

**TCC CRAB SUBCOMMITTEE
MINUTES
Tuesday, March 19, 2019
New Orleans, LA**

APPROVED BY:

COMMITTEE CHAIRMAN

S. **VanderKooy**, called the meeting to order at 8:30 a.m. in Chairman **Gandy's** absence with the following in attendance:

Members

Claire Crowley, FWC, St. Petersburg, FL (*proxy for Ryan Gandy*)
Traci Floyd, MDMR, Biloxi, MS (*proxy for Rick Burris*)
Jason Herrmann, Dauphin Island, AL
Harriet Perry, USM/GCRL, Ocean Springs, MS
Glen Sutton, TPWD, Dickinson, TX
Peyton Cagle, LDWF, Lake Charles, LA

Others

Zach Darnell, USM/GCRL, Ocean Springs, MS
Luis Hurtado Clavijo, TAMU, College Station, TX
Robert Leaf, USM/GCRL, Ocean Springs, MS
Ben Young, LDWF, Lafayette, LA
L. Lee, NC Division of Marine Fisheries, Morehead City, NC
Y. Li, NC Division of Marine Fisheries, Morehead City, NC
Corky Perret, Poplarville, MS
Ray Mroch, NOAA Fisheries, Beaufort, NC

Staff

Dave Donaldson, GSMFC Executive Director, Ocean Springs, MS
Steve VanderKooy, GSMFC Program Coordinator, Ocean Springs, MS
Debbie McIntyre, GSMFC Staff Assistant, Ocean Springs, MS

Introductions

VanderKooy addressed housekeeping issues with those present and led the audience and the committee members in introductions.

Adoption of Agenda

Perry moved to adopt the agenda. **Crowley** seconded the motion, and the agenda was adopted.

Approval of Minutes

The Subcommittee reviewed their minutes from the meeting held on October 16, 2018, in South Padre Island, Texas. **Cagle** moved to accept the minutes as written, **Floyd** seconded, and the minutes were approved unanimously.

Public Comment

VanderKooy offered the audience a chance to provide any comments related to the agenda topics. There were no comments.

Range-wide Population Genetics Update

Luis Hurtado provided some updated genetics work looking at crabs from Texas, the Florida Panhandle and the Chesapeake. Since last report, he and the subcommittee have collected tissue samples from four of the five Gulf states. **Cagle** stated that Louisiana will supply additional samples to contribute to these results over the next month. These tissues are being used to explore the whole blue crab genome. Dr. Hurtado's results continue to indicate that the previous approach using neutral markers did not provide the resolution necessary to determine a single or multiple stock. There is some difference between the southwestern Gulf (south Texas and the Yucatan) and the rest of the northeastern Gulf (mid-Texas to Georgia). The division presumed in the benchmark assessment (GDAR01) may need to be reexamined if these data hold true. Hurtado will have more results in October.

New Tagging Information

Darnell (GCRL) reviewed his tagging project with the group and informed them that he will have a full report at the 2019 fall meeting. They have tagged over 18,000 female crabs and have had about 3,600 returns which is a 19.7% recapture rate. Generally, movement has been from the west to the east in most of Louisiana, Mississippi, and Alabama, stationary around Panama City, and to the west from the Cedar Key/Steinhatchee area of Florida with those crabs ending up in Apalachicola.

Another phase of the study is tagging crabs on the north side of Horn Island in Mississippi. Out of 288 mature females tagged in that area, only four have been recaptured thus far. They are finding huge numbers of mature female crabs in traps there. Gulf-wide tagging will continue through May/early June of 2019. They will spend June through September analyzing the data which will allow them to have complete analyses available by the fall meeting. **Darnell** encouraged everyone who has been tagging crabs to continue doing so for a few more months.

His team has been doing some more focused tagging in the Terrebonne, Barrataria, and Pontchartrain estuaries in Louisiana, trying to get some more detailed movement data within the estuaries as opposed to once the crabs leave and also trying to get an estimate of exploitation rates, using low and high value tags to allow them to account for reporting rates. This should also allow a way to look at the relative magnitude of commercial vs recreational harvest. They also will be doing some active telemetry of a relatively low number of crabs in the lower Pontchartrain basin, west of Mississippi sound to get some very detailed information regarding walking vs active swimming vs treading water or getting carried by the tide. They are continuing to release tags this year as time and money permit.

Alternative Assessment Models

Two presentations were given by Doctors Yan Li and Laura Lee from the North Carolina Division of Marine Fisheries. Yan Li presented the North Carolina Catch-Survey which has a lot of potential for the Gulf to apply in the next assessment. Laura Lee presented the North Carolina Traffic Light concept which is a simplified approach to using some simple indices to generate a green, yellow, red designation for a variety of parameters in their crab population. The traffic light is not an assessment but it does offer a very understandable status for stakeholders when looking at short and long-term trends.

Next Steps toward GDAR

The subcommittee agreed that a data and modeling workshop would be useful this summer to explore the potential models with existing data in advance of any revision to a benchmark and **VanderKooy** pointed out that he does have funds available for this. The purpose of the workshop would be to explore any potential models and the application of the traffic light. The objectives for the fishery

and the needs of the agencies will also be defined before moving forward with another benchmark. The terms of reference for the workshop would include specifics on better defined parameters such as fecundity and natural mortality. Research recommendations could also be discussed. The analysts will get together with **VanderKoooy** in the next couple of months to discuss this idea. Ideally, this workshop would take place prior to the October meeting.

A rough timeline was discussed. **Cagle** suggested that waiting until 2020 for an assessment would allow Louisiana to have their own assessment which is required for their MSC certification. **Cagle** will check with the folks in Louisiana regarding this.

Leaf pointed out that the goal of the stock assessment is to provide information for management of state resources. An assessment would let us see where we stand now versus six years ago. The workshop would be 2-3 days and the preliminary model results would be presented in October as an exercise in modeling.

SARP and Seafood Watch

VanderKoooy mentioned the Seafood Watch blue crab report for the Gulf and explained the issues that have arisen with trying to help a group understand the Gulf fishery. In the process of Audubon, GSMFC, and others providing input on the report, the status of Gulf blue crabs actually went down and they have become red-listed. It is up to the Commission to determine if staff will assist on these reviews for other species in the future. Seafood Watch is only concerned with Terrapins and the lack of measures to protect turtles, despite all our efforts, is what pulled down the status. The program has a predetermined narrative and will not accept the evidence provided. The fact that the Gulf still has legal hunting of Terrapins only further hurts the scores. Without widespread use of TEDs, the MSC certified population will remain red-listed everywhere except Alabama.

Other Business

Perry expressed concern regarding the continuing downward trends in juveniles that enter the fishery regardless of how the fishery is managed. She pointed out that this is happening in North Carolina and Chesapeake Bay. She pointed out the need for research in this area because why this is happening is not known. She stated that her group monitored settlement starting in 1991 in a huge Atlantic and Gulf-wide program with VIMS. She does have sporadic data and shared a handout showing average number of megalope that settle on the collectors each day. Settlement has increased tremendously and peak settlement has shifted from late summer to fall. She would like to have a discussion regarding what implications this has on the blue crab fishery.

State Report Highlights

The state representatives touched upon highlights of their state reports including derelict crab trap removals. The representatives had provided written reports prior to the meeting in the interest of time, so the state reports were only addressed briefly. The full reports are available on the Commission website or by request to Commission staff.

Adjourn

There being no further business, the meeting was adjourned at 12:35 p.m.

**FISHERIES INFORMATION NETWORK (FIN)
MINUTES
March 19, 2019
New Orleans, LA**

APPROVED BY:
Janet Brennan
COMMITTEE CHAIRMAN

Chairman **Justin Esslinger** called the meeting to order at 8:30 a.m. The following members, staff, and others were present:

Members

Chris Denson, AMRD, Gulf Shores, AL
Thomas Sminkey, NOAA/ NMFS, Silver Spring, MD
Steve Brown, FFWCC, St. Petersburg, FL
Beverly Sauls, FFWCC, St. Petersburg, FL
Nicole Beckham, AMRD, Gulf Shores, AL
Nicole Smith, LDWF, Baton Rouge, LA
Jessica Stephen, NOAA/SERO, St. Petersburg, FL
Ken Brennan, NOAA/SEFSC, Beaufort, NC
Dave Gloeckner, NOAA/SEFSC, Miami, FL
Faye Grubbs, TPWD, Corpus Christi, TX
Justin Esslinger, TPWD, Rockport, TX
Carly Somerset, MDMR, Biloxi, MS
Darrin Stewart, MDMR, Biloxi, MS
Daniel Matos, PRDNER, Mayaguez, PR

Staff

David Donaldson, GSMFC, Ocean Springs, MS
Gregg Bray, GSMFC, Ocean Springs, MS
Donna Bellais, GSMFC, Ocean Springs, MS
Joe Ferrer, GSMFC, Ocean Springs, MS

Others

Ashford Rosenberg, Gulf of Mexico Reef Fish Shareholders Alliance,
Kelly Kowal, LDWF, Baton Rouge, LA
Michaela Mayers, LDWF, Baton Rouge, LA
Kevin Bland, LDWF, Baton Rouge, LA
Ed Swindell, Marine Process Services, LLC, Hammond, LA
Geoff White, ACCSP, Arlington, VA
Mike Cahall, ACCSP, Arlington, VA
Lee Benaka, NOAA Fisheries, Silver Spring, MD
James Reinhardt, NOAA Restoration, Silver Spring, MD
Christopher Mace, TPWD, Rockport TX
Andrew Peterson, Bluefin Data, Gonzalez, LA
Jackie Wilson, NOAA Fisheries – HMS Division, Atlanta, GA
Richard Cody, ECS Federal in Support of NOAA Fisheries MRIP, Silver Spring, MD
Luiz Barbieri, FLFWC, Saint Petersburg, FL
Chris Oliver, NOAA Fisheries, Silver Spring, MD

Approval of Agenda

G. Bray asked if the committee was ok with finding some time in the agenda to receive a presentation on an Atlantic Coastal Cooperative Statistics Program (ACCSP) Update from **G.**

White. No objections were received. **M. Harden** moved to approve the agenda as written. **C. Denson** seconded.

Approval of Minutes

The minutes of the Fisheries Information Network (FIN) meeting held on March 13, 2018 in Panama City Beach, FL were approved as presented.

MRIP Update

R. Cody updated the committee about the MRIP review of website materials. Cody mentioned that MRIP found some incorrect or outdated information on their own website. They also determined it might be useful to review state and commission partner websites for outdated information. C. Krikstan from the MRIP communications team will be reaching out to state representatives to discuss potential improvements to MRIP related website content.

2019 APAIS Form Proposed Changes

T. Sminkey explained that NOAA Fisheries would like to add two questions to the APAIS form that asks anglers about having a valid saltwater fishing license and if the sampler can visually confirm that the license is valid. Samplers would ask anglers if they possessed a valid saltwater fishing license and then ask if the sampler could confirm validity by asking the angler to present it. **Sminkey** stated NOAA Fisheries would be pleased with any data collected in 2019 with the goal to have it implemented for the entire 2020 fishing year. The group discussed potential issues like enforcement confusion and legal ability to collect the actual license number. There was significant concern about asking anglers to show their fishing license. The committee agreed a follow-up conference call with the MRIP states and NOAA Fisheries would be useful. **G. Bray** will work to setup that conference call in the coming weeks.

SEFHIER Presentation

J. Stephen gave a presentation on the status of the Southeast For-Hire Integrated Electronic Reporting (SEFHIER) program. SEFHIER is a mandatory electronic reporting program for federal for-hire permit holders. Gulf permit holders will be required to submit electronic logbooks and also provide hail-out notifications and utilize a permanently affixed location device. NOAA anticipates this program will provide increased accuracy of data, reductions in recall bias and near real time access to preliminary data. The development to this point has occurred by collaboration from over 50 scientists from regional fishery management councils, commissions, FIN programs and NOAA. The final rule is expected in June or July of 2019. The logbook and hail out requirements are expected to begin around August 15th, 2019. The location technology requirement will hopefully begin around October 1, 2019. Currently, NOAA has limited funding available for program management. Additional staffing will be needed for GPS and VMS monitoring, data management, system management (IT staff), customer service, dockside validation, and enforcement. Many important decisions still need to be made with regard to the level of port sampling needed for catch validation, short term and long term data usage applications, and how to integrate logbook reports with other data like state partner data.

Red Snapper Calibration Workshop Summary

R. Cody provided a summary of the last red snapper workshop hosted by NOAA Fisheries and Gulf States Marine Fisheries Commission to continue to explore ways to calibrate and integrate general survey data with state specialized survey data. The discussion centers around how to develop a transition plan to make the best use of supplemental survey data, how to maintain a comparable time series of red snapper harvest estimates and how to ensure comparability across

states. NOAA MRIP consultants have been provided data from the state surveys and are working to determine appropriate integrated estimation methods. Consultants have noted that current efforts should be concentrated into calibration of state survey estimates with general survey estimates. **Cody** stated a draft report from the last red snapper workshop has been generated but NOAA is waiting on consultant recommendations before publishing the report. **Cody** also expects a workshop in the summer of 2019 to discuss consultant findings and recommendations for calibrating estimates with each state.

Modern Fish Act Discussion

R. Cody discussed the implications of the Modernizing Recreational Fisheries Act. He stated that NOAA is still reviewing the legislation but recognizes that the most relevant sections are 101a, 201, and 202. Section 101a requires a report that reviews the allocation process for mixed use Gulf of Mexico and South Atlantic fisheries and identifies the available sources of information that could reasonably support allocation decisions. Section 201 requires NOAA to produce a report on facilitating greater incorporation of best scientific information available consistent with data sources and analyses along with an evaluation of MRIP responses to the National Academy of Sciences recommendations. Section 202 establishes a state and federal partnerships to help establish state surveys. It also potentially provides a grant program to help states improve and implement their surveys. **Cody** stated that the GulfFIN program would be the appropriate group to work in this partnership manner in the Gulf region. He stated that NOAA would continue to provide more information as NOAA learns more of the implications of this legislature.

Open Ocean TIG / Barotrauma Workshop Update

J. Reinhardt provided a presentation on the Open Ocean Restoration Planning process from the Deepwater Horizon settlement. The comprehensive restoration plan covers many areas of focus but the greatest interest to the GulfFIN committee is the fish and water column invertebrates area of focus. A total of \$400 million has been made available to restore fish, mesophotic and deep benthic resources. In the spring of 2019, Open Ocean TIG expects to release draft restoration plan 2 for public comment, which will focus on fish and water column invertebrates along with sea turtles, marine mammals and mesophotic and deep benthic communities. Restoration activities for fish and water column invertebrates will consider reducing barotrauma in reef fish for recreational fisheries, better bycatch reduction devices for shrimp trawls, bycatch identification and communication networks, and techniques to reduce bycatch in the pelagic longline fishery. The comment period will engage the public through in-person and webinar meetings. More information on this process can be found at www.gulfspillrestoration.noaa.gov.

Review of FIN Website

G. Bray stated the recent GulfFIN Strategic Planning session identified a need to review the content on the GulfFIN website. He stated that the primary audience for our website is the scientific community and not necessarily the angling public. **J. Esslinger** mentioned the audience should also include the Gulf Council, Gulf States Commission, state and federal leadership, stakeholders and GulfFIN committee. **D. Gloeckner** mentioned that knowing the needs of these groups would help with the design and updates. **B. Sauls** suggested providing project results and how the results are used to improve assessment and management as an alternative to just project definitions. **R. Cody** stated MRIP staff could provide guidance based on their previous experience. **Bray** will ask the MRIP Communications and Education Team subgroup for assistance in formatting the details. **Bray** suggested the FIN Administrative Subcommittee convene to work the majority of details and the FIN committee to review their recommendation.

ACCSP Update

G. White gave a presentation regarding a workshop ACCSP is developing in conjunction with NOAA Fisheries, GSMFC, and the Pacific States Marine Fisheries Commission to evaluate best validation and estimation methods for comprehensive for-hire logbook reporting programs. **White** stated the audience is national representatives with expertise in survey design, data collection and estimation. The meeting is tentatively scheduled for summer 2019 in Saint Petersburg, FL. **White** also discussed ACCSPs progress in transitioning to tablet based reporting for the MRIP APAIS. He stated tablet collection has started in North Carolina and will begin for the other Atlantic states in wave 2. ACCSP is getting data much faster and samplers have been generally pleased with the new electronic reporting tool. GSMFC plans to monitor progress before making decisions to transition in 2020 or beyond.

State Updates on FIN Related Activities

Each state provided an update on fishery dependent related issues that are currently important for their state.

Florida Updates

B. Sauls stated Florida has developed and implemented a randomized biological sampling program that is more effective at sampling their fisheries than the old opportunistic method of targeting species. Florida is attempting to representatively sample types of fishing trips instead of species, and **Sauls** hopes to provide a presentation to FIN in the near future. **Sauls** also mentioned Florida had a Gulf red tide event last year and are getting data requests for economic analysis along with impacts to fish stocks. Florida requested federal funds from the Hazardous Algal Bloom Bill to assist in monitoring the impacts and data collection efforts for assessments. **S. Brown** stated Florida has received commercial data requests on impacts from the past two hurricanes to assist in disaster relief to fisherman and dealers.

Alabama Updates

C. Denson stated ALDCNR has hired a new biologist to handle their recreational sampling programs. Marie Head was present at the meeting and is getting up to speed on Alabama and Gulf of Mexico recreational data needs and issues.

Mississippi Updates

C. Somerset stated MDMR is also wanting more representative of sampling across the recreational and commercial sector for biological sampling. She stated MDMRs Charter Task Force is doing well, but they need more involvement from the state charter boats and are asking for voluntarily electronic reporting for inshore species, especially for data poor species black drum and sheepshead. **D. Stewart** noted problems with compliance specifically with commercial fisherman selling their own catch. He also reported on the commercial licensing system redevelopment. There is currently a large amount of confusion because they require separate licenses for each species. They plan to migrate to one license with endorsements linked to driver's license and using a calendar year instead of split year.

Louisiana Updates

N. Smith stated their state web site has LA Creel data available and LDWF staff are working to improve the quality of the information there. LDWF have added Cobia to their biological sampling program and they have recently hired Kelly Kowal from FLFWC. LDWF has also processed two years of America Eel ageing.

Texas Updates

J. Esslinger stated that the Texas legislature passed a bill for an oyster shell recovery program requiring dealers to return 30% by volume of oysters they purchased or pay a fee for oyster shell

restoration. Texas has been performing outreach to paper reporting dealers with code updates and additions along with form changes. **J. Esslinger** reported continued increases in Facebook advertising for seafood and bait sales. Commercial data staff are working with law enforcement on those cases. **F. Grubbs** stated TPWD creel program is ongoing since 1974 and in recent years they have increased summer surveys during red snapper season to collect more offshore trips. Texas is also progressing toward tablet data collection. Testing continues in fisheries independent monitoring work and it will likely be used for creel program work in the next couple of years.

NOAA Fisheries SEFSC Updates

D. Gloeckner reported SEFSC staff are working with ACCSP and the NOAA Fisheries SERO to obtain permit information to finalize fields for commercial electronic logbooks in the South Atlantic and Gulf. These will also apply to Mid-Atlantic and New England regions to reduce duplicative reporting. **K. Brennan** mentioned working with NOAA Fisheries SERO staff on the SEFHIER program to provide input based on experience with the headboat survey. Brennan is also working with Bluefin Data on the GPS project with 20 participants and 6 different GPS units for testing purposes.

NOAA Fisheries Office of Science and Technology Updates

T. Sminkey reported that 2019 concluded 3 years of states conducting APAIS on the Atlantic coast and spring started the review of their performance. A Northeast issue found in the low activity waves was an excess of too many low pressure sites (unproductive assignments) primarily in the charter sector. Work has begun proactively, state by state, at looking at what type of data is in the site registry and how efficient it is based on several years of sampling at a given site. That work will continue to review the Gulf states too, and help make site register improvements if needed.

Gulf Council Updates

L. Hollensead mentioned the upcoming council meeting in April and that briefing book materials would be made available soon.

Ongoing Activities

VESL Update from TPWD

J. Esslinger stated that there is currently no functionality for federal or state oyster dealer reporting in the new VESL system. **A. Petersen** stated federal functionality is awaiting license data in order to cross reference federal permits to state licenses. The state only version will go in production before the federal version. **Esslinger** reported the beta version was tested with data entry, exporting, and importing of state license data. Dealer testing began in October 2018 with 7 dealers providing overall positive feedback. Challenges include loading commercial licensing data, adapting the program to reporting requirements within the state, and keeping development and customization progress moving forward. Texas hopes to move to the production phase with a small group of dealers soon. Oyster dealer functionality should be ready in April/May 2019. TPWD also hopes to have federal dealer reporting available as soon as possible. **J. Esslinger** also suggested development of a video tutorial by Bluefin Data on how to utilize the functionality of the new VESL system.

Progress on VESL and Florida Swipe Card Project

S. Brown reported the state only version of VESL with the swipe card functionality has been beta tested by a small group of dealers. With the dealer's feedback and state personnel testing, the application is ready for production. It has the capability to begin a commercial trip ticket and validate fishermen and vessel data upon card swiping. If a card is not available, the dealer can manually enter the information to be validated against the license database. The goal to have all

dealers reporting electronically could be completed within a few years. **A. Petersen** gave a demo of VESL with the swipe card functionality. **T. Sminkey** asked about a chip enabled card option instead of magnetic strip cards for a more secure aspect. **S. Brown** mentioned that while the chip is more secure, they chose the magnetic strip cards and programmed them for both standard bar codes and QR codes.

Progress on GSMFC FIS Proposals

G. Bray updated the committee on the biological data entry and data upload process improvements happening at GSMFC. Both are being developed with better quality control and data validation. Work is also ongoing in developing a centralized database for the biological reference sets. The readings from each state aging lab will feed into a centralized reference set database in GulfFIN with the ability to have both the labs' and readers' reference set readings. With a release date of May 2019, the need for state testing and feedback for both components is important while funding is in place for the contractors to customize any requests. **Bray** stated a demo of the biological system will be given at the October 2019 meeting. **Bray** also mentioned the quality control processes developed for the commercial trip ticket data that is loaded into GulfFIN. Bluefin Data has a large amount of new quality control measures already implemented at the dealer entry level.

Discussion of Shrimp Conversion Factor Research

G. Bray stated the shrimp conversion factor proposal was submitted in 2018 and funding was awarded to GSMFC and the states. The money will come in with the 2019 FIN cooperative agreement once the agreement is submitted and approved. **M. Harden** asked when the funding will be available. **Bray** stated he hopes to be able to access 2019 funding by the end of April 2019. **J. Esslinger** asked how the states are handling purchasing of shrimp samples. **Harden** stated Louisiana will purchase from dealers with P-cards. **S. Brown** mentioned Florida may do a similar P-card purchasing. **C. Somerset** reported Mississippi will meet with the shrimp and crab bureau director for a decision on sample purchasing. **C. Denson** indicated Alabama is not sure of sample purchasing at this point.

FIN Data Management System (DMS) Issues

Review of list of personnel with access to confidential data

D. Bellais provided a list of personnel with access to the FIN Data Management System (DMS) and requested that members look over it and provide any changes to her. **D. Gloeckner** will provide the SEFSC statement of non-disclosure list to members for any modifications or deletions.

Status of FIN DMS

D. Bellais reported on the status of the FIN DMS and presented public access counts by commercial and recreational business areas for the previous year. An update was given on record counts in the FIN DMS for commercial landings. **Bellais** stated the public end user tool has been active since April 2018 with no issues being reported and the confidential end user tool was sent to Gulf partners in February for testing. The Louisiana and Alabama recreational fishing license data are being loaded on a monthly basis and Mississippi and Texas are loaded yearly. NMFS has access to the data for importing into the Angler Registry Database and they continue to publish their findings. Quota Monitoring/HMS data from the Bluefin Trip Ticket program continues to be loaded into the FIN system. An update on the biological sampling data, marine recreational fishery catch estimates and marine recreational fishery effort data was also presented.

Status of Puerto Rico Commercial Fisheries

D. Matos provided a brief presentation on the status of Puerto Rico commercial fisheries after Hurricane Maria. **Matos** wanted to thank NOAA fisheries and other agencies for the help given to Puerto Rico for recovery. The hurricane caused extensive damage to the local economy and

infrastructure. **Matos** stated three months after the hurricane, 33% of seafood restaurants remained closed due to lack of electricity, 50% of fishing villages were closed, and only 33% of fishing activity continued. Six months after the hurricane 75% of electricity was restored to the coastal areas and commercial fishing activity increased to 70%. Along with NOAA Fisheries, Puerto Rico's Commercial Fisheries Statistics' Program estimated a total of \$15.4 million in damages, \$20.5 million in economic loss and 174 jobs lost. **Matos** stated a fishery census is in process to determine the number of remaining active fishermen. During this census, it was observed that the commercial harvest of queen conch was down by 60% due to removal of algae from the sea bottom by the hurricane. They also noticed that the number of spiny lobster landings had increased 40%.

Review and Approval of 2018 FIN Annual Report

FIN Committee members were provided with copies of the draft 2018 FIN Annual Report. This is a summary of what GulfFIN accomplished over the prior year. **D. Bellais** requested that members of the Committee review the 2018 Annual Report and provide comments, revisions or corrections to **G. Bray** by June 30, 2019. **S. Brown** noted Florida was incorrectly listed as Department of Environment Protection and should be changed to the Fish and Wildlife Commission. Much discussion was had regarding possibly changing the format of the report. **B. Sauls** asked for examples from other agencies for insight to updating the 2019 document. **N. Smith** will share Louisiana's annual report as an example. **J. Stephen** suggested a communications student intern to possibly help with the updating. **Bray** stated the 2018 editorial changes and 2019 document restructure will be worked on simultaneously before June 30, 2019. He suggested reconvening the FIN Outreach Subcommittee to lead the work on the 2019 document restructure. **C. Denson moved to accept the FIN 2018 Annual Report as is with pending editorial changes.** **D. Gloeckner** seconded and the motion passed unanimously.

Subcommittee and Work Group Reports

Otolith Processors Training Workshop

G. Bray stated this continues to be a successful meeting for keeping our state processors trained on standardized ageing methods. They expect 2019 participation to include maybe 10 different labs. The Otolith Processors Training Workshop was held in May 2018 in Panama City, Florida. The 2019 meeting is being proposed for August or September 2019. The desire is to continue to meet in Panama City and repairs are ongoing after Hurricane Michael. After review by the committee **C. Denson moved to accept the report.** **M. Harden** seconded and the motion passed unanimously.

Gulf Geographic Subcommittee

The Gulf of Mexico Geographic Subcommittee/TCC Data Management Subcommittee (DMS) met in October 2018. No significant motions or action items needed to be addressed at the FIN meeting. **C. Denson moved to accept the report.** **N. Smith** seconded and the motion passed unanimously.

Operations Plan

Status of 2019 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.

Review/approval of 2019 Operations Plan

The FIN Committee was asked to review the 2019 Operations Plan. **T. Sminkey** suggested updating table D to have the items numbers referencing the corresponding task items. **D. Bellais** requested that members of the Committee review the 2019 Operations Plan and provide comments, revisions or corrections to **G. Bray** by June 30, 2019 **T. Sminkey moved to accept the 2019**

Operations Plan with pending editorial changes. D. Matos seconded and the motion passed unanimously.

The committee also discussed the 2020 Operations Plan. It was decided that the committee would review and vote on approval of the 2019 plan first and then revisit the 2020 Operations Plan in the summer of 2019.

Discussion of FIN Funding Issues

2020 FIN Funding Priorities

Committee members were provided with a list of items for funding consideration in 2020. Items were categorized as ongoing work or potential new work to be considered for available funding. The committee was tasked with identifying high priority jobs that will be forwarded to the S/FFMC for their review at the October 2019 meeting. At that time, they will decide which items will be included in the 2020 FIN Cooperative Agreement. **G. Bray** reminded the committee that Biological Sampling and Headboat Port Sampling are being funded through another NOAA agreement. All items listed as high priority will require budgets and statements of work to be delivered to **G. Bray** by August 1, 2019. The committee discussed adding just the ongoing work as high priority jobs. The committee also discussed the need to develop a list of potential new jobs in the event that additional funding or new funding sources are realized.

After further discussion **M. Harden** made a motion to include all ongoing activities as high priority. **B. Sauls** seconded and motion passed with no opposition.

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 Operations

Funded through other sources in 2020

H – Biological Sampling for Recreational Catches

H – Headboat Port Sampling

H – Commercial Conversion Factor Analysis for Shrimp

Election of Officers

The committee thanked Justin Esslinger for his service as outgoing chairman. Committee members were provided with a list of historical committee chairpersons. Currently the vice chairman is **Ken Brennan**. **Ken Brennan** was nominated to become the chairman. **Beverly Sauls** was nominated as vice chair. The nominations were closed and the chairman and vice chairman selections were approved by the Committee.

Hoshin Working Group Session

The committee were provided face-to-face time to work on high priority jobs identified in the recent strategic planning session held in November 2018. The recreational technical workgroup members in attendance started working on developing a revised GulfFIN Recreational Standards document. Another subgroup continued a discussion on developing a partner needs survey. This work will be ongoing in 2019 and progress will be reported to the FIN Committee as appropriate.

There being no further business, a motion was made to adjourn and the meeting was adjourned at 5:00pm.

TCC SEAMAP SUBCOMMITTEE
MINUTES

Tuesday, March 19, 2019
New Orleans, LA

Chairman T. Switzer called the meeting to order at 8:40 a.m. The following members and others were present:

Members

John Mareska, ADCNR/MRD, Gulf Shores, AL
Jill Hendon, USM/GCRL, Ocean Springs, MS
Ted Switzer, FWC/FWRI, St. Petersburg, FL
Brett Falterman, LDWF, New Orleans, LA
Fernando Martinez, TPWD, Corpus Christi, TX
Christian Jones, NOAA Fisheries, Pascagoula, MS

Others

Eric Hoffmayer, NOAA/NMFS, Pascagoula, MS
Darin Topping, TPWD, Rockport, TX
Paul Grammer, USM/GCRL, Ocean Springs, MS
Zach Zuckerman, LDWF, Grand Isle, LA
Paige O'Malley, LDWF, Grand Isle, LA

Staff

Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS
Dave Donaldson, *Executive Director*, GSMFC, Ocean Springs, MS
James Ballard, *Sport Fish Restoration/ANS Coordinator*, GSMFC, Ocean Springs, MS
Ashley Lott, *Staff Assistant*, GSMFC, Ocean Springs, MS

Adoption of Agenda

Under Other Business, **J. Hendon** added a brief update on the vertical line experimental work they have been doing. **J. Mareska** moved to adopt the agenda. **B. Falterman** seconded and the motion passed.

Approval of Minutes

J. Hendon moved to approve the SEAMAP minutes from the October 16, 2018 meeting as submitted. **F. Martinez** seconded and the motion passed.

Administrative Report

J. Rester stated that 2019 marked SEAMAP's 38th year of fishery independent sampling. **J. Rester** selected stations for the Bottom Long Line Survey in early February with 57 stations selected for each season. SEAMAP will now be sampling from statistical zone 10 in Florida through statistical zone 21. The States have picked their stations for the year and sampling should be starting soon. **J. Rester** has been in contact with Louisiana, Alabama and Texas regarding the vertical line stations for 2019. If any of the Subcommittee has new information on artificial reef coordinates or any other new information, please send this information to **J. Rester**. The SEAMAP Environmental and Biological Atlas of the Gulf of Mexico of 2017 was published in February. It describes the various SEAMAP surveys in the Gulf of Mexico and presents summarized data that was collected during those surveys. A few problems occurred with the Atlas where the species changed names. Some of

the species were listed twice due to different partners using different scientific names with some using the old name while others used the new name. For the future, when entering in data, make sure you have the most updated biocode list. Currently, David Hanisko is working on updating the biocode list and it should be ready for April 1. SEAMAP will be doing real time again this summer. **J. Rester** stated that he was still waiting on some 2018 data and cruise reports. Please get your data and cruise reports in as soon as possible. **J. Rester** reported that the Joint Annual Meeting was set for July 23-24 in St. Petersburg, Florida

Fishery Independent Sampling in the Gulf of Mexico

J. Rester was notified in December that SEAMAP would have \$500,000 available to optimize fishery independent surveys in the Gulf of Mexico. **E. Hoffmayer** stated that the money was part of the money from the Red Snapper work. NOAA leadership would like to use this money to evaluate fishery independent work in the Gulf of Mexico. Most of SEAMAP's surveys would stay intact, but might have some modifications to them. A steering committee will need to be established. It will be important that the members on the steering committee be involved for this process to work. Once a steering committee has been established, an initial workshop will be held, and a facilitator will be hired to focus the group and make sure goals were met. A statistician will also be hired. The Subcommittee has used Mary Cristman in the past, but if the Subcommittee has any other suggestions for a statistician let **J. Rester** know. RFPs for both the facilitator and the statistician will be sent out. An important component of this new steering committee is to incorporate new technology into the surveys. **J. Rester** stated that he was finalizing the statement of work. The goal is to hold the initial workshop later this year.

T. Switzer had a program review with NFWF. They stated that they are interested in continuing to fund fishery independent sampling. The plan was to present their findings to all Gulf partners within the next year or so. **J. Rester** noted that there were a lot of funding sources available. He was looking into funding from the Open Ocean TIG. The hope was that by 2020 when NFWF funds run out, the Subcommittee can go to Open Ocean TIG for funding. **J. Rester** asked Louisiana and Texas if other funding became available, would they be able to use that funding for independent fishery work. Louisiana and Texas stated that it would be a possibility.

Shrimp/Groundfish Trawl Surveys

Avoiding Hard Bottom Habitats

The Subcommittee was optimistic about excluding areas to be trawled, however it did not work out as anticipated for the fall survey. Several stations had to be dropped because the areas were not conducive to trawling. It was noted however, that Subcommittee members had minimal damage to the nets. If Subcommittee members have any updates to areas to be excluded or buffered around, please get that information to **J. Rester**. Once **J. Rester** has that information, he will send out a new trawling area polygon and buffer area polygon.

T. Switzer gave a presentation on Efforts to Mitigate Sponge/Trawl Interactions: Improving Sponge Detectability Using SSS Mapping Data. The goal was to better identify sponges using side scan sonar and buffer around these areas as best as possible. For the 2019 station selection, the Subcommittee will continue as they have done in the past. **E. Hoffmayer** suggested excluding/buffering areas with mud tows. In fall 2018, 350 stations were selected and 360 stations were selected in summer 2018. The Subcommittee agreed to do 360 stations for summer 2019, but decided to reduce the stations for the fall to 330 stations.

Sensors and Cameras on Trawls

E. Hoffmayer stated that they have been using trawl sensors during the Shrimp/Groundfish Surveys. They have been working well and providing a lot of information. He stated that using sensors provides data throughout the entire tow. NMFS continues to use cameras and if they can add a sensor to the trawl, they will try and do that.

Measuring Shrimp during the Summer Shrimp/Groundfish Survey

At the October 2018 meeting, **E. Hoffmayer** questioned the necessity of measuring and sexing 200 shrimp at every station. **E. Hoffmayer** asked Walter Ingram and Rick Hart to look into the matter and they found that reducing the number of shrimp measured and sexed would have minimal impact on the data. They are working on the final analysis and discussions on this and will let the Subcommittee know before the summer survey as to whether or not they need to measure and sex 200 shrimp or a lesser amount.

Vessel Pool Funding

J. Rester informed the Subcommittee that \$247,000 was available in the vessel pool for 2019. **J. Rester** needs an accounting from Subcommittee members of how many days need to be paid for. Moving forward, at the start of each year, **J. Rester** would like to go ahead and budget for the days with the money that was available. **E. Hoffmayer** noted that last year NMFS sent out Andre DuBois with Louisiana and it was a great learning experience. If possible, NMFS would like to do that again this year.

Use of Cameras to Characterize Bottom Habitat in All SEAMAP Surveys

E. Hoffmayer stated that the idea is to have some type of drop camera to identify habitat. NMFS used a GoPro camera this past year and it worked well. It is a simple read for identification purposes, however a standardized way to identify habitats will need to be established so that all partners are characterizing the bottom the same way. **E. Hoffmayer** hopes that the SEAMAP partners will start to use cameras to characterize bottom habitats.

SEAMAP Side Scan Sonar Use

T. Switzer gave a presentation on SEAMAP habitat mapping. Florida currently uses side-scan sonar (SSS) for the Reef Fish Survey. **T. Switzer** stated that Florida was in the process of purchasing another SSS which would be available for use by the other SEAMAP partners by the end of May. Texas, Alabama, Mississippi and Louisiana expressed interest in using the SSS to map areas off their coast. The Subcommittee agreed to form a Habitat Mapping Workgroup to further look into the matter. **J. Rester** asked the Subcommittee to submit representatives to be on the new Workgroup.

Review of Annual Reef Fish Video Survey Workshop

T. Switzer gave a presentation on the review of the 2019 Reef Fish Survey Workshop. This workshop was held in early March in St. Petersburg, Florida. The workshop involved video training and discussions on survey unification.

Other Business

J. Hendon and **P. Grammer** gave an update on the vertical line work they have been conducting. They have gone out to four sites. They tested the gear using smaller hooks and repeated drops. For the camera, some of the video was useful and some was not. They were hesitant to drop the camera next to an oil and gas platform. Since it was the only camera, they were afraid to lose it. The Subcommittee agreed that it would be better to go ahead and take more risks with the camera to try

and get as close to the platform as possible. **J. Hendon** stated that they will go ahead and do as many stations as possible and report back to the Subcommittee at the July meeting.

Suggestion for Joint Meeting topic in July is to have the Red Snapper Count Group give a talk/presentation. Another possible topic for the Joint Meeting is a discussion on the utility of hook gear. J. Rester will get with the Sarah and Edgardo to discuss Joint Meeting topics.

There being no further business, the meeting was adjourned at 11:56am.

**S-FFMC MENHADEN ADVISORY COMMITTEE
MINUTES
Tuesday, March 19, 2019
New Orleans, LA**

APPROVED BY:

COMMITTEE CHAIRMAN

for
Ray Mroch

Chairman Mroch called the meeting to order at 1:00 p.m. with the following in attendance:

Members

Jason Adriance, LDWF, New Orleans, LA
Ray Mroch, NOAA Beaufort Lab, Beaufort, NC
Jerry Mambretti, TPWD, Dickinson, TX
Peter Himchak, Omega Protein, Tuckerton, NJ (on conference call)
Matt Hill, MDMR, Biloxi, MS (on conference call)
Scott Herbert, Daybrook Fisheries, New Orleans, LA
John Mareska, ADCNR/MRD, Dauphin Island, AL
Francois Kuttel, Westbank Fishing, LLC, New Orleans, LA
Joe O'Hop, FWC, St. Petersburg, FL
Ben Landry, Menhaden Advisory Council, Houston, TX

Others

Robert Leaf, USM GCRL, Ocean Springs, MS
Al Vindrine, Daybrook Fisheries, New Orleans, LA
Borden Wallace, Patronus Consulting, New Orleans, LA
Shane Treadaway, Westbank Fishing, LLC, New Orleans, LA
Traci Floyd, MDMR, Biloxi, MS
Ben Young, LDWF, Lafayette, LA
Trevor Moncrief, MDMR, Biloxi, MS (on conference call)
Tommy Williams, Daybrook Fisheries, Baton Rouge, LA
Fernando Martinez-Andrade, TPWD, Corpus Christi, TX
Joe Jewell, MDMR, Biloxi, MS
Chad Hanson, PEW, Crawfordville, FL
Kendall Dix, Healthy Gulf, New Orleans, LA
Corky Perret, Poplarville, MS
Amy Schueller, NOAA Beaufort Lab, Beaufort, NC (on conference call)
Gavin Rhodes-Harrison, Daybrook Fisheries, New Orleans, LA
Ed Swindell, Marine Process Services, Hammond, LA

Staff

Dave Donaldson, GSMFC, Executive Director, Ocean Springs, MS
Steve VanderKooy, GSMFC, Program Coordinator, Ocean Springs, MS
Jeff Rester, GSMFC, Program Coordinator, Ocean Springs, MS
Debbie McIntyre, GSMFC, Staff Assistant, Ocean Springs, MS

Introductions

Chairman **Mroch** welcomed everyone and **VanderKooy** addressed housekeeping issues. Introductions were made.

Adoption of Agenda

Herbert moved to approve the agenda, **Mambretti** seconded, and the agenda was approved.

Approval of Minutes

The MAC reviewed the draft minutes from the last annual meeting on October 16, 2018 in South Padre, Texas. **Mambretti** moved to accept the minutes, **Adriance** seconded, and the minutes were accepted.

Public Comment

Mroch offered the audience a chance to provide any comment related to the agenda topics or anything else menhaden-related. There were no comments.

Update on 2018 Gulf Menhaden Season

Mroch reviewed final landings for the 2018 menhaden season. Three factories were active, Moss Point, Empire, and Abbeville with 28 regular vessels and five run boats. It was a wetter-than-average spring so there was high river flow as well as nutrients and the Dead Zone was average in 2018. The total landings for last year came in at 525,635 mt. The 2018 landings compared to March 2018 forecast showed actual landings were 24% higher. It is unclear why the forecast was so far off; it is typically within 14% but landings were high in the early spring with very high catches seen in May. Landings were steady all season with the exception of September when two tropical systems kept the boats off the water. Based on the 2018 effort, NOAA forecasts the landings for 2019 to be around 454,000 mt. **Mroch** is still exploring the potential shift to electronic reporting of the Captain's Daily Fishing Reports (CDFRs) and will continue to find funding to implement the move by 2020.

Update on the Atlantic Menhaden Fishery

Mroch provided a brief update on the 2018 fishing season along the Atlantic as well. On the Atlantic, there was one factory which operated at Reedville, VA for reduction. Following the last assessment, the total TAC was raised to 216,000 mt of which 152,392 mt were available for reduction. The total landings in the reduction fishery finished at just over 141,000 mt. This was an increase of almost 10% compared to 2017. A total of eight reduction vessels operated at Reedville as well as one snapper boat in Virginia, and four bait boats. 2018 was the third year in a row of large menhaden landings in the Northeast so an episodic event was declared for bait only which four states participated in. The season began average and uninterrupted until Hurricane Florence reduced fishing in September/October.

Updated indices of abundance from Louisiana fishery-independent sampling

Adriance provided an update on the Louisiana derived abundance indices. The industry requested these be provided from the previous year's fishery-independent samples to provide some 'forecasting' tools. However, LDWF provides no predictions. Generally, the seine, trawl, and gill-net indices have been increasing the last two years. Wallace asked if the high water levels affect the indices. **Adriance** explained that the effect of river flow on the indices has not been looked at in years and is not part of the monitoring in the current report.

Summary of Reference Points Workshop

VanderKooy explained what took place at the benchmark reference points workshop in February in New Orleans. State managers, industry reps, and ENGO and conservation reps all participated. The workshop was facilitated and the group discussed goals and objectives for the fishery. Using some exploratory tools provided by Dr. Doug Butterworth, the group agreed to continue moving forward with potential candidate reference points and any associated harvest control rules. Another workshop will be held later this spring to test the robustness of a variety of reference points in a management scenario. Following that work, the group hopes to find an option that all stakeholders can live with and collectively suggest to managers for potential implementation. The industry would like this for

their MSC effort and the ENGOs would like to have some control strategy implemented and all agreed to work proactively to that end.

One of the needs that came out of the workshop was for the state reps to explain how the legal process works in each agency to adopt or implement potential management strategies. Each agency representative addressed what was required to move forward with potential reference points and harvest control rule. **Mambretti** indicated that Texas would require about 18 months. The TPWD requires stakeholder outreach, Commission review, and finally legislative action. **Adriance** explained that the LDWF Commission has the authority on a quota. If it is handled with a quota, the regular rule making process would work but there must be public comment, legislative oversight, and potentially a legislative hearing on the proposed rule. The process would take at least six months once on agenda.

In Mississippi, Joe Jewell explained that the change must be approved by their Commission. There must be a notice of intent, public comment and assuming no major issues, the rule could be adopted in 90 days. If public hearings are requested, the process could take 120 days. **Mareska** indicated that the AMRD does not have a time issue, as it would only require amending a current regulation. The Director would take the issue to the Commissioner and the Conservation Advisory Board. There would likely be a public comment period but it could be adopted in the fall when the Alabama Commission meets.

O'Hop and **Hanson** reported that the FWC is similar to Louisiana and it could take a minimum of six months to a year to implement anything. Not having purse seining in the state would be the first hurdle however, it would be hard to set a rule when there was no fishery. The Florida Commission meets five times a year and following discussion, a draft rule, public hearing, and final rule, the proposed action could take place.

In the event that a suitable set of reference points and harvest control rules could be agreed upon in the workshop process by the various stakeholders, **VanderKooy** hopes that it would help the process but ultimately, implementation is at the state level, not the GSMFC. We are simply going through the process, it is up to the industry and agencies to work together should we arrive at an acceptable management proposal.

MSE Analysis of Reference Points for Gulf Menhaden: An Initial Illustrative Example

Leaf spoke about the proposed way forward and gave a brief review of the post-workshop actions. Since the New Orleans workshop, we have assembled a technical team to put the strawman models together which includes **Leaf**, Doug Butterworth, Rebecca Rademeyer, Dave Chagaris, and they will keep Amy Schueller in the loop. **Leaf** reviewed the short term schedule of goals moving forward. The technical team expects to be finished reviewing all the reference points and goals suggested in the workshop by late April. **VanderKooy** will set up a mid- to late June workshop for the team and all the stakeholders to meet again. The first day would be only for the team to finalize the data elements and model runs and the second day would be for the stakeholders to review all the potential reference points and determine those that seemed to fit the fishery and overall goals the best. At that point, the process will hopefully be wrapped up and the MAC could develop a proposal for presentation to the GSMFC at the October meeting and the state agencies could begin to consider.

Marine Stewardship Certification of Gulf Menhaden

Landry updated everyone on the progress being made on MSC certification. The Atlantic has been recommended for certification by the third party certifier and the Gulf is behind the Atlantic

but both fisheries seem to be on track for completion. It is expected that following the recommendation for Atlantic Menhaden certification, the other stakeholders will file an appeal with MSC and SAI Global.

Other Business and Public Comment

Mroch offered the audience a chance to provide any comment related to the agenda topics or anything else menhaden-related. There were no comments offered.

There being no further business, the meeting was adjourned at 4:05pm.

APPROVED BY:
[Signature] 10/16/19
COMMITTEE CHAIRMAN

**GSMFC LAW ENFORCEMENT COMMITTEE/
GMFMC LAW ENFORCEMENT TECHNICAL COMMITTEE
JOINT MEETING SUMMARY
Wednesday, March 20, 2019
New Orleans, LA**

The meeting was called to order at 8:30 a.m. by Chairman Carron. The agenda was adopted unanimously on motion by Pearce and second by Barker. The summary of the October 17, 2018 LETC/LEC meeting held in South Padre Island, Texas, was approved as written on motion by Barker and second by Downey. Introductions were made and **Carron** welcomed everyone.

Members

Edward Skena, LDWF
Patrick Carron, MDMR
Jason Downey, AMRD
Tracy Dunn, NOAA
OLE Scott Pearce, FWC
Jarret Barker, TPWD
Cynthia Fenyk, NOAA
Mark Zanowicz, USCG

Others

Joseph Scarpa, NOAA OLE
Doug Boyd, GMFMC
Roy Crabtree, NMFS
Ed Swindell, GMFMC
Jessica Stephen, NMFS

Staff

Ava Lasseter, GMFMC
Donna Bellais, GSMFC
Debbie McIntyre, GSMFC

GMFMC LETC Session

Recreational Red Snapper State Management Programs

Lasseter reviewed the new action for federal water closures that was added at the Council's October 2018 meeting, and informed the LETC that the Council is scheduled to take final action on the State Management Amendments at its April 2019 meeting.

Historical Captain Endorsement Action

Lasseter informed the LETC of the Council's preference for the historical captain endorsement action.

Review of Council Actions to Determine Law Enforcement Implications

Lasseter reviewed the Council's Action Schedule with the LETC. LETC members did not identify additional actions with enforcement implications at this time.

Issue of non-permitted vessels taking paying passengers to fish for red snapper in federal waters

Lasseter noted that during the state management public hearings, several for-hire operators expressed frustration with observations of state-licensed charter boats and privately owned boats taking paying passengers to fish for red snapper in federal waters. LETC members noted that they have heard these complaints and have recent, active investigations. They noted that such investigations are longer term and require more time and financial resources than on-the-water enforcement of fishing regulations, as officers must book trips undercover to make a case. LETC members advise for-hire operators to communicate with their state agencies about their concerns.

Developing a Possible Team of the Year Award

The LETC discussed revising the Officer of the Year Award to allow nomination of either an individual officer or a team of officers by each state. The LETC proposed revisions to the Council's award form to accommodate submission of either nomination. The LETC also proposed revisions to the nomination process, as outlined on the attached form. The LETC then made the following motion:

The LETC recommends the Council expand the Officer of the Year Award to include nominations for either an Officer of the Year Award or Team of the Year Award, and accept the proposed changes to the eligibility criteria.

LETC Other Business

Council member Ed Swindell asked about the needs of law enforcement, such as equipment and costs, that would be needed as the states take a greater role in the management and enforcement of the recreational harvest of red snapper. LETC members discussed their expectations and changes to enforcement.

GSMFC LEC Session

Future of JEAs and JEA Funding Discussion

Carron deferred to Dunn on this issue who reported that funding is expected this year although the amount of money and the allocation scheme are not available yet.

Status of Law Enforcement Post-shutdown

Zanowicz stated that the Coast Guard did very little fisheries patrol with no violations during the government shutdown, but they are back to normal now. Pearce stated that Florida's biggest issue was permit renewal and this was addressed accordingly.

