *moved to accept the minutes as written,* ***Mambretti*** *seconded, and the minutes were accepted.*

Gulf Menhaden Research Post-DWH

The MAC had requested information from the NOAA SESC related to any possible research which included Gulf menhaden since the oil spill. There was no information provided suggesting that there was no directed research on menhaden specifically, although several states indicated that they were testing tissue samples for PAHs along with other contaminants. **Smith** indicated that, if needed, the MAC could table this item and he would work to provide a report in March. **Perret** advised **Smith** to follow up with 2 or 3 more emails/calls. **Perret** indicated that the work being conducted by Dr. Rich Fulford and his student is now available as a final report. **Buchanan** sent the report out electronically for distribution to the group.

Update on 2012 Gulf Menhaden Season

Smith provided an overview of the 2012 fishing season. NOAA used to mail out the monthly landings memo to all interested parties but the cost became too much. They are now available on the NMFS Market News website and Smith e-mails the report to the MAC. **Smith** reported that, as of the end of September, the Gulf menhaden landings for reduction were down 5% from 2011 but up over 25% over the previous 5-year mean. A mild winter and drought conditions in the spring and summer resulted in very good catches early, the highest since 2000 for the first two weeks of April. The captains were reporting a 'showing' of fish equivalent to what they usually see in June and July. The oil and protein yields of processed fish were low this year however. With three weeks remaining and only two tropical systems affecting the fishing effort this season, the total landings for 2012 may be around 574,000 MT which would be down about 10% from 2011. The age composition of the port samples so far appears to be heavily weighted towards age-2 fish which corresponds to the large 2010 size class. This is the situation across most ports, even at Cameron which tends historically to land more age-1 fish. Only 35 vessels operated at four plants in 2012 with no run boats. This is compared to 37 in 2011 with four runners. Based on this year's landings and effort, **Smith** predicts the 2013 season could be as much as 522,000 MT.

There was discussion about the bait companies that were starting up in Louisiana this past year. It seemed that one of the groups may have shut down already. Only 160,000 pounds of menhaden were reported landed by the one and they were actually sold to the reduction plant and never sold for bait. The second company appears to be spending the first season getting its production facilities in place rather than fishing. Both enterprises were funded with 'industry startup grants' from the LDWF and both are based near Abbeville.

Update on the Atlantic Menhaden Fishery

Smith provided an update on the Atlantic menhaden fishery. The landings through September were 142,500 MT which was up 2% from last year and 11% over the 5-year average. Eight vessels unloaded in Reedville for reduction which was down two vessels from 2011. **Smith** reported that the Atlantic menhaden stock assessment was updated in 2012 to include three additional years of data, but the model developed some unresolved issues and the consensus of the Technical Committee was that an expedited stock assessment should be conducted. Draft Amendment 2 of the Atlantic menhaden FMP is going to public hearings; options include a coast-wide TACs and various allocation scenarios for the bait and reduction fisheries. Final action on the Amendment will be taken by the Atlantic Menhaden Management Board (AMMB) in December and would affect the 2013 fishing season. In addition, the North Carolina Marine Fisheries Commission and the legislature passed a measure in June 2012 prohibiting purse-seining for menhaden in state waters which extend three miles; concern over 'bycatch' was one of the issues behind these measures.

Lukens stated that Omega entered into a partnership with some bait entities to support an Atlantic menhaden population survey in the northern range of the species. **Lukens** indicated that the assessment does not consider the full range of Atlantic menhaden which includes waters as far north as Maine. Omega believes that inclusion of these additional fish could change the estimate conservatively to almost double the current estimates of biomass and determine that overfishing may not actually be occurring.

2012 Review of Texas Cap

Mambretti reviewed the 'Texas Cap' and reported that there was actually very little effort in the early part of the season in Texas waters since the fish were plentiful in Louisiana. Since the beginning of September, half the TAC has been reached with three weeks left in the season. As a note, the TPWD has been seeing a large number of age-1 fish in their fishery-independent gillnet samples from Sabine Lake suggesting that the younger fish may be farther west, which is why they have not been a large component of the catch so far. Likewise, there was a large number of young-of-the-year in the fishery-independent bag seines further supporting the good 2010 year class.

SEDAR 38 Gulf Menhaden Stock Assessment

VanderKooy reminded the group that when SEDAR27 was rejected due to model index issues, there was a concern that the assessment would need to be completed through the Commission's process. However, after considerable discussions with the SEDAR Steering Committee, **Simpson** was able get the assessment back into the Federal process and it is now going to be finished under SEDAR32. **VanderKooy** briefly went over the timeline and proposed schedule for completion. With Dr. Amy Schueller (NMFS Beaufort) now available to retool the data and the model, **VanderKooy** indicated that the Assessment Workshop would likely take place in March or April next spring and the final report will be completed by July. The Assessment Review Workshop will take place August 26-30, 2013.

The analysts working on the SEDAR are planning to meet November 7-8, 2012, in Beaufort to review the available data through 2011 and rework the indices that will go into the models

already in use: BAM, SRA, and ASPIC. This is only a working meeting and **VanderKooy** suggested that only a small number of data specialists, key biologist, and the analysts need attend, although the meeting will be open to the public.

VanderKooy and **Smith** gave an overview of the sampling adjustments made in 2012 to address the concerns raised by the reviewers in SEDAR27. **Smith** reported that one of the primary concerns was regarding the age composition of the catch and the potential for ageing drift by the NMFS scale reader, Ethel Hall, over time. Ethel has been ageing Gulf menhaden since 1969 and **Smith** was able to pull representative scale samples from 12 previous fishing years – three each from the 1970s, 1980s, 1990s, and 2000s – and get Ethel to re-estimate ages for about 6,000 fish. Preliminary results suggest the "ageing drift" by the scale reader does not occur in the long-term data set of gulf menhaden ages.

Another concern was related to sampling the 'top' of the hold, presumably the last set of the fishing trip, for age and size composition data. **Smith** and **VanderKooy** visited the plants in spring and requested that additional samples be pulled summer and fall during vessel pump-out operations. So far, the samples have not been aged, but the effort will continue through the end of the season.

Smith has been looking at some alternate measures of CPUE for the gulf menhaden fishery from the annual CDFR data sets. **Smith** has explored using median set size and percent occurrence of sets with greater than 100,000 standard fish over time. Both measures track the landings well but it is not clear yet if this will be a better measure of a fishery-dependent CPUE than the current catch/vessel-/ton-weeks (VTW).

The size of the 'hopper' or a standard fish dump was questioned by SEDAR27 reviewers and the industry has provided measurements of the current hoppers at Moss Point and Empire and verification of the scale calibrations for the fish weight belts at Abbeville and Cameron. This does not appear to be an issue.

Several issues were raised related to the new effort. **Lukens** stated that the reviewers last year had no understanding of menhaden population and wondered if this would still be a problem with the CIE reviewers we get assigned. **VanderKooy** stated that it is the job of the biologists to explain how the population works. Also, in addition to CIE reviewers, there are reviewers from the South Atlantic SSC and the Commission is getting Will Patterson to review as well.

Within the discussion of the schedule for completing the SEDAR, **Lukens** indicated that the 'turn-the-crank' approach to update assessments on the Atlantic is not working and he is opposed to using the same approach here in the future. **VanderKooy** does not really know how the assessment will be updated or rerun in the future; most of the concern is getting the benchmark finished first.

Biological Reference Points

At previous MAC meetings and during the last assessment, it was stressed that the assessment would determine the current status of the stock, but the MAC would be responsible for developing biological reference points for the stock, e.g., estimates of MSY. **VanderKooy** suggested that a dedicated discussion be scheduled for the next MAC meeting in March 2013 to

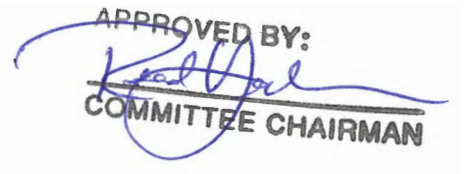
begin to discuss the options and the implications of establishing biological reference points for management.

Election of Chairman

Considering the ongoing stock assessment and the continuation of the FMP revision, it was suggested that we continue with our current chairman. ***Mambretti*** *made a motion that* ***Smith*** *remains chairman for the next year.* ***Buck*** *seconded and the motion passed unanimously.*

Other Business

With no further business, ***Lukens*** *moved to adjourn,* ***Wallace*** *seconded and the meeting closed at 3:45 p.m.*



TCC SEAMAP SUBCOMMITTEE
MINUTES
Tuesday, October 16, 2012
Point Clear, AL

Chairman R. Hendon called the meeting to order at 8:38 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
Butch Pellegrin, NOAA Fisheries, Pascagoula, MS
Rick Leard, GMFMC, Tampa, FL

Others
Terry Henwood, NOAA Fisheries, Pascagoula, MS
Ellie Roche, NOAA Fisheries, St. Petersburg, FL
Brian Alford, LDWF, Baton Rouge, LA
Brittany Palm, NOAA Fisheries, Pascagoula, MS
Jim Simons, TAMU Center for Coastal Studies, Corpus Christi
Tony Reisinger, Texas Sea Grant, San Benito, TX
Judy Jamison, GSAFF, Tampa, FL
Bret Allain, *GSMFC Commissioner*, Franklin, LA
Craig Newton, ADCNR/MRD, Gulf Shores, AL
Steve Crawford, Passamaguoddy Tribe, Perry, ME
Andrew Shepard, Gulf of Mexico University Research Collaborative, St. Petersburg, FL
Terry Cody, Retired, 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. J. Mareska seconded the motion and it passed.

Approval of Minutes

J. Mareska moved to approve the TCC SEAMAP minutes from the July 31, 2012 meeting as submitted. B. McMichael seconded and the motion passed.

Administrative Report

J. Rester reported that the Fall Plankton Survey was completed with Louisiana, Alabama, Mississippi and NMFS participating. The Fall/Shrimp Groundfish Survey is currently ongoing. He asked the Subcommittee to please send in the cruise reports and sampling data as soon as possible after each cruise. He said he does not have all of the representatives for the Vertical Line Work Group. He asked the Subcommittee Committee to send him their representative for the Work Group as soon as possible because the Work Group has several issues to discuss.

A Side-by-Side Comparison of Louisiana's Nearshore Nekton Community Structure Sampled by Two Trawling Vessels

Brian Alford presented results of a side-by-side trawl comparison between the Louisiana Research Vessels ***Pelican*** and ***Blazing 7***. After presenting all information, he stated there were no significant differences between the vessels. **M. Fischer** stated the ***Blazing 7*** is much more cost efficient and more available than the ***Pelican*** and asked the Subcommittee to approve using the vessel for SEAMAP surveys. **B. McMichael moved to accept the *Blazing 7* for SEAMAP surveys. F. Martinez seconded and the motion passed.** The complete PowerPoint presentation is available upon request.

Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program

L. Simpson reported on the Restore Act, MAP-21, Conference Report to Accompany H.R. 4348. He stated that Section 1601 deals with Gulf Coast Restoration, Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States. The Restore Act is under the Clean Water Act and 80% of the fines received from the BP Oil Spill, which are estimated to be between $5 billion to $20 billion, will go into the trust fund. **L. Simpson** noted that these funds will remain available until expended, i.e., no year money. The Act is broadly written and funds will be used for monitoring, parks, infrastructure, including port infrastructure, tourism, and consumption. He stated there is a Council associated with this that will develop the Comprehensive Plan and future revisions to the Comprehensive Plan, and establish advisory committees to collect and consider scientific and other research associated with restoration of the Gulf Coast ecosystem.

L. Simpson said the Commission will be involved with this and will be working with Bonnie Ponwith, Paul Sandifer and Gary Matlock on the federal side. The Administrative portion of the funds will be 2.5%. He then presented a chart showing the allocations of the Gulf Coast Restoration Trust fund and stated each of the five states will receive an equal share of 35%; the Gulf Coast Ecosystem Restoration Council Plan Implementation will receive 30%; the Oil Spill Impact Allocation formula based to states is 30%; the Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program (administration) will receive 2.5%; and the Gulf Coast Centers of Excellence will receive 2.5% (equal shares to the states). He stated they are encouraging this money to be used to extend, expand and build on existing programs. **L. Simpson** stated there will be a Restoration, Funding and Coordination Meeting

tomorrow to discuss proposals that will be submitted for these funds. SEAMAP will present their Fishery Independent Data needs document at this meeting.

Reviewing the SEAMAP Bottom Longline and Vertical Line Database

J. Rester stated the Bottom Longline Database was sent out for review and there was one correction incorporated from Alabama. He asked if anyone else had anything to incorporate or if any other problems were detected. **J. Rester** said L. Kirk is currently finalizing the Vertical Line Database but is having some problems with standardization so it is taking longer than anticipated. **J. Rester** said there was a request for the bottom longline database and asked the Subcommittee if they have any objections to making the data available by request through the website. The Subcommittee agreed. **B. McMichael** asked if the database included NMFS data. **J. Rester** said no because their long line survey is not a SEAMAP survey.

B. McMichael then asked if the Vertical Line Operations Manual has been finalized. **J. Rester** said no that there are protocols and other issues the Vertical Line Work Group needs to discuss but it will be finalized before vertical long line sampling begins next year. **J. Rester** then reiterated the Subcommittee review both databases and send final comments to him.

Stomach Content Analysis

Brittany Palm gave a presentation on Diet Content Study. She reviewed the three phases of the project and explained the collection methods and how the stomach preservation and examination was done. She said the prey identification was identified to the lowest taxonomic level possible. She stated that based on a 40-hour week she averaged 50 stomachs. With two assistants they averaged 75-80 stomachs. The Subcommittee had asked B. Palm to give this presentation to help them determine the effort and costs associated with stomach content analysis as this is one thing they are proposing for Fishery Independent Data Needs. They thanked her for her very informative presentation. The presentation is available upon request.

Fishery Independent Data Needs

J. Rester informed the Subcommittee that he has incorporated comments into the document that were received after the last meeting. He did not incorporate the side scan sonar portion into the document because he cannot estimate how much it would cost or how much time and effort would have to be included. He pointed out to the Subcommittee that a new research vessel was added for a cost of $6 M. The Subcommittee asked him to change the amount to $8 M.

J. Rester said there will be a meeting tomorrow afternoon to discuss data needs for the Gulf Restoration Act and asked if the Subcommittee wished to add anything to this document. The Subcommittee agreed that this is a good outline for fishery independent data needs but they must make it clear that the funds for each item are subject to change based on scale, vessel costs, etc. These amounts are very generic. The Subcommittee agreed they do want to include the side scan portion into the document. There was a discussion on trying to obtain as much data as possible on areas in the Gulf that has already been mapped. Several suggestions were made for contacting the appropriate people to obtain this information. As far as costs, it was suggested to

estimate a survey mile amount. Then decide how much of the Gulf needs to be surveyed based on what is not available, and then prioritize the areas to be mapped. **J. Reste**r stated this is a working document and the Subcommittee will continue to review and modify as needed.

SEAMAP Operations Manual Review

J. Rester said the operations manual has been reviewed and more corrections and updates have been incorporated. He said there are several items that need to be discussed and clarified:

1. **I.B.4.c. states not to measure organisms identified to genus or higher. J. Rester** asked what should be done with species that cannot be identified to genus-species? After discussion, the Subcommittee decided to clarify by adding, **"Unidentified organisms should be measured and entered into database upon positive species identification. Then it should be measured and added to the database post-cruise."**

2. **I.C.2. CRUISE= J. Rester asked if the cruise number will still be a 3 digit number or will it change to a 4 digit number.** The cruise number will be a 4 digit number which is the last two digits of the year then sequential, i.e., 1201, 1202, 1203.

3. **SURFACE/BOTTOM TEMP= J. Rester asked why record the time for weather data? Is it not recorded at the start time? This is not on the data sheet or in the data system.**

The Subcommittee said to add a sentence stating if SCS or FSCS is not being used to record weather events, use the trawl start time for the weather event.

4. **Are two water color measurements needed?**

J. Rester stated that Appendix 5 has current water codes as blue, clear, green and the forel u measurements, and asked if they are still needed. The Subcommittee said yes. **B. Pellegrin** stated again, that goes back to when the surveys started in 1972 and that is the best they could do at the time.

5. **How are finfish and crustacean weight calculated?** It was determined the weight is **Software calculated.**

B. McMichael stated the weights for individual fish are not in the dataset and asked that J. Rester ask L. Kirk to make that assessable. **J. Rester** will discuss this with L. Kirk.

M. Fischer asked how many water samples should be collected. **J. Rester** stated enough water should be taken for three sample replicate filters. He stated he has depth allocation in his notes from the December 2010 meeting but he is not sure what that number was. **B. McMichael** stated 30 fathoms but J. Rester will check on this and inform the Subcommittee.

J. Rester said it states the trawl should be towed at 2.5 knots but SCS has it written in the program for the trawl to be towed at 3 knots. The Subcommittee stated the trawl should be

towed at 2 ½ knots. **B. Pellegrin** will ask Chuck about the program, that this may just be the target.

J. Rester asked what is the standard size for mud rollers? The Subcommittee said mud rollers standard size is 5 x 8 according to trawl specifications. The Subcommittee will measure their mud rollers to confirm they are the correct size.

There was also a discussion on what should be an aborted trawl. It was decided that unless a trawl is totally clogged with debris, it would not be an abort. The Subcommittee also discussed the unlikely event of a drastic depth strata change during a trawl and what should be done, go starboard or go port board. It was decided this is a non-issue as the Captain will tow the safest way.

FY 2012 Funding Issues

J. Rester stated that at the last joint meeting, **R. Pugliese** questioned the amount J. Rester had for NMFS funding. **J. Rester** tried to explain that he was not sure of the exact amount NMFS received last year from SEAMAP funding. **J. Rester** met with L. Desfosse to discuss this issue. In 2009, $82,000 was taken from all SEAMAP components to fund the Polish Sorting Center so this changed the percentage of the allocation to each component. When the grants were awarded in January this past year, the amount received for SEAMAP was higher than expected with SEAMAP receiving approximately $88,000-$100,000 more than expected. So it was agreed to use the 2008 percentages for each SEAMAP component which is 41.3% - Gulf; 15.3% NMFS; 32.9% - South Atlantic; and 10.5% Caribbean.

Election of Chairman

B. McMichael moved to nominate R. Hendon as Chairman. F. Martinez seconded and the motion passed.

Other Business

J. Rester reported that they had seen quite a few lionfish during the Alabama Vertical Line Survey. He asked the Subcommittee to continue to report lion fish to the USGC and that Alex Fogg at NMFS is doing stomach content analysis and would like any samples.

J. Rester said that he, L. Kirk and NMFS personnel are discussing SEAMAP minimum standard requirements and may be making some changes as far as collecting samples. He will keep the Subcommittee updated. **T. Henwood** said the purpose of this is to get a better/cleaner dataset. He said there are about five datasets and they are trying to combine them into one.

There being no further business, the meeting adjourned at 12:00n.

EMERGENCY DISASTER RECOVERY PROGRAM (EDRP)
MINUTES – 62nd Annual Meeting
Wednesday, October 17, 2012
Point Clear, Alabama

The Gulf States Marine Fisheries Commission Fisheries Disaster Recovery Coordinator **Ralph Hode** called the meeting to order. The following state representatives, staff and other attendees were present:

States
Dale Diaz, GSMFC *Commissioner*, MDMR, Biloxi, MS
Mike Ray, GSMFC *Commissioner,* TPWD, Austin, TX
Chris Blankenship, GSMFC *Commissioner*, ADCNR *Director*, Gulf Shores, AL
Corky Perret, MDMR, Biloxi, MS
Rene LeBreton, LDWF, Baton Rouge, LA
David Heil, *GSMFC Commissioner*, FLFWF, Tallahassee, FL
Mark Berrigan, FLDACS, Tallahassee, FL
Kevin Anson ADCNR Gulf Shores, AL

Others

Ellie F. Roche, NOAA Fisheries, SE Region, St. Petersburg, FL
Judy Jamison, GSAFF, Inc., Tampa, FL
Frank Helies, GSAFF, Inc., Tampa, FL
Gwen Hughes, GSAFF, Inc., Tampa, FL
Alton Waldrep, ADCNR, Gulf Shores, AL
Thomas Hymel, LSU AgCenter/Sea Grant, Delcambre, LA
Bethany Walton, Auburn Marine Extension/MS-AL Sea Grant, Mobile, AL
Amanda Seymour, MSU-Coastal Research & Extension Service, Biloxi, MS
Tracy Floyd, MDMR, Biloxi, MS
Steve McMillan, AL House of Representatives, Bay Minette, AL
Julia Lightner, LDWF, New Orleans, LA
Juliana Mullen, Audubon Nature Institute, New Orleans, LA
John Hewitt, Audubon Nature Institute, New Orleans, LA
Cormac O'Sullivan, Global Trust, Toronto, Canada
Peter Marshall, Global Trust, Toronto, Canada
Dave Garforth, Global Trust, Toronto, Canada
Andy Shepard, USF Res. Collaborative, St Petersburg, FL
Joseph Smith, NMFS, Beaufort Labs, Beaufort, NC
Thor Lassen, Ocean Trust Texas, Brownsville, TX

Staff
Larry Simpson, GSMFC *Executive Director*, Ocean Springs, MS
Angela Rabideau, GSMFC *Financial Officer*, Ocean Springs, MS
Ralph Hode, GSMFC *EDRP Coordinator*, Ocean Springs, MS

Alex Miller, GSMFC *Economist*, Ocean Springs
Virginia (Ginny) Herring, GSMFC *Administrative Officer*, Ocean Springs, MS
Greg Bray, GSMFC, Ocean Springs, MS
Jeff Rester, GSMFC, Ocean Springs, MS

Opening Comments

R. Hode made opening comments thanking the states, NOAA-NMFS representatives, and the GSMFC staff for their attendance. Participants and visitors were introduced.

Agenda

There being no changes, a motion was made and seconded and the agenda was approved as presented.

Approval of the Minutes

There being no changes to the minutes of the March 7, 2012 meeting in Gulfport, MS a motion was made and seconded and the minutes were approved as presented.

Overview of Projects

EDRP I and EDRP II Spending

R. Hode gave a financial overview (Attachment 1) of each of the sub-awards for both EDRP I and EDRP II. Specific emphasis was placed on the fact that EDRP I and EDRP II fund balances as of September 19, 2012 amounted to approximately $8.8 million. It was noted that the EDRP I program with a fund balance of less than $3 million would end August 31, 2013; and that EDRP II program with a fund balance of approximately $5.8 million would end September 2013. **Hode** reported that further extensions would not be granted.

In lieu of progress reports from each State, principal investigators and/or grant coordinators were requested to comment on plans for use of their respective remaining funds for each program and their expectations for completing programmed work by the extended grant periods. Responses were as follows:

Texas	EDRP I	fund balance of $750 K - plans called for oyster cultch plants
	EDRP II	fund balance of $300 K – plans called for installation of 2,300 LF of breakwaters for erosion control
Louisiana		
	EDRP I	fund balance of $1.3 M – plans called for completion of oyster lease management program and oyster cultch plants
	EFDRP II	fund balance of $2.1 M – plans call for continued assistance for restoration of the Hatchery in Grand Isle, continuation of the inshore artificial reef programs using bridge materials, completion of the marina data base, and

continued domestic product marketing efforts involving Nicholls State University culinary programs and collaborative work with the Louisiana Seafood Museum on Lake Pontchartrain.

Mississippi

EDRP I — fund balance of $464 K – plans called for maintenance of hydrologic stations, and installation of data sondes for improved shellfish water quality monitoring

EDRP II — fund balance of $910 K – plans called for continued support for the IMMS, and completion of CPUE effort analysis

Alabama

EDRP I — All work for this program has been completed and final reports are being prepared

EDRP II — fund balance of $254 – plans called for completion of equipment purchases for the Claude Peteet Mericulture Center and additional artificial reef work

Florida

EDRP I — fund balance of $360 K – plans called for continued oyster restoration

EDRP II — fund balance of $574 K – plans called for continued oyster restoration with support from local harvesters

In addition, David Heil provided an update of Oyster Larval study for Dr. Steven Geiger of the FLW RI noting that the study has been completed and the final report is being prepared.

All states indicated confidence in completing planned programs within prescribed "extended" timeframes.

States were requested to begin final report preparations for those sub-award components that were completed by the end of 2012. They were also advised that all final reports should be completed within 60 days following the end of the grant periods.

There being no further business the meeting was adjourned.

Attachment 1:

Categorical Spending by State - EDRP I *Through September 19, 2012*

Program	Sub-award/ IC Number	Sub-award amount	Balance
Oyster Rehabilitation *(OR-RR-2O-2006-...)*			
	Louisiana 2006-01	$ 24,500,000.00	$ 984565.48
	Mississippi 2006-02	$ 14,861,056.00	$ 464,582.80
	Alabama 2006-03	$ 5,997,492.77	0
	Florida 2006-04	$ 2,994,700.00	$ 109,679.98
	Texas 2006-05	$ 1,797,593.00	$ 84,721.55
		$ 50,150,841.77	**$ 1,643,549.81**
Oyster, Shrimp and Crab Habitat Restoration *(OB-SGR-21- 2006-...)*			
	Louisiana 2006-01	$ 9,780,168.00	$ 276,476.74
	Mississippi 2006-02	$ 11,934,375.00	0
	Alabama 2006-03 (1)	$ 221,050.00	0
	Alabama 2006-03 (2)	$ 5,545,046.57	0
	Florida 2006-04	$ 806,853.00	$ 305,888.64
	Texas 2006-05	$ 1,297,831.00	$ 761898.38
		$ 29,585,323.57	
			$1,344,062.08
Cooperative Research *(CRM-22-2006-...)*			
	Louisiana 2006-01	$ 18,542,750.00	0
	Mississippi 2006-02	$ 10,180,612.00	0
	Alabama 2006-03 (1)	$ 6,490,893.95	0
	Alabama 2006-03 (2)	$ 11,326,349.71	0
	Florida 2006-04	$ 421,431.27	0
	Texas 2006-05	$ 73,950.00	0
		$ 47,035,987.93	**$ 0**
	Totals	**$ 126,772,153.27**	**$ 3,068,329.37**

(**Attachment 1:** *continued*)

Categorical Spending by State - EDRP II *Through September 19, 2012*

Program	Sub-award/IC Number	Sub-award amount	Balance
Assistance to Business and Industry *(ASBI-023-2007…)*			
	Texas 2007-01	$ 1,173,000.00	$ 309,395.33
	Mississippi 2007-03	$ 10,788,622.00	$ 110,730.95
	Alabama 2007-04	$ 10,804,938.00	$ 0
	Florida 2007-05	$ 1,500,000.00	$ 686,394.51
		$ 24,266,560.00	**$ 1,297,210.90**
Assistance to Fishermen *(ACF-025-2007…)*			
	Louisiana 2007-02	$ 37,841,367.75	$ 1,312,263.25
	Mississippi 2007-03	$ 6,440,000.00	$ 143,222.32
	Alabama 2007-04	$ 3,895,062.00	$ 1,338,846.06
	Florida 2007-06	$ 460,000.00	$ 73,251.17
		$ 49,948,693.00	**$ 4,561,013.52**
Assistance for TED/BRD Compliance *(TBC-024-2007….)*			
	Texas 2007-01	$ 27,000.00	$ 0
	Louisiana 2007-02	$ 825,460.00	$ 34.00
	Mississippi 2007-03	$ 650,000.00	$ 6,565.74
	Alabama 2007-04	$ 300,000.00	$ 0
	Florida 2007-05	$ 40,000.00	$ 0
		$ 1,842,460.00	**$ 6,599.74**
Domestic Product Marketing *(DPM-027-2007…)*			
	Louisiana 2007-02	$ 1,293,909.00	$ **837,219.22**
	Mississippi 2007-03	$ 650,000.00	$ **77,093.20**
		$ 1,943,909.00	**$ 989,324.56**
Seafood Testing (ST-028-2007…)			
	Mississippi 2007-03	**$ 6,471,378.00**	**$ 1,255,961.11**
		$ 84,473,000.00	**$ 5,813,364.65**

APPROVED BY:
COMMITTEE CHAIRMAN
APPROVED BY:
COMMITTEE CHAIRMAN

LEC/LEAP Joint Meeting Minutes
Wednesday, October 17, 2012
Point Clear, Alabama

Gulf States Law Enforcement Committee (LEC) Chairman, Jeff Mayne, called the joint meeting to order at 8:30 a.m. The following members and others were in attendance:

LEAP/LEC Members:
Jeff Mayne, LDWF (LEC Chair)
Donnie Armes (for Walter Chataginer, LEAP Chair), MDMR
Brandi Reeder, TPWD
Rob Beaton, FWC
Cynthia Fenyk (for Karen Raine), NOAA
Scott Bannon, AMRD

Others:
Kay Williams, *GMFMC Law Enforcement Committee Chair*
Otha Easley, NOAA OLE
Camp Matens, *GSMFC Commissioner*
Antonio Kilpatrick, FWC
Steve Brown, FWC/FWRI

Staff:
Rick Leard, GMFMC
Steve VanderKooy, GSMFC
Debbie McIntyre, GSMFC

Adoption of Agenda

*On motion by **Mayne**, seconded by **Reeder**, the agenda was adopted unanimously.*

Approval of Minutes

***Bannon** moved to accept the March 6, 2012 Joint LEC/LEAP Meeting minutes as written. **Beaton** seconded the motion which passed unanimously.*

***Reeder** moved to accept the July 25-26, 2012 Work Session minutes as written. **Bannon** seconded the motion which passed unanimously.*

Mayne asked everyone to check the LEC roster for accuracy and forward any changes to **McIntyre**.

Review of the Council's Action Schedule

Leard reviewed the action schedule for the Council for 2012 and 2013. The following motions were made by the LEAP:

*A motion was made by **Bannon** and seconded by **Reeder** that, under 3.1 for gray triggerfish, the LEAP recommends that the Council choose preferred alternative 2. The motion passed.*

*A motion was made by **Mayne** and seconded by **Armes** that, under 3.2 for gray triggerfish, the LEAP recommends that the Council establish a creel limit as an alternative and use numbers rather than at-sea weights for this species. The motion passed.*

The Enforceability Document was discussed and certain items were reviewed. **Leard** stated that these proposals go together.

Status of Council FMP Amendments and Regulatory Actions

Leard provided an overview of the recent amendments from the Council as well as the regulatory actions.

The following motions were made by the LEAP:

*A motion was made by **Bannon** and seconded by **Reeder** that, under 4.1 for gray triggerfish, the LEAP recommends that the Council choose preferred alternative 3 to match the commercial season. The motion passed.*

*A motion was made by **Beaton** and seconded by **Reeder** that, under Action 1 for gag, the LEAP recommends that the Council choose Alternative 2 with an option which includes one season. The motion passed.*

*A motion was made by **Reeder** and seconded by **Bannon** that, under Action 2 for shallow water groupers the LEAP recommends that the Council does not choose Alternative 4 at all.*

Williams stated that she would like to get input from Law Enforcement earlier in the process of scoping or perhaps involve law enforcement on the IPT team. This would involve law enforcement a lot earlier. **VanderKooy** stated that he does download documents from the Council website.

GSMFC's IJF Program Activities

Beaton, **Bannon,** and **VanderKooy** provided overviews of the FMP revisions for which the LEC is currently providing task force representation. **Beaton** (Blue Crab) reported that he has not received law enforcement information from Mississippi and is still lacking portions of Louisiana's section. The stock assessment has made this project take longer but will provide a very good assessment of the crab population. **Bannon** (Gulf & Southern Flounder) has received all information that he needs to build the enforcement section. A stock assessment will still have to be done, however. **VanderKooy** (Menhaden) reported that the menhaden stock assessment was rejected last year; therefore, this is being revisited. An assessment review is scheduled for

August, 2013. An enforcement section will need to be reviewed by this group next year.

Change to Timing of Federal Fishing Closures

Mayne reported that there is much confusion for the fishermen and general public as to the times that fishing seasons close. It was the consensus that "closed" means "off the water".

Recommendations to the Council and NOAA:

> *Motion made by **Reeder,** seconded by **Armes,** that closure times for fisheries end prior to midnight.*
>
> *Motion made by **Armes**, seconded by **Bannon,** that fishery openings should be established at 6 a.m.*

Enforcement of Exempted Federal Fishing Permits in Closed Season Tournaments

Leard does not think this is applicable currently because NOAA has put a stop to it. It was not possible for Law Enforcement to enforce the law because only certain tournaments were allowed to catch red snapper out-of-season for the tournament only. When Louisiana and Alabama did this, tags were issued to the participants but it was based on the honor system with the first fish caught getting tagged regardless of size. A clearer definition of how this type of a closed season exemption should work must be established.

Beaton suggested offering a closed season catch license. This type of program may eventually come to fruition.

GSMFC Enforcement Publications

VanderKooy pointed out that the *License and Fees for 2011* is complete and on GSMFC's website. GSMFC continues to compile the *Law Summary* (the Red Book) which is available in its entirety on the website.

The LEC and LEAP both considered the final drafts of the two enforcement plans and approved them for review by the full Commission and Council.

> ***Armes** made a motion, seconded by **Bannon**, to approve the Strategic Plan for 2013-2016. The motion passed.*
>
> ***Mayne** made a motion, seconded by **Bannon** to approve the Operations Plan for 2013-2014. The motion passed.*

Joint Enforcement Agreements Slide Presentation Review

The states took a few minutes to review the JEA man hours, boat hours, and contacts related to commercial and recreational enforcement activities. They also detailed a few of the bigger JEA

cases and described any additional assets or equipment upgrades they have made related to JEA patrols. **Bannon** will give a JEA presentation to the Gulf Council at its next meeting.

State Report Highlights

State reports were provided electronically prior to the meeting and are available from the Commission office.

LOUISIANA HIGHLIGHTS:

- Through the LDWF/LED NASBLA BOAT accreditation, all agents will receive certificates of training in the NASBLA Level 1 Boat Accident Investigation Program and the NASBLA Boat Operators Search and Rescue Course. This training began in January, 2012 and is scheduled to be completed by the end of 2012.
- LDWF/LED continues to participate in the Cooperative Enforcement Agreement with NOAA, working thousands of hours of overtime dedicated to state and federal fisheries management plan priorities.
- The LDWF/LED launched their tip411 program as a part of Operation Game Thief, which may offer a cash reward for information leading to arrests or convictions. Texting or downloading the app enables the public to send anonymous tips and photos to LDWF 24 hours a day.
- LDWF sponsored two summer day camps for 12-16 year olds during which time 42 children received their boating and hunting education certificates.

TEXAS HIGHLIGHTS:

- NMFS conducted a series of workshops to provide updated instruction on new TEDs and BRDs to field game wardens and officers enforcing TED/BRD regulations.
- TPWD supplied training to field game wardens in the use of newly established Standardized Field Sobriety Testing measures designed to assist Law Enforcement officers with BWI detection.
- The Fisheries Enforcement Section recently received a 38-foot SAFE Boat patrol vessel (stationed in Rockport), courtesy of JEA funding.
- The Fisheries Enforcement Section received funding from GSMFC for development and implementation of a Commercially Protected Finfish Tracking System which will provide a streamlined reporting method and allow traceability previously unavailable.

