

APPROVED BY:
Virtual Approval
COMMITTEE CHAIRMAN
9/24/2020

**S-FFMC Menhaden Advisory Committee
Webinar
Wednesday, March 4, 2020**

Chairman Himchak called the meeting to order at 8:00 a.m. with the following in attendance via Webinar:

Members

Peter Himchak, Omega Protein, Tuckerton, NJ
Jason Adriance, LDWF, New Orleans, LA
Ray Mroch, NOAA Beaufort Lab, Beaufort, NC
Jerry Mambretti, TPWD, Dickinson, TX
Trevor Moncrief, MDMR, Biloxi, MS
Scott Herbert, Daybrook Fisheries, New Orleans, LA
John Mareska, ADCNR/MRD, Dauphin Island, AL
Francois Kuttel, Westbank Fishing, LLC, New Orleans, LA
Chris Swanson, FWC, St. Petersburg, FL

Others

Amy Schueller, NOAA Beaufort Lab, Beaufort, NC
Robert Leaf, USM GCRL, Ocean Springs, MS
Borden Wallace, Patronus Consulting, New Orleans, LA
Ed Swindell, Marine Process Services, Hammond, LA
Skyler Sagarese, NOAA Fisheries, Miami, FL
Benson Chiles, Chiles Consulting LLC, Atlantic Highlands, NJ
David Chagaris, University of Florida, Gainesville, FL
Matt Nuttall, University of Miami, Miami, FL
Kim de Mutsert, George Mason University, Fairfax, VA
Chad Hansen, PEW Charitable Trust, Crawfordville, FL
Igal Berenstine, University of Florida, Gainesville, FL
Nick Farmer, NOAA Fisheries, St. Petersburg, FL
Mark Schexnayder, LDWF, New Orleans, LA

Staff

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

Introductions

VanderKooy welcomed everyone and addressed housekeeping issues. The attendees on the webinar were introduced and **VanderKooy** provided the methods by which the meeting would run. He reminded everyone that if they had made plans to attend the Commission meeting in Gulf Shores next week, they need to be sure they had cancelled any registration or hotel reservations if they were not, in fact, attending now.

Adoption of Agenda

The agenda was reviewed. **Himchak** requested that the MAC projects submitted by **VanderKooy** for funding consideration be provided under Other Business. In addition, **Himchak** requested that the discussion of the robustness tests, completed following the last stakeholder workshop, would be covered by **Leaf** during item 4. **Herbert** would like to table item 8, both 8a and 8b until fall MAC meeting. **VanderKooy** apologized for not forwarding the draft minutes ahead of the call and requested to move their approval to the end of the agenda, before Other Business. ***Herbert moved to approve the agenda as modified, Adriance seconded, and the agenda was approved as amended.*** The minutes were provided to everyone via email as the meeting moved on.

Reference Points Discussion

Chagaris (UFL) provided an overview of the potential for implementing ecosystem-based reference points (ERPs) for Gulf Menhaden. In both the Gulf Menhaden FMP and the most recent benchmark assessment (SEDAR63), goals and recommendations included the need for considering ecosystem services and the role of menhaden in the environment. This presentation will show the committee what the Ecosystem Team (**Chagaris, de Mutsert, Schueller, Behrenstein, Sagarese, and Nuttall**) could provide. The MSY based reference points in the last assessment were inestimable or implausible, so proxies based on natural mortality were suggested as thresholds and targets. These can be screened through the current ecosystem models. The BAM reference points could be adjusted based on indicator performance to develop alternative ERPs. In addition, the proposed HCR simulation by Butterworth and Rademeyer is a fixed exploitation rate rule, where the TAC is proportional to abundance, and the team could apply the current HCR in Ecosim, and provide indicators to gauge performance of the HCR from an ecosystem perspective. The results would provide indicators related to ecosystem structure, trophic utilization, and ecosystem resilience. **Chagaris** provided some summary indicators using the northern Gulf and Gulfwide models. The various indicators could be examined individually or in combination looking at aggregates of all fish, all predators, only the upper trophic levels or based on individual groups of predators like Sciaenid predators, HMS and Coastal pelagics, reef fish, as well as specifically for marine mammals or seabirds. The team could provide any portion of these examples for assessment moving forward.

Leaf (GCRL) updated the group on the follow-up document that resulted from the second Stakeholder Workshop last summer to further test the robustness of the HCR. Additional 'extreme circumstances' were suggested by the workshop participants and evaluated by the technical team. These included lower carrying capacity, higher catch rates, and combinations of poor recruitment and increasing natural mortality. **VanderKooy** forwarded the document to everyone in preparation for this webinar. In summary, even with the additional extreme tests, **Leaf** noted that the harvest control parameter was still more successful in reducing impacts much better than with no control parameter in place – increased abundance even with continued but reduced harvest. The team agreed that there are no further scenarios that would actually inform the model at this point. Butterworth and Rademeyer would like to continue to work on this and perhaps if the MAC's proposed research projects are funded through the IJF program, the team could further develop the HCR.

VanderKooy does not want to ask for an overview from the modelers at every meeting if we do not intend to move forward with this. Obviously, it is our intention to have the best stock assessment that tells everything and we've been recommending ecosystem services be considered as these models are developed. Where are we in these efforts? **Himchak** stated that we have taken on a lot over the last year

and is not sure we are ready to implement an ERP working group at this point. We need to come up with the HCR first. **VanderKooy** noted that we have an assessment update coming up in the next couple of years. Is the time right for at least looking at these models as alternatives or sensitivities in some way? **Mroch** stated that while we may not have the ability now to move to ERPs, it is probably the best time to begin to push the envelope and see what these models can provide in comparison to what we are already doing.

Review of 2019 Gulf Menhaden Season and Forecast for 2020

Mroch provided a review of the 2019 Gulf fishing seasons. In the Gulf, the final landings in 2019 were 486,980 mt, which was a slight decrease from 2018, but still above the five-year average. It was a wet spring, resulting in the opening of the Bonnet Carre Spillway and an active hurricane season in the Gulf but nothing severe. Looking at the landings by month, we had the highest landings in August which was the highest landings for that month in over 20 years and catches returned to average through the rest of the year. The three Gulf plants fished 33 vessels; 28 regular steamers and 5 run boats. There are still no age comps available for 2019 but we are in the process of completing the 2018 samples. The forecast for 2020 is based on similar activities as 2019. With no change in plants and vessels and an effort at 290,000 VTWs, **Mroch** estimates landings in 2020 to be around 434,000 mt.

Mroch is preparing to send out the CDFRs next week. The previous printer of the forms has gone out of business so they are working with a new printer. In addition, **Mroch** is implementing electronic measuring boards and scales for the 2020 port sampling effort. **Mroch** is interviewing a new sampler to replace one that is leaving in western Louisiana and will work with the GSMFC to get the three samplers under contract soon.

Herbert asked about forecast which is the lowest we have seen in many years. Why is this the case when the landings are relatively high? **Mroch** stated that this is based on the participation (VTWs) of the same vessels and landings for the last five years averaged. **Mroch** will check on the calculations in the formula since there may be a discrepancy between the effort reported here and in the NOAA Menhaden Newsletter sent out prior to the meeting.

Himchak asked how the Gulf port sampling is working now. **Mroch** stated that there is a gap happening when the freezer is full. Louisiana is providing transport for the samples from Empire but we need to coordinate the effort between the plants and samplers better. The samples from the bailers may need to be picked up on a more regular basis, maybe every two weeks rather than monthly.

Update on the Atlantic Menhaden Fishery

In the Atlantic, **Mroch** reported that the total landings in 2019 were 145,671 mt out of the 152,392 mt available under the TAC for reduction. Nine vessels fished for reduction along with one which fished for bait. This was the fourth year of high abundances, so an episodic event was declared for bait. Effort continues to decline, but landings have been stable due to the TAC in the Atlantic. As of the last 2014 benchmark, the stock was determined to not be overfished so there were a series of increases to the TAC from the original 170K mt in 2012 to 216K mt in 2018 where it remains. The 2019 benchmark assessment has passed peer review both for the single and the multi-species assessments.

Himchak noted some points on behalf of Ben Landry regarding the Virginia non-compliance issue. In October 2019, the ASMFC voted Virginia out of compliance on Amendment 3 for not fully implementing

the Chesapeake Bay cap of 51K mt. The Secretary of Commerce upheld the determination and issued a moratorium on Virginia's fishery, effective June 2020. The Virginia legislature has approved legislation to move regulatory authority to the Virginia Marine Resources Commission (VMRC). Once signed by the Governor, the VMRC can implement a Bay cap by April or May prior to the next ASMFC Menhaden Board meeting.

Updated Indices of Abundance (IOA) from Louisiana Fishery-Independent Sampling

Adriance updated the group on the IOA in Louisiana waters which was sent out ahead of the call. The gear used for this includes the 16-ft trawl, 50-ft bag seine, and the 750-ft experimental gill net. The lengths and CPUE were displayed for each gear. The seines are generally on average in recent years. The trawls have been higher the last decade, but is generally falling with variation around four-year peaks. The gill net samples are up over the last decade, but generally stable. **Mareska** asked if there were any regional differences in CSAs, eastern vs western, especially considering the amount of freshwater the eastern CSAs have been receiving the last year or two. **Adriance** did not look at regional but will check and get back. Did flooding effect regionally as well as coast-wide and could it be dropping the value the last year on each series? **Himchak** reminded that these are the types of data we will need as we move forward with **Leaf's** index development which is in the IJF Research Proposals and would be critical for monitoring any HCR.

Leaf asked if any of the stations were removed that did not have any positive catches similar to the way they have been done in past SEDARs? **Adriance** doesn't treat the indices the same exact way that **Schueller** does. **Leaf** and **Schueller** will look into this and share the Gulf code to standardize with SEDAR indices.

Marine Stewardship Certification (MSC) of Gulf Menhaden

Himchak stated that MSC certification was achieved in October 2019. Under the Client Action Plan (CAP), the industry must improve their overall 6 conditional scores to 80 or better over the next four years. Current conditional scores are either a 70 or a 75. The two stakeholder workshops have begun addressing the harvest control rule and harvest strategy issues CAP. The most recent work with the NMFS is for a multiyear project exploring observer coverage of the menhaden fleet. It is a \$3M Restore Act project which will include a proof of concept using video observation and drones to look at marine mammal and sea turtle interactions.

Two of the industry CAP action items, long term objectives and fishery strategies are also required and the industry needs to improve communications with state MAC members on those two issues. We are now five years out of the last revision to the Commission's Gulf Menhaden FMP and it is probably time to request another revision, especially in keeping with the requirements of the Client Action Plan. **Kuttel** stated that we discussed revising the FMP at the October 2019 meeting of the MAC. **Himchak** has been talking with **VanderKooy** and knows that it is a large undertaking, especially for **VanderKooy** and **Mroch** who would have traditionally been the ones revising the document.

VanderKooy explained that if the MAC requests an update, it would go to the Commission for their consideration and approval. We currently have stayed away from developing FMPs because they are not actual plans akin to a federal FMP. They do not require adoption by the states, but are considered best management practices without regulatory action. That is why we have moved to Biologic and Management Profiles instead. That said, if the Commission does approve a revision, it is likely that a

Technical Task Force (TTF) would need to be formed which would include the state reps on the MAC or a designee. The mechanism is irrelevant at this point, if the MAC thinks an FMP revision is necessary, they should make a motion for the Commission to consider at their meeting next week rather than wait until October. The details of how to accomplish it could be discussed over the summer and implemented prior to October. If a revision is approved, the Operational Assessment (OA) currently on the SEDAR calendar for 2023 would need to be moved up to 2021. The revision has to be completed by 2022 and the timing of the assessment is critical to completing it. If the Commission approves, **VanderKooy** will request that the Gulf Menhaden OA date be moved up by the SEDAR Steering Committee and another OA be added to the calendar for 2024 to keep **Schueller** on the schedule. **Kuttel** provided a motion. *The MAC moves to request the GSMFC allow the MAC to revise the 2015 Gulf Menhaden Fishery Management Plan and update the stock assessment with a completion date by 2022. The motion was seconded by **Herbert** and passed without objection.*

VanderKooy will provide the motion in the report to the Commission next week along with any details. The assessment would actually begin mid-year so we can get a longer terminal year included. The rest of the FMP could be developed and the assessment simply plugged in near the end. It will make more work for the MAC state members if they are also part of the TTF, but the timing is not an issue.

Approval of Minutes

The MAC reviewed the draft minutes from the last meeting on October 15, 2019 in Biloxi, Mississippi. **Leaf** indicated that the entire group, not the ENGOS, requested the additional robustness tests and the minutes don't really reflect that. **VanderKooy** will change it to indicate that all the participants made the request. In addition, **Himchak** noted his name was misspelled on the last page. ***Herbert** moved to accept the minutes as modified, **Adriance** seconded, and the minutes were accepted.*

Other Business

VanderKooy informed the group of several potential research projects to be presented to the Commission's Technical Coordinating Committee (TCC) which is the science committee for the Commission. There are 19 proposals which have been submitted from five subcommittees (Table). These are being reviewed by the TCC and will be ranked according to their priority determination. **Himchak** pointed out that everyone has seen the MAC submission and participated in the development of the MAC list. If any of the MAC projects make the TCC's list, we will develop full budgets and work plans over the summer, and the Commission will consider what they can fund with the amount of funding available. We should know next week if we make the list and October if we are approved, and work could begin in January of 2021.

Project #	Research or Data Need	Source and Priority
1	Commercial Catch Biological Sampling of the Crab Fishery	Crab Subcommittee 1
2	Recreational Crab Fishing Survey	Crab Subcommittee 2
3	Bycatch and Incidental Catch in Commercial Crab Traps vs BRD Traps	Crab Subcommittee 3
4	Alternative Gear Studies for Blue Crabs – trawls, seines, and traps	Crab Subcommittee 4
5	Inter-Annual Assessment of Menhaden Harvest Control Parameter (index development)	MAC 1
6	CDFR Electronic Reporting Pilot (at sea log book)	MAC 2
7	Analysis of Menhaden Tag/Recapture Data (historic)	MAC 3
8	Regional Predator/Prey Trophic Interactions (diet studies)	MAC 4
9	Tag and Recapture Offshore for Adult Red Drum Abundance Estimates	Red Drum TTF 1
10	Socio-economic Survey of Red Drum Fisheries	Red Drum TTF 2
11	Predator/Prey and other Biological Sampling Related to Red Drum	Red Drum TTF 3
12	Environmental Changes Affecting Red Drum	Red Drum TTF 4

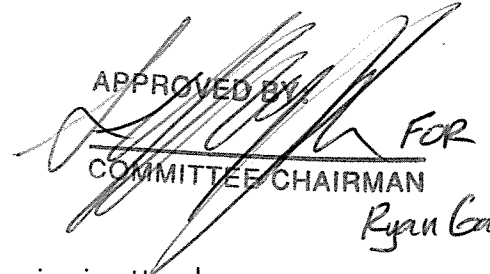
13	Habitat Changes Affecting Flounder Abundances	Flounder TTF 1
14	Temperature Effect on Flounder Sex Ratios	Flounder TTF 2
15	Flounder Telemetry Work	Flounder TTF 3
16	DWH Impacts on Flounder Populations	Flounder TTF 4
17	Lack or Changes in Patterns of Cobia Migration	Cobia TTF 1
18	Cobia Reproduction, Genetics, and Age and Growth	Cobia TTF 2
19	Economic Values of the Cobia Fishery(s)	Cobia TTF 3

VanderKooy noted that he was disappointed that a number of other interested parties were invited to join in the call but didn't participate. We do appreciate the participation from **Hansen** and **Chiles** who have been on this webinar. **VanderKooy** asked if they had any questions or comments. **Hansen** indicated he appreciated the opportunity to join in.

VanderKooy pointed out that fall 2020 GSMFC meeting will be in Florida. Details will be provided over the summer. It will be a regular MAC meeting in person.

With no other business, the webinar adjourned at 10:35 a.m.

TCC CRAB SUBCOMMITTEE MINUTES
March 10, 2020
Gulf Shores, Alabama

APPROVED BY  FOR
COMMITTEE CHAIRMAN
Ryan Gandy

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

Members

Ryan Gandy, FWC, St. Petersburg, FL
Jason Herrmann, AMRD, Dauphin Island, AL
Harriet Perry, USM/GCRL, Ocean Springs, MS
Peyton Cagle, LDWF, Lake Charles, LA
Jason Saucier, MDMR, Biloxi, MS
Chris Mace, TPWD, Rockport, TX

Others

Claire Crowley, FWC, St. Petersburg, FL
Zach Darnell, USM/GCRL, Ocean Springs, MS
Tom Mohrman, Nature Conservancy, MS
Melanie Parker, FWC-FWRI, St. Petersburg, FL
Mike Norberg, FWC, Panama City, FL

Staff

Steve VanderKooy, GSMFC Program Coordinator, Ocean Springs, MS
Debbie McIntyre, GSMFC Staff Assistant, Ocean Springs, MS

Introductions

Chairman **Gandy** led the audience and the committee members in introductions and **VanderKooy** addressed housekeeping issues.

Adoption of Agenda

Herrmann moved to adopt the agenda. **Cagle** seconded the motion, and the agenda was adopted.

Approval of Minutes

The Subcommittee reviewed their minutes from the meeting held in October, 2019, in Biloxi, Mississippi. **Herrmann** moved to accept the minutes as written, **Perry** seconded, and the minutes were approved unanimously.

Draft SOPs for Crab Subcommittee

The Subcommittee reviewed its draft of Standard Operating Procedures and approved them with the understanding that Ms. Harriet **Perry** would remain an active voting member due to her long history with the GSMFC but not be listed officially on the SOPs as a seat. The Subcommittee does not intend to have more than five voting members after **Perry** elects to discontinue participation. *On motion by **Herrmann** and second by **Gandy**, the motion passed unanimously with the change.*

IJF Small Grants Program

VanderKooy reviewed the list of all suggested projects to be funded by the IJF Small Grants Program. These projects will be re-applied for each year. These will be reviewed by the TCC tomorrow afternoon.

Update on Gulf-Wide Blue Crab Tagging Program

Dr. Zack Darnell (GCRL) updated the group on the Gulf Wide Tagging project which is now complete. The recapture data is still being analyzed but out of 19,621 female crabs that were tagged, about 12% were recaptured. The average time at liberty was 27 days with a many at less than a day and one over 400 days. Recapture locations were mostly within the estuaries. Seasonal movement rates for the major six focal regions were highest in Summer, followed by Spring and lowest in the winter and fall. For the most part, the crabs west of Apalachicola generally moved eastward and those tagged around Cedar Key, Florida moved west toward Apalachicola. They are continuing to look at the data and will provide more results as they refine them.

Development of Diamondback Terrapin Conservation Action Plan

Tom Mohrman, of the Nature Conservancy, Mississippi Marine Program, informed the subcommittee of work being funded by Gulf of Mexico Alliance looking at terrapin conservation in the region. This project is needed because terrapins are a species in decline in four of the five Gulf States. There is lack of data and research in this area as well as habitat loss, degradation, and transformation. The process would include scope, threats, viability, objectives and development strategy.

The group is planning to develop a conservation action plan for Diamondback Terrapin and, through a gap analysis, identify additional projects that are needed. There will be a stakeholder webinar in two weeks which the Crab Subcommittee members plan to sit in on. It was pointed out by the subcommittee that collaboration is critical to any conservation since the terrapin population is impacted in some places by crab traps. Understanding how the fishery operates will help with any plan moving forward. **Mohrman** welcomed the input and would continue to include the subcommittee in their efforts moving forward. Their time table is June 30, 2020 but they will ask for December extension.

Summary of State Report Highlights

The state representatives touched upon highlights of their state reports including derelict crab trap removals. The representatives had provided written reports in which they hit high points.

Herrmann reported that Alabama has not seen a lot of difference in commercial crab landings in the last nine years. NFWF surveys were done and modeled after MS. From 2015-2019, they sampled 4752 traps for total of over 18,000 crabs sampled.

Between 2017-2019 AMRD removed 262 traps, with 53 volunteers over 257 volunteer hours. The AMRD does not currently have plans for a cleanup during 2020 but will continue to monitor the accumulation of derelict traps in volunteer accessible Alabama waters twice annually. They continue to bring in derelict traps when doing their regular biological sampling, when possible.

Mace stated that Texas is working within the agency to get a permanent person to fill the absence of the Texas rep. Trends in commercial landings data show an overall decline since the 1980s. The last five years do show an improvement. Derelict crab trap removal involved a ten-day closure in February during which time 2,029 traps were removed with San Antonio having the highest numbers.

Saucier stated that Mississippi waters are closed north of CSX. There have been 913K pounds landed in the last six months with the value up. TEDs and escape rings have been given out using Bonne Carre money. **Saucier** explained that 34 commercial fishermen are enrolled in the terrapin app. There is a definite need for validation on this. The app was started in 2017 and the number of surveys went up in 2018. They are finding less than one terrapin per trap with most interactions in the Pascagoula River. Seasonality reveals that spring is peak season of interaction. They would like to roll this out to recreational fishermen.

The recreational crab survey is voluntary. It is a paper form that gets turned in to the Commission to run for results. Fishing grounds north of CSX is only available to recreational fishermen. **Saucier** stated that participation was over 10% but they should have been collecting better contact information and have not been able to intercept the entire fishery. There is a minimal cost. **Saucier** displayed an improved form and hopes to move to a digital form at the license desk in 2021.

Gandy stated that FL landings are stable. They are licensing recreational traps now. Currently registered are 20,582 blue crab traps and 12,161 stone crabs. They have better success with mail out surveys and will continue to do that. FL was petitioned to require TEDs in all blue crab traps. This is being sent to commission. Right whale entanglement issues are occurring. Stone crab season ends May 15 and Lobster season starts in August.

Cagle reported that the five-year average of crab landings in Louisiana July-September was 25.7M. Dockside value was down 14% compared to 2018. No legislation took place last six months. At this time, there are no harvest control rules in effect. There are six different closure areas for 2020 of 10-14 days between February and March. Two volunteer days took place. 50 participants in Barataria collected 370 traps and 40 volunteers collected 160 traps in Calcasieu. The final assessment report recommended that LA stay sustainable. An updated stock assessment was done in April 2019 which concluded that the stock was not overfished nor was overfishing occurring. There is no stock assessment planned for this year.

Other Business

Perry had tried after the last meeting to locate the original data from the first Blue Crab benchmark assessment (GDAR01) without success. She would like to update the indices used in the assessment through 2019 and see what the current trend looks like. **Gandy** believes they may have the original data at FWRI and would track it down. If it can be found, the subcommittee will explore updating with more recent values and determine if there is expertise in one of the states to derive the indices on an annual basis moving forward.

Adjourn

*With no further business, on motion by **Cagle** and second by **Crowley**, the meeting adjourned at 4:33 p.m.*

**FISHERIES INFORMATION NETWORK (FIN)
MINUTES
Tuesday, March 10, 2020
Gulf Shores, AL**

APPROVED BY: BRENNAN.KENNETH.J.1
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Date: 2021.07.19 14:20:48 -04'00'
COMMITTEE CHAIRMAN

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

Members

Steve Brown, FFWCC, St. Petersburg, FL
Beverly Sauls, FFWCC, St. Petersburg, FL
Marie Head, AMRD, Gulf Shores, AL
Nicole Beckham, AMRD, Gulf Shores, AL
Megan Fleming, MDMR, Biloxi, MS
Darrin Stewart, MDMR, Biloxi, MS
Kevin Bland (proxy for Nicole Smith), LDWF, Baton Rouge, LA
Mike Harden, LDWF, Baton Rouge, LA
Darin Topping (proxy for Faye Grubbs), TPWD, Rockport, TX
Justin Esslinger, TPWD, Rockport, TX
Thomas Sminkey, NOAA/ NMFS, Silver Spring, MD
Jessica Stephen, NOAA/SERO, St. Petersburg, FL
Ken Brennan, NOAA/SEFSC, Beaufort, NC

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
Doug Snyder, GSMFC, Ocean Springs, MS
Deanna Valentine, GSMFC, Ocean Springs, MS
James Ballard, GSMFC, Ocean Springs, MS

Others

Geoff White, ACCSP, Arlington, VA
Chase Katechis, ALDCNR, Gulf Shores, AL
Kevin Anson, ALDCNR, Gulf Shores, AL
Chris Denson, ALDCNR, Gulf Shores, AL
Doug Boyd, GSMFC Commissioner, Boerne, TX
Chad Hanson, The Pew Charitable Trusts, FL
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
Trevor Moncreif, MDMR, Biloxi, MS
Matt Hill, MDMR, Biloxi, MS

Approval of Agenda

N. Beckham moved to approve the agenda as written. **M. Harden** seconded.

Approval of Minutes

The minutes of the Fisheries Information Network (FIN) meeting held on March 19, 2019 in New Orleans, LA were approved as presented.

Barotrauma NRDA Project

G. Bray provided a presentation describing the NRDA process in responses to the Deepwater Horizon Oil Disaster in 2010. The Open Ocean Trustee Implementation Group (TIG) has asked for assistance from Gulf States Marine Fisheries Commission (GSMFC) on a project from their recently approved Restoration Plan 2 to develop innovative tools to help recreational fishermen reduce release mortality in reef species. The three main goals of the project are 1) develop, distribute, and educate anglers on tools available to help reduce release mortality in Gulf of Mexico reef fish, 2) monitor use of tools and restoration of reef species, and 3) validate the effectiveness of fish descender devices. The GSMFC has been asked to assist specifically with the monitoring and validation aspects of this project. The GSMFC is working to put a 5-year cooperative agreement in place. The first year of the project mostly involves developing an RFP for an attitude and opinion survey regarding fish descender devices and scoping some of the additional work for future years. Monitoring efforts may not begin till years 2 or 3 which gives the project management team some time to determine how specifically they would like to monitor device usage and benefits to rebuilding fish stocks. The goal will be a collaborative monitoring effort utilizing state and federal partners as much as possible. **S. Brown** asked if the Southeast Headboat Survey could be utilized as a monitoring component. **K. Brennan** stated they expect to add-on a field or two regarding utilization of descending devices for released catch on headboat trips. He also stated that there are other surveys that could be utilized and the goal is to support at-sea observers for monitoring in some areas. **D. Topping** asked if the project management team has looked at existing research that has been completed already. **G. Bray** stated the project management team has developed a repository of current research to help guide future efforts. **B. Sauls** asked how the money being provided is intended to be spent. **G. Bray** stated the money is intended to support observer programs and other monitoring that are aimed at addressing the goals of the project. We can not just support long term monitoring efforts, but if a monitoring survey is slightly adjusted to answer questions specific to the goals of this project, then funds could be utilized to support that effort. **B. Sauls** stressed it would be beneficial if we could utilize these funds to improve our fishery dependent data collection program needs, while also answering the questions essential to assessing the effectiveness of educating the public on best handling practices and providing some fish descending devices. **T. Sminkey** stated although no specific methods have been identified to accomplish the monitoring task, \$30M have been allocated to fund all aspects of the entire project over 8 years. He is concerned about the impact of additional questions asked of the anglers could reduce productivity on the MRIP Access Point Intercept Survey (APAIS). **M. Head** asked how pending legislation mandating descending device usage could impact this project. **D. Donaldson** stated he believed that legislature was generated in a way that would still allow funding for this research to be available. **B. Sauls** stated this is a large issue for Florida anglers and FLFWC wants to be involved in this research. She stated that the messaging is going to be important as barotrauma is not a significant issue in shallower waters and some for-hire captains are very knowledgeable with regards to venting so the outreach is going to be challenging and the proper message is going to be essential. **Bray** hopes before the March 2021 GulfFIN Committee meeting we should have some concrete ideas for preferred monitoring approaches. The goal would also be to utilize all appropriate state and federal partners in the planning stages as much as possible. None of the GulfFIN partners expressed any concern with that current plan for addressing this project.

MRIP Update

Update on Calibration of State Survey Data

T. Sminkey discussed MRIP staff are working with state survey leads to develop a process to move forward with producing calibrations for state survey data. More information will be provided soon through the Gulf Transition Team and conference calls between state partners and MRIP staff.

Elimination of Incomplete Trip Method

T. Sminkey stated historically, MRIP APAIS allowed for anglers fishing from beach/bank mode to be interviewed before they completed their fishing trip. This produces some trip data after anglers have completed a relatively short amount of time fishing. Getting the angler to predict how much longer they intend to fish produces some unreliable results. Looking at historical data, there is a potential bias for catch rate estimates when looking at the early part of the fishing period in comparison with the latter part of the fishing period. For that reason, MRIP staff are suggesting we remove the incomplete trip method as an acceptable method. None of the state MRIP partners had a problem with this suggestion. The goal is to implement this change for May 1, 2020.

Dolphin Interaction Questions for MRIP APAIS

G. Bray discussed that Dave Donaldson received a memorandum from Roy Crabtree regarding a request from Office of Protected Resources (OPR) to add 2 questions to the dockside and effort surveys regarding bottlenose dolphin interactions. The goal is to characterize and determine how often and where dolphin interactions occur. The questions proposed are 1) Did a dolphin(s) take your bait, fish, and/or hook and line gear and 2) Thinking about your trips over the past 12 months, how often did a dolphin(s) take your bait, fish, and/or hook and line gear? **G. Bray** stated the proposal was to start in January 2021 and they are asking for 3 years of data collection. **T. Sminkey** stated the request to add these questions to the effort surveys is a new request and MRIP staff have not entertained those options yet. MRIP staff have committed to support the questions on APAIS for one year only. Additional conversations will need to be held between MRIP staff and OPR staff regarding additional years and survey methods. **B. Sauls** agreed that this is a large issue in Florida and the first question seems reasonable but she believes the second question needs refining. **T. Sminkey** stated he is not sure if the intention is to read the categorical responses for the second question as written or to just ask them what percentage of trips in the last twelve months and then fit that answer into one of the categories. **T. Sminkey** believes this response could be paired with the avidity question on the APAIS to develop an estimate of the number of fishing trips that were impacted by a bottlenose dolphin interaction. **M. Fleming** stated it might be useful to just ask if bottlenose dolphins were present and impacted fishing. **M. Head** stated that twelve months is a large period to recall trips and maybe using a two-month recall would be more accurate. MRIP staff will bring questions and concerns back to OPR staff and more information will be brought before the states before we approach the 2021 sampling year.

SEFHIER Presentation

J. Stephen provided a presentation on the status of the Southeast For-Hire Integrated Electronic Reporting 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 current plan is a phased implementation that will start September 1, 2020 with the logbook and hail-out portion with the location technology component being added in late 2020. Congressional funding has been appropriated to support trip level validation and NOAA Fisheries has asked the states if they would be willing to assist. NOAA Fisheries would

like to put a cooperative agreement in place with GSMFC to move funding to the Commission to accomplish the validation survey. States have requested more information on the validation survey and NOAA Fisheries is still working to determine the details on how the survey would be implemented. State partners also asked to be included in the development process if they are going to be the agencies asked to implement the survey. NOAA Fisheries has produced a website to help answer questions for captains, anglers, interested vendors and anyone else wanting more information about the program (<https://www.fisheries.noaa.gov/southeast/southeast-reporting-technologies>). NOAA Fisheries is still working on data integration issues with various state partners, applying ACCSPs unique trip identification system, and data outflow for enforcement and port agents. NOAA Fisheries has completed some significant outreach but additional face-to-face sessions are being planned and tool-kits are being developed to help explain to fishermen how to submit data under this system. **G. Bray** asked if the intention for trip level validation data was to implement a completely new survey or utilize the existing surveys already in place. **J. Stephen** stated both options are still being discussed and they are trying to minimize sampling and respondent burden, but ensure they collect essential data elements that allow for matching validation data with logbook data. **G. Bray** stated the goal of getting a cooperative agreement in place by summer of 2020 might be difficult with many unanswered questions. **J. Stephen** stated the current goal is to have a validation program in place by January 1, 2021. **D. Topping** asked if validations for these vessels would be made mandatory. Stephen stated they need to check with legal staff but she assumed that boats in the SEFHIER program would likely be mandated to report on validations. **M. Head** asked if validations would overlap with MRIP assignments. **J. Stephen** stated there needs to be a calibration developed between MRIP and SEFHIER so some separation between the two sampling programs would be necessary but they are attempting to minimize additional sampling burden. **B. Sauls** asked how the states can be involved in the planning of the validation survey process. She stated the states could provide useful information in the early planning before decisions are made. **J. Stephen** stated the first step is to determine what statistical designs are acceptable. **K. Brennan** asked if the money was placed on the 2020 Cooperative Agreement, could sampling start in January 1, 2021. **G. Bray** stated that is doable. **B. Sauls** also warned against rushing to a start date if the survey has not been well thought out and carefully planned. Impacts by frustrated anglers and surveyors will do more damage than good if the program is not carefully planned before implementation. **B. Sauls** also stated, that based on the Gulf Logbook Pilot Study, we realized that a great deal of outreach and education is done at the dock by field samplers. Having well thought out training and materials for them to share with captains that have questions and concerns is another critical component. After further discussion, the committee agreed that once more information on the survey methods and sample sizes are determined by key partners, the GulfFIN Recreational Technical Workgroup will likely need to be convened to have further discussions regarding the ability of the states to assist.

State/Federal Partner 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 recently had its annual Fishery Dependent Monitoring meeting and they hosted Alex DiJohnson from ACCSP to demonstrate the new tablet application that GulfFIN is utilizing for APAIS assignments starting in the fall of 2020. Florida samplers were excited to transition to electronic reporting methods and felt the application was easy to use. She stated that they are hopeful they will be receiving state legislative funds to continue the Gulf Reef Fish Survey and to expand the survey statewide to include the Florida Keys and the Atlantic Coast. The funding would also support their at-sea monitoring program statewide.

S. Brown stated state personnel are helping support the Southeast Headboat Survey in Florida and that work is going well. He is concerned that funding is becoming an issue to continue to support

that with existing personnel, and they would like to discuss that at a later time with Brennan and Bray to determine if additional funding could be made available.

Alabama Updates

M. Head stated Alabama is working on entering biological sampling data and getting caught up on processing and reading of otoliths.

Mississippi Updates

D. Stewart stated Mississippi has created a paper ticket for their newly formed off-bottom aquaculture program. They are working with Bluefin Data on electronic versions of the aquaculture ticket along with a baitfish ticket that is required in Mississippi. **M. Fleming** stated Mississippi is currently working on updating information regarding for-hire sites and vessels.

Louisiana Updates

K. Bland stated Louisiana recently implemented a data query tool for LA Creel data. It allows for querying estimates and downloading estimate tables as a .csv file. The query tool was only implemented two weeks ago so there may be some bugs to be discovered. The link is available to the public.

Texas Updates

J. Esslinger stated TPWD needed to upgrade their character recognition software associated with paper trip tickets. **J. Esslinger** plans to ask other states how they are handling their paper tickets. Texas still sees a large amount of product being advertised through Facebook, some legal and some illegal.

NOAA Fisheries SEFSC Updates

K. Brennan mentioned the fish descending device, SEFHIER, and the Southeast Headboat Survey are all priorities for SEFSC staff right now. They are working with Bluefin Data to modify the headboat monitoring software to allow for hail-out functionality to meet the requirement in the Gulf of Mexico for SEFHIER. They are also working with ACCSP to get headboat survey data into their warehouse. Staff are also finishing up a report on the GPS testing project for devices that will be allowed as cellular VMS units under SEFHIER. That report will be available to the Gulf Council and states soon.

NOAA Fisheries Office of Science and Technology Updates

No additional report.

Gulf Council Updates

L. Hollensead reminded the committee of the upcoming council meeting at the end of April at the same location, The Lodge and Gulf State Park.

Gulf States Marine Fisheries Commission Updates

G. Bray reminded state partners that unless told otherwise, GSMFC staff assumes that spending is proceeding following the approved budgets that we were provided by the states. If minor deviations in budget spending need to happen that is normally allowed, let him know as soon as possible so we can document that in our files. This helps us answer questions if future audits find difference in spending practices from what was originally budgeted. **G. Bray** also stated that GulfFIN will do what it can to support state specific customization products being asked for under the new VESL program, but with limited budgets each year, it is likely that new costs might just mean that cuts will need to be taken from other areas.

Ongoing Activities

VESL Update from TPWD

J. Esslinger stated there are currently 58 dealers out of 314 that are using the new VESL system with those dealers providing positive feedback. Bluefin Data continues to respond to questions and issues from the dealers in a timely manner and are providing tutorials on how to utilize the functionality of the new system. TPWD is in the process of transitioning the rest of their electronic dealers to the VESL system. Thereafter, the dealers currently using paper tickets will be encouraged to transition due to the utilization of cell phones and tablets to report. **J. Esslinger** mentioned that functionality for federal dealer reporting is still not available in the new VESL system. **N. Beckham** asked about the use of cell phones and tablets to report. **J. Esslinger** stated the dealer logs into the VESL system web site to create and enter the ticket information, noting it's a bit of a challenge due to the phone and tablet screen sizes but is usable.