IJF Program Activity

Cobia Profile

An update on the Cobia Profile was provided by Carron. This document is complete and will be submitted for approval to the TCC.

Red Drum Profile

The Task Force for the Red Drum Profile is in the process of being formed. The LEC representative on this task force will be Scott Pearce. The introductory meeting will likely be held in early June.

Officers' Pocket Guide

McIntyre reminded the group that this publication is now officially discontinued per this committee's recommendation at last fall's meeting due to the fact that it was not really functional anymore with the availability of apps, etc.

Annual License and Fees

McIntyre pointed out that she will contact state and agency reps approximately May 1st with a request for Annual License and Fees information for the year 2018. She displayed the previous year's publication and encouraged new members of this committee to contact her with any questions. This publication is printed in-house and a copy is sent out to the LEC, state directors, commissioners, and proxies. This publication is mainly used for historical reference, a way of comparing license and fees statistics.

Law Summary (Red Book)

McIntyre stated that she will contact state and agency representatives approximately mid-August requesting them to provide her with a high definition PDF version of their latest commercial and recreational saltwater regulations pamphlets. This publication is simply a compilation of all state/agency regulations into one spot and is primarily for historic use. She displayed last year's publication and encouraged new members to contact her with any questions. This publication is made available online only.

State Report Highlights

Written state reports were requested in advance and only highlights were presented for time purposes during state reporting.

Zanowicz provided an update regarding lanchas. He stated that the USCG is continuing to interdict lanchas off of the U.S./Mexico coast near south Texas. Detections and interdictions are occurring at a higher rate this fiscal year than in previous years. As of the end of February, they made 83 detections compared to 75 at the end of February last year. Additionally, they interdicted and seized 49 lanchas in FY19 compared to 29 at this same point in FY18. One of the reasons for this increased rate is due to the TML AEROSTAT, a prototype Customs and Border Patrol asset whose testing phase occurred earlier this year. The AEROSTAT had advanced RADAR capability that resulted in more detections. Additionally, the USCG is continuing to work on an updated analysis to estimate total number of lancha incursions per year. Once completed, this report will be sent to NOAA SE Region along with catch data from seized lanchas for potential use in future red snapper stock assessments.

Pearce made a motion to accept the state reports with a second by Barker.

Other Business

Doug Boyd informed the group that this was his last meeting and he expressed his appreciation of having worked with this group for many years. He offered his assistance should he be needed on an advisory basis.

There being no further business, the meeting was adjourned at 11:37 a.m.

Purpose of Award

To recognize an individual or team that has exemplified the virtues of professionalism and dedication, and demonstrated exceptional service by enforcing fisheries regulations in the federal waters of the Gulf of Mexico.

Eligibility Criteria

- Nominee(s) must be ~~an~~ active, full-time, paid, state or Federal fisheries law enforcement officer(s) or U.S. Coast Guard officer(s).
- Nominee(s) must reside and be assigned or attached for duty in one of the five Gulf states.
- ~~The duties of the N~~nominee(s)'s ~~duties~~ must be relevant to the enforcement of federal fisheries regulations in the Gulf of Mexico region.
- Nominee(s) must demonstrate a good reputation professionally and personally among his or her peers and communities.
- Nominee(s) must have maintained an outstanding level of productivity and professional achievement with a significant positive impact on fisheries enforcement.

Award Criteria

Team Work and Public Outreach – Nominee(s) excels in educating the public about regional fishery management issues and priorities.

Partnerships – Nominee(s) demonstrates intra- and inter- agency cooperation through team efforts or mentoring others and is dedicated to the federal management of Gulf of Mexico fisheries agency missions.

Excellence and Innovation – Nominee(s) is willing to go beyond the call of duty and continually seeks to improve efficiency on the job. Nominee(s) has identified means to increase constituent satisfaction or cost-savings for the agency and has taken steps to achieve implementation.

Attitude and Leadership – Nominee(s) portrays a positive perspective to fellow workers and the public, and takes personal responsibility for meeting commitments and solving problems. Nominee(s) demonstrates standards of

excellence and professionalism and exemplifies standards and conduct that reflect honesty and fairness.

Achievements and Accomplishments – ~~Nominee's~~ The job performance of the nominee(s) demonstrates distinguished career-oriented accomplishments, which have assisted in fulfilling his/her agency's responsibilities related to the federal management of Gulf of Mexico fisheries.

Guidelines

The nomination package may include a letter from supporting items such as letters from the nominee's agency heads/supervisors in addition to this nomination form. ; performance reviews, official reports, statements, etc. ~~It is recognized that confidentiality considerations may preclude the submission of some reports and related materials.~~ Nominations should be made for performance in the 2017 nomination calendar year.

Each agency may submit no more than one nomination for either an Officer of the Year or Team of the Year Award. Nominations are due no later than ~~March 23~~ February 1, 2018-2020. At its March meeting, the LETC will discuss the nominations and make recommendations for the top two nominees.

The Gulf Council will review the nominations in a closed Council session, notify the winning officer and his agency, and present the award to the officer at a subsequent Council meeting.

Gulf of Mexico Fishery Management Council 2017 Law Enforcement of the Year Award

Nominee's Information:

Commented [AL1]: Modify form to be a fillable pdf, including fillable spaces for Award Criteria.

Name: _____

Position/Title: _____

Agency/Department: _____

Mailing Address: _____

Phone: _____

Email: _____

Nominator's Information:

Name: _____

Position/Title: _____

Agency/Department: _____

Mailing Address: _____

Phone: _____

Email: _____

Please use no more than one page to respond to the following three items.

1. Describe the nominee's current responsibilities.
2. Describe the nominee's significant contribution(s) to fisheries enforcement.
3. Describe specific qualities that make the nominee deserving of this award.

Nominations are due no later than ~~March 23~~February 1, 2018~~20~~
(~~deadline extended~~).

Attach your response to this cover sheet
and email to gulfcouncil@gulfcouncil.org.

:
Gulf of Mexico Fishery Management
Council c/o ~~Steven Atran~~Ava Lasseter
~~2203-4107 NW. Lois Avenue~~Spruce Street, Suite
~~1100~~200 Tampa, FL 33607

Nominations may also be submitted by fax to: 813-648-
1711, or emailed to: gulfcouncil@gulfcouncil.org.

Nominator's Signature: _____ Date: _____



Gulf of Mexico Fishery Management Council
Law Enforcement Officer of the Year or Team of the
Year Award
Call for 2019 Nominees

Purpose of Award

To recognize an individual or team that has exemplified the virtues of professionalism and dedication, and demonstrated exceptional service by enforcing fisheries regulations in the federal waters of the Gulf of Mexico.

Eligibility Criteria

- Nominee(s) must be active, full-time, paid, state or Federal fisheries law enforcement officer(s) or U.S. Coast Guard officer(s).
- Nominee(s) must reside and be assigned or attached for duty in one of the five Gulf states.
- The duties of the nominee(s) must be relevant to the enforcement of federal fisheries regulations in the Gulf of Mexico region.
- Nominee(s) must demonstrate a good reputation professionally and personally among his or her peers and communities.
- Nominee(s) must have maintained an outstanding level of productivity and professional achievement with a significant positive impact on fisheries enforcement.

Award Criteria

Partnerships – Nominee(s) demonstrates intra- and inter-agency cooperation through team efforts or mentoring others and is dedicated to the federal management of Gulf of Mexico fisheries.

Excellence and Innovation – Nominee(s) is willing to go beyond the call of duty and continually seeks to improve efficiency on the job. Nominee(s) has identified means to increase constituent satisfaction or cost-savings for the agency and has taken steps to achieve implementation.

Attitude and Leadership – Nominee(s) portrays a positive perspective to fellow workers and the public, and takes personal responsibility for meeting commitments and solving problems. Nominee(s) demonstrates standards of excellence and professionalism and exemplifies standards and conduct that reflect honesty and fairness.

Achievements and Accomplishments – The job performance of the nominee(s) demonstrates distinguished career-oriented accomplishments, which have assisted in fulfilling his/her agency's responsibilities related to the federal management of Gulf of Mexico fisheries.

Guidelines

The nomination package may include a letter from the nominee's agency heads/supervisors in addition to this nomination form. Nominations should be made for performance in the nomination calendar year.

Each agency may submit no more than one nomination for either an Officer of the Year or Team of the Year Award. Nominations are due no later than February 1, 2020. At its March meeting, the LETC will discuss the nominations and make recommendations for the top two nominees.

The Gulf Council will review the nominations in a closed Council session, notify the winning officer and his agency, and present the award to the officer at a subsequent Council meeting.

**Gulf of Mexico Fishery Management Council 2017 Law
Enforcement of the Year Award**

Nominee's Information:

Name: _____

Position/Title: _____

Agency/Department: _____

Mailing Address: _____

Phone: _____

Email: _____

Nominator's Information:

Name: _____

Position/Title: _____

Agency/Department: _____

Mailing Address: _____

Phone: _____

Email: _____

Please use no more than one page to respond to the following three items.

1. Describe the nominee's current responsibilities.
2. Describe the nominee's significant contribution(s) to fisheries enforcement.
3. Describe specific qualities that make the nominee deserving of this award.

Nominations are due no later than February 1, 2020.

Attach your response to this cover sheet and email to gulfcouncil@gulfcouncil.org.

Gulf of Mexico Fishery Management Council c/o
Ava Lasseter
4107 W. Spruce Street, Suite 200
Tampa, FL 33607

Nominations may also be submitted by fax to: 813-648-1711, or emailed to: gulfcouncil@gulfcouncil.org.

Nominator's Signature: _____ Date: _____

**SEA GRANT FISHERIES EXTENSION ADVISORY COMMITTEE
MINUTES
Wednesday, March 20, 2019
New Orleans, LA**

L. Picariello called the meeting to order at 1:10 pm.

Members Present:

Laura Picariello- Texas Sea Grant (acting chair)
Julie Lively (current chair) not present due to family emergency
Scott Jackson- Florida Sea grant
Dominique Seibert- Louisiana Sea Grant (by phone)

Guests:

John Fallon- Audubon G.U.L.F.
Laura Deighan- Audubon G.U.L.F.
Ashford Rosenberg- Gulf of Mexico Reef Fish Shareholders Alliance.

Introduction of committee and guests

Approval of Minutes

L. Picariello gave a quick review of last meeting's discussions (minutes distributed). There was not a specific topic discussion in Fall, just general updates from each of the state programs on recent and upcoming activities. No one else present at this meeting that was at the last meeting, except Picariello. J. Lively did review the meeting minutes when they were originally written. **Picariello** will tentatively approve for now, but full committee can review and approve or make edits at the Fall 2019 meeting.

Election of Vice-Chair

Picariello stated that we do not have a quorum and suggested that we will hold off until Fall meeting when we have full committee to take a vote on the new Vice Chair position. L. Picariello is willing to assist Julie as acting vice chair as needed until we are able to sort it out.

Review of all committee members

Texas: Laura Picariello and Andrew Ropicki /Tony Reisinger will rotate for the second spot.
Louisiana: Julie Lively (chair) and Dominique Seibert
MS/AL: Marcus Dryman
Florida: Scott Jackson and Betty Staugler

Seafood Rating Systems-topic discussion

Picariello provided some background on why this topic has come up- Some members of GSMFC, state agencies, Sea Grant programs and other Gulf non-profits have acted as reviewers for sustainability reports that are being put out by other organizations and have been made aware that another fishery is about to be 'red listed' in the Gulf. Reviewers are frustrated because, despite input and review by several entities in the Gulf, it seems that reviewer comments are not being

taken into consideration and there is no transparency in how reviewer comments are addressed or incorporated. Many reviewers have expressed that they feel that they are wasting valuable staff time with little impact and no longer want to participate.

These reports will advise people not to purchase certain seafood products from the Gulf and are directly not only to the consumer level, but also to retail and restaurant buyers. These types of recommendations have become confusing to consumers who see conflicting messaging and are potentially impacting Gulf seafood industry supply chains. Since Sea Grant's fisheries work involves both consumer messaging and industry market support, this topic is something that we need to be informed about and understand/coordinate responses and/or messaging.

Jackson discussed his experience with the Seafood at Your Fingertips program developed by FLSG. This program was developed a few years back by some FL agents and FLSG's seafood specialist. S. Jackson used this curriculum to teach a continuing education class at a local college in FL. He noted that someone in his class expressed frustration with how crazy and complicated some sustainable seafood recommendations, like Seafood Watch, have become. S. Jackson reached out to other agents to gather additional info on this topic and received some materials from FLSG agent E. Lovegood, which he shared with the group. In the class, they are focusing on NOAA Fishwatch information (fits with our relationship as part of Department of Commerce)

Rosenberg provided some background on some of the guests in the room and Audubon G.U.L.F. history and development with regard to these types of issues.

Picariello notes that she is working to put together a breakdown of what rating systems, FIPs, and certifications are, how they influence us and the market, and what the history and the conflicts are as a resource for other agents. **Picariello** also noted that Fishwatch has now developed a partnership program that allows industry to utilize NOAA Fishwatch label on packaging.

Jackson continued to provide detail on the Seafood at Your Fingertips program. There are 5-6 segments- it's a series of classes for adult education (continuing education "encore" classes) and includes marketing, preparation, safety, other seafood related topics. It was set up so that you can take clients/students to a seafood market to show them in person, but not always realistic to do, so he modified it to bring the market to the class. He brought in some fish from the market to let students look at the eyes and the gills and discussed how to look for quality, hands on experience, how to clean it, fillet it, cook it, etc. They continue to work on the curriculum and develop the program. They also taught an invasive species at this venue before (after 2 years- saturated the audience, lower attendance) At one point, they had an app but no one maintained it. Now they refer people to FDAC (Florida department of Ag and Consumer Services) website which has great info on local Florida products. Seafood at Your Fingertips has several topics covered, each instructor is flexible with the agenda. The main emphasis is on steering people towards local, FL or Gulf seafood. He threw in nutrition, seasonality and other convenient things like local industry facts and economic importance of local industry. For example- Tuna: \$1 million of tuna is landed annually in Bay county. Most people don't even realize that we land tuna in Gulf. There is also a nutrition card game with info such as which seafood has the best contents for heart health and benefits from eating seafood.

Picariello mentioned Rhonda Cummin's Cooking with Seafood program in Texas, which took place in a local seafood store and had similar agenda, teaching people how to select seafood what to look for and how to cook it. **Picariello** also discussed recent trip to Boston Seafood Show where she connected with the Seafood Nutrition Partnership (SNP), a national nonprofit that promotes healthy seafood. SNP does some partnerships and may be interested in doing something in the Gulf.

Fallon raised the discussion about the program LASG and G.U.L.F. used to do with Whole Foods. It was very popular but Whole Foods no longer had staffing/capacity to host them. It is probably worth revisiting or trying to start up again elsewhere. These events were in market activities- discussion with the person at the seafood counter, then a cooking demo with local chefs in the eating area. Possibility for opportunities with other markets- many of them now have café's or food areas that could be a good space for that type of demo. **Rosenberg** noted that some of the Florida reef fish fishermen do this at their retail fish markets with consumers in the Tampa area.

Seibert shared marketing activities that she is working on with Louisiana Sea Grant in her area. They held 2 seafood markets in her area last year. Her area is far from main urban markets, so they were unsure how many people they would attend. It was very successful, however, the dock owners didn't like it and have threatened the fishermen stating that they won't buy their product anymore at the dock if they are also selling direct. Conflicts between dock and fishermen have been difficult in LA. **Jackson** noted that LASG has been doing this work for a long time and was well developed, so it is sad to hear this kind of conflict is occurring. will it continue? **Seibert**- different areas have different issues and it is newer to some areas. They will continue to do it and work with those who want to make the change and who are willing to invest in the equipment and the work needed to make it successful. As far as dealing with dock pushback, they are communication with the docks on this. These markets are not daily, they are occasional and bring attention and promotion of local seafood to their area and will help their businesses as well. Market days bring people into the community for seafood and they will look for a regular source when markets aren't happening. **Picariello** asked how licensing/permitting are for those market days. Does each fisherman have a license? **Seibert**- they each have their own license, and then can sell directly whenever they want outside of market days. A few of them are selling throughout the year, not just at the market. They have to have a license and report monthly, even if they didn't sell anything that month.

Picariello brought the discussion back around to Seafood Ratings/Certifications.

Jackson commented that local markets and sustainability discussion go hand in hand- that is the place to talk about it with consumers.

Rosenberg noted that the big challenge is that many of these programs are at a national/international level and they lose out on the regional/local conversation and they make the 'eat local' conversations difficult. **Picariello** noted that she is putting together a list of all Gulf species and ratings. Some species have several gear types and different ratings by gear. There are at least 7-8 species in the Gulf that we promote that are 'red listed' for at least one gear type. **Fallon** talked about the influence of rating systems and noted that our markets down here are less affected (don't have the same influence as other places like California) and consumers in the Gulf may not care *right now*, but some of our product is leaving the Gulf and can be affecting our industry members who sell to a much broader market. For example, Gulf shrimp is a national product and ratings could potentially have impacts in other regions on sales. **Rosenberg** noted that for other

high demand products, like grouper, it hasn't really affected their market at all. **Picariello** also raise the problem of communications *from* the market. if 'red listed' some buyers may not buy product any longer but not communicate WHY to their supplier so Gulf suppliers don't know that it is because of sustainability rating (example was given of this occurring to a previous tuna supplier in the Gulf back when tuna was 'red listed').

Picariello noted that there are two different conversations/issues: 1. What the public understands and what we should be educating them on when we interact with them; 2. What our industry is dealing with in selling their product to certain markets and how their supply chain is impacted. **Rosenberg** commented that conflicting info/messages causes people to just stop engaging. Promoting "local" can be an easier message instead of staying "buy sustainable" because they don't know how to make that decision. **Fallon** commented that pressure from ratings groups has caused retail/wholesale buyers to make product decisions as a company and has taken that power away from the general consumer to make that decision also. There is a need to engage bigger players who are controlling what products then sell in there stores and what the general consumer has access to. If local store as part of their national chain decides that it doesn't meet their sustainability policy, then if we say go buy local, they might not be able to find it anyway.

Jackson stated that, in Florida, they have had good success in past with their seafood specialist in educating processors, wholesalers, and retailers. **Picariello** talked about attending the Food Marketing Institute's Seafood Strategy Leadership Committee meeting and the topics included sustainability, reducing plastics, social responsibility, and nutrition. These are all goals and focus areas of Sea Grant as well. There should be SG representation with this group regularly to engage retailers. **Jackson** suggested the possibility of (sea grant) sharing a site that we develop in the Gulf to get information out. **Fallon** mentioned Fishwatch, but noted that updates to the site have been slow lately. **Jackson** suggested that we engage NOAA in this dialog to work with Sea Grant on messaging and to utilize S. Otwell (FLSG) further, while we have him, to try to reconnect with key market players that he has worked with in past. Perhaps we can produce a white paper on this. **Picariello** stated that, at the Boston Seafood Show, new publication specifically on Seafood Certifications was released. It would be good to get a hold of that and update our information on all of the tools/resources out there on this topic. **Picariello** also suggested that we could revisit the conversation about reviving the FINFO website. GSMFC still has the site, but it is not live. We would need to find a new host and update it. Any interest in Sea Grant programs supporting this? TNC has expressed interest in this too. **Fallon** also agreed that Sea Grant would be the optimal partner to do it and it was a really valuable resource, but it is a lot of work. Could need a dedicated staff person to maintain it- there is probably enough work for a full-time position in that. For the Gulf, we have so many important state level fisheries that are not included on Fishwatch that would really benefit from having this resource.

Picariello summing it up, here is where we are at- Across the Gulf, we should continue the conversation collectively, engage other folks and possibly have a zoom call to get more participation from some of the other states. **Fallon** noted that they have experienced quite a bit of misinformation and conflicting information from different agents on this topic, so important to engage as many agents in the discussion as possible. **Jackson** stated that Florida's annual meeting is in September, which is good place to disseminate this info to their wider set of agents.

Gulf Sea Grant Fisheries Extension State Reports

Florida:

Jackson states that the Florida Friendly Fishing Guide Certification has been rolled out. **Jackson** is also working with a group of specialists on a new Master Naturalist module: marine restoration. Last year they did shoreline restoration module and it went well. This one will be focused on sea grasses and other benthic habitats, artificial reefs, and coral restoration. They hope to have prototype by May and test drive with their instructors over summer and release by August.

Jackson also talked about Hurricane Michael recovery efforts. They were working with NOAA (Jepson) on economic analysis and are still in recovery mode. Some pockets of people recovering well, and others not so much. There are a staggering number of trees down, twice the amount of debris than from Irma, and stagnant water in many areas. It has been a wet year so water is staying around, causing flooding. Oyster farmers also had significant loss and damage.

Mississippi/Alabama:

No one present, no report sent.

Louisiana:

Seibert (*submitted via email, due to illness and inability to talk*) As the projects of large River Sediment Diversions draw closer, commercial fishermen are becoming more vocal and more organized against the projects. Sea Grant is in the process of hosting several meetings across the coast, alongside Louisiana Department of Wildlife & Fisheries and the Coastal Protection and Restoration Authority (state agency directing the sediment diversions). These meetings are designed to work with commercial fishermen and other industry members to develop plans to adapt to upcoming changes. Making changes now to help profit the industry and future plans; if and when the diversions come online. So far, these meetings have been somewhat hostile, as you can imagine, with commercial industry members predicting drastic changes. Concerns included declining resources, in some cases complete disappearance of a resource (oysters), and mass migrations of commercial fishermen and their families to more productive areas. Hopefully, these meetings will develop plans that will be ready to roll based on environmental or economical need.

Texas:

Picariello provided staff updates: Bill and Rhonda have retired since the last GSMFC meeting. We are in process of finalizing the hire for Chambers/Jefferson county. She will start in April.

Picariello continued work on the Red Snapper Decision Support Tool grant. Two workshops were held- January in Orange Beach, AL and February in New Orleans, LA. Good participant turnout with representation from commercial, for-hire, recreational, resource managers and NGOs. One more year of development on the tool and next year we will have a final round of workshops. We continue to do shrimp industry support through TED checks, etc. and are currently planning the dockside outreach prior to the Texas opening in July. Our site review is coming up in April so we've been busy planning that. We are also working with TPWD on issue of using imported, non-native shrimp as bait. Texas law only allow use of native species as bait, SG is working with TPWD on outreach and education about this. T. Reisinger sent an update that shrimp farm expansion in the Rio Grande Valley has occurred this year for the first time in quite a while, and a farm in Palacios has now developed their own hatchery.

Guest Reports

Fallon provided updates on the Audubon G.U.L.F.-led Shrimp FIPs. Louisiana and Texas FIPs are rated “A”, Mississippi and Alabama are rated “B”- not due to lack of activity, this is because of the type of FIP (Comprehensive vs. Basic) and their goals. G.U.L.F. is also helping to assist the Florida FIPs that are currently run by industry members directly.

G.U.L.F. is also working with **Picariello** and TXSG on Restaurant Partner Program expansion. Planning on creating a Texas Chapter and Picariello plans to recruit 3 restaurants by July and collaborate with the Texas State Aquarium to announce the program at a Seafood Wars event.

G.U.L.F. was also awarded a NFWF grant working with the tuna fishery to assist in establishing an industry association for the Gulf tuna industry.

Audubon is part of an AZA campaign to reduce single use plastics. Audubon has switched to aluminum can water, get rid of plastic straws, and plastic bags in gift centers. They are looking at where they can reduce elsewhere and are working with partners in the New Orleans community. They have 28 restaurants that have also partnered to get rid of plastic straws. They will be doing their own local campaign around New Orleans once the AZA partnership campaign ends.

Other Business

Next Meeting Topic:

The group suggested that we continue with the sustainability rates/certification/FIPs conversation when more committee members are present and how to address these issues with our consumers and industry. Topic can be officially determined through emails with the full SG committee closer to meeting date.

Next Meeting:

Fall 2019- October 15-17 in Mississippi

Adjourn

APPROVED BY:
Darin Topping
COMMITTEE CHAIRMAN

**TECHNICAL COORDINATING COMMITTEE
MINUTES
Thursday March 21, 2019
New Orleans, LA**

Chairman Darin Topping called the meeting to order at 8:30 a.m. The following members, staff, and others were present:

Members

Jason Froeba, LDWF, Baton Rouge, LA
Dan Ellinor, FWC, Tallahassee, FL
Harry Blanchet, LDWF, Baton Rouge, LA
Joe Jewell, MDMR, Biloxi, MS
Chris Denson, ADCNR/MRD, Gulf Shores, AL
Darin Topping, TPWD, Rockport, TX
Christopher Mace, TPWD, Rockport, TX
Roy Crabtree, NOAA Fisheries, St. Petersburg, FL
Glenn Constant, USFWS, Baton Rouge, LA

Staff

James Ballard, GSMFC, Sport Fish/Aquatic Invasives Coordinator, Ocean Springs, MS
Joe Ferrer, GSMFC Systems Administrator, Ocean Springs, MS
Jeff Rester, GSMFC, SEAMAP Coordinator, Ocean Springs, MS
Dave Donaldson, GSMFC, Executive Director, Ocean Springs, MS
Steve VanderKooy, GSMFC, IJF Coordinator, Ocean Springs, MS
Gregg Bray, GSMFC, FIN Data Program Manager, Ocean Springs, MS
Donna Bellais, GSMFC, ComFIN Survey Coordinator, Ocean Springs, MS
Nancy Marcellus, GSMFC, Administrative Officer, Ocean Springs, MS

Others

James Reinhardt, NOAA, Silver Spring, MD
Laurie Rounds, NOAA, Mobile, AL
Edward Swindell, GMFMC Member, Hammond, LA
John Roussel, Commissioner, Zachary, LA
Jessica Stephen, NOAA Fisheries, St. Petersburg, FL
Patrick Banks, LDWF, Baton Rouge, LA
Troy Williamson, Commissioner, Corpus Christi, TX
Doug Boyd, GMFMC Member, San Antonio, TX
Chris Blankenship, ADCNR, Montgomery, AL
Justin Esslinger, TPWD, Rockport, TX
Read Hendon, USM/GCRL, Ocean Springs, MS

Adoption of Agenda

A motion to adopt the agenda was made by Chris Denson and passed unanimously.

Approval of Minutes

A motion to approve the minutes for the October 17, 2018 meeting was made by Jason Froeba and passed with no opposition.

Discussion / Final Approval of the Cobia Profile

Steve VanderKooy stated that the profile was sent to the TCC members before the end of 2018 for a sixty day review. A number of minor editorial comments were received and have all been addressed. Steve asked the committee if they had any other modifications that they would like added to the document? Hearing no suggested changes, Joe Jewell made a motion: **To approve the Cobia Profile with the option for staff to make last minute non substantive edits** and it passed unanimously.

Subcommittee Reports

Artificial Reef

James Ballard reported that the Subcommittee held a joint meeting with the ASMFC's Artificial Reef Subcommittee in February. At the meeting, Geoff White provided a presentation to the group on the new Access Point Angler Intercept Survey artificial reef questions for Atlantic states from Maine to Georgia (were you fishing an artificial reef today (yes/no/don't know)? If yes, what is the name of the reef (reef code)?). The Atlantic states are hoping to get a better idea of the utilization of artificial reefs by anglers and which type of artificial reefs are the most popular.

Doug Peter with the Bureau of Safety and Environmental Enforcement (BSEE) reported that 135 oil/gas platforms were decommissioned in 2018. The reefing of a platform in the Flower Garden Banks, which started in the 90's, was finally completed in 2018. The total number of oil/gas structures in the Gulf have been steadily decreasing and currently stands at ~1,800. Of these remaining reefs, around 500 structures still have the potential to be reefed.

James Ballard presented the final draft of the Artificial Reef Materials Guidelines document. After some discussion the group decided to have an April 1st deadline for any edits. The steel hull vessels and designed structures chapters still need some updates. Following these final updates and formatting, the document will be sent out to the TCC for their review and approval. When finalized, the document will be made available electronically through the ASMFC and GSMFC websites. Moving forward, the Subcommittees decided that this will be a living document and individual chapters will be updated as necessary.

ASMFC presented on the draft monitoring document they developed that compiled monitoring protocols provided by the member states. The goal was to see what everyone was doing, and then decide if there was something further the subcommittees wanted to do with this information (find common themes, find some best practices, make recommendations, etc.). However, it turned out that most states do not have monitoring protocols. After a long discussion, the Subcommittees decided to leave the monitoring results document as-is and not develop a more formal standardized monitoring protocol document. The group decided to leave standing time at each in-person meeting to talk about monitoring and research successes and failures.

The Subcommittees had a discussion about a tribute to Jimmy Sanders. James Ballard suggested that the Subcommittees add a dedication page in our Materials Guidelines document. George Frankel said Eternal Reefs would be happy to donate a reef with a plaque in his honor.

Keith Mille provided a presentation on the impacts of Hurricane Michael on artificial reefs off Mexico Beach. He stated that the majority of pyramid reef modules in shallow water (<25 ft.), that were within the hurricane track, moved (mean distance moved 803 ft.).

Keith Mille suggested that the group meet jointly with the Florida Statewide Artificial Reef Summit, date TBD: Feb or early March, 2020. GSMFC and ASMFC will explore the possibility of meeting jointly with the summit.

A motion to accept the report was moved by Chris Denson, and passed without opposition.

Crab

Steve VanderKooy stated that the Crab Subcommittee covered a number of topics related to current and future regional stock assessments. **Luis Hurtado** provided some updated genetics work looking at crabs from Texas, the Florida Panhandle and the Chesapeake. Since last report, he and the subcommittee have collected tissue samples from four of the five Gulf states. Louisiana will supply additional samples to contribute to these results over the next month. These tissues are being used to explore the whole blue crab genome. Dr. Hurtado's results continue to indicate that the previous approach using neutral markers didn't provide the resolution necessary to determine a single or multiple stock. There is some difference between the southwestern Gulf (south Texas and the Yucatan) and the rest of the northeastern Gulf (mid-Texas to Georgia). The division presumed in the benchmark assessment (GDAR01) may need to be reexamined if these data hold true. Hurtado will have more results in October.

Zach Darnell (GCRL) reviewed his tagging project with the group and informed them that he will have a full report at the 2019 fall meeting. They have tagged over 18,000 female crabs and have had about 3,600 returns. Generally, movement has been from the west to the east in most of Louisiana, Mississippi, and Alabama, stationary around Panama City, and to the west from the Cedar Key/Steinhatchee area of Florida with those crabs ending up in Apalachicola. They are continuing to release tags this year as time and money permits.

Two presentations were given by **Dr. Yan Li** and **Dr. Laura Lee** from the North Carolina Division of Marine Fisheries. **Yan Li** presented the NC Catch-Survey which has a lot of potential for the Gulf to apply in the next assessment. **Laura Lee** presented the North Carolina Traffic Light concept which is a simplified approach to using some simple indices to generate a green, yellow, red designation for a variety of parameters in their crab population. It is not an assessment but does offer a very understandable status for stakeholders when looking at short and long-term trends.

The subcommittee agreed that a data and modeling workshop would be useful this summer to explore the potential models with existing data in advance of any revision to a benchmark. The purpose would be to explore any potential models and the application of the traffic light. The terms of reference for the workshop would include specifics on better defined parameters such as fecundity and natural mortality. Research recommendations could also be discussed. The analysts will get together with Steve VanderKooy in the next couple of months to discuss this idea. Ideally, this workshop would take place prior to the October meeting.

Steve VanderKooy mentioned the Seafood Watch blue crab report for the Gulf and explained the issues that have arisen with trying to help the group understand the Gulf fishery. In the process of Audubon, GSMFC, and others providing input on the report, the status of Gulf blue crabs actually

went down and have become red listed. It is up to the Commission to determine if staff will assist on these reviews for other species in the future.

Joe Jewell made a motion to accept the report as presented, and it passed unanimously.

Gulf FIN

Justin Esslinger reported that **Richard Cody** provided a summary of the last red snapper calibration workshop hosted by NOAA Fisheries and Gulf States Marine Fisheries Commission. The goal of the workshop was to continue to explore ways to calibrate and integrate general survey data with state specialized survey data. The Gulf States have provided their data to MRIP consultants for the purpose of determining proper methods for calibrating and integrating their landings estimates with estimates collected by the MRIP general survey. Consultants are still working on the analysis but GSMFC and NOAA Fisheries are expected to have a workshop in the summer of 2019 to discuss findings.

Richard Cody also discussed the implications of the Modernizing Recreational Fisheries Act. This new legislation will require NOAA Fisheries to complete additional review and report to the Department of Commerce on current marine fisheries data collection programs that should be incorporated into stock assessments and management. It also establishes a mechanism for providing grants to the states to help with implementing state surveys aimed at improving recreational landing estimates. Cody stated that NOAA Fisheries would work through the GulfFIN program as more details and implications of this legislation are determined.

Committee members were provided with a list of items for funding consideration in 2020. Items were categorized as ongoing work or potential new work to be considered for available funding. The committee was tasked with identifying high priority jobs that will be forwarded to the State/Federal Fishery Management Committee for their review at the October 2019 meeting. At that time, they will decide which items will be included in the 2020 FIN Cooperative Agreement. All items listed as high priority will require budgets and statements of work to be delivered to Gregg Bray by August 1, 2019. After considerable discussion the committee approved including all the ongoing tasks as high priority for inclusion in the 2020 FIN Cooperative Agreement.

- 1) Coordination and Administration of FIN Activities
- 2) Collecting, Managing and Disseminating Marine Recreational Fisheries Data
- 3) Operation of FIN Data Management System
- 4) Trip Ticket Program Operations

The committee also agreed that developing a comprehensive list of new projects with rough total budgets would be useful if other funding or funding sources are discovered.

Ken Brennan was elected as Chairman and Beverly Sauls was elected as Vice-chair.

A motion to accept the report was moved by Joe Jewell, and passed without opposition.

SEAMAP

Jeff Rester reported that the Commission received \$500,000 in funding to complete a project to design fishery independent surveys in the Gulf of Mexico that would provide data for stock assessments and ecosystem based management. While the SEAMAP Subcommittee will not be directly involved in the project, the project will analyze SEAMAP data and surveys to help with the project.

NFWF has funded fishery independent sampling for Florida, Alabama, and Mississippi over the past four years. The NFWF sampling has complimented and helped collect data during SEAMAP surveys. Unfortunately, NFWF funding will expire at the end of 2019 for Florida and Alabama with Mississippi funding ending at the end of 2020. NFWF recognizes the utility and importance of the fishery independent sampling and seeking ways to continue funding sampling in the future. The SEAMAP Subcommittee and Commission are also seeking other funding sources to continue the current level of fishery independent sampling in the Gulf since SEAMAP is unable to support all sampling.

The Subcommittee discussed the Shrimp/Groundfish Trawl Surveys. The station selection process has changed in the past year to try to minimize impacts to hardbottom habitat on the west Florida shelf. This involved identifying hardbottom areas and mapping buffer areas around the hardbottom. NOAA Fisheries is using side scan sonar in some areas to map out trawl tracks that are free of hardbottom. Florida is using side scan sonar to map sponge areas and has had some success in identifying sponge areas from the side scan data. Florida has remapped some areas that were impacted by Hurricane Michael south of Panama City. Unfortunately it looks like major habitat changes took place because of the hurricane with artificial reefs moving up to 400 yards and some hardbottom areas being covered with sand or previously unknown hardbottom areas being uncovered.

NOAA Fisheries has been deploying trawl sensors and cameras during the trawl surveys. We are learning valuable information from the data they are gathering that will help us improve the analysis of trawl data.

Florida will be buying a side scan sonar unit in the near future that all SEAMAP partners will be able to use to map habitat. SEAMAP will be forming a Habitat Mapping Work Group to learn how to use the side scan unit as well as how to interpret the data the unit collects.

Joe Jewell made a motion to accept the report as presented, and it passed unanimously.

State/Federal Reports

Darin Topping stated that written reports were provided to the TCC members prior to the meeting for their review. **Joe Jewell** pointed out that a couple of the state reports mentioned a decline in the stock of spotted seatrout and suggested that that could be a discussion at a future TCC meeting, given the fact that it is becoming a Gulf-wide trend. With no further discussion on the state reports, **Joe Jewell** made a motion: **To accept the reports that were submitted into the record**, which passed with no opposition. To see the full reports that were provided to the TCC, please see the minutes from the Commission Business Meeting held on Thursday, March 21, 2019.

Discussion about Future TCC Meetings

Darin Topping opened the discussion by outlining how the TCC meetings have been getting shorter in recent years because the Committee has not been able to identify topics to discuss on the agendas. **Joe Jewell** restated an option that was put forward by Bev Sauls that the TCC could drop down to only meeting once a year. He also suggested that the Committee could drop down to only one state member from each state to help with the state's travel costs. **Dave Donaldson** stated that the Commission has been discussing this issue as well, and said that one option would be to incorporate the new general sessions into TCC meetings instead of holding them separately. **Dave Donaldson** asked if the TCC wants the Commission staff to develop several different options for the future direction of TCC meetings and present those options at the fall 2019 meeting. **Joe Jewell** made the motion: **To ask staff to develop multiple options for the future direction of TCC meetings and present them at the October meeting.** The motion was seconded and passed without opposition. **Jason Froeba** and **Harry Blanchet** pointed out that there seems to be less action items coming out of the Subcommittees that the TCC needs to take action on. **Dave Donaldson** stated that the Subcommittees are not experiencing the same reduction in agenda items to discuss at their meetings but the staff will evaluate the Subcommittee's activities when developing the options for presentation at the fall 2019 meeting. **James Ballard** pointed out that currently the Artificial Reef Subcommittee is focused more on information sharing and coordination between the states and does not try to influence the way that individual states are managing their reef programs. He asked the TCC if they would like to see the Subcommittee be more action oriented. **Harry Blanchet** replied that for a program like artificial reef, information sharing is probably the best option, however, for a program like SEAMAP or a shared resource like crabs, more directed coordination and more action oriented activities are probably more beneficial. **Roy Crabtree** stated that he would like to see the Artificial Reef Subcommittee have more discussions about the science behind reefing and the management objectives that the states are trying to achieve with their reef programs. Is the productivity achieved by developing more reef habitat offset by this increased catch rates associated with the artificial reefs? **John Roussel** stated that historically the TCC established the Subcommittees based on discussions they had at their meetings and the TCC was the science base of the Commission and was made up of all the chief scientists in the Gulf of Mexico. John suggested that the TCC should start to identify new topics for the Subcommittees to address. **Dave Donaldson** pointed out that one of the suggestions that came out of the oyster general session was to develop an Oyster Subcommittee to address all of the issues facing oysters across the Gulf. **Joe Jewell** made a motion: **To recommend to the Commission the establishment of an Oyster Subcommittee under the TCC.** After some discussion about how the Subcommittee would be structured and managed, the motion passed without opposition. **Joe Jewell** asked the Commission Staff to compile and provide to the TCC membership an overview of how each Subcommittee was formed as well as any associated standard operating procedures, charges, etc.

There being no further business, the meeting was at 10:00 a.m.

APPROVED BY:

COMMITTEE CHAIRMAN

Commission Business Session
Thursday, March 21, 2019
New Orleans, LA

Chairman Joe Spraggins was unable to attend the meeting. **Vice Chairman Dan Ellinor called the meeting to order at 10:33.**

The following Commissioners and/or Proxies were present:

Dan Ellinor, FWC, Tallahassee, FL (*Proxy for Nick Wiley*)
Paul Mickle, MSDMR, Biloxi, MS (*Proxy for Joe Spraggins*)
Read Hendon, USM/GCRL, Ocean Springs, MS
Scott Bannon, ADCNR/MRD, Gulf Shores, AL (*Proxy for Chris Blankenship*)
Chris Nelson, Bon Secour Fisheries, Bon Secour, AL
Jerry Mambretti, TPWD, Austin, TX (*Proxy for Carter Smith*)
Troy Williamson, Corpus Christi, TX
Jason Froeba, LDWF, Baton Rouge, Louisiana (*Proxy for Jack Montoucet*)
Senator Brett Allain, Jeanerette, LA
John Roussel, Zachary, LA

Staff

Dave Donaldson, *Executive Director*, Ocean Springs, MS
Nancy Marcellus, *Administrative Officer*, Ocean Springs, MS
Chery Noble, *Administrative Assistant*, Ocean Springs, MS
Steve VanderKooy, *IJF Program Coordinator*, Ocean Springs, MS
Jeff Rester, *SEAMAP/Habitat Coordinator*, Ocean Springs, MS
Gregg Bray, *FIN Program Manager*, Ocean Springs, MS
Joe Ferrer, *Systems Administrator*, Ocean Springs, MS
James Ballard, *Sport Fish Restoration/Aquatic Invasives Coordinator*, Ocean Springs, MS
Donna Bellais, *ComFIN Programmer*, Ocean Springs, MS
Debbie McIntyre, *Staff Assistant*, Ocean Springs, MS

Others

Roy Crabtree, NOAA Fisheries, St. Petersburg, FL
Glen Constant, UFWS, Baton Rouge, LA
Jessica Stephens, NOAA Fisheries, St. Petersburg, FL
Darin Topping, TPWD, Rockport, TX
Cisco Werner, NOAA Fisheries, Miami, FL
Mandy Karnauskas, NOAA Fisheries, Miami, FL
Laura Picariello, Texas Sea Grant, Corpus Christi, TX
John Fallon, Audubon Nature Institute, New Orleans, LA
Laura Deighan, Audubon Nature Institute, New Orleans, LA
Jamie Reinhardt, NOAA Restoration Center, Silver Spring, MD
Lori Rounds, NOAA Restoration Center, Silver Spring, MD
Ed Swindell, Marine Process Services, Hammond, LA

Brief Overview of Commission Voting Procedures

D. Donaldson gave a brief overview of the Commission's voting procedures and stated there is a quorum.

Adoption of Agenda

D. Donaldson asked to include watching the video, *The Biologist and the Boy*, under Other Business if time allows. **S. Bannon** moved to adopt the Commission Business Session Agenda with the addition under Other Business. **T. Williamson** seconded and the motion passed.

Approval of Minutes

T. Williamson moved to approve the October 18, 2018 minutes as submitted. **S. Bannon** seconded the motion and the minutes were approved as submitted.

Public Comments

There was no public comments.

GSMFC Standing Committee Reports

Law Enforcement Committee (LEC)

S. VanderKooy reported the LEC met jointly with the Council's LETC and stated the majority of the agenda was council items. He said they discussed JEA funding and Scott Pearce will be the LEC representative for the Red Drum Profile. This is Doug Boyd's last year as a GMFMC member and he expressed his appreciation of having worked with this group for so many years. The Commission publications, *License and Fees* and the *Law Summary*, will be completed over the summer and will be available through the GSMFC website.

S. Bannon moved to accept the LEC Report. **B. Allain** seconded and the motion passed.

Technical Coordinating Committee (TCC)

D. Topping gave the TCC report. He reviewed the presentations that were given in each Subcommittee meeting. There were no motions/action items presented that needed approval from the TCC Subcommittees. He stated Ken Brennan was elected Chairman of the GulfFIN Committee and Beverly Sauls was elected Vice Chairman.

D. Topping stated that after the Subcommittee Reports, the TCC discussed different options for future TCC meetings such as meeting once a year, having the General Session during the meeting, agenda items, etc. He said the Committee asks the Commissioners for guidance on agenda items for the Committee and Subcommittees for future meetings. He said the Committee also discussed developing an Oyster Subcommittee. The Committee approved two motions:

To ask staff to develop multiple options for the future of TCC meetings and present them at the October meeting.

To recommend to the Commission the establishment of an Oyster Subcommittee under the TCC.

The Commissioners discussed both motions.

C. Nelson moved to ask staff to develop multiple options for the future of TCC meetings and present them at the October meeting. Staff should research when and why each Subcommittee was established, the SOPs of each Subcommittee, and how agendas were originally developed. **R. Hendon** seconded and the motion passed.

C. Nelson moved to establish an Oyster Subcommittee. The Commissioners discussed the motion further. C. Nelson withdrew the motion.

J. Roussel moved the TCC develop a formal charge/purpose and any other pertinent direction as well as the membership for an Oyster Subcommittee, and then bring that to be approved by the Commission. J. Mambretti seconded the motion and it passed.

S. Bannon moved to accept the Technical Coordinating Committee Report. J. Roussel seconded the motion and it passed.

State-Federal Fisheries Management Committee

Menhaden Advisory Committee

S. VanderKooy reviewed the presentations made in the MAC. There were no motions for the Commission to approve.

P. Mickle moved to accept the MAC Report. S. Bannon seconded and the motion passed.

Sea Grant Fisheries Extension Meeting Report

L. Picarrelli reported the main topic of their meeting was the various Seafood Rating Systems and how they are creating conflicting opinions in the Gulf. They discussed the need for more dialog on this topic amongst the different Sea Grant Programs and how it can be communicated across the Gulf. They will discuss this issue again at the next meeting. Each state gave a report on the current issues they are involved in except Mississippi/Alabama who did not have a representative in attendance. The Audubon Nature Institute provided an update on the status of their shrimp fishery improvement projects which are going very well and are highly rated. The Audubon Nature Institute is also working on a plastics campaign with other aquariums across the country to reduce plastic straw use and a NFWF Project with the tuna industry.

NOAA Fisheries Southeast Regional Office Comments

R. Crabtree stated the detailed NOAA Fisheries SERO report is in the Briefing Book under Tab B. He reported NOAA Fisheries has not yet decided if they are going to appeal the U.S. District Court for the Eastern District of Louisiana's ruling stating NOAA Fisheries does not have the authority to regulate aquaculture as fishing under the Magnuson/Stevens Act vacating the rule implementing the Gulf Council's Aquaculture Plan. He said the ruling only applies to the Gulf aquaculture program and does not prohibit marine aquaculture from occurring either nationally or in the Gulf of Mexico. He said NOAA Fisheries continues to help coordinate with other federal agencies in the permitting process for aquaculture operations in the Gulf. He said they are currently working on the Velella Epsilon pilot project which proposes to culture almaco jack in submerged cages about 45 miles southwest of Sarasota, and a commercial project which is in the preliminary stages of applying for federal permits to culture several finfish species in the northern Gulf of Mexico.

In December of last year NOAA Fisheries issued updated Terms and Conditions to the exempted fishing permits enabling the five Gulf States to manage private recreational anglers targeting red snapper in state and federal waters during the 2018-2019 fishing seasons. He said they issued the updated quota amounts to each of the states. There was an overrun of the quota in 2017 and there are payback provisions in the plan. All information on this is available on the website.

R. Crabtree reported the Council is working on Reef Fish Amendment 50 that would create a state management strategy for red snapper. They expect final action will be taken at the April meeting. The Council has selected a preferred alternative for state by state allocations. There was a final rule published recently that increased the red snapper catch limit for this year. The Council is also working on an amendment to allow carryover on unharvested quota in one year and carry it over to the next year and add it into the catch levels for that year. He said they are scheduled to take action on that at the April meeting as well. The Council is also working on an amendment that would modify the shrimp effort threshold so more shrimp effort can be accommodated. He said the red snapper for-hire season for the coming year will be for 62 days, from June 1 to October 2. This is the longest season for-hire operators have had in years. The quota for Greater amberjack was caught in the fall season so that fishery will remain closed until August 1.

B. Allain asked if the payback for overruns on the exempted fishing permit quotas would be by a state by state basis and **R. Crabtree** said yes.

USFWS Region 4 Office Comments

G. Constant reported A. Brown could not attend but he wanted the Commission to know he appreciates the administration of the USFWS Aquatic Nuisance Program. **G. Constant** stated that Leo Miranda is the new Region 4 Regional Director. **G. Constant** reported on the reorganization of the DOI. He stated the administration is undergoing changes and there are now 12 new regional boundaries. Detailed information on the reorganization is on the USFWS website.

Update on GSMFC Aquaculture Activities

Briefing on Oyster Symposium

S. VanderKooy briefed the Commission on the Oyster Symposium General Session. He said presentations were given by the recipients of the 2018 Off Bottom Aquaculture Grants. He stated the symposium was very well attended and it generated quite a bit of discussion. The afternoon session was hosted by the Gulf of Mexico Alliance and each state gave an overview on their Onbottom oyster programs. Proceedings of the general session are available at <http://www.gsmfc.org/publications/GSMFC%20Number%20286.pdf>.

Status and Overview of Aquaculture RFPs

S. VanderKooy reported they are in the third year of the NOAA Small Grants Program and all three Commissions have sent out RFPs requesting partnership project proposals for oyster aquaculture. The project could last three to five years. The new award was issued February 1 and closed March 15. The review process is ongoing and they hope to start the new projects August 1, 2019. He said they also have a second round of Pilot Projects for offshore non-oyster projects. The RFP went out the first of March and closes April 15. They expect these projects to start July 1, 2019.

NOAA Fisheries and Fish and Wildlife Service Budget Update

D. Donaldson reported the FY2019 Omnibus Budget is in Tab D of the Briefing Book. He said the President's budget came out last week but the Briefing Book had already been distributed so it is not in the Briefing Book. He said there are large cuts but not as bad as it has been in previous years. He stated once again, the President eliminated Sea Grant and Enforcement and made minor cuts to data collection. He said he is not too concerned with the data collection cuts because the House and Senate supports these programs. **D. Donaldson** said that in the Omnibus Budget for the NOAA Fisheries Budget, data collection and aquaculture were funded at reasonable levels and there is actually a \$4M increase in the regional Councils and Commissions line items. He thinks the \$4M will be divided equally between the Commissions and Councils. He expects to know the

final allocation for IJF shortly. He said he feels the annual trip with the Gulf State Directors to DC was a success. They thanked staffers for their support and for maintaining or increasing the programs. He said he is working with Allan Brown and Glenn Constant, USFWS, to receive additional funding for the SFRP and Invasive Species Program. **D. Donaldson** stated he will keep the Commission informed of any changes.