FLORIDA HIGHLIGHTS:

- FWC continued to work closely with NMFS on fisheries investigations with efforts being focused on IFQ in the Gulf and oysters.
- Training is being given to supervisors on the Police Officers Bill of Rights and standards of discipline. Every supervisor will have this training by February 2013.
- The Offshore Patrol Fleet continued to work contracted hours with a focus on IFQ and TED requirements.
- Cross training has begun for the merger of Law Enforcement divisions of the Florida Dept of Environmental Protection and the Dept of Agriculture and Consumer Services.

MISSISSIPPI HIGHLIGHTS:

- The Office of Marine Patrol has one law change regarding the unlawful selling, bartering, or trading of any species of reef fish without possessing federal permits and/or licenses required by NOAA.
- NOAA lab conducted TED training on all officers in the classroom and in the field on NOAA boats.
- JEA Marine Law Enforcement activities consisted of 1,284 sea hours, 4,241 man hours with 2,580 contacts, which resulted in 64 total violations.,
- Marine patrol had 1,301 man hours and answered 33 calls of people needing assistance during Hurricane Isaac in August.

ALABAMA HIGHLIGHTS:

- In the last six months, MRD enforcement officers conducted 2,800 commercial fishermen intercepts, 16,321 recreational fishermen intercepts, 9,233 patrol hours, and 6,038 vessel boardings.
- All MRD enforcement officers received training from NOAA in the measurement of TEDs and shrimp trawls with time being spent in the classroom as well as underway on a shrimp boat.
- MRD participated in the search and recovery of the US Coast Guard helicopter 6535 following its crash in Mobile Bay.
- Three divers were certified for nitrox diving to assist with the Lionfish effort.

Election of Chairman and Vice-Chairman

VanderKooy gave a brief history of the LEC Chair position. ***Mayne nominated Bannon for LEC Chair and Chataginer for Vice-Chair of the LEC and Reeder for LEAP Chair and Mayne for Vice-Chair of the LEAP. Both passed without opposition.***

With no further business, ***Armes*** *made a motion that the meeting be adjourned. The motion was seconded by* ***Beaton*** *and the meeting was adjourned at 11:55 a.m.*

APPROVED BY:
COMMITTEE CHAIRMAN

Gulf States Marine Fisheries Commission
Sea Grant Fisheries Extension Advisory Committee Minutes
Point Clear, AL
October 17, 2012
1:30 p.m.

Members present: Tony Reisinger, Julie Anderson, Dave Burrage, Rhonda Cummins, Peter Nguyen Guests: Gwen Hughes, Frank Helies, Joanne McNeely, Pete Barber, Julia Hightower, John Hewitt, Troy Willamson,, Camp Matens, Steve McMillan, Mike Ray

The meeting was called to order by Chairman Reisinger at 1:40 p.m. Welcome and introductions were postponed until 2:25 p.m. to allow Alex Miller with GSMFC to give his presentation first before he had to attend another meeting. Alex gave several updates in three distinct areas: economics, traceability, and sustainability.

Economics: Several data collection projects are various stages.

1) Report #195 "An Economic Survey of the Gulf of Mexico Inshore Shrimp Fishery:

Implementation and Descriptive Results for 2008" has been published and is now available on their website. http://www.gsmfc.org/publications/GSMFC%20Number%20195.pdf

2) A survey is in process with seafood related businesses, such as dealers and processors, for the data year 2009.

3) Another survey underway is with the first receiver of products, ie. dealer survey.

4) They are working on a Marine Angler Expenditure Survey for data year 2011 to measure saltwater angler's expenditures on fishing trips.

5) Also on a Marine Recreational Use Economic Survey for data year 2012 to estimate economic impacts from activities like bird watching, canoeing/kayaking, etc. For the first time ever, they are looking at the for-hire sector vs. private anglers and how species are valued.

Traceability:

Gulf Seafood Trace was launch at the Boston Seafood Show in March. So far 44 enrollees, mostly processors, are on board. 25-30 of them are actively involved the others are coming along. Alex talked about using QR codes to link info and possibly trace maps and showed the example from a New Orleans fish house that boasted of Emeril's Wild American Seafood. Outreach is being focused on retailers and while this tool is a voluntary program it does have a little more teeth to it than just a logo.

Sustainability:

This discussion was about the tentatively named Gulf Seafood Watch (based on NOAA's fish watch for federally managed species) dealing with state managed fisheries with links back to Fish Watch for applicable species. This is NOT a 3rd party certification or a "red light / green light" advisory list like those put out by groups like the Monterrey Aquarium. The plan is for the

website to be a place to take info from several sources such as SEDAR, FMP, FP, etc. and funnel them down into an easily accessible information hub. The resources will all be science-based to help consumers make well-informed decisions when they purchase Gulf seafood. Phase I is expected to be completed in November 2012, and the actual operation will be next in Phase II. One name suggested for the site was "Eye on Gulf Seafood".

Following this update by Alex, regular meeting items began with the approval of the minutes with the one correction of correctly spelling Cummins. Dave Burrage motioned. Julie Anderson seconded. All approved. All states were present except for Florida. In the absence of Bryan Fluech, Rhonda Cummins and Julie Anderson assisted in taking notes for this meeting.

State Reports:

Louisiana:

Julie Anderson gave regards from Rex Caffey who was unable to attend the meeting. LA Sea Grant has a new director as of Aug. 16th when Robert Twilley came onboard. Delcombe Direct is going strong and LA is moving forward with a state seafood certification for all seafood landed on LA docks.

Next was an update on Hurricane Isaac, which was a category I storm leaving lots of debris. Most notably were some 2500 crab traps. They are expecting some type of disaster recovery money. They have started a Derelict Crab Trap database (website) where users can report lost traps and found traps. This lead into her report on the Marine Debris Crab Trap Project and their upcoming Round up dates are Feb. 16, 23 and March 9, 2013.

In Trade Adjustment Assistance, she reported that 180 meetings were held in less than a year and pretty much those who will complete the process, have done so are will be soon. On an interesting note, the crabbers are looking into whether they may qualify for TAA money in the future and Rex has agreed to get them some numbers but will not write the petition for them. The crabbers do not have an organized group like the Southern Shrimp Alliance to help them pursue this matter so it will probably not go far.

Mississippi-Alabama:

Dave Burrage also gave an update on impacts from Hurricane Issac that came ashore on Sept. 12the. They had flooding from both the 9-10' surge and lots of rain. Their governor has requested a fisheries disaster for Oysters/Crabs in Mississippi after Louisiana was forced to open the Bonnet Carre Spillway due to heavy rains up river. The plan is to have relief work for the fishermen, whether it is relaying oysters or picking up traps, etc. Isaac hammered communities such as Waveland and Long Beach, whose harbor was torn up. He also reported some 60,000 dead nutria washing ashore from Louisiana.

Dave gave us a great list of contacts (attached) for Coast Guard Marine Safety Offices (MSO) gulf wide along with his update on the new safety requirements for every commercial fishing vessel (documented or state licensed) that will fish more than 3 miles from shore. As of September 16, 2012 they are all required to have a decal that shows they are in compliance in the new regulations. These details can only be issued by an MSO. Dave talked about a group that does training for marine safety instructor training (http://amsea.org/). The training is intense with

10-12 hours and a 6:1 student to teacher ratio. He suggested charging enough to cover materials and lunch. LaDon Swan asked how long it would take Sea Grant to teach all the fisherman....it would take a while.

As for TAA, if they haven't completed it by now, they probably won't complete it at all. Most are finished but there are always a few stragglers...other states voiced similar comments for their fishermen.

Next, Tony read a lengthy email from Chuck Adams with Florida. A scan is attached.

Texas:

Tony updated us on TED tuning efforts in Texas with all the onboard inspections he and Gary Graham have conducted, 185 vessels in the Brownsville area. The worst offense report by TPWD law enforcement was a flap sewn in backwards. Frank Helies joined in to explain about Terms & Conditions 8 & 9 that has resulted from the lawsuit brought against the industry for alleged violations. The biological opinion that was issued for the shrimp trawl fisheries in May 2012 was based on a 12% incidental take, non-combined. (Previously the government assumed all vessels were in compliance and that TEDs were 97% effective when correctly used.) The current analysis is for a period of 6 months. IF the new 12% limit is broken, the analysis will be conducted on a month - to - month basis and if needed NMFS could enact closures of up to one year. There is a 4 tier system that measures the severity of the violation and corresponds to different fines. Level 1 is the least offensive and was equated to a broken tail light. Level 4 was the worst cases, like having your TED totally sewn up.

Next up was information on BRDs, like the modified Jones-Davis and the Ricky BRD which Tony said was showing promise and brought Frank back into to speak. The Gulf & South Atlantic Fisheries Foundation has had funding for BRD projects and the testing of the Ricky BRD is almost completed to get the device certified for use. One of the benefits of the Ricky BRD (two fish eyes sewn end to end) is that it has been developed by the shrimp industry so they have more buy-in. On another note, it was reported that the changes in the composite BRD resulted in greater shrimp loss than the traditional fish eyes.

3:25 p.m. a break was called for ice cream.

Tony continued the Texas update at 3:40 pm with some information about angler's cheating at fishing tournaments. Turns out people will do all sorts of stuff like altering fish, stuffing them with ice or menhaden, substituting different fish, etc. In Texas this is a 3rd degree felony with up to a $7K fine and jail time.

Lionfish were discussed as well as tiger prawns, including information shared with TXSG from Dewayne Hollin's trip to the Invasive Species meeting the week before in New Orleans. Rhonda read the following from the rough notes that Dewayne shared in an email:

The reported number of specimens for testing over the last three years is: 2010 (32), 2011 (678) and so far in 2012 (94), but this number could be over 125 by the end of the month of October. Based on "early" USGS DNA testing results, it looks like the current population are very much like the 1988 SC escape Tigers which first appeared in the Gulf of Mexico in 2007. In 2012 the samples reported were smaller female shrimp in the early part of the year, with many of these

found in inland waters, some in brackish shallow bay waters. The USGS still needs more samples to verify that the current population is from the Carolina escape group, but there is very strong evidence that todays sample population originated from the same animals.

While TPWD is leading the effort in Texas to secure samples for genetic testing, the USGS is the governing body in charge of the show.

Rhonda gave a snapshot of the red tide disaster for her county (attached) and Mike Ray was able to confirm that after several county judges sent disaster declarations to Austin, and TPWD supplied economic figures for the industry, that Governor Perry requested a fisheries disaster from the federal government. So far no word has been given as to whether or not such a disaster will be declared.

Special Reports:

Gulf & South Atlantic Fisheries Foundation covers the area from Virgina to Texas. Since 1976, some 600 grants have been awarded. Judy Jamison is the executive director. Joanne McNeely spoke first with an update on the Gulf Seafood Marketing Coalition's activities to be a media resource of the Gulf. Her presentation is attached. Frank Helies updated the panel on various Foundation activities with industry (presentation attached) many of which were discussed earlier in the meeting.

Texas Parks and Wildlife Department (TPWD) Deputy Director Mike Ray spoke next about the Idle Iron policy and some of the implications. His hand out is attached. He also had an update on the Texas shrimp season. While the shrimp were bigger earlier and left soon, the season did not live up to expectations and white landings were low. They are not sure why. Brown shrimp were also down in price by 50 cents or so while diesel prices were up a dollar. Crabs were also down. Julie added that Louisiana also had low landings for white shrimp.

No time (or energy) was remaining to address any issues concerning the National Sea Grant College Program's 2014-2017 Strategic Plan. The meeting was adjouned at 5:00 pm.

These minutes were taken from my notes at the meeting and are not guaranteed in any way or fashion. However, they are respectfully submitted to Chairman Reisinger as something better than nothing. I warned him, taking notes was not my speciality but was honored to assist in the absence of Vice-Chair Bryan Fluech.

Minutes prepared by:
Rhonda Cummins
Texas Sea Grant
Julie Anderson
Louisiana Sea Grant

Approved by:
Tony Reisinger

TECHNICAL COORDINATING COMMITTEE
MINUTES – 63rd Annual Fall Meeting
Wednesday, October 17, 2012
Point Clear, AL

APPROVED BY:
COMMITTEE CHAIRMAN

Chairman Dale Diaz called the meeting to order at 1:30 p.m. The following members, staff and others were present:

Members
Steve Brown, FWRI, St. Petersburg, FL
Randy Pausina, LDWF, Baton Rouge, LA
Mark Schexnayder, LDWF, New Orleans, LA
Chris Denson, ADCNR/MRD, Gulf Shores, AL
Dale Diaz, MDMR, Biloxi, MS
Harry Blanchet, LDWF, Baton Rouge, LA
Jerry Mambretti, TPWD, Austin, TX

Staff
James Ballard, GSMFC, Sport Fish/Aquatic Invasives Coordinator, 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
Angela Rabideau, GSMFC, Accountant, Ocean Springs, MS
Steve VanderKooy, GSMFC, IJF Coordinator, Ocean Springs, MS

Others
Greg Stunz, Harte Research Institute, Corpus Christi, TX
Mike Ray, TPWD, GSMFC Commissioner, Austin, TX
Troy Williamson, GSMFC Commissioner, Corpus Christi, TX
Camp Matens, GSMFC Commissioner, Baton Rouge, LA
Joe Gill, Jr., GSMFC Commissioner, Ocean Springs, MS
Corky Perret, MDMR, Biloxi, MS
Steve McMillan, Bay Minette, AL
Ron Lukens, Omega Protein Corp., High Springs, FL
Bob Beal, ASMFC Executive Director, Arlington, VA

Adoption of Agenda

A motion to adopt the agenda as written was made by Chris Denson and passed unanimously.

Approval of Minutes

A motion to approve the minutes as written for the March 7, 2012 meeting was made by Mark Schexnayder and passed with no opposition.

Regional Fisheries Management of Summer Flounder and Black Sea Bass

Bob Beal gave a presentation over-viewing regional fisheries management of summer flounder and black sea bass. He started with an overview of ASMFC and the differences between it and GSMFC. ASMFC was formed in 1942 by an interstate compact and is made up of 15 different states. The main difference between the two Commissions is the standards that were established through the Atlantic Coastal Fisheries Cooperative Management Act (1993) that gave ASMFC management authority. Bob pointed out that it is hard to get all 15 states to agree on management decisions and come up with a one-size fits all solution to their problems, so they use regional management to deal with that.

Bob then gave an outline of how the regional management process works. ASMFC has a Management Board for each of the 24 species they manage along the east coast. All states that have a fishery for a particular species are represented by their three commissioners on that species' Board, and they are the final decision-makers in drafting fishery management plans. Once the management plans are finalized and agreed upon, the states are obligated to implement the measures outlined in them. ASMFC monitors compliance with each of the management plans by all the involved states, and if a state falls out of compliance, the ASMFC notifies the Secretary of Commerce, who will in turn shut down that state's fishery, both commercial and recreational, for the species in question.

The ASMFC has several different kinds of state/federal management programs; ASMFC only (e.g. American lobster), complementary Management (e.g. Atlantic herring, coastal sharks), and joint management (e.g. summer flounder and black sea bass). They also set the Commercial and Recreational allocations.

Summer Flounder is one species that they have a joint management plan for with the MAFMC; therefore, they must achieve Magnuson Act standards. In the late 1980s, the stocks of this species had been greatly reduced, but through regional management the stock has been brought back to its target spawning stock biomass. They have set a 60/40 Commercial/Recreational split, with the Commercial allocation being based on 1980-1989 data, and the Recreational state allocation being based on 1998 data. That was the last year that all the states had identical regulations in place for summer flounder. For summer flounder, each year they set the commercial and recreational harvest limits in August. The process starts with SSC meetings and Technical Committee meetings in June, then they hold a joint management meeting in December with all the commissioners (~50) and the members of the MAFMC to determine the standards that the states have to adhere to for that year. The states implement these new regulations over the winter and if it looks like a state's regulation will meet the agreed-upon quota, the ASMFC will approve them in February. If not, that state has to go back to the

drawing board and draft new regulations that will not exceed their quota. Through this process, states are able to craft their own seasons, catch size and bag limits to meet the needs of their fishermen as long as they don't exceed their quota. An important part of this joint management plan is that the NMFS recognizes the approved state regulations and implements them in federal waters.

Black sea bass is managed in much the same way, with the exception that the federal plan does not include the state shares. MAFMC establishes the commercial allocation (49%), and then ASMFC takes the remaining 51% and divides it up into the recreational state allocations which the states use to shape their regulations. However, the state regulations only apply to ASMFC jurisdiction. Federal waters have separate coast wide management measures that are set and enforced by the federal government. The MAFMC is working on an amendment to their black sea bass plan to bring it more in line with the summer flounder plan to alleviate some of these differences.

Overall, Bob stated that regional management works; however, it is very resource and process intensive. Also, it is very difficult to change states allocations because any change produces winners and losers, but ASMFC is currently working on a plan to fairly reallocate state shares as a species' distribution shifts in their region. Another shortcoming of regional management is frequently changing regulations (some annually), this is difficult on the fishing public and law enforcement that is responsible for enforcing the new regulations. Bob also pointed out that they rely heavily on preliminary MRIP data through the end of October when they are trying to set the next year's allocations and regulations, which can be problematic because the data can change and they don't have the data for the last two months of the year.

Discussion of Expanding State Waters

Mark Schexnayder and **Harry Blanchet** stated that they are expanding their waters to 10.35 statute miles, and their law enforcement is enforcing their state regulations in this new area by informing the public, but they are not aware of any citations being written yet. They pointed out that this is essentially a state process and both the LA legislature and Commission have passed items that say the state's jurisdiction extends out to10.35 statute miles for fishery purposes.

Dale pointed out that there have been talks between LA, MS, and AL to find common ground and to move forward with expanding all three states' state waters. He also mentioned the possibility of another meeting to draft a MOU after the first of the year.

Minimizing Discard Mortality in the Red Snapper Fishery in the Gulf of Mexico

Greg Stuntz gave a presentation on ways to minimize barotrauma-related mortality in reef fish and in particular red snapper. Through his research, they investigated two methods: an acoustic deterrent device (ADD) and venting/or rapid recompression. They used the data that was collected through the mobile app they had created in previous years, "iSnapper", that collected fisheries information from the for-hire sector of the red snapper fishery. One of the main pieces of information they used from this data set was the discard rate in the fishery. The ADDs were designed to keep dolphins from preying on released fish and were very effective at keeping the dolphin ~100 meters from the fishing vessel, which helped the snapper get back to

depth; however, this was considered harassment by NOAA and NOAA was concerned it may have a "dinner bell" affect and they had to stop using it.

Greg stated that they also carried out laboratory experiments to test the effects of barotrauma on red snapper utilizing a compression chamber. In these laboratory experiments, they tested venting, rapid recompression and just releasing the fish after being brought up from different depths. They found that both the venting and rapid recompression resulted in 100% survival of fish brought up from both 30 and 60 meters. However, there was high mortality in the fish that were just released, especially the 60 meter treatment. When they reran this experiment in the field at 30 and 50 meters, they found that there was a very strong seasonal effect on the survival of fish, most likely due to water temp with almost no fish surviving without venting or rapid recompression in the summer. For the field experiments the released snapper were equipped with accelerometer acoustic tags that would show if they survived or not.

Greg pointed out that overall the ADDs work very well, and if they can get around the marine mammal protection act and get NOAA on board with using them, they would be a very effective and inexpensive way of dealing with the problem of discard mortality in the reef fish fishery. They also found that both venting and rapid recompression work well and should definitely be utilized, especially in the summer, but they feel rapid recompression is the best overall method.

Update on Lionfish Activities in Florida

Steve Brown informed the group that FWC has waived the recreational fishing license requirement for recreational fisherman and divers that are collecting lionfish and they are allowing specialized spear fishing for lionfish in areas where spear fishing was previously not allowed. He also pointed out that they are looking into the potential of an adopt-a-reef program.

Subcommittee Reports

Data Management

Gregg Bray stated that;

Donna Bellais reported on the status of the Commission's data management projects. The GSMFC I.T. staff is still working on an Oracle upgrade and they hope to be fully migrated to Apex by end of 2012. Program staff is trying to work out the HMS data flow between states and GSMFC and still working to upgrade queries to utilized revised MRIP estimate data for 2004-2012. The biological data entry system is also being updated and will be in the testing phases in the near future. Dave Donaldson stated that ACCSP has historical data dating back to the 1950's and they will be working to integrate this data into the FIN data management system.

He provided the Subcommittee with an update on the status of biological sampling activities in 2012. All Gulf states are up to date with data entry and otolith analysis, except for Florida. Florida has not provided any data since 2009. Problems with computer access to the FIN DMS, along with staffing issues, have prevented FWC staff from keeping up with data deadlines.

Dave Donaldson provided the subcommittee with a brief overview of the quality management concept that is being used by the Fisheries Information System and NOAA Fisheries. It is basically a process to insure that data collection programs are quality-controlling their data properly.

Dave Gloeckner briefly discussed the recent federal dealer-reporting amendments. One would require weekly reporting instead of bi-weekly reporting and some additional data fields will be required through a change by Bluefin data to the trip ticket system. Another change will be that dealer's permits will be suspended if dealers are not reporting. Most of the changes will be implemented in the spring of 2013.

Tom Sminkey provided the Subcommittee with an update on the implementation schedule for the 2013 dockside intercept survey. The angler questionnaire is essentially unchanged. The biggest change to sampling will force samplers to use clusters of samples instead of drawing individual sites. Sites will be clustered in similar ways, as samplers currently select alternate sites. Samplers will also no longer be able to select sampling times, and the draw process will predetermine sampling time intervals when samplers will be required to be sampling.

The Subcommittee elected Christine Murrell as Chairman and Vince Cefalu as Vice-Chairman.

Chris Denson made a motion to accept the report and it passed unanimously.

SEAMAP

Jeff Rester reported that;

SEAMAP recently published the SEAMAP Environmental and Biological Atlas of the Gulf of Mexico 2010. The 2010 Atlas is a summary and listing of all 2010 SEAMAP surveys in the Gulf of Mexico.

Since the March report to the TCC, SEAMAP has completed the Spring Plankton Survey, Summer Shrimp/Groundfish Survey, Fall Plankton Survey, and the Vertical Line Survey. The Bottom Longline Survey and Fall Shrimp/Groundfish Survey are currently being conducted. More details on these surveys can be found in the recently published Subcommittee Report to the GSMFC Technical Coordinating Committee for FY2012.

All three SEAMAP components met jointly in late July to discuss the SEAMAP FY2013 budget and other joint issues. With level funding expected, all three components agreed to continue SEAMAP activities at the current budgetary distribution between the components.

The SEAMAP Subcommittee discussed a side-by-side comparison of two research vessels off Louisiana this summer. The R/V Pelican has historically been used by Louisiana to conduct SEAMAP trawling, but due to increasing costs and limited availability, Louisiana has begun contracting with the R/V Blazing Seven. A comparison was done during the SEAMAP Summer Shrimp/Groundfish Survey to make sure that the vessels have the same fishing characteristics. An analysis showed that there were no significant differences between the vessels' fishing ability.

With the passage of the Restore Act and the creation of the Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program, there is an opportunity to expand fishery independent data collection in the Gulf of Mexico. Approximately $125-$525 million

could be available for fishery independent sampling in the near future, and SEAMAP would be an ideal program to help in the data collection. SEAMAP has been developing a fishery independent data-needs assessment and developing costs associated with fishery independent data collection so that SEAMAP will be ready when the money is available.

The SEAMAP Subcommittee also reviewed the SEAMAP trawling and plankton operations manual. The operations manual is currently undergoing a major revision that should be completed shortly.

The Subcommittee elected Read Hendon as Chairman and Bob McMichael as Vice-Chairman

A motion to accept the report was moved by Jerry Mambretti, and passed without opposition.

Crab

Steve VanderKooy stated that;

Glen Sutton provided an overview of where the analysts are in the stock assessment process. The model they are using is the Collie-Sissenwine, similar to the one that Louisiana used to gain MSC certification. At this point, they are finishing up the indices of abundance to use in the model. The Assessment Workshop is scheduled for early November and will be conducted at GCRL.

Derelict Trap Cleanups – The five states are all looking at holding cleanups next winter/spring. Texas is planning a cleanup in February along with Louisiana. Mississippi is planning for late February. Alabama is currently considering February/March, and Florida has gone to an alternating year schedule between the Gulf and Atlantic and 2013 will be a Gulf based cleanup year. To date almost 80,000 traps have been removed from Gulf waters since 1999.

Florida reported the highest landing since 2006 for hard crabs but is still below their historic average. Trips finally increased but the good news is that the revenue from blue crabs in Florida almost doubled in 2010 and 2011 and look like they are continuing in 2012.

Alabama has continued to conduct tissue testing of blue crabs in 2012, to date, the Department of Public Health has received 432 crabs for testing of various chemicals, including those associated with the DWH event. Overall, landings seem to be rising since 2010. It was noted that the Alabama crabbers were noticing fewer female crabs in their catches. The other states indicated that there seemed to be a similar trend in their states as well. This is something the subcommittee will look into in more detail now that it seems to be a shared concern.

Mississippi reported that the spike in license sales post-BP seem to be returning to normal with resident recreational license sales even making a slight decline. In early 2012, the Department implemented a mandatory trip ticket program for all fisheries. Cooperation seems good. Prior to trip tickets, 6 crab dealers were reporting now 21 are being captured. Landings are up over 2011. Last year was an issue with the opening of the Bonnet Carré and NOAA has approved a fishery disaster as a result. Congress will make its determination in 2013.

Louisiana has closed an additional area since Hurricane Isaac. Tar mats and tar balls resurfaced following the storm and resulted in a closure from Caminada Pass west to the Belle Pass for all commercial fishing. Preliminary landings appear to be on par for the first half of the year. There is a slight decline from the 10-yr average by about 4.5%.

Texas reported that the final commercial landings for 2011 were 2.88M lbs. A project to estimate growth of blue crabs in the wild using Coded Wires tags was approved for funding in April 2012 and set up as an interagency agreement between the University of Houston – Clear Lake and TPWD-Coastal Fisheries. Sixty four tagged crabs have been recovered to date between 20-40mm. They will continue to tag more crabs and will have a report next fall at the annual meeting in Texas. Landings have been declining over the last 20 years and there may be a slight upturn more recently.

Election of Chair – Considering that the Subcommittee and TTF are continuing to work on the FMP and the stock assessment, the Subcommittee felt there was continuity in having Gandy remain chair for another year.

Chris Denson made a motion to accept the report and it passed unanimously.

Habitat

Jeff Rester stated that due to the lack of funding for the program, the Subcommittee has not met. He is currently working on the habitat section of the blue crab FMP and is planning on having the Subcommittee review it when it is finished.

A motion to accept the report was moved by Chris Denson, and passed without opposition.

Artificial Reef

James Ballard reported that the Subcommittee met jointly with the ASMFC's Subcommittee back in March and discussed the following issues;

Jeff Tinsman gave an update on the ex-Arthur W. Radford Reefing project. The Radford is a Spruance-class destroyer with a length of 529' and a beam of 55' and was launched in 1975. The reefing project was a joint effort between New Jersey, Delaware, Maryland and the Navy and had a total cost of about $800,000 that they split evenly. The low cost was attributed to being a newer ship with lower cleaning costs and a good amount of value in metals for recycling.

Tim Mullane gave an overview of some of the regulation challenges involved with reefing ships. He discussed some of the setbacks they had with reefing the Radford and the hurdles that need to be addressed when reefing ships and dealing with the federal agencies involved in the process.

Bill Horn gave on overview of the Spiegel Grove, Oriskany and Hoyt Vandenberg Reefing projects. His presentation focused on the lessons learned and the things they would do differently if they reef another ship in the future.

- Spiegel Grove – is a Landing ship dock with a length of 510' and a beam of 84' that was launched 1955. It was deployed as a reef in 2002, 6 miles off Key Largo in 135' of water. The project took 7.8 years, clean up took 7 months and the total cost of the project was $1.40 million.
- Oriskany – is an Aircraft Carrier with a length of 911' and a beam of 107' that was launched in 1945. It was deployed as a reef in 2006, 23 miles off Pensacola in 212'

of water. The project took 3.17 years, clean up took 12 months and the total cost of the project was $23.6 million of which the Navy paid 96%.

- General Hoyt S. Vandenberg – is a Troop Transport/Missile Tracking ship with a length of 520' and a beam of 71' that was launched in 1943. It was deployed as a reef in 2009, 7 miles off Key West in 135' of water. The project took 8.24 years, clean up took 18.2 months and the total cost of the project was $8.38 million with 15% of the cost being covered by the federal government.

Laura Johnson gave a presentation from the US EPA on their Reefing Regulations. She stepped through the EPA's BMPs on reefing ships and explained that it is very important to bring them in very early in the project to avoid costly delays.

Hugh Carberry discussed the conflicts between recreational and commercial fishing on artificial reefs established utilizing Sport Fish Restoration Funds. He gave an overview of the conflicts in New Jersey between commercial fisherman that are using pots on artificial reefs and the recreational anglers that are stating that this makes the reefs unusable for them. The USFWS has stated that it is the responsibility of the state to resolve these conflicts or they may loss their Sport Fish Restoration Funds. New Jersey is exploring ways to address this problem and is looking into SMZs. Delaware passed legislation to designate artificial reefs as SMZs that will limit fishing to hook and line only to alleviate the conflict with commercial potters. This discussion led into a general discussion of marine debris accumulation on artificial reefs including initial prevention, subsequent removal options, and liability issues.

The Subcommittee had a discussion about the development of the gulf-wide artificial reef monitoring protocol. This will be a standardized monitoring protocol modeled after existing long-term monitoring programs that focus on natural reef habitats, utilizing comparable gear types and methodologies where possible.

The Subcommittee elected Kerwin Cuevas as Chairman and Kevin Anson as Vice-Chairman

Chris Denson made a motion to accept the report and it passed unanimously.

State/Federal Reports

Written reports were provided to the TCC members the week prior to the meeting, and during the meeting the members only briefly read through the highpoints in their reports. The full Louisiana report can be found below. To see the other full reports covered during this section of the meeting, please see the minutes from the Commission Business meeting held on Thursday, October 18, 2012.

Louisiana State Report

Deepwater Horizon Disaster

Disclaimer: This report does not rely on information collected as part of the *Deepwater Horizon* Natural Resource Damage Assessment (NRDA), and is not intended to analyze impacts resulting from the *Deepwater Horizon* oil spill and related response for NRDA purposes.

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

Fishery Openings/Closings: In response to the emergence of tar mats and large concentrations of tar balls on adjacent beaches during Hurricane Isaac, the LDWF took emergency action on September 4 to close a portion of state outside waters extending one-mile seaward of the shoreline from the western shore of Caminada Pass westward to the eastern shore of Belle Pass to all commercial fishing and recreational fishing except for recreational and charterboat angling until further notice. The news release announcing this action is posted on the LDWF website at http://www.wlf.louisiana.gov/news/35907. Subsequently, on September 6, the Louisiana Wildlife and Fisheries Commission adopted a Declaration of Emergency to close these same waters to all commercial fishing and recreational fishing except for recreational and charterboat angling until further notice.

In addition to this recent closure, approximately 0.6 percent of saltwater areas of the state currently remain closed to certain fishing activities due to the continued presence of oil from the *Deepwater Horizon* 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).

Tissue sampling for seafood safety: Since May 2010, the Louisiana Department of Wildlife and Fisheries has continued to test and analyze seafood coast wide on a regular, ongoing basis. In March 2011, LDWF formalized these efforts with the Department of Health and Hospitals (DHH), the Department of Agriculture and Forestry, and the Department of Environmental Quality (DEQ) to create the Louisiana Seafood Safety Plan. The state sampling plan collects and tests samples from inshore species, near shore reef fish, and pelagic species along with corresponding water and sediment samples.

LDWF has also entered into a cooperative agreement with NOAA and the U.S. FDA, to analyze samples taken in areas proposed for reopening after closures for the presence of PAHs and dispersants. Both state and cooperative NOAA/FDA sampling programs test seafood for the same levels of PAHs and dispersants as established by the FDA. In addition to the Seafood Safety Plan samples, 134 composite tissue samples have been taken for the NOAA/FDA reopening protocols. All of those samples tested below the FDA-established levels of concern.

The following table illustrates the number of samples collected by species group by basin for the year 2012 to date. Total tissue samples collected numbers 427 for the period of March 2012 through August 2012. Since the beginning of the overall sampling program, over 2,600 tissue samples of crabs, oysters, finfish, shrimp, from coastal Louisiana have been tested for hydrocarbon contamination, along with corresponding sediment and water samples in many cases. A website (www.gulfsource.org) has been created where the public can access information on the results of those samples.

Crab	Atchafalaya Vermillion Teche	Barataria	Calcasieu Sabine	Pontchartrain	Terrebonne
Jan-12	1	1		2	1
Feb-12	1	1		1	1
Mar-12	1	1		1	1
Apr-12	1	1		1	1
May-12	1	1	1	1	1
Jun-12	1	1	1	1	1
Jul-12	1	1		1	1
totals	7	7	2	8	7

Shrimp	Atchafalaya Vermillion Teche	Barataria	Calcasieu Sabine	Pontchartrain	Terrebonne	Nearshore
Jan-12	1	1		1	1	22
Feb-12	1	1	1	1	1	20
Mar-12	1	1	1	2	1	14
Apr-12	1	1	1	1	1	18
May-12	1	1	1	1	1	18
Jun-12	1	1	1	2	1	1
Jul-12	1	1		2	1	20

Aug-12		1				17
totals	**7**	**8**	**5**	**10**	**7**	**130**

Fish	Atchafalaya Vermillion Teche	Barataria	Calcasieu Sabine	Pontchartrain	Terrebonne	Nearshore
Jan-12	7	7	4	8	7	9
Feb-12	7	7	5	8	6	14
Mar-12	6	7	6	8	7	33
Apr-12	6	7	4	8	5	11
May-12	6	7	6	7	7	24
Jun-12	7	6	4	7	5	23
Jul-12	6	7	4	7	3	19
Aug-12		6				20
totals	**45**	**54**	**33**	**53**	**40**	**153**

Habitat issues: LDWF Fisheries staff is actively assisting with the *Deepwater Horizon* oil spill Natural Resource Damage Assessment (NRDA) to determine impacts to Louisiana's natural resources and the human use of those resources. NRDA workplans are available online here: http://losco- dwh.com/viewworkplans.aspx. Some of those workplans are designed to assess damages for fish, marine mammals and turtles, oysters, submerged aquatic vegetation (SAV), benthic habitats, and shoreline (including marsh and mangrove vegetation).