Progress on VESL and Florida Swipe Card Project

S. Brown reported Florida is in phase two of the swipe card project and is currently working with Bluefin Data to develop a bar code reader application that can be used with mobile devices. Presently they are doing a weekly export of license data to ensure the application has the most current data for fisherman, dealers, and vessels. **S. Brown** mentioned just under 50 dealers are currently utilizing the state only version of the application due to the federal functionality being in the developmental stage. Beta testing of the federal functionality should begin within the next two months with federal dealers being added to the system at a faster pace once the functionality is in production. **S. Brown** stated the bar code reader is popular among the dealers initiating transactions at the dock, with dealers utilizing the card reader preferring the desktop reader. Mobile device readers are bulkier when plugged into a device and are less desirable at the moment. The state has provided dongles to help better attach the mobile readers to devices which has helped somewhat. **S. Brown** reported leftover funding from phase one will be amended for phase two for ordering the rest of the card readers moving forward. **K. Brennan** asked how the bar codes function. **S. Brown** explained the printed card has a magnetic strip in addition to a standard bar code and a QR code. The desk top reader will utilize the magnetic strip as well as the bar code and the mobile readers will only read the magnetic strip. If they have a phone or tablet with a camera, they can use the camera in conjunction with the bar code reader application to read information from either bar codes on the card.

Discussion of Shrimp Conversion Factor Research

G. Bray suggested a brief update from each state with details being discussed among the Commercial Technical Workgroup in the Hoshin work group session later in the afternoon. **D. Topping** stated TX has completed sampling and analysis of 1100 brown shrimp and 615 white shrimp, discovering the old conversion factors for brown and white shrimp seemed to be reversed with the current analysis. **D. Topping** mentioned he is awaiting to compare results with the other states. **M. Harden** reported LA has completed collection, QC and analysis of brown shrimp and white shrimp and is awaiting comparison to the other states. **D. Topping** asked if LA was acquiring fresh or frozen shrimp for processing. **M. Harden** stated there were difficulties with the fresh water intrusion and inability of dealers willing to participate, but shrimp were acquired as fresh. The LA brown shrimp results were close to the results from TX, but LA would like to obtain some more white shrimp samples for analysis. **Fleming** stated MS is not finished with sampling due to shrimp landings being low and that shrimp are acquired fresh with broken samples being discarded. **Fleming** mentioned mostly white shrimp have been sampled along with few brown shrimp and no pink shrimp. MS is hoping the summer season will bring more shrimp for sampling. **N. Beckham** stated white shrimp sampling and analysis have been completed in AL but only half of the proposed number of brown shrimp were sampled and analyzed due to the slow season. These results were close to the TX results. **N. Beckham** mentioned royal red shrimp and pink

shrimp were obtained and analyzed too. **S. Brown** reported FL has only acquired and analyzed pink shrimp with the results being close to the original conversion factors. **S. Brown** stated they will try to obtain viable sized brown shrimp and white shrimp from dealers moving forward into this season.

Progress on GSMFC FIS Projects

G. Bray reported the trip ticket version tracking system has been implemented that has additional quality control to identify errors that weren't being caught in the past. This system was designed to provide cleaner more accurate trip ticket data. **G. Bray** mentioned that there have been concerns and from the states with the changes, and GSMFC staff will work with the states to make improvements. If specific quality control checks are more detrimental than good, GSMFC will abandon those specific checks. **D. Bellais** stated that the new system is being run parallel with the current production system with a release date of June 2020. This will give the states a beta test period and the correction of any errors by the development team that may be discovered. **J. Esslinger** asked for a clarification of the trip ticket versioning system. **G. Bray** stated the system creates a change log for records that are loaded multiple times to identify what has changed on the records. This change log can be used to verify data changes for assessments, and if need be, further clarification from the states for the change(s). **M. Harden** asked if any of the states were tracking these changes within their respective state. **S. Brown** stated FL tracks their own changes internally. **M. Harden** reported LA only keeps the previous version of the ticket data and would not be able to identify why it changed 3 or 4 versions ago.

G. Bray updated the committee on the biological data management system improvements completed at GSMFC. The data entry component has been well received by the states utilizing this new tool. The upload component has been working well for the states that pull data from their own systems, re-format the data to the system requirements, and up-load the data into the system. There have been more quality control measures implemented for both components which allow GSMFC to respond to federal stock assessment data requests timelier, easier, and more efficiently. **G. Bray** mentioned the last component that will centralize the database for the different species-specific reference sets sent to the ageing labs has not been fully implemented yet.

G. Bray stated the APAIS survey is transitioning to tablets for the Gulf and thanks ACCSP for sharing the backend database and the tablet application used in the Atlantic with modifications for the Gulf. This has allowed GSMFC to implement tablet usage quicker and more cost effective. The database has been created and monthly draws are able to be loaded. **G. Bray** mentioned the next steps are to grant APAIS supervisory staff in the participating states access to the web portal for testing and work with the contractor to modify the application for the requirement in the Gulf. In early summer of 2020, GSMFC will purchase of a few tablets for in house testing and begin visits to the states for APAIS supervisor training soon after. **G. Bray** stated a phased implementation plan is projected over the course of Fall 2020 with full implementation of tablets by January 2021.

G. Bray mentioned one aspect of the biological sampling funding is to complete an analysis on how representative the sampling of the recreational fishery is from a biologically sampling standpoint. **G. Bray** stated a statistician will be contracted to complete the analysis with GSMFC providing the majority of the data over the timeseries GSMFC has, but at this point will need SEFSC staff input to move forward.

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.

Status of FIN DMS

D. Bellais provided the status report of the FIN DMS and requested any questions or concerns by the members be emailed to her for clarification or changing.

Review and Approval of 2019 FIN Annual Report

FIN Committee members were provided with copies of the draft 2019 FIN Annual Report. This is a summary of what GulfFIN accomplished the 2019 calendar year. **D. Bellais** requested that members of the Committee review the 2019 Annual Report and provide comments, revisions or corrections to **G. Bray** by June 30, 2020. **N. Beckham** moved to accept the FIN 2019 Annual Report as is with pending editorial changes. **D. Stewart** seconded and the motion passed unanimously.

Subcommittee and Work Group Reports

Otolith Processors Training Workshop

D. Bellais stated a workshop was held in September of 2019 with great participation from ageing labs in North Carolina to Texas. This continues to be a successful meeting for keeping our state processors trained on standardized ageing methods. After review by the committee **M. Head** moved to accept the report. **K. Brennan** seconded and the motion passed unanimously.

Commercial Technical Workgroup

D. Bellais stated the commercial technical workgroup had three conference calls, two on vessel registry and one on commercial shrimp conversion factors. **G. Bray** asked if the states are still working on the vessel registry data. **D. Topping** stated TX has the data in two different agencies and some the data is not correct or complete. **M. Harden** stated LA will be starting soon, due their IT department currently having a higher priority to complete. **D. Stewart** stated MS is working on acquiring the data as it is housed in a different agency. **N. Beckham** stated AL is having difficulty obtaining the regular license data and obtaining the vessel registration data will be a bigger problem. **S. Brown** stated FL already provides this data. **M. Harden** moved to accept the reports. **N. Beckham** seconded and the motion passed unanimously.

Recreational Technical Workgroup

D. Bellais stated the recreational technical workgroup had a call pertaining to the recreation standards document development and this group will continue this work in the afternoon Hoshin development session. **N. Beckham** 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 2019. No significant motions or action items needed to be addressed at the FIN meeting. **B. Sauls** moved to accept the report. **M. Head** seconded and the motion passed unanimously.

Operations Plan

Review/approval of 2021 Operations Plan

The FIN Committee was asked to review the 2021 Operations Plan. **G. Bray** stated this document is developed from ongoing work and the priority projects from strategic planning. He reminded the committee if the FIN 2021 funding priorities change and the State Federal approves the change(s), it will affect what is in the 2021 Operations Plan. Committee members asked if there was a need to include the Barotrauma project and the proposal to hold another strategic planning

session in 2021. **G. Bray** stated those were good ideas and he will modify the document and re-send to the committee for comments, changes, edits and via email ask the committee of acceptance.

Discussion of FIN Funding Issues

2021 FIN Funding Priorities

Committee members were provided with a list of items for funding consideration in 2021. 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 2020 meeting. At that time, they will decide which items will be included in the 2021 FIN Cooperative Agreement. After considerable discussion, the committee approved including all the ongoing tasks as high priority for inclusion in the 2021 FIN Cooperative Agreement. The committee also included Biological Sampling for the period of September through December of 2021 as high priority because currently funding is set to run out on August 31, 2021.

All items listed as high priority will require budgets and statements of work to be delivered to **G. Bray** by August 1, 2020. The committee discussed adding just the ongoing work as high priority jobs. 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

H – Biological Sampling for Recreational Catches, September 1 – December 31, 2021

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 continued working on developing a revised GulfFIN Recreational Standards document. **B. Sauls** asked the workgroup members to review the survey matrix one additional time before sharing that with others outside the committee for feedback. The Commercial Technical Workgroup discussed analysis of shrimp conversion factor data and how to proceed with developing a final report. **G. Bray** also stated he is working with Nia Morales at the Center for Conservation Social Science at FFWC on a draft version of the partner needs survey prioritized at our last strategic planning session. He hopes to provide a draft version of the survey for the FIN Committee to review in the coming weeks.

Other Business

K. Brennan stated GARFO, NEFSC, SEFSC, SERO, and HMS are working on a one-stop reporting program. It is designed as a vessel reporting system to satisfy all fisheries depending on the permit type. The timeline for implementation is likely 2 years before it is ready. They are working with vendors to develop tools. There is potentially a meeting in June that would pull in state partners for input. **J. Wilson** stated this system will mirror dealer reporting but from the vessel side of reporting. The goal is to make all of the vessel reporting electronic. This would move the federal logbooks in the Southeast to electronic methods. With a multitude of reporting requirements coming online the goal is to determine which projects are compliant under one-stop reporting and end users could go to one site to report their logbook once that would allow them to be compliant with multiple agencies.

G. Bray stated the 2021 NOAA FIS RFP has been made public. There is roughly \$5.5M available for four priority areas. **G. Bray** stated that interested state partners need to contact him first before submitting a pre-proposal so he can discuss some budgetary items. All state proposal funds would be moved through the GulfFIN Cooperative Agreement and would likely not be received until March-May 2021. The deadline for pre-proposals is April 15, 2020 and the deadline for final proposals is June 12, 2020.

G. White stated ACCSP has been excited to share their knowledge on APAIS tablet development and want to recognize MRIP staff for support their work that is now being shared in the Gulf of Mexico and East Florida. ACCSP has also been working with PSMFC staff on how they make data available through their website query tool. The three FINs are working well in sharing information which has been great. ACCSP is in the middle of a SAFIS redesign and is moving toward the same code base serving all the different modules under SAFIS. They are focused on trip reports now and will look at dealer reports in 2021.

G. Bray stated he sent out a draft document on the proposed language for developing state partnerships for utilizing and supporting state surveys under MRFMA. There was also another document regarding state license data and MOU requirements. Please share those with any agency staff that are best suited to help provide comments. He reminded recreational committee members to review the document and provide comments by April 30, 2020.

M. Harden stated LDWF have not received a USCG license database for a long period. LDWF would like to determine if it is possible to receive that again. **D. Bellais** stated M. Travis was going to check with M. Lewis on that issue and we have not heard anything. GSMFC will check with M. Travis again on this issue.

There being no further business, the meeting was adjourned at 5:00pm.

**Molluscan Shellfish Subcommittee Organizational Meeting
MINUTES
March 10, 2020
Gulf Shores, Alabama**

APPROVED BY:
Virtual Approval
COMMITTEE CHAIRMAN
9/22/2020

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

Members

Erik Broussard, MDMR, Biloxi, MS
Charlie Robertson, MDMR, Biloxi, MS
Carolina Bourque, LDWF, Lafayette, LA
Robert Caballero, LDWF, New Orleans, LA
Jason Herrmann, ADCNR/AMRD, Dauphin Island, AL
Byron Webb, Alabama Dept of Public Health, Mobile, AL
Evan Pettis, TPWD, Rockport, TX
Christine Jensen, TPWD, Dickinson, TX
Melanie Parker, FWC, St. Petersburg, FL
Mike Norberg, FWC, Panama City, FL

Speakers

Chad Hanson, PEW Charitable Trust, Crawfordville, FL
Eric Weissberger, NOAA Restoration Center, Silver Spring, MD

Others

Chris Blankenship, ADCNR, AL
Lance Robinson, TWPD, Austin, TX (Commissioner)
Brady Carter, LDWF, Bourg, LA
John Mareska, ADCNR/AMRD, Dauphin Island, AL
Christa Russell, Coalition to Restore Coastal Louisiana, New Orleans, LA
Bill Walton, Auburn Univ. Shellfish Lab, Dauphin Island, AL
Sharon McBreen, PEW Charitable Trust, Orlando, FL
Dan Ellinor, FWC, Tallahassee, FL (Commissioner)
Ryan Gandy, FWC, St. Petersburg, FL
Claire Crowley, FWC, St. Petersburg, FL
Chris Nelson, Bon Secour Fisheries, Bon Secour, AL (Commissioner)

Staff

Dave Donaldson, GSMFC, Ocean Springs, MS
Jeff Rester, GSMFC, Ocean Springs, MS
Steve VanderKooy, GSMFC, Ocean Springs, MS
Debbie McIntyre, GSMFC, Ocean Springs, MS

VanderKooy, IJF Program Coordinator, opened the meeting. **Donaldson** welcomed and thanked group for participation and introductions were made around the table and room.

Adoption of Agenda

The agenda was adopted on motion by **Norberg** and second by **Herrmann**.

Overview of the GSMFC

VanderKooy provided a short overview of the Commission and the history of involvement with oysters and recent aquaculture activities.

The Commission was formed in 1949 by Compact (P.L. 81-66) between the five Gulf states who are our members. The purpose of the Commission is to work in unison to manage the shared fishery resources. Three other commissions exist: the Atlantic and Pacific States Marine Fisheries Commission. The Gulf Commission deals with near-shore species but does not have regulatory power; the states manage their own state-water fisheries. The Commission is made up of fifteen members; the five state agency directors, five private citizen, and five legislative such that each state has three commissioners, one from each category. The states pay annual dues to the Commission which makes up the core funding. In addition, the Commission also receives federal funds from both NOAA and the U.S. Fish and Wildlife Service.

The Commission has a number of advisory groups under two main committees who report directly to the Commissioners; the Technical Coordinating Committee (TCC) which is the science side of the Commission and the parent of this group, and the State-Federal Fisheries Management Committee (S-FFMC) who advises the Commissioners on more policy related issues.

There are several programs within the Commission related to interstate fisheries, commercial and recreational data collection, invasive species, and aquaculture. There are a number of subcommittees and task forces associated with these activities, all of which feed up through the TCC and S-FFMC and ultimately to the Commission.

The Commission meets twice a year, once in March and again in October to receive updates on program activities and issues and direct staff actions for the coming year.

VanderKooy described some of the history of the Commission's activities related to oysters specifically. A number of oyster issues in the past were handled by staff such as drafting letters opposing the request to list Eastern Oysters under the ESA in 2004 or more recently raising concern regarding the importation of oysters from Europe with concerns over introduction of the oyster herpes (OsHV-1) virus to US waters. **Nelson** indicated that this committee would have been very helpful when issues like this came up. **Nelson** also stated that mission and goals for the Molluscan Shellfish Subcommittee are not set in stone but can be changed as needed by the members and the Commission as we move forward. The Subcommittee should be allowed to adapt as additional needs arise but he wanted to make sure there was "a lot of science" in this group as there is a serious need for information in the fishery in general today.

Discussion of Subcommittee Role and SOPs

VanderKooy reviewed the Standard Operating Procedures (SOPs) which were developed by TCC at their last meeting in October 2019. All subcommittees have drafted SOPs now and are in the process of getting them approved by the Commission.

Jensen asked for clarification regarding voting procedures since there were five states but ten members. **VanderKooy** believed that in the case of this Subcommittee, a quorum would be 50% of members and voting would be by individual members although it was unclear what happens in the case of a tie. It was suggested that in a tie, the state votes would be combined and the majority by state would carry but we will address the specifics as the Subcommittee evolves and gets comfortable in their role. The Subcommittee is allowed to designate proxies but it would be best to have a single proxy to ensure continuity between meetings. If a state wished to send the member and their proxy, the Commission would cover travel for the single member and the state was welcomed to cover the proxy. Since this was the first meeting of the new Subcommittee, there will likely be other procedure questions that come up in the future and will be addressed as needed.

Travel Guidelines

VanderKooy provided the group with a brief overview of GSMFC travel policies. The authorization and reimbursement procedures were explained and the group was referred to the GSMFC Travel Guidelines for detailed information. Any questions regarding travel should be addressed to Alice Wilhelm (awilhelm@gsmfc.org), the Commission's travel coordinator.

State On-Bottom and Off-Bottom Oyster Resource Status Reports

Alabama – **Hermann** provided a handout with a summary of the last ten years of oyster landings in total. The 2018 landings were all private since there was no public harvest and about 75% of the landings in 2019 were from public grounds at around 60,000lbs. Several years of freshwater were problematic and conversely, the drought years resulted in high drill predation. **Hermann** reported that the AMRD is exploring cultch relief when doing restoration planting. They are testing high mounding cultch materials (up to a meter vertically) of different types rather than the traditional broadcast spreading and looking at elongated furrow mounds as well. The elongated mounds should help reduce sedimentation on the cultch on the inside by reducing the effects of waves and currents. There was a lot of interest from the other members about the research and **Hermann** will provide whatever information he can to the group. **Jensen** noted that the TPWD has done something similar but they haven't allowed harvest on them yet so they can't assess the benefits yet.

Webb discussed some of the activities from the Department of Public Health. There are now thirty permitted aquaculture operations but only about three or so that are still harvesting since many of the areas are closed. Area 7 is about the only place they can still harvest. Area 3, 2, and 1 need to relay to Area 7 for 21 days before harvesting. Last year's off-bottom harvest was about 2.5M individual oysters. All farm raised oysters must be sold to dealers through the trip ticket process and must be chilled down according to the standard protocols for all oysters. AMRD and NOAA keep track of the wild and farm harvested oysters and can be broken out as needed. Meat yield conversions will need to be different however between farm raised and wild as well as for triploids – the old conversions don't work for all. The farmed are smaller oysters than wild since they are for the half-shell market.

Texas – **Jensen** provided a Powerpoint on the wild harvest in Texas waters. Galveston Bay has been the majority of the fishery historically around 75% of the total catch but not so much lately (45% now). The southern bays are contributing more to the total harvest than before (Matagorda, San Antonio, and Aransas bays). Leases in Texas are in Galveston Bay and were originally created primarily for harvesting in restricted areas and depuration on the lease areas. Transplanting live shell-stock onto leases has been prohibited since 2014 so any harvest is from wild spat that has settled on any cultch plants on the leases

and provides 20-25% of the total Galveston Bay harvest. Both public and private harvest has been declining since the early 2000s due to a number of issues including drought, flooding, predation, disease, hurricane damage, and disease. As a result, there has been a lot of restoration effort using shellfish recovery tags on harvesters since 2011 and dealer contributions by regulation since 2017 requiring 30% of cultch returned as shell or fee back to the state. TPWD has instituted a traffic light approach for management, evaluating overall abundance and size class on reefs to determine opening and closing individual reefs beyond water quality closures. Additional regs have been put in place to restrict harvest in alternative areas by oystermen and reduced the sack limit to 30 and professionalize the fleet. The regulatory changes seem to be helping with overall abundances increasing generally in the southern bays.

Pettis discussed the current mariculture (Texas terminology) activities which are coming soon. Texas passed legislation last year to begin setting rules for a mariculture program. Individuals will nominate their own sites for potential off-bottom so getting a site surveyed, approved, and permitted is the responsibility of the lessee. TPWD approves sites with a special planning tool. The farm will operate with a 10-year, non-transferable lease but must show active use of area under lease. Harvest is at a 2 ½ inch minimum following all ISSC rules and the NSSP model ordinance. There may be hatcheries and nurseries approved in the future but this is another step after final adoption in May of this year. Leases will be re-evaluated before issuing another 10-year permit in the event that the habitat changes such as expansion of seagrasses into a lease area. The farmer will essentially start over with a new process when their lease runs out.

Florida – **Parker** provided a shortened version of the presentation she made at the general session last year. Prior to the collapse of the fishery in Apalachicola Bay, Franklin County was around 90% of the total landings. In 2018, Florida only landed about 15% of what was landed in 2012 with almost none from Apalachicola. There has been a shift in harvest effort toward Dixie/Levy County in the Panhandle up to about 0.5M lbs but is decreasing again. FWC has implemented more check stations and reduced the limit for harvest in Apalachicola Bay to 2 bags per person per day and only Monday-Thursday. Florida is continuing to shell plant in the area and have restored 835 acres through 2017 through NRDA, NFWF, and RESTORE.

Norberg reported on aquaculture and restoration activities in Florida. The FDACS provided a few bullets for the update. There are currently about 2,800 acres of leases producing shellfish within the state. There are 189 water column leases covering 365 acres and 24 aquaculture use zones in 10 coastal counties, especially in the Big Bend and Cedar Key areas. FWC is working with multiple community-based work groups which have been formed for restoration purposes, especially in the Panhandle region and the department is hoping to develop estuary-based management plans. FWC has just received some funding through NFWF for restoration in Apalachicola Bay to cultch in that bay and address some missing gaps in cultching. They hope to cultch up to 1000 acres of additional reefs. Since there has been some shift in effort away from Apalachicola, there is a management plan being developed for the Suwanee Sound area where there has been an increasing effort on the oyster resources.

Mississippi – **Broussard** provided some updated info on the oyster mortality due to the opening of the Bonnet Carre Spillway. Mississippi public reefs experienced about 35% mortality after the first opening but then 95+% mortality when it opened a second time in 2019. The monitoring program just watched everything disappear. In the past three years, over 1000 acres have been clutched in the Western Sound,

Biloxi and Pascagoula Bays. The historic areas of production are being forced to shift eastward in more recent years to avoid freshwater intrusion effects from the Mississippi River. There was a huge decrease in landings for all reefs and after the Bonnet Carre close, we experienced an unusual harmful algae bloom. The Sound was further closed as a direct result of the freshwater as the toxic algae closed the beaches, generated hypoxia, and resulted in a number of advisories for commercial and recreational fisheries. Mississippi is currently in its second year of aquaculture utilizing the 25-acre park set up south of Deer Island. There are eight oyster farmers currently who've gone through the MDMR training and are growing their own product and another 21 participating in the classes now.

Robertson indicated that restoration efforts were going really well, right up to the opening of the Bonnet Carre. Just when we appear to be on the cusp of recovery, we get a new disaster about every 24 months. Pushing forward to different area when necessary. Its been this cycle since Katrina. The result is we are shifting our focus to the east. We are putting effort into Biloxi Bay and away from the historic grounds.

Broussard noted that one of the big questions out there is related to shifting stable states. Since Katrina, is this actually a continuing staircase down? Is the trend continuing to go down and we can't expect a recovery back to where we were before? how do we address this? **VanderKooy** noted that after Katrina, we moved a lot of live oysters from closed areas out to the public grounds but then freshwater killed those. **Broussard** indicated that part of the problem is that we moved oysters out of reserve but didn't put shell back into those areas so there just isn't any kind of back account for oysters on hand. The reefs don't have enough live oysters to produce spat either. MDMR as seen very few.

Louisiana - **Bourque** reviewed the Louisiana activities since last year's general session. In Louisiana, there are nearly 1.7M acres of public grounds and about 930 leaseholders who manage another 400,000 acres privately mostly in the eastern half of the state. Louisiana conducts its annual stock assessment in July and provides a shell budget for management. In 2019, they sampled 102 sample sites with 505 total m2 which go into the assessment. In addition, LDWF conducts routine biological monitoring and sampled for the Bonnet Carré weekly and other flood events. Based on days at or above flood stage at the Baton Rouge/MS River gauge, the 2019 Mississippi River flood was the longest lasting flood on record. The Bonnet Carré Spillway opened for an unprecedented two times in 2019, for a total of 123 days. Salinities returned to normal in most basins after September, but hypoxic conditions were observed across the coast into October. Prior to flood events, the landings were good. There have been continual declines in landings from the public grounds since the early 2000s and the contribution from private leases has been increasing. In 2018, only 2% of the total oysters came from public grounds. There is still an open season in Louisiana but they have experienced anywhere from 80-100% mortality across the state. For 2019-2020, there have been significant reductions in allowable take. Sister Lake has been reduced to 25 sacks during an 8-day season and Calcasieu is reduced to 10 sacks per day and only by tonging.

Bourque reported that there are several new spat-on-shell projects for 2019 which include deployments in Breton Sound, Barataria, and Hackberry Bay. Sampling of plants will be at 2, 6, and 18 months using diploids spawned at Grand Isle Fisheries Research Lab. LDWF is also doing transplants. About 200 adults were collected from Sister Lake and Calcasieu and transplanted to Pontchartrain. Some are still alive and some of the cages have been lost. They are still doing cultch planting projects throughout the state and including the spat-on-shell approach. Louisiana is currently in the process of lifting the 20-year moratorium on new oyster leases to expand the lease areas in the future.

Caballerro provided a short update on Louisiana's alternative oyster culture (AOC). Most of the activities recently have been related to changes in AOC permitting which is extensive and includes LDNR, USACOE, LDEQ, and finally the LDWF. For any new state lease bottom, oyster farmers who want to switch from regular lease to aquaculture, must also get a bond and quote for removal. To import larvae/seed from Mississippi or Alabama, a larvae import permit is needed and a pathology report and finally, if you plan to sell any product you must have a Seafood Wholesaler License.

Under the AOC, the annual landings have been around 3,000 sacks in 2018 and nearly 2,500 in 2019. LDWF continues to provide support for the new approach through a new commercial oyster website that provides the step-by-step process for permitting. The LDWF is providing diploid and triploid seed and continues to partner with the LA Sea Grant. The industry has requested some improvements which include streamlining the permit process, electronic trip tickets, better marketing and promotion of Louisiana brand oysters, additional seed/larvae sources, and more areas like the Grand Isle Aquaculture Park in other regions in the state.

Status of Oyster-Related Restoration Projects in the Gulf

Chad Hanson (PEW Trust) informed the group that they were beginning a gap analysis of oyster modeling and would hopefully be able to use the results to direct funding for targeted restoration efforts. This will be an inventory of all the restoration projects from the last decade to see where they are now. Were they successful? Did they continue and are they still providing some benefit for the effort and funds expended?

Update on Deepwater Horizon NRDA Region-Wide Oyster Restoration

Finally, **Eric Weissberger** (NOAA) reported on NRDA funding from DWH oil spill which was for oyster restoration. They are in the process of screening projects that came in through restoration portal. They received over 2,000 and reduced the oyster related proposals to about 70. As they continue the review, **Weissberger** will keep the group up-to-date on the progress and may provide an update at the October meeting with some final projects.

Freshwater Intrusions

It was agreed that most of the freshwater issues were covered in the individual state reports.

Election of Chair and Vice-Chair

Bourque volunteered to serve as chair for the next year and **Norberg** volunteered as to serve as vice-chair. The Subcommittee approved unanimously. **VanderKooy** will work with them both as we move to draft the next meeting agenda.

Next Meeting

A number of items were discussed in general which will become good topics for agenda items at future meetings, such as the OsHV-1 issue, importation standards and biosecurity in the region, ongoing genetics work, and items specific to restoration efforts and off-bottom expansion. **VanderKooy** would work on future agendas with the Subcommittee to explore these and other topics. A General Session dedicated to a few of these may be helpful at later GSMFC Annual Meetings. A lot of support for these topics was also provided by audience members and several indicated a willingness to provide presentations in the future as well.

There was a clear need for more information on each state's aquaculture permit process. AMRD has a single website to send people down the correct path for all the permitting process. TPWD expects that the permit process will likely take up to a year once they actually get mariculture approved. LDWF has a number of potential aquaculture participants who would like to have a single resource for all the permitting but the staff just does not have the time currently to handle it all from one place and one person.

VanderKooy indicated that the next meeting of the Molluscan Shellfish Subcommittee will be in Florida, the third week of October. **VanderKooy** will provide info as it becomes available.

Other Business

With no further business, **Pettis** motioned that the meeting be adjourned with a second by **Herrmann**. The meeting adjourned at 12:05.

APPROVED BY:

Robert Cor Ted Switzer
COMMITTEE CHAIRMAN

TCC SEAMAP SUBCOMMITTEE
MINUTES
Tuesday, March 10, 2020
Biloxi, MS

Chairman T. Switzer called the meeting to order at 1:10 p.m. The following members and others were present:

Members

John Mareska, ADCNR/MRD, Gulf Shores, AL
Jill Hendon, USM/GCRL, Ocean Springs, MS (via phone)
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
Chase Katechis, ADCNR/Marine Resources, Gulf Shores, AL
Lance Robinson, TPWD, Austin, TX
Kevin Anson, ADCNR/Marine Resources, Gulf Shores, AL
Ed Swindell, Marine Process Service, LLC, Hammond, LA
Joe Jewell, MSDMR, Biloxi, MS

Staff

Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS
Dave Donaldson, *Executive Director*, GSMFC, Ocean Springs, MS
Ashley Lott, *Staff Assistant*, GSMFC, Ocean Springs, MS

Adoption of Agenda

T. Switzer added the following: a review of the Southeast Acoustics Workshop, update on the status of the invertebrate identification workshop, update on the 2020 SEAMAP Reef Fish Video Survey, and a discussion on a joint mapping cruise for hands-on training. Under agenda item 9b, the Subcommittee added a discussion on whether or not SEAMAP partners were still interested in conducting mapping cruises instead of vertical line sampling. **J. Mareska moved to adopt the agenda. F. Martinez seconded and the motion passed.**

Approval of Minutes

J. Mareska moved to approve the SEAMAP minutes from October 15, 2019 as submitted. B. Falterman seconded and the motion passed.

Administrative Report

J. Rester stated that the Fall Shrimp/Groundfish Survey was completed on November 22, 2019. SEAMAP completed 305 stations during the Survey. Louisiana completed their Vertical Line sampling on October 15, 2019 and Texas completed their sampling on October 28, 2019. SEAMAP is entering its 39th year of sampling. **J. Rester** asked that all Subcommittee members

send in their data and cruise reports as soon as possible. He reported that the Habitat Mapping Work Group held its first meeting in November. He stated that details of this meeting would be discussed later in the agenda. NFWF held a meeting in December to discuss and review the state's Fishery Independent Survey work that has been completed over the past five years. NFWF recognized the importance of Fishery Independent data and the need for additional funding, however, NFWF was not sure that they should be the funding source. The Steering Committee for the Commission's Fishery Independent Surveys project met in January. The goal of the Optimizing Fishery Independent Surveys in the Gulf of Mexico project was to identify an idealized sampling approach by exploring ways to optimize current surveys, to augment fishery independent surveys utility where there were gaps, and consider new approaches to fishery independent surveys when necessary to meet current and future management objectives. The goal would be reached by: developing a list of data needs for managing fisheries in the Gulf of Mexico; developing new survey designs; and developing an implementation plan to transition existing surveys to the more optimal designs. A User Group Workshop will be held this summer. SEAMAP Subcommittee members will be invited to attend and provide input on the project's direction. **J. Rester** stated that real time data would be distributed again this summer. **J. Rester** asked that Subcommittee members send in their trawl data by noon each Tuesday.

E. Hoffmayer noted that NMFS was testing DO sensors on their trawls. If it works well, he would like to suggest that all SEAMAP partners use them. He stated that they were easy to use and cost around \$1,000.

E. Hoffmayer asked **J. Rester** when he would be sending out the excel spreadsheet from the Steering Committee meeting. **J. Rester** stated that it will go out next week. The spreadsheet will be shared with the SEAMAP Subcommittee as well.

Representative Sampling Discussion

Since the trawl workshop, **E. Hoffmayer** was curious as to how sampling and identification went. In the summer/fall surveys, they looked at 11,000 fish with an accuracy rate of 97.5%. He asked how this rate could be improved? **B. Falterman** stated that he did not get a lot of feedback from his crews. He noted that they are doing more reps per shift and perhaps this has improved his sampling. **J. Mareska** noted that the spring samples he got were not in good shape and could not be identified because they had been frozen and thawed numerous times. It was suggested that members work together to identify the samples to prevent too much freezing and thawing. **E. Hoffmayer** noted that it would be good to have standardization across the board for partners to follow for representative sampling. Further discussions are needed on how to handle data and working toward data standardization. In the next year or so **E. Hoffmayer** suggested the Subcommittee hold a representative identification data cleaning process workshop. **J. Hendon** suggested having this workshop at the Joint Meeting with the South Atlantic.

Review of the SEAMAP Trawling Operations Manual

J. Rester asked the Subcommittee if they were ready to approve the SEAMAP Trawling Operations Manual. Teresa from **T. Switzer's** office is currently editing the manual, but for format only. **J. Mareska** had a question regarding the tickler chain and its stretch. **E. Hoffmayer** stated that he will get with Kendall to quantify the stretch of the tickler chain. **E. Hoffmayer** discussed Stat Zone 7 and the tears and catching of coral and sponge they have been encountering. **E.**

Hoffmayer posed the question of eliminating some areas in Stat Zone 7 to save survey time. **T. Switzer** stated that criteria would need to be established to exclude this area and other similar areas. **E. Hoffmayer** stated that he will work with **J. Rester** and **T. Switzer** on this subject.

J. Mareska moved to approve the SEAMAP Trawling Operations Manual. **F. Martinez** seconded and the motion passed.

Revising of the SEAMAP 2021-2025 Management Plan

J. Rester stated that a revised timeline has been established for the Management Plan. The Subcommittee's main focus needs to be on maintaining and expanding SEAMAP activities. The Subcommittee reviewed parts of Chapter 4 of the Management Plan: Operate Existing Programs at Full Utilization, Expand Current Projects to Collect Additional Data on Existing Platforms and Develop New Data Collection Programs. Under Operate Existing Programs at Full Utilization, \$550,000/year for Trawl Survey on the West Florida Shelf was changed to \$350,000 as a more realistic figure. **J. Rester** noted that Mississippi has one year left of the Vertical Line Survey. Is this something that needs to be continued and expanded? **E. Hoffmayer** stated that he will talk with Shannon Cass-Calay regarding the continued need for the Vertical Line Survey. **T. Switzer** noted that a reef fish hook gear survey of some sort is needed in the Gulf of Mexico. As for the Bottom Longline Survey, the top priority is to maintain the 3-10m but add language expanding it to the Eastern Gulf for long term design and adding a temporal/spatial design component. A second priority for the Bottom Longline would be increasing the survey out to 100m. Under Expand Current Projects to Collect Additional Data on Existing Platforms, Expand Reef Fish Video and Vertical Line Sampling, **T. Switzer** will develop general language for this reworking it into an acoustics and hooked gear hard part survey. Bottom Longline will be deleted from this section. Otolith Processing will stay as is. Dietary Analysis increased to \$1 million. Reproductive Histology will remain the same. Reef Fish Hooked-Gear Survey will be folded into the Reef Fish Survey. **T. Switzer** will work on the language. The Synoptic Life History Survey will remain the same. Habitat Mapping will have an active acoustics component added to it. **J. Rester** will send out the Management Plan to the Subcommittee for review with the noted changes.

Review of the Habitat Mapping Work Group Meeting

J. Rester stated that the Habitat Mapping Work Group met in November 2019. It was a good first meeting of the Work Group. Sean Keenan ran the meeting. The Work Group discussed objectives, and each states interest in mapping and their ability to map habitat. Florida's Operational Manual on Habitat Mapping was reviewed and discussed at the meeting. Florida's Klein 3900 Side Scan Sonar was set up at the meeting for the Work Group to see. **J. Rester** noted that the Operations Manual and map interpretations were sent out to the Subcommittee along with the meeting summary.

2020 SEAMAP Sampling

J. Rester asked the Subcommittee to go through the following surveys to make sure all Subcommittee members were on the same page.

Bottom Longline Survey

J. Rester sent out stations and all partners selected their stations. It was noted that Mississippi will try and cover one station that Louisiana is not able to get. **J. Rester** asked Texas if they were

able to sample Zone 21. **F. Martinez** stated that he is not sure. They are still working on the wench issue.

Vertical Line Survey

J. Rester asked Subcommittee members to send him any new targets or artificial reefs installed as soon as possible. Also, if a habitat was not found, let him know so those can be taken out. He would like to run the stations the first part of April. Alabama plans to start in May-June. Louisiana plans to start July 1. **T. Switzer** asked if the Subcommittee would rather do habitat mapping instead of vertical line sampling. **J. Mareska** stated that Alabama will continue with vertical line sampling. They do not have a need for mapping. **B. Falterman** stated that Louisiana was interested in pursuing mapping, but he needs more input from his staff before he can make a final decision. **F. Martinez** stated that Texas was more interested in continuing vertical line sampling. The question arose as to how useful data from the Vertical Line Survey were. If the data were not being used, there was no need to continue the survey. **E. Hoffmayer** will try and get an answer on the value of the Vertical Line Survey from the stock assessment staff. The Subcommittee needs more advice and guidance before making a final decision to discontinue the Vertical Line Survey and move to habitat mapping. **T. Switzer** stated then that there was no need for a mapping training cruise at this time.

Summer Shrimp/Groundfish Survey

For the Summer Shrimp/Groundfish Survey, **T. Switzer** stated that Florida would lose 8 days. **E. Hoffmayer** said if other partners can help, NOAA can go further east to get Florida's stations. The Subcommittee decided to start with 350-360 stations. **J. Rester** asked Subcommittee members to get him any new information as soon as possible so he can create the universe and send out the stations to the Subcommittee.