Discussion of Legislative Issues and Actions

D. Donaldson reported the Modernizing Recreational Fisheries Management Act passed and became law December 31, 2018. The legislation is in Tab E of the Briefing Book. The Commission is obviously focused on the data collection aspects of the law and is in the unique position of implementing the objectives of the legislation and continue the longstanding coordination of data collection efforts in the Gulf of Mexico. **D. Donaldson** also discussed Senate 1514 and House 6660 establishing a National Fish Habitat Board. He said it is proposed through the legislation that the board will have 25 members including the 3 interstate Commissions. He said this is still in the beginning stages but he will keep the Commission informed.

Review and Approval of Changes to GSMFC Administrative Manual.

D. Donaldson stated that at the last Executive Committee meeting, they directed staff to pursue changing the travel policy to a daily per diem rate in an effort to simplify the travel expense reimbursement process. **D. Donaldson** explained the new guidelines for the daily per diem rate and reviewed the new language for the Administrative Manual in Tab F of the briefing book.

S. Bannon moved to approve changing to a daily per diem rate and to change the Administrative Manual language to what was presented in the briefing book. J. Froeba seconded and the motion passed.

Discussion of Southeast For-Hire Integrated Electronic Reporting (SEFHIER) Program

Jessica Stephen gave a presentation on the Southeast For-Hire Integrated Electronic Reporting Program (SEFHIER). She stated the Gulf Council put forth an amendment that all federal Gulf of Mexico for-hire permit holders will be required to submit electronic logbooks. In addition to submitting electronic logbooks, they are also required to provide hail-out notification as well as having a permanently affixed location device on the vessel. She said the anticipated benefits are census based reporting, increased accuracy of data, reduction in recall bias and near real time access to preliminary data. She reviewed the requirements of the amendment and the process of implementing the mandatory electronic logbooks. She stated relevant stakeholders have been involved in the process including representatives from the Councils, FINs, Commissions and NMFS. She said the proposed rule has already went out and they are expecting the Final Rule to go out in June or July. They expect implementation of the logbooks and hail-out requirement to start around August 15 and adding the location technology by October 1. A copy of the full presentation can be obtained upon request to the GSMFC office.

P. Mickle stated he had concerns on the mandatory reporting requirement to NOAA and asked if the data reported to NOAA will be made available to the states immediately. He said Mississippi has a mandatory reporting requirement and was concerned with burdening the captains with multiple reporting requirements. He asked that the appropriate NOAA personnel contact him to discuss this before the requirement is implemented. **R. Crabtree** asked J. Stephen to ensure P. Mickle is contacted before implementation.

Presentation of NOAA Fisheries Stock Assessment Improvement Plan (SAIP)

Cisco Werner gave a presentation on the Next Generation Stock Assessment Improvement Plan. He reviewed background information, discussed the next generation SAIP, science innovations, balancing the four T's of assessment (Throughput, Timeliness, Thoroughness and Transparency), and stock assessment prioritization. The presentation can be obtained upon request to the GSMFC office.

Presentation of NOAA Fisheries Ecosystem-Based Fisheries Management Road Map

Mandy Karnauskas gave a presentation on the Gulf of Mexico Ecosystem-Based Fishery Management (EBFM) Road Map Implementation Plan. She said there has to be collaboration between state and federal partners if advances are to be made in EBFM. She said EBFM can be considered within a spectrum of approaches: EBM, Ecosystem Based Management; EBFM, Ecosystem Based Fisheries Management; EAFM, Ecosystem Approach to Fisheries Management; and SS, single species management. She said in practice there is not a one size fits all approach to EBFM as it is region specific. She then reviewed NOAA Fisheries EBFM Road Map Policy and Purpose. The presentation can be obtained upon request to the GSMFC office.

Deepwater Horizon NRDA Open Ocean Update

Lori Rounds and **Jamie Reinhardt** gave an update on the Deepwater Horizon NRDA Open Ocean Restoration Plan. **L. Rounds** gave background information on the BP NRDA Settlement, and reviewed the partners in the Open Ocean TIG and their responsibilities. **J. Reinhardt** gave an update on the fish restoration planning. The presentation can be obtained upon request to the GSMFC office. All information on DWH NRDA is also available at www.gulfspillrestoration.noaa.gov.

Lyles-Simpson Award Recipient Selection for 2019

Nominations were opened for the *Lyles-Simpson Award* recipient for 2019.

C. Nelson *moved to nominate Borden Wallace for the Lyles-Simpson Award recipient for 2019.*
R. Hendon *seconded the motion. There were no other nominations and the motion passed.*

GSMFC Program Reports

Interjurisdictional Fisheries Program

S. VanderKooy stated the detailed report is under Tab H of the Briefing Book. He reported the Management Profile for Cobia in the Gulf of Mexico was completed and approved by the TCC. The next species profile is for Red Drum and they have asked the states and other agencies to designate a member for the Task Force. Work is continuing with the Atlantic States on the Otolith Manual Revision and they are hoping for a final draft this summer. The IJF program has entered into a contract with Dr. Eric Saillant to begin analyzing the tissue samples collected for Tripletail. He said staff has begun working on the Gulf Fishery-Independent Database (GFID) which is an effort to centralize all of the five Gulf States' databases for potential use in future stock assessments.

S. VanderKooy reported that he has been reviewing revisions of various species profiles for the Monterey Bay Seafood Watch Program. He stated he spends substantial time providing input but it is not incorporated into their profiles. It seems that groups such as this have a predetermined narrative and do not use information that is provided. **D. Donaldson** stated he and S. VanderKooy have discussed not participating in any further requests for information and asked the Commission

if this is acceptable. **The Commissioners agreed it would be acceptable to not comment on future requests.**

SEAMAP

J. Rester stated the detailed SEAMAP report is under Tab I of the Briefing Book. He reported SEAMAP will begin its 38th year of sampling in 2019. SEAMAP is holding a trawl work shop in Pascagoula to review trawling protocols, discuss gear specifications, review data entry and QA/QC procedures, and review species identification. The group will also discuss recent taxonomic changes and how to handle historical species identifications when taxonomists have determined what was believed to be one species could actually be two to three species that look similar. SEAMAP partners have been riding with other partners for the past few years to make sure trawling operations are being conducted consistently amongst all partners. FY2019 SEAMAP appropriations were \$5.125M which is level funding. The Gulf component will receive \$1,950,274 M. He stated in order to save money, state SEAMAP funds that would have been used for vessel time will now go to the Commission. The Commission will pay for vessel time for the states and will not charge overhead on these funds. This will allow another three to four days of vessel time during the trawl surveys. The 2017 SEAMAP Environmental and Biological Atlas of the Gulf of Mexico was completed and is available on the website. Various SEAMAP databases have been downloaded 43 times since the October 2018 meeting.

J. Rester reported the Commission will receive \$500K in NMFS funding to optimize fishery independent sampling in the Gulf of Mexico. NMFS would like the Commission to develop optimal fishery independent surveys that would collect data for stock assessments and ecosystem management. The Commission will hire a statistician and possibly a stock assessment person to help in designing these surveys. A steering committee will be established and a series of workshops will be held to develop the types of data needed and how to go about collecting those data in the most economical way.

Sportfish Restoration Program

J. Ballard stated the SPRP detailed report is under Tab J of the Briefing Book. The final draft of the third edition of the ASMFC's and GSMFC's *Guidelines for Marine Artificial Reef Materials* has been distributed to the Joint Committee. The deadline for review is April 1. If it is decided to finalize the document, it will be distributed to the TCC for approval and then to the Commission for approval. When the document is approved, it will be made available electronically through the GSMFC's website. The document will be dedicated to Jimmy Sanders and Jim Francesconi who were committee members that passed away during the revision of this document. He said the Gulf Committee discussed doing a tribute to Jimmy Sanders and one of the contractors that attends the meetings, Eternal Reefs, offered to donate one of their eternal reefs in Jimmy's honor. The proceedings from the *Marine Artificial Reef Research and Development: Integrating Fisheries Management Objectives* symposium at the American Fisheries Society's 147th Annual Meeting and the 11th *Conference on Artificial Reefs and Related Habitats* are available from the AFS website. **J. Ballard** said he is still working on establishing a Gulf-wide Lionfish Removal Program and they are supporting the second year of the Jimmy Sanders Lionfish memorial Challenge in Mississippi. He gave a summary of the *America's Wildlife Values Study* and the report is available at www.wildlifevalues.org.

Fisheries Information Network (FIN)

G. Bray stated the FIN report is in Tab K of the Briefing Book then gave a presentation on the FIN Activities for 2018. He stated there are 5 FIN programs throughout the country and this is a cooperative state/federal fishery dependent data collection and dissemination program. He said

they work in both the commercial and recreational sectors. He reviewed the recreational catch/effort, the commercial Trip Ticket Programs, the FIN Data Management System, and biological sampling for 2018. He said for 2019 the Gulf FIN is level funded and are in the 5th year of the 5 year cooperative agreement. He said they have a small amount of unallocated funding that will go towards the 2019 cooperative agreement. The presentation may be obtained by request to the GSMFC office.

Aquatic Nuisance Species Program (ANS)

J. Ballard stated the ANS report is under Tab L in the Briefing Book then gave a presentation on the ANS Program. He said the GSARP meeting was in San Antonio, Texas on October 30-31. The Aquatic Nuisance Species Task Force met on December 12-13 in Falls Church, VA. The meeting focused on Goal Team breakout sessions that continued to develop strategies and outputs to meet the objectives in the ANSTF's new 2018-2022 Strategic Plan. They are continuing their partnership with USFWS to administer their AIS small grants program. The Traveling Trunk was utilized for over 70 days since the fall 2018 meeting. He then reviewed the new GSARP Website and recent Invasive Species Legislation. The presentation may be obtained by request to the GSMFC office.

State Directors' Reports

Given the time constraints, the State Directors did not give reports. **S. Bannon** *moved to accept the State Reports as submitted in the Briefing Book.* **J. Froeba** *seconded and the motion passed.*

Future Meetings

N. Marcellus stated the fall meeting will be in Mississippi. She anticipates it will be in the Gulfport/Biloxi area and asked if the Mississippi Commissioners have input on where they would like to hold the meeting, to contact her.

Review of Committee Listings

D. Donaldson stated each state Committee Listing is in the briefing book and asked the Commissioners to review their information and to send any updates to C. Noble.

Publications List and Web Statistics

D. Donaldson stated the available publications list is in the Briefing Book. He said if anyone is interested in obtaining any publication to contact D. McIntyre and all publications are available on the website. He said J. Ferrer was going to give a brief presentation on the website but due to the time he will not give the presentation. The information is in the Briefing Book and if anyone has questions they can contact J. Ferrer.

Other Business

D. Donaldson said there was not enough time to show the video but a link to the video will be emailed to each Commissioner.

There being no further business, the meeting was adjourned at 4:55.

State Reports

Alabama State Report to the Gulf States Marine Fisheries Commission Spring 2019

Fisheries Section

The Alabama Marine Resources Division (AMRD) completed the fourth year and started the final year of fisheries monitoring projects funded by the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund (NFWF). Phase two of the artificial reef and habitat enhancement work was implemented and will add additional structures to the offshore environment with increased monitoring of the evolution of the reef sites.

AMRD biologists continue to monitor oyster densities on Alabama's public oyster reefs. From June 22, 2018 through October 3, 2018, a total of 450 SCUBA quadrat samples were collected and processed. Samples were collected from reefs that were planted with cultch between 2009 through 2016 and from non-planted reefs for comparison. Very low oyster densities were observed on all reefs surveyed along with oyster drills and evidence of drill predation. After data analysis, it was determined that the oyster density on the public reefs was too low to open reefs up for harvest in the fall of 2018.

AMRD biologists participated in 8 observer trips on 2 commercial blue crab vessels working Portersville Bay and the Wolf Bay/Perdido System between July 11 and December 5, 2018. A total of 500 of 516 crab traps fished were sampled and 2,534 individual blue crabs were sexed and measured. External parasites and abnormalities found on sampled crabs were documented and bycatch was recorded. A total of 161 crabs were randomly selected and retained during the 8 trips. Selected crabs were kept on ice after each trip until they were measured, weighed, and examined to verify sexual maturity, the presence of internal/external parasites, and for other abnormalities.

The AMRD continued to create reef fish habitats within the nearshore area of Alabama (Gulf of Mexico beach to 9 miles offshore). A \$1,200,000 contract using NFWF funds was executed to construct new reef habitat in the nearshore waters of the Gulf of Mexico. The project was completed and 600 concrete reef modules were deployed. Additionally, a \$1,600,000 project was completed to create new juvenile reef fish habitat within the newly permitted artificial reef zones between 6 and 9nm offshore. A total of 15,000 tons of 6"-10" limestone aggregate was deployed at 20 reef sites to create low profile, complex reefs.

The AMRD continues its at-sea sampling program funded by NFWF. The program consists of one sampler riding on a volunteer federally permitted for-hire vessel operating out of Mobile or Baldwin counties, to monitor fishing activities and collect biological data on targeted reef fish. The program, temporarily suspended during winter months due to low activity and participation, is expected to resume during the spring for its final year.

The AMRD continued mapping historical oyster reef locations in Mobile Bay using side scan sonar to determine possible locations of live oyster reefs. Several areas of potentially hard substrate have been identified and ground-truthing has been conducted to verify if live oysters exist in these areas or if the area is just a remnant of a past reef.

AMRD's Claude Peteet Mariculture Center (CPMC) continued stock enhancement efforts of red drum, Florida pompano, and southern flounder. Over 168,000 1-2-inch red drum fingerlings were released at 9 different sites throughout coastal Alabama. These releases occurred over two spawning periods. More than 55,000 1-2-inch Florida pompano fingerlings were released at locations along Baldwin County beaches over one spawning period. Modifications to existing larval rearing systems are being conducted to accommodate flounder hatchery activities. Funding for these modifications has been provided, in part, by the Alabama chapter of the Coastal Conservation Association. Flounder spawning activities are anticipated during early 2020.

The AMRD obtained funding for the construction of an Eastern oyster hatchery and remote larval setting facilities. Plans are currently in development with construction anticipated to begin in 2019.

Fall 2018 SEAMAP activities were completed for bottom long line, vertical line, ichthyoplankton and trawl surveys. Red snapper remain most abundant species in the vertical line catch. Atlantic sharpnose and black tip sharks were the most abundant from the bottom long line gear. Annual report was submitted to NOAA with results.

A joint three-year research project with Auburn University and Clemson University continues through 2020. This study focuses on southern flounder growth rate and sex ratio based on specific estuarine habitats. Thirty-six flounder were collected in 2018, but samples were not sufficient to investigate how habitat specific conditions affected sex ratios of juveniles.

The AMRD continued the collection of dockside Access Point Angler Intercept Survey interviews and validation of charter. From September through January, AMRD APAIS samplers completed a total of 227 assignments and interviewed 853 anglers. Training and fish tests were provided to APAIS staff in January and will be held again in August.

The AMRD and Gulf States Marine Fisheries Commission have collaborated to re-instate the Biological Sampling Program for the collection of otoliths from recreationally harvested marine finfish. The program was re-implemented on September 1, 2018 and will continue for 18 months. Through January 2019, a total of 63 pairs of otoliths with 123 additional measurements representing 9 out of the 13 primary targeted species were collected by AMRD's staff.

The reporting requirement for captains of recreational vessels landing red snapper in Alabama continued for the fifth year. During the 2018 red snapper season, 8,935 landings reports were submitted by representatives from charter boats, headboats, and private fishing vessels through the Snapper Check Program. Approximately, 1.80 million pounds of red snapper were estimated to have been landed in Alabama during 2018. In 2018, the Snapper Check Program was certified by NOAA Fisheries as a statistically valid method to estimate Alabama red snapper landings. Alabama is using Snapper Check to monitor red snapper landings in near real-time to stay within a state quota issued through a NOAA Fisheries' Exempted Fishing Permit (EFP). The EFP will continue through 2019.

The AMRD continues to register anglers through Alabama's Angler Registry Program. Anglers who are not required to purchase a license must register annually with AMRD if they intend to fish in Alabama's waters or transit through Alabama's waters in possession of fish. Exempted individuals such as lifetime license holders and residents over the age of 64 receive the angler registry at no cost. These data are provided to NOAA Fisheries monthly.

The AMRD continues to operate its Adopt-a-Reef program. Currently, 50 scuba divers have registered to become Adopt-a-Reef members and 57 reef reports have been submitted to the online database. Reports include information about offshore artificial reefs such as the subsidence of the reef, the structural integrity of the reef, lionfish abundance and removals, and the degree of anthropogenic fouling.

The AMRD developed and bid plans to replace the existing finger piers at two coastal boat ramps in Baldwin County. Construct activities are expected to begin in March 2019 and be completed prior to June 2019 at Boggy Point Boat Launch in Orange Beach and Bay Watch Boat Launch located at Weeks Bay.

The AMRD is working with Alabama Department of Conservation and Natural Resources engineering staff, the Alabama Historical Commission, and Volkert, Inc. to develop construction plans to replace the existing fishing pier located at the site of historical Ft Morgan in Baldwin County. The existing pier, constructed in the late 1960's, was closed several years ago due public safety concerns relating to the condition of the structure. The new pier will be constructed in the footprint of the existing pier and is expected to be publicly bid in the spring of 2019 with construction commencing shortly thereafter.

The AMRD participated in several outreach events by providing educational opportunities to learn about the marine environment through interactive exhibits. These events included the Alabama Coastal Birdfest and the multiday Mobile Boat Show.

The Alabama Seafood Marketing Program continued under the direction of the Alabama Seafood Marketing Commission. 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 to promote the benefits of seafood consumption. The marketing program's website is www.eatalabamaseafood.com. The program to date has been very successful.

Enforcement Section

From September 2018 through January 2019, AMRD enforcement officers conducted 998 commercial fishermen intercepts, 4,464 recreational fishermen intercepts, 731 seafood dealer and processor inspections, 5,632 hours of patrol (combined vessel patrol and shore patrol), and 1,385 vessel boardings.

Between September 1st and January 31st, the Enforcement Section participated in many outreach events including multiple boat shows and National Night Out programs, as well as, visiting area schools and fishing tournaments to provide education opportunities.

AMRD officers continue to partner with Bryant High School in Bayou La Batre and Baker High School in Mobile to support their Career Academy programs. This upcoming summer intern opportunities will provide up to four students the ability to gain valuable, paid, part-time work experience in the diverse career fields that are conducted by the AMRD.

In August 2018, the Enforcement Section was awarded a Port Security Grant totaling more than \$313,000 to be used towards updating and expanding the capabilities of the current Coastal Remote Monitoring system, a network of video cameras throughout Coastal Alabama. AMRD Enforcement is continuing the construction updates and expansion provided by the grant.

Mississippi Department of Marine Resources (MDMR)
Activity Report: July 1, 2018 – December 31, 2018
Gulf States Marine Fisheries Commission (GSMFC)
70th Annual Spring Meeting – New Orleans, LA
March 18 – March 21, 2019

Artificial Reef Bureau

The Artificial Reef Bureau (ARB) continued monthly monitoring of fish assemblages and physiochemical parameters at selected inshore reef sites. Personnel inspected 28 and replaced five inshore reef marker signs to assist boaters in locating the low-profile reefs. Juvenile reef fish sampling was performed in July. A total of 22 juvenile reef fish were captured, tagged, and released. ARB staff collaborated with the Mississippi Gulf Fishing Banks to monitor artificial reefs via roving SCUBA diver surveys. From July through December, a total of 24 dives were performed by the club's members and data was collected regarding species assemblages and physiochemical parameters. ARB staff also assisted the Shellfish Bureau in square meter sampling. In conjunction with the Gulf States Marine Fisheries Commission, the first annual Jimmy Sanders' Memorial Lionfish Challenge took place from May through September. Participants harvested 26 lionfish during the 2018 challenge. Biological data as well as harvest location was collected for each fish.

In addition to monitoring artificial reefs, the ARB worked on securing more structure to be deployed off the coast of Mississippi. The ARB secured approximately 47 deliveries, totaling 1,282 pieces of clean concrete material. This material is stockpiled at the Gulfport staging site for future offshore deployments.

The ARB staff represented the MDMR by contributing to outreach events and educational meetings. In July, staff represented the agency at the annual Mississippi Deep Sea Fishing Rodeo as well as the Croaker Classic in Biloxi. In August, staff represented the agency at the Mississippi Wildlife Extravaganza in Jackson MS.

ARB staff worked on renewing permits for all nearshore artificial reefs, keys, and the Cat Island artificial reef zone, and applied for two new artificial reef zone permits. This process includes: permit application, Section 7 Endangered Species checklist, and environmental assessments. Likewise, staff continued the process of obtaining permits for two new artificial reef zones in the vicinity of three other existing reef zones. These new zones will be known as Mississippi Reef Zone 1 and Mississippi Reef Zone 2 (MRZ 1 and MRZ 2).

Lastly, the ARB is currently preparing for and working on future deployments of artificial reef material. MDMR continues to work with several companies as they contribute to artificial reef development by donating clean concrete material. The material is being stockpiled at a five-acre staging site in Gulfport, MS. This material will be deployed at a later date.

Finfish Bureau

The Finfish Bureau (FB) continued to oversee the Marine Recreational Information Program (MRIP) in Mississippi. Assignments from July to December were obtained, reviewed, and processed before being sent to the GSMFC office. A total of 237 assignments and 1,230 surveys were completed July 1, 2018 through December 31, 2018 in Jackson, Harrison, and Hancock Counties. Survey site validations were conducted at all active sites to update the site registry for 2018 as state-wide site effort estimates continue to be refined to improve the accuracy of the survey design. The for-hire vessel frame was evaluated and edited to better reflect our most recent and updated state license file. This will allow FB staff to develop a more comprehensive and accurate active vessel frame to estimate for-hire effort more precisely.

Long term fishery independent sampling continued in conjunction with the NOAA Project "Monitoring and Assessment of Mississippi's Interjurisdictional Marine Resources." With cooperation from the Gulf Coast Research Laboratory (GCRL) a total of 323 otoliths were collected July 1, 2018 through December 31, 2018. Samples were collected from ten different species: Atlantic Croaker, Black Drum, Red Drum, Sheepshead, Southern Flounder, Spanish Mackerel, Spotted Seatrout, Southern Kingfish, Sand Seatrout and Striped Mullet. Additionally, 388 samples were collected and processed as part of the MDMR biological sampling program from 15 species: Black Drum, Sheepshead, Florida Pompano, Southern Flounder, Red Snapper, Spotted Seatrout, Southern Kingfish, Striped Mullet, Sand Seatrout, Gray Snapper, Atlantic Croaker, King Mackerel, Cobia, and Vermillion Snapper. The data collected through these programs will aid in management decisions for our state and are submitted to the Gulf States Marine Fisheries Commission (GSMFC).

The otolith reference sets for Sheepshead and Gray Triggerfish have been read by MDMR staff. No other reference sets are currently in-house at MDMR.

Commercial landings data was collected from fishermen and dealers utilizing Mississippi Trip Ticket program to monitor the quota on Red Drum, Southern Flounder, and Spotted Seatrout. FB staff continued working with commercial fishermen and dealers on trip ticket concerns. From July 1, 2018 through December 31, 2018 there was 1,987 paper trip tickets scanned and 2,297 tickets that were submitted electronically. All commercial landings data for 2018 has been verified and sent to GSMFC. Mississippi currently has 226 active commercial fishermen and 127 dealers participating in our trip ticket program.

FB staff continued to tag Red Drum in Mississippi coastal waters as part of an ongoing research project aimed at filling in age and size information gaps of Red Drum in Mississippi waters. The Red Drum project began in February 2014 and targeted fish of sizes of 20-30 inches, however Red Drum collected from past and current monitoring projects have not captured this size range. In addition, fishery dependent samples have been collected on a voluntary basis from recreational fishermen and for-hire captains who relinquish the carcasses to MDMR staff. These samples will be used to enhance existing data sets to complete a Red Drum stock assessment currently underway. With all Red Drum processed, additional samples are collected in relation to stomach contents (Trophic analyses), gonad samples (histology), and otoliths (ages).

FB added a new component to capturing information from Red Drum last year by tracking their movements through acoustic telemetry. The study is focused on the Biloxi Bay area and tagging

began in May of 2017. The acoustic array consists of 34 acoustic receivers placed at strategic locations throughout the project area. Staff successfully tagged 50 Red Drum from July 1, 2017 through December 31, 2018. Three additional Red Drum were recaptured between July 1, 2018 through December 31, 2018 and reported by anglers for a total of 13 fish recaptured since the project began in May of 2017.

Mississippi's recreational Red Snapper electronic reporting system, Tails n' Scales, completed another successful landings program for the 2018 season. This year, the National Marine Fisheries Service (NMFS) encouraged each of the five Gulf States to submit Exempted Fishing Permit (EFP) applications to test state-based recreational red snapper management programs, and in response, each gulf state developed a proposal for a pilot study. On April 16th, NMFS issued the permits, allowing Mississippi and the other four gulf states to set their own seasons for private recreational anglers and state charter for-hire vessels. Mississippi's private recreational season lasted for 76 days with a few closures and openings during that period. The season length for state charter for-hire vessels was 17 days and the federal for-hire season was 51 days, although vessels with federal reef fish permits were not included in the EFP. Mississippi's quota was 137,949 lbs., which was split proportionally between the private recreational and state for-hire sectors. The state for-hire quota was 2,800 lbs. Along with Mississippi's EFP being accepted for the 2018 and 2019 seasons, Tails n' Scales completed the certification process and became the second program to have its survey design accepted by NOAA Fisheries in June, after Louisiana. The Red Snapper reporting system "Tails n' Scales" was certified by NOAA in June of 2018.

MDMR in conjunction with GCRL completed Year 3 sampling for the offshore reef fish National Fish and Wildlife Foundation project. From July 1 through December 31, 2018, a total of 90 sites (DMR 34, GCRL 56) were sampled with fish and water quality samples currently being processed.

MDMR in conjunction with GCRL started discussing a Southern Flounder stock assessment and sampling protocol in February of 2018. Sampling by fyke nets began in May of 2018 and is still ongoing. A total of thirty net sets over three stations (Deer Island, Belle Fontaine Beach, and Davis Bayou) were performed from July 1 through December 31, 2018. Thirty-Two Southern Flounder have been collected during this time.

Eight recreational fishing records were approved by the CMR as state records between July 1, 2018 through December 31, 2018.

Angler	Catch Month	Common Name	Scientific Name	Weight
Matt Glen	July	Graysby	<i>Cephalopsholis cruentata</i>	9.93 oz
(Y) Kyson Blocker	August	Striped Burrfish	<i>Chilomycterus schoepfii</i>	1 lbs. 5.62 oz
(Y) Margaret Schindler	August	Red Drum	<i>Sciaenops ocellatus</i>	26 lbs. 8 oz
Michael Garrett	August	Tiger Shark	<i>Galeocerdo cuvier</i>	675 lbs.
(Y) Reagan McGarvey	September	Gulf Kingfish	<i>Menticirrhus americanus</i>	1 lbs. 8.72 oz
Brennan Sanders	September	Inshore Lizardfish	<i>Synodus foetens</i>	5.50 oz
Junie Creel	October	Lowfin Pomfret	<i>Brama dussumieri</i>	4.37 oz
Kevin Sikes	October	Gulf Flounder	<i>Paralichthys albigutta</i>	1 lb. 7.68 oz

(Y) = Youth Record

Seafood Technology Bureau

The Seafood Technology Bureau (STB) conducted 179 inspections including pre-operational, follow-up, certification, standardization, and routine inspections. The required bi-annual water quality sampling for seafood processing facilities for September was completed with a total of 49 samples taken.

In June, the Food and Drug Administration (FDA) conducted a Program Element Evaluation of the Plant and Shipping Element of the Mississippi Shellfish Sanitation Program. During the evaluation, 11 processors were inspected. The result of the evaluation was a “conformance” rating. This is the highest rating a program can receive. Since 2001, the Mississippi Shellfish Sanitation Program has been evaluated by the FDA 10 times. The program has received a conformance rating nine times out of 10.

In accordance with the Interstate Shellfish Sanitation Conference’s National Shellfish Sanitation Program, the STB conducted several illness investigations. None of the illnesses were epidemiologically linked to the consumption of Mississippi harvested oysters.

The STB in collaboration with the FDA conducted four workshops - two Basic Seafood Hazard Analysis Critical Control Point (HACCP) and two Sanitation Control Procedures (SCP) workshops. The workshops were held free of charge for Mississippi residents. They were made possible through a grant from the Mississippi Tidelands Trust Fund Program FY 2016/FY 2018 which is administered by the Mississippi Secretary of State’s Office and the Mississippi Department of Marine Resources. A total of 39 students attended the HACCP workshops and 28 attended the SCP workshops.

In July, staff from the STB participated in a tabletop exercise simulating a water contamination event with the Mississippi Department of Health, The Centers for Disease Control & Prevention, the FDA, and the Center for Food Safety and Applied Nutrition, in Jackson. The exercise enabled discussions on how all agencies involved would react in a real-world water contamination event. Several staff members completed ServSafe training. ServSafe is a five-year certification for food handlers on safe practices. Scholarship funds that were secured from the Association of Food and Drug Officials (AFDO) also allowed one staff member to attend the AFDO Southern States Conference in Gatlinburg, Tennessee in September.

Two staff members are currently participating in the Certified Public Manager (CPM) program taught by the Mississippi State Personnel Board. The program is a nationally recognized leadership development program for public managers and supervisors.

In August, staff participated in an oyster dissection class at Harrison Central High School. Students were instructed on the link between oyster anatomy and seafood safety. The STB also participated in the annual Jackson County Fair in October, educating thousands of residents

about the importance of seafood safety in their everyday lives. In November, staff from the STB participated in a Smithsonian public outreach event at the Ocean Springs Library.

Shellfish Bureau

The 2018-2019 Oyster Season opened to the harvest of oysters on November 10, 2018. The season has opened for a total of seven days from November 10 to December 8, 2018. There was a total of 3,852 sacks harvested and a total of 247 trips taken during this time. The only areas open for harvest at this time was Area 1 and Area 2. These areas are in the westernmost portion of the Mississippi Sound.

During Spring and Fall 2018, Shellfish Bureau deployed cultch materials for oyster restoration over approximately 290 acres of public oyster reefs. Since June 2018, the Shellfish Bureau deployed approximately 145 acres of cultch material over the public reefs throughout the Western MS Sound and Biloxi Bay. In the Western MS Sound, 137 acres of limestone (#4 size) and oyster shell were deployed over St. Joe, Pass Marianne, Pass Christian, Henderson Point, and St. Stanislaus reefs. In Biloxi Bay, a variety of cultch types including oyster shell, limestone, crushed concrete, and spat-on-shell were deployed over eight approximately one-acre sites. MDMR plans to monitor and study the effectiveness of different cultch materials for restoration of oyster reefs using the one-acre sites in Biloxi Bay.

From June through December 2018, the Shellfish Bureau collected 722 fecal coliform water samples. These samples are used to manage the opening and closing of oyster reefs. The samples are collected by boat, in sterile bottles, one-half meter below the surface on the windward side. The samples are placed on ice and transported to an FDA certified microbiology laboratory. The samples are analyzed using the 5-tube, 3 dilution, modified A-1 method.

Oyster License Sales for the 2018-2019 fiscal year include: eight recreational Licenses, 50 commercial tonging licenses, 135 commercial dredging licenses, nine commercial out of state tonging licenses, and nine commercial out of state dredging licenses.

In August 2018, two members of the HAB task force attended the US Harmful Algal Bloom Taxonomy Course held at Bigelow Laboratory in East Boothbay Maine. The course is designed to educate state and federal workers that respond to HAB events in the interest of public safety. MDMR staff learned how to distinguish various species of dinoflagellates, diatoms, and other flagellates that are considered harmful in blooms due to morphological characteristics. Staff had extensive training of; algal classification through lectures and examination of over 100 species of live and preserved samples, use of light and electron scanning microscopes, use of a FlowCam®, and net sampling.

The Shellfish Bureau held a Harmful Algal Bloom Identification Training Workshop October 11-12, 2018. There were 15 participants from the MDMR, GBNERR and ALDH. Jennifer Maucher Fuquay with NOAA's Phytoplankton Monitoring Network in Charleston, South Carolina, traveled to Biloxi, MS to present a training session on how to identify harmful algae. The first day of the training focused on marine phytoplankton identification. The second

day of training focused on freshwater phytoplankton identification with a presentation followed by preserved and live sample identification.

The Pascagoula oyster relay began on December 10, 2018 and concluded on December 17, 2018. On Friday, December 14th, the relay was closed at 1:00 p.m. due to adverse weather conditions. It reopened on Sunday morning at legal sunrise, December 16th.

Pre-Registration for the Pascagoula relay took place on December 4th through 7th at the Bolton Building in Biloxi. There was a total of 146 harvesters qualified to participate and there were 80 harvesters that registered to participate. Two MS Dealers participated in the relay: Joe Jenkins with Crystal Seas Seafood and Jeremy Forte with Jerry Forte Seafood.

During the relay, a total of five barges were deployed onto the restoration site located in Biloxi Bay utilizing contractor barges to spray the oysters off the deck with high powered water monitors. Method of deployment was slightly different than traditional methods, whereby the barge dropped a spud into the substrate and rotated around its axis while spraying oysters from the barge. This method of deployment should have resulted in a more concentrated distribution of oysters in a circular pattern. JE Borries, Inc was the bidder for the barge contract. The dates for this contract are: December 10 – 14 and 16 – 18.

Total Sacks Harvested and Total Boats Working by Day

Date	Total Sacks Harvested	Total Boats
12/10/18	1,509	?*
12/11/18	2,228	31
12/12/18	2,598	32
12/13/18	1,524	28
12/14/18	2,010	?*
12/16/18	5,085	42
12/17/18	3,624	43
Total Relay Harvest	18,578	

*Still working to gather this data

Between May 23, 2018 and August 9, 2018, the Shellfish Bureau conducted an annual oyster stock assessment of 14 reef complexes located in the Mississippi Sound between the mouth of the Pearl River and the Pascagoula River. Reef assessments help to determining a sustainable harvest, monitor predation and disease, calculate mortalities and recruitment, record environmental conditions including hydrology and bottom type, and determine where and how to focus future restoration efforts. Square meter dive samples are employed to provide a quantitative assessment of each reef across the entire spectrum of oysters' sizes to achieve the assessment goals. Random points were selected for each reef based on reef size and reef density variations. A total of 200 sampling locations were created with 2 replicate dives performed at each location for a total of 400 square meter samples across the 14 reefs. Below are the results of the 2018 oyster reef assessment.

2018 Mississippi Oyster Stock Assessment

Reef	2018 Est. Sack Total	Sacks @30% Harvest	Status
Pass Tonging	652	196	Near depletion
Pass Dredging	0	0	Near depletion
Henderson Point	2,064	619	Near depletion
Pass Marianne	1,309	393	Near depletion
Telegraph	0	0	No resource
St. Joe	21,230	6,369	Fished heavily
St. Stanislaus	1,427	428	Fished heavily
Waveland	29	9	Recovering (limited resource)
Between the Bridges	550	165	Resource recovering
Western Reefs	27,261	8,178	
Biloxi Bay Cultch Plant	675	203	
TOTALS	27,936	8,381	

¹Includes additional acreage identified in 2017 side-scan image

2018 Mississippi Oyster Stock Assessment (Eastern Reefs)

Reef	2017 Est. Sack Total	2018 Est. Sack Total	Comments
Biloxi Bay Cultch Plant	1,651	675	Recovering (limited resource)
Shearwater	1,674	651	Restricted waters
Graveline	830	904	Restricted waters
Pascagoula West	10,013	5,245	Restricted waters
Pascagoula Causeway	26,745	21,601	Restricted waters
TOTALS	40,913	29,076	Recommend No Harvest

Shrimp and Crab Bureau Mississippi Department of Marine Resources (MDMR)

Mississippi territorial waters opened to shrimping at 6:00 a.m. on June 6, 2018. An aerial survey counted 254 boats trawling in the Mississippi Sound on opening day as fishermen reported catching moderate numbers of 40/50 count brown shrimp. Preliminary landings for July through December 2018 show 5.88 million lbs. of shrimp (all species head-on) landed in Mississippi with a dockside value of \$11.5 million. Shrimp landings increased from the same period (July-December) of the 2017 season (5.75 million lbs.).

Preliminary Blue Crab landings for July through December 2018 were 556,291 lbs. with a dockside value of \$800 thousand, an increase for the same period of the 2017 season (464,283 lbs. with a value of \$600 thousand). A public derelict crab trap clean-up is planned in

Mississippi from February 14-16, 2019. MDMR staff continues to remove derelict traps reported to the agency by the public, and also continues to retrieve submerged derelict traps using side scan sonar technology. Utilizing NOAA Disaster Recovery funds from the 2011 opening of the Bonnet Carré spillway, the MDMR has been able to provide 60,934 crab trap escape rings and 6,740 terrapin excluder devices to resident crab fishermen at no cost.

The third annual Mississippi Crab Newsletter, *The Blue Crab Beacon*, was distributed to resident commercial crab fishermen. The newsletter contained information Mississippi Blue Crab landings, the Mississippi Derelict Crab Trap Removal Program, Mississippi's Trip Ticket Program, Gulf Coast Research Laboratory's (GCRL) Crab Tagging Program, TEDs/Escape Rings, Crab Processing and other informative topics. The 11th annual edition of *Shrimping the Sound* was also distributed to resident commercial shrimpers. The newsletter included information on TED Enforcement, Audubon's G.U.L.F. Initiative, USGS Hydrological Monitoring Program, Marine Mammal Authorization, American Shrimp Processors Annual meeting, Mississippi Shrimp Landings, as well as environmental conditions influencing shrimp abundance this year. Both newsletters are available on the MDMR website at www.dmr.ms.gov.

Long term fishery independent trawl sampling continued in conjunction with the NOAA Project "Monitoring and Assessment of Mississippi's Interjurisdictional Marine Resources."

Cooperation with GCRL on the commercial and recreational Blue Crab Catch per Unit Effort projects is also ongoing. Bureau personnel coordinated and administered six U.S. Fish and Wildlife Service Sport Fish Restoration Projects, issued 34 Scientific Research Permits per Title 22 Part 18, and inspected and licensed 16 Live Bait Camps and ten vessels per Title 22 Part 6.

**Gulf States Marine Fisheries Commission
69th Annual Spring Meeting
Technical Coordinating Committee
March 21, 2019**

LOUISIANA STATE REPORT

Resource Management:

LA Creel

Through the La Creel program, 3,179 recreational fishing trips, comprised of 7,527 individual anglers, were surveyed during 2018 Sample Weeks 40 - 52 (October 1, 2018 through December 30, 2018) and 2019 Sample Weeks 1 – 3 (December 31, 2018 – January 20, 2019) (the sample period). Forty-eight different interviewers completed 487 assignments during the sample period.

Fish kept by anglers and allowed to be viewed by interviewers are referred to as observation Type 1 fish. Fish in possession of the angler at the time of survey, but not seen by the interviewer are classified as observation Type 2 fish. For the reporting period, there were 21,769 Type 1's and 5,756 Type 2's, which means that 79 percent of all fish in possession of the angler at the time of survey were identified and counted by staff.

On January 21, 2019, La Creel began capturing the time spent onsite. The purpose is to determine if variations in the time on site have any unforeseen impacts on the data, particularly with PM assignments, which are often shorter than AM assignments due to sunset. This was also a suggestion made by the NMFS contracted La Creel review committee.

Also in January 2019, a new SAS assignment draw program was developed to make the process more efficient. The new program was used to generate the February 2019 assignment list.

The iPad application used for data entry for dockside surveys will undergo a rebuild in the spring of 2019. The rebuild entails moving the app from one platform to another so that future maintenance and changes to the app can be done in-house by state IT staff.

Stock Assessments:

An updated stock assessment of striped mullet was completed in November 2018 and presented to the Louisiana Wildlife and Fisheries Commission (LWFC) for transmittal to the Louisiana Legislature in February 2019. This assessment uses a statistical catch-at-age model to estimate annual time-series of spawning stock biomass and fishing mortality rates. Time-series of fishery catches-at-age along with a fishery-independent relative abundance index are the primary model inputs. Current status of the stock is determined with estimates of reproductive potential. Based

on results of this assessment update, the stock is currently not overfished and not experiencing overfishing.

Age and Growth:

BIOFIN funding returned this year, starting on September 1, 2018. Since the new BIOFIN agreement covers recreational species only, we rely on NOAA's TIP sampling for our commercial otoliths. All otolith collection and ageing data has been transferred to GSMFC through the month of October. Staff are currently working on November and December otolith processing. The lab is also starting to receive reference sets for group reading for the upcoming Otolith Processors Meeting in May 2019.

From the beginning of September 2018 to the end of January 2019, the Age and Growth laboratory in Baton Rouge has received 3,791 Marine Fisheries otoliths. From that otolith total, 2,930 have been aged. During this same time period, 1,323 Inland Fisheries otoliths have been collected and transferred to the lab. All of these Inland otoliths are Largemouth Bass, Channel Catfish, Black and White Crappie. The Fisheries Research Lab processes Blackfin Tuna, Tripletail, Wahoo, and Yellowfin Tuna. The numbers for those species are not included in the Age & Growth lab's total for this time period. However, their individual totals are listed. The totals received for each species are: Black Crappie-511; Black Drum-646; Channel Catfish-15; Cobia-0; Gray Snapper-3; Greater Amberjack-0; Gray Triggerfish-0; King Mackerel-6; Largemouth Bass-605; Red Drum-968; Red Snapper-104; Sheepshead-345; Southern Flounder-267; Spotted Seatrout-1,214; Striped Mullet-111; Tripletail-26; Vermilion Snapper-0; Wahoo- 0; White Crappie-192; Blackfin Tuna-0; Yellowfin Tuna-101.

Fisheries Research Lab:

The Grand Isle Fisheries Research Lab (GI-FRL) is the base for offshore fisheries independent monitoring and research projects conducted by the Fisheries Research and Assessment Section. GI-FRL also performs a significant outreach capacity, as the Lab serves as a point of contact for the public, visiting researchers, and educational programs.

Southeast Area Monitoring and Assessment Program (SEAMAP)

SEAMAP is a cooperative state, federal and university program designed for the collection, management and dissemination of fishery-independent biological and environmental data of the coastal waters (state and EEZ) off the southeastern United States, Caribbean and northern Gulf of Mexico. Since 1981, SEAMAP has collected data on fish stocks that are managed by either state or federal governments. Louisiana takes part in four components of the SEAMAP program: shrimp/groundfish, ichthyoplankton, vertical line and bottom longline. These surveys are conducted by teams of three to nine fisheries biologists who collect, process and enter data. In addition, all surveys collect environmental parameters including a water column profile and water samples from bottom, middle and surface depths for chlorophyll measurements. These surveys are

conducted from April through October with data management and reporting conducted during the winter. During the reporting period, final reports and data packets were submitted to the Gulf States Marine Fisheries Commission (GSMFC) for all four surveys. The LDWF TCC-SEAMAP representative participated in the Fall GSMFC meeting. SEAMAP final grant reports were submitted to the National Oceanic and Atmospheric Administration (NOAA).

Spotted Sea Trout Life History Study

Previous assessment analyses (Assessment of spotted seatrout in Louisiana waters: 2011 Report by Joe West, Jason Adriance, Melissa Monk and Joseph Powers) provided estimates of female spawning potential ratio and spawning stock biomass based on limited data sets. New information has allowed for greater data resolution, which allows for more accurate estimates within the assessment model. Production estimates of the spawning stock are important inputs into the stock assessment model. During the reporting period, reproductive histological analysis was completed with 11 batch fecundity completed thus far. Female ovary tissue samples have been processed. By supplementing collections with charter catches, we have increased the total number of older individuals in our sample population, which will aid in providing a better estimate of age-specific fecundity. The calculation of annual fecundity within age will allow for a more accurate representation of the spawning stock as a production input into the model and will more accurately assess the status of the Louisiana spotted seatrout spawning potential ratio. Future collections will focus on older spotted seatrout (ages 3+), obtaining females in spawning condition, and expanding the study from its current Barataria Basin focus to a statewide project that incorporates monthly samples from throughout the spawning season from each Coastal Study Area.

Offshore Red Drum Age Structure

The red drum (*Sciaenops ocellatus*) is one of the most harvested marine recreational fishes, both across the northern Gulf of Mexico and specifically in Louisiana (National Marine Fisheries Service (NMFS) 2017). However, before 1988, red drum were overfished and undergoing overfishing. According to a red drum stock assessment conducted by the Southeast Fisheries Science Center in 1987, the chance of juvenile escapement to the spawning stock was less than 2 percent (Goodyear 1987). The Gulf of Mexico Fisheries Management Council (GMFMC) implemented regulations that prohibited the retention of red drum from the Exclusive Economic Zone (EEZ; Red Drum Fishery of the Gulf of Mexico 1988). While the moratorium on EEZ harvest, which is still in effect, has increased spawning stock biomass in the Atlantic, the status of the Gulf of Mexico stock is unclear (SEDAR 2015, Porch 2000). Trammel net data from LDWF indicates an upward trend in mean size through sampling years, but it is difficult to determine whether this is the result of estuaries becoming more open water habitat or a recovering drum population. Additionally, the collapse of the offshore commercial purse seine fishery has impaired biological sampling of older or larger red drum for otolith or gonad sampling to determine age composition or fecundity. The 2000 red drum stock assessment lists

age composition of the adult population as a research priority for the Gulf of Mexico while both the 2000 Gulf of Mexico and 2015 Atlantic stock assessments are still using fecundity estimates from 1994 (Wilson and Nieland 1994, Porch 2000, SEDAR 2015). There is a clear need for biological samples from the offshore red drum stock to inform future assessment attempts.

The portion of the Southeast Monitoring and Assessment Program (SEAMAP) bottom longline (BLL) survey conducted by LDWF could provide a solution to red drum stock assessment needs. The SEAMAP BLL survey redesign was effective for the 2015 sampling season and resulted in greater sampling effort along the entire Louisiana coast inside the 10m contour. This survey has caught at least 100 red drum per year from 2015 through 2017 in offshore coastal waters adjacent to the Louisiana coast, with over 20% of the 90 stations recording of red drum catches. The lack of a consistent biological sampling source for offshore red drum has hindered stock assessment, but the LDWF portion of the SEAMAP bottom longline survey could provide a fishery independent source of otolith and gonad samples. Otoliths would provide abundance of age or year classes within the population while gonad samples would deliver spawning frequency and fecundity estimates. The abundance indices from standardized sampling coupled with age and reproductive analysis from the otolith and gonad samples would more accurately assess the adult population of Red Drum off Louisiana.

In 2018 LDWF collected otoliths from 160 red drum during offshore randomized BLL sampling. Though the majority of those landings occurred outside of the spawning season during spring sampling, 29 gonads were collected from female red drum closer to the spawning season during summer and Fall BLL sampling. Ages for red drum collected offshore ranged from 5 to 40 years (Figure 1). We expect that these data will be critical in characterizing the offshore spawning stock of red drum off the Louisiana coast in future stock assessments.

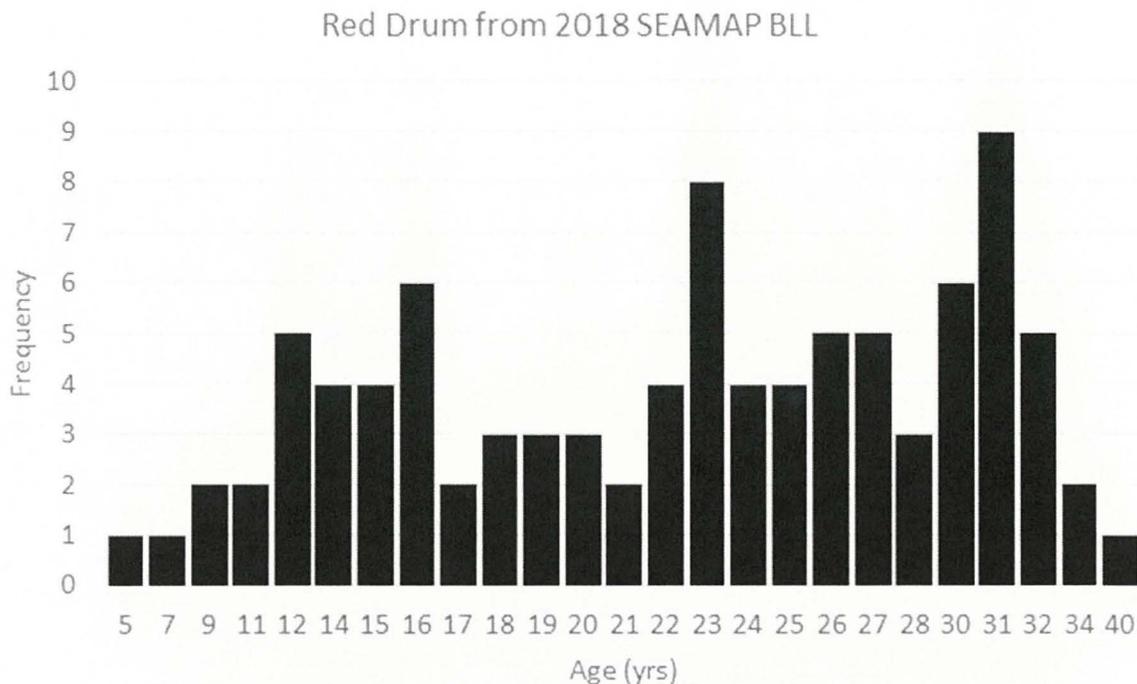


Figure 1. Age distribution of red drum collected offshore during 2018 SEAMAP bottom long-line surveys. Red drum sampled ranged from 5 to 40 years old.