Marine Mammal and Turtle Issues: The Louisiana Department of Wildlife and Fisheries continues to receive and investigate all reports of marine mammals and sea turtles. These reports are received from members of the public, local government officials, and Natural Resource Advisors still working out on barrier islands and beaches. Where logistically possible and appropriate depending on state of decomposition, sea turtle and marine mammal carcasses are recovered for necropsy to be performed by a veterinarian.

Response for marine mammals and sea turtles for the Deepwater Horizon Oil Spill Incident was initiated the first week of May 2010. Since that time, LDWF and other entities have investigated over 768 total marine mammal and sea turtles strandings and incidental captures throughout the entire coast of LA including offshore. Of these animals, the following are included:

-319 marine mammals (including dead and live animals)

-449 sea turtles (including dead and live animals)

The Louisiana Department of Wildlife and Fisheries is the lead stranding response organization in the state of Louisiana and continues to collect and sample these animals following established protocols while maintaining everything collected under a formal chain of custody.

Data Management: Since the *Deepwater Horizon* oil spill over 6,000 requests for trip ticket landings have been processed to assist with commercial fishermen's 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. Since March, data management has completed approximately 955 data requests, bringing the total to 6,107 total requests.

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 done under the independent monitoring program in response to the *Deepwater Horizon* oil spill is based upon LDWF's existing sampling program, and includes the addition of new stations and the incorporation of a stratified random sampling design. LDWF is also conducting nearshore sampling as part of the independent monitoring program in order to generate fisheries-independent data on the species composition of groundfishes and shrimps found in the coastal waters of the Northern Gulf of Mexico as well as track environmental parameters. Sampling began in October 2010. Offshore sampling consists of a series of trawl transects across Louisiana. Sampling for these programs began March 1, 2011. LDWF is also conducting nearshore sampling as part of the independent monitoring program in order to generate fisheries- independent data on the species composition of groundfishes and shrimps found in the coastal waters of the Northern Gulf of Mexico as well as track environmental parameters.

Hurricane 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. All surveys have been scanned (3,214) and have been converted into a SAS database and have under gone extensive error checks. The final report has been written and is currently under review. The total funding disbursed to commercial harvesters and dealers is $13, 239,821.

Commercial Fisherman/Dealer Reimbursement Program: This program has been closed. A total of $29,031,410.50 in payments were disbursed to 2,987 vendors under this program.

Seafood Certification Program: Louisiana's blue crab fishery was MSC certified in March of 2012 and is the first MSC certified blue crab fishery in the world.

LDWF continues to work with Louisiana Sea Grant to develop a professionalism program for Louisiana's commercial fishing industry. We are developing "test" classes that will be presented to certain portions of the industry and in certain areas of the State. The "test" classes' purpose is to collect feedback from the industry on the relevancy and effectiveness of our approach which can be used to develop a more effective full program.

The final rules for the Louisiana Wild Seafood Certification Program (LWSCP) were published in August of 2012. LDWF is planning a program launch for the end of September. All materials and training will be made available online at certified.louisianaseafood.com. LDWF is working through the Louisiana Seafood Promotion and Marketing Board with the Food Group, Inc. to develop marketing materials to advertise the program. Discussions about the premium program are ongoing.

Habitat Programs

Fisheries personnel have worked 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. Currently CASM modeling is being used to study the changes a proposed diversion at Myrtle Grove would bring to the Barataria basin. This modeling effort continues. LDWF staff also supplied a statistical analysis on the fisheries effects of the David Pond diversion to the Myrtle Grove Diversion team.

LA recently released the draft Comprehensive Master Plan for a Sustainable Coast. LDWF fisheries staff participated in initial meetings regarding the wildlife and fish inputs to Habitat Suitability modeling for the effort, and served on the Framework Development Team that helped to oversee and inform this effort. In addition, members of Fisheries habitat staff helped to form and serve on the Fishery focus group that provide fishing stake holder input to the Master Plan. Both the FDT and the Fishery focus group continue to meet to help fully implement the current plan as well as discuss issue that will be part of the next Master Plan.

LDWF fisheries staff also sits on the Caernarvon and Davis Pond Interagency Advisory Panels. These groups advise the state about effects of operations.

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 Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Technical Committee for funding of engineering and design. Fisheries staff has worked with planning the restoration plan for Elmer's Island which has been submitted by NMFS to CWPPRA PPL for this year.

Fisheries staff review coastal use, consistency, and 404 permit applications for possible impacts to fish resources and fish habitats. Since the beginning of March 2012, staff have reviewed and commented on 169 permit applications including the EIS for the MRGO restoration.

Research and Assessment

LDWF fisheries staff participated in data workshops for the Gulf of Mexico Data, Assessment, and Review (GDAR) of blue crab. An assessment workshop is currently scheduled for November where a non-sex-specific version of the latest Chesapeake Bay blue crab assessment model will be used along with other appropriate models to estimate status of blue crabs stocks in the Gulf of Mexico.

LDWF fisheries staff began an update of the annual stock assessment of striped mullet in Louisiana waters. This assessment will explore alternative population models appropriate to available data. Previous assessments utilized a tuned VPA.

Age and Growth: The 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. The Fish Assessment lab in Baton Rouge monitors 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 fish. 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 Crappie, 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. But, freshwater otoliths are obtained through independent sampling, done by our field biologists. That requires the field Inland biologist to go out and target a particular species. Therefore, our lab usually receives otoliths (and spines) throughout the month.

Since March of 2012 the Fish Assessment lab in Baton Rouge has received 6,513 otoliths and 20 Gray Triggerfish spines. Out of the 6,533 structures received 4,932 have been aged. Within that total only 1,531 of those otoliths are fresh water. At this time the Age & Growth lab has not received otoliths for Black Crappie, White Crappie, and Striped Mullet. These otoliths are usually sent to us during the fall months. Right now Largemouth Bass is our most collected species, for the year. However, that should remain, because Largemouth Bass has been our most collected species the past three years. The totals for each species are: Black Drum-741; Gray Snapper-564; Greater Amberjack-54; Gray Triggerfish-30; King Mackerel-23; Large Mouth Bass-1,531; Red Drum-941; Red Snapper-672; Sheepshead-544; Southern Flounder-411; Spotted Seatrout-1,178; Vermilion Snapper-41.

Although, these numbers should heavily increase, because the lab will receive all of the Striped Mullet otoliths, along with the Black and White Crappie otoliths, for the year in the next few months. There will also be a large number of otoliths for the rest of the species. In previous years we received a large amount of all three of the freshwater species in the fall that were collected in the spring. The number of saltwater otoliths is up from this point last year. All the otoliths we have received have been processed, meaning they were cataloged and prepared for sectioning.

Earlier this month the Age & Growth lab received the reference set for Red Drum, Spotted Seatrout, and Striped Mullet. This is the first group of reference sets the lab has received, since the annual GSMFC (Gulf States Marine Fisheries Commission) Otolith Processor's meeting in May. These reference sets are used to help sharpen our otolith ageing skills. The sets are also used to make sure all labs are basing their ages on the correct criteria. Each one of the lab biologists is required to view the reference sets. There is a reference set for each of the saltwater species. Once the reference set is finished being read by one lab it is passed on

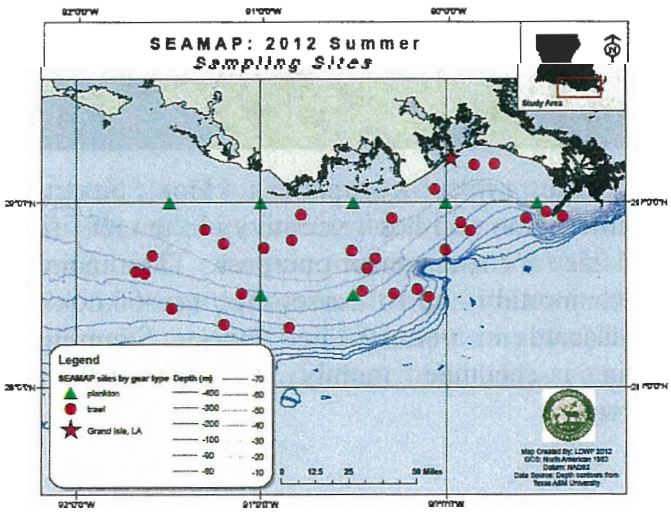
to the next lab. The usual flow of distribution for these reference sets are from east to west. Based on the states involved in the GSMFC the reference sets would go from Florida to Texas. There is a total of five states that make up GSMFC, those states are: Alabama, Florida, Louisiana, Mississippi, and Texas. A couple of the biologists from one of the labs in each state usually create a particular reference set. For the past several years Louisiana has been responsible for distributing the Southern Flounder reference set. After all of the labs have read the reference set, the primary lab collects their ages and presents the findings at the annual meeting in May.

Fisheries Research Lab

Personnel from the Fisheries Research Laboratory in Grand Isle are currently involved in a variety of projects in support of their mission to conduct resource monitoring and research. Additionally, personnel from the lab continue to conduct oil monitoring and tracking along with dolphin/turtle associated monitoring. The following sections include short descriptions of current research and monitoring activities.

- The SEAMAP Shrimp/Groundfish cruise is designed to collect fisheries-independent data on shrimp, plankton, and groundfish associated with abundance and distribution west of the Mississippi River. Surveys are made in summer and fall at approximately 24 randomly assigned sample locations. Additionally, plankton samples are collected at seven set locations off the Louisiana coast and environmental parameters are recorded for each sample site. Shrimp and groundfish samples are taken using a 42-ft trawl in water depths up to twenty fathoms, while plankton samples are acquired by 60 cm bongo and neuston nets. Environmental data and water samples are collected via CTD rosette. Louisiana conducted its summer cruise on June 6, 2012, and sampled 29 groundfish stations in Louisiana's territorial sea and the adjacent EEZ (between latitudes 28° 19.24 and 29° 12.70 and longitudes -89° 21.74 and -91° 40.95). Louisiana also collected plankton stations between latitudes 28° 30.00 and 29° 00.00 and longitudes -89° 30.00 and -91° 30.00.

  Our June cruise also conducted side-by-side comparative tows using our existing vessel *R/V Pelican* and our Nearshore vessel, the *R/V Blazing Seven*. Analysis of similarity in vessels will be presented at the October SEAMAP meeting.



- As part of SEAMAP resource monitoring, our Vertical Line project is collecting information on the spatial and temporal distribution of commercially and recreationally important reef species off the Louisiana coast. Lab personnel are obtaining fisheries- independent data characterizing population dynamics of fish assemblages on structured bottom habitat in offshore waters along the Louisiana coast. Sampling site selection is randomized. Scheduled sampling is conducted monthly utilizing standard commercial methods in compliance with protocols established by the SEAMAP subcommittee. During this reporting period, 18 sites have been sampled, 120 red snapper along with other reef fish were taken. All fish were weighed and measured with otoliths and gonads also extracted for further analysis in the laboratory.

- The Vertical Line project incorporates a Hook Selectivity study. Lab personnel are collecting 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 is randomized and sampling is scheduled monthly, utilizing standard commercial harvest methods (i.e. bandit rigs).

- Bottom Longlining is associated with the SEAMAP monitoring project. It is conducted to provide fishery-independent monitoring and assessment information essential to management of Louisiana Gulf of Mexico fishery resources, mainly targeting coastal pelagic species. The main objective is a research focus on bottom feeding species. LDWF conducts monthly sets using one mile of bottom longline, fishing 100 hooks per set as per the SEAMAP bottom longline protocol. A variety of reef fish and pelagic species have been captured to date. Six sampling cruises have been conducted so far this year consisting of 70 total sites. Dominate species include Atlantic Sharpnose, Smooth Dogfish, Bull Shark, Red Snapper, and King Snake Eels. Two more cruises are scheduled for eight consecutive months annually.

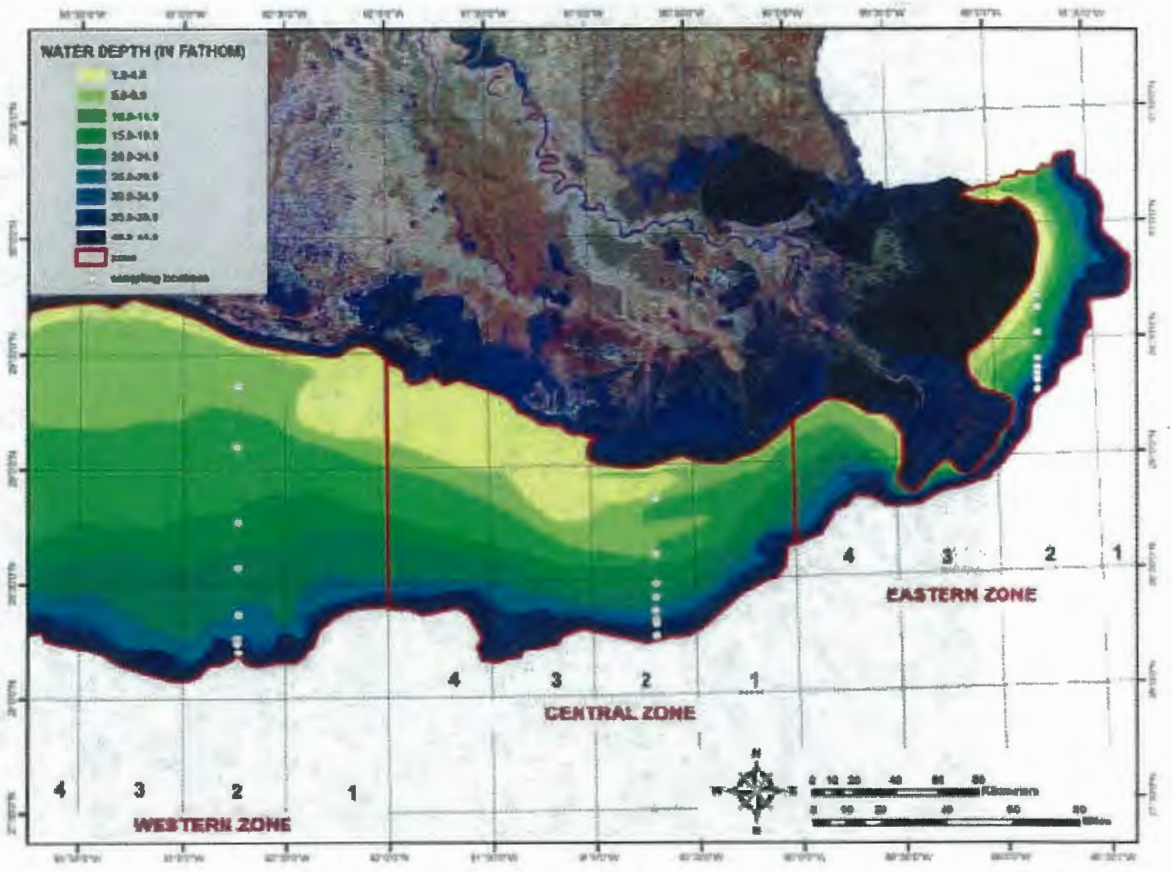
- SEAMAP Plankton

  Beginning in 2012, Louisiana Department of Wildlife and Fisheries (LDWF) began participating in the SEAMAP Spring and Fall Plankton Surveys in coordination with NOAA and National Marine Fisheries Service. LDWF conducted the SEAMAP Spring Plankton Survey on May 8th – 11th. Eleven stations were completed with bongo, neuston and CTD collections for each station. In summary, we began at N27° 59'46, W-88° 00'23 at a depth of 1310fm and sampled every 30 minutes longitude traveling west, ending at N27° 58'86, W-93° 01'92 at a depth of 61.7fm. The sampled depths ranged from 58fm-1310fm.

  The SEAMAP Fall Plankton Survey was conducted on September 10th-12th. Seven stations were completed with bongo, neuston and CTD collections for each station. LDWF will continue to participate in this project and hopefully add the SEAMAP Winter Plankton Survey to the schedule in the future.

At each site, environmental data collection, CTD cast, chlorophyll samples, and bongo and neuston tows were all completed. Plankton samples were brought back to the lab, transferred and prepared for shipment to National Marine Fisheries Service.

- The Near Shore groundfish and shrimp cruises are conducted to provide fisheries-independent monitoring and assessment information essential to the management of Louisiana's Gulf of Mexico fisheries resources in light of the *Deepwater Horizon* oil spill. LDWF personnel are conducting trawl surveys to collect information on shrimp and groundfish abundance and distribution with a standard SEAMAP 42-ft semi-balloon trawl. Samples are collected within random zones (Eastern, Central, and Western) and along four random sampling corridors within the selected zone. Samples are collected at each of eight depth strata along a transect line beginning at five fathoms and continuing up to forty fathoms water depth, with collections every five 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. Since the spring TCC report, six monthly sampling cruises have been conducted. In addition to the standard samples obtained, sub-samples of penaid shrimps (i.e. pink, white, and brown) are submitted for the Louisiana Seafood Safety Plan. Also, sub-samples of penaid shrimps are sent for testing at the LSU Food Science Center for the Shrimp Certification Seafood Project.



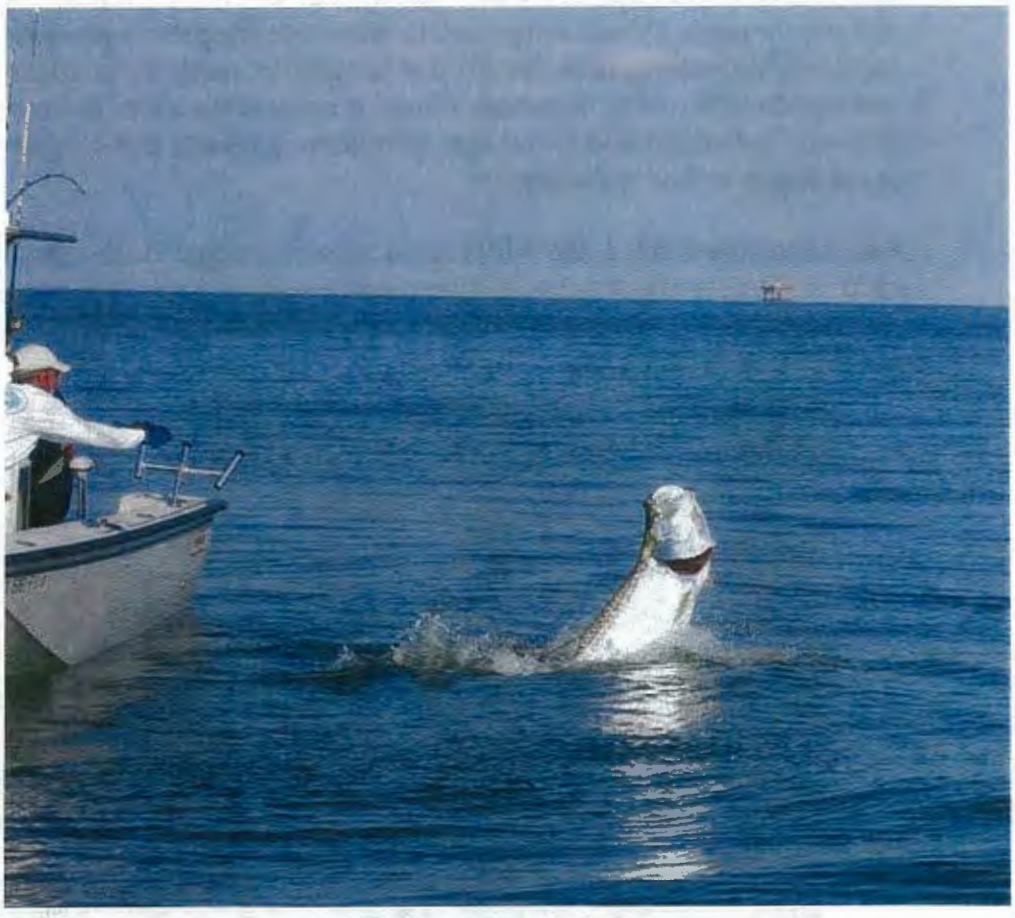
- The Rigs/Reef Biodiversity and Relative Abundance project will develop and test methods to evaluate species distributions, diversity, and relative abundance of the offshore fish communities residing at oil and gas platforms and nearby artificial reefs. LDWF will develop a comprehensive spatial and temporal profile of the fish assemblages residing within and near these man-made structures. Three pairs of upright oil platforms and nearby artificial reefs will be sampled quarterly using SCUBA divers conducting roving fish and invertebrate identification to documenting the presence or absence of species. Camera drops and visual validation cruises are ongoing.

  In the past six months, our five scientific divers have conducted 40 planned dives. We have compiled a list of 98 identified species; 87 of which are supported by identifiable photos or video. Two quarterly surveys at each of three project sites were completed for the Fish Assemblage project. One baseline survey was completed for the Rigs-to-Reefs program (WD 97-A) and one survey was conducted at WD 122-A to confirm a habitat damage report. Our divers have filed invasive species reports on more than 20 lionfish documented during our surveys. Finally, we have conducted 8 training dives to orient additional divers on survey operations in and around petroleum production platforms.

- 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 will be used to contribute to the calculation of fecundity at age and total fecundity, identification of genetic markers, escapement, and determination of nursery ground site fidelity / identification of discrete stocks. Since spring, the age and growth study for Red Drum in Louisiana EEZ waters has collected about 200 samples in 2012. All Red Drum samples from 2011 and 2012 have been processed in the histology lab and reproductively staged. A total number of samples collected from 2011 and 2012 stands at 700.

- The lab recently installed a complete histology section. Staff has been trained in the preparation and analysis of fish gonad slides. They have processed tissues and prepared slides of red drum gonads collected during the last spawning season in Louisiana's territorial waters and adjacent Exclusive Economic Zone (EEZ). In addition, staff has prepared slides of gonads collected from the 2011 SEAMAP Vertical Line and Bottom Long Line project's red snapper. Analysis of slides relating to fecundity studies is ongoing.

- Lab staff is engaged in a Tarpon DNA Tagging project. The objective is to calculate the geographic range of the Atlantic Tarpon using DNA fingerprinting techniques. This project will yield valuable information relating to the recapture rates and migratory paths. This project will also provide fishery managers with necessary information needed to make decisions regarding management of this species. We participated in the Greater New Orleans Tarpon Club meeting on June 26, 2012, and gave out 30 DNA Tagging kits.



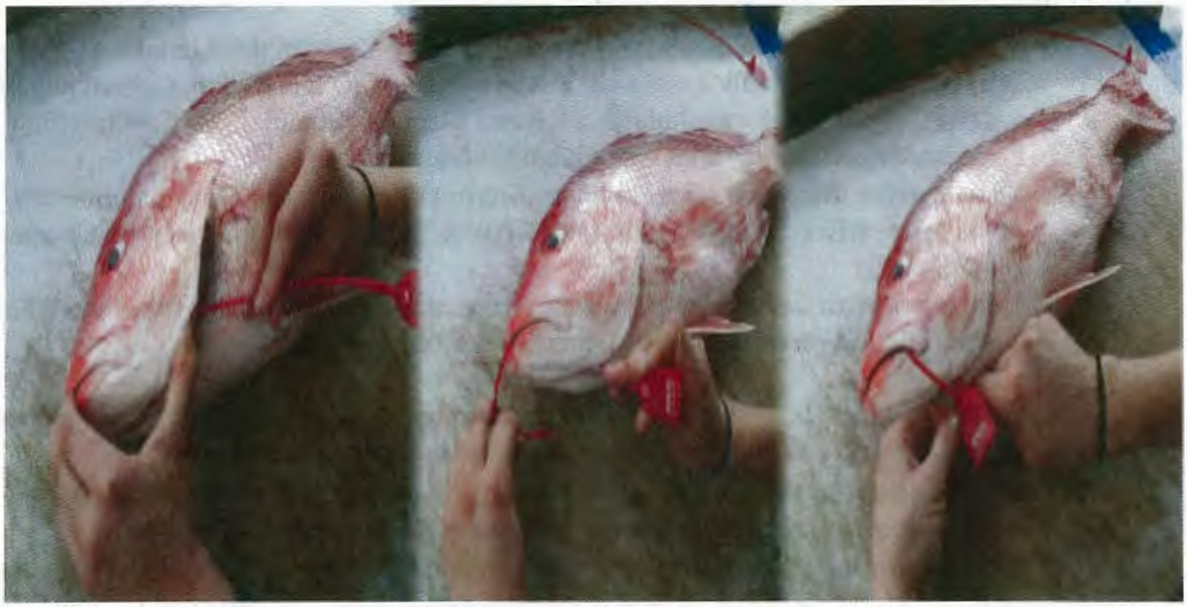
- Fishery Research Lab staff work jointly with the on-site LSU Bivalve Hatchery. Staff members have been working on an Oyster Seed Project. The goal of this project is to supplement the amount of live oyster seed at various estuarine locations throughout coastal Louisiana. Project objectives are to test the success of oyster settlement on alternative cultch materials, determine the feasibility of producing oyster spat at LDWF Fisheries Laboratory, develop and test appropriate techniques for deploying oyster spat and larvae, and to test the survival of hatchery-reared oyster spat at deployment locations. Experimental testing for oyster settlement on alternative cultch materials has already been completed. Spat reared at the Grand Isle Oyster and LSU Bivalve Hatchery has been dispersed and is being monitored for survivorship.

- Working in conjunction with the National Marine Fisheries Service Office of Highly Migratory Species, lab staff is characterizing the catch and bycatch of green-stick fishing gear when used to target Atlantic tunas in the northern Gulf of Mexico. Data collection focuses on reporting the features which contribute to the gear's success at catching target tuna species which include the types of artificial baits used, hook size, wind speed, water color, wave height, sea surface temperature and the location/description of capture. Data elements are also collected which characterize both target and non-target species caught (e.g. species, curved fork length, total length and total weight). In addition, data which characterizes the release condition of incidentally caught species is recorded in order to evaluate the gear's ability to provide lower incidental bycatch mortality. Lastly, economic variables are collected (e.g. total fish worth, fuel costs and bait costs) in order to evaluate the economic feasibility of using this gear type in the region.

  As of September 2012, LDWF biologists have conducted three sampling cruises, one each in June, July and August. Target species such as yellowfin and blackfin tuna as well as non-target species including skipjack tuna and little tunny have been captured during these sampling trips.

- Construction of the labs Research Tank Systems is complete. Four separate systems will be in place to give flexibility for various research/hatching/larval rearing projects. Open flow systems will consist of a series of eight 10'X2'open raceways. Closed/recirculation systems will consist of four, 10.5'X4' tank systems, a series of eight, 4.5'X4' round tanks, and six, 25 gallon cone tank systems. These closed recirculation systems will each be run though separate sump tanks, polyester bead filters, UV sterilizers, and heating/cooling units. Closed system equipment will provide stable and adjustable water quality values, allowing for fish breeding, holding, grow out, and research projects where such controls are required.

An Exempted Fishing Permit was issued by National Marine Fisheries Service in June of 2012 to allow for the collection of up to 1,600 red snapper during the closed season by recreational anglers at select fishing tournaments. The purpose of this project is to broaden the existing dataset on red snapper life history by collecting specimens that are not sampled under the current MRIP/data collection program. Also, by using recreational anglers to harvest fish, more samples can be collected in an economical fashion. This program gives anglers an extra opportunity to fish for this popular recreational species and assist biologist. LDWF has been working with the other four Gulf States fisheries departments in the execution of this project and in the collecting of biological data, (including lengths, weight, sex, ovaries, otoliths, and tissue samples and the resultant age and reproductive data). This project consists of five out-of-season tournaments, four of which have been sampled so far, the final being the Destin rodeo in October. Of the four tournaments sampled, 800 tags were handed out, (200/tournament) resulting in 450 fish collected, (56%); 254 tags returned unused, (32%); and 96 missing tags (12%). Analysis of samples is ongoing.



- Atlantic Croaker Bait Initiative - A main objective of the bait initiative is to evaluate the feasibility of captive spawning of the Atlantic croaker. Recirculation tanks have been constructed at the Fisheries Research Lab and croaker brood stock has been obtained from the Louisiana Universities Marine Consortium. Croakers are currently being observed for natural spawning activities and will be evaluated for production.

Data Management

LDWF is working with its contractor to complete the final integration of trip tickets and age & growth into the data management system. Existing products continue to be refined. Earl planning and development has begun on entry routines for new sampling projects. Since March, MRIP data entry has been completed and data security and access routines have been adjusted.

Artificial Reef Program

The Artificial Reef Program continues to assess and permit reef deployments related to offshore oil and gas structures. The Program has accepted 5 new structures and another 4 have been recently deployed. Fifty-four (54) structures are permitted for deployment as permanent artificial reefs. Permitting of 12 structures is currently underway. Additional structures are expected to be deployed and accepted before the end of 2012.

In addition to the offshore reefs, two inshore artificial reefs were developed to facilitate access and create additional fishing opportunities. The creation of the second inshore artificial reef from the demolition of the hurricane damaged I-10 bridges was completed in May. The 4 acre reef was developed with 10,628 tons of bridge rubble. The Coastal Conservation Association of Louisiana also deployed 9,761 tons of concrete road rubble within the newly permitted 21 acre Sweet Lake Reef in Lake Calcasieu.

Shrimp Fishery

The spring inshore shrimp season opening dates were set by the Wildlife and Fisheries Commission on May 3 and were as follows:

- That portion of state inside waters from the Mississippi/Louisiana state line to the eastern shore of South Pass of the Mississippi River and that portion of state inside waters from the Atchafalaya River Ship Channel red buoy line to the Louisiana/Texas state line opened at 6:00 am May 21
- That portion of state inside waters from the eastern shore of South Pass of the Mississippi River to the Atchafalaya River Ship Channel red buoy line opened at 6:00 am May 7
- That portion of state outside waters from the Atchafalaya River Ship Channel red buoy line to Freshwater Bayou opened at 6:00 May 21

Due to increasing quantities, distribution and percentage of small juvenile white shrimp collected in LDWF trawl samples, the spring inshore shrimp season closed as follows:

- That portion of state inside waters from the eastern shore of Bayou Lafourche westward to the western shore of Freshwater Bayou closed at 6:00 am June 23
- That portion of state inside waters from the western shore of Freshwater Bayou to the eastern shore of the Calcasieu Ship Channel, and that p[ortion of state inside waters from the Mississippi/Louisiana state line westward to the eastern shore of Bayou Lafourche closed at 6:00 am July 9 except for the following waters:
  - Lake Pontchartrain
  - Rigolets Pass
  - Chef Menteur Pass
  - Mississippi River Gulf Outlet (MRGO)
  - The part of Lake Borgne seaward of a line extending one-half mile from the shoreline
  - The portion of Mississippi Sound beginning at a point on the Louisiana-Mississippi Lateral Boundary at 30 degrees 09 minutes 39.6 seconds north latitude and 89 degrees 30 minutes 00.0 seconds west longitude; thence due south to a point at 30 degrees 05 minutes 00.0 seconds north latitude and 89 degrees 30 minutes 00.0 seconds west longitude; thence southeasterly to a point on the western shore of Three-Mile Pass at 30 degrees 03 minutes 00.0 seconds north latitude and 89

degrees 22 minutes 23.0 seconds west longitude; thence northeasterly to a point on Isle Au Pitre at 30 degrees 09 minutes 20.5 seconds north latitude and 89 degrees 11 minutes 15.5 seconds west longitude, which is a point on the double–rig line as described in R.S. 56:495.1(A)2; thence northerly along the double–rig line to a point on the Louisiana-Mississippi Lateral Boundary at 30 degrees 12 minutes 37.9056 seconds north latitude and 89 degrees 10 minutes 57.9725 seconds west longitude; thence westerly along the Louisiana-Mississippi Lateral Boundary to the point of beginning

    - The open waters of Breton and Chandeleur Sounds as described by the double-rig line.
- That portion of state inside waters from the eastern shore of the Calcasieu Ship Channel westward to the Louisiana/Texas state line closed at 6:00 p.m. July 12
- That portion of state inside waters east of the Mississippi River closed at 6:00 a.m. July 14 except for the open waters of Breton and Chandeleur Sounds as described by the double-rig line

The fall inshore shrimp season opening dates were set by the Wildlife and Fisheries Commission on August 2 and opened as followed:

- That portion of state inside waters from the Mississippi/Louisiana state line westward to the Atchafalaya River Ship Channel red buoy line opened at 6:00 pm August 13
- That portion of state inside waters from the Atchafalya River Ship Channel westward to the Louisiana/Texas state line opened at 6:00 am August 13

Due to large numbers of sublegal size white shrimp, the fall inshore shrimp season was closed in that portion of state inside waters from the western shore of Bayou Lafourche westward to the Atchafalaya River Ship Channel red buoy line for a 2-week period beginning at 6:00 pm August 27 and ending at 6:00 pm September 10.

Preliminary statewide brown and white shrimp landings (heads-on weight) for January-June, 2012 totaled 18.7 and 19.7 million pounds, respectively. Excluding 2010, brown shrimp landings through the first half of 2012 rank as the lowest total among the past 10-years examined and are approximately 38% below the 10-year average of 29.9 million pounds. Largest declines occurred in May and June, which are historically the two highest landings months of the year. Hurricane Isaac has caused considerable damage to infrastructure supporting the shrimp fishery in Jefferson, Plaquemines, St. Bernard, Orleans, St. Tammany and St. John the Baptist Parishes. Road closures, extended power outages, boil water alerts, damages to shrimp docks and ice plants and debris over the fishing grounds continue to restrict fishing and commerce.

The LDWF continues to encourage and receive reports of Asian tiger prawns (*Penaeus monodon*) in commercial shrimp catches All reports continue to be forwarded to the USGS for inclusion in their database and LDWF is continuing to encourage fishermen to report captures.

Below are preliminary commercial brown and white shrimp landings data for January through June from 2003-2012.