E. Hoffmayer gave an update on the new trip software. It will not be ready for summer, but the hope is that it will be ready for the fall. The new software will be tested on NOAA vessels first. **E. Hoffmayer** also stated that they are in the process of updating the biocodes. Once complete, they will be sent out to the Subcommittee.

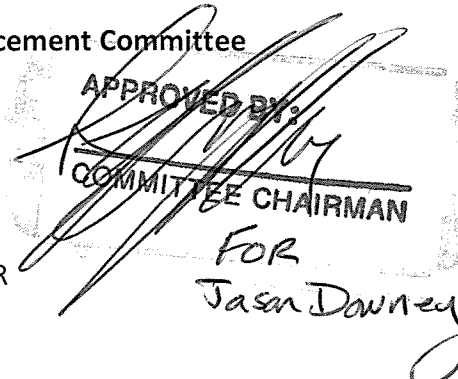
Fall Plankton Survey

For the Fall Plankton Survey, NMFS did everything last year. **E. Hoffmayer** noted that they are at the end of a five-year cycle and asked if the state partners were interested in participating. **J. Rester** asked Subcommittee members to look over their schedules and budgets and try and get as much sampling done as possible in the summer. **J. Rester** noted that the Subcommittee has a balance of \$6,862 and asked what they would like to do with these extra funds. The Subcommittee agreed to put these funds toward GSMFC to use for travel for the Subcommittee to the Invertebrate Workshop in August 2020 in St. Pete, Florida.

Other Business

There being no further business, the meeting was adjourned at 5:08 pm.

GMFMC Law Enforcement Technical Committee/GSMFC Law Enforcement Committee
Joint Meeting Summary
Gulf Shores, Alabama
March 11, 2020

APPROVED BY:

COMMITTEE CHAIRMAN
FOR
Jason Downey

Members

Patrick Carron, MDMR, Chair
Jason Downey, ADMR, Vice-chair
Jarret Barker, TPWD
Cynthia Fenyk, NOAA GCES
Edward Skena, LDWF
Scott Pearce, FWC
Mark Zanowicz, USCG

Joe Spraggins, MDMR
Paul Mickle, MDMR
Thomas Duffy, USCG
Doug Boyd, GSMFC Commissioner
Glenn Kornegay, NOAA OLE
Troy Fisher, ADMR

Others

Dale Diaz, GMFMC
Russell Stewart, Panama City Beach
Joel Fightmaster, USCG

Staff

Ava Lasseter, GMFMC
Steve VanderKooy, GSMFC
Debbie McIntyre, GSMFC

The meeting was called to order at 8:30 a.m. by Chairman, **Carron**. The agenda was adopted on motion by **Pearce** and second by **Barker**. The motion passed unanimously. The summary of the October 16, 2019, LETC/LEC meeting held in Biloxi, Mississippi, was approved as written on motion by **Barker** and second by **Downey**. Introductions were made and **Carron** welcomed everyone.

GMFMC LETC Session

Officer/Team of the Year Award (closed session)

In closed session LETC members reviewed the nominations for the 2019 Officer/Team of the Year Award and ranked their top two nominations, which will be provided to the Gulf Council for review.

IUU Fishing – Coordinating Responses to Federal Determination Regarding Mexico’s Certification

The Gulf Council approved the LETC recommendation to send a letter to the Secretary of Commerce regarding concerns with IUU fishing by Mexican lanchas. LETC members discussed the issue and noted that the problem seems to be getting worse. The Gulf Council will receive a presentation from the Office of International Affairs and Seafood Inspection regarding the 2019 Report to Congress at an upcoming meeting.

SEFHIER update on implementation timeline

The LETC received a recently released flier with information on the timeline for implementing mandatory reporting for federally permitted for-hire vessels.

Illegal Charters

Diaz described complaints the Council has heard about illegal charter fishing in federal waters by non-permitted vessels. **Pearce** spoke to the issue noting the difficulties in conducting covert investigations and the importance for stakeholders to continue to inform their enforcement agencies. LETC members

recognized illegal charters as a widespread issue, adding that the illegal fishing occurs in federal waters in violation of a limited entry federal permit. Because the covert operations necessary for enforcement are time consuming and expensive, the LETC discussed the need for more federal support and passed the following motion with no opposition.

That the council recommend to NOAA that the JEA priorities be expanded to include patrol and investigative efforts for federal charter for-hire permit violations. Along with expanding the JEA priorities, NOAA should establish an intelligence gathering program that will work with their federal for-hire permit holders to identify suspect vessels and to report this information to state law enforcement partners.

Closing Madison-Swanson and Steamboat Lumps MPAS to trolling

Lasseter reviewed the framework action that considers prohibiting surface trolling in the Madison-Swanson and Steamboat Lumps MPAs. LETC members discussed the issue, noting the difficulty of enforcing the allowable trolling gear as the MPAs are far from shore, then made the following recommendations. As moved by **Pearce**, seconded by **Downey**, and with no opposition:

To recommend to the Council, Alternative 2 in Action 1 would be preferred for ease of enforcement and to combat potential non-compliance by eliminating the opportunity for vessels to disguise bottom fishing as surface trolling.

Alternative 2: Prohibit fishing year-round in the Madison-Swanson and Steamboat Lumps MPAs.

As moved by **Barker**, seconded by **Pearce**, and with no opposition:

To recommend to the Council, Alternative 3 in Action 2 would be preferred.

Alternative 3: The possession of any species of Gulf reef fish is prohibited year-round in the Madison-Swanson and Steamboat Lumps MPAs, with no exception for vessels in transit.

Florida Keys National Marine Sanctuary Proposed Expansion – information on proposal

Pearce discussed the proposed sanctuary expansion and FWC's enforcement goals.

Enforcement of Red Snapper State Management

The LETC discussed red snapper state management. **Zanowicz** requested that each state's regulations be accessible to the Coast Guard for ease of enforcement, such as through a Fishery Bulletin with the compiled state regulations. **Lasseter** will follow up on this.

LETC Other Business - none

GSMFC LEC Items

IJF Program Activity

LEC/LETC Operations Plan

The committee began looking at the 2019-2020 Enforcement Operations Plan and will review it for an

update over the coming months. The work will be done via email and webinar. The LEC should have a final draft for the Commission and Council meetings this fall.

Red Drum Profile Status

The Red Drum Technical Task Force (TTF) held a meeting in November in St. Petersburg. The group's next meeting is scheduled for the last week of March in Houston. **Pearce**, the LE representative on that task force, reported that the group is in the drafting process and stated that he will be distributing the enforcement boilerplate material in the next couple of weeks and coordinate the inclusion in the Profile. **Lasseter** will provide a summary of existing regulations from Amendment 48.

Mangrove Snapper Profile LE Membership

The TTF for the Mangrove Snapper Profile is scheduled to be formed in the spring of 2020 with the LEC state representative being **Downey**. **VanderKooy** anticipates the organizational meeting of this group to take place in the fall.

GSMFC Publications

VanderKooy reported on the two publications that the LEC members contribute to: Annual License and Fees and the Law Summary (Rules and Regs). He thanked everyone for their contributions. **McIntyre** will contact state and agency representatives asking for them to provide her with License and Fees data in May. **VanderKooy** reminded that License and Fees are printed in-house and sent out to the LEC, state directors, commissioners, and proxies. Because the states are not always providing regs books in a published form any longer, it was proposed that another format similar to the former Officers' Pocket Guide would be a cleaner, simpler way to update the rules and regs each year. The entire effort is for archiving so a simpler format would potentially be better anyway. Like all GSMFC publications, these are available on the GSMFC website. Both publications are mainly used for historical reference and serve as a way of comparing license and fees statistics and tracking regulatory changes over time.

State Report Highlights

It was suggested that a common format be generated for the enforcement state reports. **Carron** and **VanderKooy** will work on a template for distribution prior to the next LEC meeting.

Written state reports are requested in advance and only highlights are presented for time purposes during state reporting item. The members provided some highlights of activities in each state.

Barker pointed out that Texas was one of the few Gulf states to hold an open oyster season. The influx of lugers from other states caused the need for the department to create saturation patrols to check for compliance. Texas LE Division is halfway through the 2019 JEA contract year. Patrols in federal waters discovered 35 violations they referred to NOAA for prosecution. Texas prosecuted one vessel for an IFQ violation.

Downey reported that, between November 1, 2019 and February 29, 2020, AMRD enforcement officers conducted 2,071 commercial fishermen intercepts, 2,790 recreational fishermen intercepts, 652 seafood dealer and/or processor inspections, 4,707 hours of patrol, 1,565 vessel boardings, and issued 731 citations/warnings. Officers continue to work out the priorities of their JEA grant as well as a NRDA Sea Turtle and Dolphin grant which provides the enforcement section with equipment and

overtime opportunities.

Pearce informed the committee that between October 1, 2019 and March 1, 2020, Florida conducted 138,937 water patrol hours, 258 air patrol hours, 98,565 marine enforcement hours, and 76,372 boating safety hours. Regarding federal enforcement, they conducted 1,131 total patrol hours with 449 reef fish enforcement patrols and 40 TED/BRD enforcement patrols.

Skena stated that LDWF/LED started Academy 33 with a goal to fill 29 vacancies state-wide. They continue to educate fishermen and industry representatives while also updating policies and procedures associated with all federal and state regulated species. They are currently working the priority execution model as stated in the 2019 JEA contract. Coastal agents have undergone continued TED training with the help of NOAA GMT and the Coast Guard.

Carron reported that state enforcement efforts with regard to commercial oyster, shrimp, and crab fisheries noticed sharp declines in effort and catch, presumably attributed to fresh-water incursion to the Mississippi Sound from the sustained opening of the Bonnet Carre Spillway. The Office of Marine Patrol recently entered into an agreement with NOAA OLE for December 2019 through December 2020.

Pearce made a motion to accept the state reports as written. The motion was seconded by **Barker** and passed unanimously.

Other Business

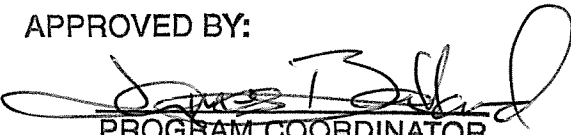
The state representatives decided that they would like to hold a brief closed session during each LEC/LETC meeting to afford them an opportunity to discuss emergent enforcement issues and trends in a confidential forum. Staff will add this agenda item accordingly.

Mr. Russell Stewart, an attorney from Panama City Beach, wanted to raise some issues related to non-federally permitted guide boats. He will put together a paper explaining his concerns and he was advised to reach out to FWC, as well.

There being no further business, **Downey** made a motion to adjourn the meeting with a second by **Pearce**. The motion passed unanimously and the meeting was adjourned at 1:45 p.m.

**TECHNICAL COORDINATING COMMITTEE
MINUTES – 70th Annual Spring Meeting
Wednesday March 11, 2020
Gulf Shores, Alabama**

APPROVED BY:


PROGRAM COORDINATOR

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
Joe Jewell, MDMR, Biloxi, MS
Matt Hill, MDMR, Biloxi, MS
John Mareska, ADCNR/MRD, Gulf Shores, AL
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
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
Ali Wilhelm, GSMFC, Sport Fish/Aquatic Invasives Staff Assistant, Ocean Springs, MS

Others

Paul Mickle, MDMR, Biloxi, MS
Lance Robinson, Commissioner, Austin, TX
Edward Swindell, GMFMC Member, Hammond, LA
Susan Lowerre-Barbieri, FWC/FWRI, St. Petersburg, FL
Steve Murawski, University of South Florida, FL
Kevin Boswell, Florida International University, FL

Adoption of Agenda

A motion to adopt the agenda was made by Joe Jewell and passed unanimously.

Approval of Minutes

A motion to approve the minutes for the October 16, 2019 meeting was made by Joe Jewell and passed with no opposition.

General Session – Advanced Technologies in Marine Science

The first half of the TCC meeting consisted of a general session on the advanced technologies in marine science. 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.

Discussion: IJF Small Grants Program 2020/2021 Project Submissions

Steve VanderKooy provided an overview of the process for reviewing and ranking the 21 proposed projects that were submitted for the IJF small grants program. He stated that the projects that are ranked highest will be expanded into full proposals with detailed statements of work and budgets over the summer for review and selection at the October 2020 meeting. After a lengthy discussion, the group decided to have each state go back and work with their staff to submit any other projects that they want added to the list by Friday, March 20, 2020. Steve will compile a new complete list of proposed projects and send it out to the TCC for them to review and select their top 10 priority projects. Once all states have supplied their top priorities, Steve will average all the rankings and send the ranked list back out to the group for discussion. Once the overall highest priority projects are agreed to by the group, full proposals will be developed for those projects for consideration by the State/Federal Fishery Management Committee in October.

Discussion/Approval: SOPs for TCC Subcommittees

James Ballard provided a quick overview of the process used to develop the SOPs for the other four TCC Subcommittees (Artificial Reef, Crab, SEAMAP, and Data Management). Following the overview, the group discussed the voting procedures and the membership of some of the subcommittees. They also discussed the amount of involvement the individual subcommittees had in the development of the SOPs. Following the discussion, the TCC agreed that the SOPs needed more editing.

Joe Jewell made the following motion and it passed without opposition. To have GSMFC staff send the draft SOPs back out to the TCC for review and suggested changes, compile all changes, and send them back out for final review.

Approval: Guidelines for Marine Artificial Reef Materials: 3rd Edition

James Ballard provided a brief update on the Guidelines for Marine Artificial Reef Materials: 3rd Edition. He stated that the TCC completed its final review of the document in January 2020 and all edits received have been incorporated in the latest draft. James also pointed out that the Artificial Reef subcommittee will continue to explore ways to summarize the information that is provided in the document, for example in an easy to assess table, based on suggestions from the TCC.

Following the update, John Mareska made the following motion and it passed unanimously. To approve the Guidelines for Marine Artificial Reef Materials: 3rd Edition.

Subcommittee Reports

Data Management

Gregg Bray stated that he provided the subcommittee with a presentation regarding a NRDA project that Gulf States Marine Fisheries Commission has been asked to assist with that would attempt to restore injured reef fish populations by providing descending devices and education on best handling

practices to private boat anglers and for-hire captains. The GulfFIN program has been asked to assist with two major phases of the project focused on monitoring impacts of device distribution and outreach efforts along with validation studies to evaluate the overall effectiveness of descending device usage. If there is interest from the states to assist in this work the Commission will be putting together a cooperative agreement to allow funding to be transferred to the commission to supporting monitoring efforts and validation studies.

Jessica Stephen provided 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 current plan is a phased implementation that will start September 1, 2020. Congressional funding has been appropriated to support trip level validation and NOAA Fisheries has asked the states if they would be willing to assist. States have requested more information on the validation survey and NOAA Fisheries is still working to determine the details on how the survey would be implemented. Once NOAA Fisheries has more information on the survey methods and sample sizes the GulfFIN Recreational Technical Workgroup will likely need to be convened to have further discussions regarding the ability of the states to assist.

Committee members were provided with a list of items for funding consideration in 2021. 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 2020 meeting. At that time, they will decide which items will be included in the 2021 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, 2020. After considerable discussion the committee approved including all the ongoing tasks as high priority for inclusion in the 2021 FIN Cooperative Agreement. The committee also included Biological Sampling for the period of September through December of 2021 as high priority because currently funding is set to run out on August 31, 2021.

Following the report, Joe Jewell made the following motion and it passed without opposition. To accept the FIN proposed funding priorities for 2021. These activities include Coordination and Administration of FIN Activities, Collecting, Managing and Disseminating Marine Recreational Fisheries Data, Operation of FIN Data Management System, Trip Ticket Program Operations, and Biological Sampling for the period of September 1, 2021 – December 31, 2021.

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

Molluscan Shellfish

Steve VanderKooy stated that he explained the intended purpose and goals for this new subcommittee. The SOPs for the subcommittee were reviewed and it was explained that initially, the SOPs would guide the group but that modification to the committee could be made in the future, should other needs arise.

Each of the members provided a short overview of the current status of on-bottom and off-bottom

oysters in each of their states along with major restoration efforts.

Through the various discussions, a number of potential topics were noted for future agenda items in coming meetings. These included national and regional importation requirements and biosecurity in general, the need for standardizing oyster meat conversion, conversions for sacks, barrels, and other harvest measurements, and presentations on the results of the various genetics studies underway in the Gulf. Steve VanderKooy agreed to consolidate the topics and suggested that possibly another oyster general session was in order for a future GSMFC meeting.

Chad Hanson with PEW Trust, informed the group that they were beginning a gap analysis of oyster modeling and would hopefully be able to use the results to direct funding for targeted restoration efforts. This will be an inventory of all the restoration projects from the last decade to see where they are now. Were they successful? Did they continue and are they still providing some benefit for the effort and funds expended?

Eric Weissberger reported on NRDA funding from the DWH oil spill which was for oyster restoration. He stated that they are in the process of screening projects that came in through the restoration portal. As they continue the review, he will keep the group up-to-date on the progress and may provide an update at the October meeting with some final projects.

Carolina Bourque with LDWF volunteered to serve as the subcommittee's chair and **Mike Norberg** with FWC volunteered to serve as vice-chair.

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

Crab

Steve VanderKooy reported that he reviewed the SOPs with the subcommittee and explained the background of the subcommittee. Considering that Ms. Harriet Perry has been a member of this subcommittee since its founding, the SOPs are written in such a way that would exclude her from participating. Since this was unacceptable to the group, Perry will remain a member emeritus for as long as she wishes, regardless of the language in the SOPs. The subcommittee approved the SOPs with one modification.

Dr. Zack Darnell (GCRL) updated the group on the Gulf Wide Tagging project which is now complete. The recapture data is still being analyzed but out of 19,621 female crabs that were tagged, about 12% were recaptured. The average time at liberty was 27 days with many at less than a day and one over 400 days. Recapture locations were mostly within the estuaries. Seasonal movement rates for the six major focal regions were highest in summer, followed by spring and lowest in the winter and fall. For the most part, the crabs west of Apalachicola generally moved eastward and those tagged around Cedar Key, Florida moved west toward Apalachicola. They are continuing to look at the data and will provide more results as they refine them.

Tom Mohrman, of the Nature Conservancy, Mississippi Marine Program, informed the subcommittee of work being funded by Gulf of Mexico Alliance looking at Terrapin conservation in the region. They are planning to develop a conservation action plan for Diamondback Terrapin and through a gap analysis, identify additional projects that are needed. There will be a stakeholder webinar in two weeks

which the Crab Subcommittee members plan to sit in on. It was pointed out by the subcommittee that collaboration is critical to any conservation since the terrapin population is impacted in some places by crab traps.

Following the report, Joe Jewell made the following motion and it passed without opposition. To direct GSMFC staff to amend the membership section of the Crab subcommittee's SOPs to reflect Harriet Perry's status and list her by name.

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

SEAMAP

Jeff Rester stated that the subcommittee discussed the collection of representative specimens for identification purposes. SEAMAP partners are now routinely saving fish and invertebrate species to bring back to the lab for identification purposes. SEAMAP discussed saving specimens to pass around amongst partners to make sure that as a whole, SEAMAP is identifying captured organisms as accurately as possible. Recent taxonomic work has shown that there are several species that we should only identify to the genus level since there is too much work and uncertainty involved in identifying to species level.

The Subcommittee recently revised the SEAMAP Trawling Operations Manual. The Subcommittee reviewed the changes in the manual and approved the manual. The majority of the changes dealt with detailing the trawling station selection process and how to handle sea turtles and protected resources that might be captured during routine SEAMAP sampling.

All three SEAMAP components are in the process of drafting the SEAMAP 2021-2025 SEAMAP Management Plan. The subcommittee discussed the expanding and maintaining SEAMAP activities section of the document. The Subcommittee developed plans for how SEAMAP would operate existing surveys at full utilization, expand current surveys to collect additional data during existing surveys, and develop new fishery-independent data collection surveys. For existing surveys, SEAMAP needs approximately \$350,000 to continue the trawl surveys at their current level. They also need approximately \$250,000 to expand the Bottom Longline Survey throughout the Gulf of Mexico. For expanding current surveys, the subcommittee discussed the need for otolith processing, diet analysis, and reproductive histology. If funding were available, the Subcommittee would like to develop new surveys to collect synaptic life history data, conduct habitat mapping, and develop a baitfish/acoustic survey throughout the Gulf of Mexico.

The Habitat Mapping Work Group held their first meeting last November where they discussed developing an operations manual for conducting side scan sonar sampling. While the ability to map is promising for collecting data that can be used to plan several SEAMAP surveys, since SEAMAP does not have funding dedicated to mapping, paying for data collection and processing is problematic. Once the Habitat Mapping Work Group becomes more established, the Work Group would like to pursue outside funding sources to pay for ship time and the processing of data.

The Subcommittee discussed their plans for 2020 sampling for all SEAMAP surveys. The subcommittee needed to finalize their plans for 2020 sampling as we finally found out about SEAMAP's FY2020 funding amount. The Gulf SEAMAP component received \$1,981,466 for

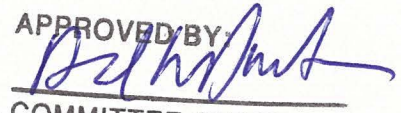
FY2020. This is an increase of approximately \$30,000 from FY2019.

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

Other Business

The TCC discussed the possibility of the GSMFC helping with the Integrated Tracking of Aquatic Animals in the Gulf of Mexico program (iTAG) by coordinating meetings and the iTAG membership. It was suggested that Dr. Susan Lowerre-Barbieri give a presentation on iTAG and the possible role the GSMFC could play in supporting the program at the October 2020 TCC Meeting.

With no other business to discuss, Darin Topping adjourned the meeting at 3:00 p.m.

APPROVED BY: 
for COMMITTEE CHAIRMAN

**COMMISSION BUSINESS MEETING
MINUTES
Thursday, March 12, 2020
Gulf Shores, AL**

Chairman Dan Ellinor called the meeting to order at 11:00 a.m. **D. Donaldson** announced the passing of past GSMFC Commissioner Senator Butch Gautreaux.

The following Commissioners and/or Proxies were present:

Dan Ellinor, *Chairman*, FWC, Tallahassee, FL (*Proxy for Nick Wiley*)
Lance Robinson, TPWD, Austin, TX (*Proxy for Carter Smith*)
Doug Boyd, *Citizen Representative from Texas*, Boerne, TX
Chris Nelson, *Citizen Representative from Alabama*, Bon Secour Fisheries, Bon Secour, AL
Chris Blankenship, ADCNR, Montgomery, AL
Scott Bannon, ADCNR/MRD, Gulf Shores, AL (*Proxy for Chris Blankenship*)
Read Hendon, *Citizen Representative from Mississippi*, USM/GCRL, Ocean Springs, MS
Jason Froeba, LDWF, Baton Rouge, LA (*Proxy for Jack Montoucet*)
John Roussel, *Citizen Representative from Louisiana*, Zachary, LA
Joe Spraggins, MSDMR, Biloxi, MS
Paul Mickle, MSDMR, Biloxi, MS (*Proxy for Joe Spraggins*)

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
Glen Constant, USFWS, Baton Rouge, LA
Elizabeth Scott-Denton, NOAA Fisheries, Galveston, TX
Richard Cody, NOAA Fisheries OST, Silver Springs, MD
Laura Picariello, TXSG, Corpus Christi, TX
Ashford Rosenberg, Gulf of Mexico Reef Fish Shareholders' Alliance, New Orleans, LA
Jamie Reinhardt, NOAA Restoration Center, Silver Spring, MD
Ed Swindell, Marine Process Services, LLC, Hammond, LA
Darin Topping, TPWD, Rockport, TX

Brief Overview of Commission Voting Procedures

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

Adoption of Agenda

J. Spraggins *moved* to adopt the agenda as submitted. **S. Bannon** seconded and the motion passed unanimously.

Approval of Minutes (October 17, 2019)

J. Roussel *moved* to approve the October 17, 2019 minutes as submitted. **L. Robinson** seconded the motion and the motion passed unanimously.

GSMFC Standing Committee Reports

Law Enforcement Committee (LEC)

S. VanderKooy reported the LEC met Wednesday, March 11, 2020. The agenda was dominated by Gulf Council (LETC) items so there were only a few items for the LEC portion of the agenda. He said the Committee will be reviewing the *2019-2020 Enforcement Operations Plan* and will update it over the coming months. The work will be done via email and webinar and the final draft for the Commission's and Council's approval should be ready this fall. He said Scott Pearce reported on the progress by the Red Drum Technical Task Force; a Mangrove Snapper Technical Task Force should be established this summer; and each state reported on their activities. The LEC had no motions for approval.

R. Hendon *moved* to accept the LEC Report. **S. Bannon** seconded and the motion passed unanimously.

Technical Coordinating Committee (TCC)

D. Topping gave the TCC report. He reviewed the topics discussed and the presentations that were given in each Subcommittee meeting. He also gave an overview of the General Session *Briefing on Advanced Technologies in Marine Science*. He stated the TCC passed four motions for the Commission's approval.

D. Topping stated J. Ballard provided a quick overview of the process used to develop the Standard Operating Procedures (SOPs) for the TCC Subcommittees. Following the overview, the group discussed the voting procedures and the membership of some of the Subcommittees and agreed that the SOPs needed more editing.

The TCC approved a motion to have GSMFC staff send the draft SOPs back out to the TCC for review and suggested changes, compile all changes, and send it back out for final review.

1. **D. Topping** stated J. Ballard provided a brief update on the *Guidelines for Marine Artificial Reef Materials: 3rd Edition*. He said that the TCC completed its final review of the document and all edits have been incorporated into the latest draft.

2. *The TCC approved a motion to approve the Guidelines for Marine Artificial Reef Materials:*

3rd Edition.

D. Topping stated G. Bray provided an update on the Data Management (GulfFIN) Subcommittee and provided a list of items for funding consideration in 2021.

The TCC approved a motion to accept the FIN proposed funding priorities for 2021. These activities include Coordination and Administration of FIN Activities, Collecting, Managing and Disseminating Marine Recreational Fisheries Data, Operation of the FIN Data Management System, Trip Ticket Program Operations, and Biological Sampling for the period of September 1, 2021 – December 31, 2021.

D. Topping stated S. VanderKooy explained the intended purpose and goals of the new TCC Molluscan Shellfish Subcommittee. He said after discussions, a number of potential topics were noted for future agenda items. Chad Hanson with PEW Trust informed the group they were beginning a gap analysis of oyster modeling and Eric Weissberger reported on NRDA funding from the DWH oil spill for oyster restoration. The Subcommittee agreed that another Oyster General Session should be held during a future GSMFC meeting. Carolina Bourque, LDWF, volunteered as Chairman of the Subcommittee and Mike Norberg, FWC, volunteered as Vice-Chairman.

D. Topping stated Steve VanderKooy reviewed the SOPs with the Crab Subcommittee. He said considering that Ms. Harriet Perry has been a member of this subcommittee since its founding, the SOPs are written in such a way that would exclude her from participating. Since this was unacceptable, Ms. Perry will remain a member emeritus for as long as she wishes, regardless of the language in the SOPs. The subcommittee approved the SOPs with the one modification. **D. Topping** stated Zack Darnell updated the group on the Gulf Wide Tagging project and Tom Mohrman gave a presentation on the Diamondback Terrapin.

The TCC approved a motion to direct GSMFC staff to amend the membership section of the Subcommittee's SOPs to reflect Harriet Perry's status and list her by name.

After extensive discussion on amending the membership section of the Crab Subcommittee SOP, the Commission felt another alternative was needed because this could set a precedent for other Subcommittees. The GSMFC Staff will work on a more viable solution concerning Ms. Perry and it will be incorporated into the SOPs that will be finalized in October.

D. Topping withdrew the motion to amend the membership section of the Crab Subcommittee's SOP.

D. Topping stated Jessica Stephen provided a presentation on the status of the Southeast For-Hire Integrated Electronic Reporting program (SEFHIER). SEFHIER is a mandatory electronic reporting program for federal for-hire permit holders and NOAA has asked the states to participate in the program. **D. Donaldson** asked the Commission if they should explore working with NOAA on this Program. The Commission had no objection with staff exploring working with NOAA on this program.

D. Topping reported the SEAMAP Subcommittee discussed the collection of representative specimens for identification purposes. The Subcommittee revised the SEAMAP Trawling Operations Manual and all three SEAMAP components are in the process of drafting the SEAMAP 2021-2025 SEAMAP Management Plan. The SEAMAP Habitat Mapping Work Group held their first meeting last November where they discussed developing an Operations Manual for conducting side scan sonar sampling. He said once the Habitat Mapping Work Group becomes more established, they would like to pursue outside funding sources to pay for ship time and to process data. The Subcommittee also discussed their plans for 2020 sampling for all SEAMAP surveys.

3.D. Topping reported under Other Business, the TCC discussed the possibility of the GSMFC helping with iTAG by coordinating meetings and the iTAG membership. It was suggested that Dr. Susan Lowerre-Barbieri give a presentation on iTAG and the possible role the GSMFC could play in supporting the program at the October TCC Meeting.

S. Bannon moved to accept the TCC Report and the three motions. R. Hendon seconded the motion and the motion passed unanimously.

S/FFMC Menhaden Advisory Committee (MAC)

S. VanderKooy gave the MAC report. He stated the Committee approved one motion. MSC certification in the Gulf for menhaden was achieved in October 2019. Under the Client Action Plan (CAP) the industry must improve their overall 6 conditional scores to 80 or better over the next four years. He said the last revision to the Commission's Gulf Menhaden FMP has been 5 years and the MAC requests to do an updated FMP. He reminded the Commissioners the Commission stopped developing FMPs because they are not actual enforcement plans and do not require adoption by the states so the Commission has moved to Biologic and Management Profiles. He said if a revision is approved, the Operational Assessment (OA) currently on the SEDAR calendar for 2023 would need to be moved up to 2021 and the revision to the FMP has to be completed by 2022.

The MAC moved to request the GSMFC allow the MAC to revise the 2015 Gulf Menhaden Fishery Management Plan and update the stock assessment with a completion date by 2022.

After extensive discussion on revising the Gulf Menhaden Fishery Management Plan, R. Hendon moved to approve the motion. C. Nelson seconded the motion. The motion failed to pass with 1 in favor and 8 against.

J. Froeba moved to accept the S/FFMC Menhaden Advisory Committee Report. S. Bannon seconded the motion and the motion passed unanimously.

NOAA Fisheries Southeast Regional Office Comments

R. Crabtree stated the complete report is in Tab B of the Briefing Book. He said they have been preoccupied with the Coronavirus and several meetings have been cancelled or postponed because of the virus. They are also having problems with their observer program in Alaska with the fishermen not allowing observers onboard because most of the observers are from the Seattle area where the virus is prevalent. He said it is a possibility that near future meetings will be held via

conference call or some other form of electronic communication. He said they are waiting on the court decision on the Gulf Aquaculture final rule litigation. If the court does reverse the decision, he expects it will be remanded back to court again to address other issues of the lawsuit, so this will continue for a while. If the decision is reversed, NOAA will be able to issue aquaculture permits until the next ruling. He said they are waiting for a decision from EPA on the proposal for a pilot study off Sarasota, Florida to culture almaco jack in a single cage in Federal waters. He said Manna Fish Farms is planning to establish an 18-cage commercial scale finfish operation about 20 miles off the coast of Pensacola but they have not applied for any federal permits. He reported on the Reef Fish Amendment 50 A-F which established the state management of the private recreational sector for red snapper and a framework action to reduce the red grouper annual catch limit. He also stated the federal for-hire season will again be 62 days.

USFWS Region 4 Office Comments

G. Constant said Allan Brown sends his apologies for not being able to attend the meeting. He updated the Commission on the DOI reorganization and stated a new FWS Director was confirmed in December, Aurelia Skipwith, and she approved the FWS budget a few weeks ago which includes the \$150K small grants program administered by the Commission. He said she plans to continue working with the Commission on the small grants program and there is additional funding available for invasive species, specifically for Asian Carp. He said A. Brown is working to develop more visibility for the various FWS aquatic conservation offices and identify what roles those offices play.

Sea Grant Fisheries Extension Meeting Report

L. Picariello reported that due to scheduling conflicts Sea Grant met via Webinar before the Commission meeting. She said the priority topics discussed were Shark Depredation Issues and Artificial Reefs/Fisheries Interactions. She said each state gave an update on current program activities. Also, A. Rosenberg gave a guest report on the Gulf of Mexico Reef Fish Alliance Program.

Status and Overview of Aquaculture RFPs

S. VanderKooy stated the complete report is under Tab C of the Briefing Book. He said the three Commissions released a new RFP this year to request partnership projects in a Consortium approach, funding multiple agency proposals for three to five years. Several projects were submitted and there is a collaboration of several partners implementing a genetic selection program to identify local stocks which can be used to improve production performance and develop disease and water quality resistant oyster stocks through a selected breeding program. The second round of funding for pilot projects totaled \$450K and includes three projects, two of which were continuations of previous work by Kampachi Farms and Mote who are working on hatchery techniques for Almaco Jack, intended to support the Vellella Epsilon project off Florida. Auburn University is combining Sea Urchin culture into off-bottom oyster techniques as a natural anti-fouling agent and potential second crop; and the University of Southern Mississippi is continuing to move toward a finfish farm in the northern Gulf. The three projects will run until June of 2020. Seven individual projects were funded to begin work February 1, 2020 and the projects include four potential aquaculture species, an offshore aquaculture working platform, and two hatchery projects for seed production and broodstock development. He said to date, a total of \$1.6 M has

been distributed for oyster related projects in the Gulf of Mexico through the NOAA/GSMFC program.

NOAA Fisheries & Fish and Wildlife Service Budget Update

D. Donaldson gave an update on the NOAA Fisheries and USFWS budget. He referred to Tab D, E and F of the Briefing Book. He stated the FY2020 NMFS budget was just under \$950M. Fisheries Data Collections, Surveys and Assessments was appropriated \$174M and that includes FIN and SEAMAP funding and is an increase from last year. Aquaculture was level funded at \$15M, the Councils and Commissions were level funded at \$40M, the IJF program was level funded at \$3.4M, and enforcement received \$74M which is an increase but some of that funding will support implementing SEFHIRE, which was mentioned earlier. He said FIN and IJF has had increases over the last several years and there has been language to increase SEAMAP funding in appropriations reports, but they have not had any increased funding. He stated as G. Constant mentioned earlier, the USFWS budget has been approved with increased funding for ANS. He believed the Congressional Delegation trips have had a positive effect and he and the other Directors will continue these trips to discuss increased funding for all the programs in which the Commissions are involved.

Update on MRIP Calibration Schedule and Other Issues

R. Cody gave a brief update on the MRIP Program. He stated most of the program is calibration work but a small portion deals with the Modern Fish Act. He gave background information on the program and said they are in various stages of calibrations with the states. He said the Modernizing Recreational Fisheries Management Act (MRFMA) has a number of different reporting requirements for state partnerships and they have drafted a plan based on the FIN structure. This has been distributed to the FIN Committee for input by the end of April. They will have to have a report to Congress by the end of the year containing inventory of information collected by states and the Secretary; data collection priorities; accuracy of state collection programs; description of accuracy of state angler registries; and state registry MOAs. A copy of the complete presentation may be obtained upon request to the GSMFC office.

Deepwater Horizon NRDA Open Ocean Update

J Reinhardt gave an update on the work of the Open Ocean Restoration Trustee Implementation Group (TIG) and provided detail on the work being done to restore the injured fish resources. He provided a general overview of the TIG process and the Open Ocean TIG Restoration Plan No. 2 and the outcomes of the restoration plan. He reviewed each project under the plan and highlighted the Barotrauma project where the NDRA would like to partner with the states and the Commission.

D. Donaldson asked the Commission if they should explore working with NRDA on this project. The Commission had no objection with working with NDRA on this project. The presentation can be obtained by request to the GSMFC office. He also provided a website for more information www.gulfspillrestoration.noaa.gov.

Presentation and Discussion of GSMFC BREP Project

4.E. Scott-Denton gave a presentation on the Bycatch Reduction and Engineering Program (BREP) Project using Artificial Intelligence (AI) and Machine Learning (ML) innovation in Fisheries and Protected Species Monitoring in the Gulf of Mexico. She said they contacted the Commission and developed a preproposal that has been accepted and wants the Commission's

approval to go forward when the full proposal is final. These projects focus on the application of a newly released open-source Video and Image Analytics for Marine Environments (VIAME) toolbox, a tool used widely in ML analytics for automated object detection, tracking, and classification of marine species. She explained how AI and ML is used to reduce protected species and large or rare bycatch in commercial fisheries in the Gulf of Mexico. Current observer coverage in the shrimp fishery is low (2% of the annual commercial effort); however, using ML tools in conjunction with Electronic Monitoring provides a valid alternative if increasing observer coverage is cost prohibitive. They are also exploring ways to utilize AI to augment other Gulf of Mexico observer programs. The complete presentation may be obtained upon request to the GSMFC office.

5.

D. Donaldson stated there are 4 projects the Commission could potentially be involved in with the NOAA Fisheries Galveston Lab. He said the first project is a bycatch reduction engineering program proposal and J. Rester will submit a proposal and if selected, he would work on the project and no other personnel would have to be hired.

R. Hendon *moved for the Commission to submit a proposal for this project and if selected, to move forward with the project.* **S. Bannon** *seconded and the motion passed unanimously.*

D. Donaldson stated the other projects would require the Commission to hire new personnel in Galveston for the duration of the projects. The Commission would also have to purchase all equipment needed for the projects. The Commission discussed extensively on how they could hire personnel and purchase equipment and if there were any benefits to the Commission to do these projects. The start-up date for the projects is July 1, 2020.