Southern Flounder Tag Retention

In an effort to assess perceived declines in southern flounder stocks, LDWF began to explore a pilot field tagging study in Barataria estuary where a large number of southern flounder could be captured using fishery-independent survey methods, tagged, and released. Fishery recaptures could then be monitored through time and space to provide information on mortality rates, population size, and movement. Gear tests for this potential survey were completed during the reporting period.

A tank-study was conducted to determine the optimal tag-type (T-bar or dart) and tag-location (dorsal fin or caudal peduncle region) for the southern flounder field experiment. Biologists at the GI-FRL collected 44 southern flounder using drop rings at night. Following a quarantine procedure, these flounder were alternately double-tagged with t-bar and dart tags and separated in equal numbers into 4 tanks where they were kept for up to 6 months. The tank trial was completed in December 2018 and data analysis is underway.

Offshore Artificial Reef Monitoring

The Artificial Reef (AR) Monitoring Grant has three main goals: 1) analysis of GoPro video from previous (2015-17) and current vertical line (2018; VL) surveys, 2) conduct VL surveys on LDWF AR structures to enhance SEAMAP survey coverage of these structures, and 3) develop

and conduct roving diver surveys on LDWF AR reef structures. While these surveys are all ongoing, progress can be reported toward the objectives of each.

Previously, 430 unique GoPro videos were compiled from SEAMAP VL surveys (2015-2017). These videos were filtered for visibility and pre-read to define video read time bounds, with 43 of 247 videos readable from 2015, 37 of 97 videos readable from 2016, and 18 of 86 videos readable from 2017. Of the total collected, 98 videos were determined to be readable and these were read by two independent readers for finfish species identification on a 'min count' basis. Concurrently, GoPro videos were collected (SEAMAP funding for field work) from 2018 VL survey sites. 2018 videos were processed and read during the reporting period. Data management is underway and final results are expected in 2019.

LDWF also sought to enhance the monitoring of LDWF AR sites using the established SEAMAP VLL survey protocol. Ten percent of the AR structures in the LDWF Offshore AR Program were randomly selected and added to the 2018 survey. The 2018 survey was completed in fall of 2018, with 46 AR sites sampled following the SEAMAP VL protocol.

Additionally, LDWF sought to include a roving diver survey component to the LDWF AR Monitoring effort. While LDWF has previously conducted dive surveys at standing platforms, no dive surveys had been conducted at AR sites until this year when roving diver surveys were completed in the VR and ST block areas. Biologists surveyed finfish species at the AR site and the nearest standing platform. Diver observations and video counts were completed during the reporting period.

Offshore Invasive Species Monitoring

LDWF conducted roving diver surveys at offshore structures to document the presence, abundance, and habitat preferences of the invasive lionfish (*Pterois sp.*). Survey zones were the areas east of the Mississippi River Delta (Delta East), the area west of the Mississippi River Delta to Port Fourchon (Delta), Fourchon to Marsh Island (Central LA), and Marsh Island to the western LA state line (West LA). LDWF biologists conducted seven survey dives in 2018, five of which were in the Delta West and two in the West LA zones. Lionfish were observed at all three platforms in the ST-131 lease block but not at ST-152 or the ST-130 reef. Video, counts, and habitat descriptions were recorded. Lionfish were present at both sites, with video, counts, and habitat description recorded. Twenty-four lionfish were collected on the West LA surveys and tissue, otoliths, and stomachs were retained for species identification, age analysis, and stomach content identification, respectively. Video counts, ageing, and analysis of gut contents were completed during the reporting period with similar surveys and expanded biological collection planned for 2019.

Life History and Population Structure of Snowy and Warsaw Grouper in US Waters

Snowy and Warsaw groupers are both valuable and vulnerable components of the deep-water grouper assemblage in the northern Gulf of Mexico. LDWF participated in a NOAA-MARFIN funded research grant with Texas A&M Galveston, Texas A&M Corpus Christi, and the

University of Florida to use tissue, hard parts, and reproductive samples to address existing data gaps for these commercial and recreationally important species that are both either overfished (Snowy) or experiencing overfishing (Warsaw), according to the National Marine Fisheries Service (SEDAR 4 and 36). By using both archived samples and active collection, the participants in this study were able to amass one of the largest sample sizes ever collected for these two deep-water species, which are often difficult to sample. Final 2018 collections of otoliths tissue, and gonads were distributed during the reporting period with final analysis underway.

Michael C. Voisin Oyster Hatchery

The Michael C. Voisin Oyster Hatchery located on Grand Isle, Louisiana is operated through a collaborative effort between the Louisiana Department of Wildlife and Fisheries (LDWF) and Louisiana Sea Grant (LSG). LSG is contracted to assist with facility operations and to provide recommendations to LDWF for hatchery operations. Hatchery staff work together to produce oyster larvae and algae feed. Furthermore, LDWF and LSG produce diploid, triploid, and tetraploid oyster larvae and seed for industry orders, restoration projects, breeding program, and research projects.

The focus for fall 2018 larval production was to produce diploid pediveligers for setting on whole oyster shell and deploying hatchery-produced spat-on-shell on restoration test plots designated by the LDWF Oyster Program Manager. The fall production had low pediveliger larval production and only produced a small amount of diploid seed of approximately 35,637 seed. Diploid seed was provided to LSG for research and broodstock purposes. Large spawns occurred in the hatchery during the fall; however, the larvae did not survive or grow well. LDWF and LSG hatchery staff conducted a series of feed experiments and water quality sampling to determine if feed and/or bacteria was the cause of mortalities. Feed experiment results suggested that bacteria in the hatchery-produced algae and larval tanks might be a primary cause of mortality. LDWF and LSG staff collaborated with a professor and honors student from Nicholls State University (Thibodaux, Louisiana) in the fall and winter to analyze hatchery seawater and hatchery-produced algae samples to determine if bacteria (specifically *Vibrio* species) was present during the time of larval mortalities. Results are pending. The 2018 hatchery season finished in late November. Refer to Table 1 for total 2018 hatchery production.

2018 Total Hatchery Products* Summary

	Diploid	Triploid	
Total D-stage	n/a	n/a	
Total Veligers ^(a)	522,666	662,666	
Total Pediveligers & Veligers ^(b)	n/a	2,570,333	
Total Pediveligers	17,845,163	5,309,199	
Total Pediveligers Set on Shell (Shellbags)	n/a	63,570,745	
Total Pediveligers Restoration	16,196,666	25,102,732	
Total Pediveligers Sales	n/a	97,000,334	
Total Seed Restoration ^(c)	n/a	3,371	
Total Seed Restoration	602,545	512,287	
Total Seed Research	35,637	n/a	
Total Seed Sales	354,000	259,667	
Total Spat-on-Macroculch	56,775	128,059	
Total Spat-on-Shell	n/a	3,799	<i>Grand Total</i>
Total larvae by ploidy	34,564,495	194,216,009	228,780,504
Total seed by ploidy	956,545	775,325	1,731,870
Total spat by ploidy	56,775	131,858	188,633

*Products here do not include LSG research brood data or tetraploid brood data

^aVeligers were terminated because of poor quality, typically resulted at end of brood life

^bIncludes PV,V set on aragonite test cultch

^cPloidy either diploid or triploid, seed from floor screen from bottle nursery

Table 1. LDWF 2018 total hatchery products summary. These are the end-products delivered or used for sales, restoration, or research. Products are characterized by ploidy (diploid or triploid), life cycle stage (larvae, spat, or seed), and purpose.

From December 2018 through January 2019, hatchery staff completed off-season maintenance and prepared for the 2019 hatchery season. The Algal Stock Room started back up mid-

December with new stock cultures and the Algal Production Room began algal bag production at the end of January. Staff expect the 2019 larval production to begin in mid to late March.

Marine Mammal and Sea Turtle Monitoring:

LDWF continues to maintain a stranding and rescue response program for the state, working closely with our federal counterparts at the NOAA/NMFS and the United States Fish and Wildlife Service (USFWS). LDWF Staff receive and investigate reports of live and dead marine mammals and sea turtles. These reports are received from members of the public, various law enforcement agencies, local government officials, property managers, and other entities including barrier island restoration construction crews working on remote islands and beaches along the Louisiana coast. Where logistically possible and appropriate, depending on state of decomposition, marine mammal and sea turtle carcasses are field-sampled if very decomposed, necropsied in the field on-site, or are recovered for necropsy to be performed by a veterinarian and trained staff in a laboratory based setting to investigate the cause of strandings and mortality following established protocols.

LDWF continues to monitor beaches, where appropriate and as schedules allow, conducting active surveillance for any stranded marine mammals or sea turtles. Beach surveys are conducted where staff can access beaches with state equipment (4x4 trucks or UTVs), and in remote locations where reports may go undetected by the public. During this reporting period, LDWF conducted 16 beach surveys.

In December of 2018, an oil spill occurred in eastern Barataria Bay near Port Sulphur, LA. LDWF Staff worked through the Wildlife Branch and coordinated marine mammal and sea turtle response surveys. These surveys covered open waters and areas of shoreline within and along the Bay assessing animals in the impact area. Additionally, areas identified as potential sea turtle habitat were assessed including rock jetties and breakers within the impact area. Dolphins observed within the impact area were photographed and environmental oiling conditions were documented during sightings for each group of dolphins observed. Upon conclusion of surveys, staff examined photographs taken during the surveys to sort by individuals based on dorsal fin photographs to document numbers of animals. Daily summary reports were then completed for submission to Unified Command. Further, staff assessed oil spill impacted area maps and overflight images and associated information to determine targeted search areas, and monitored weather and sea state conditions to determine days of response surveys. Communications with LDWF staff, National Marine Mammal Foundation, and NOAA regarding response surveys, target areas, debrief calls, known animals in the area from previous captures and tagging work, and observations occurred during the response.

Marine Mammals

LDWF covered 7 marine mammal strandings during this period. Staff conducted 3 external marine mammal exams and collected minimal samples, due to decomposition level of the

carcasses. Additionally, two carcasses including one fetus were collected and frozen pending necropsy.

Sea Turtles

LDWF responded to stranding reports and documented a total of 3 green sea turtles from October 2018-present. Of those, one green sea turtle carcass was frozen for future necropsy. Two of these green sea turtles reflect two lethal takes for consumption by members of the public and are associated with an ongoing LDWF Enforcement investigation.

LDWF accepted a frozen green sea turtle carcass that was a lethal take from a shrimp trawl vessel that was retained by an observer onboard. The carcass was retained frozen at LDWF and shipped to Dr. Brian Stacy, NOAA for a necropsy to be performed.

All carcasses that were retained frozen over the past year were necropsied during a batch sea turtle necropsy session. The session was held on November 27 and 28, 2018 at the Louisiana State University (LSU) School of Veterinary Medicine (SVM), Louisiana Animal Disease Diagnostics Laboratory (LADDL), BSL-3 Lab. LDWF and NOAA personnel coordinated along with participation from Anatomic Pathology Resident Students from the Department of Pathobiological Sciences LSU, SVM, and representatives from Audubon Nature Institute. NOAA personnel went through one carcass/case and the corresponding paperwork, photographing, and sampling procedures. All attendees then broke out into two three person teams to perform necropsies on the remaining cases. A total of 31 sea turtle carcasses were necropsied during the batch sea turtle necropsy session.

Table 2. Total number of sea turtles necropsied by species at a batch sea turtle necropsy session held on November 27th and 28th, 2018 at Louisiana State University School of Veterinary medicine in baton Rouge, LA.

<i>Species</i>	<i>Number Necropsied</i>
<i>Kemp's ridley</i>	23
<i>Green</i>	6
<i>Loggerhead</i>	2
TOTAL	31

As part of a Sea Turtle Early Restoration Gear Management Team/Turtle Exclusion Device (TED) Coordination Project, LDWF's TED outreach coordinator met with the NOAA Gear Monitoring Team (GMT) at an outreach event in Lafayette. LDWF's TED outreach coordinator also attended a Louisiana Shrimp Task Force Meeting. The TED outreach coordinator has also been working on organizing a 2019 schedule for outreach events.

Type of event	Location	Date
LFF outreach event	Lafayette	12/13/18

LDWF's TED outreach coordinator is providing background information on the reasons for TED requirements at outreach events, including interpretation of technical reports from NOAA.

In December of 2018, LDWF and collaborating researchers from the United States Geological Survey (USGS) completed another live sea turtle capture/mark/recapture survey near Fourchon, Louisiana. A total of 21 green sea turtles were captured, sampled, tagged, and released; four of these were released with satellite tags during the December survey. These efforts, initiated in December 2014, take place annually in May and December, and are part of a long-term study to document juvenile sea turtle presence and habitat utilization in the northern Gulf of Mexico. Sea turtles are captured (NMFS Permit Number 17304-03) and are temporarily held for biological sample collection, including: skin biopsies, a carapace biopsy and blood. Additionally, all turtles captured are scanned to determine if they were previously tagged. If no tags exist, all individuals receive external flipper tags (small metal tags on both front flippers) and an internal Passive Integrated Transponder (PIT) tag. In particular, these surveys document juvenile sea turtle recruitment to nearshore habitats in southeast Louisiana and allow comparisons between the Louisiana site and other northern Gulf of Mexico study sites. Biologists also collect growth data and other life history parameters of sea turtles captured in Louisiana to compared to those from other Gulf of Mexico study sites.

Shrimp Program:

The 2018 spring shrimp season closed in shrimp management Zone 2 and portions of shrimp management Zone 1 at 6:00 p.m. on June 27, 2018. This closure included the portions of state inside waters from the western shore of Freshwater Bayou Canal eastward to the Louisiana/Mississippi state line, except for Lake Pontchartrain, Chef Menteur and Rigolets Passes, Lake Borgne, the Louisiana portion of Mississippi Sound, and the open waters of Breton and Chandeleur Sounds. The remaining portions of state inshore waters closed at 6:00 p.m. on July 2, 2018. The open waters of Breton and Chandeleur Sounds outside of the double-rig line remained open.

The 2018 fall shrimp season opened in portions of state inside waters on August 13, 2018, at 6:00 p.m. as follows: from the Louisiana/Mississippi state line westward to the Atchafalaya River Ship Channel at Eugene Island. Due to the prohibition of shrimping at night, the following state inside waters were opened at 6:00 a.m. on August 13, 2018: from the Atchafalaya River Ship Channel at Eugene Island westward to the western shore of Freshwater Bayou Canal. The portion of shrimp management Zone 3, from the western shore of Freshwater Bayou westward to the Louisiana/Texas state line, opened at 6:00 a.m. on August 27, 2018.

The 2018 fall shrimp season closed in all state inside waters at official sunset on December 17, 2018 except for Chef Menteur and Rigolets Passes, Lake Borgne, Mississippi Sound, Mississippi River Gulf Outlet (MRGO), a section of the Gulf Intracoastal Waterway (GIWW) in Orleans parish from the GIWW East Closure Sector Gate westward to the GIWW intersection with the

Inner Harbor Navigation Canal, and the open waters of Breton and Chandeleur Sounds as bounded by the double-rig line described in R.S. 56:495.1(A)2.

Portions of Louisiana territorial seas closed on December 24, 2018, at official sunset between Calliou Boca and Freshwater Bayou Canal

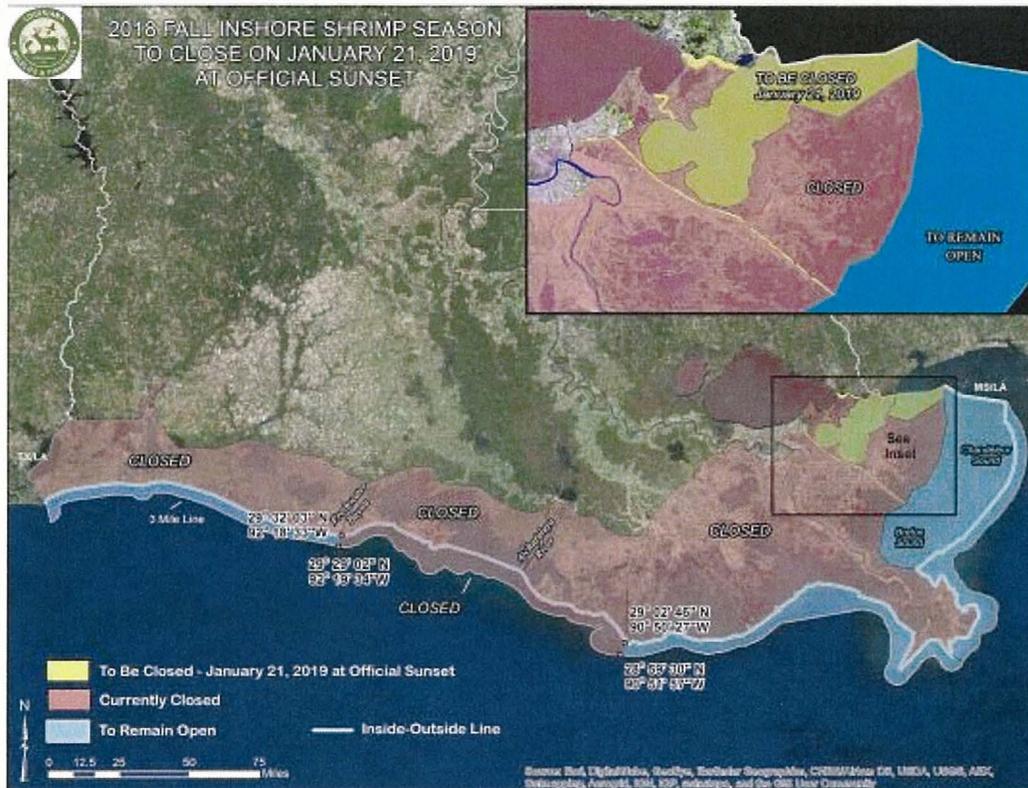


Figure 2. 2018 Fall inshore shrimp season closures

Shrimp Landings

All 2018 shrimp landings (heads on unless specified otherwise) and dockside values are preliminary and subject to change after a thorough review of trip ticket data. Preliminary statewide annual shrimp landings (all species combined/heads on weight) totaled approximately 96.8 million pounds with a dockside value of \$119.4 million (Source: LDWF Trip Ticket Data). Annual shrimp landings in 2018 indicated a gain of 3% when compared to annual landings in 2017 with a loss of nearly 5% compared to the five-year average. The 2018 dockside value was lower than the dockside values in 2017 and the five-year average by approximately \$14 million and \$43.5 million, respectively.

Brown shrimp annual landings in 2018 resulted in 41.9 million pounds with a dockside value of \$34.5 million. Total annual brown shrimp landings in 2018 were well above 2017 and the five-year average; 2018 brown shrimp landings were 41% higher than 2017 and 22% higher than the five-year average. Dockside value in 2018 was approximately \$12.9 million greater than 2017,

but was \$7.4 million less than the five-year average. While brown shrimp landings increased in 2018, the same cannot be said for white shrimp landings. White shrimp annual landings in 2018 totaled 54.2 million pounds with a dockside value of \$84.4 million. White shrimp landings decreased by 22% when compared to 2017 (69 million) and by 19% compared to the five-year average (67 million). With lower white shrimp landings in 2018 comes a lower dockside value. The dockside value in 2017 was \$111.4 million and the five-year average was \$120 million, which indicates the 2018 dockside value was lower by approximately \$27 and \$35 million. White shrimp average price per pound in 2018 totaled \$1.56, which is \$0.06 and \$0.23 less than the average price per pound in 2017 and the five-year average.

All shrimp data in this section will represent a time period for each respective year or multiyear average from July through December. All shrimp species combined totaled 49.8 million pounds with a dockside value of \$73.5 million in 2018. This is a decrease when compared to 2017 landings and dockside value (51.3 million pounds, \$77.9 million) and the five-year average (61 million pounds, \$107.2 million). Brown shrimp landings in 2018 (6.7 million pounds) were slightly higher than those in 2017 (5.6 million pounds), but were below the five-year average (9.4 million pounds). The largest difference between these three time periods can be viewed in the dockside values (2018 = \$10 million, 2017 = \$7.8 million, 5yr average = \$16.8 million). The average price for pound for brown shrimp in 2018 was \$1.49, which was \$0.09 higher than 2017; the five-year average price per pound for brown shrimp was approximately \$0.29 higher than in 2018. White shrimp landings in 2018 totaled 42.9 million pounds and had a dockside value of \$63.3 million. This represents a decrease in landings of 6% compared to 2017 and 15% compared to the five-year average. White shrimp dockside value in 2017 was approximately \$6.6 million higher than 2018, while the five-year average was \$26.5 million higher than 2018.

Crab Program:

In 2016, the LWFC approved a rule that would impose a three-year regulation on the commercial blue crab industry in order to improve the declining blue crab biomass. The original rule banned the commercial harvest of immature female blue crab and consisted of a 30-day closure for the commercial harvest of blue crab. After the 30-day closure, and subsequent negative feedback received from the industry, this rule was altered for the 2018 blue crab season by eliminating the 30-day closure and implementing a 60-day ban on the commercial harvest of mature female blue crab beginning March 1, 2018.

After the 60-day female restriction, negative input from the crab industry was again received by LDWF. The majority of feedback received was that the female restriction took place during the months that blue crab prices are at their highest. This loss in income greatly affected the full time commercial crab fishermen. LDWF presented the Louisiana Crab Task Force (LCTF) and crab industry with three alternative regulations at the March task force meeting. After a two-month public comment period, the LCTF voted in favor (8-1) on a 35-day female restriction that would take place beginning the second Monday of September for the 2019 harvest season. This management option was estimated to reduce total harvest by approximately 1.6 million pounds,

similar to the two previous alternative actions. The LWFC promulgated the Notice of Intent for the rule change at their September 2018 meeting and this rule was published in the January register, following the APA process. The LWFC requested that LDWF complete an updated blue crab stock assessment in early 2019 and present this data in order to verify that the current blue crab stocks required the 35-day mature female restriction.

Louisiana Blue Crab Landings

All 2018 blue crab landings and dockside values are preliminary and subject to change due to incomplete trip ticket data. Preliminary annual crab landings in 2018 totaled 43.6 million pounds with a dockside value of \$61.8 million. Landings in 2018 decreased by less than 500,000 pounds compared to 2017, but increased by approximately 1.9 million pounds compared to the five-year average. Dockside value in 2018 showed an increase of 11% compared to 2017 and nearly 9% compared to the five-year average. The average blue crab price per pound in 2018 totaled \$1.42, which was \$0.18 and \$0.07 higher than the 2017 and five-year average blue crab price per pound. Two factors that likely affected blue crab landings in 2018 was the freezing early year temperatures and the 60-day mature female prohibition that took place in March and April, which reduced commercial landings by approximately 1.9 million pounds. Reports from the industry state that many commercial crab fishermen were unable to, or chose not to, fish during these two events.

All blue crab data in this section will represent a time period for each respective year or multiyear average from July through December. Blue crab landings in 2018 (26.2 million pounds) increased by approximately 1.6 and 1.1 million pounds compared to 2017 and the five-year average, respectively. Dockside value in 2018 (\$30.7) was very similar to 2017 (\$30.1) and the five-year average (\$30.2). As it is typical to see the average price per pound of blue crab decrease in summer and fall, the average blue crab price per pound in 2018 was \$1.17, which was slightly lower than 2017 and the five-year average. As it was stated in the previous Gulf States report, the largest decline in blue crab landings in 2018 was seen in January-April.

Derelict Crab Trap Removal Program

At the October 2018 Commission meeting, the LWFC adopted a Notice of Intent (NOI) allowing the removal of derelict crab traps from five different areas along Louisiana's coast in 2019. These five defined derelict crab trap closure areas were in the following basins: Barataria Basin (1), Pontchartrain Basin (2), Sabine Basin (1), and Terrebonne Basin (1). These closure areas ranged from 10-14 days and were distributed throughout February and March. In order to reduce negative economic impact of the blue crab commercial industry, four out of the five closures will be in February, allowing the fishery to be completely active during Mardi Gras holiday and Lenten season.

Two volunteer days are planned to take place during the 2019 derelict crab trap closures. The first event (Barataria) will be held on February 2, 2019, at the Plaquemines Parish public boat

ramp located behind the Port Sulphur School on Civic Drive. The second event (Terrebonne) will be held on February 16, 2019, at a privately owned dock in Dularge. These events host multiple volunteer organizations and members of the public. Lunch will be provided for the first event by LA 23 BBQ and by CCA for the second event.

Table 3. Derelict crab trap results by year

Year	Area(s)	Traps	Boat-days
2004	2	6,894	90+
2005	4	4,623	50+
2006	1	2,935	31+
2007	2	1,495	15
2008	1	1,234	3
2009	1	788	NA
2010	1	477	NA
2011	1	1,100	NA
2012	2	2,798	66
2013	2	969	32
2014	1	1,051	24
2015	1	422	9
2016	3	2,580	50+
2017	6	5,674	68
2018	5	4,061	68
Total	33	37,101	506+

Oyster Program:

Oyster Stock Assessment

Sampling for the 2018 oyster stock assessment for the Public Oyster Seed Ground (POSG) areas in Louisiana was completed in July 2018. Sampling consisted of 116 sample sites, totaling 580 meter-squared samples collected in the POSG areas. The LDWF 2018 oyster stock assessment indicated that Louisiana is experiencing the lowest stock size ever recorded on the POSG areas. This stock assessment of approximately 277,723 barrels of oysters represents a 6% decrease from already depleted 2017 levels and an overall decrease of 91% from the long-term average (compared to prior stock assessments without Sabine Lake public oyster area). This resulted primarily from a combination of degradation of habitat in POSG areas, extreme weather events,

harvest pressure, and hydrologic and environmental changes. No stock assessment was conducted in Sabine Lake public oyster area for 2018 season due to Act 159 (2018) that instituted a moratorium on oyster fishing in Sabine Lake: meter-square sampling will only occur every other year, skipping July 2018 and starting with July 2019. Additional sampling may occur as needed to monitor for possible mortality events associated with significant freshwater input events.

Additional stock assessment (meter-square) sampling was conducted in the Lake Pontchartrain and Barataria basins in April/May and Sept/October 2018 as part of an agreement with the Coastal Protection and Restoration Authority (CPRA). In the Barataria basin, additional sampling was also conducted on private lease areas per the CPRA agreement to further characterize oyster resources in that basin.

LDWF also conducts year-round dredge sampling on oyster seed grounds state wide—sampling events conducted on 80 sampling stations (2 replicates per station) to monitor size frequency, presence and/or absence, and mortality. In September 2018, sampling frequency changed to once a month from January - June and August - December, eliminating the second rounds in the months of September and October for a total of 13 events in 2018. For the entirety of 2018, a total of 2080 dredge samples were taken.

Oyster Season

The table below contains a summary of the 2018-2019 oyster seasons for the major public oyster areas of Louisiana. This year, the goal was to delay the season to maximize potential oyster reproduction, avoid concentration of the fleet through uniform opening/closure dates, and close areas as recommended by the shell budget model thresholds; all of which should help minimize reef degradation.

The 2018-2019 Oyster Season opened October 29, 2018, with some areas still open through the start of 2019. Below shows the 2018-2019 season summary to date. Note: closed areas during 2018-2019 oyster season include all public seed grounds east of Mississippi river and south of MRGO (CSA1), Barataria Bay (CSA3), Deep Lake, Lake Chien, Lake Felicity, Lake Tambour, Sister Lake (CSA5).

Table 4. The 2018-2019 oyster season summary.

Area	Season Opening	Season Closure	Season/type	CSA
N of MRGO	Oct- 29	Oct- 29	1-day Seed harvest	1
	Oct- 29	TBD	Market Oyster Harvest *LDH Area 3, Drum Day and 3-mile cultch plant CLOSED as of Jan 20, 2019	
Hackberry Little Lake	Oct- 29	Oct- 29	1-day Seed harvest	3
	Oct- 29	Nov-3	Market Oyster Harvest	
Lake Mechant	Oct- 29	Oct- 29	1-day Seed harvest	5
	Oct- 29	TBD	Market Oyster Harvest	
Bay Junop	Oct- 29	Oct- 29	1-day Seed harvest	6
	Oct- 29	TBD	Market Oyster Harvest	
Vermilion Atchafalaya Bays	Oct- 29	Oct- 29	1-day Seed harvest	6
	Oct- 29	TBD	Market Oyster Harvest	
Calcasieu Lake	Oct- 29	TBD	<i>East Cove:</i> Market Oyster Harvest ** closed between Dec 31, 2018 and Jan 20, 2019	7
	Oct- 29	TBD	<i>West Cove:</i> Market Oyster Harvest	

Transplants

As mentioned in previous reports, on November 15, 2017, a 3.65-acre area was planted with remotely-set hatchery-produced oyster spat on what was determined to be water bottom suitable for oyster production in Lake Fortuna (Lake Machias). During the May 2018 evaluation of the spat plant site, survival of spat was calculated at just around 1.7%. Growth rates for surviving spat were estimated at near 1.02 mm/week. The 12-month evaluation was conducted in November 2018. There was a calculated 0.8% survival rate of the hatchery spat, and a growth rate of 1.68mm/week. As a result of the minimal rate of survival observed at the 12-month evaluation, it was decided that the 18-month analysis would not be needed.

In the fall of 2018, LDWF conducted a small transplant study in Barataria POSG to see if oysters can survive and grow as part of a larger spat on shell project also planned for the area. The basic design used modified crab traps containing 20 oysters, transplanted from Hackberry Bay, per trap. Oysters were numbered and measured, and spat plates attached to a trap to account for natural spat set. Six traps were deployed in October to be measured and recorded every month for growth and mortality. Unfortunately, the project was terminated in December 2018 due to continued loss of samples and replacement of traps. Future attempts may involve lighted buoys or some other marker to help protect the study site from high fishing and trawling activity.

Finfish Program:

LDWF conducts biological monitoring for finfish statewide in the coastal, nearshore, and offshore areas of Louisiana. During FY 2017-2018, the fishery-independent finfish sampling program collected 933 (100 percent) gill net samples, 1,234 (100 percent) seine samples, and 269

(100 percent) trammel net samples for a 100 percent overall completion rate statewide. Electro-fishing samples are being conducted within some Louisiana estuarine environments to provide fisheries data to CPRA.

Louisiana waters closed the commercial season for the harvest of king mackerel on October 5, 2018, at 12:00 p.m. (noon) concurrent with a closure in federal waters.

Louisiana waters closed the commercial season for the harvest of gray triggerfish on October 10, 2018, concurrent with a closure in federal waters.

Louisiana waters opened to the commercial harvest of striped mullet with strike nets on October 15, 2018.

Louisiana waters re-opened for the commercial harvest of king mackerel on November 12, 2018, concurrent with a re-opening in federal waters.

Louisiana issued a special permit for the recreational harvest of red snapper from November 13, 2018, through December 31, 2018, for wounded or disabled military veterans. A special Secretarial permit was issued to the Wounded War Heroes organization, which coordinated fishing trips under the permit. Mandatory electronic reporting of all red snapper caught under this permit was required through the ROLP application.

Louisiana waters closed to the commercial harvest of king mackerel on December 5, 2018.

Louisiana waters closed to the commercial harvest of small coastal sharks on December 31, 2018, concurrent with a closure in federal waters.

Louisiana waters closed to the commercial harvest of spotted seatrout on December 31, 2018.

Louisiana waters closed to the recreational harvest of gag on December 31, 2018, concurrent with a closure in federal waters.

Louisiana waters closed to the recreational harvest of gray triggerfish on January 1, 2019, concurrent with a federal closure.

Louisiana waters opened to the commercial harvest of small and large coastal sharks on January 1, 2019, concurrent with an opening in federal waters.

Louisiana waters opened to the commercial harvest of gray triggerfish on January 1, 2019, concurrent with an opening in federal waters.

Louisiana waters opened to the commercial harvest of greater amberjack on January 1, 2019, concurrent with an opening in federal waters.

Louisiana waters opened to the commercial harvest of spotted seatrout on January 2, 2019.

Louisiana waters closed to the commercial harvest of striped mullet with strike nets on January 21, 2019.

Louisiana waters closed to the recreational harvest of red grouper, black grouper, yellowmouth grouper, scamp, and yellowfin grouper from February 1, 2019, through March 31, 2019, seaward of the 20 fathom line concurrent with a closure in federal waters.

The 2019 annual stock assessment report for striped mullet was presented to the LWFC at its February 2019 meeting and was accepted for transmittal to the Louisiana Legislature.

Finfish Task Force

The Louisiana Finfish Task Force did not meet between October of 2018 and March of 2019. Finfish task force meeting minutes, agendas, and membership can viewed at <http://www.wlf.louisiana.gov/fishing/finfish-task-force>.

Fishing Access and Opportunity:

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 four new structures. There are 32 structures permitted for deployment as permanent artificial reefs, and two new reef sites have been recently proposed. Permitting of an additional 22 structures is currently underway. Multi-beam surveying of the program's offshore reefs is ongoing (annually) and is made available on the program's website. The program has completed two pilot projects using remotely-operated vehicle (ROV) surveys to sample offshore reefs and is developing plans to create a comprehensive biological monitoring program for these reefs.

The Program holds two permits to enhance existing nearshore reefs. The Pickets and Grand Isle 9 are nearshore reefs that have been approved for Recreational Use Restoration funding. The Program holds four permits to create new nearshore reefs. The Ship Shoal 94, Ship Shoal 108, and South Marsh Island 233 West and East reefs are being funded by the Artificial Reef Fund. The work to deploy SS-94 & SS-108 has been awarded and should be completed by end of the calendar year; the work for SM-233 W & E will be awarded shortly. Two additional permits have been applied for—Vermilion-119 & Vermilion-119-124.

All 29 inshore artificial reef sites have been surveyed using multibeam-sonar to ensure proper clearance and monitor bottom-type. The program has initiated the permitting process for 4 new inshore reefs in the Lake Borgne and Mississippi Sound area.

The program continues to hold nine permits to enhance existing inshore artificial reefs using NRDA Recreational Use Funds: East Calcasieu, Cypremort Point II, Rabbit Island, Point Mast, Independence Island, California Point, Lake Front, and West End. All sites have been approved for Recreational Use Restoration Funding. East Calcasieu and California Point will be enhanced through a cooperative endeavor agreement, while the remaining reefs are currently out on bid.

Boating and Non-Boating Access Projects

- Port Sulphur Civic Drive Fishing Pier – design phase
- Burns Point Recreational Area Fishing Pier – construction phase
- St. Tammany Fishing Pier – design phase
- West End – Breakwater Drive Boat Launch – construction phase
- New Iberia Boat Slips Boating Infrastructure Grant Program - grant compliance phase
- City of New Iberia CVA Sanitation Facility

Additional boating and fishing access projects were recently approved by the Louisiana Trustee Implementation Group for funding from the Deepwater Horizon oil spill.

Commercial Seafood Programs:

Professionalism

LDWF's intention is to give our seafood industry access and training to the latest trends, requirements, and technology in their profession. The seafood industry should have as much opportunity for training as any other industry in our state. LDWF believes expert training will yield higher quality products and give our seafood community a competitive advantage in the marketplace. Since the launch of *Louisiana Fisheries Forward: Advancing Our Seafood Industry*, this one-of-a-kind professionalism program for Louisiana's commercial fishing industry has received inquiry, acknowledgement, and recognition throughout many facets of local, regional, national and world fishing industries.

Year 3 of the current Louisiana Fisheries Forward contract is currently underway. Within phase III, two mini videos will be produced with corresponding flyers, several hands-on workshops will be offered to include new and trending topics, and the Louisiana Fisheries Forward Refrigeration Demo Unit will travel the state - a 6,500 lb. unit that consists of a brine freezer, plate freezer and chilled water system. Additionally, within phase III, leadership training workshops will continue to be launched for the LDWF taskforces.

In addition, work continues on the production of educational materials (referred to as fast fact sheets), the offering of in-person training sessions (referred to as dock days), a refrigeration demonstration project, and the Louisiana Fisheries Forward Summit. (<https://www.lafisheriesforward.org/summit/>).

Aquatic Plant Control:

Invasive aquatic weeds continue to threaten access and recreational activities throughout Louisiana. Fall surveys conducted from July - September 2018 revealed an estimated 245,367 acres of nuisance aquatic plant coverage. That total was mostly composed of water hyacinth (56,116 acres) and giant salvinia (47,527 acres). The fall surveys are conducted at the end of the growing season, and usually yield higher acreage of coverage than the spring estimates conducted at the beginning of the growing season. From October 1, 2018 through December 31, 2018, LDWF applied EPA-approved herbicides to 8,189 acres of nuisance vegetation across the state. The majority of plant control efforts focused on giant salvinia and water hyacinth, with 2,862 and 3,898 acres being treated, respectively. A major area of focus was the Intracoastal Waterway, which acts as a major stocking source for adjacent waterbodies. A total of 1,200 acres of nuisance aquatic vegetation were treated on the Intracoastal Waterway. Approximately 642 acres of giant salvinia in Black Bayou Lake were treated by LDWF.

**Gulf States Marine Fisheries Commission
69th Annual Spring Meeting
Technical Coordinating Committee
Thursday, 21th March, 2019
New Orleans, LA**

TEXAS REPORT

PROPOSED REGULATORY CHANGES

Statewide Recreational and Commercial Fishing

1. Reduction in daily bag limit for spotted seatrout from 10 to 5 fish per day in Galveston Bay and Sabine Lake;
2. Require the use of non-offset, non-stainless-steel circle hooks when fishing for sharks in state waters (except when fishing with artificial lures);
3. Increase the minimum size limit for cobia from 37 inches to 40 inches (TL); and

Statewide Oyster Fishery Proclamation

4. Temporary closure of oyster reefs that have recently undergone restoration (Pasadena and Pepper Grove Reef in Galveston Bay; Noble Point Reef, Lavaca/Matagorda Bay; and a reef in Copano Bay).

COASTAL FISHERIES PROGRAMS & PROJECTS

Oyster Updates

Oyster Shell Recovery

HB51 (85th Legislative Session, 2017) included a requirement that dealers purchasing oysters harvested from Texas bay systems return 30%, by volume, of the total quantity of oysters harvested during the previous license year. In lieu of returning this cultch back to public oyster reefs, dealers can pay the department a sack fee that will allow the department to return an equivalent amount to public reefs. The current amount of this fee per sack is \$1.32, which can be adjusted by the Parks and Wildlife Commission depending on the most current cultch planting costs. Based on 2017-18 landings reported to the Texas Commercial Landings Program (LY18 Sep-Aug), 564,787 sacks of oysters were landed from TX bays. That total amounts to 9,805 cubic yards of cultch or \$745,519 due from oyster dealers. Dealers worked with TPWD to place a total of 6,591 cubic yards of cultch back into TX bays, while remaining dealers paid \$201,433 into the Shell Recovery Fund. Funds will be used to for further cultch planting. So far in LY19, 256,431 sacks have been landed through December 2018. Some dealers have paid their fees (\$45,684), while others are planning on cultch plants to cover their requirements.

Legislative Oyster Related Bills Filed

1. HB 1098 (Rep. Guillen) – relating to the importation of Pacific oysters for sale for consumption;
2. HB 1300 (Rep. Hunter) – relating to oyster mariculture, authorizing fees, creating a criminal offense;
3. SB 682 (Sen. Kolkhorst) – relating to oyster mariculture, authorizing fees, and creating a criminal offense (companion bill to HB 1300); and

4. SB 761 (Sen. Hinojosa) – relating to the regulation of oyster harvesting and increasing a criminal penalty.

Texas Marine Sport-Harvest Monitoring Program

During the Texas Parks and Wildlife Department’s 2017-18 creel survey year (15 May 2017 through 14 May 2018), 1,080 surveys were conducted at boat-access sites along the coast. One survey was cancelled due to Tropical Storm Cindy and 41 surveys were cancelled due to Hurricane Harvey. Fishing activity was depressed in fall 2017 in the aftermath of Hurricane Harvey.

For private-boat bay-pass anglers, an estimated 4,805,200 man-hours were expended to harvest an estimated 1,212,800 fishes. Staff conducted 10,796 target interviews involving 26,843 anglers. Of the 52 species encountered, Spotted Seatrout, Red Drum, Black Drum, and Southern Flounder were most frequently landed. Mean party size was 2.5 people and mean trip length was 5.5 hours. Staff observed 36,396 fishes and measured the length for 27,238 of them.

For private-boat Texas Territorial Sea anglers, an estimated 117,600 man-hours were expended to harvest an estimated 40,300 fishes. Staff conducted 389 target interviews involving 1,170 anglers. Of the 49 species encountered, Red Snapper, Spotted Seatrout, King Mackerel, and Spanish Mackerel were most frequently landed. Mean party size was 3.0 people and mean trip length was 5.8 hours. Staff observed 2,124 fishes and measured the length for 1,431 of them.

For private-boat Exclusive Economic Zone anglers, an estimated 135,000 man-hours were expended to harvest an estimated 42,800 fishes. Staff conducted 359 target interviews involving 1,286 anglers. Of the 52 species encountered, Red Snapper, King Mackerel, Spanish Mackerel, and Atlantic Spadefish were most frequently landed. Mean party size was 3.6 people and mean trip length was 7.5 hours. Staff observed 3,097 fishes and measured the length for 2,021 of them.

Fisheries Enhancement Program (Hatcheries)

2018 Fish Stocking Totals (complete)

16,401,534	Red Drum fingerlings
5,297,765	Spotted Seatrout fingerlings
<u>107,123</u>	Southern Flounder fingerlings
21,802,422	Total fingerlings stocked

The Flounder stocking season runs in the fall and winter so these numbers includes 90,325 winter 2018 and 16,798 Fall 2018. One calendar year includes two production seasons.

Artificial Reef Program

This annual report highlights reefing operations and activities conducted by the Texas Artificial Reef Program (Program) during calendar year 2018. The Program was formally established in 1990 and is self-funded through donations to the Rigs-to-Reefs program, private donations and grants. To date, there are 92 permitted reef sites with 1 additional site pending approval, enhancing over 7,300 acres of marine habitat. Reef sites range in size from 31 acres to 1,650 acres. The majority of reefs are part of the Rigs-to-Reefs program and are located in Federal waters (typically 40 acre sites).

Artificial Reef Sites in Texas Waters of the Gulf of Mexico		
Reef Type	Number Permitted	Number Pending Approval
Nearshore	11	1
Ships-to-Reefs	6	0
Rigs-to-Reefs	72	0
Other	3	0
TOTAL	92	1

Rigs-to-Reefs

The Reef Program received the following donations to the program in 2018:

Platform	Location	Size	Removal	Date	Donation
HI-A-309A	High Island	8-pile	Towed	7/13/2018	\$230,000
HI-A-385C	High Island	3-pile	Partial	8/4/2018	\$250,000
HI-A-385D	High Island	4-pile	Towed	8/10/2018	\$375,000
HI-A-389A	High Island	8-pile	Partial	7/27/2018	\$1,400,000
HI-A-510B	High Island	3-pile	Towed	7/28/2018	\$75,000
MI-668A	Matagorda Island	8-pile	Towed	11/17/2018	\$150,000
MI-669A	Matagorda Island	8-pile	Towed	10/29/2018	\$150,000
MI-686A	Matagorda Island	8-pile	Towed	6/8/2018	\$72,011.88
MU-A-121B	Mustang Island	8-pile	Towed	7/4/2018	\$250,000
PN-A-42	North Padre Island	8-pile	Partial	8/5/2018	\$675,000
TOTAL = 10					\$3,627,012

Current Status to date:

- Total Petroleum Platforms reefed: 165
- Other Components reefed (e.g. net guards, decks, Mobile Offshore Drilling Unit legs, etc.): 11
- Total funds deposited into R2R account since program inception: \$34.8m
- Material Donation Agreements signed but not reefed: 3
- Donations in various stages of completion (e.g. inquiries, donation amounts calculated, waiting on contract signatures, etc.): 7

Ships-to-Reefs

No new large ships were reefed in 2018. So far, 16 large ships have been reefed, not including smaller vessels (e.g. barges, tugboats, shrimp boats).

Nearshore Reefs

No new reef sites were permitted in 2018. However, TPWD is still in process of getting a new 160ac reef site (Kate's Reef) permitted in the offshore region of Galveston. The archeological survey was completed 26 November 2018. We hope to have all permits needed for reefing in summer 2019.

Sabine Nearshore Reef HI-20 (Sabine County): Reefing was completed for a contract with Eldridge Construction to reef over 100 quarry blocks and a barge at the Sabine Nearshore Reef site. Materials were deployed at the Sabine Reef Site at the end of October 2018.

Research Contracts

Biological monitoring and research was conducted with four universities and the U.S. Geological Survey. Periods of contracts are in parentheses.

Texas A&M University – Galveston: Biomass and community structure of reef fishes on TPWD artificial reefs in north Texas (2011-2018*).

Texas A&M University – Corpus Christi: South Texas artificial reef research (STARR) program: fish community assessment and reef site evaluations (2011-2018*)

University of Texas – Rio Grande Valley: 1.) Artificial reef biological monitoring and research program: FY 2015 – 2018* (continuation of 2007-2015). 2.) Rio Grande Valley reefing site pre- and post- deployment monitoring FY 2016-2018 (continuation of 2015 research).

U.S. Geological Survey: Water quality monitoring of offshore (Texas) artificial reefs (2013-2018).

*all university contracts are now expired due to budget restrictions; future plans for more university contracts are currently on hold.

Perry R. Bass Marine Fisheries Research Station

Otolith collection

Otolith collections from gill net samples continued, as was processing and ageing of otoliths collected in previous years. All otolith age files have now been compiled into a single database to promote efficient use of the data. Although physical samples go back to 1995, preliminary analysis of Spotted Seatrout otolith data has resulted in fishes back-aged to the 1990 cohort. Significant trends in growth among years and among Texas estuaries have been observed, and these trends are being statistically correlated with water quality data as well as long-term climatological and freshwater inflow data. Currently work has begun on a publication dealing with Spotted Seatrout age and growth over a near 30-year span.

Red Drum otolith shape study

In addition to age/growth work on otoliths, we have initiated a “proof of concept” study to determine whether otolith shape morphology can be used to indicate stock structure in Red Drum. This study takes advantage of already sampled Red Drum otoliths in our lab. The initial stage of this work will involve imaging and capturing shape data from otoliths sampled in various Texas bay systems. Shape characteristics will be captured using Fourier or wavelet analysis.

Black Drum high-resolution population genomics

Preliminary analysis has begun on Black Drum population genomics in the Upper Laguna Madre. Previously noted life history differences between Black Drum from Baffin Bay as compared to other Texas inshore areas suggests the possibility of genetic divergence on a relatively small geographic scale. We have used microsatellite data and discriminant analysis of principle components (DAPC) to demonstrate weak but significant genetic divergence between Baffin Bay and other Texas bays. We are in the process of selecting samples for a high-resolution genomic library in order to attempt to parse out patterns that are driven purely by geographic isolation (“neutral” genetic divergence) versus potential signatures of natural selection.

Atlantic Croaker life history and genetics

Results from our high-resolution single-nucleotide-polymorphism (SNP) genetic data set have now been published at the journal Marine and Coastal Fisheries. CITATION: Anderson, J. D., S. J. O'Leary, and P. T. Cooper. 2019. Population Structure of Atlantic Croakers (*Micropogonias undulatus*) from the Gulf of Mexico: Evaluating a Single Stock Hypothesis Using a Genomic Approach. Marine and Coastal Fisheries 11:3-16.

Gulf-wide Blue Crab population genomics study

Sampling of Blue Crab for our Gulf-wide genomics study has completed. Upon hearing of the advanced status of similar work going on at Texas A&M in the lab of Luis Hurtado, we have reached out to Dr. Hurtado to provide our samples as well as logistical support to answer this important management question. We are currently engaged in forming a collaboration with Dr. Hurtado to that end.

Sheepshead

We continue to support Pearce Cooper (Ph.D. candidate, Dauphin Island Sea Lab, Dr. Sean Powers, advisor) in his range-wide genomics study on sheepshead. To date all requested samples have been received and transported to Pearce.

Detection of white spot syndrome virus (WSSV) in wild Gulf shrimp

We have initiated a new study on the presence and prevalence of white spot syndrome virus (WSSV) in brown and white shrimp from Texas. We have been in collaboration with Dr. Arun Dhar of the aquaculture pathology laboratory, University of Arizona, in obtaining an infection-positive control sample of *Litopenaeus vannamei* (Pacific White Shrimp). Additionally, we have identified an appropriate PCR-based laboratory assay for detecting white shrimp. Sampling will begin in spring 2019 in select Texas bay systems in an effort to detect underlying presence of WSSV and evaluate the risks of imported exotic bait shrimp to wild populations. The presence of other shrimp pathogens may also be evaluated with this data collection.

Range-wide population genetic structure of Alligator Gar

In collaboration with Dr. Brian Kreiser, (University of southern Mississippi), we are analyzing mitochondrial DNA (mtDNA) sequence data already on hand in our lab, in an effort to examine the range-wide population structure of the species. Dr. Kreiser is analyzing a microsatellite DNA data set, and together we will attempt to compare and contrast historical versus contemporary patterns of movement and demographic exchange among drainages in the Gulf basin. Sampling has been completed, and almost all genetic data has been generated. Analysis of both data sets is ongoing (mtDNA, Texas Parks and Wildlife; genomic microsatellites, University of Mississippi) and we are moving towards writing a manuscript detailing this effort and its findings.