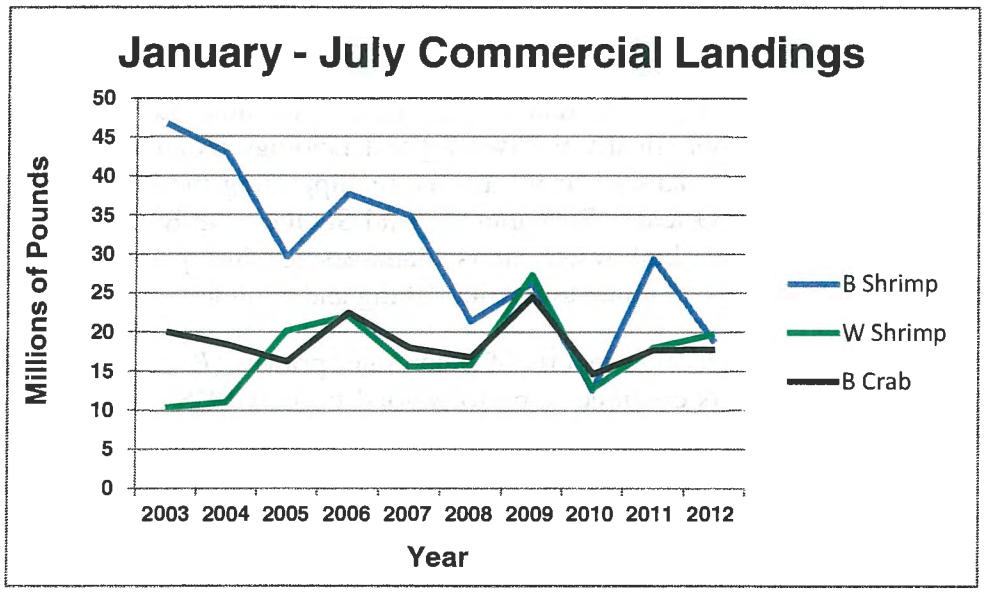
Louisiana Shrimp Landings, (all species, headless, thousands of pounds):

Preliminary Louisiana Brown Shrimp Landings (heads-on weight)

	Jan	Feb	Mar	Apr	May	June
2003	0.32	0.106	0.069	0.233	26.5	19.4
2004	0.138	0.089	0.066	0.323	22.5	19.7
2005	0.173	0.151	0.064	0.072	10.7	18.4
2006	0.021	0.004	0.016	2.2	19.8	15.5
2007	0.129	0.234	0.03	0.004	12.2	22.2
2008	0.034	0.022	0.03	0.13	10	11.1
2009	0.083	1.0	0.038	0.42	12.2	12.5
2010	0.097	0.136	0.09	0.081	5.4	6.7
2011	0.717	0.238	0.152	0.553	12.5	15.1
2012	0.057	0.062	0.042	1.3	9.95	7.26

Preliminary Louisiana White Shrimp Landings (heads-on weight)

	Jan	Feb	Mar	Apr	May	June
2003	1.96	0.459	0.558	0.679	3.66	3.04
2004	2.34	0.63	0.63	1.21	4.12	2.11
2005	2.7	1.11	0.505	0.857	3.92	11.05
2006	5.04	1.69	1.05	1.05	6.75	6.45
2007	2.66	1.49	0.498	0.862	4.32	5.74
2008	3.33	1.09	0.65	0.62	4.33	5.75
2009	3.11	1.9	1.36	1.71	10.9	8.28
2010	2.38	1.25	0.77	0.81	2.8	4.76
2011	3.35	1.05	0.78	2.46	6.02	4.3
2012	4.18	1.81	1.11	2.07	6.57	3.98



The Louisiana Shrimp Task Force and the Management Subcommittee and Sustainability Subcommittees met on July 26 and adopted several motions recommending the following:

- Allow the use of experimental permits for shrimp gear that presently are not defined as legal gear and allowed to be used
- Expansion of lead line length in 25' trawls
- Adoption of 6:00 pm shrimp season opening rather than 6:00 am
- Stakeholder support for development of a sound plan and program to certify the
- Louisiana shrimp fishery as sustainable
- Task Force authority to make recommendations to the Louisiana Seafood Marketing and
- Promotion Board (LSPMB)
- Allocate a larger percentage of LSPMB advertising funds for the promotion of shrimp
- Objection to federal legislation affecting offshore oil and gas platforms and artificial reefs (HR 34:29 and Senate Bill 15:55)

Crab Fishery

Preliminary trip ticket landings data indicate that blue crab landings for January through June, 2012 measure approximately 17.8 million pounds and are near identical to levels reported for the same time period last year and about 800,000 pounds or 4.5% below the 10-year average.

Louisiana monthly blue crab landings:

	Jan	Feb	Mar	Apr	May	June	Totals
2003	2.22	2.49	1.37	2.75	4.86	6.36	20.05
2004	2.02	1.29	1.98	3.15	4.34	5.66	18.44
2005	2.13	1.19	1.1	2.28	4	5.57	16.27
2006	2.57	2.36	2.15	3.11	5.53	6.76	22.48
2007	2.45	2.52	1.8	2.47	4.06	4.74	18.04
2008	1.8	1.92	1.38	2.82	3.77	5.13	16.82
2009	3.5	2.6	2.14	3.48	5.69	7.15	24.51
2010	1.93	1.33	1.78	2.42	3.61	3.57	14.64
2011	1.97	1.84	1.86	3	3.59	5.47	17.73
2012	2.23	1.26	2.13	3.02	4.07	5.12	17.83

Hurricane Isaac has also impacted infrastructure supporting the crab fishery in Jefferson, Plaquemines, St. Bernard, Orleans, St. Tammany and St. John the Baptist Parishes. In addition to infrastructure damages, crab fishermen have suffered widespread trap losses and the cost of replacement has resulted in fewer fishermen immediately returning to the fishery.

The Louisiana Crab Task Force last met in April to discuss proposed legislation (HB 538) that would provide added authority to the Wildlife and Fisheries Commission to close the crab fishery if crab populations are considered to be overfished or undergoing overfishing according to LDWF stock assessments. The Task Force endorsed this legislation but opposition from several crab fishermen and crab dealers resulted in the bill's withdrawal. The Task Force also continued to discuss Marine Stewardship Council (MSC) certification of the Louisiana crab fishery and condition to maintain the certification.

In September, 2012, the Wildlife and Fisheries Commission adopted a notice of intent that would close a portion of Plaquemines Parish east of the Mississippi River to the use of crab traps for

purposes of a trap clean-up over a 9-day period beginning at 6:00 am Feb. 16, 2013 through 6:00 am February 25, 2013 as well as a portion of St. Bernard Parish over a 9-day period beginning at 6:00 am Mar.9, 2013 through 6:00 am Mar. 18, 2013. All crab traps must be removed from the closure area during the closure period and any remaining crab traps within the closure area during the closure period will be considered abandoned and subject to removal. However, crab fishermen will be allowed to remove their traps from the water and stack them on the bank within the closure areas, provided they have permission from the landowner. During the crab trap closures, traps may be removed only between one-half hour before sunrise to one-half hour after sunset. Anyone may remove these abandoned crab traps from within the closed area. Abandoned traps must be brought to LDWF designated disposal sites and may not be taken from the closed area.

LDWF will again partner with Louisiana Sea Grant for the 2013 crab trap removal efforts. As the 2013 removal weekends approach, Louisiana Sea Grant will help organize volunteers, provide educational outreach on marine debris, as well as establish a recycling effort for crab traps.

Maps of the areas to be temporarily closed to the use of crab traps as part of the 2013 program are below:

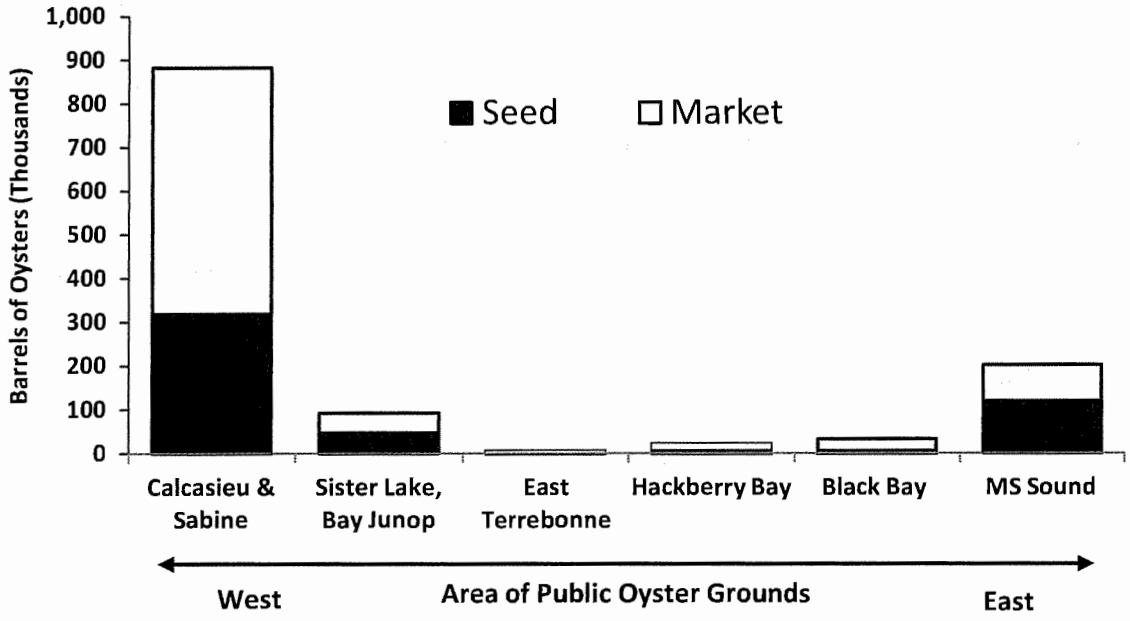
Proposed Plaquemines
Crab Trap Closure
(February 16, 2013 6:00 am
February 25, 2013 6:00 am)

Proposed St. Bernard
Crab Trap Closure
(March 9, 2013 6:00 am
March 18, 2013 6:00 am)

Oysters

Biological Monitoring: LDWF biologists continue to perform both fisheries independent and dependent sampling on the public oyster seed grounds. Dredge sampling during the spring and summer have yielded a continuation of troubling reproductive failures in some public oyster seed grounds east of the Mississippi River in Plaquemines Parish as very few oyster spat were observed. However, strong spat oyster signals were noted in dredge sampling from August 2012 in Hackberry Bay and public oyster grounds in Terrebonne Parish. Based on reports from oyster leaseholders of strong spatfall events on private leases in the Barataria basin, a basin-wide spat survey was undertaken in this basin and in the Breton Sound basin to document the presence/absence of spat on both public grounds and private leases. The results of this survey are forthcoming.

Annual oyster stock assessment sampling in July 2012 resulted in an estimated oyster stock size of approximately 1.2 million barrels of oysters, a 21% reduction over 2011 estimates. The majority of oyster stocks were found in the southwestern part of the state as Calcasieu and Sabine Lakes held over 70% of all public ground oysters, see the figure below. Strong increases in oyster stocks were observed in the Mississippi Sound area of the public oyster seed grounds as oyster availability rose approximately 200% in 2012 as compared to 2011.



2012/2013 Oyster Season: Based on annual oyster stock assessment sampling and on input provided by the Oyster Task Force, the Wildlife and Fisheries Commission set the 2012/2013 oyster season framework. Little Lake (Jefferson and Lafourche Parishes) and the Vermilion Bay area were opened on September 5, 2012 for the harvest of seed oysters only. Despite the opening, no harvest was allowed due to a Hurricane Isaac-related restriction on harvest by the Department of Health and Hospitals. The Vermilion Bay area was recently cleared for harvest by the LDHH, but restrictions are still in place for Little Lake. The majority of the remaining public oyster areas are set to open on October 29, 2012.

Cultch Planting: This oyster management technique was employed during May/June 2012 when two reef areas were rehabilitated with the addition of cultch material. Two areas east of the Mississippi River will be rehabilitated with cultch material in September/October 2012. Additional information on these four projects is contained below:

Hackberry Bay – Lafourche Parish (PROJECT COMPLETE)

- Approximately 200-acre site in northwest portion of Hackberry Bay, south of Snail Bay
- Low bidder was RJT Environmental Services, LLC at $56.93 per cubic yard
- Contractor (RJT) is using size #57 limestone as cultch material
- Bids came in over-budget, so a reduction in cultch material volume from 30K cubic yards to 26,348 cubic yards was ordered.
- Contractor completed 26,086 cubic yards on May 21, 2012
- Project cost was $1,485,084.91
- Project began on May 13, 2012 and concluded on May 21, 2012
- Project utilized high-pressure water spray to deposit cultch material
- Project typically unloaded approximately 3,100 cubic yards per day and utilized 96 total barges (120 feet X 30 feet).
- Funding source for project was the Phase I Early Restoration from the *Deepwater Horizon* oil spill disaster
- July 2012 sampling showed presence of a successful oyster spat set on this new reef

Sister Lake – Terrebonne Parish (PROJECT COMPLETE)

- Approximately 350-acre site in the central portion of Sister (Caillou) Lake.
- Low bidder was Sun Coast Contracting at $57.50 per cubic yard
- Low bid was under budget, so an extra 4,000 cubic yards of cultch was ordered for a total order of 37,500 cubic yards.
- Contractor completed 37,681 cubic yards on June 2, 2012.
- Contractor utilized size #57 limestone as the cultch material for the project
- Project cost was $2,166,688.95
- Project began on May 18, 2012 and concluded on June 2, 2012
- Project utilized high-pressure water spray to deposit cultch material.
- Project typically unloads approximately 3,000 cubic yards per day and unloaded a total of 76 barges (195 feet X 35 feet).
- Funding source for project was the Phase I Early Restoration from the *Deepwater Horizon* oil spill disaster.
- July 2012 sampling showed presence of a successful oyster spat set on this new reef

Lake Fortuna – St. Bernard Parish

- State and federal permits have been secured
- Bid opening occurred on September 4, 2012 (delayed from 8/28 due to Hurricane Isaac)
- Project scheduled to begin on or about September 24, 2012
- Low bidder was Coastal Environments, Inc. at $46.55 per cubic yard
- Project is planned to deposit approximately 28,500 cubic yards of crushed concrete cultch material over 300 acres of water bottoms in southern Lake Fortuna.
- Bid price will result in total project cost of $1,326,675 ($673,325 under budget)

- LDWF considering a 25% increase in project due to low-than-expected bid price
- Funding source for project will be the Phase I Early Restoration from the *Deepwater Horizon* oil spill disaster.

South Black Bay (Bay Crab) – Plaquemines Parish

- State and federal permits have been secured
- Bid opening occurred on September 4, 2012 (delayed from 8/28 due to Hurricane Isaac)
- Project scheduled to begin on or about September 21, 2012
- Low bidder was Suncoast Contracting at $52.95 per cubic yard
- Project is planned to deposit approximately 20,000 cubic yards of limestone cultch material over 200 acres of water bottoms in Bay Crab
- Bid price will result in total project cost of $1,059,000.00 ($341,000 under budget)
- LDWF considering a 25% increase in project due to low-than-expected bid price
- Funding source for project will be the Phase I Early Restoration from the *Deepwater Horizon* oil spill disaster.

Oyster Hatchery Production: The LSU Bivalve Hatchery located at the LDWF Fisheries Research Laboratory on Grand Isle, Louisiana has had a successful season during the spring and summer of 2012. In total, the hatchery has provided nearly 12 million oyster spat and approximately 300 million oyster larvae for oyster rehabilitation projects in public oyster areas. Two cultch planting projects that occurred previously in the fall of 2011 in Mississippi Sound (St. Bernard Parish) and California Bay (Plaquemines Parish) have shown poor oyster recruitment results to date and hatchery-raised spat have been deployed at these locations through the summer. The oyster larvae produced by the hatchery were deployed in Calcasieu Lake east of the ship channel. This area has shown poor oyster recruitment over the last two years and it is hoped that the addition of hatchery-raised oyster larvae will reverse this trend. Biological sampling is scheduled to occur within the coming weeks to estimate the success of spat and larval deployment.

Finfish

All Louisiana waters were closed to the commercial and recreational harvest and possession of all sharks from April 1 through June 30 in conjunction with an established annual closed season.

The LWFC adopted a Notice of Intent at its April meeting (ratified in September 2012) to modify reef fish harvest regulations. The modifications in the Notice of Intent included:

- Changing recreational bag limits for shallow and deep water grouper to be consistent with federal regulations.
- Changing the commercial size limit for gag from 24 to 22 inches to be consistent with federal regulations.
- Establishing a closed season for the recreational harvest of gag from November 1 through June 30 (of the following year) each year to be consistent with federal regulations.
- Establishing a closed season for the recreational harvest of greater amberjack from June 1 through July 31 of each year to be consistent with federal regulations.

- Changing the closed season for the recreational harvest of black, red, yellowfin and yellowmouth groupers as well as rock hind, red hind and scamp to February 1 through March 31 of each year to be consistent with federal regulations.
- Changing the definition of crew size on a vessel, when operating commercially, which holds a federal charterboat/headboat reef fish permit and a federal commercial reef fish permit to be consistent with federal regulations.

Public comments on the Notice of Intent were accepted until Thursday July 12, 2012.

The LWFC adopted emergency rules at its April meeting to modify the aggregate bag limit for groupers and to modify the closed season for gag to be consistent with federal regulations.

The LWFC adopted a Notice of Intent at its May meeting to implement a weekends only Louisiana state waters recreational red snapper season beginning on the Saturday preceding Palm Sunday and ending September 30 of each year with a recreational bag limit of three red snapper per day at 16 inches minimum total length. A weekend would be defined as Friday, Saturday and Sunday, with the exception of the Mondays during Memorial Day and Labor Day which would be classified as a weekend as well. The Notice of Intent also included provisions allowing the Secretary of the Department to modify the portions of this rule pertaining to red snapper recreational harvest limits and seasons if the National Oceanic and Atmospheric Administration Fisheries Service institutes sub-regional management for red snapper or as otherwise deemed necessary. Public comments on the Notice of Intent were accepted until Thursday, August 20,
2012.

Louisiana opened the 2012 recreational season for red snapper on June 1 consistent with federal regulations.

Louisiana closed the 2012 commercial greater amberjack season consistent with federal regulations on June 1 at 12:01 a.m. following the annual seasonal closure.

The LWFC, at its June meeting, took action to extend state waters, for fisheries management purposes only, from three miles to three marine leagues (approximately 10.357 miles). This action was taken based upon Act 336 of the 2011 Regular Session of the Louisiana Legislature.

The LWFC adopted a rule in June to modify existing tuna harvest regulations. The modifications incorporate changes relative to a proposed requirement for a state issued recreational offshore landing permit when possessing, in immediate possession or on board a vessel, any of the following species: Atlantic bluefin tuna, yellowfin tuna, bigeye tuna, skipjack tuna and albacore. Other modifications in the final rule include reporting requirements and validation procedures for recreationally harvested yellowfin tuna. Changes in the regulations require that a written harvest report be maintained on a vessel recreationally possessing yellowfin tuna as well as require the validation of yellowfin tuna caught or possessed prior to offloading.

Louisiana closed the 2012 commercial gray triggerfish season consistent with federal regulations on June 30, 2012 at 11:59 p.m.

Louisiana extended the 2012 recreational season for red snapper and closed on July 16, 2012 at 11:59 p.m. consistent with federal regulations after federal regulations were modified to extend the original closure date from July 10 to July 17 due to adverse weather impacts during the season. Louisiana had initially set the closure date for the season on July 10 at 11:59 p.m..

The LWFC adopted a Notice of Intent at its July meeting to modify regulations requiring a free Offshore Recreational Landings Permit to include all species of reef fish from the following groups: amberjacks, snappers, except gray snapper, groupers and hinds. Public comments on the Notice of Intent are being accepted until Thursday, October 4, 2012.

The LWFC adopted a Notice of Intent at its July meeting to modify harvest regulations for reef fish to require reporting and validation of recreationally landed reef fish. Reef fish included in the reporting and validation requirements are: red snapper, greater amberjack, gag, red grouper, black grouper, yellowfin grouper, yellowmouth grouper, scamp, rock hind and red hind. Reef fish regulations were also modified to allow the Secretary of the Department to close, open, re-open, or re-close any reef fish season if state or federal landings allocations were met. Proposed changes in the regulations would require that a written harvest report be maintained on a vessel recreationally possessing the above species as well as require the validation of those species caught or possessed prior to offloading. Public comments on the Notice of Intent were accepted until Thursday October 4, 2012.

The LWFC adopted emergency regulations to close the recreational season for the harvest of gray triggerfish consistent with Federal regulations on July 4, 2012 at 11:59 p.m.

Louisiana closed the commercial season for the harvest of Large Coastal Sharks on July 6, 2012 at 11:30 p.m. consistent with federal regulations.

Louisiana closed the commercial season for the harvest of king mackerel on August 22, 2012 at 12:00 p.m. consistent with federal regulations.

LDWF Fisheries staff participated in the Southeast Data and Assessment Review (SEDAR) 31 data workshop for red snapper in August. Staff is also participating on the Flounder FMP Revision TTF.

LDWF Fisheries staff attended the NOAA Highly Migratory Species Advisory Panel Fall meeting in Bethesda, Maryland.

Election of Officers:

Jerry Mambretti 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, Dale Diaz adjourned the meeting at 5:00 p.m.

APPROVED BY:

COMMITTEE CHAIRMAN

COMMISSION BUSINESS MEETING
STATE-FEDERAL FISHERIES MANAGEMENT COMMITTEE
MINUTES – 63rd Annual Meeting
Thursday, October 18, 2012
Point Clear, Alabama

Chairman C. Blankenship 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 *(Proxy for N. Gunter Guy)*
Chris Nelson, Bon Secour, AL
Randy Pausina, LDWF, Baton Rouge, LA
Camp Matens, Baton Rouge, LA
Bret Allain II, LA Senate, Franklin, LA
David Heil, FWC, Tallahassee, FL (*Proxy for Nick Wiley*)
Mike Ray, TPWD, Austin, TX (*Proxy for Carter Smith*)
Troy Williamson, Corpus Christi, TX
Mike Jackson, TX Senate, Austin, TX
Joe Gill, Jr., Joe Gill Consulting, LLC, Ocean Springs, MS
Dale Diaz, MDMR, Biloxi, MS
Brice Wiggins, MS Senate, Pascagoula, MS

Staff
Larry Simpson, Executive Director, Ocean Springs, MS
Dave Donaldson, Assistant Director, Ocean Springs, MS
Ginny Herring, Administrative Officer, 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
James Ballard, SFP/ANS Program Coordinator, Ocean Springs, MS
Ashley Lott, FIN Staff Assistant, Ocean Springs, MS
Alice Catchot, Staff Assistant, Ocean Springs, MS
Angela Rabideau, Sr. Accountant, Ocean Springs, MS
Gregory Bray, Data Programmer/Analyst, Ocean Springs, MS

Others
Miles Croom, NOAA/NMFS/SERO, St. Petersburg, FL
Lisa Desfosse, NMFS/SEFSC, Pascagoula, MS

Joanne McNeely, Gulf & South Atlantic Fisheries Foundation, Tampa, FL
Judy Jamison, Gulf & South Atlantic Fisheries Foundation, Tampa, FL
Gwen Hughes, Gulf & South Atlantic Fisheries Foundation, Tampa, FL
Ellie Roche, NOAA Fisheries, St. Petersburg, FL
Frank Helies, Gulf & South Atlantic Fisheries Foundation, Tampa, FL
Katie Gherard, LDWF, Baton Rouge, LA
Thor Lassen, Ocean Trust, Reston, VA
Kay Williams, GMFMC, Vancleave, MS
Tony Reisinger, Texas Sea Grant, San Benito, TX
Corky Perret, Poplarville, MS
Gordon Colvin, ECS, Port Jefferson, NY
Harlon Pierce, GMFMC, New Orleans, LA

Adoption of Agenda

The agenda was adopted as presented without objection.

Approval of Minutes

Minutes from the March 8, 2012 meeting were adopted as presented without objection.

GSMFC Standing Committee Reports

Law Enforcement Committee (LEC) – **J. Mayne** reported that the LEC met on Tuesday, October 16, 2012. The committee received a report from the Gulf of Mexico Fishery Management Council (GMFMC) regarding the status of GMFMC FMP Amendments and Regulatory actions. The Gulf States Marine Fisheries Commission (GSMFC) provided an activity report of their Interjurisdictional Fisheries Program (IJF).

The LEC has been working on the *Gulf of Mexico Cooperative Law Enforcement Operations Plan – 2013-2014* and the *Gulf of Mexico Cooperative Law Enforcement Strategic Plan 2012-14.* He presented the final plans to the Commissioners for approval. D. Heil **moved to approve the 2013-2014 Operations Plan, and the 2013-2014 Strategic Plan. C. Nelson seconded. The motion was approved without objection.**

J. Mayne provided a power point presentation reviewing the Joint Enforcement Agreements.

The various States' submitted reports electronically. In final action **Scott Bannon** was elected chairman of the LEC and **Walter Chatinger** was elected vice chairman for 2012-2013.

Technical Coordinating Committee (TCC) Report – **D. Diaz** reported that the TCC met on Wednesday, October 17, 2012. They received reports from all of the various Gulf States and NOAA Fisheries. The following subcommittees reported to the TCC: Crab, SEAMAP, Habitat, Data Management, and Artificial Reef. He briefed the Commissioners on their activities. There were no action items.

The TCC also received a presentation on *Barotrauma in Snapper* and an update on Lionfish activity in Florida.

B. Beal from the Atlantic States Marine Fisheries Commission (ASMFC) gave a presentation on regional fisheries management of summer flounder and black sea bass. He pointed out that the ASMFC have 15 member States and it is sometimes difficult to come to agreement on management decisions. The ASMFC has compliance authority through the Atlantic Coastal Fisheries Cooperative Management Act of 1993. There are Management Boards for each species that are the final decision makers. The States are then responsible for implementing the regulations that are set and the ASMFC monitors compliance. If a State falls out of compliance the Secretary of Commerce is notified and then has authority to shut down that State's fishery for the species in question. Overall, **B. Beal** stated that regional management works, however it is very resource/process intensive. It is difficult to change allocations and frequent changes to regulations is difficult on the fishing public and law enforcement that is responsible for enforcing the new regulations that change annually.

R. Pausina stated that **B. Beal's** presentation was very interesting. He reported that Louisiana is expanding their waters to 10.35 miles, and their law enforcement is enforcing their state regulations in this new area through informing the public. **D. Diaz** pointed out that there have been discussions between, Louisiana, Mississippi and Alabama to find common ground and to move forward with expanding all State waters. He also mentioned the possibility of another meeting to draft a Memorandum of Agreement (MOU) after the first of the year.

State-Federal Fisheries Management Committee (S-FFMC) Menhaden Advisory Committee Report (MAC) - **S. VanderKooy** reported that the MAC met on Tuesday, October 16, 2012. **J. Smith** reported that 2012 Gulf menhaden season. As of the end of September, the landings were down 5% from 2011 but up over 25% over the previous 5-year mean. He also provided an update on the Atlantic menhaden fishery. The landings through September were 142,500MT which was up 2% from last year and 11% over the 5-year average.

J. Mambretti reported on the Texas 'Cap' and reported that there was actually very little effort in the early part of the season in Texas waters since the fish were plentiful in Louisiana. Since the beginning of September, half the TAC has been reached with three weeks left in the season.

S. VanderKooy and **J. Smith** gave an overview of the sampling adjustments made in 2012 to address the concerns raised by the reviewers in SEDAR27. Smith reported that one of the primary concerns was regarding the age composition of the catch and the potential for ageing drift by the reader over time. Another concern was related to sampling the 'top' of the hold or the last set for the age composition data.

S. VanderKooy discussed the FMP revisions. There was no action items reported.

Update on Marine Recreational Information Program (MRIP) Activities

G. Colvin, NOAA Fisheries, Program Manager for MRIP, provided a power point presentation on MRIP activities. He briefed the Commission on the background of MRIP. It is the new way of collecting and reporting recreational fishing catch and effort data. He reported on recent accomplishments for estimating catch which included removal of potential bias, increased accuracy and a foundation for all survey improvements. MRIP now provides greater access,

transparency, and context. The program is collecting data from the for-hire sector and assessing community monitoring programs.

MRIP is approving implementation of recreational activities on a regional basis but provides a set of national standards. These programs will have regional intent but will have to adhere to a rigorous set of national standards. He discussed the MRIP toolbox approach to implementing improvements.

In conclusion, **G. Colvin** discussed the Atlantic Coastal Cooperative Statistic Program (ACCSP) and the Gulf Recreational Fisheries Information System. For additional information he provided a website: www.CountMyFish.noaa.gov.

Sea Grant Fisheries Extension Advisory Panel Report (SG-FEAP)

T. Reisinger reported that the SG-FEAP met on Wednesday, October 17, 2012. The SG-FEAP received reports from the various States present: Louisiana, Mississippi/Alabama, and Texas.

There were several special reports submitted to the group as well. On behalf of the Gulf & South Atlantic Fisheries Foundation (G&SAFF) **J. McNeely** gave them an update on the activities of the Gulf Seafood Marketing Coalition and **F. Helies** reported on the industry activities of the G&SAFF. **A. Miller** reported on the GSMFC Economic Program and updates on the traceability and sustainability activities that fall under the GSMFC Oil Disaster Recovery Program (ODRP). **M. Ray** reported on behalf of the Texas Parks and Wildlife Department (TPWD). He discussed oil rig removal impacts and activities for remediation off of the Texas Coast. He also updated the group on the Texas shrimp season.

There were no action items.

NOAA Fisheries Southeast Regional Office

M. Croom reported on the activities of the SERO. He briefly discussed the Restore Act and what role the SERO will play. There has not been a lot of discussion on the regional level but they have been in contact with the SEFSC and are preparing to support their efforts. On a National level efforts are also underway to support the science groups as well accounting for proper use of the funding, accounting and tracking methods. In addition efforts are underway to best determine the structure of the Councils and there role. The SERO is standing by to assist with these efforts and to work with the National disaster assessment process. He briefed the Commission on other activities and provided the following report.

SUSTAINABLE FISHERIES

Status of Gulf of Mexico Disaster Requests: In spring 2011, Governors Barbour (Mississippi) and Jindal (Louisiana), and several other political officials, requested the Secretary of Commerce (Secretary) declare a fishery resource disaster under the Magnuson-Stevens Fishery Conservation and Management Act or Inter-jurisdictional Fisheries Act. This request was intended to assist affected Mississippi and Louisiana communities in obtaining financial assistance to address the impacts of the historic flooding in the lower Mississippi River. Louisiana withdrew their request, but the Secretary approved the Mississippi request on September 13, 2012.

On September 6, 2012, Governor Scott (Florida) submitted a request to the Secretary to declare a similar fishery disaster for the oyster industry of Apalachicola Bay. That request is currently under review.

Regulatory Actions of Interest: The Gulf of Mexico Fishery Management Council (Gulf Council) has begun development of an amendment to consider re-allocating acceptable catches for gag, red grouper, black grouper, and red snapper between the commercial and recreational sectors, and to consider establishing separate quotas for red snapper between the for-hire and private sectors. The Gulf Council tabled further action on this amendment pending the completion of the ongoing red snapper stock assessment.

Reef Fish Amendment 32, implemented in March of 2012, addressed a rebuilding plan for gag. Gag has been determined to be overfished and continues to undergo overfishing. The amendment adjusted the acceptable biological catch, annual catch limits (ACLs) and annual catch targets (ACTs) to lesser levels to end overfishing; set a recreational season from July 1 through October 31; and adjusted accountability measures that would be triggered if the ACLs were exceeded. Reef Fish Amendment 35 addresses the greater amberjack rebuilding plan. Greater amberjack have been in a rebuilding plan since 2003; however, the stock remains overfished and undergoing overfishing. The amendment adjusted the ACLs and ACTs to a lesser level to end overfishing and established a 2,000-pound commercial trip limit to reduce the likelihood of a derby fishery developing. A final rule to implement these actions is under development.

A rebuilding plan was developed for gray triggerfish in Reef Fish Amendment 30A as a result of a 2006 gray triggerfish stock assessment. A 201 1 update to the assessment indicated the stock was not recovering fast enough, and that ACLs and ACTs needed to be reduced by approximately .50 percent. Until the Gulf Council can finalize Reef Fish Amendment 37, NOAA Fisheries implemented an interim rule to set these lower ACTs and ACLs for 2012. In addition, the interim rule established an in-season AM that would allow a closure of gray triggerfish fishing should the ACT be caught. As a result of the rule, the recreational sector was closed on June 11, 2012, when the ACT was projected to be met, and the commercial sector closed on July 1, when its quota was met.

Based on results of a stock assessment update incorporating red snapper landings for 2010 and 2011, the ACL for red snapper could be increased in 2012. NOAA Fisheries implemented rulemaking to establish an acceptable catch of 8.1 million pounds. This rulemaking also established a recreational fishing season from June 1 through July 10. Because of inclement weather in June, NOAA Fisheries later extended the closing date to 12:01 a.m. on July 17.

To accommodate the different fishing seasons in the northern versus southern Gulf of Mexico, the Gulf Council is considering additional action to adjust recreational fishing seasons for gag grouper, including a spring season and a fall season. The goal is to have this action implemented early in 2013.

After a review of an updated vermilion snapper stock assessment that showed an improved stock, the Gulf Council is developing an action to raise the vermilion snapper stock ACL and ACT (there is no allocation between sectors). NOAA Fisheries is developing an emergency rule to

increase the 2012 ACL. This would avoid closing commercial and recreational vermilion snapper fishing at the end of the year should the current, lower ACL be met.

The Gulf Council, in cooperation with the South Atlantic Fishery Management Council, has developed an amendment that, if implemented, would require all dealers, except for penaeid shrimp dealers, to have a federal dealer permit, and to electronically report their purchases weekly. The intent of this action is to monitor catches in a timelier manner and better ensure the various ACLs are not exceeded during a fishing year. The intent is to have this rulemaking effectively in early 2013.

In other actions, the Gulf Council is considering actions to: (1) Potentially modify its red snapper individual fishing quota (IFQ), based on the results of the first five years of the program; (2) establish regional management strategies for red snapper and gag grouper; and (3) designate artificial fixed structures as essential fish habitat.

Fishery Openings and Closings:

Recreational: Red snapper season ran from June 1 through July 16. Gray triggerfish was closed on June 11, 2012. No other federally managed species, except greater amberjack, have in-season closures.

Commercial: Most of the important reef fish species are managed through an IFQ program, and thus do not need further in-season monitoring. Because of a large overrun in the harvest of greater amberjack in 2011, the 2012 commercial quota was substantially reduced. The adjusted quota was harvested during January and February of this year, and the fishing season was not allowed to re-open after the annual March through May spawning closure. For gray triggerfish, with the implementation of a 50 percent reduction in the ACLs for 2012, the commercial season closed July 1.
For king mackerel, the fishing year began on July 1. The western zone (Alabama through Texas) closed August 22; this is one of the shortest seasons for this zone in several years. In September, the northern zone (Florida west coast to Collier County) trip limit was reduced to 500 pounds. NOAA Fisheries anticipates closing this zone in early October. King mackerel have not migrated south yet, so all southern zones are open, but minimal fishing is occurring.

HABITAT CONSERVATION AND PROTECTION

NOAA awarded a $43 million construction contract for the NOAA Fisheries-led Pelican Island restoration project. The project had been on schedule, within budget and approximately 70% complete prior to Hurricane Isaac. Preliminary estimates for the repair of damages resulting from Hurricane Isaac will be approximately an additional $1.3 million. It is anticipated that 227 acres of dune and Gulf shoreline and over 350 acres of intertidal saline marsh will be restored and created.

Four NOAA Fisheries-sponsored Priority Project List 22 candidate projects are among the ten under consideration for FY13 engineering and design funding. Additionally, one NOAA

Fisheries-sponsored wetland restoration project was among only two selected for construction funding at a total cost of $42.4 million for that project. This project is expected to increase wetland area by 480 acres. Two NOAA Fisheries-sponsored wetland restoration projects were selected and funded for engineering and design activities at a combined total of $6.3 million. If both are funded for construction upon completion of engineering and design, they would result in the net increase in wetland area by almost 900 acres.