S. Bannon *moved to have Commission staff do research on how to execute the projects and give the Executive Director and his staff the authority to make the final decision on if the Commission will do the projects or not.* **R. Hendon** *seconded the motion.*

After further discussion, a substitute motion was made:

R. Hendon *moved to direct staff to further explore the opportunity in working with the NOAA Fisheries Galveston Lab on these projects and provide a recommendation back to the Commission for approval via email or conference call.* **J. Froeba** *seconded and the motion passed unanimously.*

Presentation of the Young Fisherman Program

A. Rosenberg gave a presentation of the *Young Fisherman Program*. She stated the average age of a commercial fisherman is increasing and this program focuses on recruiting young people to become involved in the commercial fishing industry. She reviewed the timeline and potential funding for the program and stated other regions are having the same problem and are implementing programs also. The Commissioners agreed this is a very worthwhile program and asked to be informed of the project's progress. A copy of the presentation is available upon request to the GSMFC office.

Lyles-Simpson Award Recipient Selection for 2020

The floor was opened for nominations for the 2020 *Lyles-Simpson Award*. **P. Mickle *moved to nominate Harriet Perry as the 2020 Lyles-Simpson Award Recipient*. R. Hendon *seconded the motion and the motion passed unanimously*.**

GSMFC Program Reports

Interjurisdictional Fisheries Program

S. VanderKooy stated the complete report is under Tab H of the Briefing Book. He said the last Red Drum Management Profile meeting was held in November and they had a meeting scheduled in two weeks but was cancelled due to Coronavirus travel restrictions. He will plan a webinar for the meeting. He said they will start the Mangrove Snapper Management Profile this summer and the Otolith Manual Revision is near completion. They are continuing to analyze samples from the tripletail genetics project and they have over 500 samples from around the world and will continue reaching out to other countries for samples for input into the global library. He said they have released 30 tagged fish in the Mississippi Sound in October and 20 in the middle Keys in December via the Tripletail Acoustic Tagging program. There has been issues with flounder in recent years and through the IJF program and LSU they will coordinate a symposium to begin to explore these issues. He will publish a proceeding of the symposium and distribute it to the Commissioners when it is completed.

SEAMAP

J. Rester reported that since October SEAMAP has completed the Fall Shrimp/Groundfish Survey and the Vertical Line Survey. The Spring Plankton Survey is due to start in April. Funding continues to be an issue with fishery independent sampling in the Gulf of Mexico. Over the last several years, SEAMAP has used supplemental funding from NFWF to help collect fishery independent data but now NFWF has ended for Florida, and will end this year for Alabama and Mississippi. This will drastically impact Florida's participation in the SEAMAP Shrimp/Groundfish Surveys this year. NFWF recognizes the importance of fishery independent data and the need for additional funding for the data collection but they are not sure they should be the funding source for the data collection. SEAMAP has been level funded since 2014 and additional funding is needed if fishery independent data collection is to continue at current sampling levels. He stated the SEAMAP Habitat Mapping Work Group held their first meeting last November where they discussed developing an Operations Manual for conducting side scan sonar sampling. He said once the Habitat Mapping Work Group becomes more established, they would like to pursue outside funding sources to pay for ship time and to process data. The Commission continues to manage SEAMAP data and distribute the data to interested parties. They have fulfilled four SEAMAP data requests and various databases have been downloaded 72 times since the October 2019 meeting.

Sportfish Restoration Program (SPRP)

J. Ballard stated the detailed report is under Tab J of the Briefing Book. He has incorporated all final edits from the TCC into the updated edition of the Atlantic States Marine Fisheries Commission's and Gulf States Marine Fisheries Commission's 2004 *Guidelines for Marine Artificial Reef Materials: Second Edition*. The TCC approved the document so it will be available electronically through the Commission website. The Atlantic States Marine Fisheries

Commission is also moving it through their approval process. This will be a “living document” so as new information becomes available on any of the materials, the Subcommittee will update that section only, so they will not have to update the full document. **J. Ballard** said that through a partnership with the USM/GCRL they have been able to start testing the field component of the ***Gulf Artificial Reef Monitoring and Assessment Program***. The field sampling is testing a draft standardized monitoring protocol that was modeled after existing long-term monitoring programs, utilizing comparable gear types and methodologies where possible. It is also testing the gear that was built for the program, as well as a data entry program that was developed by the GSMFC. The long-term goal of this effort is to develop a program that will provide standardized baseline data for artificial reefs across the Gulf of Mexico. He said this is the second year he has worked with the MSDMR on the ***Jimmy Sanders Memorial Lionfish Challenge***. He said some changes have been made based on feedback from the divers who participated in the first year, but they still did not see a large increase in the number of lionfish collected. Finally, he said they are exploring ways to increase funding for the SFRP to help support and coordinate more sport fish restoration activities across the Gulf of Mexico. The program has been level funded since its inception in 1987.

Aquatic Nuisance Species Program (ANS)

J. Ballard stated the complete report is under Tab K of the Briefing Book. He said they hosted the fall meeting of the Gulf and South Atlantic Regional Panel (GSARP) in November in Charleston, SC. The details from that meeting are available on the Panel’s website. He attended the fall meeting of the Aquatic Nuisance Species Task Force (ANSTF) which was held in Beltsville, MD in November. As mentioned by G. Constant earlier, GSMFC is continuing to partner with the USFWS ANS small grants program and over the last six years 39 projects totaling \$850 K has been funded. He is currently working with USFWS to distribute the RFP for this year’s funding. He said they continue to support the invasive species traveling trunk program and since 2012 the trunks have been used approximately 1,600 days. They continue to update the materials to keep them relevant. **J. Ballard** said he is chairing the ANS Task Force Prevention Committee which is tasked with addressing five key outputs of the new strategic plan: evaluating and refining the NISC/ANSTF pathway risk assessment process, and completing guidelines for the use and interpretation of these tools; addressing new ANS introductions to determine where prevention measures may have been lacking, been ineffective or resulted from gaps in authority; establish an ad-hoc committee to evaluate and implement the roles and responsibilities of the ANSTF under the Vessel Incidental Discharge Act (VIDA); enter into national prevention practices and agreements with natural resource agencies and responsible industry sectors that consider invasion risks within operations; and working with applicable federal agencies and responsible industry sectors to make organisms in trade importation data electronically available and searchable for organisms imported into the US and ensure this data is correctly identified to species. He said the GSARP’s meeting is scheduled for April 21-22 in Mobile and the ANSTF meeting is tentatively scheduled for May 5-7 in Mystic, Connecticut but due to the Coronavirus they will probably be cancelled or postponed.

Fisheries Information Network (FIN)

G. Bray gave a brief update of the GulfFIN program. He said GulfFIN is the fishery dependent monitoring arm of the Commission and he reviewed the 2019 activities. The areas focused on were recreational landings sampling; commercial trip ticket programs; biological sampling for

ages and lengths; and GulfFIN Program and data management and system administration. All of the work for 2019 met their intended goals and 2019 is considered extremely successful. He said some new activities were assisting the state of Florida with a swipe card project specific to their commercial trip ticket program. This is an add on that allows them to electronically initiate commercial trip ticket transactions and provides an additional level of quality control by prepopulating some of the fields that are necessary at the initiation of a transaction. This could potentially pave the way for Florida to move away from paper reporting options. The project is still in the finishing stages but he feels it has been highly successful. He said they have also assisted all five states on a research project working on shrimp commercial conversion factors. The goal is to validate, and if necessary, update conversion factors that are used to determine the whole weight of commercial landings from their reported units. Many of the conversion factors that are currently being used are extremely old so they have a species priority list and are doing this one species at a time. He said they have completed two projects within the office to improve the FIN Data Management System, including additional quality control on the trip ticket data and creating new tools for getting biological age and length data into the system. Finally, for 2019 they provided data for three federal stock assessments. He stated the complete report is under Tab L of the briefing book and in the report is a list of the 2020 GulfFIN funding priorities.

Executive Committee Report

The following Executive Committee Report was submitted:

Approval of Agenda

D. Donaldson removed the discussion of the NOAA Inspector General Audit Results due to the fact that a final decision from NOAA regarding the audit has not been received. When the Commission receives the determination from NOAA, there will be a conference call to discuss the issue. **D. Ellinor** *moved to approve the agenda as amended. The motion was seconded by J. Froeba and the motion passed unanimously.*

Discussion of Hiring Additional Staff Members

D. Donaldson stated the NRDA Barotrauma proposal would bring approximately \$10 million over a period of seven years and therefore would necessitate the addition of a program coordinator for the term of the award and a grants manager to assist A. Rabideau with the additional grant related workload. After a brief discussion, the Executive Committee didn't see any issues with the hiring of additional staff members associated with the NRDA project.

The SEFSC Galveston Lab approached the Commission about hiring 4 additional staff members to manage proposed projects. The projects include:

- US Gulf of Mexico SPGM Effort Data Collection Program
- US Gulf of Mexico Platform Removal Observer Program Sea Turtle & Marine Mammal Artificial Intelligence Machine Learning Innovation Program
- US Gulf of Mexico Shrimp & Menhaden Innovation Program

Administrative funding would be provided by NOAA to compensate the employees but employees would be housed at the Galveston Lab. **D. Donaldson** noted that this issue will be discussed during the Commission Business Meeting and a decision will be made during that meeting.

Discussion of GSMFC Indirect Cost Rate

D. Donaldson stated that the OIG audit prompted the Commission to begin using an indirect cost rate effective January 1, 2020. **A. Rabideau** reviewed the process of hiring an outside consulting firm to calculate the indirect cost rate. She stated that the Commission's software had to be customized to correctly calculate the appropriate indirect cost. She is working with the Abila software consultant to implement the 33.77% rate into the software.

Other Business Items for Discussion

D. Donaldson discussed various other business topics. He asked the Committee to review the Southeast Aquatic Resources Partnership (SARP) meeting and make a recommendation whether to continue funding the meeting. It is currently funded by the Aquaculture funding program. After some discussion, the Committee will talk with their staff members who participate in SARP and gauge the utility of SARP and provide their feedback to the Executive Director.

D. Donaldson discussed the potential benefit to send all five state legislations the Commission's Annual Report. Texas has requested the Annual Report be sent to the state legislature to demonstrate the importance of the organization. Involvement of other state legislatures may promote engagement in Commission activities.

D. Donaldson discussed the success of the annual Gulf Delegation Congressional trip. Discussion included changing the format and length of the annual visit. Everyone agreed the trips have been successful. **D. Donaldson** asked the Committee to consider and make recommendations for the annual trip. **J. Spraggins** noted that having all 5 Gulf States Directors participate in the trip is important and suggested that the trip be reduced to 2 days. The visits could combine multiple offices at once and maybe a breakfast and lunch meeting for each day. By shortening the duration, it could ensure that all the Directors are able to participate. **D. Donaldson** stated that this issue can be further discussed and a decision will be made as next year's trip gets closer.

Staff Compensation

D. Donaldson stated that the issue of staff compensation was deferred until the outcome of IOG audit was received. While the results of the audit have not been received, he recommended that the Committee still consider providing compensation for staff. **L. Robinson** noted that the optics of providing raises to staff while the potential for payback due to the audit could be viewed as unfavorable. He also noted giving raises to Commission staff while the state personnel have not received raises in a number of years could be viewed as not favorable as well. After some discussion, the Executive Committee recommended the following regarding staff compensation:

- 3.5% or a minimum of a \$1,000 raise for all.

J. Spraggins moved to accept these recommendations. The motion was seconded by J. Froeba and passed unanimously.

Being no further business, the meeting was adjourned at 9:15 a.m.

S. Bannon moved to accept the Executive Committee Report. L. Robinson seconded the motion and the motion passed unanimously.

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 the next meeting will be in the state of Florida and she has been working with D. Ellinor on potential locations. She mailed several proposals and has received several responses. One potential proposal is with Hawk's Cay in Duck Key and she said D. Ellinor would like for her to pursue this further. The meeting after that will be in Texas and she will work with L. Robinson on a location.

Review of Committee Listings

D. Donaldson stated several years ago it was suggested that a list of committee members by state be distributed each year to the Commissioners to review the membership. He said the listings were emailed and are in Tab Q of the briefing book and asked the Commissioners to review and send any changes to C. Noble. He said in the future they will include a committee description and the SOPs to give guidance on the selection of the committee member.

Publications List and Web Statistics

D. Donaldson stated Tabs R and S of the Briefing Book has the information on publications and the website. He said if there are any questions to contact D. McIntyre for Publications and J. Ferrer for the web statistics.

Other Business

D. Ellinor thanked the staff for yet another successful meeting. He also thanked S. Bannon and C. Blankenship for hosting the meeting and stated the facility is great and would like to have all meetings at this location.

There being no further business, the meeting adjourned at 4:27 p.m.

TCC SEAMAP SUBCOMMITTEE
MINUTES
Wednesday, July 22, 2020
Online Meeting

COMMITTEE CHAIRMAN
APPROVED BY: *Jeff Rester for Ted Switzer*

Chairman T. Switzer called the meeting to order at 1:00 p.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
Chloe Dean, LDWF, Grand Isle, LA
Fernando Martinez, TPWD, Corpus Christi, TX
Adam Pollack, NOAA Fisheries, Pascagoula, MS

Others

Eric Hoffmayer, NOAA/NMFS, Pascagoula, MS
Christian Jones, NOAA/NMFS, Pascagoula, MS

Staff

Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS

Adoption of Agenda

J. Rester stated that the Subcommittee needed to pick a meeting date for the October meeting under Other Business. **J. Mareska moved to adopt the agenda. F. Martinez seconded and the motion passed.**

Approval of Minutes

J. Hendon moved to approve the SEAMAP minutes from March 10, 2020 as submitted. A. Pollack seconded and the motion passed.

Administrative Report

J. Rester stated that he and David Hanisko had worked on a hot spot analysis for refining the sample universe for trawling surveys. David Hanisko, E. Hoffmayer, A. Pollack, T. Switzer, and J. Rester had met several times in May to discuss ways to reduce trawl hangs and sponge catches on the west Florida shelf. **J. Rester** reported that a large, inshore area was removed from the sample universe that extended from Tampa Bay up to the Big Bend area of Florida due to hangs and that an area in stat zone 3 was removed from the sample universe due to high catches of sponge.

J. Rester stated that the Subcommittee did an admiral job of trying to complete at least a portion of the Summer Shrimp/Groundfish Survey. He thanked everyone for their work.

J. Rester stated that the Commission had received their FY2020 funds in early July and that the states should be receiving their FY2020 funds in the near future.

Survey Activities and Budget Needs for FY2021

The Subcommittee discussed their FY2021 needs along with funds that they needed if SEAMAP saw increased in funding in FY2021. **T. Switzer** stated that Florida was requesting \$361,000 that would include funding for the reef fish survey, the archiving center, and 10-11 days of trawling during the Fall Shrimp/Groundfish Survey. He stated that it would take \$440,000 to complete the amount of sampling that Florida was recently conducting with NFWF and SEAMAP funding. Florida would also need additional funds in the vessel pool for sea days for the trawl surveys. **C. Dean** stated that Louisiana would need \$458,415 to do the amount of sampling that they were currently doing. **J. Hendon** stated that Mississippi would need a slight increase to \$459,847 for four days of sampling during the summer and fall trawl survey. **F. Martinez** stated that Texas would continue bottom longline and vertical line sampling for \$200,200. **J. Mareska** stated that Alabama would need \$175,000 to continue their current level of sampling. **J. Rester** stated that there was around \$25,000 in the Commission budget for travel and meeting expenses. He reported that with the uncertainties associated with face to face meetings in the future, the Commission budget might be reduced allowing more funding for sampling, but at this time, he was requesting level funding of \$171,791 for the Commission. He did state that the vessel pool contained \$51,000 from 2019 and \$256,862 from 2020. He was concerned about having large amounts of money in the vessel pool and with this being the end of the SEAMAP 5-Year grant cycle.

	FY2020	FY2021 Requested	FY2021 Needed
FL	\$351,000	\$361,000	\$440,000
LA	\$414,613	\$458,415	\$458,415
USM	\$447,000	\$459,847	\$459,847
TX	\$200,200	\$200,200	\$200,200
AL	\$140,000	\$175,000	\$175,000
GSMFC	\$171,791	\$171,791	\$171,791
Vessel Pool	\$256,862	\$210,000	\$320,000
	\$1,981,466	\$2,036,253	\$2,225,253

Remaining 2020 SEAMAP Sampling

J. Rester asked the Subcommittee to discuss their plans for sampling for the rest of 2020.

Bottom Longline Survey

J. Mareska stated that Alabama was able to sample all bottom longline stations during the spring and summer time periods. **J. Hendon** stated that Mississippi was not able to sample during the spring and might be able to sample next week to complete summer sampling. **C. Dean** stated that Louisiana was not able to sample during the spring, but might be able to sample some stations next week. She stated that Louisiana was limited to day trips only. **F. Martinez** stated that they were able to acquire a hydraulic winch to sample stat zone 21, but Texas was not able to sample during the spring or summer.

Vertical Line Survey

F. Martinez stated that Texas had not started vertical line sampling yet. **C. Dean** stated that Louisiana would not be able to sample the majority of the shelf edge stations, but should be able to sample the inshore stations during day trips. Louisiana had already sampled a few stations

during day trips. **J. Mareska** stated that Alabama was able to sample all stations during their first season.

Reef Fish Survey

T. Switzer stated that due to RESTORE Act Science Program funds, they were able to dramatically increase the number of reef fish stations on the west Florida shelf. SEAMAP would be paying for some of the sampling also. **T. Switzer** stated that NMFS may not be able to sample any stations this year. **T. Switzer** stated that they were randomly selecting a subset of the west Florida shelf stations to sample to try and get coverage across the entire west Florida shelf. **A. Pollack** stated that NMFS was still working on plans to get the large vessels ready to start sampling.

Fall Plankton Survey

A. Pollack stated that the Gunter was still in dry dock undergoing repairs. He reported that Glenn Zapfe was still unsure whether they would be able to conduct the Fall Plankton Survey or not. **J. Rester** asked the states if they had plans to participate during the 2020 Fall Plankton Survey. **C. Dean** stated that Louisiana had budgeted two days of plankton sampling. **J. Rester** stated that there was no need for the states to conduct sampling if NMFS was unable to participate. He stated that it would be important for Glenn Zapfe to stay in contact with the states and Commission about whether NMFS would be able to participate.

Fall Shrimp/Groundfish Survey

Everyone was hoping that they would be able to participate in a full Fall Shrimp/Groundfish Survey. If not, they would try to sample the eastern Gulf of Mexico like they had planned to do during the cancelled Summer Shrimp/Groundfish Survey. **E. Hoffmayer** stated that they were waiting to see how the NMFS Bottom Longline Survey would be conducted in August and September to determine if NMFS would be able to participate in the Fall Shrimp/Groundfish Survey.

Potential Use of Unused 2020 Funds

T. Switzer reported that Kelly Donnelly had stated that SEAMAP would be unable to spend unused 2020 funding on existing 2021 surveys. **T. Switzer** stated that Florida might be able to charter a vessel to conduct habitat mapping and sample reef fish in the western Gulf. **C. Dean** stated that Louisiana might be interested in participating in sampling reef fish and mapping in the western Gulf also. **J. Rester** stated that he and E. Hoffmayer should contact Kelly Donnelly to seek clarification on how FY2020 funds could be spent in 2021.

C. Dean stated that Louisiana could use some funds to upgrade and repair the Defender for SEAMAP sampling. **T. Switzer** stated that Florida could buy more supplies for their SEAMAP sampling. **J. Rester** stated that he would check into whether the Commission could use some of the vessel pool money to purchase equipment for Florida since the Commission now controls vessel pool funding that went to Florida in the past.

Review of the SEAMAP 2021-2025 Management Plan

The Subcommittee all agreed that the management plan was too long. **J. Rester** stated that in an effort to streamline the management plan, the management plan had increased by over 20 pages. **T. Switzer** asked about the intended audience for the management plan. **J. Rester** stated that

SEAMAP was required to have a management plan that lays out SEAMAP's future plans for fishery independent sampling. He stated that when the Commissions and states went to Congress to request additional funding, they always would bring a one to two-page brief outlining SEAMAP and why increased funding was needed. They always had the management plan available if someone was interested in learning more.

J. Hendon felt that the document went too in depth in their details. She did like the information on data uses, but felt that the data use section did not capture all of the places that SEAMAP data have been used in the Gulf. **T. Switzer** stated that SEAMAP data served the basis for ecosystem models in the Gulf and the Gulf ecosystem models were more advanced than in the South Atlantic.

J. Hendon stated that a management plan should be planned on how you were currently managing your program. She felt that SEAMAP needs to document future plans for expanding surveys, but that a management plan may not be the best place to do this. She felt that if future survey work was kept in the document that it should be bulleted items.

The Subcommittee felt that several things should be revised or deleted from the management plan. The Subcommittee felt that the management plan should not discuss COVID-19 impacts on sampling, the survey design descriptions should be shortened, and appendices I-M should be deleted. The Subcommittee needs to provide more detail on Gulf ecosystem models, revise the reef fish survey description, provide information on the 2019 groundfish identification workshop, provide information on the 2020 reef fish workshop, and add Gulf amounts to the historical funding table.

Status of Invertebrate ID Workshop


T. Switzer stated that Janessa Fletcher had scheduled the Invertebrate ID Workshop for next February in St. Petersburg, Florida at FWRI. **J. Rester** stated that the Commission would have \$6,700 for travel for workshop participants. **J. Hendon** stated that it would be imperative to have travel funds available for the invertebrate experts outside of SEAMAP that will attend the workshop. **J. Hendon** asked about an expert to replace Brenda Bowling from Texas. **F. Martinez** stated that Leslie Hartman from TPWD might be interested in participating.

Other Business

J. Rester stated that the Technical Coordinating Committee would be meeting online on Wednesday, October 14, 2020. He stated that the Subcommittee should meet before then to discuss status updates on 2020 sampling. **J. Hendon** reported it would be best to meet the week of September 28. **J. Rester** stated that he would send out a poll to determine when it would be best to meet that week.

There being no further business, the meeting was adjourned at 4:15 pm.

**Molluscan Shellfish Subcommittee Organizational Meeting (Virtual)
September 22, 2020**

APPROVED BY:

COMMITTEE CHAIRMAN
FOR
Carolina Bourque

Chair Bourque called the meeting to order at 8:30 a.m. with the following in attendance by webinar:

Members

Carolina Bourque, LDWF, Lafayette, LA
Erik Broussard, MDMR, Biloxi, MS
Robert Caballero, LDWF, New Orleans, LA
Jason Herrmann, ADCNR/AMRD, Dauphin Island, AL
Evan Pettis, TPWD, Rockport, TX
Christine Jensen, TPWD, Dickinson, TX
Mike Norberg, FWC, Panama City, FL

Speakers

Chad Hanson, PEW Charitable Trust, Crawfordville, FL
Seth Blitch, The Nature Conservancy, Baton Rouge, LA
Eric Saillant, USM/GCRL, Ocean Springs, MS

Others

Jason Saucier, MDMR, Biloxi, MS
Eric Weissberger, NOAA Restoration Center, Silver Spring, MD
Brady Carter, LDWF, Bourg, LA
Sharon McBreen, PEW Charitable Trust, Orlando, FL
Ryan Gandy, FWC, St. Petersburg, FL
Matt Davis, FWC, Apalachicola, FL
Ryan Bradley, MS Commercial Fisheries United, Long Beach, MS
Kristina Broussard, MDMR, Biloxi, MS
Dawn Ross, MS Commercial Fisheries United, Ocean Springs, MS
Steve Ashby, Northern Gulf Institute, Biloxi, MS
Thomas Wheatley, PEW Charitable Trust, Tampa, FL
Jason Rider, MDMR, Biloxi, MS
Adriana Leiva, TPWD, Corpus Christi, TX
Adam Alfasso, Florida State University, Tallahassee, FL
Megan Fleming, MDMR, Biloxi, MS

Staff

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

VanderKooy, IJF Program Coordinator, opened the meeting and welcomed those who were able to attend today virtually. **Ryan Gandy** is here in place of Melanie Parker who has left the FWC to join the South Florida Water Management District. MDMR has not named a replacement yet for **Charlie Robertson**.

Donaldson thanked the group for their participation today with everything going on. He stressed the importance of this committee and its work.

Adoption of Agenda/Approval of Minutes

The agenda was reviewed and it was agreed that item #3 (*Seed Needs in the Region*) will be deferred to the March 2021 meeting since **Scott Rikard** was unable to attend following Hurricane Sally. Additional items would be included under other business: request for letters of intent (LOI) for NOAA funding opportunity, and standard NOAA reporting for oyster aquaculture harvest. The agenda was adopted with changes on motion by **Norberg** and second by **Jensen**.

The minutes of the March 10, 2020 meeting in Gulf Shores, Alabama, were unanimously approved on motion by **Norberg** and second by **Herrmann**.

PEW Oyster Work

Hanson (Pew Charitable Trusts) refreshed everyone on the restoration projects by Pew. **Hanson** reviewed the efforts nationwide to rebuild fish populations and end overfishing as well as provide management of ecosystem friendly projects. Some of the work specific to the Gulf include coastal habitat conservation and restoration, including 400,000 acres of seagrass in Florida's nature coast; scoping restoration and management policies of the salt marsh; and applying a science-based approach to the management and restoration of oysters. Pew is currently working to inventory oyster restoration projects throughout the region to see what models are available compared to what is needed for restoration site selection.

Donaldson asked that **Hanson** continue to report on the results and outcomes of some of these projects at future meetings. **Hanson** agreed to do so.

Oyster Restoration Activities from TNC

Seth Blitch, The Nature Conservancy (TNC), gave an overview of the history of oyster restoration and recovery in the Gulf of Mexico over the last 10 years he's been with TNC. **Blitch** explained that the Gulf of Mexico still represents opportunity for oyster restoration as the resources continue to decline. We have a long history of restoration which involved placing shell in hopes of recovery. That hasn't been working as well so now there is discussion at TNC to determine what the goals are today; habitat/ecosystem services, fishery/commodity, or a combination. TNC is working more on hybrid combination type approaches and has been a catalyst in several restoration projects in the five Gulf states. One of those projects is a multi-agency collaboration in Cameron to develop a comprehensive, integrated plan for region. Another in Calcasieu Lake, Louisiana involves planning for cultch planting, shell retention, reef building, broodstock areas, off bottom aquaculture, estuarine spatial planning, as well as opportunities for the seafood industry to have a broader role in restoration through partnerships and engagement. Every state has TNC collaborations which include work with Mississippi/Alabama SeaGrant, Pew Trust, the GSMFC, the industry, and municipalities. The idea is to work together and develop restoration projects that are fishery- and habitat-based and involve many more stakeholders.

Oyster Genetics

Eric Saillant presented on the Gulf's Oyster Consortium which is a five-year project funded through the Commission and NOAA Office of Aquaculture. The project has four major components: to define project objectives to address industry needs for seed and genetic lines of seed, to breed lines with improved

genetic values for characters of interest to industry, to develop a germplasm repository to include founders and selected parents during successive generations of breeding, and to test improved diploid lines for triploid performance in cross with the tetraploid stocks. **Saillant** explained the breeding objectives and displayed the results of an industry survey which identified what the industry considered the priorities for any customized seed. He reviewed the selection method, the genetic orders and the selection indices and walked through the proposed approach. To date, the Consortia has collected founders from different geographic lines incorporated in a mosaic strain, cryopreserved material from those founders, and attempted spawns with limited success due to delays resulting from the COVID shutdowns. Additional spawns will be conducted once the reproductive condition of the broodstock founders has improved.

Oyster Importation Discussion/Biosecurity

Since there are a number of issues related to sources of seed and broodstock in hatcheries and oyster farms, the group summarized the individual state restrictions and limitations for bringing material into their respective waters. In general, any shellstock from the US East Coast is not permitted to be introduced into the water anywhere in the Gulf due to concerns over the introduction of MSX. Live oysters can be brought in to most of the states as long as they are only in restaurants or handled by processors. In general, most states also require health certifications for products brought from other regions for culture or growout. There are two certifiers which are recognized though not by every agency; VIMS (Virginia Institute of Marine Science) and HBOI (Harbor Branch Oceanographic Institute).

Alabama does not allow any 'non-Gulf' oysters to be placed in the water, especially in an aquaculture setting. There are currently no requirements for certification of imported animals in Alabama.

Louisiana does allow nonnatives shell to be brought direct to restaurants and dealers but the oysters may not be placed in any state waters. Any animals brought in for aquaculture (adults or seed) require a certificate and must originate in the Gulf. Oysters from Texas are not allowed in Louisiana because of brown mussel concerns. Certificates are required from the hatchery providing seed but includes a two-month window for that batch and does not require every farmer purchasing from that batch to provide individual certificates. LDWF only accepts certification paperwork from VIMS for all non-Louisiana seed and certification costs \$500-\$800.

Texas does not have hatchery for triploid oysters so they do allow broodstock from other Gulf states with a health certificate. They are just now opening maricultural program but have no applications as of yet.

Mississippi does not allow live shell to be imported from anywhere outside the Gulf. **Jason Saucier** thinks we should bring up the issue in the near future of sending broodstock out and bringing it back. Since seed is in high demand this year, considerations may need to be made for hatcheries outside the Gulf to propagate seed to be returned to the state of origin just to meet demand.

Florida has very strict regulations, similar to Alabama. Department of Agriculture (FDACS) is responsible for most of the aquaculture production and leasing. Oysters from the Atlantic are not able to be imported to the Gulf (even between Florida's Gulf/Atlantic coasts), and only triploids can be moved from the Gulf to the Atlantic (seed and adult). Florida has limitations regarding importation from other state due to very strict genetic concerns – broodstock is required to be from a limited geographic range near where

any progeny are intended to be grown out. If they're from out of state but are Florida brood stock, then they're required to have standard health certifications. If they're from nearby states (e.g., Alabama, Mississippi) then they're required to undergo ploidy analysis to prove they are triploid and have appropriate health documents.

VanderKooy asked about the use of cryopreserved material for hatchery purposes crossing state lines, especially considering the Oyster Consortium's work. **Saillant** stated that you could probably send frozen sperm but they are not currently doing this. It may be addressed in the future as a novel methodology that extends beyond the use of whole animals as broodstock.

MSSC Membership Modification

VanderKooy explained the membership for the Subcommittee based on the approved SOPs. There are two voting members from each state with the idea that either of the two seats adequately represents both wild, on-bottom oysters as well as off-bottom oyster aquaculture. The MSSC is also not exclusively about oysters which is why the TCC elected to include all mollusks with potential for commercial harvest or production as well as restoration (scallops, clams, etc). **VanderKooy** indicated that if the Subcommittee found it was lacking some expertise (human health, ISSC, industry, economics, etc.), a proposal could be made to the TCC and Commission to create advisory positions if needed on a recurring basis. Occasional input could be handled as invited speakers as needed.

Upon discussion, **Norberg** stated that the Subcommittee could use someone from DACS since Florida was handled by both agencies, one for resource management and the other for aquaculture. Perhaps the Florida membership should be expanded or revised. The other states are better represented as the authorities for both aspects are handled by the primary resource agency. Alabama includes a member from the Department of Public Health, Seafood Branch (ADHP). ADPH does all the sampling of the growing areas and will close and open those areas that don't meet the water quality criteria. The AMRD handles the public reefs and their Enforcement Division enforces the rules. **Donaldson** suggested that the group give some thought to this issue and address at next meeting. **VanderKooy** will develop a list of potential needs similar to those identified for the Task Force that drafted the last Oyster Fishery Management Plan and provide it for discussion before the next MSSC meeting.

Other Business

NOAA RESTORE Funding - **VanderKooy** noted the email which was sent out with the NOAA Federal Funding Opportunity under RESTORE. The notice was requesting Letters of Intent (LOI) for multi-agency planning to lay foundation for potential action in the marine resource area in the future. **VanderKooy** had originally asked the MSSC members to think about any long-term activities that they may be considering and this could be a chance to work as a group in the planning. The idea of moving (re-establishing) commercial and public reefs to less risky areas could be one item when thinking about ongoing freshwater issues and water quality associated with climate change. **VanderKooy** was not proposing a project but providing an example if any of the states wanted to collaborate and have the Commission facilitate. Any LOI would need to be signed by September 29. Each of the states indicated they were considering individual projects and planned to send their own LOI by the deadline.

Standard Reporting of Aquaculture Harvest – The ISSC requested information from the MS DMR specifically about how they were reporting oyster production from the off-bottom farms. The standard

format for wild landings is in shucked meat yields so **Erik Broussard** and **Saucier** wondered how each state reports.

Bourque reported that LDWF uses the standard meat yield estimate for the on-bottom oysters. The industry is so small in Louisiana that that they have not developed anything else but they may need one in the future. **Herrmann** reports all their off-bottom production to NOAA in meat pounds. **Saucier** asked if aquaculture products are sold by the piece, what is the reason for using conversion? **Norberg** indicated that Florida does have a conversion but it is different between aquaculture and wild harvest. He would need to follow-up on that with FDACS. Since cultured oysters are generally sold smaller than legal wild oysters, their weights may be very different, especially for triploids. The value is significantly different as well which could be an issue generating dockside prices and value compared to sack oysters. **VanderKooy** suggested we keep this topic on the agenda for our next meeting.

Hurricane Damages – The group provided very preliminary updates on damages to the reefs and farms in the states recently impacted by the storms. **Herrmann** will try to send an email later to update the group once they can assess how the Alabama farms did. Mississippi indicated that the lease area behind Deer Island survived fine and they did not have the waves or surge that was expected. Louisiana did not have any significant damage either to the farms but the LDWF Hatchery did have some losses due to evacuation of staff. Bourque will need to re-evaluate their public grounds assessment since there was a lot of siltation and debris (vegetation) over the western reefs after Laura.

Next Meeting

The next MSSC meeting should be in March, 2021, but **VanderKooy** encouraged everyone to feel free to contact him or others in the group at any time. If there are issues that come up between meetings, the Commission is happy to facilitate a call if needed.

With no further business, **Jensen** motioned that the meeting be adjourned with a second by **Herrmann**. The meeting adjourned at 12:15 p.m.

S-FFMC Menhaden Advisory Committee Minutes
Webinar
Thursday September 24, 2020



Following some computer issues, **Chairman Himchak** called the meeting to order at 8:37 a.m. with the following in attendance via Webinar:

Members

Peter Himchak, Omega Protein, Tuckerton, NJ
Jason Adriance, LDWF, New Orleans, LA
Ben Landry, Menhaden Advisory Council for the Gulf of Mexico, Houston, TX
Ray Mroch, NOAA Beaufort Lab, Beaufort, NC
Trevor Moncrief, MDMR, Biloxi, MS
Scott Herbert, Daybrook Fisheries, New Orleans, LA
John Mareska, ADCNR/MRD, Dauphin Island, AL
Francois Kuttel, Westbank Fishing, LLC, New Orleans, LA
Chris Swanson, FWC, St. Petersburg, FL
Carey Gelpi, TPWD, Port Arthur, TX

Others

Borden Wallace, Patronus Consulting, New Orleans, LA
David Chagaris, University of Florida, Gainesville, FL
Chad Hansen, PEW Charitable Trust, Crawfordville, FL
Jason Saucier, MDMR, Biloxi, MS
Ryan Bradley, MS Commercial Fisheries United, Biloxi, MS
Shane Treadaway, Westbank Fishing, LLC, New Orleans, LA

Staff

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

Introductions

Himchak welcomed everyone and **Donaldson** thanked the members for their participation on this committee. **VanderKooy** apologized for not being able to run the webinar himself due to being in isolation at home and having internet issues but **Debbie McIntyre** was able to host and keep everything in order.

Adoption of Agenda/Minutes

Himchak reviewed the agenda and noted a couple items to add under 'Other Business'. The MAC would like an update on the status of the IJF research priorities submitted to the TCC this past March. **VanderKooy** would provide. Himchak also wondered if there were any updates from the state reps on the status of facilities and staff following the recent tropical systems that plagued the Gulf. He asked **Landry** to provide some info on the relief effort Omega Protein was directing in the Cameron LA area following Hurricane Laura. *The agenda was approved with changes on motion by **Mroch** and second by **Adriance**.*

The minutes from the last meeting on March 4, 2020 were reviewed with one minor correction provided by **Himchak** earlier. There was an extra digit in the scores for the Client Action Plan discussion on page 4. *With that correction, **Mroch** moved to accept the corrected minutes and was second by **Herbert** and the minutes were approved.*

Himchak pursued the question about the motion in the minutes related to the MAC request to update the Gulf Menhaden FMP. **VanderKooy** explained that there were no changes to the fishery or the status of the population since the last revision to warrant an update. MSC is a marketing tool and not a management issue for the states. **Himchak** stated that the MAC may include the Reference Points Modeling conducted by Butterworth and Rademeyer in the assessment update scheduled for next year but the importance of having a regional management plan is necessary for the states that don't have individual ones. **VanderKooy** reminded that the MAC was welcome to readdress this with the Commission but that there would need to be justification as it relates to state management of the fishery or significant research advances in our understanding of the population.