License Buyback Program

Shrimp

Buyback Round 37

- Application period closed January 31, 2018 (opened approximately 60+ days)
- 16 individual bids were received

Finfish

Buyback Round 25

- Application period closed January 31, 2018 (Open approximately 60+ days)
- 4 applications received

Crab

Buyback Round 22

- Application period closed January 31, 2018 (Open approximately 60+ days)
- 1 application received

Oyster

- 4 application received in Round 1, but we did not purchase any oyster licenses

SPECIAL EFFORTS, STUDIES, AND TOPICS

***iSnapper* Project**

The *iSnapper* project received funding for an additional two years which will cover the 2019 and 2020 Red Snapper seasons. Creel samples will be used to validate *iSnapper* landing reports. Sampling will be conducted using the same methods as 2018, with sites identified as having Red Snapper effort being randomly selected based on the angling pressure. We will stay at the current level (3x the pre-*iSnapper* level) of gulf-only creel surveys in order to encounter (i.e. validations) and remind anglers about the importance of self-reporting their data.

SEAMAP

Vertical line (VL) SEAMAP sampling for 2018 is completed, with Texas vessels completing 60 stations from July to October 2018. Sites were only sampled off central and south Texas coastlines, in order to collect samples within all three depth strata (10-20, 20-4, 40+). Sample sites in the 10-20 strata continue to be low as they are weighted by % of habitat in that depth strata. We continue to put a large number of artificial reefs in state waters within the 10-20' depth zone; however, the area of the natural banks reduces the proportion of these inshore samples.

Summary of Red Snapper catches from SEAMAP Vertical Line sampling over the last 4 years from each of the depth strata (completed 2018). We did not sample depth strata >40' in 2015 or 2016.

Year	Depth Strata	# of Stations Completed	# of Hooks Fished	# of Red Snapper	Mean TL (mm)	Mean Weight (kg)	# of Stations with Red Snapper	% Stations with Red Snapper
2015	10-20	27	750	93	291	0.44	20	74.1
	20-40	12	380	57	433	1.65	12	100.0
2016	10-20	18	380	65	362	0.75	11	61.1
	20-40	30	680	255	457	1.58	24	80.0
2017	10-20	9	260	17	273	0.39	7	77.8
	20-40	18	420	140	484	1.71	16	88.9
	40-150	32	960	198	504	1.78	29	90.6
2018	10-20	8	240	10	262	0.27	3	37.5
	20-40	19	570	152	476	1.69	13	68.4
	40-150	33	990	167	497	1.82	28	84.8

FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION
Eric Sutton, Executive Director



DIVISION OF MARINE FISHERIES MANAGEMENT
Director: Jessica McCawley

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, and 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 2018.

ANALYSIS AND RULEMAKING 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.

FWC marine fisheries director Jessica McCawley named South Atlantic Fishery Management Council chair.

The South Atlantic Fishery Management Council is responsible for the conservation and management of fish stocks within federal waters of the Atlantic off the coasts of North Carolina, South Carolina, Georgia and east Florida to Key West. The Council includes representatives in the fishing industry as well as state and federal leadership.

Florida Fish and Wildlife Conservation Commission (FWC) approved several changes to recreational and commercial trap fisheries rules. These changes are part of a long-term project to evaluate and improve the management of Florida's saltwater trap fisheries.

Approved changes include:

- Creating mandatory, no-cost annual recreational blue crab and stone crab trap registrations for trap fishers age 16 and older, and requiring FWC-designated trap identification numbers to be placed on recreational traps (trap registration and marking requirements for recreational stone crab effective Oct. 1, 2019, and similar blue crab requirements effective Jan. 1, 2020).
- Requiring commercial stone crab fishers to maintain an active saltwater products license, restricted species endorsement, and stone crab endorsement to retain their stone crab trap allotment.
- Starting the commercial spiny lobster trap soak period each year on the Saturday following the recreational mini-season.
- Increasing the time allowed for commercial lobster fishers to remove spiny lobster traps from the water after the season ends from five days to 10 days.

Florida Fish and Wildlife Conservation Commission (FWC) approved changes to commercial shrimp fishery management that will eliminate barriers to participation in the expanding live seafood market. These changes are part of a long-term project to evaluate and improve the management of Florida's shrimp fisheries.

Approved changes include:

- Clarifying that icing requirements for shrimp do not apply to food shrimp kept alive prior to sale.
- Establishing live-well requirements for vessels and vehicles transporting live food shrimp.

Florida's shrimp fishery is one of the oldest and most valuable commercial.

FLORIDA CONSERVATION ORGANIZATIONS PARTNER TO SUPPORT THE RECOVERY OF WEST COAST SNOOK POPULATIONS FOLLOWING RED TIDE EVENT

Coastal Conservation Association Florida, the Florida Fish and Wildlife Conservation Commission and Mote Marine Laboratory launch initiative to enhance the snook fishery on Florida's southwest coast by stocking 10,000 juvenile snook during a two-year project.

The two-year initiative includes raising and releasing 10,000 hatchery-reared juvenile snook along Florida's southwest coast and will launch in April 2019 following the Florida red tide bloom and when waters are determined to be safe. Fundraising for the program, a cost of over \$440,000, will include outreach to the community through an Adopt-A-Snook program and the formation of additional private-nonprofit partnerships.

The FWC is gathering input on management of the recreational spotted seatrout fishery. The status of the seatrout populations within each zone is assessed using a measure of population health known as the Spawning Potential Ratio. Research indicates seatrout populations should be kept to at least 20 percent SPR to maintain a sustainable population. The FWC manages spotted seatrout at a higher management goal of 35 percent SPR to provide a better fishery.

Florida Fish and Wildlife Conservation Commission (FWC) approved draft changes to shark fishing regulations, including management changes for the shore-based shark fishery. These changes will increase survival of released sharks, improve information gathering of the fishery and address some of the public safety concerns related to the fishery.

- Creating a mandatory, no-cost, annual shore-based shark fishing permit.
- Prohibiting chumming when fishing for any species from the beach.
- Prohibiting delaying the release of prohibited shark species when fishing from the shore.
- Requiring that prohibited shark species remain in the water (when fishing from shore and from a vessel).
- Requiring the use of non-offset, non-stainless-steel circle hooks with live or dead natural bait (when fishing from shore and from a vessel).
- Requiring the possession/use of a device capable of quickly cutting the leader or hook (when fishing from shore or a vessel).

- Cleaning up and updating the current rule language.

Lionfish Statewide Program

Overview

- Statewide program
- Recreational and commercial participant categories
- Checkpoints located statewide for harvest submission
- Tiered prize system to encourage continued harvest
- Cash prizes for largest and smallest lionfish

How to Qualify

- All participants required to register prior to participation.

Recreational Category

- Harvest 25 or more lionfish
- Submit photo of harvest
 - Photo requirement: Include harvester name, date of harvest, and signature. *Lionfish must be displayed clearly for staff to obtain an accurate individual count.*
 - **Note: FWC reserves the right to deny submission if participant fails to fulfill the requirements for verification as described above.**
- Submit tails (after first 25) to checkpoint (listed below and online)
 - Place tails in a plastic sandwich bag(s): include harvester name, phone number, date of harvest, and number of tails.
 - Complete the *2019 FWC Lionfish Challenge Submission Form*. Checkpoints will retain bags for verification by FWC staff.
 - Send a copy of the Submission Form to Lionfish@MyFWC.com and keep an additional copy with tails.

Commercial Category

- Participants with active Saltwater Products License **and** lionfish sales within the last year will automatically be included in this category.
- Submit photo of electronic trip tickets
 - Trip ticket requirement: Harvester name, date of harvest, amount harvested (lbs.), and signature

Rewards

- All qualified participants (submission of 25 lionfish/lbs.) receive:
 - Commemorative coin
 - *Resource-based incentive:* 2019 coin is valid for 1 spiny lobster per person per day in addition to the daily bag limit during the 2019 sport season (July 24-25)

- 2019 Lionfish Challenge performance fishing shirt
- Entry in raffle
- Feature in FWC Lionfish Hall of Fame
- Tiered Prizes
 - 75 lionfish (or 150 lbs.) – customized neck gaiter and reusable heat pack for stings
 - 150 lionfish (or 300 lbs.) – customized beach towel, Engel Coolers silipint cup, and fillet knife
 - 250 lionfish (or 600 lbs.) – Costa sunglasses, Neritic Diving polespear, and TurtleSkin puncture-resistant gloves
 - 400 lionfish (or 1,200 lbs.) – customized 85 quart Engel Cooler
- Raffle Drawings
 - Every 2 weeks for all qualified participants
 - Dates: June 5, June 19, July 3, July 17, July 31, August 14, August 28
 - Prizes include: HP 100 SCUBA cylinder, ZooKeeper Lionfish Containment Unit, \$50 for SCUBA air fills, Lion Lift kits from Toothless Life, Lionator Polespears, and other items donated by sponsors
- Cash Prizes
 - Donated by sponsors: American Sportfishing Association, Yamaha Motors, Marine Industries of Palm Beach County, National Marine Manufacturers Association
 - Smallest lionfish
 - 1st place – \$2,000
 - 2nd place – \$1,000
 - 3rd place – \$500
 - Largest lionfish
 - 1st place – \$2,000
 - 2nd place – \$1,000
 - 3rd place – \$500

Lionfish King/Queen: Most lionfish (by number) submitted by a recreational participant

- Lionfish King/Queen trophy
- Feature article in FWC's January 2020 Saltwater Regulations publication
- Featured prominently in the FWC Lionfish Hall of Fame
- HP 100 SCUBA cylinder
- \$500 for SCUBA air fills

2nd Place Lionfish King/Queen

- HP 100 SCUBA cylinder
- \$250 for SCUBA air fills

3rd Place Lionfish King/Queen

- HP 100 SCUBA cylinder
- \$100 for SCUBA air fills

Commercial Champion: Most lionfish (by weight) submitted by a commercial participant

- Lionfish King/Queen trophy
- Feature article in FWC's January 2020 Saltwater Regulations publication
- Featured prominently in the FWC Lionfish Hall of Fame
- HP 100 SCUBA cylinder
- \$500 for SCUBA air fills

2nd Place Commercial Champion

- HP 100 SCUBA cylinder
- \$250 for SCUBA air fills

3rd Place Commercial Champion

- HP 100 SCUBA cylinder
- \$100 for SCUBA air fills

Florida Saltwater Angler Outreach Programs:

Angler Interactions

- Direct contact with approximately 100,000 anglers annually.
- Staff visits boat ramps, marinas and tackle shops to interact one-on-one with anglers.
- Staff presents information at fishing tournaments, fishing club meetings and other angler-related events.
- Staff answers marine fisheries questions, distributes literature, promotes marine fisheries conservation messages and discusses the SFR program and its benefits to Florida anglers.
- Staff disseminates saltwater fish information to anglers and provides observation from anglers about marine resources to research and management staff.

Public Events

- Staff attended more than 45 shows in the past 5 years and interacted with more than 500,000 anglers to provide information about the SFR program, showcase SFR-funded projects in Florida and distribute publications funded by the SFR program.

Marine Resources Education Programs:

Kids' Fishing Clinics

- One-day educational events established to create responsible marine resource stewards by teaching children the vulnerability of Florida's marine ecosystems.
- Teach fundamental saltwater fishing skills and provide a positive fishing experience for kids.

- Average of 3,000 children attend events each year.

Aquatic Resource Workshops

- Certify educators to collect aquatic species and conduct field activities.
- Over 1,200 teachers have participated; approximately 3,000 students have been involved in field activities.

Women's Fishing Clinics

- One-day, shore based events designed to introduce women to fishing and conservation.
- More than 1000 women have participated in 40 events in the past 5 years.

DMF Outreach and Education Partnerships of Importance:

- Partner with aquariums to provide technical expertise and fish-on-loan for exhibits, including the Florida Aquarium (Tampa), Secrets of the Sea (Port of St. Petersburg), Guy Harvey Outpost (St. Petersburg), Sea Life (Orlando), Clearwater Marine Aquarium (Clearwater), and Bass Pro Outdoor World (Brandon, Orlando, and Palm Bay).
- Coordinate with multiple Florida State Parks and County Parks to hold Saltwater Women's Fishing Clinics at various locations for no-charge to program participants.
- Collaborate with the Florida Marine Science Educators Association (FMSEA) to provide educators with a special activity license that allows them to conduct educational field exercises and collect aquatic organisms for educational purposes.

DMF Outreach and Education Highlights:

- A multitude of publications are created and disseminated to anglers, including:
 - ***Fishing Lines - An Angler's Guide to Florida's Marine Resources***: Contains information on SFR-funded projects, saltwater fish identification and marine resource stewardship.
 - **Sea Stats**: Brochures developed for a variety of Florida's marine fishes using information gathered from research conducted by FWC staff using SFR funds.
 - **Fish Identification Posters**: Aid anglers in identifying fish and provide life history and biological information (Jacks, Snappers, Inshore Fish, Baitfish, Groupers and Pelagics).
 - **Boating and Angling Guide pamphlets**: Brochures for more than 25 coastal regions in Florida. Over 2.7 million boating and angling guides have been printed to-date. The guides are available to anglers free-of-charge and are updated periodically.
- Staff make direct contact with nearly 15,000 people each year by attending three annual Florida Sportsman Fishing and Boat Shows (in Tampa, Fort Myers and Fort Pierce).

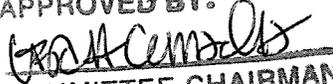
- The amount of Women's Fishing Clinics conducted in recent years has increased from 4 events to 14 events per year, and the program is still growing.

Artificial Reef Program:

- Over 3,500 artificial reefs have been deployed to-date.
- Approximately 100 new artificial reefs are constructed annually.
- Artificial reef locations and interactive map available electronically on MyFWC.com.
- Benefits of artificial reefs:
 - Tools for fisheries management and scientific research
 - Generate millions of dollars annually through tourism for fishing and diving
 - Reduce user pressure on natural and hard bottom sites
 - Reduce user conflicts by providing additional recreational fishing and diving destinations off both Florida's Gulf of Mexico and Atlantic coasts.
- Partnerships:
 - Coordination and cooperation with stakeholders to plan, construct and monitor artificial reefs, includes: local coastal governments (counties and municipalities), universities, recreational anglers, local diving clubs

**GULF & SOUTH ATLANTIC REGIONAL PANEL
ON AQUATIC INVASIVE SPECIES
MINUTES**

**Wednesday, April 17, 2019 – Thursday, April 18, 2019
Ft. Lauderdale, FL**

APPROVED BY:

COMMITTEE CHAIRMAN

On Wednesday, April 17, 2019, Chairman **Lisa Gonzalez** 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

Kristina Alexander, MS/AL Sea Grant, Oxford, MS
James Ballard, GSMFC, Ocean Springs, MS
Paul Carangelo, Port of Corpus Christi Authority, Corpus Christi, TX
Corrin Flora, NC DEQ, Raleigh, NC
Lisa Gonzalez, HARC, The Woodlands, TX
Leslie Hartman, TPWD, Palacios, TX
Tom Jackson, NOAA, Miami, FL
Chuck Jacoby, St. John's River Water Mgt. District, Palatka, FL
Peter Kingsley-Smith, SC DNR, Charleston, SC
David Knott, At-Large Member, Charleston, SC
Jon Lane, USACE, Jacksonville, FL
Robert McMahon, UT Arlington, Arlington, TX
Jim Page, GA DNR, Waycross, GA
Michael Pursley, MS DMR, Biloxi, MS
Matt Phillips, FWC, Tallahassee, FL
Cindy Williams, USFWS, Atlanta, GA (GoToMeeting)

Staff

Joe Ferrer, GSMFC, Ocean Springs, MS

Others

Alex Dew, FWC, Tallahassee, FL
Bryan Falk, Everglades National Park, Homestead, FL
Sarah Funck, FL FWCC, West Palm Beach, FL
Kelly Gestring, FWCC, Boynton Beach, FL
Dennis Giardina, FFWCC (GoToMeeting)
Tyler Green, USACE, Clewiston, FL
Jeff Hill, University of FL, Ruskin, FL
Steve Johnson, University of FL, Gainesville, FL
Susan Pasko, USFWS, Falls Church, VA
Ian Pfingsten, USGS, Gainesville, FL
Austin Prechtel, FWC, Davie, FL
Justin Procopio, USGS, Gainesville, FL
Christina Romagosa (GoToMeeting)
Bill Sharp, FWC, Marathon, FL
Ed Rudberg, CD³, General Benefit Corp., St. Paul, MN

Public Comment

Chairman **Gonzalez** provided the opportunity for public comment. No public comments were received.

Adoption of Agenda

After minor changes, a motion to adopt the agenda was made, and passed unanimously.

Approval of Minutes

The minutes of the October 30-31, 2018 GSARP meeting in San Antonio, TX were presented for approval.

A motion was made to approve the minutes, with minor changes. The motion was seconded, and the motion passed.

Local Talk – Overview of the Florida Invasive Species Program

Sarah Funck gave a PowerPoint presentation entitled “Nonnative Fish and Wildlife in Florida”. There have been over 60,000 observations of nonnative fish and wildlife, which represents over 500 species. There have been over 530,000 lionfish removed from Florida waters.

The focal areas for the nonnative program are: Risk assessment/screening; prevention; early detection/rapid response; control and management; education and outreach; research support. Not all nonnative species are invasive. The ranking may change based on location. Feasibility of effective management is also considered. Impacts are not only environmental.

The risk assessment and screening tool action recommendation is based on the invasion assessment score and feasibility of control score.

Maxent is a software program based on the maximum-entropy approach for modeling species niches and distributions. From a set of environmental grids and geo-referenced occurrence localities, the model expresses a probability distribution where each grid cell has a predicted suitability of conditions for the species. MaxEnt was used in a risk screen case study for yellow anaconda to establish a habitat suitability model. The Invasion Assessment score and Feasibility of Control Scores were both high. The Recommended Action was to coordinate a rapid response.

There are 68 conditional species in Florida. A permit is required for importation, research, commerce, and exhibition. Personal possession is not allowed. There are over 800 prohibited species in Florida. A permit is required for importation, research, and exhibition. Commercial sales and personal possession are not allowed. FWC Commissioners approved recent rule changes for prevention of new prohibited species. Key terms were defined, high-risk species were added to the prohibited list, and grandfathering language was added for people with these species in personal possession.

The Exotic Pet Amnesty Program was created in 2006. There have been 47 events, and over 5,000 animals have been surrendered. There are 743 active adopters.

FWC has an iPhone app called “IveGot1” for identifying and reporting invasive animals and plants in Florida. Reported sightings can also be reported by calling 888-Ive-Got1, or online at

IveGot1.org. An Asian water monitor was reported in Miami-Dade County. There were no known breeding populations. The risk screening was very high. The monitor was removed within three days.

Electrofishing in south Florida was done. Bay snook and African clawed frogs were removed after pond renovations. An interagency live trapping effort in Miami-Dade County was done, and over 6,800 animals were removed. FWC has a trap loan program in Florida City and Homestead. Shooting surveys were done, and 398 black spiny-tailed iguanas have been removed since 2017. Canal surveys for Nile monitors were done by boat. Since 2011, 129 have been removed. Contractors were hired for removal of pythons. They were compensated for their survey time and number of pythons. Since 2017, 420 pythons have been removed. The Keys Green Iguana Removal focuses efforts in state parks. Over 2,300 have been removed. Python removal programs have contributed to over 8,000 Burmese pythons killed and reported to the FWC. FWC contractors can access Everglades National Park for lethal take of pythons. Firearm use is allowed.

Florida's EDRR Screening Tool

Christina Romagosa gave a PowerPoint presentation entitled "Greater Everglades Rapid Response Screening Tool". The screening tool is specific to the greater Florida Everglades. It is currently being adjusted by FWC to accommodate the entire state of Florida.

Goal 1 is to prevent the introduction of invasive exotic species. Goal 2 is to eradicate invasive species by implementing Early Detection and Rapid Response (EDRR). Goal 3 is to contain the spread of invasive exotic species. Goal 4 is to reduce the populations of widely established invasive exotic species, and maintain at lowest feasible levels.

Goal 2 has two objectives: Objective 2A – Prepare and monitor to enhance early detection.

Priority Strategy 2A5: Establish rapid assessment and response programs, processes, cooperatives, and tools that allow for quick reactions for eradication.

Objective 2B – Ensure rapid assessment of new non-native species.

Priority 2B: Rapidly assess that status and potential threat of new species, and develop a response or no response plan.

There are four general stages of the EDRR process: Preparedness; Early Detection; Rapid Assessment; Rapid Response. The benefits of an established EDRR protocol are that it is cost-effective, reduces response time, and has post-border protection of natural resources.

EDRR was successful for the eradication of sacred ibis in the Greater Everglades. The sacred ibis, a large wading bird is native to parts of Africa and the Middle East. It is believed that populations in South Florida came from a breeding population that escaped the Miami Metro zoo after Hurricane Andrew in August 1992. State and federal agencies consider the sacred ibis to be a threat to native water bird populations in Florida due to its opportunistic feeding nature and ecological similarity to Florida's native ibises and native wood stork.

The Abbreviated Rapid Response Action Planning Protocol for the Everglades Cooperative Invasive Species Management Area: New Non-native Species Detected are reported to ECISMA EDRR Chairs. A joint decision is made by the EDRR Chairs to act. Action leads are determined. Rapid assessment is done. Is the action practical and likely to succeed? A response is coordinated. The decision-making process currently lacks transparency and standardization.

The Greater Everglades Ecosystem Rapid Response Screening Tool (GEERReST) is a decision support tool to ensure that decisions to act are quick, transparent, standardized, and defensible. It can be used across all agencies and cooperators, and taxonomic groups. There is a user guide, report template, and Excel calculation form. Under two sections, there are a series of questions. Invasiveness: Current distribution; invasion potential; impacts. Feasibility of control: Species/population characteristics; habitat characteristics; methodology and regulatory constraints. Each question assigned estimate of uncertainty. Uncertainty codes from Generic Nonindigenous Aquatic Organisms Risk Analysis Review Process. Meant to categorize the level of epistemic uncertainty. A score is calculated for both sections. Assessor is directed to a matrix that compares scores, and provides context for management action.

The second USGS/CES Technical Meeting will be arranged. There will be an opportunity for potential assessors to evaluate GEERReST.

EDDMapS (Early Detection & Distribution Mapping System) is used to track new invasive species. Beginning on April 17, 2018 to April 17, 2019, there were 5,022 new animal species observed (fish, amphibians, reptiles, birds, and mammals).

The future of EDRR decisions are: Need for actions, and to consider budget constraints; need for continued science, and update as new information is obtained and incorporate with existing risk assessment efforts; need to establish an EDRR protocol. Also, to continue validation, with additional testing on species with known status.

Risk Assessments of Lacey Act Species

Jeff Hill gave a PowerPoint presentation entitled “Managing Injurious Wildlife after USARK vs Zinke 2017: Initial Risk Evaluation for Invasiveness to Florida of Fishes on the Injurious Wildlife List”. States have primary authority over fish and wildlife management. Federal authority includes federal lands/waters, endangered species, migratory birds, some invasive species, and interstate commerce. The Lacey Act is a federal law that was first introduced by Iowa Congressman John Lacey in the House of Representatives in the spring of 1900. It was signed into law by President William McKinley on May 25, 1900. The Act prohibits the importation into the United States and any shipment between the United States, the District of Columbia, Hawaii, the Commonwealth of Puerto Rico, or any possession of the United States.

Title 16 of the Lacey Act covers the wildlife trafficking provision. Title 16 prohibits the import, export, transport, sale, receipt, acquisition, or purchase of any fish or wildlife that was taken, possessed, transported, or sold in violation of any law or regulation of any state, tribal, or foreign law, and includes plants.

Title 18 of the Lacey Act covers the injurious wildlife provision. Under Title 18, the importation into the United States and any shipment between the United States, the District of Columbia, Hawaii, the Commonwealth of Puerto Rico, or any possession of the United States of animal species determined to be injurious by the Secretary of the Interior is prohibited except by permit. Injurious wildlife are described as “injurious to human beings, to the interests of agriculture, horticulture, forestry, or to wildlife or wildlife resources of the United States”. This includes wild mammals, wild birds, reptiles and amphibians, fish, and mollusks and crustaceans.

In 2013, the United States Association of Reptile Keepers (USARK) filed a lawsuit – (United States Association of Reptile Keepers, Inc. vs the Honorable Sally Jewell and the United States Fish and Wildlife Service) that challenged the final rule *Injurious Wildlife Species; Listing Three Python Species and One Anaconda Species as Injurious*, which was promulgated by Defendants the Honorable Secretary Sally Jewell and the United States Fish and Wildlife Service on January 23, 2012. They argued that the Service lacks authority under the Lacey Act to prohibit transportation of the listed species between the 49 continental States. On March 10, 2015, the Fish and Wildlife Service issued a rule designating four additional species of snakes as injurious. An application for a temporary restraining order was filed by USARK seeking to prohibit the 2015 rule from going into effect. The district court converted USARK’s application for a temporary restraining order into a motion for a preliminary injunction. On the merits, the court concluded that the shipment clause does not reach shipments between the 49 continental States, such that the Service lacks authority to bar transport of the designated snakes between those States. The district court therefore granted a preliminary injunction, and the USFWS appealed. An appeal was filed in the United States Court of Appeals - United States Association of Reptile Keepers, Inc., vs Honorable Ryan Zinke, and United States Fish and Wildlife Service. The injunction was upheld. The district court’s judgment was affirmed and held “as a matter of law that the government lacks the authority under the shipment clause to prohibit shipments of injurious species between the continental states”.

Recommendations for states: Adopt risk assessment tools to aid decision making and risk management; Assess risks of current injurious species if not already prohibited; assess risks of future injurious species rather than automatically harmonize; foster current and new partnerships, especially for cross-boundary issues.

Hill spoke on the Fish Invasiveness Scoring Kit (FISK). It was developed in the United Kingdom as a screening tool to assess potential invasiveness of non-native freshwater fishes. Upgrades (FISK v2) were completed to ensure the incorporation of broader climatic zones for its application to the sub-tropical climate of peninsular Florida. The FISK is a spreadsheet-based, semi-quantitative model that scores fish species based on the responses to 49 questions. Categories include biogeography, biology, ecology, and presence/absence of “undesirable” traits. The total score (ranging from -11 to 54) for the assessed species is placed into a risk category of low, medium, or high, which are determined by scoring thresholds for each risk category. The accuracy of the current FISK questions and scoring thresholds are being tested in identifying introduced fishes in peninsular Florida as "invasive" or "non-invasive." If incorporated into the initial phase of a risk assessment, it will provide fisheries managers with necessary information to allocate resources for prevention and management of invasive fishes.

Overview of the Orange Cup Coral Invasion in Florida

Bill Sharp gave a PowerPoint presentation entitled “Invasive Cup Corals: What is the Risk to Florida’s Coral Reef Ecosystem?” Cup corals are native to the tropical Indo-Pacific. They are aggressive spatial competitors, and are resilient to environmental stress. They primarily inhabit darkened recesses in reefs. They were introduced into the Caribbean in the 1940s, and are now almost circumtropical in the Gulf of Mexico, Caribbean Sea, and Brazilian coast. They are prized by marine aquarists. Florida marine life collectors have asked Florida Fish and Wildlife Conservation Commission fisheries managers to consider allowing collection. Managers asked if collecting would cause the spread of orange cup coral at existing locations and to new locations. Studies were done at the Long Key Artificial Reef to assess the effects of the removal of orange cup coral from the artificial reefs within the Florida Keys National Marine Sanctuary, and if enhanced recruitment can be detected.

The ecological risk is the potential for orange cup coral (*Tubastrea coccinea*) to outcompete native species in the shallow water natural coral reef environment. It was discovered that there are morphologically distinct polyps at the Long Key Artificial Reef. Other cup coral species have been discovered in the Atlantic – *Tubastraea taguensis* and *Tubastraea micranthus*.

Genetic evidence suggests that there are multiple species invading Florida waters. Two of the species invading Florida waters are also invading Brazilian waters. Genetically, they are either the same or very similar. They pose a risk to the coral reef ecosystem. Are *Tubastraea* largely confined to darkened crevices on artificial reefs? Has it successfully colonized the darkened recesses of natural reefs? Much of the hard surface area of reefs lies within crevices, caves, and other cavities. There is a new manipulative study in the works to see what the risk is of collecting.

Aquatic Nuisance Species Task Force Update

Susan Pasko reported on the status of state ANS management plans. There are 44 approved plans - 41 state, and 3 interstate.

An ANS Task Force Meeting was held on December 12-13, 2018 at the U.S. Fish and Wildlife Service Headquarters in Falls Church, VA. Topics discussed included Injurious Wildlife Listing; Accelerated Shipping, and Arctic Invasions; Cultural Release Study; Aquatic Invasive Species Management Decision-Making. Break-out sessions were held to refine and prioritize outputs under the new Strategic Plan. Action items included comments on the ANS Task Force Report to Congress for 2016-2017 due by January 31, 2019. Goal Teams (Prevention; Early Detection/Rapid Response (EDRR); Control/Restoration; Outreach and Education; Research and Coordination) will develop a concise description of how the ANSTF will implement each of the Objectives, and identify key outputs; suggest who might be best equipped to accomplish the work; make recommendations for refinements to strategies (as required for implementation).

The next ANS Task Force Meeting will be held on May 7-9, 2019 in Lake Tahoe, CA. Topics will include: Preventing Spread of Invasive Mussels in the West; Ballast water and Biofouling Management; Updates on Asian carp, DOI, Arctic. Breakout sessions will be done to begin implementation of the Strategic Plan outputs.

The Strategic Plan for 2019-2024 has six strategic goals: Coordination; Prevention; Early Detection/Rapid Response; Control/Restoration; Research; Outreach and Education. Under each Goal, there are three Objectives that provide detail about how each goal will be accomplished. Each Objective has a list of Strategies, or specific activities that will be completed.

The Goal for Coordination is to coordinate a national ANS program for U.S. waters. The Goal for Prevention is to develop strategies to identify, assess, and manage the risk of ANS and their pathways to prevent new introductions. The Goal for EDRR is to develop strategies to inform a nationally coordinated EDRR approach. The Goal for Control and Restoration is to facilitate capabilities to control established ANS populations and restore impacted habitats. The Goal for Research is to facilitate research on ANS threats, impacts, and controls. The Goal for Outreach and Education is to conduct outreach and education to increase awareness concerning the threats of ANS.

Everglades CISMA Accomplishments

Dennis Giardina gave a PowerPoint presentation entitled “15th Annual Everglades Invasive Species Summit - CISMA”. CISMA (Cooperative Invasive Species Management Area) functions with a Steering Committee, FOE, Inc. (Friends of Everglades), Operations Committee, Outreach Committee, Rapid Response Subcommittee, Plant Team, Animal Team, and Strike Team.

CISMA publishes a yearly newsletter, which they coordinate publishing of the newsletter with their Everglades Invasive Species Summit, usually in July. This year’s summit will be July 17-18, 2019 at Long Key Natural Area & Nature Center in Davie, Florida.

In April, an outreach event was created at a Florida Panthers National Hockey League game. A table was set up by CISMA to reach out to the hockey fans during intermissions. Information was provided on how to get involved, and how to get in touch with CISMA. A video was also shown. Over \$300.00 was donated by fans. The event will be held again in the future.

An outreach campaign was created to reach out to the South Florida Veterinary Medical Association. Posters with the heading, “Don’t Let it Loose” were created to hang in veterinary offices to educate clientele.

An outreach event was held at Pine Jog Elementary School during Invasive Species Awareness Week. A presentation was given to the students to educate them on the importance of controlling invasive plant species. The students also participated in a work day to remove invasive plants.

During Invasive Species Awareness Week, a work day was done at Simpson Park in Miami-Dade County to remove *licaria* saplings that were threatening native hardwood trees.

An exotic southeast Asia mangrove, *Lumnitzera*, was planted at Fairchild Tropical Botanic Gardens in Coral Gables, Florida in the early 1970s. It looks similar to native white mangroves. This Asian mangrove escaped from cultivation at Fairchild Tropical Botanic Garden into neighboring Matheson Hammock County Park. The trees had spread extensively throughout approximately 20 acres. A volunteer work day is held yearly to help remove the mangroves. In 2018, 400 seedlings and saplings were removed. Unfortunately, it will be at least a decade before

the plants can be eradicated. CISMA is doing everything possible to initiate prohibitions on the importation of mangrove species from the eastern hemisphere because it is not known which mangroves will be the next invasive plant.

The Florida Fish and Wildlife Commission began the Python Challenge to involve the public in the eradication efforts. It was somewhat successful, but there are too many pythons to totally eradicate them all. To help with the effort, FWC created a python contractor program. A large number of pythons have been removed thanks to this program. The National Parks Service and USGS have teamed up in Big Cypress to place transmitters on male pythons so that the snakes can “lead” them to other male and female pythons. USDA Wildlife Services have also placed python traps in the Everglades.

Biological control tests for invasive plants were done using parasitic mites and moths. Biological control tests are also being done on downy rosemyrtle and Brazilian pepper.

Conehead termites have been documented in Broward County, south Florida.

Due to the introduction of New Guinea and other giant hammerhead flatworms, native tree snail populations have been decimated.

FWC and the National Park Service participate in an annual/bi-annual “Fish Chat” with representatives of the Everglades CISMA, to discuss research and management activities to control aquatic invasive species within the Everglades. Activities include electro-shocking and fishing for invasive fish.

At Pinecrest Gardens in Pinecrest, Florida, staff worked with fish biologists from USGS and Florida FWCC to remove bay snook, a cichlid fish native to Central America. Bay snook were living and breeding in the lower pond system at Pinecrest Gardens, and were a potential threat to nearby Snapper Creek. After eradication of the bay snook, the pond system was re-stocked with all native fish species.

On May 26, 2019, the Friends of Everglades CISMA (FOE) held a fundraiser at the Invasive Species Brewery & Taproom in Ft. Lauderdale, Florida to support the efforts of Everglades CISMA. The funds raised went directly to invasive species management and research efforts.

Overview of Florida’s Invasive Plant Monitoring Program

Alex Dew gave a PowerPoint presentation entitled “Plant Monitoring in Florida”. An aquatic invasive plant survey has been ongoing on 463 lakes and rivers and 1.26 million acres from 1982 – present. There are approximately 140 species on the survey. Spatial data for vegetation monitoring include hydro-acoustic sonar data for submerged vegetation, point-intercept species sampling, and satellite imagery models for emergent vegetation. These monitoring techniques were incorporated by FL Fish & Wildlife Research Institute in 2015 into their Long-Term Management Program. Invasive Plant Mgmt. Invasive Plant Management Section (IPM) began gathering data in the early 2000s to monitor changes in vegetation. An automated system to upload and process hydro-acoustic data was created by Biobase, a geo-spatial web platform.

In Lake Jackson, BioVolume + Point-intercept gives a good overview of submerged vegetation volume and information of species present. Information of dominant species and emergent vegetation cover is lacking, though. GPS points are collected. Dominant vegetation species classes are identified.

Uplands Invasive Plant Treatment Compliance Monitoring makes waypoints of areas to check, and inspects the contractor's tracks. There are smartphone GPS apps: Trails; Avenza; Gaia. Compliance inspection tracks and waypoints can be brought in. The contractor can see what area was checked, and where misses were found. A polygon can be drawn with instructions to return to an area. A report is filled out with details and generated. Data sets are compiled and combined. There is an interactive display. Monitoring data is made accessible. Plant monitoring data is combined with fish transect electrofishing data.

Invasive Lizards in Florida, With a Focus on Tegus in South Florida

Bryan Falk gave a PowerPoint presentation entitled "Invasive Lizards in Florida" (i.e., Black & White Tegus in South Florida"). There are 180 non-native reptiles and amphibians reported in Florida. There are 63 reproducing populations. Florida has more non-native reptiles than anywhere else in the world. There are over two times as many established non-native as native lizards. The numbers of introductions and established populations are increasing.

Black and white tegus are large-bodied lizards native to South America. Tegus can live 10+ years. Their ecological impact is potentially broad. They can habitat in wild areas, or in/near human habitation. Their diet consists of animals, vegetation, fruit, and eggs. There is unregulated harvest in their native range for their skin for purses, belts, etc. The population has been monitored since the 1990s, and there is no evidence of a population decline. They were first observed in 2008 near Homestead, FL. This put Everglades National Park wildlife at risk, such as sea turtles, Cape Sable seaside sparrows, and American crocs. Also at risk are American crocs in Turkey Point and Key Largo woodrats in Key Largo. There have been interagency trapping efforts from 2012-present, using commercial traps and eggs for bait.

There are many knowledge deficits for improved control and containment, such as fecundity, juvenile survival, juvenile dispersal, and bait attraction/trap success. Telemetry was used on juvenile tegus to study containment for fecundity, dispersal, survival, and bait attraction/trap success. An external transmitter was attached with glue to the juvenile tegus. Radio tracks were done for 3-6 weeks. When the tegu sheds, the transmitter is dropped, and skin is attached. There was also glue failure, with no skin attached. Shedding rates in juvenile tegus were studied from 24 captive, PIT-tagged juveniles in an outdoor enclosure. The glue mesh and ID labels were checked daily, and re-applied two times per week. The shedding rates were studied in juvenile tegus held captive for 96 days. Growth rates were 0.23%/day (SVL) and 2.0%/day (Mass). Shedding events on average were 8.2 days (not good), with a range of 4-13 days (also not good). Shedding correlated with mass growth, but not correlated with SVL growth.

Trapping success for small tegus was studied. The smallest capture prior to 2017 = 16 cm SVL. A hatchling SVL is 8-9 cm. Traps for small tegus are needed for better management and to recapture telemetered animals. Potential issues were trip plate insensitivity, and escapement through the side mesh and gaps in the door. The traps were modified by adjusting trip-plate

sensitivity to 10g, wrapping the trap in hardware cloth, and installing dowels around the door gap. The modified traps were installed adjacent to regular traps. They were baited with chicken eggs, cat food, or visual lures. The traps were checked daily from July – October 2016. The modified traps caught small tegus, and were better at catching tegus in general. However, they did not catch the largest size classes.

Tegu baits were tested. Raw chicken eggs worked well, they are inexpensive, and suitable. Other potential baits tested were canned cat food and visual lures (feathers/sequins/plastic monofilament/alligator clamp). These were all deployed July – October. Chicken eggs were somewhat better than the cat food. Chicken eggs also catch fewer non-targets. Visual lures did not work. Fermented egg oil was also tested. It did not improve capture rates.

In Everglades National Park and Homestead/Florida City, 90 live traps, and 20 camera traps were deployed. In Everglades National Park, 11 tegus were captured in L-31W traps in 2019. In Homestead/Florida City, 11 tegus were captured in Aerojet traps in 2019, and 17 tegus were captured in C-111N traps.

A report was published in July 2018 Scientific Reports, a nature research journal, entitled “Modeling the Distributions of Tegu Lizards in Native and Potential Invasive Ranges”. The goal of the study was to identify what areas in North America might be at risk. Species distribution models were built using 5 approaches (logistic regression, multivariate adaptive regression splines, boosted regression trees, random forest, and maximum entropy) based on data from the native ranges. Environmental non-correlated variables important to tegu biology were identified. The models were then projected to North America to develop hypotheses for potential tegu distributions. Results suggested that much of the southern United States probably contains suitable habitat for tegus.

Apple Snail Impacts in Florida

Matt Phillips gave a PowerPoint presentation entitled “Exotic Island Apple Snails and Kissimmee Grass”. Over the past several years, beds of native Kissimmee grass (*Paspalidium geminatum*) on the Kissimmee Chain of Lakes have undergone significant decline, and sometimes have disappeared. This trend is in coincidence of observations of large numbers of egg masses of island apple snails on emergent vegetation.

Experiments were conducted on aquatic plant consumption by island apple snails. In Experiment 1, four tanks were divided in half with a screen, and filled with water. Two pans of Kissimmee grass were placed at each end of the tanks. Ten island apple snails were placed in one end of each tank, separated by the screen. The experiment ran for 19 days. The grass was almost entirely consumed by the snails. They particularly liked new grass growth. Large grass stems were generally not consumed. On average, they reduced 65% of the biomass in the tanks.

In Experiment 2, the tank was not divided. Hydrilla was placed on one end, and Kissimmee grass on the other to see if the snails preferred one plant over the other. Ten snails were given free access to either of the vegetation for eight days. The Kissimmee grass was decimated by the snails.

In Experiment 3, the weight gain of the snails was studied between August and November 2017. The tank was divided with 10 snails with Kissimmee grass, and 10 snails with hydrilla. Additional plants were added as needed. The snails consumed all of the Kissimmee grass in 21 days. The weight gain was significant and comparable between the hydrilla and Kissimmee grass. The average daily weight gain for Experiment 1 was .22 grams; Experiment 2 was .16 grams; Experiment 3 was .24 grams for Kissimmee grass and .31 grams for hydrilla. It would take a native snail 110 days to gain as much weight as an island apple snail did in 28 days. No significant damage to plants by native snails has been seen, compared to the island apple snails.

Results found that the island apple snails consumed more Kissimmee grass than expected. Stems were eaten off and consumed at the surface. The snails ate the new growth. This is likely the cause of Kissimmee grass decline.

There are limited molluscicides, and they are toxic to native snails. Effects on Kissimmee grass sprouts will be studied. Tests will be done with experimental units using block nets surrounding hydrilla and Kissimmee grass.

The Science of Compliance: Changing Boaters' Behaviors to Reduce the Spread of AIS

Ed Rudberg gave a PowerPoint presentation entitled "The Science of Compliance – Empowering Boaters with "The Tools". A pilot project was done in 2017 to install Clean-Drain-Dry-Dispose (CD³) user-operated free waterless cleaning stations at five locations – Lake Minnetonka at Spring Park Bay and North Arm Bay, Pike Lake in Canosia Township, Bryant Lake in Three Rivers Park District, and Lake Riley in Eden Prairie. The stations include a wet/dry vacuum, blower, and tethered hand tools. The goal was to empower day boaters to take action to prevent the spread of aquatic invasive species. The stations were accessible 24/7.

After 310 days in the field, the five equipment stations performed without major issue. The stations were able to log use, maintenance, and functionality via the internet. The total uses for the 2017-2018 pilot were over 28,487. The software logged over 6,500 volunteer AIS prevention actions taken by boaters (approximately 2,200 watercraft). A survey of boaters was done, and the responses were very positive. People felt that it was easier to use than their hands, they like to keep their boat clean, they didn't want to spread AIS, and they would use the station again in the future. Key points from 2019 was that there was a decrease in AIS boat violations by 70%. There was no vandalism of the stations, and there was high approval from the public.

Future research will include 3rd party efficacy research; custom programs with digital kiosks, geofencing, check-in/out; installations across North America in 2019. Several new station model designs will also be created.

Update on New Introductions

Ian Pflingsten gave a PowerPoint presentation entitled "Update on New Introductions". The Nonindigenous Aquatic Species Program (NAS) is the central repository for spatially referenced accounts of introduced aquatic species. The program provides scientific reports, online/real-time queries, spatial data sets, distribution maps, and general information. The data are made available for use by biologists, interagency groups, and the general public. It is part of a national Early

Detection Rapid Response (EDRR) system. The database tracks >1,290 aquatic taxa across U.S., Alaska, Hawaii, and U.S. territories for potential introduction pathways and population status.

The Alert Risk Mapper (AMR) attempts to identify the risk of spread associated with new introductions, and provides maps as images, along with emailed alerts. The maps include current native and non-native range, waterbodies and reaches at risk of non-human-mediated introduction, barriers, and species potential mobility.

The Screen and Evaluate Invasive and Non-native Data (SEINeD) is a publicly available tool that users can upload collection data, such as species, coordinates, counties, and states. Coordinates are checked against native and non-native ranges from the NAS database. Users are returned a file with the native status for each datum, if available.

The Impacts database has documented ecological, economic, and human health impacts for over 100 priority species in the southeast region, with a quick display of the impacts by species.

NAS Alerts are generated when a species is new to one or more geographic levels in a state, country, drainage (HUC8), or county. Also, when observed within the last year.

Since November 2018, there have been two new species to state, 12 new to drainage, and four new to country. These species include seven plants, two mollusks, five fish, one herp, two crustaceans, and one cnidarian.

In the Atchafalaya Basin in Iberia County, Louisiana, a black carp was collected in March 2019.

In Tunica Lake in Tunica County, Mississippi, a black carp was collected in January 2019.

In 2018 in Miami-Dade County, Florida, a *Zanclus cornutus* (Moorish Idol) was collected on the vertical wall that forms the boundary between Biscayne National Park and the Florida Keys National Marine Sanctuary. It was first spotted in 2009, then again in 2014 and 2017. This was potentially an aquarium release.

In the Belcher Canal in Vero Beach, FL, a red-rim melania was collected in March 2019.

In a pond near Lake Cecil in Montgomery County, Texas, crested floating heart was collected in 2018. It was also collected from Lake Athens in Henderson County.

Giant salvinia was collected in February 2019 from Lake Okhissa in Franklin County, Mississippi.

In the Buddy Holly Recreation Area in Lubbock County, Texas, a red swamp crayfish was collected in August 2018.

A Northern crayfish was collected in December 2018 from the Catawba River at Catawba Indian Nation Reservation Boat Landing in York County, South Carolina.

A Cuban treefrog was collected in January 2019 in Muscogee County in Midland, Georgia on a plant in someone's yard.

USGS FaST System Updates

Ian Pfingsten gave a PowerPoint presentation entitled "USGS FaST System Updates". Nonindigenous Aquatic Species Flood and Storm Tracker (NAS FaST) Maps were created to help assess transportation of nonindigenous aquatic species between drainages due to storm surge and inland flooding. As part of the EDRR system, the NAS program alerts managers of these possible new introductions. Once a species is introduced, the best chance of eradication or containment is as an incipient population.

NAS FaST Essentials are: Location of current established populations; defined area where flooding may have occurred and units within that area delineated by hydrology; measurements of flood heights; topography around drainage divides; post-storm surveys.

NAS FaST Maps have different stages for response. Stage 1 (2-4 days post-storm): Initial rapid response and the creation of a map of potential flooded HUCs. Maps will include information about NAS that could spread. Stage 2 (4-6 weeks post-storm): Follow-up assessment of drainages that had flooding conditions that could breach drainage divides from coastal storm surge or inland flooding. Stage 3 (12-18 months post-storm): Final review of which drainages were connected from flooding and any records of potential NAS transport due to coastal storm surge or inland flooding. NAS FaST Maps were created for Hurricane Lane, Hurricane Florence, Hurricane Michael, Hurricane Harvey, Hurricane Irma, Hurricane Maria, and Hurricane Nate. At Stage 1, the area of interest was defined using USGS WaterWatch data on flood and high flow conditions. The areas with streamgages or storm tide sensors at flood stage were selected. The map was created by using known locations of established or possibly established species. All surrounding hydrologic units were selected as potential areas of infestation. Storm surges of hurricanes were based on data from NOAA – storm category, direction, forward speed, initial tide level. Coastal drainages that have the potential to flood were identified. At stage 2, digital elevation model contours are utilized to find heights at drainage divides. USGS WaterWatch data of streamgages or storm tide sensors is made use of. Drainages that had flooding conditions that would also breach drainage divides are identified. At Stage 3, Post-hurricane NAS surveys or sightings to identify any species that could have been transported by flooding are reviewed. Final USGS WaterWatch data to determine which drainages were connected are utilized.

Upcoming enhancements include the addition of life history traits. The species ability to be transported in flood conditions will be assessed – salinity tolerance; ability to float (apple snails); movement of nonindigenous plants by vegetative fragmentation.

Region 4 USFWS/Small Grants Program

Cindy Williams reported on their meeting in March 2019 with the regional invasive species coordinators. They discussed one of the seven goals in the Fish and Aquatic Conservation Program's Strategic Plan. Goal number 3 is Invasive Species. One of the objectives under the goal is the implementation of a national EDRR program. Each region coordinator was asked to give a SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis.

Arkansas established a Rapid Response & Recovery Committee, and a list is being compiled of state experts on species ID and needs for management and control. The ARG&FC participates on the MS River Basin Panel Prevention & Control Committee. ARGFC presented at an Asian Carp meeting, which was attended by Arkansas Congressional leaders. A snakehead paper presented will be published in AFS proceedings.

Georgia's State Wildlife Action Plan rates non-native invasive animals and plants a significant threat to native wildlife. The plan is a comprehensive strategy for conserving wildlife and natural habitats statewide.

The Southern Governors' Association founded in 1934 to repeal discriminatory rates for transporting goods by rails was dissolved in June 2016. Public and politicians have little interest in the aquatic biodiversity of the region. There is limited staff in field offices and staff work on aquatic invasive species, and other parts of the program. There are Fisheries Information System reporting limitations for NFHs working on aquatic invasive species. HACCP (Hazard Analysis Critical Control Point) plans need revisions and updates. **Williams** will be coordinating a HACCP training seminar in Atlanta this fall. Some states have internal budget limitations and limited ability to make a federal match.

Florida is leading other states to 'list' injurious species at the state level and prohibiting their import, export, sales, etc. Asian carp funding is being expanded to AL, KY, MS, and TN for commercial harvest of Asian carp in Tennessee, Ohio, and Cumberland rivers. Universities, aquariums, and other entities are being partnered with to improve public perception of aquatic biodiversity and aquatic invasive species threats, which leads to economic costs, loss of recreational fisheries, and ecological function. Multi-District litigation put emphasis on At-Risk Species, which increase concerns on impacts from aquatic invasive species.

USFWS is working on guidelines for reporting and documenting unknown or un-documented species. The document will be shared with biologists and others after it is finalized and approved.

Agency external affairs staff have requested that **Williams** write an article about what is going on with the invasive species program, and to include economic loss data that the agency does not have. She will use some presentations from the GSARP meeting to help gather data on other states, partners, etc.

The state invasive species grants process has not yet been approved by headquarters. There are "ball-park" numbers, but there is no budget as of yet. They are anticipating that states that have requested funds to implement their state plans will soon receive their authorization letter. **Williams** will then begin grant preparation.

The Small Grants Program will continue to receive funding from USFWS. But, with the uncertainty of the budget, etc., the exact amount of funding is not known at this time, but **Williams** believes \$100,000 – 150,000 is likely.