Wise use of sediment resources from dredging is integral to accomplishing the conservation and restoration initiatives and objectives recommended by the Gulf of Mexico Alliance (GOMA). Much of the millions of cubic yards of sediment dredged each year from Gulf ports, harbors, and waterways could be used beneficially to achieve these objectives and other environmental applications. NOAA Fisheries Southeast Region's Habitat and Conservation Division (HCD) has worked with federal and state agency and non-governmental organization members of GOMA, and stakeholders to develop a Technical Framework for the Gulf Regional Sediment Management Master Plan published as a special issue of the Journal of Coastal Research, June 2012. HCD has worked with staffs from the Alabama Department of Natural Resources and the Mississippi Department of Marine Resources to provide technical expertise in the planning of several beneficial uses of dredged material projects in Mobile Bay, as well as in the Mississippi Sound.

HCD has worked with the State of Texas, the State of Louisiana, the Sabine River Authority of both states, and the USFWS to develop a settlement agreement for relicensing the Toledo Bend Hydro Project for new 50 year term. This settlement agreement includes a prescription for fish passage for American eel a first along the Gulf of Mexico. The Settlement Agreement was filed with FERC in July 2012.

To promote the restoration of tidally influenced wetlands impacted by implementation of the New Orleans Hurricane Storm Damage and Risk Reduction System in Louisiana; NOAA Fisheries has identified the approximate amount of offset credits per acre each alternative site could provide to help the Corps of Engineers appropriately size mitigation areas to mitigation needs by specific habitat types. HCD staff has also provided input into prioritizing the mitigation alternatives in order to provide the greatest benefits at the least cost to the taxpayer. There has been little work towards moving these proposals forward, as NOAA Fisheries is still waiting for resolution of issues between the Corps of Engineers Headquarters and the local sponsor concerning the selection of their preferred mitigation projects.

To provide leadership and technical assistance to the National Estuary Programs (NEP) in the Gulf of Mexico, HCD staff has represented NOAA at quarterly Barataria-Terrebonne NEP Management Conference meetings. Considering our unique position as having our representative on the Barataria-Terrebonne NEP Management Conference and also serving on the CWPPRA Technical Committee, HCD staff has kept the NEP informed on issues of concern, meeting dates, and projects proposed and selected for construction in the NEP boundaries. HCD staff continued to serve as NOAA Fisheries' representative on the Tampa Bay, Sarasota Bay, and Charlotte Harbor NEPs in southwest Florida. HCD staff provided the NEP leadership, technical assistance and agency guidance on activities and projects potentially affecting NOAA Fisheries trust resources and fishery resources in these watersheds, and advised the NEPs of availability

federal funding opportunities to restore, conserve, and maintain aquatic resources. HCD staff continued to serve on the Galveston Bay Management Committee and Coastal Bend Bays and Estuaries Management Committee.

HCD continued support of the Southeast Aquatic Resources Partnership (SARP) by working on the SARP Steering Committee, as well as the Science and Data Committee, including 10 workshops, meetings and teleconferences. HCD staff also worked on teams that reviewed and scored restoration project proposals for SARP funding. The Southeast Regional Office also provided funding support to SARP administration.

HCD staff has been working on an interagency effort sponsored by the Texas General Land Office (TGLO) to develop a list of priority coastal restoration projects. The TGLO has identified hundreds of restoration projects to be reviewed through this process. When completed, this list is intended to be used by the State of Texas to assist them in identifying funding priorities for various federal and state restoration programs.

PROTECTED RESOURCES

Conservation: On May 10, 2012, NOAA Fisheries published a proposed rule that would require all skimmer trawls, pusher-head trawls, and wing nets (butterfly trawls) to use turtle excluder devices in their nets; a notice of availability on a Draft Environmental Impact Statement Reduce Incidental-Bycatch and Mortality of Sea Turtles in the Southeastern US. Shrimp Fisheries was published-on May 18, 2012. Seven public comment meetings on the proposed rule were conducted in May through July at Morehead City, North Carolina; Larose and Belle Chasse, Louisiana; D'lberville, Mississippi; Bayou La Batre, Alabama; and Port Orange and Miami, Florida.

NOAA Fisheries conducted community town hall meeting in Slidell, Louisiana, regarding a lone, sociable, dolphin in a residential canal to educate the public on how to safely and responsibly view the dolphin to keep them and the dolphin safe.

NOAA Fisheries is currently conducting public outreach following the issuance of three Notice of Violation Assessments in Florida for illegally feeding dolphins under the Marine Mammal Protection Act.

In response to a petition requesting we list the dwarf sea horse under the Endangered Species Act, NOAA Fisheries published its intent to conduct a status review. To ensure the status review is comprehensive, we are soliciting scientific and commercial information regarding the species.

NOAA Fisheries Budget Updated

M. Croom stated that the agency is operating under a continuing resolution through March 2013. Based on the continuing resolution the funding levels will remain the same as the 2012 fiscal year. **L. Simpson** reported that the budget is grim and lean. He provided Appropriation Bills for the House and Senate for review by the Commission. He reviewed funding of interest to the Gulf States. Most programs reflect decreases as well as protected resources programs. Fishery

management programs also reflect decreases. Sea Turtle programs have been significantly decreased. He does not expect anything definite until after the Presidential election and the new Congress is seated.

Discussion of Pertinent Congressional Legislation

L. Simpson discussed HR 4348, Restore Act. He pointed out that 80% of the Clean Water Act fines will be directed to the five Gulf States. Fines or settlements are estimated to be between $5 billion to $20 billion. These new resources will go into a Gulf Coast Restoration Trust Fund. The Trust Fund will distribute 35% in equal shares to the 5 Gulf States; 30% to the Gulf Coast Ecosystem Restoration Council; 30% to oil spill impact allocation; 2.5% to the Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program; and, 2.5% to the Gulf Coast Centers of Excellence (equally split among the 5 Gulf States). These funds will remain available until expended, without fiscal year limitation.

He reviewed several activities that will be eligible for funding in the Gulf States. These included restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitat, beaches, and coastal wetlands. Fisheries monitoring, improvements to State parks, infrastructure projects and administrative cost will be eligible as well as promotion of tourism and promotion of consumption of seafood harvested from the Gulf. These funds will target the coastal areas of the Gulf States.

He reviewed the agencies that will administer these funds in the various States and pointed out that these funds may be used in whole or part, to satisfy the non-Federal share of the cost of any project or program.

The Gulf Coast Ecosystem Restoration Council is established as an independent entity in the Federal Government. Their duties include the development of a Comprehensive Plan; establishment of advisory councils as necessary, and, collect and consider scientific and other research. The Council will expend funds made available to carry out projects and programs adopted in the Comprehensive Plan.

He further discussed other components of the Act. The Commission becomes an official part of the act under the Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program. Funds under this program may be expended on marine and estuarine research; marine and estuarine ecosystem monitoring and ocean observation; data collection and stock assessment; pilot programs for fishery independent data; reduction of exploitation of spawning aggregations; and, cooperative research. These are projects the Commission and States are already involved in.

Under Centers of Excellence Research Grants funds may be used to acquire land or interests in land by purchase, exchange, or donation from a willing seller.

J. Gill moved to have the Commission write a letter to the Gulf Congressional delegations and the Gulf State Governors thanking them for their support of the Restore Act and requesting future support. B. Wiggins seconded the motion and added that the letter include language requesting that the funding be spent as set forth in the Restore Act and not be diverted to other initiatives. The motion was approved. Larry will send a draft out to the Commissioners before sending it out.

Preliminary Report on Mercury/Selenium Workshop

T. Reisinger reported that a workshop was held following the *Forum on Mercury and Selenium in Fish Tissue (Pros and Cons)* on Wednesday, October 17, 2012. At the request of those attending the focus group he submitted a request to the Commissioners. The group would like to establish a group to review technical issues dealing with mercury and selenium that arose during their workshop. They would act as an advisory group to the Commission. No funding was requested to support the group. They would like to meet in conjunction with the Commission's annual meetings. **C. Nelson moved to approve the request. C. Matens seconded. The motion was approved.**

Discussion of Idle Iron Initiative

T. Williamson discussed the risk that the oil and gas industry face when a non-performing oil platforms is used as a reefing site in the Gulf of Mexico (GOM) These include environmental risk; navigational risk; and, safety issues. The Rigs-to- Reef program is currently the preferred method of disposing of structures. He stated the need for more engagement with stake holders (both fishermen and oil and gas companies) to develop a method to streamline a process so that we can maintain and create more reefing sites. He referred to previous efforts to support marine habitat in the GOM. He feels that the oil and gas industry will probably oppose these efforts to support essential marine habitat and it will probably go into litigation.

T. Williamson moved to write a letter to the Secretary of Interior, the Secretary of the Department of Homeland Security, the Administrator of the National Oceanic and Atmospheric Administration, the Corp of Engineers and all other necessary federal agencies and the Governors of the States of Texas, Louisiana, Mississippi, Alabama and Florida on enhancing the efficiency of the permitting and siting process for oil and gas structures entering the Rigs-to-Reefs Program, such enhancements shall include, but are not limited to the following.

(1) Reducing the time to approve permits for structures entering the Rigs-to-Reefs Program.

(2) Promotion of the Rigs-to-Reefs Program as a preferred method of disposal of offshore oil and gas structures no longer useful for operations.

(3) Coordination with the States listed in this section to establish additional reefing sites.

This would make it easier for the oil and gas industry to use the Rigs-to-Reef approach. C. Matens seconded the motion. C. Blankenship stated that we needed to do more than just a letter. He suggested a face-to-face meeting with the oil and gas industry. T. Williams stated that he thinks a meeting with stakeholders will only be beneficial if we have the right people working with it. He requested that such a meeting should be requested in the letter from the Commission. The oil and gas industry wants to work with the Rigs-to-Reef program but cannot ignore that liabilities are an issues. It is beneficial to the industry economically and it should relieve the industry's liability. Motion approved

Discussion of State/Federal Coordination of BP Oil Spill Restoration Funding

D. Donaldson reported that representatives from the 5 States, NOAA Fisheries and the Commission met on Wednesday, October 16, 2012. They looked at the various restoration proposals already developed and discussed ways to coordinate and reduce duplication of effort. They set up a plan to deal with these issues and will hold another meeting next month to further explore this issue.

Interjurisdictional Fisheries Program (IJF) Report

S. VanderKooy provided a power point presentation on the IJF Program. He reviewed the congressional authority and purpose of the IJF Program which is to promote and encourage state activities in support of management of IJF resources identified in interstate fishery management plans; and to promote and encourage management of IJF resources throughout their range.

He discussed funding and the various Gulf States' IJF programs. The Commission program began in 1986. He briefed the Commissioners on the Commission's IJF programs and fishery management plan process. He discussed the Commission's programmatic support of their various committees' and effort. He gave an overview of the Gulf Data, Assessment, and Review (GDAR) Program and the Gulf Fishery-Independent Data (GFID) Program.

S. VanderKooy reported on the fall 2012 IJF activities that included the following:

Gulf Menhaden FMP - The 5th revision to the gulf menhaden FMP began in March 2011 and was to be completed in conjunction with SEDAR 27, which was intended to provide a benchmark stock assessment for gulf menhaden. The revision is still underway by the IJF Coordinator and Joe Smith, NOAA Beaufort. Also working on the FMP revision is Alex Miller, GSMFC staff economist, and Dr. Steven Jacob, Associate Professor of Sociology at York College of Pennsylvania who is working on the sociology section.

The revision of the FMP has been put on hold until the stock assessment for this species can be completed. The assessment was conducted through the SEDAR program in 2011, but due to some methodology issues, was not accepted by the Center for Independent Experts (CIE). With the failure of SEDAR27, the Commission expected to revisit and complete the assessment through the Commission's GDAR program. However, after discussing the assessment with the SEDAR Steering Committee, it was agreed that the assessment would be put back into the SEDAR schedule and would take place over the next year as a benchmark. Dr. Amy Schueller has been approved to work with us again and will begin revising the assessment over the next few months. An Assessment Workshop will be held in Beaufort, NC after the first of the year and the Review Workshop will be combined with two other species at the end of August 2013. Upon acceptance of the SEDAR32 final report, the menhaden FMP will be completed and the assessment will be integrated into the FMP's management goals, considerations, and recommendations.

Blue Crab FMP - The third installment of the Blue Crab FMP is well underway, and the regional stock assessment is being conducted through the Gulf Data, Assessment, and Review Program as GDAR01. The states have provided analysts to work with the TTF on the abundance indices and to ultimately run the surplus production models to evaluate the stocks using both Louisiana and the Chesapeake as examples. The TTF has met several times in 2012 and has made good

progress on the revision of most of the biology and habitat sections. It is anticipated that the effort will continue into 2013.

The Data Workshop (DW) took place last April and the state representatives and assessment analysts discussed potential models and the data requirements for the various models. At this time, a Collie-Sissenwine model seems to be the most successful in other areas with blue crabs and is the model used for the Louisiana assessment for MSC certification. The analysts met independently in August to work out some of the standardizations for the various state datasets and commercial landings. We have had additional conference calls in preparation for the upcoming Assessment Workshop (AW) scheduled for November 13-15 at the Gulf Coast Research Lab in Ocean Springs. We are using a webcast to allow task force participation in the AW.

There is published evidence using migration studies and blue crab genetics for a natural geographic break in the Gulf population around Apalachicola Florida. Therefore, the task force and the analysts are using a two-stock approach: an Eastern Gulf stock (Florida west coast) and a Western Gulf stock (Alabama to Texas). It is expected that we will hold the Review Workshop (RW) sometime in mid-2013 with invited independent reviewers from the Gulf and Atlantic.

Gulf and Southern Flounder FMP - The introductory meeting of the Flounder Technical Task Force (TTF) took place in late February in New Orleans. Initial assignments were given to members to begin the revision to the 2000 FMP. To date, a number of sections have been assigned to TTF members, and the collection of new literature is underway. The stock assessment is expected to begin in early 2013 through the GDAR program as GDAR02. We are looking at sending out a data request in advance of the Data Workshop which should be held in late February or March 2013.

Blue Crab Subcommittee - The Blue Crab Subcommittee continues to work on a state-by-state basis on their derelict trap recovery programs. In the five Gulf States, the removal programs have resulted in a great reduction in the number of traps remaining in the water annually. In addition, effort limitation programs have reduced the number of active traps fishing at any given time, further reducing the risk of trap loss. Since the start of the Gulf-wide cleanup efforts in 2002, approximately 78,000 derelict traps have been removed from our coastal waters. Texas, Alabama, and Mississippi now operate their cleanups on an "as-needed" basis, not annually, due to the reduction of problematic traps.

Law Enforcement Committee (LEC) - The GSMFC Law Enforcement Committee (LEC) continued to work toward regional enforcement goals. In addition, the LEC continues to support the ongoing recovery efforts through enforcement and support to the EDRP program. JEAs continue to drive enforcement activities throughout the Gulf, and monthly conference calls are provided by the Commission to keep communications open and to share information. The LEC met last week in a joint work session with the Gulf of Mexico Fishery Management Council's Law Enforcement Advisory Panel (LEAP) to develop the newest editions of the Gulf's four-year Strategic Plan and two-year Operations Plan.

Other IJF Activities - The IJF Staff has completed the 2011 *GSMFC Annual Report* as well as the other 'routine' publications like *License and Fees* and the *Law Summary*. The *Oyster FMP* was approved by the Commission last October and copies have been distributed to all of the

agencies. In addition, all of the GSMFC publications, minutes, and passed resolutions can be requested electronically from the IJF Staff. The "red book" has been replaced with an *Officers' Pocket Guide* which provides the current state and federal size and bag limits, as well as, information on any permit requirements in a concise, easy-to-use format. The *Officers' Pocket Guide* is printed on waterproof paper and is for exclusive use by fisheries enforcement officers in the field. The guide is designed to fit inside a standard ticket book.

SEAMAP Program Report

J. Rester reported on recent activities of SEAMAP. In 2012, SEAMAP conducted its 31st year of fishery independent sampling in the Gulf of Mexico. SEAMAP has completed the Spring and Fall Plankton Survey, the Summer Shrimp/Groundfish Survey, the Vertical Line Survey, the Reef Fish Survey, and is currently conducting the Bottom Longline Survey and the Fall Shrimp/Groundfish Survey.

SEAMAP recently published the SEAMAP Environmental and Biological Atlas of the Gulf of Mexico 2010. The 2010 Atlas is a summary and listing of all 2010 SEAMAP surveys in the Gulf of Mexico. SEAMAP also recently published a Subcommittee Report to the GSMFC Technical Coordinating Committee for FY2012. The TCC report details program accomplishments, emphasizing survey design, material collected data dissemination, and budget information for FY2012.

This summer SEAMAP produced seven real time data mailings and an end of survey report for the Summer Shrimp/Groundfish Survey. The real time mailings provide weekly information on shrimp and fish catches during the Summer Shrimp/Groundfish Survey and the mailings were distributed to approximately 100 individuals and were also available on the Commission web site.

SEAMAP continues to document the spread of lionfish in the Gulf of Mexico. SEAMAP first documented lionfish off southwest Florida in the 2010 Summer Shrimp/Groundfish Survey. Since that time SEAMAP has continued to record lionfish in the trawl surveys east of the Mississippi River. The Vertical Line Survey has also recorded lionfish in their ROV work off artificial reefs in Alabama.

All three SEAMAP components met jointly in late July to discuss the SEAMAP FY2013 budget and other joint issues. With level funding expected, all three components agreed to continue SEAMAP activities at the current budgetary distribution between the components.

With the passage of the Restore Act and the creation of the Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program, there is an opportunity to expand fishery independent data collection in the Gulf of Mexico. Approximately $125-$525 million could be available for fishery independent sampling in the near future and SEAMAP would be an ideal program to help in the data collection. SEAMAP has been developing a fishery independent data needs assessment and developing costs associated with fishery independent data collection so that SEAMAP will be readying when the money is available.

Sport Fish Restoration Program Report (SFP)

J. Ballard gave an update on the SFP. He is working with the state Artificial Reef Program coordinators to develop a standardized monitoring protocol for artificial reef habitat across the Gulf of Mexico. This protocol will be modeled after existing long-term monitoring programs that focus on natural reef habitats, utilizing comparable gear types and methodologies where possible. The goal of this effort is to develop a program that would provide baseline data for artificial reefs. This will allow states to assess impacts from natural and manmade disasters in the future and to understand how their reefs are functioning over time compared to natural reefs. Once a standardized sampling protocol is developed and agreed upon by all states, the program coordinator will purchase and supply to the states all necessary sampling equipment to carry out the artificial reef monitoring across the Gulf of Mexico. All data collected by this new program will be compiled and housed at the GSMFC to establish a database of baseline data for artificial reefs in the Gulf of Mexico that can be utilized for future assessments.

In addition he is exploring funding opportunities to support the previously mentioned Gulf-wide Artificial Reef Monitoring Program.

He was successful in securing funding for the Mississippi Bight Lionfish Response Unit (MBLRU). This new project is a cooperative effort between the GSMFC, Mississippi DMR, Alabama DNR, the National Park Service and the U.S. Fish and Wildlife Service. The objectives of this new project are to:

1. Establish a lionfish monitoring program at established sites in the near coastal waters between Pensacola, FL and the Mississippi River Delta to monitor and track the invasion.

2. Perform diver surveys of density and richness of associated species at all sites to aid in future assessment of impacts as a result of the invasion.

3. Removal of lionfish encountered during normal monitoring operations.

4. Coordinate reporting activities with the established USFWS hotline and the USGS online reporting system.

5. Establishment of a "Strike Team" to harvest lionfish at locations beyond regular sampling sites reported to the MBLRU.

6. Engage in outreach activities in the region to help inform the public about the seriousness of the lionfish invasion.

This project will give us a clear picture of where we stand in regards to the invasive lionfish population in northern Gulf waters, and will provide much needed information for future management decisions.

Fisheries Information Network (FIN) Report

D. Donaldson reported on current FIN program activity. 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 program consists of two components: Commercial Fisheries Information Network (ComFIN) and the Southeast Recreational Fisheries Information Network [RecFIN(SE)].

He reviewed 2012 activities of the FIN Committee. This Committee met in June and August to determine activities for 2013. Cooperative agreement activities in 2012 included: coordination and administration of FIN; collecting, managing and disseminating marine recreational fisheries data (including Puerto Rico); FIN data management system; trip tickets; and, Texas' portion of biological sampling. The 2012 total budget is $5.12M.

The head boat port sampling, Gulf menhaden and biological sampling components of FIN were eliminated due to funding shortfalls. The majority of the biological sampling will be funded through the GSMFC's current Stock Assessment Program. Funding was reduced by 20% for this project.

He submitted a 2013 FIN statement of work and budget to NMFS in September, 2012 and is awaiting action. He reviewed 2013 FIN activity.

D. Donaldson stated that FIN has been level-funded since 2004 and has had to cut several major, long-term tasks. Without additional resources these long-term activities will be lost. He has been working with partners to secure increased funding. He stated that he is concerned about reduced funding for FIN.

Habitat Program Report

J. Rester reported that the Habitat Program is no longer a joint program with the Gulf of Mexico Fishery Management Council, but added that the Commission's Habitat Program is still working on several issues. He is finishing up the habitat section of the Blue Crab Fishery Management Plan. He is also doing GIS work for the Blue Crab Technical Task Force to establish size estimates for bay systems and areas that will be used within the blue crab stock assessment.

J. Rester is also doing GIS work with SEAMAP data for use in the Gulf of Mexico Data Atlas modeling species distributions from fishery independent data.

In addition he is also managing the ODRP Kemp's ridley stock assessment project for the Commission. A major meeting will be held in late November to discuss data and the stock assessment process. He will also be using GIS to model Kemp's ridley strandings in relation to shrimping effort, blue crab abundances and distribution and other factors relevant to the stock assessment.

He continues to monitor public notices and environmental impact statements for projects that may negatively impact fish habitat in the Gulf of Mexico.

He has also been attending meetings related to coastal and marine spatial planning in waters off Alabama. Both Texas and Alabama are working on coastal and marine spatial planning in their waters and these efforts will probably be used as guides for coastal and marine spatial planning efforts for the entire Gulf of Mexico.

Aquatic Nuisance Species (ANS) Program Report

J. Ballard reported on ANS activities. The Gulf and South Atlantic Regional Panel (GSARP) on Aquatic Invasive Species held its spring meeting on April 2-4, 2012 in Austin, Texas.

He attended and/or participated in the Aquatic Nuisance Species Task Force's (ANSTF) spring meeting held May 2-3, 2012 in Annapolis, Maryland.

State Aquatic Nuisance Species Plans:

- Georgia, Louisiana and South Carolina have completed plans and are actively implementing them.
- Alabama's and Texas' Plans have been conditionally approved.
- 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.
- North Carolina is in the preliminary stages of formulating their plan.

J. Ballard is working with GSARP to explore 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 Invasive Lionfish Control Ad-Hoc Committee (ILCAC) that is coordinated by the GSMFC's ANS Program Coordinator is continuing to draft the "National Invasive Lionfish Prevention and Management Plan" (NILPMP). The ILCAC is made up of 22 members from federal and state agencies, universities, NGO's, and the pet trade industry. The Vision of the NILPMP 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.

Several Panel members are also collaborating on efforts to understand more about the Asian tiger shrimp (*Penaeus monodon*). There had been a slow, steady increase in the number of *P. monodon* sightings in the Gulf and South Atlantic region from 2006-2009. In 2010 there was a slight decrease in sightings from 47 (2009) to 32 (2010). In 2011 there was a significant increase in sightings, with well over 678 reports. In 2012 there were over 100 reported sightings by the beginning of September. It is unclear if this invasive species has established a breeding population in this range or if they are being introduced. Also, it is uncertain what impacts it may have on the invaded environment or native species.

J. Ballard recently received the data collected during the 2011 TexRAT in Galveston, and is working on getting it entered into the current database of RAT data that is housed at the GSMFC. Once that is complete, he will work on acquiring and entering the data from the RAT that was carried out in LA. This will provide one central location for all RAT data that has been collected in the Gulf States.

In conclusion he discussed the status of sub awards currently being administered under the Commission's ANS Program and reported on future meetings.

Emergency Disaster Recovery Program (EDRP I & II) Report

R. Hode reported on the EDRP I and EDRP II status and activities.

EDRP I - As the Commission members are aware, the Resource Recovery program (EDRP I) is in its final year of activity. Originally scheduled for completion by the fall of 2011, the program was extended through August 2012 because of multiple issues that precluded many of the States from completing scheduled work in a timely manner. By March 2012 there still remained an unspent balance of nearly $9,000,000. Of these, it was determined that approximately $5,000,000 would expire in August if not utilized by then; and that the remaining $4,000,000 would be eligible for an additional one year extension The remaining $4,000,000 has now been re-programmed for use through August 31, 2013.

State recipients are also aware that any funds remaining beyond that date would also expire

He presented summaries of budgets and current balances through September; and, indicated where programmatic funds remain and which programs have been completed. As indicated, while most of the States have completed a number of their sub-award programs, Alabama was the only State to have completed all its programs by the August 2012 grant deadline; and, the Cooperative Research Component was the only component that was totally completed by that time.

Currently there remains a balance of less than $3 million which is budgeted for the period ending August 31, 2013. Most of these, including some of those in the Habitat component, are programmed for work addressing oyster restoration. Additionally, the States are in the process of preparing final reports by sub award for work that has been completed to date. Early completion of these reports has been emphasized in order to maintain and record pertinent details concerning individual projects. All final reports will be due shortly after the August 2013 end date.

EDRP II - As the Economic Assistance to Fisheries program (EDRP II) approached its September 2012 grant deadline it also did so with a fund balance that was subject to loss in the absence of no cost extensions. Because many of the sub-awards under this program included projects or jobs that addressed long term assistance for GOM marine fisheries, businesses and industries, they too were delayed by post Katrina hurricanes, impacts from the Mississippi River floods, and most recently, the Deep Water Horizon catastrophe. As a result, and with concurrence of the National Marine Fisheries Service, a one year no cost grant extension has been granted. Under the extension, all sub awards must be completed by September 30, 2013.

At this time there are no indications that further extensions (beyond September 2013) will be necessary; but, since these funds came with expiration dates, the likelihood is good that no further extensions will be granted.

Principal investigators, program coordinators and marine directors have been apprised of their respective fund balances and the urgency with which these balances must be utilized. Preliminary discussions with them indicate that many of the remaining funds will, like EDRP I, be utilized in further restoration and rebuilding of oyster reefs and monitoring of work completed in both EDRP I and II.

Additionally, some of the funds will be used in support of damaged marine research centers and/or related programs, the Gulf of Mexico Alliance, inshore artificial fishing reef enhancement, continued domestic product marketing, and seafood testing. The likelihood is also good for a number of sub award amendments over the next several months as States re-evaluate priorities, focusing on those most likely to yield the greatest results in the least amount of time.

Economic Data Program (EDP) Report

A. Miller reported on the EDP status and activities. 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 and implemented throughout late 2012.

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. Results from these studies 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.

Economic data collection projects in progress during late 2012 include an economic survey of seafood dealers and a marine recreational use economic survey. Economic data collection projects currently undergoing analysis include data from an economic survey of seafood processors and data from a marine angler expenditure survey. Completed economic data collection projects include an economic survey of the GOM inshore shrimp fleet for data year 2008. Surveys planned for 2013 include an economic survey of the GOM inshore shrimp fleet for the year 2012 and a stated preference choice experiment survey of anglers in the GOM.

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, impact, and tradeoffs associated with Gulf fisheries. Currently, the research and analysis component of the economics program consists of an impact analysis initiative for the data collection activities of the program and a stated preference choice experiment for anglers.

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.

Oil Disaster Recovery Program (ODRP)

R. Hode reported on ODRP status and activities. The ODRP is a $14,985,000 program, which was authorized by Congress in October 1, 2010 in response to the Deep Water Horizon oil

disaster of April, 2010. The program continues to move forward with a total of 19 contracts and/or amendments currently in place and approved by the ODRP Ad Hoc Committee - an independent committee composed of the Marine Directors from each of the five Gulf States. The Committee acts in an advisory capacity providing guidance and direction in the use of the oil disaster funds.

Three components are in place as originally defined by the Ad Hoc Committee and approved by National Marine Fisheries Services and the US Department of Commerce. These include Marketing, Seafood Sustainability Certifications, and Seafood Testing. Each component further consists of a number of sub elements designed to enhance the overall goal of improving the public perception of Gulf seafood products and stabilizing the marine fisheries economies following the oil disaster. Major contracts are planned for periods that coincide with the ODRP grant period which effectively ends September 30, 2015; but some of the of the smaller contracts have time periods that support major contract work and therefore have less than five year contract periods.

He provided a summary of all contracts that are currently in place, their budgets, and their fund balances through September 19, 2012. Currently the ODRP has nearly $11 million under contract exclusive of budgeted GSMFC administrative costs. As indicated, a balance of nearly $2.5 million remains un-committed at this time. It is expected, however, that these will remain uncommitted until such time as the Ad Hoc Committee addresses the need for a Gulf wide seafood certification plan of action as well as Phase II of the Gulf Fish Watch program. Additionally, a number of supplemental proposals have been received and will be reviewed and acted on pending availability of funds.

He reported on all sub contract activities under ODRP and provided the Commission with a written report.

Executive Committee Report

C. Blankenship reported that the Executive Committee held a breakfast meeting this morning. The Committee received a report on the 2011 audit. The audit report had been sent to all Commissioners and a ballot vote approving the audit had been received by the Commissions' Sr. Accountant. **J. Gill moved to ratify the approval of the 2011 audit report. D. Diaz seconded. The audit was accepted.**

C. Blankenship stated that the Committee reviewed the proposed 2013 Budget. The Committee recommended the approval of the Proposed FY2013 Budget in the amount of $10,332,164 **(Exhibit A). J. Gill moved to approve the FY2013 budget. C. Nelson seconded. The budget was approved.**

The Executive Committee reviewed personnel evaluations. They recommended no personnel increases for 2013 but did recommend that A. Rabideau (Acting Sr. Accountant) salary be increased by $2,000 and that she be made Sr. Accountant. **J. Gill moved to accept the personnel actions. C. Matens seconded. The recommendation was approved.**

State Director's Reports

Florida – D. Heil reported on behalf of the Florida Fish & Wildlife Conservation Commission, Division of Marine Fisheries (FWC).

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 2012 [i.e., state fiscal year 2011/2012] are summarized below.

The 2012 Florida Legislature did not reduce the Division of Marine Fisheries Management's operation budget for fiscal year 2012-2013. Recall that the 2011 Florida Legislature reduced the Division of Marine Fisheries Management operation budget by 7 %. A new Subsection titled *Federal Fisheries* was added by reorganization of current staffing in the Division of Marine Fisheries Management effective July 2012.

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 2012 Florida Legislature passed one bill that amended marine fishery licenses, fees, or penalties. House Bill 7025/Senate Bill 804 reduced the fee for obtaining a soft-shell blue crab endorsement from $250 to $125, modified the penalty for lobster trap theft/molestation to allow a judge the full range of punishment of a third degree felony, and clarified the fishing license requirements for scuba divers/scuba diving charter boats.

During the state fiscal year 2011/2012, 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 marine life fishery to extend Florida's octocoral and marine life regulations into federal waters. The rule amendment also established an annual quota for octocorals in state and federal waters off Florida.

Amendments were made to the reef fish rule to achieve consistency with federal regulations in the Gulf of Mexico for gag grouper. The amendment reduced the minimum size for gag harvested, sold, purchased, or exchanged commercially from the Gulf of Mexico, except Monroe County, to 22 inches. The recreational open season for gag was also set with this amendment for all state waters of the Gulf of Mexico, except Taylor, Jefferson, Wakulla, Franklin, and Monroe counties, to July 1 through October 31. The recreational gag grouper season was set to April 1 through June 30 for state waters off Taylor, Jefferson, Wakulla, and Franklin counties. Monroe County state waters follow Atlantic rules for gag grouper. Also, the recreational bag limit for red

grouper was increased to four fish for waters of the Gulf of Mexico, except Monroe County, with annual catch limit provisions included.

The Commission's rule for red drum was modified to create four management zones (northeast, northwest, southeast, and southwest) and to increase the recreational bag limit to two red drum in the two northern zones. The amendment also created a red drum statewide vessel limit of eight fish, and a transport limit of six fish per person.

Amendments were made to the spotted seatrout rule to split the south region into southeast and southwest regions, extend state regulations into federal waters off Florida, eliminate the recreational closed seasons statewide, and increase the recreational bag limit to six in the northeast region. The amendment also changed and lengthened the commercial seasons for spotted seatrout to five months in the northwest and southwest (June 1 – Oct. 31) and in the southeast (May 1 – Sept. 30) and to six months in the northeast (June 1 – Nov. 30). Also, the commercial vessel limit was changed to 150 fish when two commercially licensed fishermen are on board and inventory of spotted seatrout can be sold for 30 days after the regional season closes.

Great, scalloped, and smooth hammerhead sharks and tiger sharks were prohibited from recreational and commercial harvest in state waters.

The Commission's commercial king mackerel rule was amended to allow legally harvested king mackerel to be landed in Collier County when the state waters off Collier County are closed to harvest.

The recreational red snapper season in the Gulf of Mexico was changed to be open from June 1 through July 10, which is 40 days. This change made state rules consistent with federal rules if the federal season remains at 40 days.

Amendments were made to the Commission's Billfish and Swordfish rule to remove roundscale spearfish from the prohibited billfish list and add it to the state's billfish possession limit. The amendment also created a minimum size of 66 inches lower jaw fork length for roundscale spearfish.

Language in the Commission's reef fish rule was updated to make the state's multi-day possession limit compatible with the federal multi-day possession limit. Red porgy in the Atlantic Ocean were excluded from the exemption.

Language in the Commission's Spiny lobster rule was updated to match the statute, which changed in 2010. The amendment clarified that trap certificates with unpaid annual fees would revert to the Commission after a period of two years, instead of three.

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) 54,766 outreach fishing event contacts; (2) 439 presentation and seminar contacts; (3) 29,846 email, telephone, mail outs and in-person contacts; and (4) 1,776,412 website contacts during fiscal year 2011-2012.

Ten Kids' Fishing Clinics (KFC) was conducted in coastal cities throughout Florida. A total of 2,593 children, 498 volunteers and an estimated 1,155 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 417 participants on fishing excursions to reinforce the Kids' Fishing Clinics curriculum. Two weeklong saltwater fishing camps were conducted with a total of 41 youth participating in these events.

Four *Ladies, Let's Go Fishing!* (LLGF) seminars were conducted in four locations. A total of 191 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 28 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.