Review of 2020 Gulf Menhaden Season

Mroch provided a review of the 2020 Gulf fishing seasons. In the Gulf, the landings through August were 344K mt which was an 8.5% decrease from last year. It has been an exceptional year with the COVID pandemic and numerous tropical systems so a decrease is understandable. April was slower than normal but did pick up a little compared to the five-year average. July was much lower but picked up again in August. The forecast for hurricanes this year was for 13-19 systems, 6-10 hurricanes with 3-6 being major. It was updated mid-year but is already exceeding that forecast as well since we are now well into the Greek alphabet for naming. September is the most active month that we've had on record so far.

Mroch added the average landings for September and October (121K mt) and projected the total for the 2020 at around 465K mt by the end of the season. This is only a 4% decrease from 2019 despite the effort for 2020 was down 24% from the previous year. The projected landings are actually 7% higher than the forecast from March. The lower effort, unfortunately, affects the forecast formula indicated that the preliminary forecast for 2021 may be as low as 380K mt.

Port samples are catching up from the backlog. The 2019 samples indicate that age-1s dominated the catch in the eastern Gulf (Moss Point @64% and Empire @56%) and age-2 fish (@57%) were taken in Abbeville to the west in 2019. The 2020 samples are just now coming into Beaufort and Amanda Rezek is processing all the ageing from her home currently. **Mroch** hopes to have some preliminary age comps from 2020 by March.

Himchak asked why the projections for 2021 are so low. **Mroch** explained that the projection is a simple regression based on current years landings and effort which are individual points and NOAA has been using the same methods for decades. In years with exceptional landings or effort, the forecast will be biased by the atypical values. It was suggested that perhaps a three-year average for effort would smooth the variability in odd years and maintain a more reasonable forecast. **Mroch** will look into this moving forward.

The MAC asked about the fact that effort was down significantly but the landings were still fairly stable. **Mroch** wouldn't speculate and suggested it could be several factors. The industry may be continuing to

become more efficient in their harvest strategies, fish may be more available in the fishing grounds, and the population has been increasing based on the all of the stock assessments so catches may be going up. **Landry** thought that the run boats were probably the only real change in methodology which could affect the reduced effort but stable landings. **Mroch** accounts for the run boats in the analysis so he would look into the CDFR data and see what might be going on to explain this.

Update on the Atlantic Menhaden Fishery

In the Atlantic, **Mroch** reported that the total landings along the East Coast are still constrained by the TAC which keeps reduction to 165K mt annually. Through August, the Atlantic catch has been around 76K mt which is down around 28% from the previous year. Seven reduction vessels participated along with one Virginia bait boat which did land a few fish at Reedville for reduction. A total of four purse-seiners reported bait landings so far this year. The season started a little slow but July landings were the highest in the last five. Because of the TAC, there is no forecasting when the limit may be reached. This year the Atlantic Menhaden Assessment was completed and both the single species as well as the ERP (Ecological Reference Point) models were accepted for use. The single species assessment will continue to be used to determine stock status, but the ERP models are being considered to supplement information for the management actions.

Landry commented on the Atlantic Menhaden assessment and indicated the industry is having trouble understanding why the projection options are as substantial as they are. It seems that the interest in ERP simply because it is new is clouding some common sense in management of what has been shown to be a healthy fish stock. Application of the ERP models for the sake of publishing doesn't seem to be management based. The previous approaches to estimate prey needs for predator populations were based on sound science and now they are projecting needs for fish that won't be at target levels for at least ten years. This is like getting 100 RSVPs for a wedding but planning food for 300 just in case and end up wasting it. Industry wants to maintain the current harvest levels and doesn't buy into the overly precautionary approaches being considered.

VanderKooy did ask about whether any bait landings occurred in the Gulf this year. **Mroch** hasn't heard anything or seen anything. **Kuttel** indicated that there were landings from the bait company in Abbeville. **Mroch** took note to follow-up with them.

Report on Texas Cap for 2020

Mroch updated the group on the 2020 Texas Cap. **Carey Gelpi** was introduced as Mambretti's replacement on the committee as the TPWD representative. **Gelpi** provided the fishing activity so far in 2020. The industry made a total of six sets in Texas waters in August and removed 2.24% (around 770K lbs) of the 34.6M lb cap so far in 2020. The industry continues to fish less to the west since the closure of the Cameron plant in 2015 so fishing in Texas is nearly negligible.

Review of Port Sample Acquisition and Processing in 2020

Mroch noted that 2020 has been very strange. All three port samplers were hired but slow to start. All the samplers have picked up samples from the plants following all the new health (COVID) protocols. Samplers are being paid mileage and getting their own samples from the plants. Two of the three have submitted samples to Amanda Rezek at NOAA and the other new one is just now getting started. **Mroch** was unable to provide training directly but it's worked out. The sampler for Abbeville needs to start and **VanderKooy** suggested that the Empire sampler may be able to help train her. If that works, **VanderKooy**

should be able to help with the travel costs to go over and back.

MSC Updates

Gulf Certification: Himchak reported that because of the COVID issue, the certification was extended six months so the Year 1 Client Action Plan will be due next spring.

NOAA Observer Steering Committee: Kuttel indicated that the steering committee has been formed and the first agenda item was to develop a list of concepts to observe for turtle and protected species interactions. COVID has slowed that process as well. The NOAA members were going to take a field trip to see how the fishery works but travel has been suspended. Video footage has been used in the meantime. Now the committee is considering concepts to test next year. They had intended to start observing next year but have delayed the start.

Election of Chair

The next chair was to be a state representative. Any of the state members could serve although MS and LA have chaired recently. **Moncrief** offered to serve but noted that he was not the actual member and wasn't sure if he could hold the position instead of Matt Hill. **Himchak** suggested that without everyone being together and clear understanding of the proxy question, perhaps we should wait. It was agreed that the election of the Chair would be deferred until the Commission's Spring Meeting.

Other Business

IIF Research Project - Himchak asked about the status of the proposed projects submitted by the MAC for consideration by the TCC. **VanderKooy** reported that the TCC was unable to prioritize any specific projects during their meeting citing individual research needs within the states just being too diverse. The SFFMC and the Commission considered the proposal process and ultimately decided to split the available funds equally between the five agencies and allow each to determine what their priorities were. As a result, none of the MAC proposed projects were selected although several monitoring proposals would indirectly include menhaden. The MAC members were welcome to recommend any of the original priorities suggested within their respective agencies.

Ecosystem Modeling for the Gulf - VanderKooy reported that the Gulf Menhaden Ecosystem Modeling team will be having a conference call the week after the Commission Business meeting in October. The model is operational and may have potential for use in the assessment next year. **VanderKooy** will let the group know if a presentation is ready for the March meeting. The SEDAR schedule has the Gulf Menhaden Operational Assessment (Update) will be occurring in summer/fall of 2021. He will provide planning information no later than March for requesting data. **Dave Chagaris** was on the call and indicated that the Ecosim model is being completed by Sagarese and Nuttall at the Miami Science Center. They are willing to present if the MAC would like it.

Hurricane Laura Go Fund Me - Landry provided a short update on the industries *Cameron Parish Go Fund Me Campaign*. He noted that Omega Protein has partnered with the Cameron Lions Club to spearhead the campaign to support relief efforts, with 100% of contributions going directly to charitable assistance. So far, the campaign has raised USD \$5,550 (through the Go Fund Me Campaign) toward a USD \$10,000 goal. Omega Protein had earlier sent in a \$5,000 contribution. He invited anyone willing to contribute to the assistance effort.

<https://www.gofundme.com/f/hurricane-laura-assistance- Cameron-la>

Cameron was a home for Omega Protein for nearly 50 years, and we will not turn our backs on the community during its time of need. Omega is making a financial donation on behalf of the Cooke family of companies, and a truckload of supplies has been donated and delivered by True North Seafood and the North Carolina Fisheries Association to help those in need.

With no other business, the webinar adjourned at 10:20 a.m., on motion by **Moncrief** and second by **Landry**.

**TCC SEAMAP SUBCOMMITTEE
MINUTES
Tuesday, September 29, 2020
Online Meeting**

APPROVED BY:
Ted Switzer
COMMITTEE CHAIRMAN

Chairman T. Switzer called the meeting to order at 1:00 p.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
Chloe Dean, LDWF, Grand Isle, LA
Fernando Martinez, TPWD, Corpus Christi, TX
Adam Pollack, NOAA Fisheries, Pascagoula, MS

Others

Eric Hoffmayer, NOAA/NMFS, Pascagoula, MS

Staff

Jeff Rester, *SEAMAP/Habitat Program Coordinator*, GSMFC, Ocean Springs, MS

Adoption of Agenda

J. Mareska moved to adopt the agenda. F. Martinez seconded and the motion passed.

Approval of Minutes

J. Hendon moved to approve the SEAMAP minutes from July 22, 2020 as submitted. C. Dean seconded and the motion passed.

Administrative Report

J. Rester stated that he has prepared stations for the Fall Shrimp/Groundfish Survey for everyone. Other than that, he did not have anything else to report. He did state that he had attended a couple of the Shrimp Stock Assessment Work Group meetings that was looking at SEAMAP data and how changes in the trawl surveys had potentially affected catch rates of penaeid shrimp. **A. Pollack** stated that he was involved with the Work Group. **A. Pollack** stated that while the shrimp fleet fishes for white shrimp during the day, SEAMAP data showed that white shrimp catch rates were higher at night. He reported that the Work Group was exploring alternate models for the shrimp stock assessments.

2020 SEAMAP Sampling Update

J. Rester stated that he wanted to learn how COVID-19 had impacted 2020 SEAMAP sampling. **T. Switzer** stated that NMFS had not been able to participate in the newly redesigned Reef Fish Survey. He reported that Florida had sampled approximately 1,000 stations in the eastern Gulf. **T. Switzer** stated that Florida was preparing to sample from October 12-24 as part of the SEAMAP Fall Shrimp/Groundfish Survey and would try to cover statistical zones 2-5. **J. Hendon** stated that Mississippi and Alabama were leaving October 1 for five days to sample statistical zones 9-11. **C.**

Dean stated that Louisiana would sample for five days beginning October 26. **E. Hoffmayer** stated that NMFS planned to begin sampling October 15 and continue until November 24.

As part of the trawl survey discussion, the Subcommittee wanted to explore removing small trawlable areas that were surrounded by untrawlable bottom with high potential to damage gear. **J. Rester** stated that he would explore this and the Subcommittee could discuss it at their March meeting.

For the Bottom Longline Survey, **F. Martinez** stated that Texas had not sampled any bottom longline stations in 2020. **C. Dean** stated that Louisiana had sampled two stations in the Spring, six in the Summer, and 15 stations in the Fall. **J. Hendon** stated that Mississippi did not sample during the Spring, but had completed all stations during the Summer and Fall time periods. **J. Mareska** reported that Alabama had completed all assigned stations during 2020.

C. Dean reported that Louisiana had sampled 17 stations so far during the Vertical Line Survey and had plans to sample as many as possible through October. **J. Mareska** stated that Alabama had sampled all stations during the Spring and had halfway completed the stations for the Fall time period. **F. Martinez** stated that Texas had not conducted any vertical line sampling in 2020.

Potential Uses of Unused 2020 SEAMAP Funds

J. Rester asked the Subcommittee to discuss their plans for unused 2020 funds. **T. Switzer** stated that he would like to purchase an acoustic camera to support reef fish sampling. He stated that an acoustic camera would cost approximately \$100,000. He reported that funds could be used for trawl calibration tests, a joint habitat mapping training cruise, and using hydroacoustics in the trawl survey. **C. Dean** stated that Louisiana would like to use funds to update the Defender. **F. Martinez** reported that Texas would like to purchase equipment for their vessels. **J. Hendon** stated that Mississippi would like to purchase a CTD and supported the idea of a habitat mapping cruise. **J. Mareska** stated that he supported a habitat mapping cruise and a data limited Red Drum assessment using updated bottom longline catch and age information. **E. Hoffmayer** stated that he liked the idea of acquiring an acoustic camera and a trawl calibration cruise. **J. Rester** stated that he would like to pay travel for the invertebrate identification workshop next year.

Final Review of 2021-2025 Management Plan

J. Rester stated that the Management Plan had been broken out into a Management Plan and a Strategic Plan. He still felt that the Management Plan was too long and contained information that did not need to be in there. The Subcommittee agreed. **J. Hendon** stated that she would work to reduce the size of the Management Plan and provide it before the Technical Coordinating Committee (TCC) meeting in October. **J. Mareska** asked how the TCC could handle removing the extra information. **J. Rester** stated that the TCC could recommend that the Management Plan be edited for content and sent to the TCC again for final review at their March 2021 meeting.

Election of Chair and Vice Chair

J. Hendon moved to nominate **T. Switzer** as Chair. **J. Mareska** seconded and the motion passed unanimously. **J. Mareska** moved to nominate **J. Hendon** as Vice-Chair. **F. Martinez** seconded and the motion passed unanimously.

Other Business

There being no further business, the meeting was adjourned at 2:30 p.m.

APPROVED BY:

COMMITTEE CHAIRMAN

on behalf of Scott Bannon

**STATE-FEDERAL FISHERIES MANAGEMENT COMMITTEE
MINUTES
Wednesday October 14, 2020
Webinar**

Scott Bannon called the meeting to order at 1:00 p.m. The following members and others were present:

Members

- Scott Bannon, ADCNR, Gulf Shores, AL
- Luiz Barbieri, FLFWC, Saint Petersburg, FL
- Paul Micklef, MDMR, Biloxi, MS
- Jason Froeba, LDWF, Baton Rouge, LA
- Chris Mace, TPWD, Corpus Christi, TX
- Roy Crabtree, NOAA Fisheries, Saint Petersburg, FL
- Clay Porch, NOAA Fisheries, Miami, FL
- Dave Donaldson, GSMFC, Ocean Springs, MS

Others

- Richard Cody, NOAA Fisheries, Silver Spring, MD
- Derek Orner, NOAA Fisheries, Silver Spring, MD
- Eric Hoffmayer, NOAA Fisheries, Pascagoula, MS
- Alison Johnson, Marine Stewardship Council
- Christian Jones, NOAA Fisheries, Pascagoula, MS
- Rick Burris, MDMR, Biloxi, MS
- Beverly Sauls, FLFWC, Saint Petersburg, FL

Staff

- Gregg Bray, FIN Program Manager
- Jeff Rester, SEAMAP Program Manager
- Steve VanderKooy, IFJ Program Manager
- James Ballard, Sport Fish Restoration/Aquatic Invasives Coordinator
- Debbie McIntyre, IJF Program Staff Assistant
- Joe Ferrer, Systems Administrator, Ocean Springs, MS
- Donna Bellais, ComFIN Programmer, Ocean Springs, MS
- Cheryl Noble, Administrative Assistant, Ocean Springs, MS
- Deanna Valentine, FIN Scanning Specialist, Ocean Springs, MS

Adoption of Agenda

The agenda was approved as written.

Discussion and Final Approval of GulfFIN Funding Activities for 2021

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 2021 that was developed by the

FIN Committee. The list is attached (Attachment A). **R. Cody** 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 \$4.294M and RecFIN line item at \$3.475M. The Gulf portion of the RecFIN line item totals about \$1.072M. In addition, historically, there is an additional \$880K provided by the NOAA OST to allow for large base sampling allocations for MRIP dockside surveys. Congress also allocated additional funds to support the FIN programs. The GulfFIN line item has an increase of \$405k and the RecFIN line item received an increase of \$93k. GulfFIN also have an additional \$165k of Congressional increase that was received late in 2020 that was applied to 2021 activities. With administrative fees removed, the amount available for FIN funding in 2021 totals \$7.149M. The original amount proposed for 2021 for all the jobs was approximately \$6.827M, which meant there was a surplus of approximately \$322K. NOAA Fisheries Southeast Fishery Science Center (SEFSC) has provided funding assistance to support headboat port sampling and biological sampling programs that covers all of 2021. The breakdown of the proposed 2021 funding is as follows:

	2021 Proposed Funding	
GulfFIN line item	4,293,890	
OMB administrative fee	(320,527)	
SER administrative fee	(2,839)	
Partial Congressional increase - 2020	165,000	
Congressional increase - 2021	405,207	
GulfFIN - available		4,540,731
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	
MRIP base allocation funding	880,000	
MRFMA General Survey funds	900,000	
Congressional increase - 2021	93,476	
SER administrative fee	0	
Economics survey	(155,323)	
SEFSC data collections	(231,042)	
RecFIN - available		2,558,840
Additional funds		
SEFSC funds		0
SER funds		0
HQ funds		0
FIS Project		49,495
Other		0
TOTAL AVAILABLE FUNDING		7,149,066

The original amount proposed for 2021 for all the jobs proposed was approximately \$6.83M, which results in a surplus of \$322k.

After discussion, **L. Barbieri 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 \$6.827M and was seconded by J. Froeba. The motion passed unanimously.**

This resulted in a funding surplus of \$323k. The committee discussed options for spending the surplus \$322k in 2021. **Bray** stated that the GulfFIN Committee has a project seeking funding to research commercial conversion factors for Snapper species. He proposed that the surplus funding could be used to support that research that was proposed to cost \$144k. Several committee members asked about the possibility of researching additional priority species within the same project. **Bray** stated he would discuss that option and any others with the GulfFIN Committee and bring their recommendation back to S/FFMC for their consideration.

Bray also discussed GulfFIN has received funding to support state survey work and the Southeast For-Hire Electronic Reporting Program (SEFHER). Both funding amounts are being tracked separately and can only be used for those specific tasks. The Modernizing Recreational Fisheries Management Act has allocated \$300k annually to support state survey work and prioritizes developing, maintaining, and improve electronic data collection tools. Currently funds are being used to fully support Alabama Snapper Check and Mississippi Tails n' Scales. Funds are also being used to assist in the development of electronic data collection tools for Florida State Reef Fish Survey although development on those tools likely won't start until 2021. Funds received in 2020 are being used to support 2021 sampling and development activities. NOAA Fisheries Southeast Regional Office has also provided funding to support a dockside validation survey to be implemented to support the new federal for-hire logbook reporting program under SEFHER. In 2020 GulfFIN received \$1.5M to support year 1 activities which will start on or about January 5, 2021. GulfFIN has been informed that \$900k will be made available for ongoing costs for year 2 and beyond. Currently year 2 costs are proposed at \$1.152M but once survey work actually begins in 2021 states may need to adjust their budgets as more information is gained on implantation costs. If budgets remain above proposed funding all of the partners will have to look at possibly reducing budgets and field work to fit within proposed funding.

Discussion of SEAMAP Funding Activities for 2021

Jeff Rester provided some background on the SEAMAP budget and surveys for the Gulf of Mexico. The FY2020 SEAMAP appropriation was \$5.125 million and Jeff stated that SEAMAP received approximately \$4.80 million for fishery independent sampling for all three SEAMAP components. All three SEAMAP components based their FY2021 budget on level funding of \$5.125 million. The total proposed for the Gulf was \$2.04M.

The State/Federal Fisheries Management Committee reviewed the various SEAMAP surveys along with their associated costs. For FY2021, SEAMAP will continue the current SEAMAP survey work and sampling effort and hope that level funding or additional funding will be appropriated.

After discussion, **L. Barbieri** moved to accept the proposed funding for SEAMAP surveys for 2021 for a total budget of \$2.04M and was seconded by **P. Mickle**. The motion passed unanimously.

IJ Small Grants Update for 2021

Steve VanderKooy discussed the Interjurisdictional Fisheries Program Small Grants funding program. With increases in IJF funding the program is supporting a small grants program to assist with important research priorities at the state level. A total of \$1.4M has been made available in 2020 from year 1 and 2 funding. Currently subawards are being reviewed by NOAA grants staff to modify the existing IJF budget. **VanderKooy** presented a table showing the topics of research for all of the state partners. Four states are working on flounder research and two states are focusing on blue crab research. Some additional areas of importance are scallop research in Florida, a fishery independent database integration project in Mississippi and a monitoring project in Texas using environmental DNA, starting with a focus on red drum. **VanderKooy** stated in 2021 there will be \$900k available split between the 5 states. Projects will be capped around \$180k per project in 2021 and could include short term extensions to existing projects or new areas of research.

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.

There being no further business, the meeting was adjourned at 2:40 p.m.

GULFFIN ITEMS FOR CONSIDERATION IN 2021

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 Dec. 31, 2022)
- H – Headboat Port Sampling (funded through Dec. 31, 2022)

**TECHNICAL COORDINATING COMMITTEE
MINUTES
Wednesday, October 14, 2020
Webinar**

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
Joe Jewell, MDMR, Biloxi, MS
Matt Hill, MDMR, Biloxi, MS
John Mareska, ADCNR/MRD, Gulf Shores, AL
Chris Denson, ADCNR/MRD, Gulf Shores, AL
Darin Topping, TPWD, Rockport, TX
Christopher Mace, TPWD, Rockport, TX
Clay Porch, NOAA Fisheries, Miami, FL
Glenn Constant, USFWS, Baton Rouge, LA
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
Ali Wilhelm, GSMFC, Sport Fish/Aquatic Invasives Staff Assistant, Ocean Springs, MS
Doug Snyder, GSMFC, RecFIN Survey Coordinator, Ocean Springs, MS
Cheryl Noble, GSMFC, Staff Assistant, Ocean Springs, MS
Debbie McIntyre, GSMFC, IJF Staff Assistant, Ocean Springs, MS
Charlie Robertson, GSMFC, Fisheries Restoration Program Coordinator, Ocean Springs, MS

Others

Paul Mickle, MDMR, Biloxi, MS
Traci Floyd, MDMR, Biloxi, MS
Alison Johnson, MSC, Washington, DC
Nicole Shaffer, ADCNR/MRD, Gulf Shores, AL
Steve Brown, FWC/FWRI, St. Petersburg, FL
Scott Bannon, ADCNR/MRD, Dauphin Island, AL
Ryan Gandy, FWC/FWRI, St. Petersburg, FL
Richard Malinowski, NOAA fisheries, St. Petersburg, FL
Derek Orner, NOAA, Silver Spring, MD
Kevin Anson, ADCNR/MRD, Gulf Shores, AL
Carolina Bourque, LDWF, Lafayette, LA

Laura Picariello, Texas Sea Grant, Corpus Christi, TX
Marie Head, ADCNR/MRD, Gulf Shores, AL
Julie Defilippi Simpson, ASMFC, Arlington, VA
Julien Lartigue, NOAA RESTORE Science Program, Stennis Space Center, MS
Jason Saucier, MDMR, Biloxi, MS
Even Pettis, TPWD, Rockport, TX

Adoption of Agenda

A motion to adopt the agenda was made by Joe Jewell and passed unanimously.

Approval of Minutes

A motion to approve the minutes for the March 11, 2020 meeting was made by Joe Jewell and passed with no opposition.

Discussion/Approval of the SEAMAP 2021-2025 Management Plan

Jeff Rester provided a brief overview of the SEAMAP 2021-2025 Management Plan. Jeff stated that the SEAMAP components decided in July to split the Management Plan into a Strategic Plan and a Management Plan because the Management Plan had continued to grow over the years and was over 150 pages. The Gulf component still thinks the Management Plan is too long and contains information that makes the document harder for managers to use. The Strategic Plan contains information on how the program would expand their current sampling efforts if they receive additional funding in future years. Following a discussion about the content of the Management Plan and some sections that are more appropriate for an Operations Plan, the TCC directed staff to take the plan back to the Caribbean and South Atlantic SEAMAP components and work on removing the information that does not really fit in the Management Plan, and bring it back to the TCC at their March 2021 meeting.

Overview of Cares Act Activities

Jeff Rester presented on the GSMFC's CARES Act activities. On May 7th, 2020, the Secretary of Commerce announced the allocation of \$300 million in fisheries assistance funding provided by Section 12005 of the Coronavirus Aid to states, tribes, and territories with coastal and marine fishery participants who were negatively affected by COVID-19. To be eligible, fishery participants must have incurred an economic revenue loss greater than 35%, as compared to the prior 5-year average revenue, or any negative impacts to subsistence, cultural, or ceremonial fisheries. These funds will be disbursed by NOAA Fisheries with assistance from the three Marine Commissions. Jeff reported that the Commission has been working with the Gulf States to develop their spend plans consistent with the CARES Act and NOAA's guidance. Once a state has a NOAA approved spend plan, the Commission will process payments to eligible fishery participants on behalf of the state. Currently Louisiana, Alabama, and Mississippi all have approved spend plans, and Texas is working with the Governor's office to get approval on their draft spend plan.

Overview of Fisheries Restoration Program Activities

Charlie Robertson updated the TCC on the GSMFC's new Fisheries Restoration Program (FRP), and the activities that he is currently working on in conjunction with the project management team (PMT). Charlie stated that the FRP is implemented through a cooperative agreement and partnership between GSMFC, National Oceanic and Atmospheric Administration (NOAA), and FL Sea Grant and funded through Deepwater Horizon Natural Resource Damage Assessment and Restoration (NRDA). This program will focus on the reduction of post-release mortality from barotrauma in Gulf of Mexico reef fish recreational fisheries. This will be accomplished by researching and developing Gulf-wide best

handling practices for reef fish, providing equipment and tools to recreational reef fish anglers to implement those practices, and providing outreach and education information to increase angler's awareness and knowledge on their use. Charlie reported that the PMT has developed and distributed a request for pre-proposals for research on post-release mortality techniques / validation studies, and is in the process of developing an RFP for a survey on angler attitudes and opinions regarding fish descender devices that will be distributed soon. They will also be reaching out to the Gulf States to get feedback on the direction of the project, and to explore possibilities for partnering up on some aspects of the project.

Discussion: IJF Research Funding

Steve VanderKooy presented on IJF Research Funding that will support different projects in the Gulf States. He provided a brief recap of the original plan that was presented at the March TCC meeting, and the final plan that was agreed upon by the Commission where the funding is split evenly between the states to carry out work associated with IJF species that they deem to be the most pressing. In the current plan, states will propose the work they would like to conduct in March, scopes of work and budgets will be developed over the summer, and presented for approval at the October Commission meeting. The projects that will be funded this year will address a number of state data and research needs associated with blue crabs, scallops, oysters, flounder, commercial data, database management, and genetics.

Discussion/Approval: SOPs for TCC Subcommittees

The TCC had a brief discussion on the SOPs for TCC Subcommittees. During the discussion, one minor grammatical change was made to the Artificial Reef Subcommittee's SOPs. Darrin stated that it would be good to have the membership list for the Molluscan Shellfish Subcommittee sent to the TCC and asked staff to inform the TCC of any changes to the membership of Subcommittees in the future.

Following the discussion, **Joe Jewell made the following motion and it passed without opposition. To approve the SOPs, with the one grammatical change, and to send them to the full Commission for approval.**

Subcommittee Reports

Artificial Reef

James Ballard reported that the subcommittee discussed the impacts of recent hurricanes on artificial reefs in North Carolina, Alabama, and Florida. The discussion mainly focused on the movement of sediment which exposed hard bottom or relic tree stumps that are impacting new permits. Although, Florida stated that some of the stumps that were exposed off their coast eroded fairly quickly.

The group also discussed recent concerns with sea turtle entanglements on new artificial reef projects. Several states are being asked to provide biological opinions for new reef projects, and stipulations are being added to new permits to clean monofilament from reef sites annually to address the entanglement concern. Because of this issue and previous concerns about sea turtle entrapment in artificial reefs, the group decided to start exploring the possibility of having a national sea turtle plan for artificial reefs developed similar to the National Guidance: BMPs for Preparing Vessels Intended to Create Artificial Reefs. The group also discussed the possibility of having national standards for assessing artificial reef permits developed, and/or updating the National Artificial Reef Plan to address inconsistencies in the permit process. The group will continue these discussions with a dedicated session at their next joint meeting.

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

Data Management

Steve Brown stated that **Dave Gloeckner** gave a presentation on the gulf shrimp fishery including analytical requirements, program updates and reporting options. **Gloeckner** mentioned 3G technology currently used by the electronic logbooks (eELBs) is being discontinued January 1, 2021, therefore requiring new shrimp effort data collection methods and reporting requirements. He presented four possible options for vessel reporting and stated NMFS will ask the GMFMC to consider either making changes to the expiring eELB effort data collection program and/or require shrimp dealer permits and all permitted shrimp dealers to submit weekly electronic reports to NMFS. He also mentioned the need for increased timeliness of shrimp data from the state partners for the monthly shrimp reports used by the Southern Shrimp Alliance (SSA). This is essential for producing an analysis for the Texas closure by the February council meeting. NMFS would need the current year's shrimp landings through August by the end of November of the same year. All of the state partners indicated they could likely provide preliminary shrimp data by the requested deadline.

Each state provided an update on their research regarding the accuracy of shrimp commercial conversion factors. All states have completed data collection and processing and results are being compiled. The results were presented at the Data Management Subcommittee meeting in October of 2019, and work on the final report has begun. Preliminary results do not show major differences between current research and the historical conversion factors.

Gregg Bray reported that GSMFC continues to work on the transition away from paper reporting methods for the Marine Recreational Information Program (MRIP) Access Point Angler Intercept Survey (APAIS). The process has been implemented on the Atlantic Coast and GSMFC is utilizing the same technology. Currently, Atlantic Coastal Cooperative Statistics Program (ACCSP) has assisted GSMFC in installing the database for housing data collected through tablets. GSMFC staff are in the process of purchasing the first batch of tablet devices along with needed accessories. GSMFC also has a contract in place with Harbor Light Software to modify the reporting application to meet the needs of MRIP states in our region. Both state and federal partners will be utilized to assist in that process of modifying the application. The goal is to begin training and testing in the fall of 2020 with the hope of being fully implemented by January 1, 2021.

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

Molluscan Shellfish

Carolina Bourque reported that **Chad Hanson** (Pew Charitable Trusts) refreshed everyone on the restoration projects by Pew. **Hanson** reviewed the efforts nationwide to rebuild fish populations and end overfishing, as well as provide management of ecosystem-friendly projects. Pew is currently working to inventory oyster restoration projects throughout the region to see what models are available compared to what is needed for restoration site selection.

Seth Blich, The Nature Conservancy, gave an overview of the history of oyster restoration and recovery in the Gulf of Mexico. **Blich** explained that the Gulf of Mexico still represents opportunity for oyster restoration as the resources continue to decline.

Dr. Eric Saillant presented on the Gulf's Oyster Consortium, which is a five-year project funded through the Commission and NOAA Office of Aquaculture. The project has four major components: to define project objectives to address industry needs for seed and genetic lines of seed, to breed lines with

improved genetic values for characters of interest to industry, to develop a germplasm repository to include founders and selected parents during successive generations of breeding, and to test improved diploid lines for triploid performance in cross with the tetraploid stocks. To date, the Consortia has collected founders from different geographic lines incorporated in a mosaic strain, cryopreserved material from those founders, and attempted spawns with limited success due to delays resulting from the COVID shutdowns. Additional spawns will be conducted once the reproductive condition of the broodstock founders has improved.

The Subcommittee had a discussion on Oyster Importation/Biosecurity. Since there are a number of issues related to sources of seed and broodstock in hatcheries and oyster farms, the Subcommittee summarized the individual state restrictions and limitations for bringing material into their respective waters. In general, any shellstock from the U.S. East Coast is not permitted to be introduced into the water anywhere in the Gulf due to concerns over the introduction of MSX. Live oysters can be brought in to most of the states as long as they are only in restaurants or handled by processors. In general, most states also require health certifications for products brought from other regions for culture or grow-out. It was suggested that the Subcommittee may need to consider the importation rules to allow hatcheries outside the Gulf to propagate seed to be returned to the state of origin just to meet demand. Based on the work being done by the Oyster Consortium, there may also be potential for cryopreserved material to cross state lines and regions for hatchery purposes. It is unclear if the importation regulations and restrictions would apply to frozen reproductive material in lieu of sending live broodstock.

The Interstate Shellfish Sanitation Conference had requested information from the MS DMR specifically about how they were reporting oyster production from the off-bottom farms. The standard format for wild landings is in shucked meat yields which is what most states with oyster farms are reporting. However, since cultured oysters are generally sold smaller than legal wild oysters, their weights may be very different, especially for triploids. The value is significantly different as well, which could be an issue generating dockside prices and value compared to sack oysters. This might be an issue the MSSC will need to address in the near future.

Joe Jewell asked that any potential advisory members that the Subcommittee wants to add, be brought before the TCC for approval before they are added, and the subcommittee's SOPs be amended accordingly.

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

SEAMAP

Jeff Rester reported that the SEAMAP Subcommittee met jointly in July with the Caribbean and South Atlantic SEAMAP components. SEAMAP is unsure of FY2021 funds, but planned on level funding of approximately \$4.79 million. At this level, the Gulf would receive approximately \$1.9 million next year for fishery independent sampling in the Gulf of Mexico.

Jeff provided an overview of the various 2020 SEAMAP surveys. The SEAMAP Spring Plankton Survey, which normally takes place during April and May, was cancelled this year. The SEAMAP Bottom Longline Survey was severely impacted by COVID-19 restrictions. Alabama was able to sample during all three seasons, and completed 11 stations this year. Mississippi was not able to sample during the Spring season, but did sample 25 stations during the Summer and Fall seasons. Louisiana was able to sample 2 stations during the Spring, 6 in the Summer, and 15 in the Fall. Texas was not able to sample any stations during 2020. The SEAMAP Vertical Line Survey was scheduled to sample 218

stations off Texas, Louisiana, and Alabama. The number of stations actually sampled will be much less than this, as approximately 70 stations were sampled from April through October. The SEAMAP Reef Fish Survey was completed this summer with a reduced sampling effort. A new reef fish survey design was supposed to be implemented with supplemental funding from a NOAA RESTORE Act Science Program grant. NOAA Fisheries did not conduct any reef fish sampling this year. Florida was able to sample approximately 1,000 stations in the eastern Gulf. The SEAMAP Summer Shrimp/Groundfish Survey usually is conducted in June and July, but because NOAA Fisheries would not have been able to participate this year during June or July, the SEAMAP Subcommittee decided to only sample the eastern Gulf of Mexico. The states planned to sample 150 stations during July. At the last minute, the entire survey was cancelled due to crew limitations. The Fall Plankton Survey was also cancelled due to COVID-19.

With all of the reduced sampling this year, SEAMAP has unused funding, so the Subcommittee has been discussing ideas on how to use these funds over the next year. Ideas put forward include purchasing an acoustic camera to support reef fish sampling, trawl calibration tests, a joint habitat mapping training cruise, using hydroacoustics in the trawl surveys, purchasing equipment to update vessels used in SEAMAP surveys, purchasing a CTD, supplementing sea days for the Summer and Fall Shrimp/Groundfish Surveys, and paying travel to an invertebrate identification workshop.

Ted Switzer was elected as SEAMAP Subcommittee Chair, while **Jill Hendon** was elected Vice-Chair.

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

State/Federal Reports

Darin Topping stated that written reports were provided to the TCC members prior to the meeting for their review. To see the full reports that were provided to the TCC, please see the minutes from the Commission Business Meeting held on Thursday, October 15, 2020.

Election of Officers

Darin Topping was re-elected as Chair and **Bev Sauls** was re-elected as Vice Chair.

Other Business

Steve VanderKooy reported that the revision to the otolith manual has been completed and the updated document will be made available through the Commission's website.

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

Commission Business Meeting
October 15, 2020
Virtual

APPROVED BY:

COMMITTEE CHAIRMAN

Call to Order

Chairman Dan Ellinor called the meeting to order at 11:02 a.m. The following Commissioners and/or Proxies were present:

Dan Ellinor, **Chairman**, FWC, Tallahassee, FL (*Proxy for Eric Sutton*)
Robin Riechers, TPWD, Austin, TX (*Proxy for Carter Smith*)
Doug Boyd, *Citizen Representative from Texas*, Boerne, TX
Chris Nelson, *Citizen Representative from Alabama*, Bon Secour Fisheries, Bon Secour, AL
Scott Bannon, ADCNR/MRD, Gulf Shores, AL (*Proxy for Chris Blankenship*)
Paul Mickle, MSDMR, Biloxi, MS (*Proxy for Joe Spraggins*)
Read Hendon, *Citizen Representative from Mississippi*, USM/GCRL, Ocean Springs, MS
Jason Froeba, LDWF, Baton Rouge, LA (*Proxy for Jack Montoucet*)
John Roussel, *Citizen Representative from Louisiana*, 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
Angie Rabideau, *Senior Accountant*, Ocean Springs, MS
Debbie McIntyre, *Staff Assistant*, Ocean Springs, MS
Ali Wilhem, *Staff Assistant*, Ocean Springs, MS
Charlie Robertson, *Fisheries Restoration Coordinator*, Ocean Springs, MS

Others

Roy Crabtree, NOAA Fisheries, St. Petersburg, FL
Allan Brown, USFWS, Atlanta, GA
Glen Constant, USFWS, Baton Rouge, LA
Christopher Mace, TPWD, Corpus Christi, TX
Alison Johnson, MSC, Miami, FL
Kristy Beard, NOAA Fisheries, Silver Spring, MD
Jessica Beck-Stimpert, NOAA/SERO/AO, St. Petersburg, FL
Ken Riley, NOAA Fisheries, Beaufort, NC
Darin Topping, TPWD, Rockport, TX
Julie Defilippi Simpson, ASMFC/ACCSP, Arlington, VA
Andrew Richard, NOAA Fisheries, St. Petersburg, FL

Daniel Torres, NOAA Fisheries, St. Petersburg, FL
John Fallon, Audubon Nature Institute, New Orleans, LA
Laura Deighan, Audubon Nature Institute, New Orleans, LA
Laura Picariello, TXSG, Corpus Christi, TX
Julien Lartigue, NOAA RESTORE, SSC, MS
Derek Ormer, NOAA Fisheries, Silver Spring, MD

Opening Comments and Brief Overview of Commission Voting Procedures

D. Donaldson gave a brief overview of the Commission's voting procedures and stated there was a quorum. **D. Donaldson** also recognized Ali Wilhelm for 10 years of employment with the Commission.