Discussion about the Panel's Website Redesign

Joe Ferrer (GSMFC) gave a presentation of the second draft version of the GSARP website to the panel. **Ballard** asked for feedback from the panel for any changes or additions. **Gonzalez** asked what the deadline was for providing feedback. **Ballard** stated that he would like feedback by the end of April.

Ballard will check with the panel members annually to see if the Top 10 Problem Species have changed, so that the website can be updated.

Gonzalez asked if info regarding where visitors to the website are from could be tracked. Ferrer stated the new design will help with that.

Kingsley-Smith asked who the target audience was for the website.

Kingsley-Smith asked about how people initially find the GSARP website. What outside sites could post a link to the GSARP website? What the panel does should also be highlighted. **Gonzalez** suggested social media. **Ballard** stated that news alerts could be posted on the Commission's Facebook page.

Kingsley-Smith asked about having a small section about what "actions" people can take to help. **Ballard** stated that the recreational guidelines from the national "Stop Aquatic Hitchhikers" campaign could be placed on the website, since it covers recreational activities and what people can do to help stop the spread of invasive species.

It was suggested that the Habitattitude link could be posted in the logo section on the website, and ask Habitattitude to cross-link with GSARP.

The following action items were decided on: Review text of pages, and provide any edits, such as photos, logos, etc.; Suggestions for new pages with content, and where to place on site; Provide state's URL and logo for home page map, and link to state site/page; Review related links to ensure existing links are still relevant, group names and members are correct, provide any new links and groups as necessary; Provide documents for the library, and suggest new library sections or subfolders of existing sections and provide documents; Provide FAQ questions and answers; Provide news items (ongoing); provide events (ongoing); suggestions for site description/tagline; Provide content for award page; Review the three footer sections, and provide suggestions for replacement of existing items or delete altogether.

The Chairman again provided the opportunity for public comment. No comments were received.

Thursday, April 18, 2019

The meeting reconvened at 8:00 a.m. The Chairman again provided the opportunity for public comment. No comments were received.

Discussion of ANSTF Recommendations

Ballard asked the panel members for any recommendations to present to the Task Force. There were none. **Ballard** and **Kingsley-Smith** will be attending the upcoming Task Force meeting in Lake Tahoe. **Ballard** stated that the Task Force Strategic Plan should be finalized at the meeting, and then it will be distributed to the panels.

State Reports/ Members Forum

Alabama

Rider provided a written report for the meeting folders. Several species and/or taxa have been proposed to be added to the Alabama restricted species regulation: Any species of snakehead fish from the family *Channidae*; Zander; European Perch; Eurasian minnow; Wels catfish; Prussian catfish; Crucian carp; Any species of eel from the family *Anguillidae* not native to Alabama; Amur sleeper.

Several regulations have also been proposed. Public comment will be sought before approval. Wild Baitfish Regulation: Within the jurisdiction of the Alabama Division of Wildlife and Freshwater Fisheries, it shall be unlawful to transport any live baitfish, having been caught or harvested from streams, rivers, lakes, or public reservoirs in Alabama, away from the waters in which they are caught. Restrictions on Certain Species of Asian Carp: No person, firm, corporation, partnerships, or association shall possess, sell, offer for sale, release, or cause to be distributed within the state of Alabama any live fish of the genus *Hypophthalmichthys spp.* except for holders of valid commercial fishing licenses engaged in harvesting individuals of these species from the public waters of Alabama for sale to licensed fish dealers and/or processors and aquaculture producers holding a valid written permit issued by the Commissioner of Conservation and Natural Resources.

For the FY2019 USFWS budget for Asian carp control and management efforts in the Tennessee Cumberland River Basins, a total of \$600,000 was added. Distribution of the funding is currently being developed.

In February 2019, a crappie angler caught a 25-pound silver carp in Indian Creek, near JP Coleman State Park. During November and December 2018, MS DWFP and TN Tech University have captured and tagged 30 more silver carp from Indian Creek and Panther Creek in Pickwick Reservoir. Forty silver carp from Pickwick Reservoir have now been implanted with sonic tags.

AL DCNR fisheries biologists continue to monitor the acoustic array at Guntersville Lock and Dam for silver carp movement and passage. No tagged silver carp have been detected below or above the Guntersville Lock and Dam.

In the Tombigbee and Alabama Rivers, bighead carp continue to be collected in low numbers during targeted sampling for other species.

Florida

Funck reported that the FWC Lionfish Control Plan was completed in March 2018, and includes background information regarding the lionfish invasion, past and current involvement of the FWC, and identified action items for the future of lionfish control in Florida.

The FWC hosted the second Lionfish Summit in Cocoa Beach, FL in October 2018. The summit was attended by 121 people, and participants were primarily affiliated with commercial industry, government, non-government organizations, research, or stakeholders.

The FWC and Fishbrain, one of the largest fish reporting apps available to anglers around the world, have partnered to use the reports as a tool to help determine the distribution of selected non-native fish species. Approximately 3,000 usable non-native fish reports have been reviewed by FWC. The most reported freshwater fish species included butterfly peacock bass, Mayan cichlid, bullseye snakehead, and Nile tilapia. The FWC received reports from 58 Florida counties, with most reports coming from Palm Beach, Broward, and Miami-Dade counties.

In November 2018, a two-day Fish Slam event was held in which 35 fishery biologists from 12 agencies used a variety of sampling methods to collect non-native fishes. The objectives of Fish Slams are to sample water bodies not normally sampled by biologists, and to determine if non-native fish populations are established or spreading. In Broward and Miami-Dade counties, 23 non-native fish species were collected from 22 sites. One team re-sampled sites that tested positive for bullseye snakehead eDNA, but none were collected or observed. No new non-native species were collected, but FWC and partners collected some unusual species, including common carp, spotfin spiny eel, and Eastern happy. Asian swamp eel were collected for the first time from the Griffin Road Canal. This canal is directly connected to Snake Creek Canal where Asian swamp eels were first discovered in Florida in 1997.

The goal of the FWC's standardized electrofishing program is to monitor native and non-native fish populations in southeast Florida urban canals. The FWC's Wildlife Impact Management Section coordinated with FWC Freshwater Fish Management staff to develop a modified sampling protocol based on their long-term monitoring program. The new protocol keeps three fixed-starting point transects that the FWC's Nonnative Fish and Wildlife Program (NFWP) has used since 1997. Additionally, three to five randomly chosen day-time transects were added to this protocol. In October and November 2018, FWC's NFWP sampled six canals using these modified protocols. Two of the canals had not been sampled in a standardized manner, so these results will serve as baseline data for future sampling efforts. The addition of new transects increased the mean number of non-native fish species collected in the four historically sampled canals by 14%, and the number of native species collected increased by 32%. In 541 daytime electrofishing pedal minutes from six study canals, 2,623 fish were collected. Spotted tilapia, Mayan cichlid, African jewelfish, and bullseye snakehead were the principal non-native fish species collected.

Ballard asked if FL FWC is using eDNA. Funck stated that they are using it with the bullseye snakehead - eDNA development and refinement, as well as Burmese pythons. They got a positive "hit" outside of the known breeding range for bullseye snakehead in south Florida. Shocking was done, but no physical signs of bullseye snakehead were found. They do not know

what the positive hit means. The area was only sampled once. eDNA for Burmese pythons is still in development. Water patterns are being looked at related to eDNA.

In Hillsborough County, there has been an emerging population of African clawed frogs since 2016. In September 2018, the FWC executed research contracts with the University of Florida (UF) and the University of Central Florida (UCF) to study this population. The UF's research aims to determine spatial extent of the population in Hillsborough County, determine population size in ponds, evaluate effects of trapping on population size, identify dispersal patterns, and identify thermal limits. The UCF research aims to determine how the invasion started, what genetic factors are conducive to invasion, what pathogens the African clawed frogs may harbor, and how eDNA can be used to determine occupancy. These contracts are ongoing, and scheduled for completion in June 2019.

The Florida native Dark Falsenessel, primarily found in estuarine areas, has recently moved inland via waterways connected to the coast, causing impacts similar to zebra mussels, which are in the same family. They have clogged numerous irrigation pipes along the west and east coast, and a fountain in Palmetto. They have been found in Lake Okeechobee on locks, and in the Suwannee River. They are difficult to eradicate. The implementation of filters that are fine enough to screen out veligers, and prevent reproduction in irrigation pipes may help control their spread.

Populations of several anguillid eel species, including the American eel, have been infected by *Anguillicoloides crassus*, a nematode that is native to Taiwan. They were first observed in wild eels in Florida in 2006 in the St. John's River, and documented in Gulf of Mexico eels in 2014. A heavy infestation can affect buoyancy, and impact swimming ability, crucial to the reproductive success of the eel. Infected populations of American eels have been documented in the panhandle region and in peninsular Florida north of Port St. Lucie. Potential management options include angler education, treatment options, and spot checks of tackle shops selling imported bait eels.

From August 2018 – February 2019, the number of Python Removal Permits (PRP) dramatically decreased as compared to the number issued in previous report periods. The FWC has discontinued a large portion of this permit program due to a negligible number of reports of Burmese pythons removed by permit holders. The FWC issued 40 Conditional/Prohibited/Nonnative Species Permits during this period.

The UF's Tropical Aquaculture Laboratory will complete risk screenings on 10 fish species that are on the federal Injurious list, but not listed in Florida as Conditional or Prohibited by June 2019. UF will evaluate risk using the Fish Invasiveness Screening Kit (FISK) v2. Also, UF will complete risk screens for a species of salmonid that will be produced in a large-scale aquaculture operation in southeast Florida. The risks of alligator gar being present in peninsular Florida are being addressed.

A risk screening study of five conditional fish species is being done. The objective is to evaluate the five FWC Conditional fish also on the federal Injurious list, using the FISK v2. The project will be completed by UF by June 2019.

A study to screen for the invasiveness risk to Florida of 11 marine ornamental fishes of the family *Pomacentridae* using AS-ISK Phase 1 is being done. The objective is to produce biological profiles of the top nine species of pomacentrid imported into the U.S., plus two known or suspected invaders from the family. Phase 1 of this project will be completed by UF by June 2019.

The next FWC/USGS Nonnative Fish Slam will be held March 26-27, 2019, and will focus on waterbodies in the Vero Beach area, which contains a network of canals, ditches, and rivers not frequently sampled by FWC.

The 8th Annual Everglades Cooperative Invasive Species Management Area Fish Round-Up will be held April 26-27, 2019. The tournament increases awareness of non-native fish issues in Florida, and encourages consumptive use of non-native fish.

The Southwest Cooperative Invasive Species Management Area will host their first Nonnative Fish Round-Up on April 26-28, 2019. The event is held to educate members of the public on non-native freshwater fish issues in Florida, and to provide incentive to anglers to catch and remove non-native fish species as part of a competition.

The FWC and USGS co-host a “Fish Chat” approximately every two years in southeast Florida. Fisheries professionals from a variety of universities, state, and federal agencies provide updates on ongoing or completed projects. The next Fish Chat will be in November 2019.

The first Snakehead Round-Up of the 2019 season will be held in May, and will continue through October. The FWC will act as the weigh-master, and provide outreach materials to participants and spectators.

The 2019 Lionfish Removal and Awareness Day will be held May 18-19, 2019 in Destin. The first day focuses on a lionfish tournament where teams win prizes for the most, largest, and smallest lionfish caught. The second day consists of a family-oriented festival with lionfish cook-offs, exhibitors, and vendors.

Phillips provided copies of the Annual Report of Activities Conducted under the Cooperative Aquatic Plant Control Program in Florida’s Public Waters for FY 2017-2018. Invasive non-native plants were reported in 94% of Florida’s 453 surveyed public lakes and rivers that comprise 1.266 million acres of fresh water. Floating water hyacinth and water lettuce covered approximately 125,000 acres of Florida public waters, and are the FWC’s highest management priorities. Floating plants were present in 258 public lakes and rivers in 2018, covering approximately 5,563 acres. They are under maintenance control in all of Florida’s public waters. Managers spent approximately \$4.04 million controlling 28,677 acres of floating invasive plants in Florida’s public lakes and rivers during FY17-18. Sufficient, recurring funding and improved technology, aided by FWC-funded research, enabled managers to reduce hydrilla to approximately 31,329 acres in 2018, as opposed to infestation of approximately 100,000 acres in the 1990s. Hydrilla was reported in 181 public waters in 2018. Hydrilla tubers infest approximately 49,538 acres. In 2018, 84.5% of the hydrilla population reported covered 10 acres or less. Forty-eight percent of the hydrilla occurred in the four lakes of the Kissimmee Chain of

Lakes. Managers spent \$10.04 million applying herbicides to 20,618 acres of hydrilla in Florida public lakes and rivers during FY17-18. During FY17-18, \$2.77 million was spent managing approximately 12,238 acres of aquatic plants other than hydrilla and floating plants.

Georgia

Page reported on the Satilla River Flathead Catfish Removal Project. During the 2018 sampling season (May-October) 4,752 flathead catfish were removed. Since 2007, over 72,000 flathead catfish have been removed. The size structure of the populations has declined, with the average size fish removed progressively dropping from 5.8 pounds in 2007 to 0.8 pounds in 2018. Biomass per effort has also declined from a high of 77.5 kg/hr in 2005, to 11.3 kg/hr in 2018. However, higher recruitment and earlier maturation are being seen. Ongoing intensive harvest will be required to control the flathead population.

A brown haplo was caught by an angler in the St. Mary's River in Charlton County in September 2018. A photo of the fish was sent to a DNR/CRD associate. Unfortunately, the 9-11" fish was released back into the river.

Seven blue catfish were collected during 2011 flathead removal. In 2017, 397 blue catfish were collected. Only 58 were collected in 2018 due to high water. Increased numbers of blue catfish concerns resource managers, so continued monitoring and removal of this species will occur in connection with flathead removal efforts.

The "Clean, Drain, Dry" educational signs continue to be posted at several boat ramps.

The Traveling Trunk continues to be a very informative tool for teaching children and adults. The trunk was displayed at Blackshear Elementary 4H Day in November 2018. The trunk reached about 290 fifth graders and 20 adults from three Pierce County schools.

Mississippi

Freshwater report:

Riecke reported that giant salvinia was found in Aliceville Lake and Lake Okhissa.

Continued treatment of aquatic plants is continuing on state fishing lakes, state park lakes, and at Ross Barnett Reservoir. In the Pelahatchie Bay area of Ross Barnett Reservoir, considerable effort was spent treating giant salvinia. The area was closed to boating in October 2018, and it remains closed.

Riecke attended Mississippi Aquatic Invasive Species Council meetings to guide implementation of the activities specified in the *Mississippi State Management Plan for Aquatic Invasive Species*.

The Mississippi Aquatic Invasive Species Council informational display was set up at the 2019 Mississippi Water Resources Conference, and the 2019 MS Chapter AFS meeting.

The "Stop Aquatic Hitchhikers in Mississippi" informational brochure was revised, printed, and distributed.

A public awareness campaign (flyers, boat ramp signs, news releases) was coordinated with the Pearl River Valley Water Supply District regarding the spread of giant salvinia at Ross Barnett Reservoir.

The Asian Carp Telemetry Project continues on Pickwick and Tenn-Tom Waterway. Sampling for Asian carp will continue in the Divide Cut and Bay Springs.

The “Stop Aquatic Hitchhikers” cards continue to be distributed, along with all initial boat registrations and boat renewal registration cards that are mailed out.

The “Stop Aquatic Hitchhikers” logo and bullet list continue to be printed in the *Mississippi Outdoor Digest* and the *Digest of Mississippi Freshwater Commercial Fishing Laws and Regulations*.

Links to the Mississippi River Basin Panel on Aquatic Nuisance Species, Gulf and South Atlantic Regional Panel on Aquatic Invasive Species, Stop Aquatic Hitchhikers, and Habitattitude websites are on the department website.

Future activities will include: Continued chemical treatments of giant salvinia at Ross Barnett Reservoir, and surveying of the reservoir for new occurrences; surveying state lakes for aquatic invasive plants; develop management and control fact sheets on invasive aquatic plants; purchase of aquatic herbicides and hiring contractors to treat public and private waters infested by invasive plants; monitoring giant salvinia in Pickwick and the TTW; compose freshwater fishing bait regulations to specify what bait can be legally sold, possessed, transported, and used in Mississippi; seek approval of legislation required to initiate licensing of retail bait outlets selling live freshwater fishing bait; adopt a list of approved, restricted, and prohibited species under the authority specified in MS Code 49-7-80, and as specified in the *Mississippi State Management Plan for Aquatic Invasive Species*. Amend list of approved, restricted, and prohibited species as specified in the public notice that regulates aquaculture activities in Mississippi; establish an EDRR monitoring program comprised of state and federal personnel who sample aquatic species in Mississippi public waterways on a routine basis; submit backlog of reported nonnative species occurrences to ANS database; work on revisions to the *Mississippi State Management Plan for Aquatic Invasive Species*.

Saltwater report:

Pursley reported that a program of integrated pest management and spot herbicide application was used to control populations of common salvinia, giant salvinia, alligator weed, and water hyacinth. Salvinia weevils that have consistently helped reduce population levels of giant salvinia since 2009 have not yet reappeared after the cold winter of 2017.

During weekly control missions, 951 giant applesnail egg masses were destroyed, and 33 live snails were removed from the Pascagoula River. Since the snails were first observed in 2014, a total of 21,335 egg masses have been destroyed, and 808 live snails have been captured.

Two aerial surveys totaling 358 miles, and 36 waterway surveys totaling 253 miles, were conducted for early detection of AIS and monitoring of existing infestations.

No Cuban treefrogs have been found so far at the monitoring stations established in 2018.

A small infestation of beach vitex was eliminated after two foliar herbicide treatments. The area is being monitored for recurrence.

Mississippi Department of Marine Resources, Gulf States Marine Fisheries Commission, and the US Fish and Wildlife Service continued the Jimmy Sanders Memorial Lionfish Challenge.

In observance of National Invasive Species Awareness Week, a social media outreach campaign was conducted. The daily featured species included lionfish, giant applesnail, Asian tiger shrimp, aquatic invasive plants, and feral hogs.

North Carolina

Flora reported that the NCDA was notified in the summer of 2018 that there was a large infestation of beach vitex in Morehead City. A site visit was made, and letters were sent from the NCDA to each resident in the general vicinity of the infestation to alert them, and to request signed permission letters for access to their land. An herbicide treatment was made in November 2018 to the largest section of beach vitex. Monitoring and eradication efforts will be ongoing in 2019. There are also several other patchy infestations in areas along the NC beach, which will all be checked out.

In 2018, there were at least five new infestations of yellow floating heart. Several infestations were already being managed across the state. Plans are being made to treat the infestations with ProcellaCOR, a new herbicide with good efficacy on floating heart. All sites will be monitored in 2019 to document control efforts.

The 2019 work plan for the Aquatic Weed Control program includes approximately 60 projects across the state.

Lake Waccamaw, a 9,000-acre natural lake in NC, received a large-scale fluridone treatment in 2018 for the 6th consecutive year. Hydrilla growth has been completely suppressed by the treatments, and there is no evidence that new tuber production has occurred since treatment began.

A large section of the Eno River was treated with fluridone in 2015 and 2016 to control hydrilla. The treatment was expanded to over 22 miles in 2017, with a repeat in 2018. Four consecutive years of treatment has resulted in significant control of hydrilla growth, with minimal to no impact to non-target plant and animal species. The project is managed by the Eno River Hydrilla Management Task Force (ERHMTF), a partnership of local, state, and federal government agencies, academia, and non-profit organizations.

Lake Norman is experiencing its second round with hydrilla. The first time was in 2002. An aggressive grass carp release quickly reversed hydrilla, and there was complete suppression by 2004. There were no reports from 2004-2016. In 2017, hydrilla showed up in a different part of the lake as a new introduction. A survey revealed that there was approximately 500 acres of hydrilla, isolated to one area of the lake. In spring 2018, 10,200 grass carp were released. This

outbreak epicenter is a high-volume boat access area. As of September 2018, hydrilla is impacting multiple marinas.

Efforts continue with the Southeastern Cooperative Fish Parasite and Disease Laboratory at Auburn University on a multi-year effort to increase understanding of *Myxobolus cerebralis*, the causative agent of whirling disease. In 2018, 1,828 fish from 71 sites were collected for evaluation.

Efforts continue with SCFPDL to explore spatial distribution and life history characteristics of gill lice. In 2018, copepod collections occurred at nine sites.

Tennessee Tech University initiated a regional-scale assessment in 2018 to define the current distribution of *Didymo* in western NC. *Didymo* cells were identified in the Tuckaseegee River in 2015, but little information has been obtained on the diatom in the state.

A Catfish Management Plan has been developed, and public comment finished on April 3, 2019. The plan discusses the challenges and ecological impacts of non-native catfish introductions, and identifies measures for conserving native catfish populations.

There were four reports of tiger shrimp in 2018. One fisherman brought four shrimp to DMF staff and said he caught at least 10 tiger shrimp so far this year. In 2012, tiger shrimp was added as a code to the state trip ticket program. Annual landings have ranged between 5-25 pounds.

The blue catfish range in NC has been expanding over the years, and commercial landings have been increasing. They are expanding into the Pamlico Sound region. The NC Wildlife Federation is concerned with expansion, especially in the lower Pamlico and Neuse rivers. The NC Division of Marine Fisheries has partnered with SeaGrant and NC Wildlife Resource Commission in monitoring blue catfish in the state.

Flathead catfish appear to be moving upstream in several watersheds in the Tar River and Neuse River basins. They are likely the cause for the decline of the Carolina madtom. Intensive surveys and management actions, including flathead catfish removal, may be needed to prevent Carolina madtoms from going extinct. The US Fish and Wildlife Service Sport Fish Restoration Grant has funded a non-native catfish project in Cape Fear. The study will look at habitat and prey selection of flathead catfish.

The NC Aquatic Nuisance Species Management Plan is being reviewed and edited by the steering committee that authored the plan. No major changes are anticipated. It will then be submitted to the ANSTF.

South Carolina

Kingsley-Smith reported on the assessment of the current distribution of the island apple snail, *Pomacea maculata*, in West Ashley and its potential to invade the estuarine habitats of the Ashley River in South Carolina. Recent research conducted at the South Carolina Department of Natural Resources to investigate the salinity tolerance of newly hatched snails produced by adults collected from wild South Carolina populations indicates an ability to tolerate salinities as

high as 8 psu which are representative of upstream estuarine habitats in South Carolina. There is a well-established population of apple snails in a suburban neighborhood in West Ashley, specifically within storm-water retention ponds at the Village Green residential development, which is located less than 2 miles from the Ashley River. In order to determine the distribution and potential spread of apple snails in the neighborhood, SC DNR biologists surveyed 28 ponds, and one seasonally-flooded forested wetland in October and November 2018 in West Ashley, SC. *Pomacea maculata* were present in 21 of the ponds – 882 adults, and 4,985 egg clutches. There was no evidence of an established population in the forested wetland area. Four of the ponds that were previously surveyed in 2015 and showed no evidence of establishment, contained between 58 and 156 adult apple snails, and 119 to 1,386 egg clutches in the 2018 surveys. These results demonstrate that over the course of three years, *P. maculata* has demonstrated short-distance dispersal capabilities across waterways that contain no surface water connection at mean water levels.

Researchers working to better understand the threats posed by *P. maculata* have been active in disseminating their research in peer review journals. Several manuscripts will be appearing in the next issue (April 2019) of the *Journal of Shellfish Research*.

The red swamp crayfish, *Procambarus clarkii*, is now well-established in many areas worldwide, including South Carolina, due to numerous aquaculture ponds and culinary activities. It is native to the southern Mississippi River drainage to Illinois, and the Gulf coastal plain from the Florida panhandle to Mexico. When *P. clarkii* is introduced to an area, they can alter structural and functional components of freshwater ecosystems, and in some cases, fundamentally alter the nature of the ecosystem it invades. Several populations of *P. clarkii* were previously identified in the Pee Dee and Waccamaw river drainages in South Carolina by SC DNR staff. This species had not been previously reported, which indicates that they may be spreading into new areas of the state. Some of these populations overlap with known populations of South Carolina State Wildlife Action Plan (SWAP) priority crayfish species, including the Waccamaw crayfish, *Procambarus braswelli*, a Priority I species that has only been documented in a few locations in the state. The SC DNR Crustacean Research and Monitoring Section is currently working on several projects to better understand the recent spread of *P. clarkii* in SC, its mechanisms of dispersal in the Waccamaw and Pee Dee River drainages, and its potential impacts on native crayfish in the state.

In November 2018, SC DNR biologists surveyed for *P. clarkii* in the Pee Dee watershed, and the Waccamaw watershed in January 2018. A total of 16 locations were sampled, and five different species of crayfish were collected. At 15 of the sites, *P. clarkii* were recorded, and 299 *P. clarkii* were collected. Other species collected included the conservation-priority species Carolina sandhills crayfish, and the Waccamaw crayfish. Also, 64 locations in and around the Francis Marion National Forest and locations in Charleston County, SC were surveyed by a SC DNR employee from November 2018 – April 2019. During the surveys, six species were documented, and included: the conservation-priority species Santee crayfish; coastal plain crayfish; cedar creek crayfish. The invasive red swamp crayfish was documented at six locations – four locations on James Island, and two locations near Bulow Plantation in Charleston County. To assess the mechanisms of *P. clarkii* in the Pee Dee and Waccamaw River drainages, species-specific microsatellite markers are being developed and optimized by SC DNR biologists

through funding from the USFWS State Wildlife Grants Program. The microsatellite markers will be used to determine population genetic structure among populations of *P. clarkii* in the Pee Dee and Waccamaw River drainages.

Also of concern in the state of South Carolina are two non-native species of crayfish, the rusty crayfish, *Faxonius rusticus*, and the virile crayfish, *Faxonius virilus*. They are currently established in North Carolina, only a few miles from the North Carolina-South Carolina border in the Broad and Catawba River watersheds. In July 2018, SC DNR biologists, in collaboration with the Catawba Indian Nation, collected specimens of *F. virilus* in a region of the Catawba River located on the Catawba Indian Nation Reservation in South Carolina. With recently acquired funding from the USFWS State and Interstate Aquatic Nuisance Species Management Plan Program Funding, SC DNR biologists are surveying more locations in the Broad and Catawba Rivers in South Carolina for both *F. virilus* and *F. rusticus*. In October 2018, main stem and tributary systems of these rivers were sampled. Neither invasive species in the genus *Faxonius* were found from the sampling locations. Native *Cambarus* species were documented from five sampled locations in both river systems.

The redeye bass (also known as Bartram's bass) in the Savannah River Basin, is one of three priority species included in the National Fish and Wildlife Foundation's Native Black Bass Initiative, and a species of highest concern in SC DNR's State Wildlife Action Plan (SWAP). The listing is mainly due to the effects of hybridization with the Alabama bass, which was introduced into the reservoir systems in the Savannah River basin in the 1980s. Since then, hybridization between the two species in the reservoirs has been documented in the field, and confirmed by genetic analysis. South Carolina DNR researchers have captured Alabama bass and hybrid individuals in recent years in riverine habitats upstream of the reservoirs, while pure Bartram's bass are increasingly confined to smaller rivers. While previous work by the SC DNR has documented that Bartram's bass populations are diminishing due to introgression with Alabama bass, key questions remain regarding the extent of this process in tributary streams.

Preliminary assessments of Bartram's bass individuals and egg samples have been conducted using probe-based quantitative PCR (qPCR) to confirm species identity, and the extent of hybridization of Bartram's bass with closely-related shoal bass species throughout the range in the upper Savannah River Basin. This approach using probes specific to Bartram's bass, or "all other" (currently largemouth, smallmouth, and Alabama bass), suggests that while it is feasible to distinguish pure Bartram's bass from hybrids with a high degree of confidence, researchers may not be able to distinguish among other possible closely-related, introduced black bass species hybridizing with Bartram's bass. For this project, SC DNR researchers proposed to develop a microsatellite-based genetic tool to investigate hybridization in black bass populations (specifically Bartram's bass) in the Savannah River basin. Microsatellites are short sequences of DNA that contain variable repeating units of base pairs that can be thought of as "genetic fingerprints" of individuals. This variability, combined with a high mutation rate, make microsatellites an effective tool to investigate genetic structure and hybridization among populations. In addition to 10 polymorphic microsatellites developed for redeye bass, microsatellites originally developed for largemouth bass have been used for other black bass species to assess hybridization impacting endemic shoal bass in the Chipola River. Hierarchical STRUCTURE analysis suggests that black bass genotyped at 17 loci with sets of reference

samples of congeneric species that occur in that part of the country (shoal bass, northern spotted bass, largemouth bass, Choctaw bass, Alabama bass, Suwanee bass, and smallmouth bass) can be assigned to clusters with high confidence. To date, researchers in the SC DNR Marine Resources Research Institute (MRRI)'s Population Genetics Research Section have completed the optimization of the marker suite, and have made substantial progress on the sample genotyping. Progress was substantially hampered by the extended Federal government shutdown in December 2018, however, as this section's primary genetics laboratory is housed within the federal Hollings Marine Laboratory. Researchers were able to make some progress on project activities following relocation of the entire lab to a state facility. The research team has completed the reference sample genotyping, refined the binning analyses for the new marker set, and is in the process of evaluating the data to develop an analysis protocol using STRUCTURE analyses to identify genetic ancestry and hybridization in unknown samples.

Researchers at the SC DNR Marine Resources Research Institute completed 'step one' of the funding request for 2019-2020 SIANSMP funding. If supported, this funding will support these projects: The potential hybridization of the invasive red swamp crayfish, with its sister species the Eastern red swamp crayfish; is the red swamp crayfish a vector for the white spot syndrome virus?; assessment of current distribution and potential of the island apple snail, *Pomacea maculata*, to invade estuarine habitats in West Ashley, SC; hybridization, gene flow, and introgression between native redeye bass and introduced Alabama bass.

Resulting in part from previous funding through USFWS ANS Small Grants Program, a paper, Development of a qPCR tool for the environmental detection of *Anguillicoloides crassus*, an invasive pathogenic parasite in the American eel, *Anguilla rostrata*, was submitted in October 2018, and remains in review.

At the triennial meeting of the World Aquaculture Society, National Shellfisheries Association, National Aquaculture Association, and the American Fisheries Society Fish Culture Section held in New Orleans, LA on March 7-11, 2019, Dr. Michael Kendrick chaired a special session entitled "Decapod Crustaceans". The session included two presentations by SC DNR researchers, featuring some of the invasive crayfish research being done. The presentations were: Effects of the non-native *Procambarus clarkii* on native crayfish populations in North Carolina and South Carolina, USA; Investigation of the salinity tolerance of invasive and native coastal crayfish in South Carolina, USA.

USACE

Lane reported that they are doing an alligator weed flea beetle collection. The beetles are available free of charge. **Jon** told the panel members to contact him if anyone wants some.

Funding was received this year for their aquatic programs. Their budgets have not been impacted, and they received additional funding this year.

USACE has been partnering with the USDA and RCS through their easements program as their contractor on their easement lands. USACE received \$18 million from a farm bill for the next four years to do invasive work on their lands.

As part of the Comprehensive Everglades Restoration Plan (CERP), the Central Everglades Planning Project (CEPP) will identify and plan for projects on land already in public ownership to allow more water to be directed south to the central Everglades, Everglades National Park, and Florida Bay. The CEPP will incorporate invasive and nuisance species assessments and management of those species into pertinent planning documents and phases of the project. Funding is expected in FY2020.

Texas

Hartman reported that a letter from TPWD dated November 13, 2018 was sent to Texas bait dealers in which it stated that “it has come to the attention of TPWD that some bait dealers have been selling frozen non-native imported shrimp as bait for recreational fishing in coastal waters of the state. The imported shrimp is not native to Texas or the western Gulf of Mexico, and therefore, are classified as “harmful or potentially harmful exotic shellfish” under Texas Administrative Code, Subchapter A (Harmful or Potentially Harmful Fish, Shellfish, and Aquatic Plants)”. The letter further stated that the licensed bait shrimp dealers were “not allowed to purchase, possess, or sell exotic shrimp, and any exotic shrimp they may be possessing must be removed from the sales shelf”. A white spot syndrome virus has been detected in frozen shrimp. The Texas shrimp industry has been valued at about \$130 million. The recreational industry has been valued at about \$1.1 billion. There is concern that the white spot syndrome virus will be transmitted to native shrimp, crabs, crustaceans, etc. There are also other viruses that the freezing process does not kill. Over the last few years, TPWD has received approximately \$3.2 million annually for invasive species work. This year, the focus has been on bait dealers. Also, a communications plan has been created to change perceptions of the public that it is okay to use the non-native shrimp as bait. Online ads have been designed, the TPWD website has information on the non-native shrimp bait, the TPWD face book page also has information, and printed brochures have been created. Signs will be posted at bait stands, boat ramps, and jetties. Email blasts are also being done. Print ads in magazines are being used. Radio shows and digital billboards are other ways that information is being provided to the public. TPWD is also partnering with other agencies.

The “Don’t Dump your Tank” campaign is receiving more funding. The TPWD website has information on the campaign.

There has been a lot of focus on the “Clean, Drain and Dry your Boat” campaign. A total of 564,000 registered boat owners received information on the campaign. A total of 179 impressions have been made through radio, online, print, and outdoor advertisement as part of the “Protect your Lakes you Love” campaign.

Sixty-four high-risk lakes were monitored to add to early detection of zebra mussels.

Sixty rivers and lakes were managed to control infestations of aquatic plants.

Over 9,000 acres of aquatic invasives were treated in Caddo Lake.

Along 178 miles of the upper Brazos River, 10,400 acres of saltcedar were treated.

University/Research

McMahon reported that since 2011, they have been looking at zebra mussel ecology population dynamics in three Texas lakes. A university PhD graduate student is writing her dissertation on the results. This has been the most extensive population dynamics work ever done on zebra mussels. In Texas, the zebra mussels have been in the warmest environments that they have ever been in in their life cycles.

McMahon has been looking at zebra mussel settlement, and has been working with a junior college professor on the project. Settlement only occurs when there are petty veligers in the water.

During plankton sampling for zebra mussel veligers at 23 different lakes throughout Texas, a bycatch of the sampling was *Daphnia lumholtzi*, a species of small, invasive water flea that originates in Africa. They were first found in a lake near Austin in 1983. Of the 23 lakes investigated, 18 were infested with *Daphnia lumholtzi*. They do not, however, appear to be out-competing regular daphnia or other planktonic crustaceans. It appears that they have infested most eastern lakes in Texas.

Port Authority

Carangelo reported that in December 2018, the President signed into law the Vessel Incidental Discharge Act (VIDA). VIDA requires EPA to develop new national standards of performance for commercial vessel incidental discharges and the U.S. Coast Guard to develop corresponding implementing regulations.

Instead of having vessels come into port, then boarding them for inspection, and discovering there is a paperwork violation because the ballast water treatment systems are not operating, it must now be reported to the USCG ahead of time that they have had problems.

Scientists at Duke University are working with eDNA to identify the source of ballast water in ships, based solely on the community of microbes in the tanks. The scientists claim a scan of the eDNA in ballast water can show whether ships are following rules meant to prevent the transport of invasive species. Several of the panel members expressed concerns with that research, since there is a possibility of a false positive finding.

USGS

Ian Pflingsten reported that Pam Fuller retired from USGS in January. Wes Daniel will most likely be the USGS representative on the GSARP panel, with Matt Nielson as the alternate.

Other Business

Tom Jackson stated that the March 2020 GSARP meeting will probably be his last meeting.

A Motion was made to nominate Pam Fuller for the Panel Award. It was seconded, and the Motion passed. The award will be presented to **Fuller** at the fall meeting.

Kingsley-Smith suggested that the Traveling Trunk be re-named to “The Herb Kumpf Traveling Trunk” in memory of his passing. **A Motion was made to re-name the Traveling Trunk to “The Herb Kumpf Traveling Trunk”. It was seconded, and the Motion passed.**

Ballard stated that on the next panel conference call, he would like to discuss panel membership. He requested that prior to the call, members should make recommendations for membership. There are several vacant seats that can be filled if necessary.

A Motion was made to elect Pam Fuller as an At-Large Member of the panel. It was seconded, and the Motion passed.

Next Meeting Time and Place

The location of the next meeting will be in Charleston, South Carolina.
The date will be in September or October.

Public Comment

The Chairman 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 1:00 p.m. A field trip for electrofishing in canals at Markham Park followed, and reptiles and amphibians were on display.

**RED DRUM TECHNICAL TASK FORCE
MEETING MINUTES (Notes)
June 12 and 13, 2019
Mobile, Alabama**

APPROVED BY
John F. Mareska
COMMITTEE CHAIRMAN

Moderator VanderKooy called the meeting to order at 1:00 p.m. with the following in attendance:

Wade Hardy, MDMR, Biloxi, MS
Brian Bartram, TPWD, Rockport, TX
Stephanie Walthall, Tallahassee, FL
John Mareska, Dauphin Island, AL
Jason Adriaance, LDWF, New Orleans, LA
Steve VanderKooy, GSMFC, Ocean Springs, MS
Jeff Rester, GSMFC, Ocean Springs, MS
Debbie McIntyre, GSMFC, Ocean Springs, MS

Introductions and Housekeeping

S. VanderKooy, IJF Program Coordinator, opened the meeting and introductions were made. He 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 Alice Wilhelm, the Commission's travel coordinator.

Adoption of Agenda

The agenda was adopted on motion by **Mareska** and second by **Walthall**.

Interjurisdictional Fisheries Program Overview and Profile/FMP Process

VanderKooy explained that a task force is typically made up of five scientific representatives (one from each Gulf state), a recreational/commercial fishery representative, an economist, a habitat representative, and a law enforcement representative. When it is deemed necessary by the task force, another member may be added to the group.

VanderKooy presented an overview of the Interjurisdictional Fisheries (IJF) Program and Commission development process for FMPs and profiles. 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 profiles and interstate FMPs. The Act also promotes and encourages management of IJF resources throughout their range.

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

The development of profiles and plans begins with species prioritization. The State-Federal Fisheries

Management Committee (S-FFMC) accomplishes this task and establishes a technical task force (TTF) 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 profiles and plans and receives input in the form of data and other information from the DMS and the SAT.

The Interjurisdictional Fisheries (IJF) fishery management plan (FMP)/profile development and review program of the GSMFC provided the Gulf states with quality information and recommendations for interstate management of fisheries. This information is continually being used by the states in their respective programs. During 2015, the GSMFC revised the IJF program to allow for development of additional documents to include a Biological Profile and a Management Profile, in addition to the FMP.

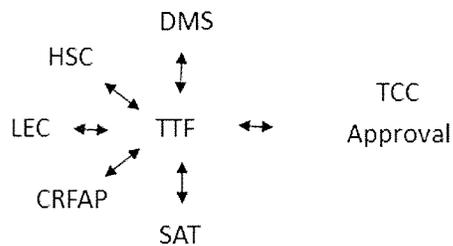
A **Biological Profile** contains the elements related to the species itself (biology and habitat) and a brief overview of the fisheries that exist in each state (landings, effort, economics, and a description of participation). This option is provided when biological or fisheries data is limited or unavailable to provide any type of evaluation of the fishery or population. Research and data needs will be highlighted and presented for state agency consideration.

A **Management Profile** contains the same elements as the Biological Profile plus the addition of any state information related to the stock status but not a regional stock assessment. The Management Profile will identify research and data needs as well as management considerations which are optional for the states should a need arise to change existing management scenarios or to conduct a stock assessment for the resource in the future.

A **Fishery Management Plan** is the final option should a state or particular sector within the fishing community request a formal stock assessment be facilitated by the GSMFC. Along with a regional assessment will be recommendations on management goals and objectives as well as a suite of potential biological reference points for management which are available to the state as options.

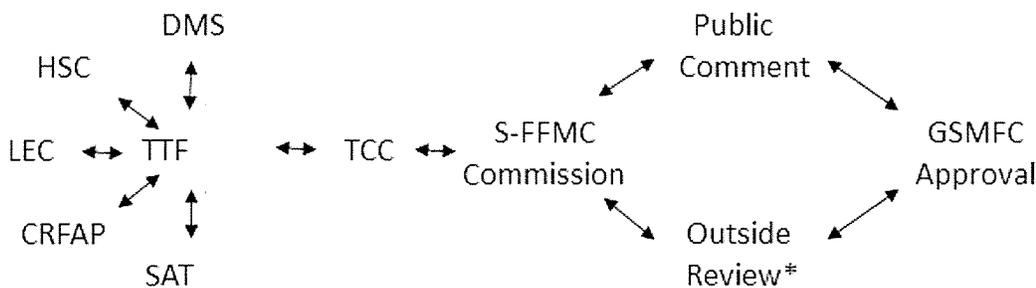
In March 2015, the GSMFC approved a modification to the IJF review process for all current and future documents to include a combined S-FFMC and GSMFC Commission review. This allows the group to review any input received during the public comment period as well as those offered during the GSMFC business session prior to taking any final action. In March 2016, the review was further revised to reduce the review for Biological and Management Profiles for final approval by the TCC rather than the Commission. As there are no management recommendations in either profile format, it is not necessary to go through a public comment period and review by the Commissioners, streamlining and speeding up the approval process. The two processes are now as follows:

Biological and Management Profiles



DMS = Data Management Subcommittee
 SAT = Stock Assessment Team
 HSC = Habitat Subcommittee
 LEC = Law Enforcement Committee
 CRFAP = Comm/Rec Fishery Advisory Committee
 TTF = Technical Task Force
 TCC = Technical Coordinating Committee

Fishery Management Plans



DMS = Data Management Subcommittee
 SAT = Stock Assessment Team
 HSC = Habitat Subcommittee
 LEC = Law Enforcement Committee
 CRFAP = Comm/Rec Fishery Advisory Committee
 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

VanderKooy pointed out that there is a lot of information available about this primarily recreational fishery. Terminal year for this document will be 2018.

Word files from the Cobia document have been provided as an example and will serve as a template for the Red Drum Profile as both species are federally managed, although the states enforce Red Drum policies and management really occurs in state waters. **VanderKooy** reviewed some of the available known history including some age and growth, migration, and harvest effort. **Mareska** mentioned that almost all Red Drum are near shore per recent reports and the idea of a large offshore population may be challenged moving forward. Recreational landings were presented by state, all except Texas (numbers of fish so not comparable) and some data from LA were not included since the implementation of LA Creel.

The last Red Drum stock assessment was attempted in 2016 as a data limited species although **Adriance** stated that was not a successful assessment. Red Drum data research needs were determined by

SEDAR49 and clearly more current research and data is needed. **Adriance** will check on acoustic tagging in Lake Pontchartrain which was conducted by a private group and now is housed by the LA CCA. Currently, there are very few commercial Red Drum landings but those that are landed are almost all by gill nets and only in Mississippi (50,000lbs annually).

VanderKooy explained to the group the extent to which the Illegal, Unreported and Unregulated (IUU) fishing by Mexican lanchas is happening in TX and how the incursions have caused significant problems. As a result, river gill nets set illegally by Mexican fishermen are routinely removed by enforcement ~~from~~ Mexican fishermen. Most of the Red Drum captured are used to bait illegal long lines for Red Snapper in offshore waters. This may be an issue which needs to be addressed in the fisheries chapter since it is technically a harvest component, albeit illegal.

VanderKooy stated that an economist, a sociologist, a commercial representative, and a recreational representative may be added to this group. **Bertram** and **Walthall** both had ideas for possible economists and will further pursue these individuals. It was discussed that Mike Jepson from NOAA may be a good addition as sociologist considering his experience working with Gulf fisheries management. **VanderKooy** noted that the commercial rep should probably be a supply chain person rather than a harvester since there is virtually no harvest. **Adriance** has someone in mind for commercial rep but will check with the LDWF first. All potential candidate representatives should be provided to **VanderKooy** by the end of July if possible. He will reach out to them to determine their interest.

Table of Contents/Assignments

VanderKooy explained that the table of contents will serve as a means to divide up assignments and, in some cases, deadlines. TTF members volunteered to take responsibility for sections as the Table of Contents was discussed. These assignments are *Attachment A*.

VanderKooy had already pulled a number of the references included in the Commission's electronic bibliography and provided a thumbdrive with PDF references to start. There is a bibliography search on the Commission website which provides a vast amount of information. Everyone was advised that if any explanation of how to use the website 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 individual 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 original literature you use. Everyone can share these working files with others. In addition, the format of the Transactions of the American Fish Society will be loosely followed. In the event a reference cannot be located through other methods (agency libraries, NOAA libraries, Google Scholar, etc.), **VanderKooy** can try to retrieve the document with the help of the Gulf Coast Research Lab's Gunter Library only after other means have been exhausted.

Everyone was encouraged to make notes regarding data needs and gaps as they compile their sections. Those notes will form the basis of the data needs chapter and be one of the last sections pulled together after all else is drafted.

Biology

There are a number of new items and recent work which should be included in the biology chapter. A

number of genetics studies have been conducted but have not necessarily been summarized together. A number of small tag/recapture studies have dotted the Gulf over the years and may need to be synthesized. Age-and-growth has been determined in each state through fishery-independent and dependent sampling but may not have been consolidated. Each state representative was encouraged to start gathering their respective state's fishery independent data for abundance, reproduction and age structure of Red Drum. **Mareska** indicated that regional or state based growth equations could be generated if they have not been done recently. **VanderKooy** encourage any creative use of existing data and will rely on the TTF members to explore any data that may be available during the drafting process.

Habitat

Rester will be responsible for much of the habitat chapter and will contact the state reps for any additional information he may need regarding habitat preferences by state. In addition, **Rester** will reach out for any threats to populations that may be related to habitat issues.

Enforcement

Pearce is the Law Enforcement Committee (LEC) rep on the TTF and will handle distribution of the boilerplate material to each of the states' LEC reps. There will be some background required on the federal side related to regulations and this history of management in federal waters similar to what was done in the Cobia Profile. **VanderKooy** will work with **Pearce** on the boilerplates.

Fishery Data Review and Distribution

VanderKooy displayed some of the available fisheries data to familiarize everyone with how the document will be organized. NOAA does not provide any confidential landings so **VanderKooy** will get them but the state reps will need to review them. Trip ticket data is available but only covers recent years when there is no commercial landings. The recreational data will be summarized by state and it is up to each state rep to interpret the landings including any and all metadata (storm years, disasters, regulatory changes, etc). **VanderKooy** will also pull the recreational data by wave to see if there are any patterns that the states want to address. A tournament section will be included as well as a specialty harvest.

A large portion of the recreational landings is likely subsistence fishing by anglers without access to boats and/or charters. Red Drum is a target species along with seatrout and flounder by a number of anglers who fish for food more so than for purely recreational reasons. Because of the availability of Red Drum to shore-based anglers, more work may be required to interpret the recreational data. Additional information that may need to be included in the fisheries chapter would be anything related to incidental catch. Because a large component of the recreational fishery occurs inshore and shore based, seaturtle bycatch is probably worth noting.

VanderKooy will also try to pull together any Red Drum aquaculture material, especially for commercial enterprises. There are a number of hatcheries in the Gulf that also work on stock enhancement and they will need to be covered as well but more towards support of the recreational fishery. **VanderKooy** will ask the state reps for any aquaculture information they may have as he works through the chapter.

Socio-Economics

As noted earlier, there is a lot of information available on recreational expenditures and willingness to pay for the suite of most popular inshore species (seatrout, flounder, and Red Drum). The traditional recreational angler likely targets any of the species on a regular basis. Much can be said about the demographics of the recreational sector as well. Less well documented may be the shore-based anglers. Additionally, tournament anglers could be described as there are details on participation in high value Red Drum tournaments and rodeos.

The economics of aquaculture will need to be addressed as well. A number of hatcheries and growout facilities have come and gone and any detail on those operations would be helpful in understanding the feasibility of Red Drum aquaculture in the region.

Task Force Dropbox

VanderKooy explained that a Dropbox will be provided for use by the TTF to share literature, upload current drafts, and provide reviews of other sections when appropriate.

VanderKooy will send out template and assignments and asked that all respond to Doodle polls and each other's emails so the sender knows the email was received. He instructed everyone to attach citations to all drafts so that we do not have to search at the end for random papers and keep track of same year publications as A, B, C, etc to prevent the editors to have to re-read papers to determine which ones were intended.

Election of Chair

*A motion was made by **Adriance** to elect **Mareska** as chair. **Walthall** seconded. The motion passed unanimously.*

Next Meeting

VanderKooy suggested another meeting in approximately November but several members will not be able to attend the week of the fourth. The location will possibly be Naples, Florida. It is hoped that at least some strawman of drafts will be ready by that time. **VanderKooy** encouraged everyone to provide him with cellular phone numbers so that we can stay in contact when traveling or out of the office.

Other Business

Adriance motioned that the meeting be adjourned with a second by **Mareska**. The meeting adjourned at 10:00 a.m. on Thursday.

Attachment A: Table of Contents/Assignments

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Laws and Regulations	
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Closed Areas and Seasons	
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SOCIAL AND CULTURAL FRAMEWORK OF DOMESTIC FISHERMEN AND THEIR COMMUNITIES

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TCC SEAMAP SUBCOMMITTEE
MINUTES
Tuesday, July 23, 2019
St. Petersburg, FL

Chairman T. Switzer called the meeting to order at 8:26 a.m. The following members and others were present:

Members

John Mareska, ADCNR/MRD, Dauphin Island, AL
Jill Hendon, USM/GCRL, Ocean Springs, MS
Ted Switzer, FWC/FWRI, St. Petersburg, FL
Brett Falterman, LDWF, New Orleans, LA
Fernando Martinez, TPWD, Corpus Christi, TX
Christian Jones, NOAA Fisheries, Pascagoula, MS

Others

Eric Hoffmayer, NOAA/NMFS, Pascagoula, MS
Sean Keenan, FWC/FWRI, St. Petersburg, FL

Staff

Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS

Adoption of Agenda

E. Hoffmayer stated that he wanted to discuss habitat trawling issues after the administrative report. **J. Mareska moved to adopt the agenda. B. Falterman seconded and the motion passed.**

Approval of Minutes

J. Mareska moved to approve the SEAMAP minutes from the March 19, 2019 meeting as submitted. F. Martinez seconded and the motion passed.