Thirteen events were attended by 545 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 citizen 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 online and, if so, 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/publications/fishing-lines-magazine/
- *Florida Recreational Saltwater Fishing Regulations (English and Spanish editions)*
  http://www.myfwc.com/fishing/saltwater/recreational/
- *Fish ID Poster series by artist Diane Rome Peebles*
- *Sea Stats*
  http://research.myfwc.com/products/products.asp
- *Catch and Release Techniques*
  http://research.myfwc.com/products/products.asp
- *Florida Boater's Guides*
  http://research.myfwc.com/products/products.asp
- *Kids Fishing Activity Book (Freshwater and Saltwater)*
  http://myfwc.com/media/1316038/Fishing_Florida.pdf
- Monofilament Recycling and Recovery Program
  http://mrrp.myfwc.com/educational-materials.aspx

Two Boater's Guides were updated and printed: *Charlotte Harbor* (17,000 copies) and Tampa Bay (15,000 copies).

In the Appalachia 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), Outreach and Education staff performed similar activities targeting anglers, which 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 Kids' Fishing Clinics called *Nature Coast Fishing for Youth* (formerly known as *1-2-3 FISH*), were conducted in Cedar Key during the summer months. Five youth events were conducted with participation from 271 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-five educational tours and 12 fishing events were conducted at the Florida Fish and Wildlife Conservation Commission's Stock Enhancement Research Facility. Six hundred and ninety-six 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.

Forty-five 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. Four hundred and ninety-one 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.

Two hundred and forty-three 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 (about being a responsible angler), and Catch and Release. Three hundred and ten 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 Sport Fish Restoration Program and Florida's saltwater Sport Fish Restoration 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.

Seven thousand and sixty-nine copies of various *Boating and Angling 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 Sport Fish Restoration 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. 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 total of 6,980 hatchery-bred fish were provided to these facilities.

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 AND RECREATIONAL REGULATORY OUTREACH (NEW PROGRAM) - The Florida Fish and Wildlife Conservation Commission created a new subsection in the Division of Marine Fisheries management in early 2012. The new subsection, called "Commercial and Recreational Regulatory Outreach," was created as a way to provide enhanced services and information on marine fisheries regulations. Through the efforts of this group, FWC will develop and distribute new informational tools, conduct presentations, and provide other services that are designed to improve the understanding of state and federal marine fisheries regulations and how they are changing over time.

The subsection, a team of three including a public information specialist, is currently developing new tools to make our management efforts easier to understand. One example is a new web-based and printable "Recreational Seasons Chart" that will allow the viewer to quickly determine

which species are open or closed on any given day of the year. The team is also reaching out to recreational and commercial fishing organizations and charter boat captains, offering direct assistance with saltwater fishing regulations.

Funding for the commercial and recreational saltwater fishing regulations publications was offered by FWC as a potential budget reduction this past session, and accepted by the 2011 Florida legislature. This reduction was one of many made in an attempt to lower FWC's operating coats and achieve a balanced budget state-wide. Unfortunately, the result is that FWC will no longer have the funding to print and distribute copies of the recreational and commercial saltwater regulation magazines.

A contracted vendor and a sponsor picked up the tab for the printing and distribution for both. The recreational publication was printed and shipped to license sales agents by Griffin Publishing and the commercial regulations were sponsored by engine manufacturer, designer, and distributor Cummins and sent to all saltwater products license holders. At this time, it is unknown whether or not printed copies will be available in the future.

During state fiscal year 2011/2012, the FWC continued ongoing commercial and started recreational saltwater fisheries regulatory assistance activities.

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 325,000 emails were prepared and sent informing commercial license holders, law enforcement and commercial industry representatives of 35 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. As many as 11,245 saltwater products license holders received the printed copy of the commercial regulations publication (also available on the agency website) thanks to Cummins.

Two editions (January and July) of the recreational regulation publication (550,000 each edition) were distributed to 2,000 license sales agents and FWC regional offices around Florida. The new recreational regulatory position has given six presentations to fishing clubs, solved 339 knowledgebase questions, and answered 400 telephone and 300 e-mail request in the first six months.

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 2012, seven artificial reef construction projects were completed in Florida utilizing funds from the U.S. Fish and Wildlife Service's Federal Sport Fish Restoration Program and managed by the FWC Artificial Reef Program with the Division of Marine Fisheries Management.

Four of the seven (57.1%) new artificial reef construction activities took place on the Gulf Coast and three of the seven (42.9%) were off the Atlantic Coast. Within the Gulf Coast activities, three artificial reef construction activities took place in the Florida 'Panhandle' (Okaloosa County and Bay County, and the City of Mexico Beach), while one other took place off 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 construction activities occurred off south central Florida (Martin and St. Lucie Counties) and one construction activity occurred off southeast Florida (Palm Beach County). There were also three artificial reef monitoring projects under way in 2012. These various projects are summarized below.

Bay County (Florida Panhandle)

Bay County deployed a patch reef complex comprised of 40 prefabricated concrete modules at 10 separate locations forming a grid pattern between the existing DuPont Bridge Span Reefs. Each of the 10 patch reefs are approximately 1,000 feet apart. The complex is located approximately 10 nautical miles south of the mouth of St. Andrews Pass at a water depth of 88 feet.

Martin County (South Central Florida East Coast)

Martin County deployed 2,000 tons of concrete culverts, and concrete light poles divided among four patch reefs. Each of the four patch reefs consists of concrete materials placed as a single pile (500 tons each) located about 50 feet (15.2 m) apart from each other. The materials are located within the Donaldson Reef permitted area, which is located approximately 4.4 nautical miles northeast of St. Lucie Inlet at a depth of 60 feet.

St. Lucie County (South Central Florida East Coast)

St. Lucie County deployed a total of 2,000 tons of concrete culverts, concrete light poles and concrete bridge pilings in two patch reefs within the St. Lucie County Offshore Reef permitted area. Each of the two patch reefs consisted of concrete materials placed as a single pile (approximately 1,000 tons each), located 11 nautical miles east of Ft. Pierce Inlet at a depth of 110 feet and 150 feet.

Okaloosa County (Northwest Florida)

Okaloosa County constructed a reef comprised of 40 prefabricated concrete and steel reef modules weighing a total of approximately 100 tons within the county's Large Area Artificial Reef Site (LAARS) site "A." The reef is comprised of 20 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 117 feet of water.

Palm Beach County (Southeast Florida)

Palm Beach County deployed 1,000 tons of limestone boulders at a depth of 37 feet within the Jupiter Inlet Artificial Reef Site located one nautical mile northeast of Jupiter Inlet in the Atlantic Ocean. 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. This is the second limestone boulder deployment at this permitted area.

Mexico Beach, City of (Northwest Florida)

The city of Mexico Beach, located in eastern Bay County, deployed 53 concrete modular units of three different designs. The 44 modules equate to about 126 tons of reef materials distributed among 15 patch reefs at three different permitted sites, with approximately two to seven modules placed at each patch reef.

Taylor County - University of Florida (Florida Big Bend)

A total of 256 prefabricated reef cube units were deployed off Taylor County over the summer of 2012 as 68 standardized four-cube reefs. Of the 68 four-cube patch reefs, 48 four-cube reefs were unpublished sanctuary reefs for habitat enhancement and fisheries management/research objectives completing the Steinhatchee Fisheries Management Area (SFMA) Phase II construction project that was initiated by the University of Florida in partnership with FWC. Sixteen four-cube reefs were placed to augment fishing opportunities in a designated public fishing area that was started in 2007 in the northern corner of the SFMA permit site with the initial placement of two 16 cube unit public reefs. The SFMA has a depth range of 25-50 feet.

Artificial Reef Monitoring Projects - The FWC is also funding the continuation of years two and three of the fish census monitoring of the 520-feet-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 24° 27.60' N latitude and 81° 44.25' W longitude. The Reef Environmental Education Foundation (REEF) is performing the fish census activities. The final report from this two-year monitoring effort is expected by December 2012.

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 federal waters within the Escambia East Large Area Artificial Reef Site, 15 nautical miles south of Pensacola Pass. Work began during summer 2012. 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 kilometer squared 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 final report from this one-year monitoring effort is expected by July 2013.

The FWC and Escambia County will continue sampling legal-size recreationally targeted reef fish (red snapper, gray 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 Dec. 14, 2006, and April 19, 2011, 10 reef fish sample collection events were completed, six during

the spring and four during late fall/winter. The 330 retained reef fish from the Oriskany Reef through sampling round eight included eight reef fish species: 219 red snapper, 68 vermilion snapper, 19 red porgy, 14 whitebone porgy, five scamp grouper, two gray triggerfish, one red grouper and one bank sea bass. Six of seven species (all but the lone red grouper sample) during one or more of the first nine sampling rounds (sample round 10 has not yet been analyzed) 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 nine sampling rounds analyzed. 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 nine, 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 nine. 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 and in sampling round nine red and whitebone porgy sample results were below the FDOH but slightly above the EPA screening level. 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 five 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), and one captured in sampling round eight exceeding the FDOH screening threshold (292 ppb).

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. Thirty-six reef fish specimens from sample round ten were collected from the Oriskany Reef on April 19, 2012, (5.9 years post-deployment) are presently undergoing analysis with results expected by the end of September 2012.

Additionally, 11 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.

Four audits of wholesale dealers were conducted. One of them was conducted jointly with U.S. Fish & Wildlife and FWC Law Enforcement. Ten wholesale dealers were visited to determine whether or not a detailed audit is necessary. One hundred seventy-four wholesale dealers received delinquent notices for failing to submit trip tickets within 90 days. Research into reported landings was conducted on 74 wholesale dealers and commercial fishermen. Of these, one-third was for FWC Law Enforcement and two-thirds were for federal agencies. Training modules for Investigator II positions were developed and/or updated to facilitate a smooth transition for sworn officers coming into the agency from the Department of Environmental Protection. One hundred emails were sent to the Office of General Counsel relating to redesigning the informal hearing process for license and penalty issues.

In addition, five individuals were sentenced to a total of $147,000 in fines, 66 months imprisonment, one year of house arrest and five years probation for crimes related to commercial fishing prosecuted in the preceding year.

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 and license suspensions for violations of specific fishery regulations.

Sixty administrative penalties were assessed for a total of $216,000. Two of the administrative penalties were rescinded (totaling $8,500). Penalties paid totaled $6,000. Forty-three of the administrative penalties (72%) were for net violations,10 (17%) were for unlawful purchase of saltwater products, four (7%) were for unlicensed harvest, and three (5%) were for other major violations.

Thirty-two petitions for administrative proceeding were received, 36 informal administrative hearings were conducted, 11 formal administrative hearings were conducted, and six petitions resulted in settlement agreements. Four petitions resulted in informal administrative proceedings, where the petitioner elected the option to submit additional evidence for consideration in lieu of proceeding with an informal administrative hearing.

The FWC 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 with commercial fishermen to remove lost and abandoned traps from state waters during closed seasons. The **Derelict Trap and Trap Debris Removal Program** provides 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. Thirty-three trap retrieval trips were conducted (18 for blue crab and 15 for stone crab and lobster) where a total of 3,027 traps (1,501 for blue crab and 1,526 for stone crab and lobster) were retrieved for a total expenditure of $69,950. Additionally, 18 authorizations were issued for volunteer derelict trap cleanup events, resulting in the removal of 875 traps (three of the 18 cleanup events have not reported).

ISSUANCE OF SPECIAL ACTIVITY LICENSES - The marine fisheries special activity license program issues licenses for activities that require a waiver of marine fisheries regulations.

Two hundred fifteen Special Activity Licenses were issued, 75 license amendments were issued, six applications were denied, and one application was withdrawn. Forty-five percent (130) of the licenses issued or amended were for scientific research, 33% (94) were for education and or exhibition, and 14% (41) were for redfish catch, hold and release tournament exemption permits (the remainder were for aquaculture brood stock collection (four), gear innovation (one), governmental purpose (three), stock collection and release (13), and bonefish catch, hold and release tournament exemption permits (four).

FLORIDA FISH AND WILDLIFE RESEARCH INSTITUTE:
2012/2013
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.

Statistically robust habitat suitability models (HSM) are being developed that relate water quality and benthic habitat data to fish catch rates derived from Fisheries Independent Monitoring (FIM). The HSM models (BEINFO, ZAGA) account for zero-inflation in the FIM data. The model is currently being evaluated. A new web-enabled database has been created called Ecospecies that incorporates over 90 species life history (SLH) profiles. As part of the Ecospecies contract with the South Atlantic Fisheries Management Council, a comprehensive SLH profile was created that cites almost everything published on red snapper.

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 fundraisers 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. Biol. 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

Fish and Wildlife Health (FWH) staff in St. Petersburg monitors the health of aquatic organisms throughout the state of Florida. During the 2011-2012 FY, the FWH group conducted necropsies (laboratory or field examinations of fish to collect health data) on 1,375 specimens that covered four project aspects: 1) health monitoring (n = 233), 2) event response (n = 235), 3) stock enhancement support (n = 236), and 4) special projects (n = 671).

Event response specimens (17%) were evaluated as part of fish kill investigations or other fish and wildlife health related events. **Health monitoring** specimens (17%) 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 gather baseline data and develop health profiles for sport fish. Fish categorized under **special projects** (49%) included sport fish collected for parasitological analysis to study parasites that may impact potential aquaculture species, fish collected to determine the prevalence of lesions in fish as part of a gulf wide survey conducted in collaboration with the University of South Florida in response to the continued anecdotal reports of lesioned offshore fish; and experimental research. Fish examined for **stock enhancement** purposes (17%) were evaluated in support of the Florida Marine Fisheries Enhancement Initiative (FMFEI). These fish came from trial recirculating aquaculture systems from FWC's 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 18,000 reports/information requests (hereafter referred to as reports). In 2011-2012, we received a total of 1,304 reports on FWH Fish Kill Hotline, through the FWRI website, or via direct calls. Approximately 35% of reports were related to unique fish kills, while 30% referred to previously reported fish kills, and the remaining 31% fell into other categories including other wildlife mortalities.

Thirty-seven sites were investigated for fish kills. A fish kill was considered an "event" when it was politically, economically, or ecologically significant. Four groups of reports were designated as events: 1) the Ocklawaha River catfish mortality (ID 16908),2) the northwest regional reports of diseased snapper (ID 16661), 3) the red tide bloom in SW FL (ID 17359), and 4) the diseased mullet in the Tampa Bay area following spawning season (ID 17873).

FWH participated in various types of outreach activities to promote the Fish Kill Hotline and to promote conservation through education. Outreach consisted of a variety activities intended to reach many segments of the public. To promote the hotline as a public resource, we gave out specialty items throughout the year, including fishing towels, stickers, reusable grocery bags, and key chains imprinted with the FKH number and the Sport Fish Restoration logo. We logged over 100 hours of preparation time and 238 direct contact hours with the public during outreach events

MARINE MAMMALS

FWC documented a high number of manatee carcasses in Florida during 2011 (n = 453). Preliminarily, 113 of the cause of death determinations in 2011 were related to cold stress and 87 were watercraft related fatalities. One hundred statewide manatee rescues were conducted in 2011. Of those rescues, 36 were from natural circumstances and 21 were from watercraft collisions.

A statewide "synoptic" survey was not flown in 2012 because of warmer than average winter weather. An important objective within the state Manatee Management Plan includes improving these methods and implementing statistically sound methods to estimate the manatee population. Work progressed in developing and refining new methodology.

During the 2011-12 North Atlantic right whale calving season (Dec. 01, 2011 –March 31, 2012) staff coordinated and conducted aerial surveys off the coastal waters of Florida and portions of Georgia in an effort to alert vessels to the presence of right whales, monitor calf production, identify unique individuals, and describe whale distribution and habitat. Six mother/calf pairs were documented during the 2011/2012 North Atlantic right whale calving season. One entanglement related event was documented in the southeastern U.S. during the 2011-2012 calving season off Georgia. In collaboration with Georgia Department of Natural Resources, staff conducted 35 right whale biopsy sampling trips resulting in samples from five calves and several juvenile and adult whales.

DIVISION OF HABITAT AND SPECIES CONSERVATION:

Director: Eric Sutton

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 and provides recommendations to ensure compliance with the Florida Marine Turtle Protection Act (F.S. 379.2431 (1)) for state-authorized activities. The activities are focused in the following program areas.

1. Commenting on state- and federal-permitted activities to minimize negative impacts to marine turtles and their nesting habitat, including the development of innovative strategies such as regional, littoral cell-wide agreement for all beach management activities.

2. Provide permits to individuals, organizations, and facilities that conduct research or conservation activities with marine turtles or keep captive marine turtles.
3. Assist local governments and the private sector in efforts to reduce impacts of lights and other disturbances on marine turtle nesting.
4. Conduct outreach activities to provide current information to the public and promote conservation stewardship.
5. Respond to unusual or catastrophic events that impact marine turtles or their habitats.
6. Participation in intra- and interagency teams to provide expertise on marine turtles, their nests, and habitats.
7. Pursue funding opportunities such as development of decals, promote sales of the sea turtle license plate, or obtain grant funds to achieve program goals.

Accomplishments

- Development of an ~$3,000,000 Early Restoration Project proposal focused on marine turtles and their nesting habitat for injuries due to activities during response efforts for the 2010 catastrophic Deepwater Horizon event. Staff also continued to provide assistance and expertise for the response activities that are continuing on Florida panhandle beaches and continued participation in Technical Working Groups (TWGs) for Natural Resource Damage Assessment (NRDA) planning.

- Participation in the development of the Department of Environmental Protection (DEP) inaugural Beach Management Agreement for beach restoration activities on the Island of Palm Beach.

- Participated in the coordination and streamlining of permit commenting, including revising existing commenting logs and developing standard conditions and best management practices to streamline the review process and ensure protection of marine turtles, their nests, hatchlings, and nesting habitat as required under the Marine Turtle Protection Act (F.S. 379.2431 (1)).

- Revised recommendations for beach nourishment projects to reduce the postconstruction monitoring specified in DEP permits for beach management activities as outlined in the DEP 2007 Report to the Legislature on Postconstruction Monitoring.

- Participated in the U.S. Fish and Wildlife Service and National Marine Fisheries Service designation of critical habitat for loggerhead sea turtles.

- Educational presentations at schools and meetings of local conservation groups, home owners associations, and other interested groups concerning marine turtles, lights, and other impacts and display of the Sea Turtle Lighting Trailer educational display by request.

- Administered the Marine Turtle Permit Program and participated in a Rapid Process

Improvement for the Marine Turtle Permit Program to better serve researchers working with marine turtles in Florida.

- Coordinated transfer and release of marine turtles during rehabilitation and supervised public sea turtle releases; identified and transferred non-releasable marine turtles to other countries and states for captive display to reduce pressure on Florida facilities with limited space to maintain these animals.

- Staff reviewed more than 300 applications or plans, including revisions, submitted to the Florida Department of Environmental Protection's (DEP) District Offices, DEP's Bureau of Beaches and Coastal Systems, the Water Management (WMD) Districts and the State Clearing House. Projects reviewed included Coastal Construction Control Line applications, Environmental Resource Permit applications, and Joint Coastal Permit applications as well as DEP Clearing House reviews for federal projects to ensure authorized activities comply with Florida Statute 379.2431 (1).

- Participated in review of Department of Environmental Protection proposed rule revisions for Florida Statute 161 that could impact marine turtles, their nests, hatchlings, and nesting habitat.

- Participated in more than 80 site inspections, including lighting inspections as part of our environmental commenting responsibilities or at the invitation of local governments and property owners.

- Conducted public workshops at the request of local government commissions or staff.

- Participated in the following intra- and interagency teams, working groups, and committees: Archie Carr Sea Turtle Refuge Working Group, FWC's Coastal Wildlife Conservation Initiative, the FWC Permitting Team, and the Marine Turtle Grants Committee.

- Management of the marine turtle disorientation database.

- ISM co-hosted the 2012 Marine Turtle Permit Holder Workshop with the Sea Turtle Conservancy in Gainesville for over 350 Marine Turtle Permit Holders, volunteers, local government, state and federal agency staff. This three-day event included presentations by agency management and research staff, conservation organizations and local governments, as well as summaries of Marine Turtle Grant projects and workshops focused on key issues.

- Provided educational materials concerning marine turtles including educational brochures, posters, rack cards, and other information, including the creation and

production of a colorful decal featuring a green sea turtle hatchling. This decal, number 21 of a series, was distributed to local tax collectors' offices across Florida.

- Assisted in the Wildlife Foundation of Florida project to provide funds from the National Fish and Wildlife Foundation to two local governments, the city of Deerfield Beach and city of Venice, to obtain funds for lighting improvements along their sea turtle nesting beaches and with a second project for the development of a mobile unit for treatment of sea turtles during cold stun events.

- Oversight of the 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: All portions of the MPP have been revised and are in various levels of review by the County, FWC, and the U.S. Fish and Wildlife Service. A complete draft that may be ready for public comment is expected in late 2012.

- Sarasota County: The 2011 revisions to the County's MPP were approved by FWC in October 2011.

- Charlotte County: FWC is partnering with the County to help develop and draft the MPP, and have split the workload of drafting and developing portions of the plan. County staff has drafted five sections for FWC to review, and FWC continues to work on a draft of the manatee data section for the County staff to review.

- Staff produced 397 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 siting 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.

- FWC also provided opinions on how to offset expected impacts to manatees for permitted port projects, including the Port of Miami's Phase III and cruise terminal J; Port Canaveral's Deepening and Widening and West Turning Basin modifications; Port Everglades and Port of Palm Beach dredging modifications; Port of Panama City's Deepening; Tampa Port Authority's berths 151, 152, and 222; and Jacksonville Port Authority projects including maintenance dredging and nearshore disposal, Mile Point, and Bartram Island and Jacksonville Bulk Terminal's Dredge Materials Management Areas (DMMAs).

- Broward County (68C-22.010, FAC) –In September 2011, the FWC Commissioners approved the rule amendments to the existing Broward County manatee protection rule. The rule amendments were filed for adoption in October 2011. Sign posting work to mark the revised zones is expected to be completed early in FY 2012-13.

- Flagler County (68C-22.028, FAC) – A proposed rule for coastal Flagler County was considered by the FWC Commissioners in November 2011 and published in February 2012. FWC staff conducted a public hearing in Bunnell later that month. In May 2012, the FWC Commissioners conducted the final public hearing and approved the rule as proposed. The rule was filed for adoption in late May 2012. Sign posting work is expected to be completed in early 2013.

- Structure Related Manatee Deaths have totaled 200 (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 6.2 manatees/year (1974-2000) to a post-retrofitting average of 2.9 manatees/year (2001-2011). The Moore Haven Lock is the only remaining water control structure requiring the installation of a manatee protection device and this structure will begin retrofitting during the summer of 2012. Overall, coordinated efforts are having a significant influence on reducing structure-caused mortality at retrofitted structures.

- In September 2009, FWC, USFWS, DEP, and The Nature Conservancy began developing a restoration plan for Fanning Springs that would remove eroded sediments from Fanning Springs run, increase available warm-water habitat for manatees and

provide manatee access to the spring run during all river stages. In January 2012, this project was completed by removing 500 cubic yards of eroded sediments from the spring run. Post project observations of manatee use of Fanning Springs indicate that the restoration project achieved its goals of restoring the spring run and, in turn, improving warm-water habitat for manatees. In less than a month after completion of the project, Fanning Springs' park staff recorded an all time high count of 21 manatees in the spring run.

- FWC worked with Florida Power and Light (FPL) to ensure that the interim warm-water refuges that are being used during the conversions of the Cape Canaveral and Riviera Beach power plants provided the necessary refuge to manatees. This was the second winter of a three winter conversion process at the FPL Cape Canaveral Energy Center and the first of three winters at the FPL Riviera Energy Center. At each plant, manatee distribution data were collected via aerial surveys and manatee movement data were collected from satellite tagged manatees. These data will provide 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 conducted to monitor manatees for cold-stress symptoms. In addition to these two FPL plants, FWC staff began drafting recommendations for the Conditions of Certification for the modernization of the FPL Port Everglades plant.

- 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 154 requests for printed materials. The "Ask FWC" service on the agency's website generated 6,311 hits for manatee related questions. FWC responded directly to 86 online requests. In keeping up with today's social networks, staff compiled manatee and sea turtle information for an iPhone app and contributes information to the agency's Facebook and Twitter feeds.

Aquatic Habitat Conservation and Restoration

The Marine and Estuarine Subsection (MES) of the Aquatic Habitat Conservation and Restoration Section is responsible for the FWC's coordinated management of marine and estuarine habitat in Florida waters. This subsection is staffed by regional biologists that work around the state with partners to develop and implement conservation projects, such as marine habitat restoration efforts, which support healthy marine fisheries. MES activities are supported by the state Marine Resources Conservation Trust Fund, and through various federal grant programs for specific habitat restoration efforts.

Marine and Estuarine Conservation through MES

The strategic actions of the marine and estuarine habitat program revolve around collaboration with other agencies, partners, and stakeholders to support marine habitat conservation activities. These actions revolve around five central goals:

1. Restoration and enhancement of the quality and quantity of marine and estuarine habitats.
2. Conservation and maintenance of intact native estuarine and marine habitats and their ecological functions.
3. Protection of Florida's native estuarine and marine habitats and their functions within respective ecosystems from degradation.
4. Influence marine and estuarine habitat management through proactive coordination and participation with partners.
5. Support marine and estuarine habitat restoration, conservation, and protection activities.

Accomplishments

- FWC northwest regional biologists initiated an oyster and seagrass restoration pilot project in West Bay (St. Andrews Bay-Panama City) to restore a seagrass community lost to the combined effects of shrimp farming and municipal waste disposal. The project will use a series of oyster reefs located on the historic deep seagrass bed edges to anchor sediments that currently suspend during periods of wave activity and cause light limitations in the water column. Combined with appropriate seagrass transplantation, this project will restore as much as 2,000 acres of seagrass historically found in West Bay. The resulting oyster reefs will enhance habitat for important fish species such as red drum, spotted seatrout, and gray snapper, and will support endangered species such as Kemp's ridley sea turtles.
- FWC worked with FDEP, NOAA, and BP consultants to assess damage from oiling and oiling prevention activities to seagrass communities in waters from Franklin to Escambia Counties. This effort resulted in the identification of 17 seagrass scarring areas that were linked to oil response vessels and boom placements that are part of an approved emergency restoration plan that will restore seagrass in affected scars and provide monitoring of seagrass recovery over time.
- FWC staff conducted integrated seagrass monitoring in the Big Bend region of Florida as part of a long-term seagrass health assessment effort. This monitoring effort has continued for a number of years, and has been incorporated into an comprehensive "Seagrass Integrated Monitoring and Mapping (SIMM)" report available at: http://myfwc.com/research/habitat/seagrasses/publications/simm-report-1/
  This monitoring effort is designed to assess changes in seagrass system health over a broad area of highly productive habitat in the northeastern Gulf of Mexico, and report the findings to managers and the public.

Florida Department of Agriculture and Consumer Services
Adam H. Putnam, Commissioner
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 2011/2012, 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 2011/2012.

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

5L-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. More than 2,500 site inspections are conducted at aquaculture facilities to ensure compliance with Aquaculture Best Management practices and state and local regulations. Staff is trained to provide a standardized evaluation based on compliance with established best management practices.

The Division certified 926 aquaculture facilities during FY 2011/2012. Shellfish producers (343 farmers) make up 37% of the certified farms, 202 ornamental producers make up 22% of the certified farms, 242 food fish producers make up 26% 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 (18%) and Hillsborough County (10%).

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 2011/2012, the Division administered 506 aquaculture leases containing about 1,182 acres and 56 shellfish leases containing about 999 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 2011/2012, the Division collected 256,056 bushels of processed oyster shell from processors located primarily in Franklin County and collected 27,504 bushels of clam shell from processors in Cedar Key. Shell planting operations accounted for the deposition of 14,650 cubic yards of processed and fossil shell on public oyster reefs in Bay, Franklin, Levy, and Santa Rosa Counties. Oyster resource development projects involving the relaying and transplanting of live oysters were conducted in cooperation with local oystermen's associations in three coastal counties. A total of 150,393 bushels of live oysters were re-planted on public reefs in Dixie, Levy, and Wakulla 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 2011/2012, 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 12,707 cubic yards of substrate materials on pubic 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 FY 2011/12, 1,790 oyster harvesting licenses were sold, representing a 6 percent decline in the number of licenses sold in the preceding year. License sales continue to demonstrate a large number of fishers remaining in the fishery, although the number of license holders has declined from a high 1,909 in 2010.

Technical Support Programs

Providing technical assistance to the aquaculture and shellfish industries is an important role of the Division. Staff provides substantial technical and administrative support for aquacultural and shellfish operations through site visits, compliance inspections, technical meetings, conferences,

workshops, and outreach projects. Staff provides guidance to aquaculture businesses to ensure compliance with Aquaculture Best Management Practices and other state and local regulations.

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 2011/2012, 555 sampling excursions were conducted to collect and analyze 11,111 water samples for fecal coliform bacteria. There were 372 management actions to close or re-open shellfish harvesting areas in accordance with the management plans for individual shellfish harvesting areas. During FY 2011/2012, a total of 107 Shellfish Processing Plant Certification Licenses were issued and 331 regulatory processing plant inspections were conducted. Based on inspection results, 34 warning letters and eight settlement agreements were issued.

Alabama – C. Blankenship presented a report on behalf of the Alabama Department of Conservation and Natural Resources, Marine Resource Division (AMRD).

All funds pertaining to the Emergency Disaster Recovery Program I (EDRP I) have been expended. The program is complete with the exception of the final reports due in November 2012.

AMRD is currently working to purchase property adjacent to the Claude Peteet Mariculture Center (CPMC) in Gulf Shores; contracts have been secured. The property is approximately 12.4 acres, contains 1,115 feet of frontage along the Gulf Intracoastal Waterway, and has an existing barge basin. Plans for the property include the use as a staging area for materials to be used as part of AMRD's artificial reef program.

Construction continues on a new laboratory and office facility located at CPMC. Once completed, the laboratory will encompass approximately 23,000 square feet and will house hatchery rearing tanks and equipment. Funding for construction activities are derived from the Coastal Impact Assistance Program (CIAP) and the Gulf of Mexico Energy Security Act of 2006 (GOMESA). Hatchery equipment for the lab is being acquired using Emergency Disaster Recovery Program (EDRP) funds. Construction is expected to be completed by Spring 2013.

AMRD has received two additional CIAP grant awards. One grant is for land acquisition for an oyster management location in southern Mobile County. The site will serve harvesters operating in Mississippi Sound and Mobile Bay. The second grant will fund a side-scan survey project to evaluate Alabama inshore and offshore water bottoms and reef zones. A third project has been submitted for the creation and rehabilitation of artificial reefs.

Fishery-independent sampling of reef fish under SEAMAP continues. A meeting was held between staff from Dauphin Island Sea Lab, (AMRD) and Southeast Fisheries Science Center to discuss the merits of the survey and why its data should be included in the next red snapper assessment. SEFSC was receptive to data from the vertical line project and ROV work being conducted. A similar program off Louisiana and similar programs planned for other Gulf States

were influential in determining the importance of these data. In addition to the catch data, the age data will be provided to GSMFC through the FIN program.

Oyster reefs continue to recover with over 313,312 pounds of oysters landed in 2011 which was more than the combined harvests from 2008-2010. Sack fees and EDRP funds were used to plant 5,100 cubic yards of shell in early May 2012. The Auburn University shellfish laboratory donated 15 million larvae that were distributed over the plant site in late May. In June, 2.7 million spat were distributed over the plant site. An additional 182,000, ½" to 1" spat and small oysters were also planted on adjacent reefs.

Select public oyster reefs are scheduled to open for harvest beginning October 15. Harvest will be monitored and regulated using AMRD's oyster management program.

Lionfish reports have continued to increase. AMRD has received 26 lionfish from spear fishing tournaments through local dive shops this year. Four more lionfish were collected during the summer SEAMAP shrimp/groundfish cruise off Alabama and western panhandle of Florida. Verified reports of tiger prawns has decreased, although the frequency of non-validated reports remains high as more people are tending to keep these 8"+ prawns for consumption. Sixteen Asian Tiger Shrimp have been acquired from January through September 20, 2012.

AMRD collected biological samples from 130 red snapper during the July 2012 Alabama Deep Sea Fishing Rodeo as part of the exempted fishing permit obtained by the Louisiana Department of Wildlife and Fisheries.

Letters were sent out to oyster leaseholders and land owners with riparian rights to update ownership, maps and lease information. The owners have until December 31, 2012 to respond.

AMRD initiated a turtle excluder device (TED) study for skimmer trawls funded through National Fish and Wildlife Foundation (NFWF). Participation has met opposition and resistance. Currently, only 3 shrimpers have participated for a total of 10 trips. Preliminary findings are of one turtle caught in a net with a TED, shrimp loss in the nets with a double cover is between 0-10%, and a negligible increase in shrimp catch in the single cover TED has been observed. However, sample size with a single cover is small and the only comparative trip (6 tows) made with the single flap cover was during July.

AMRD participated in several outreach events by providing educational opportunities to learn about the marine environment. These events included a multiday Mobile Delta Woods & Waters Exposition, Dauphin Island Sea Lab Discovery Day, the multiday Mobile Boat Show, and the AMRD art calendar contest.

AMRD continued the State's Fishery-independent Assessment and Monitoring Program (FAMP) by collecting up to 44 samples each month using a 16' shrimp trawl, beam plankton trawl, 50' seine, and water quality meter. Gillnet sampling target remains at 240 sets per year.

The Biological Sampling program was continued during 2012. A total of 1,897 recreational samples and 608 commercial samples were collected from January 1, 2012 through September 20, 2012. Targets are not expected to be obtained for some species due to fisheries closures.

From March 1, 2012 through Aug 31, 2012, MRFSS interviewers collected a total of 1,782 interviews: 563 in SH mode, 400 in PC mode, and 819 in PR mode. Interview quotas were exceeded in all modes in all waves except Wave 4 PR mode (quota missed by 32 interviews due to Hurricane Isaac).

This spring and summer have seen a large number of state record fish applications. The king mackerel record was broken in March and in again in May. The bull shark record was set in June and bettered in July; the sand tilefish record was also broken in July. There were two fish that are not only Alabama records but are also pending IGFA World records- Atlantic Goldeneye Tilefish caught in May that would be an all-tackle world record and a Black Grouper caught in August that would be a line-class world record. The black grouper broke the old Alabama record by nearly 60 pounds.

A publicity campaign to disseminate information regarding the Angler Registration Program and its requirements continues. Part of this campaign includes poster dissemination, radio ads, and magazine ads. Exempted individuals such as lifetime license holders and residents over the age of 64 are required to register annually at no cost to them.

Enforcement Section - From March 1, 2012 to August 31, 2012, AMRD enforcement officers conducted 2,800 commercial fishermen intercepts, 16,321 recreational fishermen intercepts, 9,233 patrol hours, and 6,038 vessel boarding's.

AMRD placed the following additions to regulations.