Adoption of Agenda

S. Bannon moved to adopt the agenda as submitted. C. Nelson seconded and the motion passed unanimously.

Approval of Minutes (March 12, 2020)

R. Hendon moved to approve the March 12, 2020 minutes as submitted. S. Bannon seconded and the motion passed unanimously.

GSMFC Standing Committee Reports

Technical Coordinating Committee (TCC)

D. Topping gave the TCC Report. He stated J. Rester provided a brief overview of the SEAMAP 2021-2025 Management Plan. Following a discussion about the content of the plan and some sections that are more appropriate for an operations plan, the TCC directed staff to take the plan back to the Caribbean and South Atlantic SEAMAP components and work on removing the information that should not be in the management plan, then bring it back to the TCC at their March 2021 meeting for approval. He said J. Rester also presented on the GSMFC's CARES Act activities and C. Robertson updated the TCC on the GSMFC's new Fisheries Restoration Program. He said S. VanderKooy presented on IJF Research Funding that will support different projects in the states. He provided an overview of the projects that will be funded this year which will address a number of the state data and research needs.

D. Topping said the TCC had a brief discussion on the Standard Operating Procedures (SOPs) for the TCC Subcommittees. Following the discussion, the **TCC made a motion to approve the SOPs as written and to send them to the full Commission for approval. The motion passed unanimously.**

P. Mickle moved to approve the motion. J. Froeba seconded it and the motion passed unanimously.

Subcommittee Reports

Artificial Reef

D. Topping reported that the subcommittee discussed the impacts of recent hurricanes on artificial reefs in North Carolina, Alabama, and Florida. The discussion mainly focused on the movement of sediment which exposed hard bottom or relic tree stumps that are impacting new permits although Florida stated that some of the stumps that were exposed off their coast eroded fairly quickly. The group also discussed recent concerns with sea turtle entanglements on new artificial reef projects. Several states are being asked to provide biological opinions for new reef projects and stipulations are being added to new permits to clean monofilament from reef sites annually to address the entanglement concern. Because of this issue and previous concerns about sea turtle entrapment in artificial reefs, the group decided to start exploring the possibility of having a national sea turtle plan for artificial reefs developed similar to the *National Guidance: BMPs for Preparing Vessels Intended to Create Artificial Reefs*. The group also discussed the possibility of having national standards for assessing artificial reef permits developed and/or updating the *National Artificial Reef Plan* to address inconsistencies in the permit process. The group will continue these discussions with a dedicated session at their next joint meeting.

Data Management

D. Topping reported that Dave Gloeckner gave a presentation on the gulf shrimp fishery including analytical requirements, program updates and reporting options. D. Gloeckner said the 3G technology currently being used by the electronic logbooks (cELBs) is being discontinued January 1, 2021, therefore requiring new shrimp effort data collection methods and reporting requirements. He presented four possible options for vessel reporting and stated NMFS will ask the GMFMC to consider either making changes to the expiring cELB effort data collection program and/or require shrimp dealer permits and all permitted shrimp dealers to submit weekly electronic reports to NMFS. He also mentioned the need for increased timeliness of shrimp data from the state partners for the monthly shrimp reports used by the Southern Shrimp Alliance (SSA). This is essential for producing an analysis for the Texas closure by the February Council meeting. NMFS would need the current year's shrimp landings through August by the end of November of the same year. All of the state partners indicated they could likely provide preliminary shrimp data by the requested deadline.

Each state provided an update on their research regarding the accuracy of shrimp commercial conversion factors. All states have completed data collection and processing and results are being compiled. The results were presented at the Data Management Subcommittee meeting in October of 2019 and work on the final report has begun. Preliminary results do not show major differences between current research and the historical conversion factors.

D. Topping reported that GSMFC continues to work on the transition away from paper reporting methods for the Marine Recreational Information Program (MRIP) Access Point Angler Intercept Survey (APAIS). The process has been implemented on the Atlantic Coast and GSMFC is utilizing the same technology. Currently, Atlantic Coastal Cooperative Statistics Program (ACCSP) has assisted GSMFC in installing the database for housing data collected through tablets.

GSMFC staff are in the process of purchasing the first batch of tablet devices along with needed accessories. GSMFC also has a contract in place with Harbor Light Software to modify the reporting application to meet the needs of MRIP states in this region. Both state and federal partners will be utilized to assist in that process of modifying the application. The goal is to begin training and testing in the fall of 2020 with the hope of being fully implemented by January 1, 2021.

Molluscan Shellfish

D. Topping stated Chad Hanson from Pew Charitable Trusts (Pew) refreshed everyone on the restoration projects by Pew. He reviewed the efforts nationwide to rebuild fish populations and end overfishing as well as provide management of ecosystem friendly projects. Pew is currently working to inventory oyster restoration projects throughout the region to see what models are available compared to what is needed for restoration site selection. **D. Topping** reported Seth Blitch with The Nature Conservancy gave an overview of the history of oyster restoration and recovery in the Gulf of Mexico. S. Blitch explained that the Gulf of Mexico still represents opportunity for oyster restoration as the resources continue to decline. **D. Topping** reported Eric Saillant presented on the Gulf's Oyster Consortium which is a five-year project funded through the Commission and NOAA's Office of Aquaculture. The project has four major components: to define project objectives to address industry needs for seed and genetic lines of seed; to breed lines with improved genetic values for characters of interest to industry; to develop a germplasm repository to include founders and selected parents during successive generations of breeding; and to test improved diploid lines for triploid performance in cross with the tetraploid stocks. To date, the Consortia has collected founders from different geographic lines incorporated in a mosaic strain, cryopreserved material from those founders, and attempted spawns with limited success due to delays resulting from the COVID shutdowns. Additional spawns will be conducted once the reproductive condition of the broodstock founders has improved.

D. Topping said the Subcommittee had a discussion on Oyster Importation/Biosecurity. Since there are a number of issues related to sources of seed and broodstock in hatcheries and oyster farms, the Subcommittee summarized the individual state restrictions and limitations for bringing material into their respective waters. In general, any shellstock from the U.S. East Coast is not permitted to be introduced into the water anywhere in the Gulf due to concerns over the introduction of MSX. Live oysters can be brought in to most of the states as long as they are only in restaurants or handled by processors. In general, most states also require health certifications for products brought from other regions for culture or grow-out. It was suggested that the Subcommittee may need to consider the importation rules to allow hatcheries outside the Gulf to propagate seed to be returned to the state of origin just to meet demand. Based on the work being done by the Oyster Consortium, there may also be potential for cryopreserved material to cross state lines and regions for hatchery purposes. It is unclear if the importation regulations and restrictions would apply to frozen reproductive material in lieu of sending live broodstock. The Interstate Shellfish Sanitation Conference had requested information from the MS DMR specifically about how they were reporting oyster production from the off-bottom farms. The standard format for wild landings is in shucked meat yields which is what most states with oyster farms are reporting. However, since cultured oysters are generally sold smaller than legal wild oysters, their weights may be very different, especially for triploids. The value is significantly

different as well, which could be an issue generating dockside prices and value compared to sack oysters. This might be an issue the MSSC will need to address in the near future.

SEAMAP

D. Topping reported that the SEAMAP Subcommittee met jointly in July with the Caribbean and South Atlantic SEAMAP components. SEAMAP is unsure of FY2021 funds, but planned on level funding of approximately \$4.79 million. At this level, the Gulf would receive approximately \$1.9M next year for fishery independent sampling in the Gulf of Mexico. With all of the reduced sampling this year, SEAMAP has unused funding so the Subcommittee has been discussing ideas on how to use these funds over the next year. Ideas put forward include purchasing an acoustic camera to support reef fish sampling, trawl calibration tests, a joint habitat mapping training cruise, using hydroacoustics in the trawl surveys, purchasing equipment to update vessels used in SEAMAP surveys, purchasing a CTD, supplementing sea days for the Summer and Fall Shrimp/Groundfish Surveys, and paying travel to an invertebrate identification workshop. Ted Switzer was elected as SEAMAP Subcommittee Chair and Jill Hendon was elected Vice-Chair.

Darin Topping said he was re-elected Chair of TCC and **Bev Sauls** was re-elected as Vice Chair.

R. Hendon moved to accept the TCC report. S. Bannon seconded the motion and it passed unanimously.

State-Federal Fisheries Management Committee (S/FFMC)

G. Bray stated he will be presenting both the State/Federal Fisheries Management Committee report and the Menhaden Advisory Committee Report. He said the S/FFMC met yesterday afternoon virtually with an agenda focusing on 2021 proposed funding issues related to GulfFIN, SEAMAP, and the Interjurisdictional Fisheries Small Grants Program.

GulfFIN Priorities

G. Bray outlined the status of 2021 GulfFIN funding for data collection and management activities. Preliminary 2021 funding amounts for GulfFIN and RecFIN line items are based on the likelihood of operating under a continuing resolution and receiving level funding. The proposed amount available for GulfFIN funding in 2021 totals \$7.15M. The original amount proposed for 2021 for all the high priority jobs was \$6.83M, which meant there was a surplus of approximately \$322K. After a brief discussion the S/FFMC approved the following motion:

The State/Federal Fishery Management Committee 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 Operations for a total budget of \$6.83M. The motion passed unanimously.

P. Mickle moved to accept the motion. R. Hendon seconded the motion and it passed unanimously.

G. Bray said the committee discussed options for spending the surplus \$322k in 2021. He will work with the GulfFIN Committee and bring their recommendation back to S/FFMC for their consideration.

G. Bray discussed the funding received to support state survey work and the Southeast For-Hire Electronic Reporting Program (SEFHER). Both funding amounts are being tracked separately and can only be used for those specific tasks. The Modernizing Recreational Fisheries Management Act has allocated \$300K annually to support state survey work and prioritizes developing, maintaining, and improving electronic data collection tools associated with the state surveys. NOAA Fisheries Southeast Regional Office has also provided funding to support a dockside validation survey to be implemented to support the new federal for-hire logbook reporting program under SEFHER. In 2020, GulfFIN received \$1.5M to support year 1 dockside survey activities which will start on or about January 5, 2021. GulfFIN has been informed that \$900k will be made available for ongoing costs for year 2 (2022) and beyond. Currently, year 2 costs are proposed at \$1.152M but once survey work actually begins in 2021, states may need to adjust their budgets as more information is gained on implementation costs. If budgets remain above proposed funding, all of the partners will have to look at possibly reducing budgets and field work, if possible, to fit within proposed funding.

SEAMAP Priorities

G. Bray said Jeff Rester provided some background on the SEAMAP budget and surveys for the Gulf of Mexico. The FY2020 SEAMAP appropriation was \$5.125M and J. Rester stated that SEAMAP received approximately \$4.80M for fishery independent sampling for all three SEAMAP components. All three SEAMAP components based their FY2021 budget on level funding of \$5.125M. The total proposed for the Gulf was \$2.04M.

The S/FFMC reviewed the various SEAMAP surveys along with their associated costs. For FY2021, SEAMAP will continue the current SEAMAP survey work and sampling effort and hope that level funding or additional funding will be appropriated. After a brief discussion the S/FFMC moved to accept the following motion:

The State/Federal Fisheries Management Committee moved to accept the proposed funding for SEAMAP surveys for 2021 for a total budget of \$2.04M and to forward this onto the full Commission for their approval. The motion passed unanimously.

J. Froeba moved to accept the motion. P. Mickle seconded the motion and it passed unanimously.

IJF Small Grants Priorities

G. Bray said Steve VanderKooy discussed the Interjurisdictional Fisheries Program Small Grants funding program. With increases in IJF funding, the program is supporting a small grants program to assist with important research priorities at the state level. A total of \$1.4M has been made available in 2020 from year 1 and 2 funding. S. VanderKooy stated in 2021 there will be an

additional \$900k available to split between the 5 states which should be about \$180k per state in 2021.

S. Bannon was nominated for Chairman and **Paul Mickle** was nominated for Vice-Chairman. The nominations were closed and both were approved unanimously by the committee.

Menhaden Advisory Committee (MAC)

G. Bray said the MAC met virtually in September and reviewed the usual agenda items related to the season. There are no action items to bring before the Commission.

He said the MAC requested an update on the motion passed in March requesting the Commission update the Gulf Menhaden FMP. Staff explained that there were no changes to the fishery or the status of the population since the last revision to warrant an update and that updating would only be for MSC which is a marketing tool and not a management issue for the states. P. Himchak stated that the MAC may include the Reference Points Modeling conducted by Butterworth and Rademeyer in the assessment update scheduled for next year but the importance of having a regional management plan is necessary for the states that don't have individual ones. Staff indicated that the MAC was welcome to readdress this with the Commission but there would need to be justification as it relates to state management of the fishery or significant research advances in our understanding of the population.

G. Bray said Ray Mroch provided a review of the 2020 Gulf fishing seasons. In the Gulf, the landings were down 8.5% compared to the same time last year. As everyone knows, it has been a strange year with the COVID pandemic and numerous tropical systems. NOAA projected that if last year's September and October were similar this year, the total for 2020 would be around 465K metric tons by the end of the season which would only be a 4% decrease from 2019 and 24% decrease from 2018.

G. Bray stated R. Mroch updated the group on the 2020 Texas Cap. Carey Gelpi was introduced as Jerry Mambretti's replacement on the committee as the TPWD representative. The industry made a total of six sets in Texas waters in August and removed 2.24% (around 770K lbs) of the 34.6M lb cap so far in 2020. The industry continues to fish less to the west since the closure of the Cameron plant in 2015 so fishing in Texas is nearly negligible.

Because of the COVID issue, the Gulf's MSC certification was extended six months so the Year 1 Client Action Plan will be due next spring. **G. Bray** said Mr. Kuttel indicated that the NOAA Observer Steering Committee has been formed and the first agenda item was to develop a list of concepts to observe for turtle and protected species interactions. COVID has slowed that process as well. The next chair for the MAC was to be a state representative. It was suggested to defer the election of the chair to the Commission's Spring Meeting.

Under other business, the MAC asked about the status of the proposed IJF research projects submitted for consideration to the TCC. Staff reported that the S/FFMC and the Commission considered the proposal process and ultimately decided to split the available funds equally between the five agencies and allow each to determine their own priorities. As a result, none of the MAC

proposed projects were selected although several monitoring proposals would indirectly include menhaden. S. VanderKooy reported that the Gulf Menhaden Ecosystem Modeling team will be having a conference call on October 22nd. The model is operational and may have potential for use in the assessment next year. He will let the group know if a presentation is ready for the March meeting. The SEDAR schedule has the Gulf Menhaden Operational Assessment Update occurring in summer/fall of 2021. Ben Landry provided a short update on the industries' ***Cameron Parish Go Fund Me Campaign***. He noted that Omega Protein has partnered with the Cameron Lions Club to spearhead the campaign to support relief efforts with 100% of the contributions going directly to charitable assistance. So far, the campaign has raised USD \$5,550 (through the Go Fund Me Campaign) toward a USD \$10,000 goal. He invited anyone willing to contribute to the assistance effort.

R. Hendon moved to accept the State/Federal Fisheries Management Report. J. Froeba seconded the motion and it passed unanimously.

Sea Grant Fisheries Extension Meeting Report

L. Picariello reported that due to COVID restrictions, the Sea Grant Extension Committee met remotely for a webinar meeting on Tuesday, October 6, 2020. She said several Regional Projects involving Sea Grant collaborations were discussed including the Greater Amberjack Research Program and two Fish Restoration projects with the NOAA Restoration Center from the Open Ocean TIG Restoration Plan 2. Additionally, the committee discussed each state's response to COVID and hurricane events that have significantly disrupted fishing communities over the last 6 months.

NOAA Fisheries Southeast Regional Office Comments

R. Crabtree reported on the Great Red Snapper Count and stated preliminary results suggests the red snapper population is almost 3 times larger than what has been estimated in recent assessments. This is due to the fact that 70% of the fish are on the low relief bottom areas instead of the artificial reefs and these areas were not included in previous assessments. He stated this will have an impact on red snapper management and he expects there will be an interim assessment that will incorporate these results, then new catch level recommendations will be made and the Council may implement the new catch levels in time for the 2021 fishing season.

R. Crabtree stated the Appeals Court ruled NMFS cannot regulate Aquaculture as fishing under the Magnuson/Stevens Act. He said this does not prohibit aquaculture from occurring in the gulf, just a NMFS permit is not needed as stated in the Aquaculture Plan. He said the Manna Fish Farms and Velella Epsilon projects that he has reported on in the past are moving forward.

R. Crabtree reported funds for Hurricanes Harvey and Maria have been awarded. Funds for Hurricane Michael have been allocated but not yet awarded because they are waiting on OMB to approve the spend plan. The funds for the Bonnet Carré disaster has been allocated but not awarded and they are still waiting on the spend plans for that. He said disaster determination requests have been received for the red tide that took place off Florida in 2019 and Hurricane Laura that was in September of this year, and they are currently in review. Louisiana has requested a

temporary TED exemption for a portion of their coast that was affected by Hurricane Laura but that has been delayed due to Hurricane Delta. NMFS will be reviewing that request soon.

USFWS Region 4 Office Comments

G. Constant stated A. Brown had to leave the meeting and sends his apologies for not being able to participate. A. Brown wanted to express his appreciation, as usual, for the Commission's, especially James Ballard's partnership with the successful Small Grants Invasive Species Project. He said he does not have a budget for the Small Grants program for next year as they are operating under a Continuing Resolution but he should be able to report on it at the March meeting. He stated they will be working on a letter of repress from the states to petition removing the Saltmarsh Topminnow from the ESA listing process as restoration work has improved habitat for the fish.

NOAA Fisheries Budget Update

D. Donaldson gave an update on the NOAA Fisheries budget. He referred to Tab C & D in the briefing book and stated Tab C has the overall bill whereas Tab D is the report language and the breakdown of the budget.

He said the House passed a bill recommending NOAA Fisheries receive \$965M which is approximately \$125M above the President's budget. Fisheries Data Collections, Surveys and Assessments was appropriated \$175M and that includes FIN and SEAMAP funding and is an increase from last year. Funding for Aquaculture is \$15M and the Councils and Commissions are \$46.5M which is comparable to funding from last year. He also stated there is language that rejects the President's recommendation of reducing the proposed funding. IJF is right at \$3.4M which is similar to funding last year and it rejects the proposed language for eliminating IJF. Enforcement is up about \$21M from the President's budget which translates to \$77M and again, there is language rejecting the proposed elimination of the JEAs and there is language recommending funding be set at the FY2020 level. He said overall this budget is fairly good news for fisheries especially since the House is usually not as supportive of fisheries as the Senate. **D. Donaldson** said as mentioned earlier by G. Constant, they are operating under a Continuing Resolution and it will be interesting to see how fast a budget will be passed after the election.

Presentation of Aquaculture Aspects of Executive Order 13921

Jessica Beck-Stimpert and Ken Riley presented on E.O. 13921 and Aquaculture Opportunity Areas (AOAs). The EO focuses on various actions related to marine aquaculture in the U.S. The EO deals with regulatory reform, removing unnecessary barriers to U.S. commercial fisheries, looks at trade aspects of seafood to ensure that the U.S. has a level playing field in the global market place, and focuses on a suite of activities that expand to sustainable aquaculture production. They reported on the aquaculture section, Section 7, of the EO that focuses on the AOAs. Within one year of the EO, the federal agencies listed in the EO shall identify at least two geographic areas containing locations suitable for commercial aquaculture. Within 2 years of identifying each geographic area a PEIS should be completed for each to assess the impact of siting aquaculture facilities there. In 4 years, they should identify two more geographic areas and complete PEIS within 2 years. California and the Gulf of Mexico were selected as the first regions to host AOAs

based on the already available spatial analysis data and current industry interest in developing sustainable aquaculture operations. They reviewed the process of identifying AOAs and the tools and technology that will be used during the process. The complete presentation is available upon request to the Commission office. Additional information may be obtained at nmfs.aquaculture.info@noaa.gov.

Discussion of Future Commission Meetings Schedule

D. Donaldson reported it has been suggested to change the GSMFC Annual and Spring meeting schedule to one meeting a year and he opened the floor for discussion/suggestions. The pros and cons were discussed but everyone agreed face to face meetings are essential. It was suggested if the Commission only met once a year it should be in October because the budget discussions take place then. They also discussed expanding travel authorizations so attendees can attend more meetings including the general session and the Lyles/Simpson Award Ceremony, and to pay for the Commissioners and the Legislative and Private Citizen's travel. *After the discussion, the Commission directed staff to perform a cost analysis and list pros and cons to having only one face-to-face meeting per year. This will be presented at the March Commission Business Meeting.*

GSMFC Program Reports

Interjurisdictional Fisheries Program (IJF)

S. VanderKooy stated a short overview of the IJF Program is in the Briefing Book under Item E. He said due to COVID, most of their projects have been put on the back burner. He said the Red Drum Technical Task Force (RDTTF) was scheduled to meet in March following the Commission meeting but was cancelled. They have had two conference calls to keep in touch and each member of the RDTTF was asked to continue drafting the Red Drum Management Profile. The Mangrove Snapper Management Profile has been put on hold until after the pandemic. He said he thinks the 3rd revision of the Otolith Manual should be available in November and said this is publication number 300 for the Commission.

He reported the Small Grants Program had a combined total of approximately \$1.4M for the coming year that was split between the five Gulf agencies. He reviewed the projects each agency will be doing. The ongoing projects include Blue Crab, Scallops, Oysters, Flounder, Commercial Data Surveys, Database Management and Genetics. Funding for next year is available for projects in 2022. He said each state should receive approximately \$180K. They are hoping to continue at level funding which would be about \$900K annually for research projects.

Aquaculture Program

S. VanderKooy stated the complete report is under Tab F in the Briefing Book. He stated extensions were awarded to nearly all the grant recipients as a result of the COVID shutdown because work was delayed for most of the projects. As a result, all the current awards have end dates well into 2021. The Commission was also granted an extension for another year to allow the existing awards to be completed. Therefore, there is not a lot of progress to report. He said they

should have around \$900K - \$1M available in a RFP for pilot work in 2022. He said they did develop a website with an interactive map for the Aquaculture Program and he demonstrated how the website works.

SEAMAP

J. Rester reported the Spring Plankton Survey and the majority of the Bottom Longline Survey was cancelled this year due to COVID. Alabama is the only state that sampled during the Spring time period and the majority of the Summer time period was not sampled due to COVID-restrictions on staff. He said the Vertical Line Survey is currently being conducted off Alabama, Louisiana, and Texas. 218 stations are scheduled to be sampled but he expects the actual number of stations sampled will be less. The Reef Fish Survey was completed this summer with a reduced sampling effort. A new Reef Fish survey design was supposed to be implemented with supplemental funding from a NOAA RESTORE grant but NOAA Fisheries did not conduct any sampling this year, but Florida was able to sample in the eastern Gulf. The Summer Shrimp/Groundfish Survey is usually conducted in June and July, but at the last minute, the entire survey was cancelled due to crew limitations. The Fall Plankton survey was also cancelled due to COVID. The Fall Shrimp/Groundfish Survey started October 1st with everyone participating and they hope to complete about 300 stations.

SEAMAP has been working to improve the identification of invertebrates captured during sampling activities. SEAMAP has held several invertebrate identification workshops online over the summer to help field staff in the identification of echinoderms. The workshops are part of a larger effort to hold a face to face meeting next year to provide a more hands on approach to help in the identification of invertebrates in the Gulf of Mexico.

The Commission continues to manage SEAMAP data and distribute the data to interested parties. The Commission has fulfilled four SEAMAP data requests since March. The various SEAMAP databases have been downloaded 64 times since March.

CARES Act

J. Rester reported the Coronavirus Aid, Relief and Economic Security Act (CARES Act) was signed into law on March 27, 2020 allocating \$300M to states, Tribes, and territories with coastal and marine fishery participants who were negatively affected by COVID-19. Fishery participants include Tribes, persons, fishing communities, aquaculture businesses, processors, or other fishery-related businesses who have incurred a loss as a direct or indirect result of the coronavirus pandemic. Complete details are in Tab H of the Briefing Book.

He said eligible fishery participants must have incurred an economic revenue loss greater than 35 percent as compared to the prior 5-year average revenue; or any negative impacts to subsistence, cultural, or ceremonial fisheries. NOAA Fisheries will be disbursing the fisheries assistance through the Gulf States Marine Fisheries Commission, Atlantic States Marine Fisheries Commission, and the Pacific States Marine Fisheries Commission. The Gulf states allocations are Texas - \$ 9.2M; Louisiana - \$14.7M; Mississippi - \$1.5M; Alabama - \$3.3M; and Florida - \$23.6. Florida did not split their coast and will be working with the Atlantic States Marine Fisheries

Commission instead of this office. Each state must develop a spend plan detailing how they propose to distribute their share of the funds. NOAA Fisheries must approve each state's spend plan before the state starts accepting applications. Several states have been approved and the application process has started.

For the latest information on the Commission's CARES Act program, you can sign up for updates at <https://www.gsmfc.org/cares-act.php>.

Sportfish Restoration Program

J. Ballard stated the full report is under Tab I in the briefing book. He reported the "*Guidelines for Marine Artificial Reef Materials: Third Edition*" was approved at the March 2020 GSMFC meeting and the document is available through the Commission's website. It was provided to the ASMFC for approval and distribution, also. This will be a "living" document meaning it will be updated as new information becomes available. The Joint Artificial Reef meeting was held virtually in April 2020 and they discussed meeting in conjunction with the Florida Artificial Reef Summit in November but that meeting will now be held virtually. He said through a partnership with USM/GCRL they have started field testing under the Gulf Artificial Reef Monitoring and Assessment Program. He said the GSMFC's System Administrator developed version two of the data entry program to make it more user-friendly and to minimize the amount of time that collected fish will have to be onboard the monitoring vessel. He said multiparameter datasondes will be employed at several artificial reef sites to assess the water quality. **J. Ballard** said they continue to work to increase funding for the program so the Commission can help support and coordinate more Sport Fish Restoration activities across the Gulf of Mexico.

Aquatic Nuisance Species (ANS) Program

J. Ballard stated the full report is under Tab J of the Briefing Book. He said the Gulf and South Atlantic Regional Panel (GSARP) was held virtually in April 2020. The discussions focused on a model bait regulation project which is one of the small grants projects with USFWS, and emerging issues with ANS in the 8 member states. The National Aquatic Nuisance Species Task Force (ANSTF) Spring Meeting was cancelled due to COVID. They are continuing their partnership with USFWS to administer the ANS Small Grants Program. Over the last six years of that program they have funded 39 projects totaling \$850K. He worked with USFWS to get the funding for this year added to the program, but because of a number of current circumstances, the funds will be added to next year's RFP. He said he continues working with MS DMR to conduct the third year of the Jimmy Sanders memorial Lionfish Challenge which has been switched to a virtual tournament format. **J. Ballard** stated he is chairing the ANSTF's Prevention Committee which is tasked with addressing five key outputs of the new ANSTF Strategic Plan. He reviewed each item that is in the briefing book. The GSARP is planning to hold another virtual meeting later this year. The Fall ANSTF meeting will be held virtually on December 8-10th.

FIN

G. Bray stated Tab K in the briefing book has the FIN proposed funding activities for 2021. As mentioned earlier, all proposed activities for calendar year 2021 should be fully funded. He said

COVID has had impacts on all of the fishery dependent programs. Some of the state partners have not been able to access sites due to social distancing rules and others have had some shutdowns. He commends the partners for working hard to try to implement some rules and guidelines to get people back out into the field and keep them safe at the same time. He said recreational and commercial data is still being collected and then processed through the Commission. **G. Bray** said the Commission continues to work on the transition away from paper reporting methods for the MRIP/AFAIS surveys and the SEPHIRE dockside validation survey creating electronic applications where field samplers will be using electronic tablets to collect data. This will improve quality control at the point of data collection. They are in the process of purchasing the first batch of tablets along with the software and other accessories. He said this transition has been a challenge but the ACCSP has already implemented the technology and they are sharing information to help with the transition. The goal is to begin training and testing this fall and to be fully implemented January 1, 2021.

Fisheries Restoration Program

C. Robertson introduced himself as the newest member of the Commission and stated he is the Coordinator of the Fisheries Restoration Program. He said the complete report is under Tab L of the Briefing Book. He reported on the *Reduction of Post-release Mortality from Barotrauma in Gulf of Mexico Reef Fish Recreational Fisheries* Project. The partners on the project is the Commission, NOAA, and FL Sea Grant. The main objective of the project is to reduce the post-release mortality through research and developing Gulf-wide best handling practices for reef fish in the Gulf of Mexico. He reviewed the major components of the project and stated it is anticipated the overall project will take place over a 7-year period. He said for complete project details to visit the website: <https://www.fisheries.noaa.gov/feature-story/noaa-and-gulf-states-marine-fisheries-commission-partner-restore-recreational-fish>.

Executive Committee Report

D. Donaldson stated the Executive Committee met and discussed several issues earlier today. The following report was distributed with recommendations regarding the 2021 Budget and Staff compensation:

The meeting was called to order at 8:30 a.m. with the following members and others present:

Members

Jason Froeba, LDWF, Baton Rouge, LA
Dan Ellinor, FFWC, Tallahassee, FL
Robin Riechers, TPWD, Austin, TX
Joe Spraggins, MDMR, Biloxi, MS
Scott Bannon, AMRD, Dauphin Island, AL

Staff

David Donaldson, GSMFC Executive Director, Ocean Springs, MS
Nancy Marcellus, Administrative Officer, Ocean Springs, MS

Angie Rabideau, Senior Accountant, Ocean Springs, MS

Draft Agenda

D. Donaldson presented the draft agenda for the Executive Committee meeting. **R. Riechers** **moved** to accept the agenda. The motion was seconded by **D. Ellinor** and passed unanimously.

Discussion of GSMFC Audit

D. Donaldson explained that with delays due to Covid19, the 12/31/19 Single Audit final report has not been received from the auditors yet. Piltz, Williams and LaRosa was the auditing firm. As soon as the audit report is received, it will be sent out for review and acceptance.

Discussion of Department of Commerce IG Audit

D. Donaldson discussed the status of the Department of Commerce IG Audit. The Commission is awaiting a response from the Grants Management Division (GMD) concerning the roughly \$5 million finding related to the Gulf and South Atlantic Fisheries Foundation (GSAFF) Oil Disaster Recovery sub-award. The GMD legal counsel rejected the suggested plan of repayment. **D. Ellinor** and **S. Bannon** suggested the Commission explore a way to retrieve the GSAFF records from their storage facility and pay someone to match up source documents to invoices.

Financial Report

A. Rabideau noted that the commissioners receive the financial report every month by email. She pointed out several new fund codes that are included with the financial statements. The Commission received a new five-year agreement for NOAA Administrative/Aquaculture. It runs concurrently with the old five-year agreement that has been extended due to COVID19. She also mentioned that FIN also has a new five-year agreement that runs concurrently with the older cooperative agreement that has also been extended. Cares Act and the Fishery Restoration Program has also been added to the report.

Presentation of the 2021 Budget

A. Rabideau said the total projected budget for fiscal year 2021 is \$9,728,306. She explained that due to some funding that was received in 2020 that does not run on the calendar year, she included contractual balances from prior years that will likely be spent in 2021 on the report but are not added to the 2021 proposed budget amount. **S. Bannon** **moved** to accept the 2021 budget. The motion was seconded by **D. Ellinor** and passed unanimously.

Other Business

D. Donaldson said he was hopeful to make a trip to Washington DC early next year if the COVID19 travel restrictions have been lifted. He pointed out that the Commission needs the following appointees: A Mississippi legislative appointee; a Florida private citizen appointee; and a Texas legislative appointee. **D. Donaldson** stated that it was the state of Texas' turn to take the chair rotation. **R. Riechers** accepted the rotation.

Staff Compensation

The Committee discussed 2020 salary increases for staff. After some discussion, **S. Bannon moved that GSMFC staff receive a 3.5% raise for all employees except the new Fisheries Restoration Program coordinator since he just started working for the Commission. The motion was seconded by D. Ellinor and passed unanimously.**

The Committee then discussed establishing a standard percentage for raises. After some discussion, **S. Bannon moved to direct staff to review the potential for establishing a standardized annual cost of living raise for staff. The motion was seconded by R. Riechers and passed unanimously.** Once the analysis has been completed, the findings will be presented to the Executive Committee and they will make a recommendation to the Commission at the March 2020 meeting.

Being no further business, the meeting was adjourned at 9:45 a.m.

J. Froeba moved to accept the Executive Committee report and all recommendations. R. Hendon seconded the motion and it passed unanimously.

State Directors' Reports

All detailed state reports were submitted before the meeting for the briefing book and are attached to these minutes (**Attachment 1**). Each state Director gave a brief overview of their report.

Future Meetings

D. Donaldson stated the Commission plans to keep the same rotation for meetings and hopefully there will be a face to face meeting in Florida in March 2021. He said the Executive Committee will meet via conference call as it gets closer to determine if they will meet and where. As of right now, the October meeting will be in Texas. He will keep the Commission informed.

Publications List and Web Statistics

D. Donaldson stated Tabs S and T of the Briefing Book has the information on publications and the website. He said if there are any questions to contact D. McIntyre for Publications and J. Ferrer for the web statistics.

Election of Officers

D. Ellinor opened the floor for election of 2020-2021 Officers.

S. Bannon moved to elect Doug Boyd Chairman. R. Riechers seconded the motion and it passed unanimously.

C. Nelson moved to elect Scott Bannon 1st Vice Chairman. R. Hendon seconded the motion and it passed unanimously.

S. Bannon moved to elect J. Froeba 2nd Vice Chairman. R. Riechers seconded the motion and it passed unanimously.

There being no further business, the meeting adjourned at 3:18 p.m.

ATTACHMENT 1

Gulf States Marine Fisheries Commission
Technical Coordinating Committee (TCC), Fall 2020 Meeting
Florida Report

1. Emerging Issues Pertinent to Gulf of Mexico Fisheries.

Hurricane Disaster Relief

FWC received \$44.5 million grant from NOAA Fisheries in June 2019 to help fisheries-related businesses impacted by Hurricane Irma. Staff is working with Chairman Spottswood on details of the payout programs. So far, more than \$24.9 million in direct payouts have been made to commercial fishers, wholesale dealers, and charter fishermen. Over the next year, \$3.4 million will be spent reimbursing wholesale dealers for facility upgrades or repair, and \$2.5 million is expected to be spent on marine debris in the Keys. Over the next 3-4 years, \$2.8 million will be spent on mitigating loss of coral due to the stony coral tissue loss disease, nearly \$5 million dollars will be spent on four habitat improvement projects, and \$5.5 million will be spent on fishing infrastructure projects.

In March of this year, FWC received notification of \$7,812,000 in funding to help those fisheries-related businesses impacted by Hurricane Michael. FWC staff, working closely with Chairman Spottswood, coordinated with affected stakeholders to develop a spend plan to mitigate the fisheries-related damages caused by Hurricane Michael. After reviewing submitted public comments, the proposed spend plan was submitted to NOAA in early September, which outlines methods and budgets to provide relief to commercial aquaculturists, fishermen, and wholesale dealers, as well as marinas and licensed charter businesses.

CARES Act

On March 27, 2020, President Trump signed the CARES Act into law. When the CARES Act became Public Law 116-136, it was the third legislative relief package that Congress passed as a result of COVID-19. Public Law 116-136 created \$2 trillion of relief for Americans affected by COVID-19. One of its major provisions related to the fishing industry was \$300 million for fishery disaster assistance nationwide. Of that, Florida will be allocated \$23,636,600. All relief money for Florida fishing-related businesses will be distributed by the Atlantic State Marine Fisheries Commission, working in cooperation with the FWC. FWC staff, working closely with Chairman Spottswood, developed a spend plan to mitigate the COVID-19 financial impact to the Florida fishery. After reviewing public comments, the proposed spend plan was submitted to NOAA in early August, outlining methods and budgets to provide relief to commercial aquaculturists, fishermen, and wholesale dealers, as well as licensed charter businesses. FWC has received comments from NOAA for further information and/or clarification regarding the spend plan. FWC staff are addressing these comments and submitted the final proposal in

mid-September. FWC staff are also gathering the necessary fishery-related data from each sector to prepare applications.

Oysters

Apalachicola Bay Oysters. Apalachicola Bay historically supported expansive oyster reefs and a culturally important oyster fishery. Harvest dropped dramatically in 2013 and oyster abundance continues to remain at historic lows. In early 2020, FWC was granted funds for large-scale oyster restoration and to develop an adaptive oyster management plan. At the July 2020 Commission meeting, the Commission supported restoration efforts in the Bay by approving draft rules to suspend harvest of wild oysters and prohibit on-the-water possession of tongs, and by proactively implementing these measures by Executive Order. Staff will present proposed final rules that establish these conservation measures in rule through December 2025. Staff will continue monitoring oyster recovery and can reevaluate whether harvest opportunities are available prior to December 31, 2025.