Administrative Report

J. Rester stated he sent vertical line stations and alternate stations out to Texas, Louisiana and Alabama in early April. He reported that SEAMAP sent out five weekly and one end of survey real time mailings this summer to approximately 100 individuals. He stated he heard from several interested parties that were looking for the data right before the Texas Opening. One representative from the Texas Shrimp Association stated how many people were asking them about the plots as well as how useful they were. **J. Rester** reported that this was in stark contrast to twenty years ago when the Texas Shrimp Association asked SEAMAP to not produce the real time plots as they felt it caused pulse fishing. **J. Rester** stated that the Commission's Fishery Independent Sampling project began July 1. He requested nominations for the steering committee for the project. He asked the Subcommittee to send nominations for steering committee members from the fields of fisheries independent survey design/logistics, stock assessments, ecosystem based management, climate change, and advanced technologies. **J. Rester** also asked everyone to please enter data correctly and to be consistent in entering data from season to season and year to year. He

encouraged everyone to read over the operations manual before they went out sampling. **J. Rester** reported that the next SEAMAP meeting would be October 15 in Gulfport.

E. Hoffmayer stated that he would like to hold an invertebrate identification workshop in the near future.

F. Martinez stated that Texas was not able to purchase a bottom longline winch for their vessel to sample zone 21 in south Texas. The company has changed ownership and the new owner was not responsive to F. Martinez's efforts to purchase a smaller, custom winch.

J. Hendon brought up her NFWF vertical line sampling where GCRL and DMR were following SEAMAP protocols. She stated that if their vessels sample on the same day, the SEAMAP station numbers were the same. After discussion, the Subcommittee suggested renumbering one entities' stations when the data were being entered.

J. Rester stated that according to the real time data, partners had completed 310 stations during the Summer Shrimp/Groundfish Survey. He asked how many stations he should run for the Fall Survey. **E. Hoffmayer** responded that he should choose 330 stations.

J. Rester asked about how the station selection process went this summer and if NMFS and Florida were able to avoid hardbottom areas. **T. Switzer** stated that Florida did lose one net and had to recover two others. **E. Hoffmayer** stated that NMFS had torn several nets. **E. Hoffmayer** reported that there has been a push within NMFS to stop sampling the west Florida shelf due to perceived damage to coral and hardbottom areas. He stated that NMFS had run an analysis that showed that if you do not sample around hardbottom areas that you do not collect data on managed species that associate with hardbottom habitat. **E. Hoffmayer** reported that he would keep the Subcommittee informed.

E. Hoffmayer stated that NMFS would sample all fall plankton stations this year.

The Subcommittee discussed inviting speakers from the Great Red Snapper Count to the October to discuss the gears they used for sampling Red Snapper. **J. Rester** stated that he would send out a reminder to Subcommittee members to invite speakers to the October 15 meeting.

Survey Activities and Budget Needs for FY2020

The Subcommittee discussed their budget needs for FY2020. Each partner agreed upon the following amount with the understanding that the amounts could change due to the total amount of SEAMAP funding available for FY2020. **J. Rester** stated that the Subcommittee needed to watch the vessel pool funding very closely since they will not be able to carry over funds after December 2020. Vessel pool funds from Alabama will now go directly to USM since they are jointly sampling on the Tommy Munro during the trawl surveys.

	FY2020
FL	\$351,000
LA	\$414,613
USM	\$447,000

TX	\$200,200
AL	\$170,000
GSMFC	\$171,791
Vessel Pool	\$220,000
	\$1,974,604

Results of the GCRL Hooked Gear Study

J. Hendon discussed the new gear they were testing to sample reef fish. She stated that the experimental gear used a 200 pound Spectra line mainline with four 12” gangions containing either size 2, 8/0 or 11/0 hooks. The gear was baited with squid and was fished for one minute and deployed five times at each station. **J. Hendon** also discussed the video camera system that they deployed for 5-15 minutes before and after fishing at each station to document the species present verses the species caught. She showed photos and video from the sampling they had conducted and discussed some of the problems with the current camera setup. She stated that they would be changing the camera design in future sampling.

Plan for a Standardized Species Verification Process

E. Hoffmayer reported that representative samples were taking up lots of freezer space onboard the vessel. He stated that NMFS was going to only collect representative samples from each statistical zone and not samples from shallow and deep areas within each statistical zone. **C. Jones** discussed the NMFS species verification process. He stated that specimens are brought back to the lab for identification. Two people separately identify the specimen and compare that to the field identification. If the identifications do not match, then the specimen is identified again and he would also identify the specimen to come to a proper identification. **C. Jones** wanted to make sure that there was a process that each partner was using to identify various organisms.

Review of the SEAMAP Trawling Operations Manual

J. Rester stated that he had made a few changes as a result of the trawl workshop that was held earlier in the year. Since some of the changes required new procedures and equipment, he wanted to make sure that all partners were aware of the changes and okay with the changes. **T. Switzer** stated that someone within his office was willing to review and edit the operations manual.

The Subcommittee reviewed the operations manual and made suggested changes. **J. Rester** stated that he would send the operations manual to T. Switzer so that it can be reviewed for edits. **J. Rester** stated that he would like for the Subcommittee to review and approve the operations manual at the October Subcommittee meeting. **T. Switzer** stated that he was not sure if it would be edited before the October meeting.

RESTORE Gulf Fishery Independent Survey of Habitat and Ecosystem Resources Project

T. Switzer stated that a proposal to integrate all of the reef fish video work from Pascagoula, Panama City, and FWRI was selected for funding by the NOAA RESTORE Act Science Program. The project will allow Pascagoula to expand their reef fish sampling, FWRI to continue with their NFWF level of current sampling, and Panama City to expand their sampling to the west. The project has been initially funded for five years.

SEAMAP Habitat Mapping Work Group

J. Rester stated that he had received nominations from everyone for the Habitat Mapping Work Group. He stated he would like to hold an initial work group meeting before the end of the year. The work group would discuss a survey strategy for mapping and possibly have some type of hands on training with the side scan sonar and interpreting the side scan data. **J. Rester** told the Subcommittee to let him know if there were additional habitat mapping related issues that the work group needed to discuss at the meeting. **S. Keenan** stated that the work group needed to know what type of products the Subcommittee wanted whether that was to provide products to help inform existing surveys or find new areas for sampling. **S. Keenan** stated that it takes about two hours to collect data over a 2 km² area, with an additional 30 minutes to mosaic the data, two hours to read the data, and a final hour to review the data. The raw data for a standard 2 km² area is approximately 750 MB and the processed data is approximately 500 MB in size. **T. Switzer** stated that the SEAMAP side scan has been procured, but that the winch should be in shortly.

NFWF Project Review Workshop

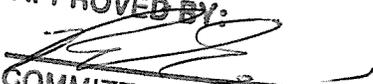
T. Switzer reported that NFWF wanted to hold a workshop this fall where all NFWF grant recipients would discuss their fisheries monitoring projects.

GOMOSES NFWF Symposium

T. Switzer stated that they submitted a proposal to GOMOSES to host a NFWF symposium at the GOMOSES meeting in February. The symposium would cover the accomplishments of the various NFWF funded fisheries monitoring projects over the past several years. Speakers would highlight the success stories associated with the monitoring projects.

Other Business

There being no further business, the meeting was adjourned at 11:52 a.m.

APPROVED BY:

COMMITTEE CHAIRMAN

**TCC CRAB SUBCOMMITTEE
MINUTES
Tuesday, October 15, 2019
Biloxi, MS**

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

Members

Ryan Gandy, FWC, St. Petersburg, FL
Traci Floyd, MDMR, Biloxi, MS (Proxy for Rick Burris)
Jason Herrmann, AMRD, Dauphin Island, AL
Harriet Perry, USM/GCRL, Ocean Springs, MS
Peyton Cagle, LDWF, Lake Charles, LA
Jerry Mambretti, TPWD, Dickinson, TX (Proxy for TPWD)

Others

Claire Crowley, FWC, St. Petersburg, FL
Jeremy Timbs, MDMR, Biloxi, MS
Zach Darnell, USM/GCRL, Ocean Springs, MS
Luis Hurtado Clavijo, TAMU, College Station, TX
Robert Leaf, USM/GCRL, Ocean Springs, MS
L. Lee, NC Division of Marine Fisheries, Morehead City, NC
Julie Lively, LA SEAGRANT, Baton Rouge, LA
Laura Picariello, TX SEAGRANT, Corpus Christi, TX
Laura Deighan, Audubon Gulf, New Orleans, LA
John Fallon, Audubon Nature Institute, New Orleans, LA
Chris Swanson, FL FWC, St. Petersburg, FL
Ryan Bradley, MS Commercial Fisheries United, Biloxi, MS
Scott Bannon, GSMFC Commissioner, Dauphin Island, AL
Chris Blankenship, GSMFC Commissioner, Montgomery, AL

Staff

Dave Donaldson, GSMFC Executive Director, Ocean Springs, MS
Steve VanderKooy, GSMFC Program Coordinator, Ocean Springs, MS
Debbie McIntyre, GSMFC Staff Assistant, Ocean Springs, MS

Introductions

Gandy led the audience and the committee members in introductions and **VanderKooy** addressed housekeeping issues. **Mambretti** pointed out that **Sutton** is no longer with the TPWD and **Mambretti** will be his proxy at this meeting. A replacement Blue Crab representative for Texas will be announced before the March meeting.

Adoption of Agenda

Cagle moved to adopt the agenda. Floyd seconded the motion, and the agenda was adopted.

Approval of Minutes

The Subcommittee reviewed their minutes from the meeting held on March 19th in New Orleans. *Cagle moved to accept the minutes as written, Herrmann seconded, and the minutes were approved unanimously.*

Public Comment

Gandy offered the audience a chance to provide any comments related to the agenda topics. There were no comments.

Results from Blue Crab Population Modeling Exercise

Leaf updated the committee members on the meeting that was held yesterday. All changes requested by the group have been incorporated. Some documentation is still needed for the tabs at the top of the app. **VanderKooy** showed an example of the Traffic Light Analysis. The time series has been updated as well. The data query is such that you may now add any categories with no restrictions. **Leaf** showed the traffic light result. These have equal weighting which must be changed in the CSV file. The whole thing can be screen shot to a picture for use when reporting. **Leaf** will condense the summary figures for viewing.

Overall Utility of Traffic Light Model

Gandy and **Leaf** went on to explain more detail for the benefit of those who did not attend the Workshop yesterday. **Leaf** pointed out that there are recruitment indices included in this model. The model was demonstrated using the CSV file with the index data. **Leaf** will work with **Mambretti** to update him on this app. **Gandy** explained that some of this came out of the GDAR and assessment to help prevent doing a full assessment every year.

Gandy stated that with this on a web app, it could go away or be changed in a few years so the whole process should be integrated into each state's system so that they can make the changes themselves. **Cagle** pointed out that the transparency in LA has to be same as this app. With MSC certification, they are doing two audits per year. The indices provided are mapped one to one per **Leaf**. Each state can erase columns and add columns as needed as long as they follow the format. The output of both final reports from August meeting and yesterday's meeting will be provided to the group by **Leaf**, along with some documentation of the process to explain to those who did not attend the modeling meeting. Consensus of the group was that it is not necessary to have a section explaining the Z score. The states must provide their own data to meet their own needs.

Gandy stated that this is useful the way it is and can be tailored to each group, but it is not intended to be used as a public site. This tool is for managers to use and pull from to provide information to the legislature and/or the public. Each state is creating its own indices and weighting them in the CSV. The more categories that are included, the more explanatory the traffic light is. Adding additional indices and updating the CSV falls to each state representative.

Proposal/Presentation for TCC

The group decided that they would report this tool to the TCC and move forward in the subcommittee, using the app as another method of reporting in their state reports. This would be in lieu of a formal benchmark assessment unless necessary.

Update on Gulf-Wide Blue Crab Tagging Program

Darnell (GCRL) updated the group on his Gulf Wide Tagging project. His team is partly through the analyses of the final numbers. Their goal has been to look at how Blue Crabs are moving within estuaries associated with spawning migration. All analyses are being broken down by bay systems. His team is done tagging for this study but they will start a new study next year at Horn Island. They will be looking for sponge crabs to see how long they stay around the islands and looking at the benefits provided by the seashore. **Darnell** will have a full report of the analyses for the 2020 March meeting.

Population Genetic Differentiation and Diversity of the Blue Crab in the Gulf of Mexico Inferred with Microsatellites and SNPs

Hurtado updated the group on the challenges and subsequent progress that was made with the genetics work on Blue Crabs throughout their Gulf and South Atlantic range. Using more selective markers, he was able to determine there is genetic structure to the population.

State Report Highlights

The state representatives touched upon highlights of their state reports including derelict crab trap removals. The representatives had provided written reports and hit high points in those reports.

Herrmann reported that Alabama received a grant from NOAA under the Community Based-Marine Debris Removal program to conduct three volunteer aided blue crab derelict crab trap removal events through Spring 2019. In March, a total of 64 derelict crab pots were removed by AMRD staff with the help of 19 volunteers and four vessels. Participants included folks from CCA, Thompson Engineering, ADPH, the Nature Conservancy, USFWS, the Mobile Bay National Estuary Programs, and a few non-associated volunteers. CCA staff provided food and beverages for all volunteers. AMRD continues to support the GCRL with blue crab tagging efforts in Alabama.

Mambretti stated that Texas had a successful derelict trap pickup earlier this year and will do it again in February 2020 during which time the fishery will be closed for 10 days. The Texas Blue Crab Work Group met to review the progress of proposed fishery regulations to rebuild the blue crab stocks in response to the long-term declining fishery-independent monitoring trends and a recent stock assessment. Division managers are considering several proposals to reduce fishing mortality especially on females in order to boost productivity and biomass levels. These include 1) increase the minimum size to 5.5 inches, and introduce a 2.5 inch escape ring, 2) no-take of females from May 15th through June 15th, or 3) reduce trap limit from 200 to 150. These proposals are currently on hold.

While there was no organized derelict crab trap removal in Mississippi in 2018, **Floyd** reported that staff continues to monitor derelict traps and 90 have been removed in the past year. Side-view imaging sonar equipment is being utilized in locating and retrieving submerged unmarked derelict crab traps. To date, MDMR has retrieved 78 submerged derelict crab traps in Mississippi territorial waters. A total of 650 resident recreational crab trap licenses and 89 non-resident recreational crab trap licenses were sold within the last year.

To reduce disruptions to commercial blue crab activities, the annual Florida closures for blue crab trap retrieval changed in 2011 to an “even/odd year” closure by coast (odd years Gulf and even years Atlantic). In 2018, 681 total blue crab traps were removed. Crab landings in past five or six years have come to a more level state. Also, in Florida, **Gandy** reported that stone crab and lobster have gone to the red list in Seafood Watch.

Cagle reported that two volunteer days took place during the 2019 derelict crab trap closures. The first event was held on February 2, 2019, in the Barataria Basin, and the second event was held on February 16, 2019, in the Terrebonne Basin. These events host multiple volunteer organizations and members of the public. Lunch was provided by LA 23 BBQ for the Barataria event and by Coastal Conservation Association for the Terrebonne event. An updated stock assessment was completed in April 2019 for blue crab in Louisiana waters. Results from this assessment indicated that the blue crab stock is not overfished or experiencing overfishing. Model inputs were updated through 2018 for this assessment. No changes were made to the assessment model itself.

Election of Officers

***Floyd** nominated **Gandy** for Chairman. **Perry** seconded the motion and it carried unanimously.*

Other Business

VanderKooy brought up the subject of terrapins and the issues with Seafood Watch. The Commission’s position is that we will not review any Seafood Watch materials in the future. At the March meeting 2020, perhaps we should invite some terrapin folks for contribution between groups. We do not want to lose the momentum of sharing with them. **Floyd** will share any information she gets from NFWF.

Ryan Bradley (MS Commercial Fisheries United) informed the group about a new derelict crab trap removal incentive program working with shrimpers, encouraging shrimpers to bring derelict traps in rather than drop them. The reward was increased from \$5 to \$10 and a total of 1000 crab traps were collected since January. Shrimpers have to be registered for the program. There is a place to drop them off and the shrimper’s tag can be turned in for credit. Often the traps can even be returned to original owners. Eventually they dropped payment from \$10 back down to \$5.

There being no further business, the meeting was adjourned at 11:15 a.m.

APPROVED BY:

COMMITTEE CHAIRMAN

TCC DATA MANAGEMENT SUBCOMMITTEE
MINUTES
Tuesday, October 15, 2019
Biloxi, MS

Vice-chairman Steve Brown called the meeting to order at 8:35 a.m. The following members and others were present:

Members

Nicole Beckham, AMRD, Gulf Shores, AL
✓ Chris Denson, AMRD, Gulf Shores, AL
Steve Brown, FLFWC, Cedar Key, FL
Beverly Sauls, FLFWC, Saint Petersburg, FL
Justin Esslinger (via webinar), TPWD, Rockport, TX
Cindy Bohannon, TPWD, Dickinson, TX
Vince Cefalu, LDWF, Baton Rouge, LA
Michaela Mayers (proxy for Mike Harden), LDWF, Baton Rouge, LA
Darrin Stewart, MDMR, Biloxi, MS
Carly Somerset, MDMR, Biloxi, MS
Dave Gloeckner, NOAA SEFSC, Miami, FL
Julie Defilippi Simpson (via webinar), ACCSP, Arlington, VA

Staff

David Donaldson, GSMFC - Executive Director, Ocean Springs, MS
Gregg Bray, GSMFC - FIN Program Manager, Ocean Springs, MS
Donna Bellais, GSMFC - ComFIN Programmer, Ocean Springs, MS
Joe Ferrer, GSMFC - Systems Administrator, Ocean Springs, MS
Doug Snyder, GSMFC - RecFIN Programmer, Ocean Springs, MS

Others

Darin Topping, TPWD, Rockport, TX
Dominique Lazarre, FLFWC, Saint Petersburg, FL
Paul Anninos, Abt Associates, Washington, D.C.
Chris Blankenship, ALDCNR, Montgomery, AL
Andrew Petersen, Bluefin Data, Prairieville, LA
Eric Gigli, MDMR, Biloxi, MS
Ashford Rosenberg, Gulf of Mexico Reef Fish Shareholders Alliance, New Orleans, LA
Jackie Wilson, NOAA Fisheries HMS, Atlanta, GA
Catherine Krikstan, NOAA Fisheries MRIP, Silver Spring, MD
Marie Head, ALDCNR, Gulf Shores, AL

Adoption of Agenda

C. Denson made a motion to adopt the agenda as written. Seconded by N. Shaffer.

Approval of Minutes

The minutes of the Data Management Subcommittee (DMS) meeting held on October 16, 2018 in South Padre Island, TX were approved as written.

Update on Data Accessibility for Identifying Unique Commercial Vessels

G. Bray discussed that NOAA Fisheries has asked GulfFIN to revisit developing a commercial vessel database that would allow for identifying unique commercial vessels operating in the Gulf of Mexico. **S. Brown** stated Florida could provide most of the minimum data elements as they are already providing these to NOAA Fisheries and ACCSP. **D. Gloeckner** asked how Florida would match USCG data with state registration data. **Brown** stated there is currently no plan to address that. **N. Shaffer** stated the majority of their vessel data comes from a different state agency and there are limitations on what is collected and the frequency they could deliver it. **C. Denson** stated Alabama does not distinguish between recreational and commercial fishing vessels, therefore all vessels with a motor would be listed in the data. **Denson** also mentioned Alabama would need approval from Alabama Law Enforcement Agency to access and deliver vessel data to GulfFIN. **D. Stewart** stated another agency, MDWFP, in Mississippi collects state vessel registration data and it is extremely difficult to acquire access to the data. **V. Cefalu** stated Louisiana can provide most of the minimum data elements and that LDWF is working with their licensing agency to get the data from Louisiana Department of Motor Vehicles. LDWF is working through concerns with their IT Department and leadership on the transmittal and transmittal procedure of the data to GulfFIN. **D. Topping** stated Texas can provide much of the information requested with some similar issues as other states; their data comes from multiple offices and it can be filled with mistakes. **M. Travis** asked if USCG registered vessels are also required to register with each state. **Brown** stated he will have to follow up with FL DMV for an accurate answer. **C. Blankenship** stated in Alabama only recreational vessels that are USCG registered must also register with the state. **Cefalu** stated Louisiana does not require both a state and USCG registration for vessels. **C. Bohannon** specified the state of Texas does require vessels to be state registered regardless if they are USCG registered. There are older vessels that are grandfathered in and are not required to comply with the newer regulation. **Stewart** stated Mississippi does not require state registrations for USCG registered vessels. **Topping** asked about the timing and frequency of data delivery. **Gloeckner** stated they are generally analyzing final yearly data so if permit and vessel information is available or updated every 6 months, that would be adequate to complete their analyses. **Topping** asked what are the main analyses NOAA Fisheries hopes to accomplish and could the results of their analyses be shared with the state partners that are providing these data. **Travis** stated determining the number of active vessels in the Gulf during a specific time period is largely most important and the results from their analyses eventually become public documents that could be shared. **Travis** mentioned they were just made aware that the NOAA HQ USCG vessel table was still unavailable to GulfFIN. **D. Bellais** stated that GulfFIN is awaiting a response from NOAA HQ staff on the draft data sharing agreement between GulfFIN and NOAA Fisheries. **Travis** stated **M. Lewis** will be contacting GulfFIN to get this resolved. **After considerable discussion it was determined that the GulfFIN Commercial Technical Workgroup would proceed to determine if all states can share their available vessel data with GulfFIN.** Once determined, states that are capable can start providing data to GulfFIN and the group can work to determine what issues there are with matching state vessel data with USCG data. Several states expressed the importance of a collaborative process so that federal and state agents that are working on quality control issues with trip ticket data are not changing data or overburdening dealers without first consulting each other.

Progress on Shrimp Conversion Factor Research

Each state provided an update on their research regarding the accuracy of shrimp commercial conversion factors. **Brown** stated it took Florida some time to setup a shrimp acquisition process and they are currently collecting samples. They expect catches to continue into the winter and it is possible sampling will continue into early 2020. **Bray** mentioned GSMFC will request for a no cost extension to cover any work that will roll into the beginning of 2020. **Shaffer** stated Alabama is purchasing samples and were slightly limited by finding dealers that sell with credit card transactions. **C. Somerset** stated Mississippi's shrimp and crab bureau is working the majority of the project. Most of their samples are currently white shrimp due to the lack of brown shrimp caused by the freshwater impacts in 2019. **Cefalu** stated Louisiana sample collections are complete and they have worked up 1,028 shrimp at this point. The ratio of white to brown shrimp is about 60/40% due to the short brown shrimp season. Results should be available in the near future. **Topping** stated Texas is targeting 1000 of each specie's and have collected 900 brown and 600 white at this point. All of Texas shrimp come in to the dealers frozen and they have to defrost them to process. Texas has started analysis and is actually finding differences in these study conversion factors with the historical factors. The goal is to receive another update on the progress of this research at the March 2020 GulfFIN meeting. If needed, the GulfFIN Commercial Technical Workgroup will be convened to coordinate the analysis methods and presentation across state partners.

Update on Status of GulfFIN Data Management System Confidential Query Page

Bellais stated the public query tool for the GulfFIN Data Management System has been active on Gulf States Marine Fisheries Commission's (GSMFC) website since April 2018. This tool provides public access to non-confidential commercial data and recreational catch and effort data with biological sampling data to be added in the near future. The confidential part of the query tool is in operation but currently only the state agency staff have confidential access. **Brown** stated producing a summary on the number of trips might be useful summary data. **J. Simpson** stated the tool could provide the number of trips via the user creating a custom report using a count of the report id and saving the report to their computer. No other technical issues were reported with the confidential query page.

Feedback on NOAA Fisheries Report on Facilitating Greater Incorporation of Fisheries Data

Bray stated GSMFC received a draft report from NOAA Fisheries requesting comment that was required by section 201 of the Modernizing Recreational Fisheries Management Act of 2018. The report focuses on improving use of state and nongovernmental agency data in stock assessments. **B. Sauls** stated the report did a good job of outlining what NOAA Fisheries is currently doing. The report could focus more effort on what NOAA Fisheries could improve in utilizing additional data sources. State data are being used for ACL management in the red snapper fishery but there are barriers to utilizing these data in the stock assessment process. Many of the Gulf states have experience with the MRIP certification process and how it has been confusing at times. NOAA Fisheries could likely streamline the certification and calibration process to make data usable sooner. **Somerset** agreed with Florida's comments. She stated that more explanation of the importance and impact of effort data. She also stated that producing abundance estimates is highly unlikely and should be pointed out in the report. **Bray** asked the group to provide written

comments by December 1, 2019 and GSMFC staff will compile the comments into a response letter for NOAA Fisheries.

Implementing Representative Biological Sampling in Florida

Sauls stated in the past, Florida's biological sampling program has been largely opportunistic sampling, targeting priority species largely because of inconsistent funding support. With more dedicated funding, Florida decided to look at a more structured biological sampling program that sampled the entire fishery in a more representative manner. **D. Lazarre** provided a summary of existing sampling methods. The drawbacks to opportunistic sampling are it allowed for subjective site selection, favoring high productivity sites which often times were charter fishing sites. Randomly selecting sites under a better scientific design will help ensure data can be utilized in the stock assessment process. Florida breaks their state into eight smaller geographic regions. Florida is now collecting samples from private boat and shore anglers along with for-hire anglers. Florida weighted sites based on average fishing effort at active MRIP sites and targeted a 50/50 split between weekday and weekend assignments. They randomly assigned sampling times during the peak daytime fishing hours for private or shore modes and for-hire modes. Anglers are screened to determine if they were recreationally fishing in saltwater for finfish. Trip data collected includes interview time, mode of fishing, number of anglers, geographic zone where fishing occurred, depth, distance from shore, hours fished and gear types. Catch data collected are species, gear, length, weight, age structures, sex determination and gonad condition. They collect discard data from a subset of trips and collect data on species, number released alive and number released dead. All data sheets are scanned and data entered by FWRI staff. Extensive data validations are processed after data are entered into electronic format. Looking at preliminary sampling results, they are seeing higher numbers of fish and age structures collected in the panhandle region. They have observed that interviews no longer heavily favor charter mode samples. Florida also is observing some popular inshore species being sampled under their new methods. Overall, Florida has seen better geographic distribution of sampling and less bias of interviews toward a single fishing mode. They are also obtaining more detailed data on gear, depth and discards. Remaining challenges include low pressure at a large number of sites allowing for early termination of the sampling day. They are observing a delay between data collection and data entry. Samplers are dealing with long sampling days in the summer for charter mode assignments. **Bray** stated he hopes that further discussions will encourage other states to transition away from opportunistic sampling toward a more representative sampling program like Florida has implemented.

Status of Biological Sampling Analysis and Activities

Bray stated that funding for sampling is secured through August 31, 2021 and states have been delivering both sample and age data to GulfFIN. GulfFIN has just completed a contract with ArTech to develop new data entry and acquisition tools for the states that employs a higher level of quality control than in past years. States are utilizing the new tools and we have received positive feedback. The goal is to be able to provide clean data faster in response to stock assessment data requests. All states are caught up or nearly caught up with data deliveries for 2019. He also reminded the group of upcoming stock assessment data requests. Greater amberjack are being assessed in 2020 and age and length data have been requested by February 28th, 2020. Gag are also being assessed in 2020 and age and length data have been requested by August 7th, 2020.

Election of Officers

B. Sauls moved to elect **S. Brown** as Chair. **C. Denson** seconded. **J. Esslinger** moved **D. Stewart** to be Vice-Chair, **V. Cefalu** seconded. The nominations were closed and both were elected without opposition.

Other Business

G. Bray stated GulfFIN was awarded a NOAA Fisheries FIS proposal to transition to tablet based data collection for the MRIP APAIS in 2020. GulfFIN will start working with ACCSP on installing the backend database and functionality associated with that in late 2019. When money arrives in 2020 GulfFIN will purchase tablets and enter into an independent contract with the application developer to modify the application to meet the Gulf of Mexico requirements. The goal is a phased implementation that will start October 1, 2020 with a goal of being fully implemented by January 1, 2021.

Review of 2018 Commercial Data

Each state provided feedback based on a review of the spreadsheets **D. Bellais** sent out prior to the meeting. The States mentioned that the GulfFIN DMS numbers were close to their state totals and the slight differences likely indicated they collected some additional data or made updates to the data that has yet to be delivered to GSMFC. State representatives also mentioned there were a few coding errors on their part. All necessary corrections to the 2018 data will be made at the state level and submitted to GSMFC for loading into the GulfFIN DMS. The states requested the spreadsheets be sent quarterly to correct the majority of errors before the yearly review of data.

There being no further business, a motion was made to adjourn and the meeting was adjourned at 2:13pm.

APPROVED BY:

JS.
COMMITTEE CHAIRMAN

TCC SEAMAP SUBCOMMITTEE

MINUTES

Tuesday, October 15, 2019

Biloxi, MS

Chairman T. Switzer called the meeting to order at 8:30 a.m. The following members and others were present:

Members

John Mareska, ADCNR/MRD, Gulf Shores, AL
Jill Hendon, USM/GCRL, Ocean Springs, MS
Ted Switzer, FWC/FWRI, St. Petersburg, FL
Brett Falterman, LDWF, New Orleans, LA
Fernando Martinez, TPWD, Corpus Christi, TX
Christian Jones, NOAA Fisheries, Pascagoula, MS

Others

Eric Hoffmayer, NOAA/NMFS, Pascagoula, MS
Darin Topping, TPWD, Rockport, TX
Paul Grammer, USM/GCRL, Ocean Springs, MS
Marcus Drymon, MSU/MASGC, Biloxi, MS
Emily Satterfield, MDMR, Biloxi, MS
Megan Fleming, MDMR, Biloxi, MS
Travis Williams, MDMR, Biloxi, MS
Julian Lartigue, NOAA/NCEI, Stennis Space Center, MS
Paul Anninos, ABT Associates, Bethesda, MD

Staff

Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS
Dave Donaldson, *Executive Director*, GSMFC, Ocean Springs, MS
James Ballard, *Sport Fish Restoration/ANS Coordinator*, GSMFC, Ocean Springs, MS
Ashley Lott, *Staff Assistant*, GSMFC, Ocean Springs, MS

Adoption of Agenda

J. Hendon added an update on the vertical line experimental work they have been doing. **J. Rester** added a discussion on a request from Robert Wells at Texas A&M to participate in Vertical Line sampling. **J. Hendon** moved to adopt the agenda. **J. Mareska** seconded and the motion passed.

Approval of Minutes

J. Mareska moved to approve the SEAMAP minutes from the July 23, 2019 meeting as submitted. **J. Hendon** seconded and the motion passed.

Administrative Report

J. Rester stated that since the last meeting, NMFS had completed 140 stations in the Fall Plankton Survey. This survey ran from August 21, 2019 – September 25, 2019. The survey ran smoothly,

but **J. Rester** noted that the states were not involved in the survey this year. The TCC SEAMAP Report has been completed and distributed. The Fall Shrimp/Groundfish survey has started. Louisiana and Mississippi were not able to sample a few stations due to weather, but communicated this with NMFS so NMFS was able to pick up those stations. **J. Rester** asked that all Subcommittee members please turn in data and cruise reports in a timely manner.

J. Rester asked the Subcommittee members for updates as to how the Bottom Longline and Vertical Line Surveys were going. **J. Mareska** reported that Alabama has completed the Bottom Longline and is almost complete with the Vertical Line. **E. Hoffmayer** asked if there were any effects from the opening of the Bonnet Carre' Spillway. **J. Mareska** stated that they actually had catches this year for the Bottom Longline. **J. Hendon** also stated that Mississippi did not see massive side effects either to the Bottom Longline due to the Bonnet Carre' Spillway. **J. Hendon** reported that Mississippi has completed both Bottom Longline and Vertical Line Surveys. **B. Falterman** stated that Louisiana has completed the Bottom Longline but is struggling to complete the Vertical Line due to weather. Louisiana is about 50% complete with the Vertical Line survey. **F. Martinez** reported that Texas has completed the Bottom Longline and they are 90% complete for the Vertical Line Survey.

Great Red Snapper Count Presentation

M. Drymon gave a presentation on the Great Red Snapper Count. The overall goal was to estimate population size. This was done by taking direct counts or depletion estimates. ROVs and towed cameras were used. He stated that the researchers used various depletion methods to try and get estimates of relative abundance of red snapper. **M. Drymon** noted that this method works for red snapper, but does not work for other species. He hopes this experiment will be refined moving forward. **M. Drymon** stated that these techniques will be useful for future assessments on other fish in the Gulf of Mexico. He reported that the project will end in March 2020.

Invertebrate Identification Workshop

E. Hoffmayer stated that a Trawl Workshop was held in March of this year. It was very productive and helped to standardize many things. Through this workshop, it became clear that all the states besides Florida, need help in identifying invertebrates. He would like to hold an invertebrate workshop in the Spring of 2020. **T. Switzer** recommended that Harriet Perry along with staff from the Southeast Regional Taxonomic Center and Florida coordinate and run the workshop. **E. Hoffmayer** will send out a save the date notice to the Subcommittee for sometime in late March – April 2020.

Review of the SEAMAP 2021-2025 Management Plan

J. Rester stated that Sarah Murray from the South Atlantic was asking for any changes to the layout of the Management Plan by the end of October. **T. Switzer** noted that it would be beneficial to see language stating that the Gulf has standardized surveys and a Gulf plan for evaluating these surveys. **J. Rester** will convey this information to Sarah and will get out a new Management Plan outline for the Subcommittee to review. **J. Rester** asked that the Subcommittee participate in the drafting of the new Management Plan. Please review the plan and make comments when asked. July 2020 is when the Gulf and South Atlantic Subcommittees will meet to finalize the SEAMAP 2021-2025 Management Plan.

SEAMAP Habitat Mapping Work Group Meeting

J. Rester stated that the Habitat Mapping Work Group meeting was scheduled for November 6, 2019. **J. Rester** wanted the Subcommittee members to be aware of what issues/topics will be discussed at this meeting so that they can convey to their representatives on the work group their state's thoughts and positions on these issues and topics. A side scan will be at the meeting for participants to see and learn how to set up the equipment. A presentation will be given on how to digitize the raw data. Data storage and data issues will also be discussed at the meeting. **F. Martinez** and **B. Falterman** expressed concern over funding, vessel time, and balancing habitat mapping with the other surveys. To address these concerns, **T. Switzer** stated that maybe the Subcommittee can do surveys every other year, so during one year SEAMAP would conduct the Vertical Line Survey and the next year do mapping. **T. Switzer** stated that SEAMAP needed to develop a standardized protocol for mapping across the Gulf. The Work Group could discuss whether that should be a targeted or randomized approach to mapping. **T. Switzer** stated that the objective in his mind would be to develop a better understanding of the bottom type where SEAMAP currently samples during all SEAMAP surveys.

Trawling on the West Florida Shelf

E. Hoffmayer stated that they are still dealing with concerns over trawling in the eastern Gulf due to interaction with coral and sponge. They have taken mitigation measures to avoid coral and sponge. A report was published showing that trawling impacts on coral and sponge are minimal. **E. Hoffmayer** stated that he hopes his people can train with T. Switzer and Florida to get a better understanding of what areas to trawl and not trawl to avoid coral and sponge. For the foreseeable future, they will continue to trawl and try to avoid coral and sponge areas to the best of their ability.

NFWF Program Evaluation Meeting

T. Switzer reported that a workshop will be held in St. Petersburg, Florida, December 12-13, 2019 for NFWF recipients to give presentations on their projects. **T. Switzer** stated that he was not sure of the outcome of this workshop, but hoped that more funding from NFWF would be available in the future for fishery independent sampling.

Election of Chair and Vice Chair

J. Hendon moved to nominate **T. Switzer** as Chair. **B. Falterman** seconded and the motion passed. **F. Martinez** moved to nominate **J. Hendon** as Vice-Chair. **J. Mareska** seconded and the motion passed.

Other Business

P. Grammer and **J. Hendon** gave an update on the vertical line work they have been doing. They have sampled 23 stations. The catch was dominated by red porgie, red snapper and vermillion snapper. **J. Hendon** stated that with the lighter gear and smaller hook size, they are not catching an abundance of species. **J. Hendon** asked if the Subcommittee wanted GCRL to continue with this project. The Subcommittee agreed to continue. **J. Hendon** stated that they would try to sample more deeper water stations.

J. Rester noted that Robert Wells from Texas A&M-Galveston has been offering his services to the Subcommittee. The Subcommittee felt that this was a Texas Parks and Wildlife decision on whether to contract to use the Texas A&M-Galveston vessels or whether to use their own vessels.

F. Martinez stated that due to cost, it was not feasible to do what Robert was proposing. **J. Rester** stated that he would respond back and let Robert know.

There being no further business, the meeting was adjourned at 12:17 p.m.

GMFMC Law Enforcement Technical Committee/GSMFC Law Enforcement Committee

Joint Meeting Summary

Biloxi, Mississippi

October 16, 2019

APPROVED BY:

 3/11/2020
COMMITTEE CHAIRMAN

Members

Patrick Carron, MDMR, Chair

Jason Downey, ADMR, Vice-chair

Jarret Barker, TPWD

Cynthia Fenyk, NOAA GCES (via Webinar)

Edward Skena, LDWF

Scott Pearce, FWC

Mark Zanowicz, USCG

Charles Tyer, NOAA OLE

William Gibson, USCG

Joseph Irwin, USCG

Thomas Johnson, USCG

Alexandra LaRiviere, USCG

Herb Murphy

Andrew Petersen, Bluefin Data

Laura Picariello, Texas Sea Grant

Ashford Rosenberg, GOM Reef Fish

Shareholders' Alliance

Others

Tracy Dunn, NOAA OLE

Dale Diaz, GMFMC

Ed Swindell, GMFMC

Charlie Bergmann, NOAA

Thomas Duffy, USCG

Staff

Ava Lasseter

Dave Donaldson

Steve VanderKooy

Debbie McIntyre

The meeting was called to order at 8:30 a.m. by Chairman, **Carron**. The agenda was adopted unanimously. The summary of the March 20, 2019, LETC/LEC meeting held in New Orleans, Louisiana, was approved as written. Introductions were made and **Carron** welcomed everyone.

GMFMC LETC Session

IUU Fishing – Coordinating Responses to Federal Determination Regarding Mexico's Certification

The 2019 Report to Congress provided a negative identification for Mexico's lanchas fishing illegally in U.S. waters of the Gulf of Mexico, and a positive certification determination for Mexico's 2017 negative identification. **Zanowicz** stated that the USCG has not seen a decline in illegal fishing activity; rather, they are seeing the same individuals repeatedly engaged in illegal fishing. The USCG has been exploring possible responses to increase prosecutions, but the proposed program is delayed while under legal review. **Barker** concurred for TPWD, adding that his agency is interested in communicating with NOAA regarding TPWD observations of how illegal fishing activity changes throughout the year, with certain times of year much more active than others. This information could be used for increased Mexican enforcement efforts at the U.S.-Mexico maritime border. LETC members said they are not aware of on-the-water enforcement by Mexico. LETC members enquired whether the Council would be able to provide a letter of support to the appropriate federal agency regarding illegal fishing activity in the Gulf of Mexico. The LETC then passed the following motion:

To request that the Council write a letter to the NOAA Office of International Affairs and/or the Assistant Administrator for NOAA Fisheries to open communication and request an annual report regarding the specific impacts and measures taken by Mexico to address the Mexican IUU fishing issue. It would be important to note in the report the estimated take of red snapper by the illegal fleet and the economic impact that it poses against recreational and commercial fishermen in the U.S.

Possession Limits on For-Hire Trips Over 24 Hours

Lasseter explained the Council action that considers changing the possession limits on federally permitted for-hire trips longer than 24 hours. Currently, passengers on these for-hire trips may not retain the second bag limit until the initial 24 hours of a trip have passed. The Council's preferred options would extend the minimum length of a trip from 24 to 30 hours and allow passengers on these trips to retain a second bag limit of allowable species anytime during the trip (i.e., within the first 24 hours of the trip).

Pearce noted that the federal regulations define possession limits based on a calendar day. LETC members expressed safety concerns with allowing passengers to retain a second bag limit within the first calendar day of a trip, as unforeseen events (e.g., inclement weather or mechanical issues) could require the vessel to return to the dock before the scheduled return time. Passengers in possession of a second bag limit would thus be in violation. Further, members expressed concern about enforcing the trip lengths if some vessels do not remain at sea for the duration of the scheduled trip. Members felt that extending the minimum trip length would not provide enforcement or safety benefits, and they preferred that the calendar day be used to determine when bag limit may be retained. A calendar day is easier to explain and is consistent with enforcing bag and possession limits.

Council representative Diaz noted that the new mandatory for-hire reporting is close to implementation. The program would require all for-hire vessels to hail-out and hail-in, which would provide law enforcement with a documented time of trip departure. The LETC then passed the following motion:

The LETC is comfortable with anglers possessing two bag limits within 24 hours, but the fish would need to be retained on separate calendar days. This goes back to the concept that bag limits are based on the calendar day. The LETC recommends that the Council clarify when the second bag limit may be retained. The LETC recommends that the Council remove the minimum number of hours requirement and not allow retention of the second bag limit until the second calendar day.

Recreational Greater Amberjack – Fractional Bag Limits

LETC members discussed the Council's proposed action to further reduce the 1 fish per person per day bag limit for greater amberjack. Members asked who would be cited in the event that more fish are possessed than allowed for the number of fishermen aboard. **Fenyk** noted that the vessel operator is generally cited. Other LETC members discussed that on private recreational vessels, it may be harder to determine who to cite, although everyone on board would be considered in possession and thus, could be cited if necessary. LETC members asked if a vessel limit, rather than a fractional bag limit, could be a better way to reduce the bag limit, suggesting that a vessel limit would be simpler to

enforce. Ultimately, LETC members felt that fractional bag limits are not ideal, but are enforceable. Members noted that on headboats, it may take more time for counting the number of fish and anglers. The LETC then passed the following motion:

The LETC feels that it is possible, but confusing, to enforce fractional bag limits. The LETC recommends Alternative 1, and that fractional bag limits not be adopted unless the Council feels the fractional bag limit would substantially increase angler opportunity.

Commercial IFQ Program Modification – Estimated Weights in Advance Landing Notifications.

Lasseter reviewed the revised alternatives and noted that the Council is not scheduled to revisit this action until January 2020. LETC members noted that the new alternatives would not penalize the activity they are concerned about, providing an example of a vessel hailing in 9,000 lbs then landing 10,000 lbs. The LETC preferred that an accuracy requirement not be adopted if it would allow greater inaccuracy than the previous alternatives, adding that they will work to gather necessary evidence and may raise the issue at a later time. **Tyer** stated this is a non-issue for NOAA OLE. The LETC then passed the following motion:

The LETC recommends that the Council select Alternative 1 for Action 3: estimated weights in advanced landing notifications.

SEFHIER – Onboard Electronic Monitoring and Reporting (EM/ER) Systems in the Gulf Region For-Hire (Charter and Guide) Vessels

Lasseter provided an update on the timeline for implementing for-hire electronic reporting. The requirement to hail-out and submit electronic fishing reports before offloading are scheduled to begin in the first quarter of 2020. The requirement for location tracking is scheduled to begin in the second half of 2020. For law enforcement, the implementation of for-hire electronic reporting is expected to share some similarities with the IFQ programs in terms of officers receiving email notifications for for-hire vessel landings, which must be at approved landing locations.

Maximum Crew Size on Dual-Permitted (Commercial and For-Hire) Vessels in Federal Waters

Dual-permitted vessels (i.e., vessels with both a commercial and for-hire permit) are restricted to a maximum crew size of four when fishing commercially. The reason for maintaining a maximum crew size on dual-permitted vessels has been for enforcement purposes. Although the Council is not currently developing an action to modify the maximum crew size, the Council has heard public testimony asking for the maximum crew size to be removed as these vessels are required to hail-out and declare whether they are taking a commercial or for-hire trip. LETC members said they would share this issue with their respective agencies to discuss the issue and may have a recommendation if the Council takes action in the future.

EFPs/State Management – Enforcement of Red Snapper Seasons

Zanowicz stated that the different state seasons under the EFPs and the potential for different bag and size limits as well under state management are creating confusion for Coast Guard enforcement.

Zanowicz requested that the states provide their red snapper regulations, including season re-openings, in a shared location, or to provide them to NOAA for publication in a Fishery Bulletin. Other LETC members noted the Council's "Fish Rules" app provides the respective regulations for state and federal waters in real time while on the water. It was also suggested that the states copy the USCG on public notifications of regulatory changes. **Zanowicz** will continue to explore the best way to compile the red snapper regulations from all the states.

Officer/Team of the Year Award Update

At its last meeting, the LETC recommended that the award be expanded to allow nominations of either an officer or team of the year. The Council accepted all LETC recommendations for the award and revisions to the nomination form. Nominations will be due by February 1, 2020.

GSMFC LEC Items

Future of JEAs and JEA Funding Discussion

Carron opened the floor to discussion and issues regarding JEAs as well as JEA funding. There do not appear to be any concerns or issues related to the current JEA funding. It was thought that the funding would likely continue at least at the current level next year. **Tyer** had no knowledge of current and future appropriations but would reach out the LETC and LEC members if anything changed.

Status of State Water FADs

Carron stated that, while MDMR has not encountered direct violations, the use of FADs has become more prevalent in Mississippi. **Downey** stated that ADMR has noticed a decrease in FADs due to social media posts earlier this year which seemed to educate many who did not know that the practice was illegal. The group agreed to keep this issue on their radar and, perhaps, in the future, a social media statement may be posted. Ryan Bradley, MS Commercial Fisheries United, working with Dr. Ben Posadas from the Mississippi State University Extension Service, has a project cataloging marine debris encountered by the shrimp trawl fishery which might be useful and would like to work with law enforcement on this issue.

IJF Program Activity

Red Drum Profile Status

The Red Drum Technical Task Force (TTF) introductory meeting was held in Mobile in June. The group's next meeting is scheduled for November in St. Petersburg, Florida. **Pearce** is the LE rep on TTF and will distribute the boilerplate templates for state enforcement regulations to state and agency representatives later this month. He will keep the committee apprised of their progress.

Mangrove Snapper Profile LE Membership

The TTF for the Mangrove Snapper Profile will be formed in the spring of 2020. Historically, the LEC

state representatives rotate on these task forces and the next state up in the rotation is Alabama. Chairman **Carron** requested that **Downey** represent LE on the Mangrove Snapper TTF and **Downey** accepted the assignment. The introductory meeting will likely be held in early summer of 2020.

GSMFC Publications

VanderKooy reported on the two publications that the LEC members contribute to: the Annual License and Fees and the Annual Law Summary. He thanked everyone for their contributions thus far. McIntyre has contacted state and agency representatives asking for them to provide her with a high definition PDF version of their latest commercial and recreational saltwater regulations pamphlets for the Law Summary. VanderKooy reminded that these were printed in-house and sent out to the LEC, state directors, commissioners, and proxies. Like all GSMFC publications, they are available on the GSMFC website. Both publications are mainly used for historical reference and serves as a way of comparing license and fees statistics and tracking regulatory changes over time.

State Report Highlights

Written state reports are requested in advance and only highlights are presented for time purposes during state reporting item.

Barker highlighted Texas' joint operation with NOAA Fisheries OLE and the U.S. Coast Guard to target unlicensed charter for-hire captains operating in the Gulf from Corpus Christi to Brownsville. The operation netted 18 fisheries violations, 10 of which were for federal fisheries laws. The most common violations were closed snapper season.

Downey reported that Alabama Marine Resources had almost 1,600 commercial fishermen intercepts and over 19,000 recreational fishermen intercepts. Over 800 seafood and/or processor inspections were conducted. Vessel boardings totaled 5,778 with 10,412 hours of patrol.

Pearce made a motion to accept the state reports as written. The motion was seconded by **Barker** and passed unanimously.

There being no further business, **Barker** made a motion to adjourn the meeting with a second by **Pearce**. The motion passed unanimously and the meeting was adjourned at 3:45 p.m.