1. Clarified closure lines for areas in the gillnet regulation.
2. Added sheepshead to the Creel and Size limit regulation restricting harvest to 10 fish per person and setting a minimum size limit of 12" FL.
3. Added sandbar shark as a prohibited species to the Creel and Size limit regulation.
4. Clarified the requirements for vessel and crab float identification.
5. Clarified and further defined two live bait areas
6. Established a limit on the amount of shrimp caught by a cast net to 5 gallons per person, clarified existing shrimp closure lines, and updated trawl requirements for live bait dealers to match the revised live bait law.
7. Removed Saturday harvest of oysters and reduced the sack limit to 6 per person / 12 per boat.
8. Removed a permanent shrimp closure along the eastern shore of Mobile Bay to allow more area for commercial and recreational shrimping.

All AMRD Enforcement officers completed training in the measurement of Turtle Excluder Devices (TEDs) and shrimp trawls. The training included classroom instruction as well as time underway on a shrimp boat. Training was provided by NOAA gear specialists.

AMRD officers continue to work joint investigations with NMFS and multiple sister states.

AMRD participated in the search and recovery of the US Coast Guard helicopter 6535 that crashed in Mobile Bay.

The Enforcement Section certified 3 divers for nitrox diving to expand the dive team capabilities and to assist with lionfish efforts.

AMRD received a Port Security Grant to expand the Coastal Remote Monitoring program which is a series of closed circuit, web accessible cameras along the Alabama coast.

AMRD is working with the other law enforcement agencies in Alabama to develop a plan to more efficiently utilize enforcement officers. This plan will create cost saving efficiencies that will better serve the citizens of Alabama.

MRD Oil Spill Response and Activities - AMRD, in conjunction with the Alabama Department of Public Health (ADPH) and the Alabama Department of Agriculture and Industries (ADAI), continued the 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 are testing polycyclic aromatic hydrocarbons (PAH) levels using the LC-Florescence method, dispersants and key heavy metals. The Direct Sampling Effort Project, operated by AMRD and ADPH, is testing seafoods collected directly from Alabama waters or reef zones. The Dealer/Processor Sampling Project, operated by ADAI, is testing seafoods obtained from processors and dealers regardless of harvest location. The results of this program will be distributed to the public. AMRD has submitted a total of 468 composite samples for Year 1 through August for testing; all results have been returned as being below the level of concern. This multi-agency program is administered by AMRD.

Alabama continued a seafood promotional campaign under the direction of the Alabama Seafood Marketing Commission. The official program kick-off was in May 2012. The Alabama Seafood Marketing Program consists of public relations, television commercials, print ads and articles, radio ads, billboards, speaking appearances, distribution of marketing materials, sponsorships of events and participation at community festivals and chef events. The website eatalabamaseafood.com has been developed and has received rave reviews from the public. The program to date has been very successful. The Seafood Marketing Program is managed by AMRD.

AMRD continues to participate in the Natural Resources Damage Assessment program.

Mississippi – D. Diaz presented the report on behalf of the Mississippi Department of Marine Resources (DMR).

Mississippi Territorial Waters opened to shrimping at 6:00 a.m. on May 30, 2012; one of the earliest openings on record. An aerial survey counted 210 boats trawling in the Mississippi Sound on opening day, with the main concentration located north of Horn Island. Preliminary reports for the 2012-2013 season show increased landings from 2011, with over 2 million lbs. (headless) landed in June. Since the season opened, there have been a total of 22 tiger shrimp (*Penaeus monodon*) caught by local shrimpers and live bait boats.

The 2012 Mississippi Shrimp Newsletter was compiled and included information on seafood safety testing, economic impact studies on the inshore shrimp fishery, trip ticket program and environmental conditions influencing shrimp abundance. It was mailed to resident commercial shrimpers and is also available on the MDMR website (www.dmr.ms.gov).

Live Bait Shrimp inspections for the 2012-2013 license season included the licensing of 15 live bait dealers, 11 live bait vessels and 7 live bait transport vehicles.

Staff assisted in drafting the Sea Turtle Study Resolution that was unanimously approved Mississippi Commission on Marine Resources (CMR). The resolution acknowledges that increased turtle strandings are occurring in the northern Gulf of Mexico states, and there is a need to explore all options because timing of increased strandings does not correlate with spatial distribution of shrimping effort. The resolution also acknowledges the numerous proactive precautionary measures that have been taken by the MDMR to address fisheries interactions, which may affect sea turtles in state waters including but not limited to: renewing the Endangered Species Act Section 6 Agreement with the USFWS and NMFS to further research and protect sea turtles in the Mississippi Sound and adjacent waters, conducting weekly aerial surveys of the Mississippi Sound and adjacent waters to document vessel types and effort as well as sea turtle strandings, issuance of permits to the Institute for Marine Mammals Studies (IMMS) for rehabilitation and tagging/tracking of those rehabilitated sea turtles, and assisting IMMS in the release of those sea turtles.

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 consumption. To date, none of the 529 samples have been found to contain PAH concentrations above the FDA levels of concern.

ARTIFICIAL REEF BUREAU - Artificial Reef personnel worked on two projects during this time period. Personnel constructed juvenile reef fish habitat and helped with the release of juvenile Red Snapper on one of the state's artificial reefs. Artificial reef personnel worked with the Cedar Point Hatchery in Ocean Springs to help release 1,000 juvenile Red Snapper on Fish Haven 2. These fish were released on Reef Balls that were deployed in October 2008.

There were 30 juvenile reef fish habitats constructed at this time for a total of 60. These cage like structures are made of 3/8 inch round bar. Most will have spaces at 3 inches 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.

Artificial reef staff continues cooperation with the MDEQ regarding early restoration activities for the inshore artificial reef restoration due to possible influence of the deepwater canyon oil spill. Bids went out to companies to restore the reefs using limestone as cultch material.

FINFISH BUREAU - The Marine Recreational Information Program (MRIP) collected 1369 interviews between March 1, 2012 and September 23, 2012. All quotas were met for waves 2, 3 and 4. The monthly quota for September has been met in party/charter boat mode as of September 23, and although shore mode and private boat mode have not yet been met, there is still one week remaining in the month.

At the October 2011 meeting the Mississippi Commission of Marine Resources approved a motion to implement a trip ticket program for commercial fisheries. Seafood dealers/processors and commercial fishermen were sent a letter in December 2011 describing the program and

requesting that they come to the Mississippi Department of Marine Resources (MDMR) office to receive the Trip Ticket Program manual and trip tickets and begin reporting their landings for February by March 10, 2012. Trip tickets are reported electronically by computer or manually by filling out a paper trip ticket. 1,184 trip tickets have been submitted by dealers and fishermen for February through August 2012.

Nine recreational fishing records for seven species of finfish (both bonnethead and Atlantic sharponse shark records were broken and then re-broken) were accepted for conventional tackle and one new record was accepted for fly fishing tackle from March1, 2012 to September 30, 2012.

Conventional Tackle:

Bonnethead (*Sphyrna tiburo*) 13 lbs. 8.64 oz.

Atlantic Sharpnose Shark (*Rhizoprionodon terraenovae*) 12 lbs. 9.5 oz.

Red Grouper (*Epinephelus morio*) 20 lbs. 1.28 oz.

Lemon Shark (*Negaprion brevirostris*) 83 lbs. 2 oz.

Squirrelfish (*Holocentrus adscensionis*) 1 lb. 3 oz.

Great Barracuda (*Sphyraena barracuda*) 52 lbs. 6 oz.

Greater Amberjack (*Seriola dumerili*) 124 lbs. 4 oz.

Fly Fishing Tackle:

Gulf Kingfish (*Menticirrhus littoralis*) 1 lb. 4.7 oz.

SHELLFISH BUREAU - The Shellfish Bureau staff continued its oyster reef monitoring efforts by conducting one-minute dredge tows. Weekly water samples and bi-weekly phytoplankton samples were collected in compliance with the National Shellfish Sanitation Program.

The R/V Reef keeper and R/V Stewardship are continuing the NRDA sampling protocols as well as I.J. sampling and the 60-site intensive reef analysis. The missions of these trips are to determine the condition and present status of the oyster reefs. Various non–traditional oyster harvest areas were sampled and evaluated for their condition and suitability for possible opening or relaying of oysters. Staff has also collected oyster tissue samples for the seafood safety program with MDEQ.

The Natural Resource Disaster Assessment team continues to partner 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. At present more samples are being analyzed and evaluated.

The MDMR staff has continues cooperation with the MDEQ regarding early restoration activities for the oyster reefs due to possible influence of the deepwater canyon oil spill of April, 2010.In the early part of 2012 representatives of the MDMR and MDEQ met with interested stake holders in each of the coastal counties in a series of public meetings to discuss potential restoration strategies. Cultch plants and oyster reef restoration activities are in progress and additional restoration efforts are being planned.

Due to excessive rainfall events in the spring and Hurricane Isaac in the fall, additional oyster reef samples were taken and are being evaluated.

An FDA shellfish representative recently visited the MDMR Shellfish Bureau to conduct annual inspections of Mississippi's growing areas. Office inspections included file reviews for current sanitary surveys, annual triennial reports and a comprehensive, itemized list of all growing areas, including maps showing the boundaries and classification of each shell stock growing area. In addition, infield inspections were conducted by Mississippi's FDA shellfish representative for the shorelines of Areas 1, 2, and 5. This consisted of the shellfish staff investigating potential pollution sources from the shoreline survey maps for assessment. The MDMR proficiently passed their annual Mississippi Growing Area Classification Evaluation Plan. All procedures and management plans for the growing areas inspected were sufficient to successfully pass the rules and regulations stated in the Model Ordinance guidelines for FY 2011.

Texas – **M. Ray** presented a report on behalf of the Texas Parks and Wildlife Department (TPWD).

REGULATORY ISSUES -

Proposals for the 2013 Legislative Session - Eliminate the requirement for resident and non-resident Commercial Oyster Fisherman's Licenses. Currently, the commercial oyster fishing operations is fully covered under the Commercial Oyster Boat Captain's License and the Commercial Oyster Boat License. Therefore this license is redundant; since very few are sold, there is no gain to the department or to the industry by having this license. There are no resource/management issues in deleting these licenses.

Eliminate the requirement for resident and non-resident Sport Oyster Boat Licenses. These licenses are redundant to the requirements/privileges of the current saltwater fishing license. There are no resource and/or management issues deleting both licenses. The loss of revenue to the agency will be minimal due to the small number of licenses sold each year.

Combine requirements of resident and nonresident General Commercial Fisherman's Licenses into a single license and adopt a single license fee of no less than $30. There are no resource and/or management issues to justify having two separate licenses. Modifying the license fee to a price intermediate to the two current licenses should be revenue neutral.

Combine requirements of resident and nonresident Commercial Oyster Boat Captain's Licenses into a single license. There are no resource and/or management issues to justify having two separate licenses. Modifying the license fee to a price intermediate to the two current licenses should be revenue neutral.

Combine requirements of resident and nonresident Commercial Shrimp Boat Captain's Licenses into a single license and adopt a single license fee of no less than $40. There are no resource and/or management issues to justify having two separate licenses. Modifying the license fee to a price intermediate to the two current licenses should be revenue neutral.

Regulatory Changes and Proposals - In March, the Texas Parks and Wildlife Commission adopted two proposals. The first proposal amends §57.972, concerning General Rules, by adding two provisions governing the use of the license log and the alternative license system. In 2010 the department restructured hunting and fishing regulations to separate hunting rules from fishing rules and recreational fishing rules from commercial fishing rules. In the process, the department overlooked two regulations that remained in Chapter 65, Subchapter (A) that affect red drum with respect to license log requirements and procedures to be followed in the event that the department is ever in the position of implementing an alternative licensing system. The proposed amendment to §57.972 would migrate the applicable portions of those rules (i.e., those affecting fisheries) to Chapter 57 to allow intuitive reference. The second proposal made a clarification to the freeze closure rule to clarify current §57.975(c), " No person shall fish with a hook and line, pole and line, or throwline in an affected area during a freeze" to read, "No person shall take or attempt to take any aquatic life by any means in an affected area during a freeze."

The 82nd Texas Legislature, Regular Session (2011), enacted Senate Bill 932 (SB932), which amended Parks and Wildlife Code, Chapter 76, by adding new §76.021 to create the Oyster Shell Recovery and Replacement Program. SB932 authorized the collection $0.20 per sack of oysters with funds to be used for returning shell or other suitable cultch to public oyster reefs in order to enhance this resource. As a result of SB2, the General Appropiations Act incorporated Article IX, §18.74 allocated $50,000 each fiscal year from the General Revenue-Dedicated Game, Fish and Water Safety Account No. 9 to be spent on these enhancement activities. Coastal Fisheries is proposing the $50,000 per year limit be removed to allow the full expenditure of collected funds to-date with the ability to move unexpended balances forward into future fiscal years. Limiting the amount of funds to $50,000 per year severly limits the effectivness of the program, limits the ability to purchase adequate numbers of tags, increases costs per acre (scale of projects) and limits the Department's ability to maximize the leveragability of these fund through outside grant funding sources. It is estimated that SB932 will result in the generation of approximately $150,000 per year, but it may take several years to reach balances conducive to effective oyster reef enhancement. This proposal should have minimal impact on the Department as funds will be used to purchase and deploy cultch every couple of years once balances reach a level that will allow for oyster reef enhancement projects.

COASTAL FISHERIES PROGRAMS & PROJECTS

Fish stocking efforts

Current coastwide 2012 production totals:

Red drum: 10,826,039

Spotted seatrout total: 5,140,520

Flounder: 1,658

Life History Research at Perry R Bass Marine Fisheries Research Station

Gray Snapper samples continue to be processed for a life history study.

Otolith collections from routine gill net samples continue along with the processing and aging of otoliths collected in previous years.

The GSMFC funded FIN-Biological Sampling Project for otolith collection and processing for various marine species continues. Data from 2012 samples were successfully processed and entered in the FIN database.

A SWG grant proposal to conduct temperature and salinity tolerance testing on juvenile red drum was approved, and preparations to run trials were made.

Genetics Research at Perry R Bass Marine Fisheries Research Station

Sample collection and processing for alligator gar genetic variation studies is continuing.

A SWG grant on mid-coast oyster genetics was approved; and initial sample collection and processing was accomplished.

A genetic survey of gulf menhaden along the Texas coast was initiated, initial sample collection and processing was accomplished.

A manuscript on Green sea turtles genetics was revised and is currently in press for a peer–reviewed journal.

Artificial Reef Program

During March through September 2012, 3 petroleum platforms were reefed, generating $230,000 in donations. Matagorda Island (MI) 696A was reefed from Apache Petroleum Corp. with no-cost-savings. Another 10 new projects began and are in various stages of completion.

Staff has begun discussions with SandRidge Petroleum on the decommissioning of a large 8-pile platform in East Breaks (EB) 110, which is in 659 feet of water. It is outside the General Permit area and will be considered a deepwater reef that will be considered by Bureau of Safety and Environmental Enforcement on an individual basis. They would like to reef this platform by August 2013. It will be the largest and deepest structure reefed to date by the program if the donation is completed. This will require a complicated donation process involving numerous agencies and permits.

During the early summer, 400 tons of concrete culverts and 30 pyramid reefs were deployed at the Vancouver Liberty Ship Reef Site.

A current topic of discussion is a potentially new donation of a large 8-pile structure (HI-A-389A) located in the Flower Gardens National Marine Sanctuary. This structure is over 400 ft long (with deck removed) and heavily anchored to the seafloor. It has a tremendous amount of marine life on it, including corals. Questions arise on, if the base was left standing, who would apply for the reef permit? Can the structure be left standing higher in the water column (i.e. 50ft clearance vs. 85ft)? If the base is left in the sanctuary, what intensive monitoring would the

sanctuary require? While the federal government would prefer to have the structure removed, user constituent groups are lobbying for the structure to remain as it would be less environmentally damaging than removing it. If the structure base was left in place NOAA post-reefing monitoring requirements may be too extensive and costly for the company to fund. Thus, the company is also investigating removing the structure in its entirety and towing it to an existing reef site outside the sanctuary. Staff has spent much time discussing the options with company, WT Offshore, and the federal sanctuary.

Staff met with Congressman Farenthold, Harte Research Institute (TAMU-CC) staff and constituents (Saltwater Fisheries Enhancement Association, Port Aransas Boatman's Association) on updates to the House Bill (H.R. 3429) on placing a 2- year moratorium on removing rigs from the Gulf of Mexico. At this time, he does not think the bill will be approved since there are only a few weeks left before Congress adjourns and the Congressman is having problems finding co-sponsors. Still, this is a very hot topic in some Washington circles and throughout the Rigs-to-Reefs community. There is also concern from the oil industry about a movement to tag platforms as Essential Fish Habitat. The concern is more of the "uncertainty" of what would happen and how this could affect decommissioning of platforms. The Gulf Council is establishing an ad hoc committee to look into this issue.

Project staff members met with representatives from Saltwater Fisheries Enhancement Association (SEA), the Port of Corpus Christi, the City of Corpus Christi, and the Texas General Land Office to discuss a proposal to use GLO land for storing reef materials. The GLO has 31 acres of property within the Port and is drafting an agreement with the City of Corpus to allow us to use 2-3 acres for storing reef materials of opportunity. TPWD would be able to move the materials across the road to a loading dock owned by the Corpus Christi Port Authority to load onto barges for reefing. At this time, the City of Corpus Christi is preparing to sign the lease with GLO. SEA should begin assisting in the movement of materials to the new lease sight in the next few months.

The Artificial Reef Program continues to work with the Port Aransas Boatmen's Association, Saltwater-Fisheries Enhancement Association (SEA), Coastal Conservation Association (CCA), and the Texas Shrimp Association to plan for "Planning Zones" off Corpus for future Rigs-to-Reefs sites. The planning zones are required by the Bureau of Safety and Environmental Enforcement (BSEE) 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. 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 BSEE. TPWD submitted their plan in February 2012. Follow-up discussions with BSEE occurred on July 16, 2012. This meeting addressed any concerns/questions that BSEE had on our proposal to develop Rigs-to-Reefs planning areas off Corpus Christi that will allow us to reef some platforms in place and just save the bases of several platforms near the Texas state boundary. We have not received a formal response to date.

The TPWD Artificial Reef Program now has a Facebook page (https://www.facebook.com/TexasParksAndWildlifeArtificialReefProgram). This outlet will allow us to interact with our constituents in public and let them know when we are reefing,

diving, or working on important projects. The page went live on July 6, 2012 and 2.5 months later we have 163 "likes."

The program collected two lionfish in May during recent reef surveys in the High Island OCS area (HI-A-555 and HI-A-285). Both sites are in the General Permit area near the Flower Gardens Sanctuary. Additionally, a single lionfish was seen in July at HI-A-317 and again in September at HI-A-555. The lionfish seen on the two most recent occasions have been too deep to collect.

Work approaches the end with regard to the new Artificial Reef Program website. It is being developed by TPWD Media Services and an outside consultant (Sherry Matthews Advocacy Group). A Google Earth map was developed last year and is available through links at www.tpwd.state.tx.us/artificialreef. We continue to make it more user-friendly and update the information. The map has been well received even if we have to "walk" customers through it. The new Artificial Reef webpage is nearly complete and in its final review phase. We hope to have this up and running soon and finalized by early October.

Buyback Programs

In late March, Coastal Fisheries utilized donated funds to afford an additional round of buyback for all 3 buyback programs.

Inshore Shrimp Buyback Program

Inshore shrimp buyback round #29 application period closed 20 March 2012. During this round, 43 bids were received and a total of 18 (10 bay and 8 bait) licenses were purchased at a total cost of $151,900. The average purchase price was $8,439 with a range of $7,000 to $9,950.

Shrimp - Overall totals since 1996

- 2,110 licenses purchased
- 1,065 bay licenses and 1,045 bait licenses
- Total cost of $14.0 million
- 2,110 / 3,231 original licenses = 65% of licenses retired

Crab Buyback Program

Crab buyback round #15 application period closed on 20 March 2012 during which 11 applications were received and 1 license was accepted at a total cost of $9,200.

Crab - Overall totals since 2001

- 53 licenses purchased
- Total cost of $346,449
- Average price over all rounds = $6,537
- 53 / 287 original licenses = 19% of licenses retired

Finfish Buyback Program

Finfish buyback round #18 application period closed on 20 March 2012 during which 12 applications were received and 1 license was purchased at a total cost of $10,000.

Finfish - Overall totals since 2002

- 237 licenses purchased
- Total cost of $1,406,700
- Average price over all rounds = $5,935
- 237 / 549 original licenses = 43% of licenses retired

SPECIAL EFFORTS, STUDIES, AND TOPICS

On March 28 TPWD staff received notifications of water clarity issues in the upper Laguna Madre. Testing confirmed the presence of brown tide (*Aureoumbra lagunensis*) in the sample taken from the western shoreline of the Laguna Madre along the King Ranch property. The extent of the bloom is unknown, but field observations and reports suggest the bloom ranges from the John F. Kennedy causeway south to the northern mouth of Baffin Bay.

In April, Coastal Fisheries' species identification website came alive. The site that is helpful in indentifying fish, crab, shrimp, mollusks, miscellaneous invertebrates, vegetation, and 'other' vertebrates. The site can now be found on the TPWD website at: http://www.tpwd.state.tx.us/landwater/water/aquaticspecies/

During mid-August, a red tide, *Karenia brevis*, event occurred along the upper coast. TPWD began receiving reports of dead gulf menhaden and other species on 10 August 2012 on Matagorda Beach near the Colorado River and near Sargent. By the end of the weekend, other fish kills were reported as far east as Crystal beach on Bolivar Peninsula. On Sunday, August 12, the Texas Department of State Health Services found varying levels of *K. brevis* in their sampling and subsequently closed select areas of Galveston Bay to molluscan shellfish harvesting. By 15 August 2012, the estimates for red tide fish mortality along 20 miles of beach shoreline (Bolivar, Galveston and Surfside) were about 1 million fish, with almost 100% being gulf menhaden, but a few hardhead catfish and gafftopsail catfish were also included. By the end of August, only low cell concentrations were detected with no impacts in Galveston Bay or other bay systems.

Approved areas of Galveston Bay reopened to commercial oyster harvest on 13 September 2012.

Coastal Fisheries has been asked to assist TCEQ in setting up a pilot seagrass monitoring program. Based on seagrass data from recent projects, Coastal Fisheries believes it can detect meaningful changes in seagrass percent coverage over time by repeated sampling at 50 permanent monitoring stations. We are working on a contract with TCEQ to begin a two-tier monitoring program which includes a 50-station approach at a coastwide scale and in Redfish Bay plus an intensively-monitored site in Redfish Bay.

'OTHERS'

In April, Coastal Fisheries celebrated the 30th anniversary of its CCA Marine Development Center in Corpus Christi with a special event that showcased the facility's accomplishments over the last three decades, including the stocking of 624 million red drum. Division leaders and invited guests were very pleased and honored to take part in the ceremony. It was a sentimental occasion for those that invested so much into the program over the years. All are looking forward to the next 30 years as being even more successful that then the first 30 years.

In early September, the Texas Department of State Health Services issued a fish consumption advisory for blue marlin and swordfish for the northwest Gulf of Mexico. Blue marlin and swordfish samples have been found to have high levels of mercury, so the consumption of these fish may pose a threat to human health.

In late March, Coastal Fisheries staff attended scoping meetings for the Baryonyx Offshore Windfarm project to reiterate recommendations to the United States Army Corps of Engineers for the two 20,000+ acres state leases just offshore. An Environmental Impact Statement is being completed for direct and indirect impacts for this proposed project.

In late April, Coastal Fisheries staff and TPWD Game Wardens worked with the U.S. Fish and Wildlife to determine the cause for a Brown Pelican kill that is occurring along Upper Matagorda Bay. The kill consists of approximately 200 pelicans of various ages.

In late April, the Make-A-Wish Foundation helped bring eight-year-old Bryan Rojas to Sea Center Texas' hatchery from Kansas City, MO to fulfill his wish of catching a big redfish. Bryan had a heck of a time doing just that. The event was sponsored by the Saltwater-fisheries Enhancement Association.

On 9 May 2012, NOAA declared an Unusual Mortality Event (UME) for bottlenose dolphins in 5 Texas counties. The UME lasted from November 2011-March 2012, when 123 (119 dead and 4 live) bottlenose dolphins stranded in Aransas, Calhoun, Kleburg, Galveston, and Brazoria counties in Texas. These strandings were coincident with a harmful algal bloom (HAB) of *Karenia brevis* that started in September 2011 in southern Texas. Under the Marine Mammal Protection Act, a UME is defined as a stranding event that is unexpected, involves a significant die-off of any marine mammal population, and demands immediate response. Information to date has not identified a common cause of the event.

Future Meetings

G. Herring reported that a site for the Annual Spring meeting to be held in Florida March 19 - 21, 2012 and the Annual meeting to be held in Texas October 15-17, 2013 has not been finalized.

Publications List

A new listing of publications was provided for informational purposes.

Election of Officers

J. Gill nominated D. Diaz for chairman of the S/FFMC. The nominations were closed. D. Diaz was named chairman for 2012-2013 by acclamation.

J. Gill nominated R. Pausina for vice chairman of the S/FFMC. The nominations were closed. R. Pausina was named chairman by acclamation.

C Diaz nominated J. Gill for chairman of the GSMFC. The nominations were closed. J. Gill was named was named chairman of the GSMFC for 2012-2013 by acclamation.

C. Matens nominated R. Pausina for 1st vice chairman. D. Diaz seconded without opposition, R. Pausina was named 1st vice chairman.

J. Gill nominated D. Heil 2nd vice chairman. The nominations were closed. D. Heil was named 2nd vice chairman by acclamation.

Other Business

D. Diaz presented a resolution entitled "*Sequestration of the Wildlife and Sport Fish Restoration Program"* **(Exhibit B)**. The resolution sets forth the history and accomplishments of the Wildlife and Sport Fish Restoration Program. It discusses the funding of the program through excise tax on recreational hunting and fishing equipment and gasoline fuel tax attributable to motor boat use. These funds are part of a trust fund dedicated to managing wildlife and sport fish resources. The resolution puts on record that the GSMFC supports the Wildlife and Sport Fish Restoration Program and acknowledges its vital role in the management of wildlife and sport fish resources of the United States, and urges Congress to exempt this crucial, user-supported program from the Sequestration Transparency Act of 2012.

The resolution will be submitted to the Appropriation Committee's of the U.S. House and U.S. Senate. **J. Gill moved to approve the resolution. C. Nelson seconded. The resolution was approved.** It will be sent out for final edits and review by Commissioners prior to submitting.

There being no further business, the meeting adjourned at 4:05 pm.

EXHIBIT A

GULF STATES MARINE FISHERIES COMMISSION

January 1, 2013 - December 31, 2013

		FY2013 Operating Funds	FY2013 Total Grants	FY2013 Total Budget
EXPENSES				
	SALARIES			
	Personnel (designated)	46,727	1,041,035	**1,087,762**
	Personnel (not designated)	2,493	53,277	**55,770**
	Contract Labor	-	106,570	**106,570**
	Health Insurance	5,792	241,203	**246,995**
	Retirement	3,271	72,872	**76,143**
	Payroll Taxes	3,831	86,362	**90,193**
	Post Employment Benefit Plan	491	10,240	**10,731**
	MAINTENANCE/OPERATIONS			
	Facilities	-	-	-
	Office Supplies	1,000	52,026	**53,026**
	Postage	500	14,947	**15,447**
	Committee Travel	-	280,490	**280,490**
	Travel (Staff)	12,000	105,698	**117,698**
	Telephone	1,500	38,050	**39,550**
	Office Equipment	1,200	12,200	**13,400**
	Copying Expenses	1,000	37,200	**38,200**
	Printing	1,000	13,450	**14,450**
	Meeting Costs	12,000	64,500	**76,500**
	Subscriptions/Dues	3,000	1,300	**4,300**
	Auto Expenses	1,200	9,050	**10,250**
	Insurance	700	19,599	**20,299**
	Maintenance	12,000	125,185	**137,185**
	Professional Services	500	15,376	**15,876**
	GSMFC Courtesies	600	-	600
	Automobile Purchase/Lease	-	-	-
	Undesignated Expenditures	500	-	**500**
	Contractual	-	7,786,814	**7,786,814**
	Utilities	595	16,410	**17,005**
	Janitorial (service/supplies)	600	15,810	**16,410**
TOTAL		**112,500**	**10,219,664**	**10,332,164**
INCOME				
	STATE CONTRIBUTIONS			
	Alabama	22,500		
	Florida	22,500		
	Louisiana	22,500		
	Mississippi	22,500		
	Texas	22,500		
	TOTAL DUES			112,500
	GRANTS			
300	Habitat		-	
600	SEAMAP		258,457	
650	Interjurisdictional Fisheries		237,315	
700	Council		35,000	
749	FIN		5,114,873	
750	Sport Fish Restoration		200,000	
800	ANS		50,000	
825	Economic Data Collection		351,816	
911	EDRP I		43,898	
912	EDRP II		107,363	
925	ODRP		2,996,159	
926	Stock Assessment Enhancement		824,783	
	TOTAL GRANTS			10,219,664
TOTAL		**112,500**	**10,219,664**	**10,332,164**

EXHIBIT B

GULF STATES MARINE FISHERIES COMMISSION
2404 Government Street, Ocean Springs, MS 39564
(228) 875-5912 • (228) 875-6604 Fax
www.gsmfc.org

Larry B. Simpson
Executive Director

A RESOLUTION

Sequestration of the Wildlife and Sport Fish Restoration Program

Whereas, since its establishment 75 years ago with the passage of the Federal Aid in Wildlife Restoration Act that was later amended with the Sport Fish Restoration Act, this program has been a shining example of how beneficial a user-pay, user-benefit program can be to the conservation of natural resources;

Whereas, the combined contribution of the Wildlife and Sport Fish Restoration Program to state fish and wildlife agencies has exceeded $13 billion since its inception, which is more than any other single conservation effort in American history;

Whereas, according to the preliminary report of the 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, 91.1 million U.S. residents, 38 percent of all Americans 16 years and older, participated in wildlife-related recreation in 2011 and expended over $145 billion pursuing their recreational activities, contributing to millions of associated jobs;

Whereas, all the funds for this program are collected through an excise tax on recreational hunting and fishing equipment, which manufacturers pay and then incorporate into the cost of the equipment that hunters and anglers purchase, and the part of the federal gasoline fuel tax attributable to motor boat use;

Whereas, hunters and anglers pay these taxes with the understanding that the money is going into a trust fund dedicated to managing wildlife and sport fish resources and providing for more access to the wildlife-associated recreation they enjoy; therefore,

Be it resolved, that The Gulf States Marine Fisheries Commission wholeheartedly supports the Wildlife and Sport Fish Restoration Program and acknowledges its vital role in the management of wildlife and sport fish resources of the United States, and for this reason strongly urges Congress to exempt this crucial, user-supported program from the Sequestration Transparency Act of 2012.

Larry B. Simpson, Executive Director

MEETING SUMMARY

GDAR01 Blue Crab Assessment Workshop
Gulf Coast Research Lab Cedar Point Campus
Ocean Springs, Mississippi
November 13-15, 2012

Meeting Attendees:

Robert Leaf - GCRL, Ocean Springs MS
Wade Cooper – FWC, St. Petersburg FL
Joe West – LDWF, Baton Rouge LA
Glen Sutton – TPWD, Rockport TX
Ralf Riedel – GCRL, Ocean Springs MS (Not sure if Ralf here this day)
Phil Steele – NOAA/SERO, St. Petersburg FL
Harriet Perry – GCRL, Ocean Springs MS
Steve VanderKooy – GSMFC, Ocean Springs MS
Debbie McIntyre – GSMFC, Ocean Springs MS

DAY 3, November 15

VanderKooy welcomed the analysts back for the final day. There are currently three models for two stocks (CSA, SRA, and ASPIC). **Cooper** said it would take him about 30 minutes to pull up the SRA results that he ran last week if everyone would like to look at them. He would need to talk to Mahmoudi about the appropriateness of the model given how the model timing has been changed around from a calendar year.

The group discussed the 'overfished' issue from the day before. **Perry** and **Steele** had wondered what 'overfished' meant on a species that has been fished as hard as blue crabs but never had any significant decline that it couldn't quickly bounce back from. **Cooper** stated that the reason the mean is jumping above and below the MSY estimate is tied to recruitment, not due to overfishing at all. It is just how the recruit series comes down. It is just a function of what the recruit time series came out at. **VanderKooy** reminded, essentially, the model itself really only estimates MSY and other than tweaking the model a little bit to make minor adjustments to where we fall around that estimate of MSY (overfished or overfishing not occurring), there is really not much more that the models can give us. Now it is up to the Task Force to explain the significance of the results and interpret how it affects management.

Is there a way to adjust to have a habitat variable into the model? For instance, marsh loss over time, conversion to open water, increasing amounts of open water in a time series for Louisiana. These are the only kinds of things that would give us more resolution than what we can get now. We know that these are also partly driving the results that we are seeing. In the absence of data for these items, there isn't much more the model can work with.

Cooper explained exactly what is happening in the model and why. **West** put a projection on the CSA model for the western stock with a terminal year in 2011. If you project the population

forward, after 2017 the population quickly rebounds even with and increasing fishing rate. This is not what you would expect, i.e. crank up the effort and the population shoots up. The reason this is occurring is because this is equilibrium recruitment and you are modeling an equilibrium population. The model is increasing recruitment over what we see now forcing the population up, so, in 2011, we are below the equilibrium recruitment the whole second half of the time series. **West** further explained that when we calculate equilibrium recruitment, it is taking it somewhere in the middle of that time series which comes up with almost 500 million recruits (basically larvae) at F_{MSY} at the very start of the year before mortality applied. We are below that equilibrium recruitment in all of those time frames. **West** pointed out that recruitment does not account for the much higher mortality rate that actually exists at the point of settlement. Therefore, this number really does not have any absolute meaning. It is just the number of individuals at the start of the year, before mortality is applied. This is still estimating it below equilibrium conditions for all of that time series. **West** stated we are actually fishing under MSY. Because of the equilibrium calculations, increasing fishing up to MSY would increase our recruits. Equilibrium recruitment is just the number per recruit calculation, so it is just a mortality term and you fit that into the stock recruitment relationship with your alpha and beta parameters.

West stated that the models are showing that there definitely is a stock recruitment relationship. We relate the survey abundances, which is what the whole model is based on. R value is very low, more like a 0.3 per **West** for both the Florida and the west stock, so there is some relationship that is pulling out that is what this is basing it all on. **Perry** stated that she does not believe that we have a stock recruitment relationship in the traditional sense. **West** stated that the only way to get MSY is with that, so if we do not want to use MSY, we can always avoid that. We could do SPR instead of MSY. **Perry** asked if that is the basic assumption that is driving this. She does not believe that we have proven that we have a spawn recruit relationship. We are habitat-driven in the Gulf.

Perry stated that we also have no idea what the carrying capacity is. **West** stated that in years of good habitat precipitation, recruits go up with the adults ($R^2 = 0.34$). That is straight from the FIN survey data. **West** pointed out that this is probably a precipitation signal – in years of good precipitation, the recruits go up and the adults go up, potentially driven by reduction of predators but probably more available habitat.