Flounder

A stock status update completed by FWC's Fish and Wildlife Research Institute found that the flounder fishery on the Atlantic coast of Florida is likely overfished and undergoing overfishing and that there has been a general decline in the fishery statewide. Staff has been gathering public input on management of this fishery and, at the July 2020 Commission meeting, the Commission approved a series of proposed draft rules intended to improve the long-term sustainability of the fishery and directed staff to continue working with stakeholders on allowable bycatch of flounder in federal waters.

Federal Consistency

Atlantic Reef Fish Hook Requirements. The South Atlantic Fishery Management Council (SAFMC) recently modified hook requirements for Atlantic reef fish in federal waters as part of an effort to increase survivorship of released fish and promote best fishing practices. To be consistent, staff propose approval of a federal consistency action that would implement the same hook requirements for those harvesting reef fish on board a vessel in Atlantic state waters. This proposed rule would require the use of non-stainless-steel, non-offset circle hooks north of 28° N. latitude and require the use of non-stainless-steel hooks south of 28° N. latitude. Staff will also present current outreach and education efforts to encourage best fishing practices for reef fish, including the voluntary use of descending devices.

2. Activities Related to Artificial Reef Programs.

Florida Artificial Reef Construction

From January through September 2020, there were 57 new patch reefs created from a total of 68 artificial reef deployments state-wide that were comprised of 39 prefabricated concrete module deployments (343 modules totaling 1,153 tons), twelve secondary-use concrete material deployments (5,935 tons), two vessel/barge reefs (276 tons), and 15 limestone boulder deployments (5,469 tons). Of the 68 artificial reef deployments, 44 (65%) were funded by the Florida Fish and Wildlife Conservation Commission (FWC) and 24 (35%) were funded by local government, non-government organizations, and private sources.

The FWC funded artificial reef construction projects were completed utilizing funds from the State of Florida Marine Resource Conservation Trust Fund, the U.S. Fish and Wildlife Service's Federal Sport Fish Restoration Program, and the Natural Resource Damage Assessment (NRDA) Early Restoration Phase III, Florida Artificial Reef Creation and Restoration Project.

Florida Artificial Reef Monitoring and Research

From January through September 2020, a total of nine artificial reef monitoring projects managed by the FWC Artificial Reef Program were completed or ongoing. Five artificial reef monitoring projects took place off the Gulf Coast and four off the Atlantic Coast. These include the following projects:

Ongoing:

- Oriskany Reef Fish PCB Monitoring Project (Northwest Florida – Gulf)
- Taylor County Volunteer Artificial Reef Monitoring Project (Central Florida – Gulf)
- Artificial Reef Fish Community Dynamics Research, USF (Central Florida – Gulf)
- St. Marks Artificial Reef Monitoring Project, FSU (Northwest Florida – Gulf)
- St. Johns River Artificial Reef Monitoring Project, JU (Northeast Florida – Atlantic)
- Economic Impact and Valuation of Southeast Florida Artificial Reefs, NOAA (Southeast Florida – Atlantic)
- Aquarius Reef Base Predatory Behavior Monitoring Project, FIU (Southeast Florida – Atlantic)
- Depredation and discard mortality of Permit Monitoring Project, FIU (Southeast Florida- Atlantic)

Completed:

- Sarasota Bay Artificial Reef Monitoring Project (Southwest Florida – Gulf)

Florida Artificial Reef Outreach

From January through September 2020, FWC Artificial Reef Program and Florida Sea Grant have been coordinating planning for the Florida Artificial Reef Summit. Originally planned for April 8-10, 2020 in Melbourne, FL, the Summit is now planned for November 4-6, and has been changed to a virtual format due to COVID-19. Held every five years, approximately 200 attendees representing local governments and other stakeholders including some artificial reef managers from other states are expected to participate. The theme of the 2020 Summit is "Bringing the Future of Florida's Artificial Reefs into Focus". Over 54 abstracts for oral and poster presentations will be presented, including marine fisheries management, impacts of natural disturbances (e.g., hurricanes & harmful algal blooms), environmental mitigation, human dimensions, socioeconomics, tourism, and regulatory policy. Florida's success and forward-thinking development of artificial reefs can be attributed to the long-standing partnerships and exchange of ideas and lessons learned that have been fostered by the Florida Artificial Reef Summit. In addition to the main virtual Summit platform, the Summit will also be broadcast live and video of each presentation to be available for viewing later on the Florida Sea Grant webpage under 'Workshops and Summits':

<https://www.flseagrant.org/fisheries/artificialreefs/>.

3. Activities Associated with the Gulf of Mexico Crab Fisheries.

Florida's blue crab landings through 2019 suggest a continuation of landings volume below its historic average, beginning in 2000. The 2019 landings are the highest since 2012 and appear to follow the historical cycle of 5-10-year intervals of landings "lows" and "highs" (Appendix A). The complete GSMFC Crab Subcommittee State Report for Florida is attached to this report as Appendix A.

4. Activities Related to Fisheries Dependent Data Collection.

On March 25, 2020, all field work related to fisheries dependent monitoring activities was suspended in response to the emerging Covid pandemic. The following is a summary of how data collection programs were impacted in the months that followed.

Recreational Fisheries

Assignments for the MRIP access point angler intercept survey, Gulf Reef Fish Survey, and FIN Biological Sampling were cancelled entirely during April and the first half of May in response to state lock-down orders. During April and May, recreational fishing in the Florida Keys was severely restricted due to a checkpoint on Highway 1 that only allowed entry to residents, and recreational boating was restricted in Dade and Broward

Counties in an effort to control large gatherings. However, throughout the rest of the state, very high fishing pressures were recorded at sites while angler interviews were suspended. Dockside surveys resumed in mid-May during phase 1 of Florida's re-opening once personal protective equipment could be procured. New safety protocols during phase 1 included a cap of 10 angler intercepts per assignment to limit potential exposure and transmission. However, many assignments continued to be cancelled at sites that were closed, where boating activity was restricted, and at sites with very high levels of recreational fishing and boating activity where it was unsafe for staff to conduct interviews with the public. Florida's phase 2 re-opening began in early June and the interview cap was increased to 50 anglers per assignment. Phase 2 re-openings were delayed until mid-September in Southeast Florida due to higher Covid transmission rates. All interview caps were lifted in September during phase 3 of Florida's re-opening.

Surveys that monitor fishing effort continued without interruption during the pandemic. Weekly sample sizes for the MRIP For-Hire Telephone Survey were increased to 20% of charter vessels in sample frame during Wave 3, and 15% during Wave 4. Increased sampling was requested by FWC to ensure that impacts due to covid-19 on charter fishing effort in Florida could be well documented. The mail survey for the Gulf Reef Fish Survey also continued without interruption.

In July, 2020, long-term funding to continue Florida's Gulf Reef Fish Survey (GRFS) and expand it statewide was included in the State budget signed by Governor DeSantis. The survey was renamed the State Reef Fish Survey (SRFS), and the mail survey questionnaire was modified to allow fishing effort to be reported along Florida's Gulf and Atlantic coasts. FWC worked with NOAA Fisheries to incorporate supplemental intercept assignments in the monthly sample draw for the MRIP APAIS. In addition to the suite of reef fish species included in the GRFS, three new reef fish species will be monitored in the statewide survey: Hogfish, Yellowtail Snapper, and Mutton Snapper. The recreational season for Red Snapper was open along the Gulf Coast of Florida June 11 through July 25. Landings in June were monitored through the GRFS and 31% of the State's annual catch limit was landed during the first 20 days of the season. The June GRFS estimate was made possible by NOAA Fisheries, who shared MRIP APAIS intercept data with FWC while they continue to address data gaps due to Covid-19 and work on a solution to generate Wave 3 estimates. The state will generate the July landings estimate through the SRFS (using identical methods to GRFS) once MRIP APAIS data are available in mid-October. In the interim, FWC provided management advice in-season by employing a predictive model that uses sample weights from angler interview data collected through supplemental SRFS intercept assignments, which project total landings before final estimates are available.

Commercial Fisheries

Since early 2017, Florida FWC has been working with Bluefin Data, along with Texas, on the development of a new web-based wholesale dealer reporting application (VESL). In Florida, VESL is now used in conjunction with a point of sale swipe card system which uses mobile devices such as smart phones and tablets along with mobile/desktop card readers and/or a barcode scanner to validate license and vessel data from the fisher's license card and initiate the electronic trip ticket for the fisher-dealer landing transaction. A state-only version of VESL has been in production since April 2019 and Florida now has 90+ dealers registered for the web-based application. The full version of VESL with the federal fields is expected to be ready for production by October 31, 2020.

Florida is also currently participating in a Gulf-wide project collecting shrimp size and weight data from commercial fishing trips for evaluating current head-on/head-off shrimp conversion factors. The original completion date for sampling on this project is by October 31, 2020. As of September 24, 2020, commercial field staff have collected 1,371 samples of the primary Gulf shrimp species in Florida. The sampling target for pink shrimp, which constitutes 85-90% of Florida Gulf shrimp landings, has been met. Difficulties in getting samples of brown and white shrimp include fewer trips for sampling opportunities, along with the primary season being late-spring-summer which was highly affected by a temporary stoppage, and then reduced sampling during this time due to COVID-19. To date, no white shrimp have been encountered, and only 116 brown shrimp samples have been collected.

The 2019 commercial landings information are complete as of July 31, 2020, and subject to revision. Preliminary commercial landings for 2020 are complete through about June. As of September 21, 2020, the number of trip ticket records received in 2020 are down about 15% from March-September as compared to the same period in 2019, and down about 18% for the first three months (March-May) since the start of COVID-19 in Florida.

During 2020, Florida FWC commercial field staff continued to conduct bio-statistical sampling for the NOAA Fisheries Trip Interview Program (TIP), though at a reduced level due to COVID-19. Staff were instructed to cease activities as of April 3rd, then resumed limited sampling as of May 4th and only with appropriate PPE equipment in place. These safety protocols have continued to date. Through August of 2020, sampling of commercial catches along the Gulf coast of Florida accounted for 391 TIP interviews, almost 16,832 fish measured, and nearly 9,019 age structures. While the number of interviews performed so far in 2020 is down 22% as compared to 2019, the number of fish measured is only down 11%. These decreases are primarily due to COVID-19. During periods of non-sampling, staff have filled their time with data entry, site monitoring, and other related tasks. TIP sampling in Florida is funded from a variety of funding sources that include: State of Florida, NOAA Fisheries, Gulf FIN and NFWF.

Southeast Headboat Survey activities supported through Gulf FIN:

Through March 2020, a total of 90 intercepts were conducted statewide in Florida with 1,636 fish sampled. Florida FWC and NOAA Fisheries halted field sampling activities in the Southeast Headboat Survey as of April 4, 2020 due to COVID-19. To date, no

further dockside sampling has taken place because of the close proximity of field staff to numerous anglers and vessel crew in limited space. During this time, staff have been given other related duties in lieu of field sampling for safety reasons.

5. Activities Related to Fisheries Independent Sampling.

During the current reporting period, the Covid pandemic impacted ongoing fishery independent monitoring activities conducted by the state of Florida. However, Florida has subsequently been able to reinstitute several fishery independent monitoring activities. Completed activities, and summaries of Covid impacts, include:

- Monthly, long-term estuarine monitoring in five Gulf of Mexico estuaries (Apalachicola Bay, Cedar Key, Tampa Bay and Charlotte Harbor) was suspended in April due to the Covid pandemic. Monthly sampling with 21.3-m seines and 183-m haul seines was phased back in between May and June 2020 with full sampling complement in all estuarine systems by July. Sampling with 6.1-m otter trawls was phased back in during the same time but with a bimonthly periodicity to free up funding to conduct bimonthly polyhaline seagrass monitoring.
- Bimonthly sampling in Sarasota Bay was not conducted in April 2020 due to Covid pandemic concerns. Sampling was conducted in June and August with funding shifting from a Sarasota Bay Estuary Program grant to internal FWRI funding from October 2020 through September 2021.
- Supplemental (June – November) polyhaline seagrass monitoring was conducted in five Gulf of Mexico estuaries (St. Andrew Bay, Apalachicola Bay, Big Bend, Tampa Bay, and Charlotte Harbor) using 6.1-m otter trawls; this effort is normally conducted monthly, but due to limitations in available funding, sampling was conducted every other month during 2020.
- Monthly supplemental sampling in the western Panhandle (Pensacola Bay, Santa Rosa Sound, Choctawhatchee Bay, St. Andrew Bay, St. Joseph Bay) using 21.3-m seines was terminated in 2020 as continued grant funding was not available.
- The summer SEAMAP groundfish trawl survey was not conducted due to impacts of the Covid pandemic. We do anticipate conducting a fall SEAMAP groundfish trawl using 12.8-m trawls.
- The annual (May – October) reef fish video and habitat mapping survey was delayed due to impacts of the Covid pandemic; however, we have resumed sampling, and a complete survey was conducted using stationary-baited remote underwater video arrays and side scan sonar to survey artificial and natural reef habitats.
- Processing of survey-related trophodynamics data in support of ecosystem-based fishery management continued.

During this period, we finalized the development of indices of abundance of video survey data for Scamp and Greater Amberjack in association with SEDAR, and compiled an index of abundance for Gray Triggerfish for an interim analysis. We have begun work in association with the upcoming Gag assessment, which will include both an index of abundance of video survey data as well as an examination of potential red tide impacts.

6. Other State Activities.

Otolith Processing

On March 9th, the FWRI Marine Fisheries Age and Growth lab started the transition into a work-at-home approach to remain on track with processing deadlines. There were varying solutions to ventilation needs required to safely use our liquid coverslip, but a mix of open-air workstations, fans, and even a portable fume hood have all been safely, and effectively utilized. Once safe areas were set up in homes, supplies and equipment were partitioned out to staff so that everyone had an entire lab setup for processing and ageing. Large batches of otoliths were split and assigned to individuals.

Processing and ageing goals are directed on a quarterly basis, but each member completes assignments in their own time and returns to the lab as needed to deliver completed work and grab new samples. Sample batches are reintegrated upon delivery at the lab. Daily progress communications are critical to ensuring there is constant productivity and Microsoft Teams has been essential. We use Teams to QA/QC ageing assignments (live camera from one person on shared desktop), conduct discussions about productivity, challenges and improvements to the offsite system, and do teambuilding activities. As we've progressed into a reopening plan, staff have transitioned to one assigned day a week in the lab embedding small otoliths (which require more chemicals and a stronger ventilation system than can be provided at home). This system works to ensure a constant supply of otoliths available for sectioning at home.

From the start of the offsite transition, the FWRI Age and Growth Lab has processed just over 12,000 and aged nearly 28,000 otoliths. We are on track to have a record ageing year, but a slight reduction in processing. We were able to successfully pivot priorities and turnaround 2019 east coast red snapper ageing for SEDAR73 in the span of a month and a half. We have met all data delivery deadlines and have provided completed ageing for 11 data requests, including multiple SEDARs. Additionally, we've been continuing to collaborate (and publish) with other agencies and universities, have participated in SEDAR68 and SEDAR73, have continued to be active with outreach planning and requests, and provide field assistance and support for our research section. The success of this transition hinges on the flexibility, problem-solving abilities and dedication of our age and growth staff. COVID-19 has been the biggest hurdle ever to cross our paths, but thanks to the hard work and diligence of this team, we've been able to take it in stride and continue moving forward.

Appendix A.

GSMFC Crab Subcommittee

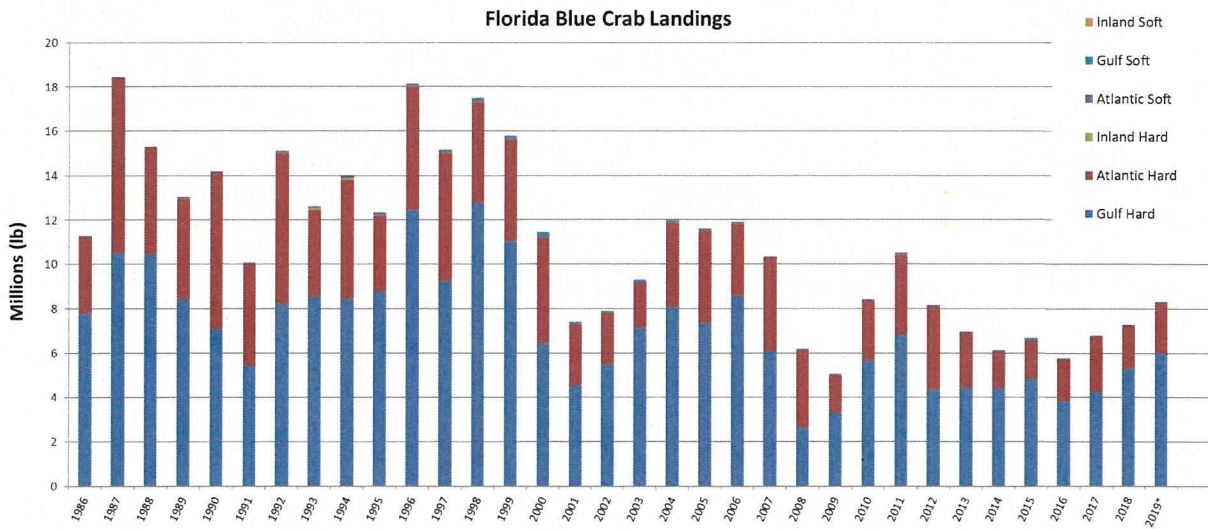
Florida Report

September 2020

Claire Crowley, Ph.D. and Ryan L. Gandy, Ph. D.

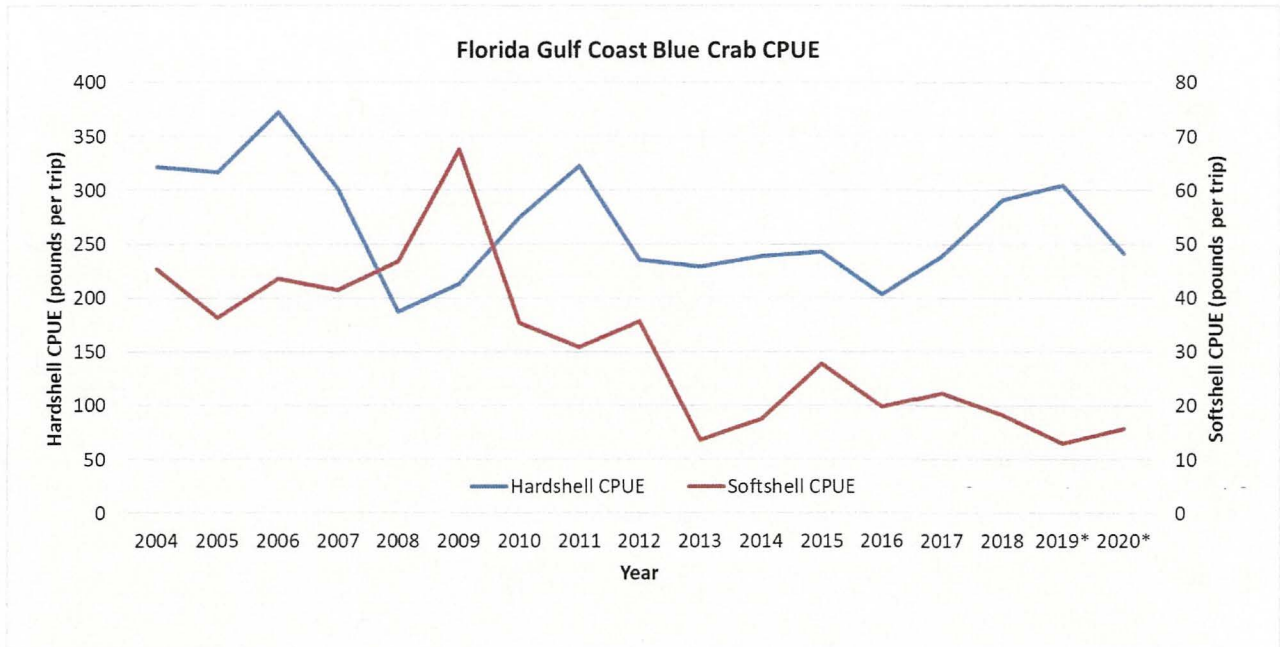
Blue Crab Landings

Florida’s blue crab landings through 2019 suggest a continuation of landings volume below its historic average, beginning in 2000. The 2019 landings are the highest since 2012 and appear to follow the historical cycle of 5-10-year intervals of landings “lows” and “highs” (Figure 1). Since 2012, statewide landings have been relatively stable, hovering between 6 -8 million pounds. At the time of this report 2020 blue crab landings were very preliminary and therefore, not included. The catch per unit effort (pounds per trip) in Florida Gulf Coast landings has fluctuated for both hardshell and softshell fisheries, but remained relatively stable since 2013 (Figure 2). Florida does not collect recreational blue crab landings.



*preliminary data

Figure 1. Statewide Florida blue crab landings. Data obtained from Florida Fish and Wildlife Marine Fisheries Information System.



* preliminary data

Figure 2. Florida Gulf Coast blue crab catch per unit effort (pounds/trip). Please note that 2019 and 2020 years are preliminary. Data obtained from Florida Fish and Wildlife Marine Fisheries Information System.

Management Actions

Starting in 2020, all recreational traps used for blue crab and stone crab fishing must be registered with the state. The registration system is an online registration that generates unique tag numbers that the fisher must affix to their traps. Five unique identification numbers are generated for each trap type (blue crab or stone crab) that a registration holder indicates that they intend to fish. This will allow the state to identify gear and provide a population of recreational fishers that will be surveyed in future years to gauge the effort. At the time of this report, there were 29,113 recreational blue crab trap registration holders and 23,530 recreation stone crab trap registration holders.

Petition for use of Terrapin Excluder Devices (TEDs)

The Florida Fish and Wildlife Conservation Commission (FWC) was petitioned by the Center for Biological Diversity, Florida Turtle Conservation Trust, and Diamondback Terrapin Working Group in January of 2020 to protect Diamondback Terrapins (*Malaclemys terrapin*) from mortality in blue crab pots. The FWC Division of Marine Fisheries Management (DMFM) has reviewed the petition and is conducting stakeholder workshops to present potential rule changes that would to reduce possession limits and require the use of bycatch reduction devices (BRDs) in commercial and recreational blue crab traps. If the DMFM decides to move forward with rulemaking changes it will be presented to the commission in December 2020.

**Alabama State Report
Gulf States Marine Fisheries Commission's
Fall 2020 – Online meeting**

Emerging Issues Pertinent to Gulf of Mexico Fisheries.

1. Regulatory

The Reef Fish Endorsement was promulgated by the Commissioner of the Department of Conservation and Natural Resources last year. The Reef Fish Endorsement will be required for any person possessing, taking or attempting to take any gulf reef fish species listed in Rule 220-3-.46 including all triggerfish, snapper, grouper, tilefish, jacks (includes banded rudderfish but not crevalle jack) wrasses and hogfish. This endorsement is required for all resident and non-resident anglers 16 years of age and older, and includes disabled, veteran's appreciation, 65 and older, lifetime license holders, pier licenses, annual saltwater licenses, trip licenses, commercial fishermen, and charter boats. Nearly 24,000 Reef Fish Endorsements were sold to recreational anglers and 220 and 34 endorsements were associated with charter and commercial vessels, respectively during the first year of the endorsement requirement. The sale of the endorsement will provide a database of addresses/contact information of anglers who target reef fish from which specialized surveys to determine fishing behavior and spending for reef fish fishing activities may be conducted. In addition, the revenue collected from the sale of the endorsement will be used to support future fishery-dependent and -independent sampling activities related to reef fish management.

To help take the guesswork out of purchasing licenses, the Alabama Department of Conservation and Natural Resources now offers packages that cover all of the necessary license requirements needed when hunting or fishing the state's abundant opportunities for freshwater and saltwater species. All packages are available in both a resident and non-resident packages.

Activities Related to Artificial Reef Programs.

Phase II of the National Fish and Wildlife Foundation Alabama Artificial Reef and Habitat Enhancement Project continues to provide funding for reef fish habitat enhancement and monitoring projects in the inshore, nearshore, and offshore waters of Alabama.

The Alabama Marine Resources Division (AMRD) continues to coordinate with BOEM, USACE, and NMFS for authorization to designate approximately 110 square miles of water bottoms as artificial reef zones. A \$742,724.42 contract to perform a Phase I cultural resource survey of the proposed water bottoms has been executed and the remote-sensing data collection component is expected to be completed by November 1, 2020, a formal consultation with NMFS is likely to be initiated to evaluate the project's impact on threatened and endangered species.

Approximately 48 square miles between 6 and 10 miles offshore of Baldwin County, approximately 62 square miles between 10 and 20 miles offshore of Mobile County, and four reef sites in Mobile Bay will be enhanced with reef structures to provide habitat for various estuarine and marine reef-associated finfish after federal regulatory requirements are satisfied.

Three circalittoral reef zones offshore of Baldwin County beaches were enhanced with 327 anchored reef modules. A \$1,140,000 contract to build, transport, and install the shallow-water, anchored reef modules was executed, and construction was completed in July 2020. The shallow-water reef modules will provide habitat for a wide range of shallow-water reef associated finfish such as Sheepshead, Gray Snapper and flounder.

Activities Associated with the Gulf of Mexico Crab Fisheries.

No derelict trap collection program is scheduled, but AMRD will continue to monitor the number of derelict traps.

Activities Related to Fisheries Dependent Data Collection.

1. APAIS

AMRD continued the collection of dockside Access Point Angler Intercept Survey (APAIS) interviews and validation of charter vessel activity. From January 1, 2020 through August 31, 2020, AMRD samplers completed a total of 264 out of 361 APAIS assignments and out of the completed assignments, 2,260 anglers were interviewed. During the reporting period, a total of 97 of 361 (27%) scheduled assignments were cancelled in response to the COVID-19 pandemic. These cancellations mainly occurred between March and April. Intermittent outbreaks of COVID-19 occurred when sampling resumed in May which resulted in some scheduled assignments being cancelled. Semi-annual training and fish tests were given to APAIS staff in February and August.

2. Biological sampling

AMRD continued operation of the Biological Sampling Program for the collection of otoliths from recreationally harvested marine finfish. Samples were not collected during the last two months of the previous grant cycle (Jan-Feb 2020) due to a lack of funds available at the end of 18-month budget period. Sampling resumed on March 1 with the start of the next funding cycle. From March 1, 2020 through August 31, 2020, a total of 791 sets of otoliths with 57 additional length measurements representing 12 out of 13 primary target species were collected by AMRD's staff. The COVID-19 pandemic impacted biological sampling activities during the

months of March and April resulting in 24 cancelled assignments and a reduction in hard parts collected especially for seasonally caught finfish such as Gray Triggerfish.

3. Snapper Check

Private recreational red snapper landings from Snapper Check through August 31 of the 2020 season was 948,688 lbs. while landings for state charter anglers was 45,404 lbs. Approximately 128,500 lbs. remain in the 2020 quota and a three-day extension is planned for Oct. 10-12. A total of 6,646 vessel landing reports were submitted by private recreational anglers and 537 landing reports were submitted by representatives on state-licensed vessels. Although samplers used caution while conducting sampling activities during COVID-19, over 1,100 Red Snapper from private recreational vessels were weighed from 272 vessels through August 31. An estimated 37.1% of private recreational vessel trips landing Red Snapper in Alabama were reported through Snapper Check. Beginning in 2021, recreational anglers landing Gray Triggerfish or Greater Amberjack in Alabama must report their catches through Snapper Check. Nearly 24,000 Reef Fish Endorsements were sold during the first year. The sale of the endorsement will provide a database of addresses/contact information of anglers who target reef fish from which specialized surveys to determine fishing behavior and spending for reef fish may be conducted. In addition, the revenue collected from the sale of the endorsement will be used to support future fishery-dependent and -independent activities related to reef fish management. Snapper Check continued into October with an extension of the Red Snapper season.

4. Shrimp conversion

The AMRD is participating in a project with the Gulf States Marine Fisheries Commission (GSMFC), other Gulf States, and federal partners to validate commercial conversion factors of processed brown and white shrimp. Samples were collected from Alabama seafood dealers during the report period and data analysis should be completed by December 2020.

Activities Related to Fisheries Independent Sampling.

1. Shellfish

AMRD biologists continue to monitor oyster densities on Alabama's public oyster reefs. From May 28, 2020 through August 11, 2020, a total of 230 SCUBA quadrat samples were collected and processed. Samples were collected from reefs that were planted with cultch between 2013 through 2016 and from non-planted reefs for comparison. Low densities of legal-sized oyster were observed on many of the reefs surveyed though the density of legal-sized oysters increased slightly compared to the 2019 quadrat survey. The densities of oyster spat and sublegal oysters were lower in 2020 than in the 2019 quadrat survey results. The lower spat and sublegal oyster densities are most likely due to extended periods of low salinity caused by fresh water from high rainfall flowing over the main reefs in the spring of 2020. From February 12, 2020 through May 8, 2020 the lower Mobile Bay reefs had 73 days below 5

ppt. There was also a 24-day low dissolved oxygen (<4 mg/L) event between June 19, 2020 and July 13, 2020. Oyster drills were present in quadrat samples but not in high abundance possibly due to the extended fresh water in the spring. Prior to Hurricane Sally, data analysis showed that several areas in the Heron Bay, Cedar Point West, and Cedar Point East management zones had higher densities of legal-sized oysters from previous years. Public reefs were sampled with a hand dredge within two weeks after Hurricane Sally made landfall and samples indicated there was little loss of adult oysters. The 2020 oyster season was to open October 12th. Commercial oyster reef harvest results will be included in the update for spring 2021.

The AMRD obtained Natural Resources Disaster Assessment (NRDA) funding for the construction of an Eastern oyster hatchery and remote larval setting facilities. Construction should begin in spring of 2021 with oyster spat production anticipated spring of 2022.

2. SEAMAP

Spring and summer activities were completed for bottom long line and vertical line surveys. The summer trawl cruise was cancelled due to logistics associated with COVID-19. Staff from Alabama and Mississippi have worked together and completed fall trawl sampling October 1-5 from the Mississippi River to Panama City in an effort to maximize the use of funding. Trawl scientists have participated in an invertebrate identification webinar series (Aug-Sep), in lieu of attending a workshop. Fall bottom longline sampling in waters less than ten meters in depth was completed at three stations during September. Catches across all seasons were comprised of twelve species with Atlantic Sharpnose Shark being the most abundant. Vertical line summer sampling completed 29 stations; catches comprised of seven species totaling 91 fish with Gray Triggerfish and Red Porgy being the next most abundant species after Red Snapper. The AMRD scheduled the Fall SEAMAP ichthyoplankton survey off Alabama for September 2, 2020 but due to the COVID-19 pandemic, NOAA cancelled all ichthyoplankton cruises.

3. Inshore Gillnet

From August 2019-July 2020 gillnet sampling was conducted each month using small mesh perpendicular sets ranging with mesh from 2-4 inches, and large mesh parallel sets ranging with mesh from 4.5-6 inches. A total of 232 hour-long sets were completed with a total of 51 different species sampled comprising 10,411 observed individuals. Weather issues and protected species interaction issues prevented us from completing the full 240 sets normally conducted within a year. Nearly 1,200 otoliths were collected from captured individuals and measurements of corresponding length, weight, sex, and gonads weight were taken. A total of 25 thirty-minute gillnets were set randomly before or after standard hour-long sets to determine the effect on catch rates and whether the sampling protocol can be modified to accommodate shorter net sets. Whole specimens of gilled/wedged Gulf Menhaden were collected at 10 individuals/mesh/month in order to age them through scales by trained staff members.

Species	Caught	Otolith	CPUE
Spotted Seatrout	268	252	1.155
Striped Mullet	261	213	1.125
White Mullet	502	228	2.164
Sheepshead	15*	17*	0.065
Gulf Flounder	0*	2*	0
So. Flounder	3*	10*	0.013
Red Drum	40	31	0.172
Atl. Croaker	372	152	1.603
So. Kingfish	24	22	0.103
Spanish Mackerel	181	140	0.78
Black Drum	34*	39*	0.147
Gulf Menhaden	5501	0	23.711
Red Snapper	0	0	0
Sand Seatrout	78	78	0.336
Lane Snapper	0	3	0
Gray Snapper	8	6	0.034
Bluefish	2	1	0.009
Cobia	1	1	0.004
Tripletail	1	1	0.004
Fl. Pompano	5	3	0.022
Total	7296	1199	

Combined catch from AMRD fishery independent gillnets in FY2019, 116 small mesh (2"-4") sets and 116 large mesh (4.5"-6") sets. *Additional otolith samples collected from fishery-independent trawls.

Other State Activities.

1. Mariculture

Stock enhancement efforts continued at the Claude Peteet Mariculture Center (CPMC). Approximately 10,300 Florida Pompano (*Trachinotus carolinus*) and 58,400 Spotted Seatrout (*Cynoscion nebulosus*) were released into coastal Alabama waters between April 1st – September 30th. Although staffing of the hatchery was impacted by Covid-19, most operations were still able to take place. An additional thirty-five Southern Flounder (*Paralichthys lethostigma*) broodstock were collected from a local fishing tournament and a jubilee event. Spawning activities for Southern Flounder will resume in December of 2020.

In addition to fish culture activities, the CPMC staff completed the renovation of broodstock rearing systems. The intent was to use these systems to increase broodstock maturation capabilities to improve the chance of spawning success. Unfortunately, Hurricane Sally destroyed the greenhouse structure housing the systems, rendering them unusable for the time being.

2. Boating Access

The AMRD has plans to improve the parking area at Delta Port boat launch in Fiscal Year 2021 to maximize available space for parking. In addition, the boating access facilities at Little Billy Goat Hole boat ramp on Dauphin Island and the boat ramp at the Bayou La Batre State Docks will be improved in FY2021.

3. Outreach

The AMRD Fisheries section was able to conduct one outreach event during the report period. Typically, during this time period five outreach events are conducted including Delta's Woods and Water Expo and Gulf State Park's Shark Week. However due to the COVID-19 pandemic, these events were canceled. The Alabama Seafood Marketing Program continued with public relations, television commercials, print ads and articles, radio ads, billboards, distribution of marketing materials and sponsorships of events. The marketing program's website is www.eatalabamaseafood.com.

4. Enforcement

From February 2020 through August 2020, AMRD enforcement officers conducted 1,192 commercial fishermen intercepts, 9,056 recreational fishermen intercepts, 700 seafood dealer and processor inspections, 8,239 hours of patrol (combined vessel patrol and shore patrol) and boarded 2,928 vessels.

Due to the Covid-19 pandemic, the Enforcement Section's participation in outreach events has been greatly reduced. The Enforcement Section has managed to participate in two live outreach events during this time, both were quite successful considering the circumstances.

In May 2020, the Enforcement Section received final approval to move ahead with implementing the expansion of the Coastal Remote Monitoring System that was partially paid for with Port Security Grant 2018 funding, totaling more than \$313,000. This expansion will update and expand the capabilities of the current system, a network of video cameras throughout coastal Alabama. Several new camera locations as well as higher resolution cameras along with a more robust communications system will be coupled with a much larger storage capacity that provides a much higher quality video as well as the ability to store the video archives longer. The construction and additions to the current system under this phase of enhancement were completed in August 2020.

The Enforcement Section, along with the Fisheries Section, was awarded a grant that will be used for both monitoring and protecting marine mammals and marine turtles. This grant will provide specialized monitoring equipment to monitor turtle nesting areas and established nesting sites. Along with turtle nesting and protection, the grant provides funding to educate the public about marine mammal interactions with people and to help enforce current laws related to this interaction. The award will provide remote cameras that are solar/battery-powered that feed into

our existing monitoring system. These cameras will help track turtle movement and also monitor known nesting sites. Also, the grant provides funding for personnel and equipment to enhance public education on both marine mammals and marine turtles.

Derelict Trap Retrieval Program

The trap retrieval program continues to operate on the Gulf Coast during odd numbered years, and the Atlantic coast during even numbered years. Prior to derelict trap collection regions are closed to all trap fishing and all “actively fished” traps must be removed by recreational and commercial fishers. It is common for trap closures to be cancelled to alleviate economic hardships associated with hurricanes, red tides, or lack of derelict gear present. In 2019, 685 blue crab traps were collected along the Gulf Coast of Florida and through Broward county. The ratio of commercial to recreational traps was unavailable.

Gulf States Marine Fisheries Commission
 Technical Coordinating Committee
 Mississippi State Report (January 1, 2020 – June 30, 2020)

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1. Emerging Issues Pertinent to Gulf of Mexico Fisheries

Bonnet Carré Spillway Opening

The Bonnet Carré Spillway, located in Norco, Louisiana, is used to divert flood waters of the Mississippi River through Lake Pontchartrain and Lake Borgne into the Mississippi Sound. The US Army Corps of Engineers' (USACE) operates the spillway when river flows at New Orleans are at 1.25 million cubic feet per second. The USACE opened the spillway on April 3, 2020 through May 1, 2020.

In May of 2020, the United States Secretary of Commerce allocated \$21,311,804 in fishery disaster funding to Mississippi to help businesses and individuals recover from the unprecedented freshwater flooding caused by the 2019 opening of the spillway. Spending plans for these funds are currently in development.