APPROVED BY:

Darin Topping
COMMITTEE CHAIRMAN

**TECHNICAL COORDINATING COMMITTEE
MINUTES
Wednesday October 16, 2019
Biloxi, MS**

Chairman Darin Topping called the meeting to order at 8:30 a.m. The following members, staff, and others were present:

Members

Jason Froeba, LDWF, Baton Rouge, LA
Dan Ellinor, FWC, Tallahassee, FL
Harry Blanchet, LDWF, Baton Rouge, LA
Rick Burris, MDMR, Biloxi, MS
Matt Hill, MDMR, Biloxi, MS
Scott Bannon, ADCNR, Dauphin Island, AL
John Mareska, ADCNR/MRD, Gulf Shores, AL
Darin Topping, TPWD, Rockport, TX
Christopher Mace, TPWD, Rockport, TX
Roy Crabtree, NOAA Fisheries, St. Petersburg, FL
Glenn Constant, USFWS, Baton Rouge, LA
Allan Brown, USFWS, Atlanta, GA
Beverly Sauls, FWC/FWRI, St. Petersburg, FL

Staff

James Ballard, GSMFC, Sport Fish/Aquatic Invasives Coordinator, Ocean Springs, MS
Joe Ferrer, GSMFC Systems Administrator, Ocean Springs, MS
Jeff Rester, GSMFC, SEAMAP Coordinator, Ocean Springs, MS
Dave Donaldson, GSMFC, Executive Director, Ocean Springs, MS
Steve VanderKooy, GSMFC, IJF Coordinator, Ocean Springs, MS
Gregg Bray, GSMFC, FIN Data Program Manager, Ocean Springs, MS
Donna Bellais, GSMFC, ComFIN Survey Coordinator, Ocean Springs, MS

Others

Paul Mickle, MDMR, Biloxi, MS
Jason Saucies, MDMR, Biloxi, MS
Trevor Moncrief, MDMR, Biloxi, MS
Jerry Mambretti, TPWD, Dickinson, TX
Jason Adriance, LDWF, Baton Rouge, LA
Lance Robinson, Commissioner, Austin, TX
Michael Travis, NOAA Fisheries, St. Petersburg, FL
Chris Nelson, Commissioner, Bon Secour, AL
Laura Picariello, TX Sea Grant, College Station, TX
Jon Bell, NOAA, Pascagoula, MS
Julie Lively, LA Sea Grant, Baton Rouge, LA
Corky Perret, Public, Poplarville, MS

Jeremy Timbs, MDMR, Biloxi, MS
Traci Floyd, MDMR, Biloxi, MS
Laura Deighan, Audubon, New Orleans, LA
John Fallon, Audubon, New Orleans, LA
Read Hendon, USM/GCRL, Ocean Springs, MS
Julien Lartigue, NOAA, Biloxi, MS

Adoption of Agenda

A motion to adopt the agenda was made by Chris Mace and passed unanimously.

Approval of Minutes

A motion to approve the minutes for the March 21, 2019 meeting was made by Bev Sauls and passed with no opposition.

Alternative Bulkhead Design Program Overview

Paul Mickle provided an overview of Mississippi's Alternative Bulkhead Design Program that they are developing to combat the increasing problem of shoreline hardening with the goal of increasing fish habitat and secondary production. This is a non-regulatory program that will provide marine contractors with a specialized skillset to provide shoreline stabilization needs of private homeowners while regenerating marsh production. This new program will be comprised of three phases. Phase 1) Certification course and initial design creation (first course will be held in January 2020); phase 2) Design implementation and permitting assistance; and phase 3) Monitoring and promotion. The program is not only targeting new bulkhead construction, but also augmenting existing ones by utilizing some of the new materials and designs to add habitat complexity. Moving forward, the program will rely on the marine contractors to promote the new designs over conventional bulkheads.

Overview of the Gulf Offshore Research Institute

Kent Satterlee provided a presentation on the Gulf Offshore Research Institute (GORI). GORI is proposing to establish MMEERSET (Marine Monitoring, Energy, Environmental Research, Science Education, and Training) Stations in offshore waters of the Gulf of Mexico utilizing retired oil/gas platforms. GORI plans to acquire oil/gas structures in 200-400 feet of water on long-term leases from oil companies that are looking to delay the required removal of the structure once it is no longer producing. They will then repurpose these structures to accommodate a number of possible subleases (offshore renewable energy, autonomous underwater vehicle operations, offshore aquaculture, etc.). They are currently working with Peregrine Oil and Gas on two different structures in the western Gulf of Mexico and have filed an alternative use right of use and easement request with BOEM. If approved, they will work with Excipio Energy to convert the platforms into offshore renewable energy facilities (wind and wave) and plan to be operational in December 2020. **Matt Hill** asked if states are being included in the discussions about which structures they are targeting. **Kent Satterlee** stated that at this point, states have not been included, but they see the importance in including them in future discussions. The oil/gas companies that own the structure will maintain the liability insurance on the structures that are being leased by GORI.

Discussion: IJF Research Funding

Steve VanderKooy provided an overview of the IJF research funding proposal that would utilize

the supplemental funding that was provided to the Commission in 2019. **Steve** outlined a potential process that could be used to establish a new small grants program. Under the proposed process, the various subcommittees and technical task forces (TTFs) of the Commission would develop project proposals and present them to the TCC for their evaluation and prioritization prior to their meeting in October. Additional projects may be submitted by the TCC or state agencies as well. Once the reviews have taken place, a prioritized list would be forwarded to the S-FFMC for their consideration, and depending on the available funds, one or more projects would be selected for funding the following year. Projects may be single year or multi-year, depending on the need, but the commitment to funding would always be contingent upon the funds available after the basic IJF program needs are covered. All proposals would follow the current format for cooperative agreements already developed by the FIN Program. The TCC had a long discussion on different activities that could be supported or increased with this available funding, including state independent monitoring, TCC subcommittee activities, etc. **Dave Donaldson** suggested that the staff pull together a spreadsheet, similar to the FIN prioritization list, of current activities and proposed new activities with budgets and statements of work for the TCC to consider at their March 2020 meeting. **Following the discussion, The TCC approved the proposed IJF funding process and forwarded it to the S-FFMC for their consideration.**

Discussion: Using Watershed Scale Assessments to Identify Conservation Priorities and Prioritize

Restoration Actions that Link Inland Waters and Coastal Estuaries

Glenn Constant led a discussion on using watershed scale assessments to identify conservation priorities and prioritize restoration actions that link inland waters and coastal estuaries. He asked the group if they would be interested in assessing and providing feedback on current and future inland restoration, modeling, and data collection projects that would ultimately have an impact on coastal waters and habitats in the Gulf of Mexico. **John Mareska** stated that Mobile Bay NEP was doing a similar effort by developing watershed management plans for all watersheds that drain into Mobile Bay and ADCNR provides input on the development of those plans. However, they find it difficult to find a real benefit to coastal environments because the data is very noisy. It was the general consensus of the TCC that this is something the group should be aware of but they were unclear on the role that they could play with all the existing efforts. **Glenn agreed to work with GSMFC staff to pull together more information on existing efforts and provide it to the group at the next meeting.**

Discussion: SOPs for New Oyster Subcommittee

The group had a discussion on their draft SOPs for a new oyster subcommittee. During the discussion they decided to expand the scope of the subcommittee to encompass all molluscan shellfish and changed the name to the Molluscan Shellfish Subcommittee given the interest within the industry to culture other molluscan shellfish in the region. They also decided to expand the purpose of the subcommittee to include assessment of research and monitoring efforts in the five Gulf states. Finally, they decided to limit the membership to just state representatives (up to two from each state) so it more closely aligned with the structure of other TCC Subcommittees. Following the discussion, **Matt Hill made the motion; To establishment the Molluscan Shellfish Subcommittee utilizing the SOPs as amended and it passed without opposition.**

Proposed Mechanism for Gulf Menhaden Management (Harvest Control Rule)

Steve VanderKooy stated that the harvest control rule was not ready for release yet and tabled the discussion until a future meeting.

Discussion: Guidelines for Marine Artificial Reef Materials: Third Edition

James Ballard provided a brief update on the Guidelines for Marine Artificial Reef Materials: Third Edition that was sent to the TCC for final review. **John Mareska** stated that Alabama had some new research that they would like to incorporate and would like to have two months to conduct their review. The group agreed to provide all final comments to James by January 1st with the hopes of taking final approval of the document at the March 2020 meeting.

Subcommittee Reports

Data Management

Gregg Bray provided an update on the state agency efforts to provide minimum data elements to address a unique commercial vessel database. Each state discussed their capabilities in accessing and delivering data to GulfFIN. Several states mentioned vessel registration data is collected and maintained by different state agencies which makes accessing and sharing these data difficult. Each state provided feedback on their capabilities and limitations. NOAA Fisheries stated one of the primary purposes of this database will be determining how many active vessels were fishing during a specific time period. GSMFC staff will continue to work on this issue through GulfFIN Commercial Technical Workgroup.

The committee discussed a draft report NOAA Fisheries developed in response to section 201 of the Modernizing Recreational Fisheries Management Act of 2018. The report addresses methods for greater inclusion of state and nongovernmental organization data in the stock assessment process. The committee discussed that the report does a good job of explaining current methods but some suggestions were made on how to improve the process in the future. One of the main ideas brought up was to develop a calibration process that would be simpler and easier as calibration is an impediment to utilizing certified state survey data. States were asked to provide written comments by December 1, 2019 and GSMFC staff will compile the comments into a response letter for NOAA Fisheries.

Dominique Lazzarre from FWRI provided a presentation on their revised methods for collecting age structures and lengths from the recreational fishery. Florida has moved away from opportunistically sampling a list of target species and representatively sampling the fishery. Florida is still obtaining biological information from most of the important federal species but has also observed an increase in data collected from important inshore species. GulfFIN hopes that other states will move away from opportunistic sampling as that has been recommended by stock assessors and we hope to have a meeting sometime soon to continue these discussions.

Gregg Bray stated GulfFIN was awarded a NOAA Fisheries FIS proposal to transition to tablet based data collection for the MRIP APAIS in 2020. When money arrives in 2020 GulfFIN will purchase tablets and enter into an independent contract with the application developer to modify the application to the Gulf of Mexico requirements. The goal is a phased implementation that will start October 1, 2020 with a goal of being fully implemented by January 1, 2021.

Steve Brown was elected as the new Chairman. Darrin Stewart was elected to be the new Vice-Chairman.

During the afternoon session, representatives reviewed the 2018 commercial landings data from their respective state. No major problems were identified but state representatives will make necessary corrections to the 2018 data and re-submit to GSMFC to correct minor coding problems.

Dan Ellinor made a motion to accept the report as presented, and it passed unanimously.

Crab

Ryan Gandy reported that **Robert Leaf** updated the Committee on the Blue Crab population modeling exercise meeting that included an overview of the overall utility of the Traffic Light Model. He also pointed out that there are recruitment indices included in this model. A CSV file was demonstrated and how the model works. **Ryan Gandy** explained that some of this came out of the GDAR and assessment to prevent from doing a full assessment every year.

Steve VanderKooy brought up the subject of terrapins and the issue of trying to educate Seafood Watch. The Commission's position is that we will not review Seafood Watch material. At the March 2020 meeting, they may invite some terrapin folks for collaboration between groups. Also, in Florida, **Ryan Gandy** reported that stone crab and lobster have gone to red list in Seafood Watch. Entanglement issue is suspected of being the cause.

Luis Hurtado updated the group on the challenges and subsequent progress that was made with the genetics work on blue crabs throughout the Gulf and South Atlantic range. Using more selective markers, he was able to determine there is genetic structure to the population.

Zach Darnell (GCRL) updated the group on his Gulf Wide Tagging project. His team is partly through the analyses of the final numbers. Their goal has been to look at how blue crabs are moving within estuaries associated with spawning migration. His team is done tagging for this study but they will start a new study next year on the Mississippi barrier islands. They will be looking for sponge crabs to see how long they stay around the islands and looking at the benefits provided by the seashore. Darnell will have a full report of the analyses at the March 2020 meeting.

Ryan Gandy was re-elected Chair.

A motion to accept the report was moved by Matt Hill, and passed without opposition.

SEAMAP

Jeff Rester reported that the SEAMAP Subcommittee had a presentation on the gear and technologies used for sampling in the Great Red Snapper Count project. Several new pieces of towable gear were used to count Red Snapper. Gears such as the camera-based towed assessment survey system (C-BASS) can be towed at speeds of 3-5 knots almost continuously to collect data on reef fish abundance and characterize benthic habitat. SEAMAP is interested in new gears that may be better for estimating actual reef fish abundances than the current gears employed in SEAMAP surveys.

SEAMAP in partnership with the GCRL, FWRI, and the Southeastern Regional Taxonomic Center will hold an invertebrate identification workshop next spring to aid SEAMAP in identifying invertebrates encountered during SEAMAP surveys. Many species that previously have been identified as one species may in fact be several species. The training workshop will help in identification of problematic species as well as recognizing species that we should probably only identify to the genus level due to the level of effort required to identify the species correctly to the species level.

The SEAMAP Subcommittee met with the Caribbean and South Atlantic components in July to discuss the SEAMAP budget as well as updating the SEAMAP 2021-2025 Management Plan. Besides updating the current information in the Management Plan, the Subcommittee would like to add information describing how the SEAMAP Subcommittee has been evaluating the current SEAMAP surveys, the gears used for collecting data, as well as the data that are being collected during SEAMAP surveys. The Subcommittee wants to stress how we are constantly looking to standardize, streamline, and collect the best data possible.

The SEAMAP Subcommittee has formed a new work group that will be tasked with developing protocols and operating procedures for using a new side scan sonar that SEAMAP purchased recently. The Habitat Mapping Work Group will meet in early November to develop an operations manual, develop a standardized sampling methodology, and learn how to deploy the side scan sonar and process the resulting data. The collected data will be used to help plan other SEAMAP surveys to find potential habitats for sampling as well as avoiding area during trawl surveys.

Ted Switzer was re-elected Chair with Jill Hendon elected as Vice-Chair.

Chris Mace made a motion to accept the report as presented, and it passed unanimously.

State/Federal Reports

Darin Topping stated that written reports were provided to the TCC members prior to the meeting for their review. The group had a brief discussion about the new state report templet. Darrin Topping stated that the templet is a work-in-progress and if anyone had any suggested changes they can be addressed through email before the next meeting. It was the consensus of the group that the new templet was a good idea and each state agreed to use it for future reports. To see the full reports that were provided to the TCC, please see the minutes from the Commission Business Meeting held on Thursday, October 17, 2019.

Election of Officers

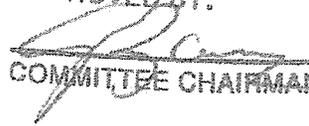
Darin Topping was re-elected as Chair and **Bev Sauls** was re-elected as Vice Chair.

General Session – The 2019 Freshwater Impacts to Marine Natural Resources Along the Northern Gulf of Mexico

The afternoon of the TCC meeting consisted of a general session on the freshwater impacts on marine natural resources as a result of the Bonnet Carré Spillway openings in 2019. For more details on this general session, see the proceedings which can be found on the Commission's website under publications. These proceedings serve as the administrative record of this session.

There being no further business, the meeting was adjourned at 4:00 p.m.

APPROVED BY:


COMMITTEE CHAIRMAN

**STATE-FEDERAL FISHERIES MANAGEMENT COMMITTEE
MINUTES**

**Wednesday October 17, 2019
Biloxi, MS**

Scott Bannon called the meeting to order at 8:00 a.m. The following members and others were present:

Members

Scott Bannon, ADCNR, Gulf Shores, AL
Luiz Barbieri (via webinar), FLFWC, Saint Petersburg, FL
Joe Spraggins, MDMR, Biloxi, MS
Jason Froeba, LDWF, Baton Rouge, LA
Lance Robinson, TPWD, Austin, TX
Roy Crabtree, NOAA Fisheries, Saint Petersburg, FL
Dave Donaldson, GSMFC, Ocean Springs, MS

Others

Dan Ellinor, FLFWC, Tallahassee, FL
Beverly Sauls, FLFWC, Saint Petersburg, FL
Paul Mickle, MDMR, Biloxi, MS

Staff

Gregg Bray, FIN Program Manager
Jeff Rester, SEAMAP Program Manager
Steve VanderKooy, IFJ Program Manager
Angie Rabideau, GSMFC Senior Accountant
James Ballard, Sport Fish Restoration/Aquatic Invasives Coordinator
Joe Ferrer, Systems Administrator, Ocean Springs, MS
Donna Bellais, ComFIN Programmer, Ocean Springs, MS

Adoption of Agenda

The agenda was approved as written.

Discussion and Final Approval of GulfFIN Funding Activities for 2020

G. Bray provided a brief overview of the documents that were distributed to the group. He also discussed the summary of the activities for potential funding in 2020 that was developed by the FIN Committee. The list is attached (Attachment A). Bray then outlined the status of 2020 funding for data collection and management activities. He stated NOAA Fisheries Office of Science and Technology (OST) staff stated the likelihood of operating under a continuing resolution resulting in level funding is high. The preliminary numbers show the GulfFIN line item at \$4.29M and RecFIN line item at \$3.47M. The Gulf portion of the RecFIN line item works out to be about \$1.07M. In addition, there is an additional \$855K provided by the NOAA OST to allow for large base sampling allocations for Marine Recreational Information Program (MRIP)

dockside surveys and \$25K for travel participation support. NOAA Fisheries Southeast Fishery Science Center (SEFSC) has provided funding assistance to support headboat port sampling and biological sampling programs that covers all of 2020. **Bray** also stated that GulfFIN has \$167K of congressional funding from FY2019 and FY2020 that can be applied to 2020 funds. Based on preliminary funding the amount available for FIN in 2020 totals \$5.86M. The breakdown of the funding is as follows:

	2020 Proposed Funding*	
GulfFIN line item	4,293,890	
OMB administrative fee	(320,527)	
SER administrative fee	(2,425)	
GulfFIN - available		3,970,938
RecFIN line item	3,475,282	
OMB administrative fee	(260,095)	
RecFIN - available	3,215,187	
Gulf portion of RecFIN (1/3)	1,071,729	
SER administrative fee	0	
Economics survey	(155,323)	
SEFSC data collections	(231,042)	
RecFIN - available		685,364
Additional funds		
MRIP funds		880,000
SEFSC funds		0
SER funds		0
HQ funds		332,454
GulfFIN Unallocated funds		0
TOTAL AVAILABLE		5,868,756

The original amount proposed for 2020 for all the jobs proposed was approximately \$6.26M, which results in a deficit of \$392K (-6.26%) deficit.

After discussion, **J. Froeba** moved to fund **Coordination and Administration of FIN Activities, Collecting, Managing, and Disseminating Marine Recreational Fisheries Data, Operation of FIN Data Management System, and Trip Ticket Program Implementation and Operation for a total budget of \$5.86M** and was seconded by **L. Barbieri**. The motion passed **unanimously**. The committee motion still resulted in a funding deficit of 6.26%. The committee agreed that the deficit would be applied equally to all programs. GSMFC staff will work with all program coordinators to obtain revised budgets that reflect the reduced totals for 2020. The reductions are as follows:

	Proposed	Reduction	Revised total	
GSMFC	\$841,152	-\$52,677	\$788,475	GSMFC admin costs
Louisiana	\$1,230,055	-\$77,033	\$1,153,022	Rec sampling, Trip Ticket
Mississippi	\$860,974	-\$53,919	\$807,055	Rec sampling, Trip Ticket
Alabama	\$613,982	-\$38,451	\$575,531	Rec sampling, Trip Ticket
Florida	\$2,549,683	-\$159,676	\$2,390,007	Rec Sampling
Bluefin Data (TT)	\$165,000	-\$10,333	\$154,667	Independent contract
TOTAL	\$6,260,846	-\$392,089	\$5,868,757	

Discussion of SEAMAP Funding Activities for 2020

J. Rester provided some background on the SEAMAP budget and surveys for the Gulf of Mexico. The FY2019 SEAMAP appropriation was \$5.12M and Jeff stated that SEAMAP received approximately \$4.72M for fishery independent sampling for all three SEAMAP components. All three SEAMAP components based their FY2020 budget on level funding of \$5.12M. The total for the Gulf was \$1.97M.

The State/Federal Fisheries Management Committee reviewed the various SEAMAP surveys along with their associated costs. For FY2020, SEAMAP will continue the current SEAMAP survey work and sampling effort and hope that level funding or additional funding will be appropriated.

After considerable discussion, **J. Spraggins moved to accept the proposed funding for SEAMAP surveys for 2020 for a total budget of \$1.95M and was seconded by L. Robinson. The motion passed unanimously.**

Discussion of IJF Funding Process

S. VanderKooy stated that the IJF program had received increased congressional funding in 2019 and 2020. Currently the program receives \$1.4M. He discussed a proposed funding mechanism to administer a small grants program that could support new work by state partners. The subcommittees, under the Technical Coordinating Committee, could develop project ideas for evaluation by the TCC before developing budgets and statements of work that the State/Federal committee could review to make final determinations on which projects would be funded.

After discussion, **J. Spraggins moved to approve the proposed funding process for utilizing new IJF program funds developed by the Technical Coordinating Committee and was seconded by J. Froeba. The motion passed unanimously.**

Election of Officers

S. Bannon was nominated for chairman and **P. Mickle** was nominated for vice-chairman. The nominations were closed and both were approved unanimously by the committee.

Other Business

There being no further business, the meeting was adjourned at 9:00 a.m.

GULFFIN ITEMS FOR CONSIDERATION IN 2020

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 Operations

Funded through other sources

- H – Biological Sampling for Recreational Catches (funded through Aug. 31, 2021)
- H – Headboat Port Sampling (funded through Dec. 31, 2022)
- H – Commercial Conversion Factor Analysis for Shrimp

APPROVED BY:

COMMITTEE CHAIRMAN

**COMMISSION BUSINESS MEETING
MINUTES
Thursday, October 17, 2019
Biloxi, MS**

Chairman Joe Spraggins called the meeting to order at 10:30 a.m.

The following Commissioners and/or Proxies were present:

Joe Spraggins, *Chairman*, MSDMR, Biloxi, MS
Lance Robinson, TPWD, Austin, TX (*Proxy for Carter Smith*)
Read Hendon, *Citizen Representative from Mississippi*, USM/GCRL, Ocean Springs, MS
Scott Bannon, ADCNR/MRD, Gulf Shores, AL (*Proxy for Chris Blankenship*)
Chris Nelson, *Citizen Representative from Alabama*, Bon Secour Fisheries, Bon Secour, AL
John Roussel, *Citizen Representative from Louisiana*, Zachary, LA
Senator Brett Allain, Jeanerette, LA
Jason Froeba, LDWF, Baton Rouge, Louisiana (*Proxy for Jack Montoucet*)
Dan Ellinor, FWC, Tallahassee, FL (*Proxy for Nick Wiley*)

Staff

Dave Donaldson, *Executive Director*, Ocean Springs, MS
Nancy Marcellus, *Administrative Officer*, Ocean Springs, MS
Chery Noble, *Administrative Assistant*, Ocean Springs, MS
Steve VanderKooy, *IJF Program Coordinator*, Ocean Springs, MS
Jeff Rester, *SEAMAP/Habitat Coordinator*, Ocean Springs, MS
Gregg Bray, *FIN Program Manager*, Ocean Springs, MS
Joe Ferrer, *Systems Administrator*, Ocean Springs, MS
James Ballard, *Sport Fish Restoration/Aquatic Invasives Coordinator*, Ocean Springs, MS
Donna Bellais, *ComFIN Programmer*, Ocean Springs, MS
Angie Rabideau, *Senior Accountant*, Ocean Springs, MS

Others

Roy Crabtree, NOAA Fisheries, St. Petersburg, FL
Glenn Constant, USFWS, Baton Rouge, LA
Allan Brown, USFWS, Atlanta, GA
Darin Topping, TPWD, Rockport, TX
Julie Lively, LASG, Baton Rouge, LA
Chris Mace, TPWD, Rockport, TX
Jessica Graham, SARP, Panama City Beach, FL
Paul Mickle, MSDMR, Biloxi, MS
Catherine Krickson, NMFS/MRIP, Silver Spring, MD
Emily Satterfield, MSDMR, Biloxi, MS
Bill Walton, AU, Dauphin Island, AL
Seth Blicht, TNC, Baton Rouge, LA
Julien Lartigue, NOAA Restore Program, Ocean Springs, MS

Brief Overview of Commission Voting Procedures

D. Donaldson gave a brief overview of the Commission's voting procedures and stated there is a quorum.

Adoption of Agenda

D. Donaldson requested to move Items 12 and 15 to before lunch due to travel conflicts. He also requested to give a brief report on the For-Hire Project under *Other Business*. **B. Allain** moved to adopt the Commission Business Session Agenda with the requested changes and addition under Other Business. **S. Bannon** seconded and the motion passed.

Approval of Minutes (March 21, 2019)

J. Roussel moved to approve the March 21, 2019 minutes as submitted. **S. Bannon** seconded the motion and the minutes were approved as submitted.

GSMFC Standing Committee Reports

Law Enforcement Committee (LEC)

S. VanderKooy reported the LEC met jointly with the Council's LETC and stated the majority of the agenda was Council items. They discussed the JEA funding, status of state water FADs, and a marine debris project by the MS Commercial Fisheries United and MSU Extension Service. He said the Red Drum TTF held its introductory meeting in June for the purpose of working on a Management Profile for the Gulf of Mexico and Scott Pearce, the LEC Representative on the TTF, will distribute the enforcement material to each state representative to prepare for the next meeting in November. Membership is being formed for a Technical Task Force to work on a Mangrove Snapper Profile. Jason Downey from Alabama will represent the LEC for this Task Force and an introductory meeting for this TTF will be scheduled early summer of 2020. He stated the two publications the LEC contributes to, the Annual License and Fees and the Annual Law Summary are complete. He said each state report was submitted before the meeting and the LEC accepted all of the reports.

R. Hendon moved to accept the LEC Report. **L. Robinson** seconded and the motion passed.

Technical Coordinating Committee Report (TCC)

D. Topping gave the TCC report. He reviewed the topics discussed and the presentations that were given in each Subcommittee meeting. He stated the TCC approved two motions at their meeting and asked for approval from the Commission. The first motion was to accept the IJF Funding Process and the second motion was to establish the Molluscan Shellfish Subcommittee under the TCC utilizing the SOPs as amended.

D. Topping stated Steve Brown was elected Chairman and Darrin Stewart was elected Vice Chairman for the Data Management Subcommittee; Ryan Gandy was re-elected Chairman for the

Crab Subcommittee; and Ted Switzer was re-elected Chairman and Jill Hendon was re-elected Vice Chairman for the SEAMAP Subcommittee. Darin Topping was re-elected Chairman and Beverly Sauls was re-elected Vice Chairman for TCC. **D. Topping** then gave a brief overview of the General Session on the *2019 Freshwater Impacts to the Marine Natural Resources Along the Northern Gulf of Mexico*.

The Commission discussed using the SOPs presented for the Molluscan Shellfish Subcommittee to be used as a template for all other Subcommittees to establish purpose and need. There was also discussion to include or not include Public Health officials on the Molluscan Shellfish Subcommittee. The Commission charged staff to have each Subcommittee establish purpose and need utilizing the Molluscan Shellfish Subcommittee SOPs template. The Commission charged staff to review the Molluscan Shellfish Subcommittee SOPs to include having Public Health Agencies from each state to participate on an “as needed” basis.

R. Hendon *moved* to approve the two motions and to accept the TCC Report. **J. Froeba** seconded and the motion passed.

State-Federal Fisheries Management Committee

GulfFIN, SEAMAP and Menhaden Advisory Panel Discussions

Scott Bannon gave the S/FFMC Report and stated a motion was passed to fund Coordination and Administration of FIN Activities, Collecting, Managing, and Disseminating Marine Recreational Fisheries Data, Operation of FIN Data Management System, and Trip Ticket Program Operations for a total budget of \$5.86M. The S/FFMC passed a motion to accept the proposed funding for SEAMAP surveys for 2020 for a total budget of \$1.95M. The S/FFMC moved to approve the proposed funding process for utilizing new IJF program funds developed by the TCC. He said the MAC elected Peter Himchak Chairman; and Scott Bannon was elected Chairman and Paul Mickle was elected Vice Chairman for the S/FFMC.

J. Roussel *moved* to accept the motion to approve the proposed funding for FIN activities for 2020. **R. Hendon** seconded and the motion passed.

D. Ellinor *moved* to accept the motion to approve the proposed funding for SEAMAP surveys for 2020. **J. Froeba** seconded and the motion passed.

J. Froeba *moved* to accept the motion to approve the proposed funding process for utilizing new IJF program funds developed by the TCC. **D. Ellinor** seconded and the motion passed.

R. Hendon *moved* to accept the S/FFMC Report. **D. Ellinor** seconded and the motion passed.

Sea Grant Fisheries Extension Meeting Report

Julie Lively reported they had 5 members present including one remotely, so they had a quorum. She stated they discussed regional issues including depredation, primarily shark; aging of the fleet and workforce development; and barotrauma. Each state gave updates on current programs and

they were also updated on activities by the Gulf Reef Fish Shareholder's Alliance and Audubon GULF's Program that are relevant to Sea Grant. Laura Picariello will be the new Chairman and Dominic Seibert will be the new Vice Chairman. They have no actions to present to the Commission.

NOAA Fisheries Southeast Regional Office Comments

R. Crabtree reported the full report is in Tab C of the briefing book. He stated the Gulf Council meeting will be held next week in Galveston and the two big issues will be red grouper and modifications to the red snapper and grouper IFQ programs, but he does not expect final action on these issues to be taken at that meeting. He said work is continuing on the electronic reporting program that the council approved for charter boats in both the Gulf of Mexico and the South Atlantic. Over 3,000 vessels will be affected by this program. They are currently working on developing the software and the screens that are necessary for reporting and working on making sure the data will be secure. The data will be housed with ACCSP at the ASMFC. They have been able to hire contract personnel through a grant within NOAA to work on this program. He expects the final rule for the Gulf Program will be made sometime in the fall and that the catch reporting portion of the program will go into place sometime in the spring. The requirements to have a geo-positioning device onboard will come in Phase 2 of the program. This requirement will be necessary for the fishermen to be eligible for reimbursement. This is a very complicated program but progress is being made.

He stated that Fishery Disaster declarations were made in September and \$165M has been appropriated. This includes a whole range of disasters, some on the west coast, two shrimp disaster declarations off South Carolina and Georgia, one for Hurricanes Florence and Michael, as well as the catastrophic fisheries disasters that were declared for Louisiana, Mississippi and Alabama caused by the flooding from the Mississippi River.

He said they are working with the USACE and EPA on two finfish aquaculture projects. One is the Velella Epsilon project which proposes to culture almaco jack in a single cage in federal waters about 45 miles southwest of Sarasota. The comment period has ended and they are hoping a decision will be made by EPA soon. The other project is with Manna Fish Farms to establish an 18-cage commercial scale finfish operation about 20 miles off the coast of Pensacola. In addition, NOAA Fisheries is working with a recipient of Department of Energy ARPA-E macroalgae funding who is interested in culturing macroalgae species (*Euchema* spp.) in the Gulf.

Finally, NOAA is involved in a number of artificial reef projects that have gone to the USACE that range from the Gulf of Mexico up to North Carolina. NOAA will be providing Section 7 consultations as some of the proposed projects are in critical habitats and will require biological opinions. NOAA is of the opinion the USACE needs to look more carefully on how these projects fit into the overall goals and objectives of the fishery management plans that the Council has in place.

J. Spraggins thanked R. Crabtree and NOAA for their quick response to declaring the disaster due to the flooding from the Mississippi River in Louisiana, Mississippi and Alabama. He said the states are working very hard to provide all information needed to secure disaster funding.

USFWS Region 4 Office Comments

Alan Brown thanked the Commission for the invitation and for James Ballard's and other staff member's efforts in the administration of their small grants program. Although it is a small amount of funds, it takes a lot of work off their regional office staff. He said he continues to support Glenn Constant's involvement with the Commission and Council in providing his expertise on the issues they are currently involved. He stated as most are aware, the continuing resolution continues through November and it does impact their ability to process and distribute grants and funding that other entities are depending on. He said the FWS fisheries budget was approved in both the house and senate with significant increases. There has also been an increase to states that are trying to manage and control Asian Carp. He said as reported on at the last Commission meeting, the DOI is trying to align all the Bureaus into the same geographic boundaries so the FWS has went from eight regions to twelve effective October 1st. There will be some administrative changes but he does not expect it to affect how the FWS interacts with the Commission or the Council.

Presentation of Southeast Aquatic Resources Partnership (SARP)

Jessica Graham gave a presentation on the Southeast Aquatic Resources Partnership. She said the program was first conceived in 2000 and GSMFC was one of the founding members. The mission of the program is how to conserve aquatic resources across traditional boundaries. SARP is formally under the Southeastern Association of Fish and Wildlife Agencies (SEAFWA), as a joint party committee bringing together state and federal partners across the 14 Southeast states and the MOU forming SARP was signed in 2004. In 2007, SARP was recognized as one of the founding members of the National Fish Habitat Partnership.

The Southeast Aquatic Habitat Plan was published in 2008 and it outlines the objectives of the program and since then a number of different products have been published on conserving fish habitat. She reviewed the different activities of the programs under SARP and stated they have an opened RFP through the National Fish Habitat Partnership with a December 6, 2019 deadline and all information is on the website www.southeastaquatics.net. A copy of the full presentation can be obtained upon request to the GSMFC office.

Executive Committee Report

The following Executive Committee Report was submitted to the Commissioners:

Discussion of GSMFC Audit

A. Rabideau reviewed the 12/31/18 Single Audit with the committee. Piltz, Williams and LaRosa was the auditing firm. An unqualified opinion was received which means that the financial statements were fairly presented in all material aspects. **A. Rabideau** pointed out that page 31 of the audit report outlines the summary of the audit results. **S. Bannon** moved to accept the audit report. **The motion was seconded by D. Ellinor and L. Robinson and passed unanimously.**

Discussion of Department of Commerce IG Audit

D. Donaldson reviewed the final audit report from the Department of Commerce Inspector General audit. He stated that the Commission was awaiting a determination from the NOAA Grants Management Division after submission of the Commission's response following receipt of the final report. If nothing was heard from NOAA by the end of November, **D. Donaldson** would contact the NOAA grants office. **D. Ellinor** expressed concerns that the Commission and gulf states could be held responsible for the approximately \$6 million in questioned costs. **J. Spraggins** suggested that the Mississippi Department of Marine Resources' (MDMR) legal team review the audit report. After the Commission receives a determination from NOAA, the Executive Committee will meet to determine any additional steps in the audit resolution process.

Financial Report

A. Rabideau noted that the commissioners receive the financial report every month by email. She pointed out the new fund code 601 SEAMAP Supplemental or Optimizing Fishery Independent Surveys in the Gulf of Mexico.

Presentation of 2020 Budget

A. Rabideau reviewed the 2020 budget. She pointed out that the commission budget is slightly higher than last year's budget due to projected increases in contractual numbers and an increase in Interjurisdictional Fisheries funding. The total projected budget for fiscal year 2020 is \$8,910,364. Since final numbers haven't been established for IJF and SEAMAP and discussions are being held Thursday morning concerning the FIN budget, the total budget will change. It was determined that the budget should include another column that shows a "proposed" budget and an "actual" budget for the prior year to clearly demonstrate changes to the approved budget. **D. Ellinor moved to accept the 2020 budget. The motion was seconded by S. Bannon and passed unanimously.**

Staff Compensation

The Executive Committee recommended that any increases in staff compensation be postponed until the OIG audit is resolved.

Sen. B. Allain moved to accept these recommendations. The motion was seconded and passed unanimously.

L. Robinson moved to accept the Executive Committee Report as submitted. B. Allain seconded and the motion passed.

NOAA Fisheries Budget Update

D. Donaldson gave an update on the NOAA Fisheries budget. He said, as mentioned earlier, they are still under a Continuing Resolution but the House has passed an appropriations bill for Commerce, Justice and Science. The full Senate has not passed one yet but the Appropriations Committee and one of their Subcommittee's details on the bills are in Tab C of the Briefing Book. He stated the NMFS budget is on pages 24-28 and they recommended \$955M for NOAA Fisheries which is about \$140M above the President's budget. There is \$171M for Fisheries Data Collection

Surveys and Assessments which is the line item that includes the FINs and SEAMAP. There is \$13M for Aquaculture and the Regional Council and Commission line item is above the President's budget at \$41.5M and it does not approve the proposed reduction in the Interstate Commissions and provides the FY19 funding levels to the Commission. IJF is level funded at \$3.5M and rejects the proposed elimination from the President's budget of IJF, and enforcement is up in the House over \$73M which is almost \$20M above the requested amount and disagrees with the proposed elimination of JEAs and recommends funding at FY19 levels. On the Senate side through the Appropriations Committee budget fisheries data collection and survey is about the same level as the house at \$170M, Aquaculture is a little higher at \$15M, the regional Council's and Commission's line items is about what the House is at \$40M. IJF is level funded and enforcement is a little lower in the House at \$70M.

D Donaldson said there is a couple things to note on Exempting Fishing Permits for Red Snapper Fishing. The committee commended the gulf states for developing a strong proposal for reef fish management and within the fisheries data collection survey and assessment line item they provided an additional \$5M to NMFS to deliver technical support for each of the states to insure successful implementation of each state plan, then \$23M for the FINs which is an increase from last year. There is \$2.5M for the regional pilots for aquaculture to continue on each coast and that is approximately \$500K to each of the Commissions. There is about a 12% increase over the FY18 allocation to the Councils and Commissions. He said he will keep the Commission apprised on any changes and the final budget when available.

Discussion of Legislative Issues and Actions

D. Donaldson reviewed several bills of interest that are in the Briefing Book Under Tabs D-G.

He said there is a discussion draft of advancing the quality and understanding of American Aquaculture, the AQUAA Act, and it essentially establishes a system for marine aquaculture in the EEZ and provides more flexibility for aquaculture activities. The Forage Fish Act is to improve the management of forage fish but this is mainly an East Coast focus. It will give the authority to the Councils to manage forage fish and it was suggested to exclude menhaden from this Act. H.R. 3697 is an act to amend the Magnuson-Stevens Fishery Conservation and Management Act to provide flexibility for fishery managers and stability for fishermen, and for other purposes. There have not been any concrete discussions on this amendment. The final Act, S.2166 Regional Ocean Partnership Act, authorizes regional ocean partnerships to coordinate cross-jurisdictional efforts to help reduce duplication and to maximize efficiencies.

Discussion of Wind Farms in the Gulf of Mexico

D. Donaldson reported on the issues of wind farms on the East Coast with marine mammals and fisheries interactions. He said there has been discussions about having wind farms in the Gulf of Mexico but nothing has happened yet. He asked the Commission if they would want the staff to pursue facilitating discussions on this issue or maybe have a general session to discuss avoiding some of the pitfalls the East Coast has encountered before any formal activity takes place to pursue wind farms in the Gulf of Mexico. **L. Robinson** said Texas has had a wind energy industry since 2007 and TPWD has been working actively with them. All of Texas' wind farms are land based

but there have been discussions to have them offshore. He said he would be happy to be involved in any discussions and sharing information. The Commission directed staff to stay apprised of the situation and if they see a reason to have a general session, bring it to the Commission's attention.

Status and Overview of Aquaculture Activities

S. VanderKooy stated a complete report is under Tab I of the Briefing Book. He reported the Commission has been involved with some small grant opportunities through NOAA Aquaculture for a few years. In 2019 the Oyster Program decided to go to a consortium-based approach for funding projects. Nine groups submitted larger, long-term projects that could last as long as 5 years. He said they also started a pilot program for aquaculture projects other than oysters. These totaled \$450K and includes three projects, two of which were continuations of previous work. The RFP has been released for next year and a total of \$600K will be available to fund the new pilot projects.

Discussion of Gulf Shellfish Initiative

Bill Walton and Seth Blich gave a presentation on the Gulf of Mexico Shellfish Initiative (GoMexSI): A Regional Challenge and Opportunity. The goals of the program are to create new jobs and business opportunities, meet the growing demand for seafood, create additional habitat for important commercial, recreational, endangered and threatened species, focus on species recovery, have cleaner water and nutrient removal, and shoreline protection. There has been a suggestion to create a regional "Mega-hatchery" to produce 100 billion eyed larvae per year but it has not been adopted but has provided a template for states with scaled down goals. GoMexSI has held several stake holder meetings to provide input to the program. A full report is available on the feedback from the meetings <http://masgc.org/assets/uploads/publications/1397/18-015.pdf>. There are now five integrated goals in the revised draft GoMexSI – ensure appropriate quantities of water to support thriving shellfish populations; ensure clean water to protect and enhance shellfish beds; increase the abundance of shellfish to promote commercial shellfish harvest, restore oyster stocks and increase associated environmental benefits by integrating fisheries, restoration and aquaculture; encourage a regulatory and enforcement environment that promotes a sustainable fishery, productive restoration projects and thriving aquaculture; and improve communication among resource managers, regulatory agencies, academia, non-governmental organizations and industry to inform management and promote collaboration. GoMexSI will help leverage external funding, magnify voice to other agencies and increase public awareness, stewardship and support of ongoing and future efforts. There is a living draft and it was suggested to house GoMexSI at Gulf States Marine Fisheries Commission. The complete presentation can be obtained upon request to the GSMFC office.

The Commission agreed they can provide space to house GoMexSI personnel. D. Donaldson will keep the Commission updated on this issue.

Update on Great Red Snapper Count

M. Dryman gave an update on estimating absolute abundance of Red Snapper in the Gulf of Mexico. He said the project started August 1, 2017 and the project will end March 31, 2020. He

said when the project was set up it had five milestones – data mining and habitat mapping; calibration and validation; sampling; results; and conclusion. He said they spent the first 30% of the project period collating the amount of habitat data that already exists and building a strong experimental design based off that already existing habitat data. He then showed a map of the distribution of sampling gears and where the sampling is taking place. The second milestone, calibration and validation are nearly complete and has been taking place across all the five gulf states that encompass the great red snapper count. This will ensure accurate estimates of fish density and abundance. In the western Gulf of Mexico, they are using ROV: VideoRay Defender and Towed Camera: TARAS Phantom to compare samples and in the eastern Gulf of Mexico they are using ROV: Outland Technologies and Towed Camera: C-BASS. The third milestone, sampling, is nearly complete. He reviewed the sampling portion of the project and noted the High-reward tagging segment received national coverage by the media. He said they will start working on the results and conclusions to end the project in March 2020 and the final report will go to NOAA Fisheries by the end of June 2020. A copy of the presentation may be obtained from the Gulf States Marine Fisheries Commission's office upon request.

GSMFC Program Reports

Interjurisdictional Fisheries Program (IJF)

S. VanderKooy stated the full report is under Tab J of the Briefing Book. He said they are working on two documents - the Red Drum Management Profile for the Gulf of Mexico and they will begin a Mangrove Snapper Management Profile next spring. Work is continuing on the Otolith Manual and it is near completion. He stated that following the completion of the SEDAR63 Menhaden Benchmark Assessment, the MAC agreed to begin exploring potential reference points for management. The MAC and a number of invited stakeholders participated in two workshops to develop potential objectives that could be acceptable to all and begin exploring candidate reference points for future consideration to meet those objectives. He said MSC Certification was announced yesterday for the Gulf menhaden fishery. He said they are continuing to work on the Gulf Fishery Independent Database (GFID) that was started a couple years ago as an attempt to consolidate all of the fishery independent data into one centralized location. He then gave a presentation on the Tripletail Acoustic Tagging effort. A copy of the presentation may be obtained from the Gulf States Marine Fisheries Commission's office upon request.

SEAMAP

J. Rester reported that since March, SEAMAP has completed the Spring Plankton Survey, Summer Shrimp/Groundfish Survey, Bottom Longline Survey, reef Fish Survey, and Fall Plankton survey. The Vertical line Survey and Fall shrimp/Groundfish Survey are currently ongoing. More details on these surveys is in the recently distributed *2019 SEAMAP Annual Report to the Technical Coordinating Committee*. He said SEAMAP held a trawl workshop in March where state and federal SEAMAP partners reviewed trawling protocols, discussed gear specifications, reviewed data entry and QA/QC procedures, and reviewed species identifications. The group also discussed recent taxonomic changes and how to handle historical species identifications when taxonomists have now determined that what they thought was one species could actually be two to three species that look very similar. SEAMAP partners have been conducting crew exchanges

the past few years to assure that all SEAMAP trawling operations were being conducted consistently amongst all partners. The workshop continued those efforts as well as serving as a good review for 2019 trawling operations.

He said five weekly and one end of survey real time mailings were distributed this summer during the Summer Shrimp/Groundfish survey to approximately 100 individuals. Several people requested the data right before the Texas Opening. A representative from the Texas Shrimp Association stated many requests have been made for the plots and that they were very useful. This is in stark contrast to twenty years ago when the Texas Shrimp Association asked SEAMAP not to produce the real time plots as it caused pulse fishing.

The Joint Annual SEAMAP meeting with the South Atlantic and Caribbean components was held in July to discuss budget needs, updating the *SEAMAP 2021-2025 Management Plan* and the possibility of hooked gear surveys and the data from the surveys could be used in stock assessments. The Commission continues to manage SEAMAP data and distribute the data to interested parties. The Commission fulfilled 15 SEAMAP data requests since March. The various SEAMAP databases have been downloaded 97 times since March. In the last year, SEAMAP data from the gulf have been submitted for use in SEDAR stock assessments for Red Grouper, Gray Triggerfish, Gulf Menhaden, Yellowtail Snapper, Vermillion Snapper, Scamp and Blacktip Shark.

Sportfish Restoration Program (SPRP)

J. Ballard stated the SFRP detailed report is under Tab L of the Briefing Book. He gave a brief slide presentation on the current work ongoing under the SFRP. The final draft of the third edition of the ASMFC's and GSMFC's *Guidelines for Marine Artificial Reef Materials* has been distributed to the Technical Coordinating Committee for review and approval. The deadline for changes is January 1, 2020 and hopefully, final action will be taken at the March 2020 meeting. This will be electronically available through the GSMFC and ASMFC websites and it will be a "living document" where individual sections will be updated as needed. He said they are finally starting the field work component of the Gulf Artificial Reef Monitoring and Assessment Program (GARMAP) that started several years ago. He reviewed several slides of the work and gear, and partners participating in the program. He said they continue to support the *Jimmy Sanders Memorial Lionfish Challenge*. This is an effort to try to expand removal of lionfish across the Gulf of Mexico modeled after Florida's efforts. The tournament will run all year long as opposed to just the summer months to improve participation from divers that target red snapper during the summer months. He reviewed recent legislation that will affect the program. He said they will be hosting the next Joint Artificial Reef Subcommittee meeting in conjunction with the Atlantic States Marine Fisheries Commission at the Florida's Artificial Reef Summit in April 2020.

Aquatic Nuisances Species Program (ANS)

J. Ballard stated the detailed report is in Tab M of the Briefing Book. He gave a brief slide presentation on the program. He reviewed the projects that have been funded over the last five years through the small grants program with the USFWS. He then briefed the Commission on the FY2019 Projects selected for funding. He stated the Traveling Trunk has been updated and they have been utilized for 1,469 days since their release in 2012. He reviewed the new GSARP website

and stated the fall ANSTF meeting is scheduled for November 5-7 at the National Agricultural Library in Beltsville, Maryland and the GSARP's fall meeting is scheduled for November 19-20 in Charleston, South Carolina.

Fisheries Information Network

G. Bray said the report is in Tab N of the Briefing Book and it has all the funding items that will be submitted for 2020. He said all is going as expected for the 2019 fishery dependent and biological sampling and he will give a summary report on the surveys at the March meeting. He said their biggest priority from a fishery dependent standpoint is to try to assist in the process of calibrating state survey data that are used in management. He gave details on the impending Southeast For-Hire Integrated Electronic Reporting program (SEFHIER) and how it will affect for-hire sampling.

He said they have completed an overhaul of the data management system aimed at data modernization, improving the quality control process and developing new data entry systems on the biological side, new and user data query capabilities, and it is all focused on increasing the amount and quality of data and getting it clean so it can be fed into stock assessments quicker. He said they have provided biological data for the King mackerel assessment and they will be providing vermilion snapper data, scamp data, greater amberjack data and gag grouper data in 2020. He said they have received NOAA Fisheries funding to transition the three MRIP states to tablet electronic data collection methods for the MRIP dockside surveys. They are also working to get the GulfFIN 5 Year Cooperative Agreement in place as the current agreement ends on December 31, 2019.

State Directors' Reports

All detailed state reports were submitted before the meeting and are in the briefing book. Each state Director gave a brief overview of their report.

Future Meetings

N. Marcellus reported Alabama will be the host for the March 2020 meeting. She has proposals from the Grand Hotel in Point Clear and the Lodge at the Gulf State Park. She stated Alabama prefers to have the meeting at the new facility at the State Park but they cannot accommodate the Commission during the week the meeting is normally scheduled. They submitted a proposal for the week of March 9-13, 2020 which is the week before the meeting is usually held. **J. Spraggins** asked the Commissioners if they would want to have the meeting that week and they all agreed to do that. **N. Marcellus** stated the October meeting is scheduled for October 13-15, 2020 in Florida and she is working with Dan Ellinor on suggestions for where the meeting will be held.

Publications List and Web Statistics

D. Donaldson stated Tabs U and V of the Briefing Book has the information on publications and the website. He said if there are any questions to contact him or J. Ferrer.

Election of Officers

D. Donaldson reviewed how the officers are elected and the current state rotation. **J. Spraggins** opened the floor for nominations.

R. Hendon moved to elect **D. Ellinor** Chairman. **S. Bannon** seconded the motion and it passed.

D. Ellinor moved to elect **L. Robinson** 1st Vice Chairman. **S. Bannon** seconded and the motion passed.

C. Nelson moved to elect **S. Bannon** 2nd Vice Chairman. **R. Hendon** seconded and the motion passed.

J. Spraggins thanked everyone for their support this past year as Chairman. **D. Donaldson** presented him with an outgoing Chairman's gift. **J. Spraggins** presented **D. Ellinor** with the incoming Chairman's gift.

Other Business

C. Nelson updated the Commission on the importation of European Union Shellfish and the potential risk for spreading the oyster herpes virus (OSHV1) and the concerns of the industry. The AFIS is doing a risk assessment on how it can potentially impact the domestic stocks of oysters if they are allowed to be imported. He wanted to make the Commission aware of what was going on and he will keep the Commission informed on the decision of the risk assessment.

D. Donaldson stated he was contacted by George Lapointe asking the Commission to plan a workshop on electronic reporting. They have the funds for the workshop they just want the Commission to handle all logistics including reimbursing travel. The Commission approved staff to pursue planning for the workshop.

D. Donaldson offered the Commission to administer any disaster funds the states may receive as they have done in the past. He stated there would be administrative costs but wanted to make the Commission aware this is an option if they deem it appropriate.

There being no further business, the meeting adjourned at 3:34 p.m.