Steele asked the analysts if they know of another instance or situation where they have tried to use these similar types of models for the fisheries. **Cooper** stated that this is the model that was used for the Chesapeake blue crab last year and that got past the review. **Perry** and **VanderKooy** stated that they already do have a good spawn recruit and they have got the data to support it.

VanderKooy asked, is MSY really appropriate? The argument is that, if it is not MSY and it is habitat, for example as with oysters, you could have over 100% mortality loss of oysters in Apalachicola Bay and still have a high abundance of oysters in a viable stock to be able to fish on because there is so much turnover. It is an annual crop and is continually replacing. A crab can sponge at very least two in a year, quite possibly three. **West** said this still scales with abundance. **VanderKooy** stated that the commercial fishery is not really a population estimate

either; it's just the landings. It had been decided at DW to go with MSY per **West**. **Steele** asked what the difference would be between doing MSY or SPR. Do either one of them really make a difference when it comes to this fishery? **Steele** thinks not. He does not think that either of those is a valuable indicator of what is happening here since it's not like other species.

Perry stated that, with the exception of Alabama, spawning stock is protected in all of the states. If you look at landings, besides Louisiana which did not harvest egg crabs, she does not see any relationship. She stated that we have a huge spawning stock. We do not have a winter dredge type fishery, where in the Chesapeake, all of their females are in one place at the mouth of the bay and it would be possible to overfish that but we do not have that scenario in the Gulf.

VanderKooy asked the analysts about running the model with SPR. **West** ran the SPR with no MSY to see what those results look like. **VanderKooy** pointed out that we can explain why the model is doing something weird and defend the fishery with what the analysts showed with how the equilibrium recruitment is running and what the expected outcome would be.

Steele asked what they got for their spawning stock recruitment relationship in the Chesapeake. **West** reported that they used three surveys in the Chesapeake. Two of the surveys were around 0.6 for the R and one of the surveys was around R of 0.3, so they do have more of a relationship. **Leaf** suggested that he did not think everyone should get so concerned with the R values, to think that they are able to estimate the stock size with no error. **West** stated that, of course, there is always environmental influence also. **Leaf** said that in a normal regression, you have R estimated and that is assuming that you have no error on your X term but, here, we are using estimated stock size, so there is this error in variables. If you get hung up on R 0.2, R 0.4….so that 0.4 is much better, there is not that much of a difference, but if it were R 0.9, there would be. The more data you put in the more likely you are to find a relationship.

West stated that you get high peaks and recruits the same years as the adults but whether that is a part function because there were a lot of adults that year or if it is all just precipitation, who is to know? The model will account for the precipitation in fitting the stock recruitment relationship. **Sutton** asked if recruitment is a function of adult abundance and these environmental things all combined – that is why it is so noisy? **West** stated that it may not be a recruit-limited system but that does not mean that there is not a stock recruitment relationship. At some stage there is a stock recruitment relationship. If you had no recruits you would probably have no adults in the fishery. The adult abundance may be more environmentally influenced, but it has to be part of it.

Leaf stated that stock recruitment relationship is the single most fundamental issue in all of fishery science. It influences our ability to project and, clearly, this issue will not be solved here today. **West** stated that he would be hesitant to throw out using a stock recruitment relationship or the MSY estimate on the fact that it is not a recruitment-driven system. That does not degrade the fact that there is probably an underlying stock recruitment relationship. **VanderKooy** pointed out that, if this is somewhat environmentally driven, it may be that the signal we are seeing, also, is just the recruits presenting themselves to us in the independent sampling. We have fixed stations. Salinity is not in this at all, only rainfall. **West** stated that salinity is included for the standardization of the indices. That is only influencing the catchability of the

recruits to get the standardized abundance. The rainfall impacts the model mortality recruitment processes.

Cooper showed the SPR Florida results. You are fishing at 10% SPR, death rate would be 4.4 and upwards so at around 40% you would be about 1.25. **Cooper** showed the transitional SPR which is the mirror opposite of your fishing rate. You see a pretty similar pattern for the western stock because your fishing rate is going down and that is going to be reflected by your SPR. Transitional SPR is just a snapshot of the current year's fishing and mortality rate divided by just that year's mortality rate – so what it would be if there was not any fishing whatsoever. So, it changes yearly because it accounts for the year-specific fishing rates. A normal SPR, the numbers shown before, is at the equilibrium calculation, so assuming your equilibrium mortality rate. The bottom one reflects that you are taking out about 40% of the spawning potential or you have 40% of the spawning potential left in the population this last year but that has nothing to do with how habitat precipitation might be affecting that population. It is only dealing with how much you are taking out due to fishing.

Cooper stated that, in his opinion, this is bad because you are avoiding all of the other influences on the population. The actual SPR rate would be good from using SPR for your fishery but that is when the population is responding to fishing pressure. This is 40% of the biomass level that you have left. In a lot of places, this would be okay. For instance, in red snapper, it is about 26%. You even can take crabs down to 10% sometimes because they respond so well.

Steele asked "Is this good or bad? Does this help us say that the fishery is in better shape or worse shape that what the other results reflected?" Cooper responded that there is not a lot of fishing effort and the catch has gone down but that does not have anything to do with the population. Even with declining recruitment, SPR is still going up. **West** stated that you are actually removing less of the population even though it is still going down. There are still enough animals to support itself at this level. **Perry** asked if that is what we are seeing in the commercial landings.

West said that the western stock is a better comparison because of the decline in recruitment and Florida did not have a decline, both recruits and adults have been pretty stable. **Cooper** pointed out that the SPR was pretty high in the 90s when the estimated fishing pressure was low. It came down and now it is back up around 40% again even though the population has been going down. In this period, it is due to low recruitment in this time series. We pretty much hit 20 there. This is our FMSY estimate.

West stated that, in the Louisiana assessment, since they did not have a stock recruitment or late shift integrated, they assumed that the average recruitment was the equilibrium recruitment calculated SPR and said they did not was to go any lower than they would before and they came out with an 18% SPR. That was based on the other model and not assuming a stock recruitment relationship, but literally assuming the average recruitment is equilibrium recruitment.

VanderKooy stated that just in the last decade, effort has gone down anywhere from 25-30% but yet overfishing is occurring. **Cooper** stated that this says it is "overfished" with effort down

because there has been low recruitment for a long period of time. This is real in the data per **Cooper**.

Steele pointed out that the SPR in 2011 is the highest it has been in the last 20 years. If the fishing rate is low, the population is pretty low, so there is a high proportion of that population that is not getting fished. This shows that fishing is not driving the population down. The fishing rate is not what is driving this fishery. The fishery is in good shape as far as spawners go. Therefore, something else is dictating the abundance of these animals out there, other than fishing. **Cooper** agreed, you can see that just from the observed data. Something else is going on here besides fishing just straight from the observed data. It is saying that the population is below what we should have to maintain the fishery at some acceptable sustainable yield. In a perfect world, there would be enough spawners out there to do that. The fishery is in good shape as far as SPR; 40% is good in most populations. With a couple of good recruit years due to precipitation, this whole picture would change around. **Steele** observed that there are three to five year pulses which have always happened in this fishery.

In summary, the fact that all of the indices from all of the different states are pointing in the same direction for the western stock is good reasoning that the patterns were modeling probably right and the observed data is right.

***Cooper** has been turning parameters on and off for the last couple of weeks in the models and it doesn't do much of anything. This is what reviewers are going to want to see. **Steele** stated that it looks like the analysts have done everything they could here. We need to throw some sensitivity runs in to satisfy the reviewers and move on down the road.*

*The trends are all the same and we have an SPR that we can actually talk about and it really tells a lot. The potential is there, if things all of a sudden turn around, you have got what you need out there to increase biomass. **Steele** said that if we eliminated the entire commercial catch in the GOM, he is not sure what impact that would have on this stock. **Steele** stated the fact the commercial effort was not used in this model probably would not have even mattered. **Cooper** stated that he plotted out commercial effort vs. landings and they track almost identical.*

VanderKooy stated that we have successfully gotten our base runs and are happy with them. Even though it does not look perfectly clean, we can definitely explain what is going on. The transitional SPR that was generated gives us a lot more ammunition to explain better what really may be going on here. Now the sensitivity runs must be tweaked and polished up a little more. Let's see what we like and don't like but we need something finalized today.

Leaf would like us to put together laundry list of tables and figures so we have a road map of what results need to be included in the report. **VanderKooy** suggested the analysts refer back to the menhaden SEDAR27 final report for a template.

VanderKooy reviewed list of sensitivities. At this time we are considering:

- Shrimp Effort (bycatch) – use effort and apply q as a relative index
- Partial F recruits (vulnerability) – adjust between 0.2 and 0.6

- Adjusting Model Timing
- Natural Mortality
    - Constant
    - 2-year
    - 3-year
- Environmental Signal – on and off
- Louisiana data to 1982 included
- ASPIC only (different index combinations)
    - All states combined and w/out Mississippi
- IOA for individual states separate
    - with and w/out weighting by habitat
- Eastern Stock only – Add effort and Commercial CPUE from Trip Tickets (pre-1996)

Cooper had added the shrimp effort data provided by Jim Nance to the model last night but needs to work on it to make it fit better. This data will only be a useful addition if it helps explain some of the missing mortality and the bycatch estimates from shrimping were minimal. **Cooper** stated that there are probably better ways to do this and he will continue to work on including it.

Perry asked if redfish abundance data could be included in the model as a predator source of mortality. **VanderKooy** indicated that we have all the state FID and it could be pulled but **Cooper** stated that it would possible to add that into the sensitivities by the Review Workshop. **Sutton** will have Galveston predation estimates out soon from the EcoPath/EcoSim model. This should be helpful with sensitivities. **Cooper** may be able to get the Tampa model updated for the Review Workshop as well. **VanderKooy** would see if we could pull an adult red drum index from states' FID gill nets.

The analysts ran a few of the sensitivity runs and were finding some unusual results such as fishing mortality appearing positively biased. There isn't a problem with the recruits. Adjusting the terminal year F estimates seems to help to scale down natural mortality by not including it in the penalty schedule. The model hits the Fmax if the terminal year is left in. **Sutton** stated that he might be able to get at natural mortality using the length frequency histograms similar to what he did in the Galveston Bay study. He used growth and assumed that the changing slope was related to mortality since we know the selectivity of the gear. **Cooper** thought this might be something to look at and it might work with adults using the catch curve but **Sutton** didn't think it would work because of terminal molting. However, it was agreed that not including the terminal F in the penalty schedule would likely resolve the issue.

The analysts discussed several points regarding the end of our model year which is also the peak of the fishery. Most of the fishing occurs in June/July which is not really appropriate in the model. Most of our recruits are actually entering the fishery before the reach a year so we shifted the model year. If we started at January, our recruits are removed within the first few months.

The analysts discussed the model indicating overfishing in recent years. If you look at the numbers, the catch is going up and recruits keep going down. The catch peaks and recruits never

recover but adults remain the same. The time being looked at is about the time that the drought started setting in so it might be good to put the drought index in here. **Perry** had Guillermo Sanchez send his Palmer Drought severity index to **VanderKooy** which includes both monthly and yearly values from 1980 to the present.

Cooper noticed that in the Chesapeake, they assume partial recruitment at 0.6 and do not allow any spawning by the recruits even though a percentage is mature. This may just be a timing issue in their model. They should be spawning at the end of their first year. Interesting.

Cooper asked how soon do crabs in the Gulf spawn after reaching maturity. **Perry** and **Steele** answered that about two months is a safe estimate. So the mid-point of maturity in the model is April-May (125-127 mm) and if they don't spawn until July 1 the resulting in a two month lag would be appropriate biologically.

The analysts spent considerable time reviewing and incorporating the drought data for use as an index. **West** and **Cooper** took at look at the drought information and compared it against the precipitation. **Sutton** reported on the student work at TPWD. His grad student has growth trajectories for different crabs in traps, starting with 20 mm, beginning in May and continuing through November. Measurements were taken once per week. **Sutton** explained how the research was done and it was agreed that this information could be useful. **Sutton** will forward this updated data to the analysts. **Cooper** mentioned the effects of temperature on this data. These crabs are still being kept in traps and are measured once per week. The longer that this dataset continues, the more helpful it would be in the model. The student told **Sutton** that she will gather all of the information and give it to him. **West** stated that, if **Sutton** can get all of her information to him, he will figure out some way to get this worked in, especially if it includes molt stages for growth per molt.

VanderKooy encouraged the group to finalize the base-runs and start to look at some of the sensitivity runs. **West** indicated that we will be using the AD Model Builder so **Cooper** will start on the Florida (eastern stock) runs. **Cooper** and **West** agreed to not to use the terminal F estimate and take the geometric mean on the last three years instead and may include an SPR output. Each model run for each stock will be run with the same setup for consistency.

It was decided that the Ricker stock recruitment relationship is the most commonly used and we will do the same since it was used in the Chesapeake as well. The Beverton-Holt will be substituted in the sensitivity run.

We will start with a base of partial F recruits at 0.4 ± 0.2 like in the Chesapeake. The Lorenzen M would be based on three years and put down the log likelihood.

West ran the retrospective analysis and found no bias in the adults but there was some positive bias in fishing mortality in the terminal year, so we are just going to exclude that terminal year. **West** and **Cooper** suggest using the geometric mean of the adults for the last 3 years and then do the last 2 years for F and drop the terminal year. **West** has not run the climate data yet. **West** suggested going back five years with the retrospective, essentially four individual runs. **Cooper**

will put the simulation runs together to be sure we are covering the Terms of Reference for the AW.

At this point, there is not much left to do in this context. **Cooper** stated that they can now put together a sensitivity table. **West** said that when precipitation is added to the Florida run, it seriously drops our likelihood value which means there is an age effect is picking up a lot more of the error. Most of that is in the recruit time series. It also makes it overfished. A different stock recruitment relationship is produced. **Cooper** thinks that this is a little more interpretable.

Cooper put together Florida CSA sensitivity runs and showed them on screen. MSY estimates hardly move. This is if we change the selectivity or the vulnerability recruits from 20% to 60%. When we were running it, 40% was the base model. It does not really change the harvest too much but has a big effect on the numbers which has a big effect on overfishing vs overfished. When playing with mortality it did not affect the outcome hardly at all, just moved things around. Most of the runs, when you don't account for precipitation, are not overfished. When you account for precipitation, it kicks into the overfished stage. This is rainfall. **Cooper** will investigate how closely the drought index coincides with this model run.

Why is overfishing going up with more precipitation in the last three years? Partial F is probably causing the biggest range in both overfishing and overfished. It is hard to determine what this parameter means and to come up with a value for it. In the Chesapeake, this is pretty much what they did. They chose 0.6 and bounded at 0.3 and 0.9 but we are starting our recruits a lot younger and at a different time of year. Another thing that we have to add is the retrospective and put some of the other indices up there. **Sutton** stated that it would be huge if we could empirically arrive at partial F but it would be a huge study and millions of crabs would have to be tagged. The Chesapeake had come up with some way to estimate this but it was difficult to determine exactly how.

It seems that every 3-5 years, you get a peak in recruits and adults. The drought index followed the peaks pretty similarly. The drought index lags behind the precipitation index a month or so. One rainfall event can take it out of a drought for a while. This index responds pretty rapidly to rain. **Cooper** stated that with the precipitation data included in the model, it is doing all of the reference point calculations which correspond to the lows in numbers every year. What we could do is run the calculations at above average rainfall year and below average rainfall year (instead of average rainfall year) and see how that changes around these estimates. Estimates would probably either go up or down pretty quickly. That would be representative of increasing climatic rainfall over the next couple of decades vs. decreasing. The status of fishing and overfished is reflected for the last three years.

The trouble with the drought index and rainfall is that there is a lot of variability and is probably affecting the model because it's estimating an equilibrium, not an average. It was decided that the base run will not have precipitation in it.

It was discussed again that 'overfished and overfishing' is probably not realistic with blue crabs. If you get a pulse of recruits every couple of years because of environmental influences, the population responds well. Anything stable or low with rainfall results in a reduced recruitment

signal and the population fails to respond positively in those years. It is all being strongly driven by rainfall events. Higher precipitation results in lower natural mortality… more predators are driven out of the nursery habitats and we get higher recruitment success. A few rain/recruitment pulses over a couple years keeps the population from dropping to its equilibrium level. **Cooper** showed an example for the Eastern stock when high rainfall in 2010 led to high recruitment in 2011 but the model is taking the geometric mean of three years and 2010 was a wet year. **West** suggested that they will plot the ratio time series of U/U_{msy} for each sensitivity run so we can see where the 'bad' years may be that pull down the geometric mean for reference.

There may be better terms than "overfished" and it's actually a bad term because it really is just "environmentally compromised". It has nothing to do with fishing impacts, it's environmental driven. NOAA is struggling with this too and rethinking their terminology.

Cooper reported that the Eastern stock model sensitivities showed overfished in every run (partial F, M, Precipitation, and the retrospectives back to 2007). The west coast did not budge at all with the various sensitivity runs. We are going to drop the terminal year of F because of the positive retrospective bias on fishing mortality.

Wrap-up

VanderKooy asked what a realistic time frame would be to get all of this completely ready for review. It was agreed to shoot for June 2013 to hold the Review Workshop. **Leaf** indicated that the Florida information will not fit the ASPIC model because of short time span; ASPIC requires longer time series. **West** stated the he will not be able to contribute much until January due to other commitments.

Leaf indicated that his assignments will be fairly easy because, without CPUE on the fishery-dependent data, no boot-strapping can be done either. The most time he would need would be a couple of months. **VanderKooy** will need a working draft to present to subcommittee for their approval sometime in March or April but he will need plenty of lead time for this. Sections will need to be sent back and forth also for editing. The final report NEEDS to be complete by May for the June Review Workshop.

The format for final report is based on previous assessments as templates. **VanderKooy** will provide it to each analyst and he will be incorporating the life history (distribution, genetics, biology, and habitat) and fisheries background information into the report based on the FMP drafts. **Sutton** will write data standardization protocols for both models and both stocks. **VanderKooy** will start the process and give the analysts things to work on in early February. He expects that drafting the text for the models is going to take some time. Perhaps, a rough draft can be circulated in March. Figures, tables, results, etc will need to be filed in.

VanderKooy will set the review workshop up for June. **Sutton** will present an overview of the results to the Crab Subcommittee and TTF at the March meeting. **VanderKooy** may have an additional session in March to discuss management goals and biological reference points.

With no further work, the meeting adjourned at 4:45pm.

APPROVED BY:
COMMITTEE CHAIRMAN

Flounder Technical Task Force
Meeting Minutes
Galveston, Texas
December 4 and 5, 2012

In Chairman **Sempsrott's** absence, **VanderKooy** called the meeting to order at 8:30 a.m.

The following were in attendance:

Karon Aplin, AMRD, Gulf Shores, Alabama
Wes Devers, MDMR, Biloxi, Mississippi
Jason Adriance, LDWF, New Orleans, Louisiana
Cherie O'Brien, TPWD, Dickinson, Texas
Ava Lasseter, Gulf Council, Tampa, Florida
Mike Stahl, TPWD, Dickinson, Texas
Steve VanderKooy, GSMFC, Ocean Springs, Mississippi
Debbie McIntyre, GSMFC, Ocean Springs, Mississippi

Approval of Minutes

*The minutes of the Flounder TTF Meeting held on September 11 and 12, 2012 were approved with one minor change on a motion by **O'Brien** and a second by **Devers**.*

Housekeeping Issues

VanderKooy asked everyone to review the Flounder TTF membership roster and forward any changes to **McIntyre**. None were noted.

General Discussion

VanderKooy shared an email from **Adams,** who could not be present at the meeting, regarding the status of his changes in the Economics section. He should have some updates for group review before the holidays.

VanderKooy pointed out that the Table of Contents with assignments serves as a guide for TTF members to keep track of their responsibilities for certain sections. This guide is open to change and modifications as this process goes on.

Commercial and Recreational Representation

The group discussed the addition of Chris Granger as the commercial representative. **Granger**, a commercial gig fishermen from Florida, has been approved by the Com/Rec panel and there have been no objections from any other sources. It was decided that **VanderKooy** would send out a formal letter to **Granger** welcoming him to the TTF, explaining the TTF's purpose, and inviting him to future meetings.

Aplin will pursue a Recreational Representative – someone she knows who gigs for flounder but is not a guide or charter boat captain. **VanderKooy** pointed out that a hook-and-line fisherman who knows his stuff about flounder would also be great. **Aplin** will investigate her resources for a Recreational Representative.

Section 08 - Sociology

Sociology – **Lasseter** reported that she needs a variety of informants to interview from all of the states and all aspects of the fishery. She has received the names and phone numbers of people to contact from Florida and Alabama. **Lasseter** has received two private contacts in Alabama, four private contacts in Florida, one charter in Florida, and one contact in Texas to interview as a pre-test. **O'Brien** suggested going through the CCA to get names. Harlon Pierce may be able to provide a Louisiana name and **Adriance** had previously mentioned Spicer's (a dealer in Cameron). **Lasseter** can also contact charter boat captains and ask them for references. **Adriance** suggested calling the charter boat association in Louisiana and talking to the president, Darryl Carpenter – *Reel Screamers*. Texas Saltwater Fishing Magazine.com would be a good source for a contact in Texas per **Stahl**.

Stahl suggested Trey Schmidt for commercial and/or recreational information from the state of Texas and will provide **Lasseter** with his contact information after he checks with Lance Robinson. **O'Brien** reminded **Lasseter** of the contact name she had suggested, Cindy Bohannon with TPWD. Bohannon is finishing up a state fishing survey which could be very useful. **Lasseter** will contact Bohannon.

Devers will ask Dale Diaz about Joey Everett in Mississippi to possibly use. A shrimper who lands flounder would be a good source of information as well. **Adriance** stated that he has had no luck with his attempt for a contact but he will continue to try. **Devers** will check with a couple of fish houses for a contact in Mississippi. **VanderKooy** also will check with a local guide he has worked with in the past.

Once **Lasseter** receives all of the contact information from Louisiana, Mississippi, and Texas, she will begin interviews. She would like to start contacting these people for interviews in January and February. She will then compile the information from the interviews for presentation at the next TTF meeting.

Lasseter and **Adams** have not had the opportunity to connect regarding the fish house survey.

Lasseter shared the ethnographic descripton of flounder fishing for Private Recreational: spearing, gigging, and hook-and-line. This is her approach to an informal interview where she is more of a participant than an interviewer. She plans to use some or all of these questions when talking to fishermen informants. **VanderKooy** pointed out that, even though there are 10-12 'Jubilees' per year, fishermen do not focus on flounder then. 'Jubilees' are anecdotal but are not a big component in the characteristics of the fishery. **Lasseter** pointed out that she will also ask other questions that may occur to her as the interview goes on.

Lasseter had not included any questions about the impact of marine resource management in this

interview. It was suggested that the following questions be added: "How has your fishing changed in response to management and regulations? What is the effectiveness of current management?" It was also suggested that "What are ideal conditions to fish for flounder?" should be added. **Lasseter** has compiled a separate set of charter/commercial questions.

Previously, commercial and recreational landings were broken down by state but **Sempsrott** had them broken down by county in Florida. **Adriance** stated that recreational landings in Louisiana cannot be broken down by parish. If **Lasseter** gets trip ticket data for Louisiana, it can be included, but must stay within confidentiality rules for both buyer and fisherman. **Lasseter** will have the Louisiana data checked by **Adriance** before including it. Landings in Mississippi and Texas will not be broken down by county. **Aplin** stated that she will double check but is pretty sure that Alabama will break landings down by county. **Stahl** will check to see if he can get commercial landings by gear type in Texas broken down. Louisiana is broken down by gear type for commercial but not recreational. Mississippi is broken down by gear type for commercial.

Lasseter will check with Alex Miller regarding new shrimp harvester demographic information and with Bohannon (TPWD) regarding commercial fisherman demographics. Mississippi does not have any demographics, however, Ben Posadas with MS State Cooperative may have done something. Marty Bourgeois (LDWF) can be contacted for this information in Louisiana, if it exists.

Section 06 – Description of Fishery

History - **VanderKooy** showed the group the information that he had received from **Sempsrott**. She provided some edits for the Florida section, numbers of license sales, etc. **Adriance** asked **VanderKooy** to get updated information from MRIP/MRFSS or Bray. (Table 6.1)

Table 6.2 had been updated, but just for Florida. **Devers** and **Adriance** forwarded their information to **VanderKooy** who updated the table with Mississippi and Louisiana data. **Stahl** stated that the Texas data provided by NOAA is way off; therefore, VanderKooy did not update Texas data on this table. All data are listed as flat fish in NOAA with the exception of Louisiana which lists P. lethostigma **Stahl** will get the numbers directly from Page Campbell for Texas.

Regarding the tables on identification of flounder derived from Bradshaw (personal communication) and trip tickets, **Aplin** will check on separation of gulf and southern flounder (inshore southern and offshore Gulf). It is crucial to be able to explain transition needs as described from south to north and from panhandle to central Gulf. Tampa southward is all gulf flounder, then a mixture starts in the big bend area. The southern flounder prefer muddy water and gulf flounder prefer salt water. This difference needs to be clearly described as coming from state-specific data. **Stahl** stated that gulf flounder come from down south in Texas.

FL Fishery - The updated tables provided by **Sempsrott** were reviewed by the group. Behzad Mahmoudi's group is working on a combined assessment of flounder in Florida which will be a flat fish stock assessment. **VanderKooy** will follow up with Mahmoudi.

MS Fishery - **VanderKooy** has received raw data and graphs but, to date, no text on Mississippi. **Devers** will provide the necessary narrative to **VanderKooy** no later than January, split by gear types because they are so distinct and must include division in discussion. **Devers** stated that mostly gig is being used now. Gulf flounder is not even an option on the NOAA commercial landings website – just southern and flat fish.

AL Fishery - **Aplin** came across some MRFSS data that can be incorporated in from the Alabama stock assessment. **Aplin** will obtain this information from John Mareska and forward it to **VanderKooy**.

LA Fishery - **Adriance** reviewed changes he made to Louisiana commercial landings (6.10). **Adriance** has sent this information to Blanchet for approval and has this pretty close to finished. **VanderKooy** will review for completeness.

TX Fishery - **Stahl** reported that he has updated Texas information with the new regulatory changes that have occurred, i.e. bag limit cut in half and no gigging in November to protect spawning populations. Mark Fisher (TPWD) has edited this section so it is pretty much complete. This data is just through 2010. Page Campbell (TPWD) did not have 2011 data yet.

Figure 6.6 reflects commercial landings of flounder from Texas Bay Systems (trawl). **Stahl** will add a paragraph explaining this. There was a discussion as to whether or not lifetime licenses are included in these numbers. **Adriance** stated that lifetime licenses are included in Louisiana's tables. Overall, Texas looks good.

Adams is working on the Mariculture section.

Sempsrott provided an update to the Glossary and those changes were reviewed by the group. There was a discussion regarding the definition of bycatch (incidental and discard) which was reworked slightly by the group.

Section 05 - Enforcement

Bannon was not present at the meeting. He stated that he has received information from all five states.

FL - **VanderKooy** stated that the Florida part of this section does not appear complete.

MS – **Devers** will update Table 5.1. Mississippi license information is current but **Devers** will add a paragraph regarding trip tickets. **VanderKooy** will send current verbiage to **Devers** who will take it from there. **Devers** stated that there have been no changes to Mississippi regulations since 2002. **Devers** will also add to the Quota & Bag/Possession Limits.

LA - **Adriance** was not sure that all of the updates he sent to **Bannon** were included. He will further investigate to make sure that all he has forwarded to **Bannon** has been updated.

TX – **VanderKooy** emailed **Bannon** and asked for TPWD flounder update. Most of this had

been updated per **Stahl**.

Section 04 – Habitat

O'Brien reported that she replaced/combined two sections (renamed *Distribution*). **O'Brien** explained her logic in making several changes and consolidations. She also removed some subsections which will still be addressed later, but not in individual sections. The redundancy is being reduced. In the boilerplate, there was information specific to southern and gulf flounder which was moved to the specific section *Habitat Conditions and Requirements or Preferences.* She made some changes to references to the Gulf of Mexico, i.e. eastern GOM. She also added some explanation of what habitat actually is as well as more recent papers regarding habitat selection among juveniles.

O'Brien presented a new paper by Glass and Rooker and asked the group for their opinion as to whether or not she should use it due to the fact that she had sited two blatant errors at the very beginning. It was the consensus of the group that **O'Brien** should email Rooker and ask her about these errors. She will proceed cautiously until the errors are addressed.

Jeff Rester provided some updated habitat information which **VanderKooy** forwarded to **O'Brien**. **VanderKooy** encouraged **O'Brien** to make her own decisions on how sections are named and rearranged.

O'Brien pointed out that she added some things to 4.9.4.3 under *Thermal Discharge*, i.e. salt domes, LNG open loops, offshore deslination, and petroleum in the environment. Rester can send EIS in Mississippi on the salt dome issue. **O'Brien,** also, will shoot for a deadline some time in January.

Section 3 – Description of Stock

Classification - **Aplin** stated that she has more to add this section. **VanderKooy** removed a large number of genus under Paralichtyidae. It was agreed that everyone would use AFS names until there is another version or we see another publication. **Adriance** will still work on the name issue and try to copy out the AFS book.

Devers shared that AFS has a fish name spellchecker for everyone's use. The website is: fisheries.org/fishnames. Click on spellchecker. This can be customized also. **VanderKooy** will share some of the dictionaries he has downloaded with the group.

Abnormalities – **Aplin** still has some work to do on this section.

Reproduction - **Stahl** had incorporated a couple of new papers from Lowe et al. In the Lowe et al. 2011 it states that flounder were collected from 2004 to 2006 but they only analyzed individuals captured during 2004 and 2005. The group reviewed the conclusions from these authors and decided to delete this reference. After much discussion, **Adriance** and **VanderKooy** rewrote this excerpt in a more explanatory manner reflecting Lowe's conclusions using otolith microchemistry in age zero southern flounder.

Genetics - **Sempsrott** was not present at the meeting but everyone read through this section to see if any changes need to be made. **VanderKooy** will contact Joel Anderson and/or Karel regarding genetics information.

Courtship and Spawning Behaviors – It was reported that almost all flounder seen in Texas and Mississippi are female. **Stahl** added new references and two spawning duration studies. **VanderKooy** fine-tuned these paragraphs. **VanderKooy** received landings information from Page Campbell and will update those in the landings table for all.

Age and Growth - **VanderKooy** reviewed what **Adriance** had updated. **Adriance** will check the location information in the Glass et al reference. **Adriance** stated that there was nothing to change in relation to gulf flounder. All changes were accepted.

Parasites and Diseases - **Devers** will write something up and then get together with Dr. Overstreet for input and assistance by the end of January.

VanderKooy will email an updated table with commercial flounder landings to all members.

Section 3 tables – **Adriance** made some updates and pointed out that some species can be eliminated. **VanderKooy** went through these tables and updated accordingly.

<u>GDAR Data Workshop</u>

A data request letter (for fishery dependent and independent data) should be sent out in January. A lot of data is available through crab and menhaden. We are also looking for outside data regarding flounder. TTF members should try to get some studies that have been done other than departmentally. **VanderKooy** emailed a sample request letter to TTF members for their information and review.

VanderKooy informed the group that the Menhaden SEDAR workshop will be the last two weeks of April. The GSMFC Annual Meeting will be held March 19, 20, and 21 in Clearwater Beach, Florida. At the Menhaden afternoon session, management goals will be discussed.

The group will consider the week of April 8th for TTF Meeting and Data Workshop with 1½ days DW and ½ day TTF mtg. We will have to have analysts at the DW.

VanderKooy pointed out that we will need reviewers for the assessment, not necessarily from the Gulf. They will have to have a finfish background. **VanderKooy** encouraged everyone to think about people to serve as reviewers, possibly analytical types from the Atlantic, Carolinas, Georgia, Florida, etc. The TTF will not be able to pay anything but will cover travel expenses and make it convenient for them - mainly they just need to be willing to participate.

The only thing we get from stock assessment is measure of MSY and some proxy. It is up to the TTF to think about management practices necessary to attain MSY. These practices must be reasonable throughout the states – from the Florida panhandle through south Texas.

VanderKooy shared a presentation of the GDAR Program to further explain the process of it all. **VanderKooy** explained that, in an FMP, a stock assessment is required in order to make reasonable management recommendations in an effort to reach a sustainable fishery. The Commission will be implementing the GDAR process which includes three components: a Data Workshop, Assessment Workshop, and a Review Workshop. **VanderKooy** will be working with the Commission's Stock Assessment Team (SAT) to determine the best models which will allow us to assess both species, either separately or in combination. Once the assessment is complete, the TTF will be able to generate recommendations.

VanderKooy plans to put out a request for data related to flounder right after the first of the year. This data will be examined in the Data Workshop to determine what is applicable and should be used for the stock assessment. **VanderKooy** will need every source that TTF members can come up with for this data query. Sources may include the state and federal resource agencies, colleges and universities, and NGOs.

The terms of reference establish what our intentions are and what we want to accomplish. One set should be established for the Assessment Workshop and one for Data Workshop.

Assignments/Deadlines

Everyone was asked to complete their sections and assignments **by the end of January** in preparation for the stock assessment data workshop.

Section 3 is close to being finished except for what **Devers** has to do. The analysts need to have Sections 3 and 4 complete. The only sections that can still be worked upon once all of the background updates are received are Economics and Sociology. The end of January deadline was stressed so that **VanderKooy** can begin to pull the workshop reports together.

VanderKooy asked all members to post their updates to the working website in the appropriate section and email everyone to ask them to review any materials they felt were ready. At some point, **VanderKooy** will go through all sections when time is available.

VanderKooy stressed the importance of separating commercial data into one file when submitting final versions of state sections, i.e., delete the other states' material and include only your respective state. Also, please place tables and figures in separate files. Do not place these within the document. They can be made as individual word pages with the graphic and legend. Designate a placeholder in the written text. For anything that is created, **VanderKooy** needs the source also. Be sure to designate where figures should be inserted. **VanderKooy** explained the trickiness of placing the tables appropriately within the document.

VanderKooy encouraged everyone to send their sections out for review in a timely fashion in order to receive productive constructive criticism. Everyone else should read thoroughly through the posted sections and provide comments promptly to the author.

VanderKooy pointed out that everyone should not use track changes for their own individual

sections any longer. From now on, only use track changes when making changes to someone else's work for their consideration.

McIntyre will get a set of minutes out to everyone fairly soon with assignments.

Next Meeting

The TTF and DW will likely meet in Biloxi at the Department of Marine Resources the week of April 8th with 1½ days DW and ½ day TTF meeting.

Other Business

VanderKooy reiterated that he can still get access to references. Everyone should try to get their reference information once but, if that does not work out, ask **VanderKooy** to try to acquire this information from the GCRL library.

VanderKooy reminded the group to turn in their travel as soon as possible to Alyce Catchot at the Commission.

With no further business to discuss, the meeting was adjourned at 4:00 p.m.