Oyster Impacts

As a result of the 2019 spillway openings, the oyster resources in the western Mississippi Sound experienced near 100% mortality, which was followed by little to no recruitment of spat to aid in the recovery of the oyster resources. Subsequent efforts by Shellfish Bureau (SB) staff to collect oyster samples to monitor the effects and recovery of oysters affected by the 2020 opening of the Bonnet Carré Spillway were minimized, since the resource had not shown many positive indications of recovery. Oysters were sampled across all major reefs in the Mississippi Sound. Traditionally oyster samples are collected through two methods: square meter dive and one-minute dredge tows. Due to the early season spillway opening and colder water temperatures throughout the Mississippi Sound, square meter dive samples could not be collected until later in the year. In April and June, Staff collected 21 one-minute dredge tow samples and analyzed the data to track oyster mortality, condition, and recruitment. Overall, the oyster resources in the western Mississippi Sound indicated no new recruitment of spat while experiencing additional mortality at a rate of between 75-90% mortality across all size classes of remaining oysters. Oyster mortality in the eastern Mississippi Sound was observed to be within the range of what would be considered normal, natural mortality. Some new recruitment of spat was observed in the samples collected from the eastern Mississippi Sound; however, recruitment was minimal.

Shrimp and Crab Impacts

In response to the 2020 openings of the Bonnet Carré Spillway, Shrimp and Crab Bureau (SCB) staff completed 29 trawl samples and 32 hydrological condition samples in the western Mississippi Sound from April to May. These data are important in monitoring potential short-

term trends in abundance during and immediately following spillway operation. Hydrological data including salinity, temperature, turbidity, and dissolved oxygen were collected at the surface and bottom at each station during each sampling event.

COVID-19

The emergence of a global pandemic in the Spring of 2020 negatively affected multiple stakeholders of Mississippi's marine fisheries. The Coronavirus Aid, Relief and Economic Security (CARES) Act appropriates \$1,520,087 to fisheries participants suffering economic losses greater than 35% compared to the previous five-year average. MDMR is currently developing a spending plan for these funds.

2. Activities Related to Artificial Reef Programs

The Artificial Reef Bureau (ARB) continued monthly monitoring of fish assemblages and physiochemical parameters at selected inshore reef sites. ARB staff collaborated with the Mississippi Gulf Fishing Banks to monitor artificial reefs via roving SCUBA diver surveys. Divers conducted 12 surveys January through June 2020. In conjunction with the Gulf States Marine Fisheries Commission (GSMFC), the third annual Jimmy Sanders' Memorial Lionfish Challenge began May 1, 2020 and will run through December 1, 2020. Biological data as well as harvest location are collected for each fish.

ARB staff continued efforts to renew permits for all nearshore artificial reefs, keys, and the Cat Island artificial reef zone.

3. Activities Associated with the Gulf of Mexico Crab Fisheries

Escape Rings and TED's

Utilizing NOAA Fishery Disaster funds from the 2011 opening of the Bonnet Carré Spillway, the MDMR has been able to provide 71,984 crab trap escape rings and 7,216 terrapin excluder devices (TED's) at no cost to resident crab fishermen. Two thousand forty-two escape rings and 144 TED's were distributed between January and June 2020.

Terrapin Interactions

Staff continued to manage the Terrapin Reporting App program through March 31, 2020 when the program was completed. The app was used to collect information from the commercial Blue Crab fishery on observations of diamondback terrapins. The program included 34 participating commercial crab fishermen who provided data to MDMR staff through a mobile app on number of traps fished, fishing location, soak time, and if terrapins were observed. Approximately 576 reports were submitted by participants from January to March 2020 and approximately 6,048 reports were submitted since the project began in October 2017.

Red Drum Stomach Content Analysis

The SBC has been analyzing stomach contents of Red Drum to better understand the percentage of their diet that consists of Blue Crab. This project provides data on the current foraging habits by size class, habitat type and time of year. To date, a total of 699 Red Drum have been sampled and processed (length, weight, sex, and age). Stomach content analysis has been performed on 483 Red Drum, ranging in size from 199 - 1126 mm total length (TL). Of the stomachs examined, 372 (77.0%) contained prey items that were identifiable to the lowest possible taxa. The stomach contents of all size classes (juvenile n = 125, sub-adult n = 108, adult n = 139) consisted primarily of fishes and decapod crustaceans. A very small number of gastropods, mollusks, and echinoderms were identified but not included in the analysis as they were considered subsidiary forage items. This project is currently in the final analysis and reporting phase, and MDMR staff plans to complete the project by December 2020.

4. Activities Related to Fisheries Dependent Sampling

MRIP

The Finfish Bureau (FB) continued to oversee the Marine Recreational Information Program (MRIP) in Mississippi. A total of 182 assignments and 918 surveys were completed January through June 2020 in Jackson, Harrison, and Hancock Counties. Survey site validations were conducted at all active sites to update the site registry for 2020 as state-wide site effort estimates continue to be refined and edited to better reflect the most recent and updated charter for-hire license database. This will allow FB staff to develop a more comprehensive and accurate active vessel frame to estimate for-hire effort more precisely.

Trip Tickets

FB collected commercial landings data from processors, dealers and fishermen utilizing the Mississippi Trip Ticket program. This data allows management of the resource and effective monitoring of the quota on Red Drum, Spotted Seatrout, and Southern Flounder. From January through June 2020, there were 2,507 paper and electronic trip tickets submitted. Mississippi currently has 278 active commercial fishermen and 58 dealers participating in the trip ticket program. The current number of commercial fishermen selling their own catch using a Fresh Product Permit and participating in the trip ticket program is 49. The FB is continuing to work with BlueFin Data developing the electronic trip ticket reporting application known as VESL. Currently, a beta version is being tested by select dealers. A final version is expected to be available by the end of 2020.

Age and Growth

The FB collected and processed 94 otoliths as part of the MDMR biological sampling program from eight species: Gray Snapper, Red Snapper, Sand Seatrout, Spotted Seatrout, Southern Kingfish, Sheepshead, Striped Mullet, and Southern Flounder.

Tails ‘n’ Scales

Mississippi’s recreational Red Snapper electronic reporting system, Tails n’ Scales was updated for use in the 2020 season. Under amendment 50c passed by the Gulf of Mexico Fisheries Management Council, Mississippi managed the 2020 recreational Red Snapper season in state and federal waters. The state charter for-hire and private recreational components were managed together this year with a season opening date of May 22nd. The federal for-hire season was 62 days, although vessels with federal reef fish permits were not included under amendment 50c. Mississippi’s total annual quota is 151,584 pounds for both the private recreational and state charter for-hire components.

5. Activities Related to Fisheries Independent Sampling

Finfish Sampling

Long-term fishery independent sampling continued in conjunction with the NOAA Project “Monitoring and Assessment of Mississippi’s Interjurisdictional Marine Resources”. The FB completed 56 gill nets at ten stations to collect finfish species for subsequent age and growth analysis as well as other biological data. A total of 280 otoliths were collected from January through June 2020 and samples were collected from ten different species: Gray Snapper, Black

Drum, Red Drum, Sand Seatrout, Spotted Seatrout, Southern Kingfish, Striped Mullet, Sheepshead, Spanish Mackerel, and Southern Flounder.

Through a project funded by the USFWS Sport Fish Restoration Program, the FB analyzed data from ten pop-up satellite tags that were deployed on Atlantic Tripletail in the fall of 2019. Data analyzed included fish movements, water temperature and depth usage for each satellite tag deployment.

The Fyke Net sampling program, used to target Southern Flounder, resumed in May 2020 and will continue through November. Traps were set and retrieved from three stations (Deer Island, Belle Fontaine Beach, and Davis Bayou). A total of eight sampling events occurred within the timeframe, and 18 Southern Flounder were collected. Other species observed in the traps include Blue Crab, Hardhead Catfish, Red Drum, Spotted Seatrout, Atlantic Croaker, Black Drum, Spot, Southern Kingfish, Atlantic Spadefish, Gray Snapper, Sheepshead, Striped Mullet, and Atlantic Stingray.

The FB, in conjunction with the Gulf Coast Research Lab (GCRL), is currently in year five of sampling for the NFWF Reef Fish project. Due to impacts from COVID-19, both entities were forced to engage in limited sampling efforts throughout the timeframe. From March through June, 34 sites were sampled by MDMR and 18 sites were sampled by GCRL for a total of 52 sites.

Shrimp and Crab Sampling

The SCB continued to conduct monthly fishery independent trawl sampling under the project “Monitoring and Assessment of Mississippi’s Interjurisdictional Marine Resources”. This sampling program includes six fixed stations located along a transect from western Horn Island to Bernard Bayou, and eight fixed stations in the western Mississippi Sound from Gulfport to Heron Bay. A total of 84 trawls were completed from January to June 2020.

The SCB continued fishery independent trap surveys for Blue Crabs within the three major bay systems – St. Louis Bay, Biloxi Bay, and the lower Pascagoula River. Each bay system was sampled monthly from January to June 2020 for a total of 18 sample sets. This program, which began in 2015, provides data on CPUE, sex composition, abundance of Blue Crabs, and bycatch composition.

Shellfish Sampling

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 98 sampling locations were created with 2 replicate dives performed at each location for a total of 196 square meter samples across the 14 reefs. Data is currently being analyzed for the 2020 oyster reef assessment.

6. Other State Activities

State Records for Recreational Fishing

A total of 11 recreational fishing records were approved as state records between January 1 and June 30, 2020. An all tackle category was added and had five approved record submissions: Red Hind (spear), Spanish Hogfish (spear), African Pompano (spear), Ocean Triggerfish (spear), Highfin Goby (castnet). There were four Conventional Tackle approved record submissions: Knobbed Porgy, Spanish Flag, Yellowfin Tuna, Ladyfish. There were also two Youth Records approved during the timeframe: Vermilion Snapper and Spotted Seatrout.

Shrimp Studies

The SCB participated in a GSMFC funded research project to develop more accurate weight conversions for commercially important shrimp species. The project included procuring samples from the shrimp industry, collecting head-on, head-off, and peeled/deveined weights and lengths and determined conversion factors by species and count size. SCB staff processed a total of 1,046 shrimp. Sample collection continued through June 2020, and the project is planned to be completed by December 2020.

Shrimp Inspections and Permits

The SCB manages the live bait shrimp licensing program. Inspections and technical assistance were provided, as needed, to the 10 licensed dealers across Mississippi's three coastal counties. The SCB also manages the MDMR Special Permitting program which includes Scientific Research Permits, Brood Stock Permits, Non-profit Harvesters Permits, and Experimental Gear Permits. SCB staff issued 25 Special Permits from January to June 2020.

Oyster Aquaculture

The MDMR began training the third class of Off-Bottom Oyster Aquaculture Program (OBOA) in 2020. The class teaches potential and current commercial oyster farmers the basics of off-bottom oyster aquaculture. Topics in the course include oyster biology, hatchery basics, nursery options, seed handling, farm site selection, overview of off-bottom culture gear, methods to control fouling, splitting, and grading, business planning, risk management, permitting, public health considerations and marketing. Twenty-two participants are currently enrolled in the program and approximately 250,000 oysters are being grown through the program. Private lease applications are currently being submitted to Mississippi's Secretary of State for approval. Twenty-six participants from the first and second OBOA class have signed Public Trust Tidelands Sub-leases for a total of 55 acres leased inside the MDMR Commercial Aquaculture Parks. Commercial operations harvested approximately 430,000 oysters in 2019 and 2020.

Shellfish Management

The goal of the shellfish sanitation and compliance program is centered on monitoring fecal coliform indicator organism levels within shellfish growing waters. Routine sampling of shellfish growing waters and investigative sampling of consistent fecal coliform hotspots help minimize the risk of seafood borne illnesses and aid in determining sources of pollution along the coast. SB staff and an FDA certified lab work within the guidelines of the National Shellfish Sanitation Program Model Ordinance, to meet this goal. A database of all lab analyses is maintained and used during annual evaluations of all shellfish growing waters in Mississippi as required by this same document. From January 1 to June 30, 2020, 392 routine samples, two hatchery samples, and 75 investigative samples were collected. The Mississippi Coast is split into eight different growing water areas. Each area is sampled once a month throughout the year. The state-run aquaculture hatchery, located adjacent to the Gulfport Harbor, also collects samples to determine how fecal coliform levels affect oyster settling. Investigative sampling occurs at a location that has a history of high fecal coliform levels and not open to shellfish harvest. SB staff take samples at multiple sites several times during a 12-hour period. This sampling is conducted to determine where the pollution source is located and how the polluted water moves in relation to the oyster resource location.

Seafood Technology Bureau

The Seafood Technology Bureau (STB) conducted a total of 179 inspections (routine, follow-up, and certification inspections). A total of 59 sanitation and Hazard Analysis Critical Control Point (HACCP) deficiencies were cited. The required bi-annual water quality sampling for seafood processing facilities for March was completed with a total of 40 samples taken.

All interstate and intrastate oyster shipping/processing operations were re-certified except for one facility. This was due to travel restrictions per the coronavirus (COVID-19). FDA extended

certification for the facility to April 2021. On-site inspection will be conducted when possible. Staff distributed over 200 personal protective equipment (masks) to the seafood industry.

The STB originally planned to host five HACCP workshops and two Sanitation Control Procedures (SCP) workshops in 2020. As of June, only one class was completed with 15 participants. Due to COVID-19 restrictions, several workshops had to be cancelled (one HACCP and one SCP).

Gulf States Marine Fisheries Commission
Technical Coordinating Committee
2020 Louisiana Fall State Report

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Emerging Issues Pertinent to Gulf of Mexico Fisheries

COVID-19 / CARES Act

The World Health Organization (WHO) declared COVID-19 a pandemic on March 11, 2020. COVID-19 directly affected the United States (US) economy due to Stay at Home orders and the closing of all nonessential businesses. The US government acted quickly to assist the public when Congress passed the CARES Act and it was signed into law by President Trump on March 27, 2020. The CARES Act was an over \$2 trillion economic relief package that contained \$300 million for the US Secretary of Commerce to provide to affected fishery participants. Louisiana is to receive a total of \$14,785,244 in economic assistance for eligible fishery participants. The GSMFC will administer economic assistance to the eligible participants in LA through direct payments based on the approved LA Spending Plan.

Oyster Lease Moratorium

The Louisiana Wildlife and Fisheries Commission (LWFC) has approved a notice of intent for lifting the oyster lease moratorium. This public comment period has passed and the new regulations have been ratified. Currently, LDWF is coordinating with the Office of State Lands (OSL) and the Coastal Protection and Restoration Authority (CPRA) to work through Phase 0 oyster lease applications which is expected to conclude in the third quarter of 2021.

Activities Related to Artificial Reef Programs

Offshore

LDWF's 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 38 structures permitted for deployment as permanent artificial reefs, and one new reef site has been recently proposed. Permitting of an additional 4 structures is currently underway. The Program also has a permit to reef a vessel in its Main Pass 300 Reef.

Multi-beam surveying of the Program's offshore reefs is ongoing (annually) and is 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.

Inshore

LDWF's Artificial Reef Program surveyed and accepted four new inshore artificial reefs that were completed through a cooperative endeavor agreement with the Lake Pontchartrain Basin Foundation. The new reefs are located in the Biloxi Marsh area and were created using a combination of shell, limestone, and reef-ball materials. Two reef sites, Point Mast and Bird Island, were enhanced using 4,000 tons of limestone each and utilized NRDA Recreational Use funds to complete the project. The Program continues to hold a permit to enhance the Independence Island artificial reef site with 15,000 tons of material through NRDA Recreational Use Restoration funding.

Nearshore

LDWF's Artificial Reef Program enhanced the Ship Shoal 26 (the Pickets) reef site using 8,000 tons of limestone. The Grand Isle 9 reef is permitted and under contract. Ship Shoal 26 and Grand Isle 9 will be completed using Recreational Use Restoration funding. The Program is finalizing the acceptance of four new nearshore reefs: The Ship Shoal 94 and 108 and Vermilion 119 and 124 reefs were deployed with funding from the Artificial Reef Fund. Vermilion 119 and 124 were done in partnership with Coastal Conservation Association of Louisiana. The Program reached an agreement with CCA to enhance one existing reef and create two new reefs.

Monitoring

Through funds provided by the Louisiana Restoration Area Trustee Implementation Group, LDWF continued the monitoring of all completed inshore and nearshore artificial reef enhancement sites. This is part of a 5-year plan to assess the success of artificial reefs enhanced in an effort to mitigate for recreational use opportunities lost during the Deepwater Horizon Oil Spill. Monitoring efforts include the study of the aquatic organisms utilizing the reef enhancement sites via the use of gillnetting, rod and reel sampling, and benthic tray observations, as well as observations of recreational users. Together, those efforts are intended to provide insight into the overall biological health of the reef enhancement sites as well as insight into whether those sites are providing enhanced recreational opportunities to the public.

Activities Associated with the Gulf of Mexico Crab Fisheries

Policy and Regulations

After the completion of the 2016 Louisiana blue crab stock assessment, the Louisiana blue crab stock was identified as overfished. This information, along with management options, were presented to the LWFC who set in rule a three-year plan that would reduce the overall harvest of blue crab in state waters and temporarily reduce harvest pressure. During these three years (2017-2019), monthly closures or a temporary ban on female blue crab took place. The most recent (2019) Louisiana blue crab stock assessment indicated that the Louisiana blue crab stock was not identified as overfished nor experiencing overfishing. Due to the improvement in stock status, no additional regulations were implemented during the 2020 harvest year.

Derelict Crab Trap Program

During the defined 2020 derelict crab trap cleanup areas, the LDWF, contractors, and volunteers successfully removed nearly 4,188 traps across Louisiana's coast. The two Pontchartrain cleanup areas netted a total of 3,387, which was the largest number of traps removed from any one basin. These high numbers come from a successful and ongoing partnership with the Pontchartrain Conservancy, who is contracted by LDWF to remove traps from within the Pontchartrain Basin. Cleanup results in the Vermilion-Tech and Terrebonne Basins netted 171 and 110 traps, respectively. A volunteer day was held during the Barataria

and Calcasieu Basin cleanup events. During the Barataria volunteer day, the event hosted nearly 50 individuals and nine vessels, which resulted in the removal of 362 traps. The Calcasieu volunteer event had around 40 individuals and eight vessels. The team of volunteers and LDWF staff were able to remove nearly 160 traps, which was extremely impressive for an area that was comprised of open water.

Sustainability

In December 2019, the Louisiana blue crab commercial trap fishery underwent the third surveillance audit against the Audubon Nature Institute's Gulf United for Lasting Fisheries Responsible Fisheries Management Standard v1.2. During this audit, the two remaining non-conformances were closed and the Louisiana blue crab commercial trap fishery was granted continued certification in the January 2020 final assessment.

In June 2020, the Louisiana blue crab commercial trap fishery underwent the second surveillance audit against the Marine Stewardship Council Management Standard v2.0. During this audit the final remaining non-conformance was recommended to be closed. The final assessment report should be complete in July 2020.

Stock Assessments

No formal stock assessment was completed for the Louisiana blue crab stock in 2020. Blue crab indices of abundance and model estimates were developed to assist with the two sustainability certification audits. Indices for adult and juvenile blue crab decreased slightly, while young of the year saw an increase. Model estimates indicated that the Louisiana blue crab is not overfished or experiencing overfishing.

Landings

Blue crab landings from January – June in 2020 totaled 14.6 million pounds with a dockside value of approximately \$28.8 million. Landings in 2020 showed a decrease of nearly 15% when compared to the five-year average (2019-2015), while the 2020 dockside value increased by 3.5 percent. Landings in four years out of the five-year average were above 16 million pounds (2015-2018), while 2019 had landings slightly above 15 million pounds. The reduction in 2019 landings were primarily due to the historic flooding events that took place during the first 7 months of 2019. Blue crab landings in 2020 were even less than those in 2019, which is likely related to the global pandemic, COVID-19. COVID-19 has caused a direct negative affect on the Louisiana blue crab industry by reducing the market need for fresh, frozen, or canned blue crab products due to restaurant closures and limited supplies at grocery stores.

While COVID-19 negatively affected blue crab landings, it drove the prices for blue crab up. This can be seen when comparing the dockside value or price per pound. As mentioned above, the overall 2020 dockside value increased by 3.5 percent compared to the five-year average, while the price per pound increased by 17 percent. The \$1.97 average price per pound from January – June 2020 is the highest price per pound observed over this time period during the six-year time frame (2015-2020). The closest average price per pound to 2020 was in 2015 when blue crab sold for \$1.86.

Activities Related to Fisheries Dependent Data Collection

LA Creel

Through the LA Creel program, 5,982 recreational fishing trips, comprised of 16,046 individual anglers, were surveyed during 2020 Sample Weeks 1 – 26 (December 30, 2019 – June 28, 2020). Fifty-two different interviewers completed 784 of the 800 assignments as drawn 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 sample period as above, there were 27,905 Type 1's and 25,768 Type 2's, which equates to 52 percent of all fish in possession of the angler at the time of survey were identified and counted by staff. Type 1 fish numbers are down due to COVID-19 restrictions.

Sixty-nine species were represented among Type 1 fish, including some shellfish. Spotted Seatrout was the most commonly counted species with 22,928. Red Drum was second with 6,905 counted and Sheepshead was the third most common with 3,365 counted.

Fish returned to the water or caught and used for bait are also recorded for certain species. Those species are:

1. Black Drum
2. Gray Snapper
3. Gray Triggerfish
4. Greater Amberjack
5. King Mackerel
6. Largemouth Bass
7. Red Drum
8. Red Snapper
9. Sheepshead
10. Southern Flounder
11. Spanish Mackerel
12. Spotted Seatrout

Fish thrown back because they were under the legal minimum length are coded as Type 3. Fish caught and used as bait during the trip are coded as Type 4. Fish thrown back or given away prior to interview for any reason not covered by codes 3 and 4, such as too big, not wanted, etc., are coded as Type 5. Discard data is collected as per the Department's contract with GSMFC. During the same time period as provided above, staff recorded 29,545 Type 3's, 13 Type 4's, and 3,625 Type 5's.

To generate harvest estimates, angler effort must be determined. LA Creel uses two separate surveys for the purposes of determining angler effort. One survey targets charter captains in which ten percent of the approximately 700 charter license holders and thirty percent of the approximately 100 charter license holders who also have a Recreational Offshore Landing Permit (ROLP) are drawn at random each sample week. The ROLP is a free permit that is required to possess tunas, billfish, swordfish, amberjacks, groupers, snappers, hinds, cobia, wahoo, and dolphinfish in Louisiana waters. The purpose of the ROLP is to increase the chances of drawing anglers who fish offshore for effort surveys. During a red snapper season (federal and/or state), one hundred percent of ROLP holding charter captains are drawn. Department staff attempt to contact drawn captains to ask about the number of charter trips taken during the sample week, how many paying customers were on each trip, and in what basin the trip occurred.

During 2020 Sample Weeks 1 – 26, a total of 2,294 captains were drawn, with replacement. Of those, a total of 1,629 captains (71%) completed the survey.

The other effort survey pertains to private anglers exclusively. Each sample week, not including weeks that fall within red snapper seasons, a total of 1,600 Louisiana recreational saltwater fishing license holders are drawn at random for participation in the effort survey. Twelve hundred of the 1,600 is derived by drawing 300 licensed anglers from each of the four regions La Creel uses to generate landings estimates. A separate random selection of 400 is made from ROLP holders. During red snapper seasons the number of private ROLP anglers drawn for the effort survey increases from 400 to 800. A service contracted by the Department is tasked with contacting drawn license holders to ask questions, such as basin fished in, number of trips taken, about any saltwater fishing trips they may have taken during the sample week.

During 2020 Sample Weeks 1 – 26, a total of 44,400 Louisiana recreational saltwater fishing license holders were drawn, with replacement. Of those, a total of 22,349 (50%) completed the survey. The estimated number of saltwater fishing trips taken during the time period was 1.3 million.

The iPad application used for data entry for dockside surveys was to undergo a rebuild in the spring of 2019, but was pushed back to the spring of 2020. The contractor hired to perform the rebuild finished their work as scheduled. As of now, the app is awaiting approval by the state's Office of Technology Services prior to distribution to field offices for implementation.

Age and Growth

Since the new BIOFIN agreement covers recreational species only, LDWF's Age and Growth Lab in Baton Rouge relies on the National Oceanic and Atmospheric Administration's (NOAA) TIP sampling for commercial otoliths. The lab has processed recreational, commercial and independent otoliths during 2020. From January 1, 2020 through June 20, 2020, the lab has received 4,970 recreational marine fisheries otoliths and aged 4,838 of these otoliths. All otolith

collection and ageing data has been transferred to GSMFC through the month of June. Staff are currently completing July 2020 otolith processing.

LDWF's Fisheries Research Lab in Grand Isle processes yellowfin tuna otoliths, which are not included in the age and growth lab's total for this time period. During the period of January 1, 2020 through June 20, 2020, a total of 49 yellowfin tuna otoliths have been collected and 49 have been aged.

Otolith totals are as follows:

- Black drum – 109
- Cobia – 3
- Gray snapper – 23
- Greater amberjack – 3
- Gray triggerfish – 0
- King mackerel – 0
- Red drum – 709
- Red snapper – 340
- Sheepshead – 195
- Southern flounder – 157
- Spotted seatrout – 1,125
- Striped mullet – 0
- Tripletail - 3
- Vermilion snapper – 21
- Blackfin tuna – 0
- Yellowfin tuna – 49

Commercial Shrimp, Oyster, and Crab Seasons and Landings

Shrimp

The portion of state offshore, or outside, waters between Calliou Boca and the Atchafalaya River Ship Channel at Eugene Island opened on April 17, 2020. Following this opening, the 2020 spring inshore shrimp season from the Mississippi/Louisiana state line westward to Freshwater Bayou and the remaining portion of state offshore waters between the Atchafalaya River Ship Channel at Eugene Island and Freshwater Bayou opened May 18, 2020 at 6:00 am. The remaining portion of state inshore waters from Freshwater Bayou westward to the Louisiana/Texas state line opened on May 27, 2020 at 6:00 am.

Shrimp landings (all species combined and heads on unless specified otherwise) between January – June 2020 totaled approximately 20.9 million pounds with a dockside value of \$26.5 million. The 2020 shrimp landings during this period decreased by 48 percent compared to the five-year average, while the dockside value decreased by 42 percent. While overall numbers in 2020 were low compared to the five-year average, the shrimp average price per pound in this period was 9 percent above the five-year average. Louisiana brown shrimp landings during the

time period mentioned above in 2020 were one of the lowest on record. Approximately 8.7 million pounds were landed in 2020 compared to a five-year average of nearly 22.9 million pounds. Brown shrimp landings were also low in comparison to previous years in 2019 due to the 2019 flooding events, but 2019 brown shrimp landings were nearly twice those observed in 2020. These low brown shrimp landings are the result of several factors: early May cold fronts, an early June tropical storm, and COVID-19. The shrimp average price per pound, similar to blue crab, was above the five-year average.

White shrimp landings in 2020 showed a less dramatic decrease than what was observed for brown shrimp. Landings from January – June in 2020 were 12 million pounds with a dockside value of \$18.7 million. White shrimp landed during this period of 2020 were 28 percent lower than the five-year average, while the average dockside value was nearly 35 percent lower than the five-year average. The average white shrimp price per pound was also lower than the five-year average by nearly \$0.20. Direct reports from industry members stated that larger shrimp that were normally sold during January – May were not in demand because of restaurant closures due to COVID-19. This meant that an abundance of large shrimp was still being held in cold storage and it was a risk to purchase additional product.

Blue Crab

Described in the Activities Associated with the Gulf of Mexico Crab Fisheries section above.

Oyster

Oyster landings, both public and private from January – June in 2020 totaled 1.7 million pounds (meat weight) with a dockside value of approximately \$12.4 million. Landings in 2020 showed a decrease of 74% when compared to the five-year average (2019-2015), while the 2020 dockside value decreased by 71 percent. The 2019-20 public oyster season opened November 1, 2019. The table below summarizes the 2019-2020 oyster season to date for Louisiana's major public oyster areas. This year, the goal was to reduce harvest stress as a means to conserve remaining resource from the 2019 flooding event, and manage areas as recommended by the shell budget model thresholds—all of which should help minimize reef degradation.

2019-2020 LDWF Oyster Season Summary						
Area	Season Opening	Season Closure	Season/type	Days open	Harvest	CSA
POSG East of Mississippi river and North of MRGO			closed			1
POSG East of Mississippi river and South of MRGO			closed			
Hackberry Little Lake, Barataria Bay			closed			3
Deep Lake, Lake Chien, Lake Felicity and Lake Tambour			closed			5
Lake Mechant and Bay Junop			closed			
Sister Lake	18-Nov	18-Nov	1-day Seed harvest	1	1,250 bbl	
	19-Nov	25-Nov	Market Oyster Harvest	7	10,314 sacks	
Vermilion Bay			closed			6
Calcasieu Lake	1-Nov	20-Jan	East Cove: Market Oyster Harvest	80	3,861 sacks	7
	1-Nov	30-Apr	West Cove: Market Oyster Harvest	210	4,985 sacks	

Activities Related to Fisheries Independent Sampling

Stock Assessments

LDWF completed stock assessments of black drum, sheepshead, southern flounder, and striped mullet that were presented to the LFWC for transmittal to the Louisiana Legislature in February 2020. These assessments use 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 relative abundance indices developed from LDWF fishery independent surveys are the primary model inputs. Based on results of these assessments, the black drum, sheepshead, and striped mullet stocks are currently not overfished or undergoing overfishing. The southern flounder stock, however, is currently considered overfished. Management options to improve the status of the southern flounder stock will be presented to the LWFC in 2020.

Fisheries Research Lab

LDWF's Fisheries Research Lab in Grand Isle is the base for the state's offshore fisheries independent monitoring and research projects. The lab also serves as a point of contact for the public, visiting researchers, and educational programs. Some current activities at the lab are summarized below:

Southeast Area Monitoring and Assessment Program (SEAMAP)

LDWF typically participates in three SEAMAP surveys: Shrimp/Groundfish, Vertical Line, and Bottom Longline during the January through June time period. Due to the Covid-19 pandemic, the Shrimp/Groundfish survey was cancelled. Vertical Line and Bottom Longline were conducted but at a very reduced rate. On these surveys, teams of three to nine fisheries biologists collect, process, and enter both catch data and environmental parameters, including a water column

profile. These surveys are conducted from April through October with data management and reporting completed during the winter. During the reporting period, sampling and reporting were completed for all surveys conducted. LDWF representatives participated in the Spring GSMFC meeting.

Spotted Sea Trout Life History Study

In 2018, biologists from LDWF's coastal study areas (CSAs) obtained spotted seatrout ovaries and otoliths from dockside sampling (n=1,216). During the reporting period, these samples were aged and histologically staged, and batch fecundity (n=18) was taken where applicable. Spawning fraction and frequency was smaller and more variable than expected, which may be due to lack of larger individuals collected. Spawning frequency was calculated from the 147-day spawning duration multiplied by the spawning fraction equations. Batch fecundity was then multiplied by spawning frequency to achieve annual fecundity. Fecundity data was added from a previous pilot study on spotted seatrout in 2015 (n=11) and from previous work in 1994-1995 (n=25). Both of these datasets were generated from spotted seatrout collected in Barataria Bay. Annual fecundity within length was $1.076(\text{Total Length})^{2.692}$ while annual fecundity at age was $34,007,142(1-e^{(-0.451*\text{Age})})^{2.307}$. However, annual fecundity was directly proportional (linear) to body weight, which suggests that spawning stock biomass is an appropriate substitute for total egg production in stock assessment. Future collections will be useful in monitoring increases or decreases in egg production, which may be an indicator of stock health. Female seatrout that are age 2 or 405mm (16inches) total length, on average, produce over 10 million eggs annually. Age 2 fish were most frequently landed before the stock was considered overfished or undergoing overfishing. Therefore, it is recommended that managers take those details into consideration for fishing regulations.

Black Drum Life History Study

November 2019 through March 2020, LDWF biologists sampled 210 black drum ovaries. All 210 ovary samples have been histologically processed and analyzed, but the project was cut short by the pandemic and not enough data was collected to estimate spawning fraction and frequency. None of the 210 ovary samples yielded fecundity estimates. When combined with future samples, this data will determine if spawning stock biomass is an appropriate proxy for total egg production and will further inform managers for establishing regulations.

Sheepshead Life History Study

In February and March 2020, LDWF biologists sampled 84 sheepshead ovaries. All 84 have been histologically processed and analyzed. However, the project was cut short due to the pandemic and not enough data was collected to estimate spawning fraction and frequency. There were four fecundity estimates that came from the 84 ovarian samples. When coupled with future samples, this data will determine if spawning stock biomass is an appropriate proxy for total egg production and will further inform managers for establishing regulations.

Offshore Red Drum Age Structure

The lack of a consistent biological sampling source for offshore red drum has hindered stock assessments, but the LDWF portion of the SEAMAP bottom longline survey could provide a fisheries 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.

During the 2018, 2019, and 2020 SEAMAP bottom longline survey, LDWF collected otoliths from 160, 269, and 30 red drum, respectively. The low sample size in 2020 was due to the pandemic precautions taken and sampling trips eliminated. Though the majority of those landings occurred outside of the spawning season during spring sampling, 64 gonads were collected from female red drum closer to the spawning season during summer and fall bottom longline sampling. Ages for red drum collected offshore ranged from 4 to 39 years. These data will likely be critical in characterizing the offshore spawning stock of red drum off the Louisiana coast in future stock assessments.

Artificial Reef Monitoring for Sportfish

In order to enhance the monitoring of sportfish species on artificial reef structures, LDWF biologists from the Grand Isle Fisheries Research Lab are using a combination of vertical line sampling, video sampling, and diver surveys. Approximately ten percent of the artificial reef structures in the LDWF Offshore Artificial Reef Program were randomly selected and assigned to the 2020 vertical line survey. Due to COVID-19 restrictions, vertical line sampling did not occur within the reporting period. Data entered prior to the 2018 sampling season (2015-2017, n = 104 stations) was verified during the reporting period, and the database was updated as needed.

Additionally, LDWF included a roving diver survey component into the LDWF artificial reef monitoring effort. While LDWF has previously conducted dive surveys at standing platforms, no dive surveys had been conducted at artificial reef sites prior to 2018. Biologists surveyed finfish species at the artificial reef site and the nearest standing platform. During the reporting period, all dive survey videos were reviewed. Survey start and finish times assigned as well as ascent and descent times. MIN counts were then performed in 10 second intervals using the read protocols used for the vertical line video reads. MIN counts were performed on species covered in the GMFMC Reef Fish Fishery Management Plan (Gray triggerfish, Almaco jack, Greater amberjack, Gray snapper, Lane snapper, Red snapper, Vermilion snapper and Groupers) as well as Coastal Migratory Pelagics FMP (Cobia and Spanish mackerel). 241 reads were made over the survey times of the video's as well as the decent and ascent reads. An excel sheet was created and all read data entered and reviewed.

Shrimp Sampling

LDWF conducts fisheries independent sampling for shrimp year-round statewide using three trawl sizes: 6-foot, 16-foot, and 20-foot. The 6-foot trawl samples gather data in the interior marshes of Louisiana and are used to set the opening and closing dates for the spring inshore shrimp season. These samples are typically taken throughout April and again at the end of June and beginning of July, depending on environmental conditions. From January – June 2020, a total of 299 6-foot trawl samples were conducted. Samples conducted throughout April and early May were used to set the Louisiana spring inshore shrimp season, as described earlier. Brown shrimp CPUE during April and early May 6-foot trawl samples was lower than the previous years.

The 16-foot trawl sampling data are used to constantly monitor the state shrimp resource, along with other species of interest, and set the opening date for the fall inshore shrimp season. During January – June 2020, a total of 905 16-foot trawl samples were conducted. These data were used to open state inshore waters for the 2020 fall inshore shrimp season, as well as, monitor statewide resources monthly.

The 20-foot trawl sampling data are used to monitor shrimp resources in state offshore waters. A total of 189 20-foot trawl samples were conducted during January – June 2020. Data collected in the 20-foot trawl samples were used to open the portions of state offshore waters described earlier.

Crab Sampling

Fisheries independent sampling data for blue crab is collected with 16-foot trawls. These data are used to calculate juvenile and adult blue crab indices of abundance for the blue crab stock assessment.

Oyster Sampling

LDWF conducts fisheries independent sampling for oysters year-round statewide using two gear types (24-inch hand dredge and square-meter frame: m²) within the public oyster areas, and analyze the data collected to determine overall health of the oyster resource throughout the year. Dredge sampling events were conducted monthly (except in the month of July) on 74 sampling stations and quarterly on six (Sabine Lake only) sampling stations, with two replicates per station, to monitor size frequency, presence and/or absence, and mortality. A total of 897 dredge samples were collected between January 1 and June 30, 2020.

For annual stock assessments, LDWF biologists collect field samples in July from each CSA across Louisiana to perform a quantitative evaluation of the oyster stock on the state's public oyster areas. Biologists SCUBA dive on designated sampling stations within each CSA. At each sampling station, an aluminum square-meter frame (quadrat/m²) is randomly placed on the oyster reef, and all live and dead oysters, reef-associated organisms, and exposed reef material are collected by hand from the upper portion of the substrate within the quadrat. This process is replicated five times at each sampling station. Water temperature, dissolved oxygen, and

salinity data are collected in conjunction with the m2 samples, and cultch material types are identified and weighed.

Sabine Lake is closed for commercial oyster harvest since Legislative Act 159 (2018) that instituted a moratorium on oyster fishing in Sabine Lake. Therefore, dredge samples are conducted quarterly, and square-meter sampling are only being conducted every other year, with the next sampling scheduled for July 2021. Additional sampling may occur as needed to monitor for possible mortality events associated with significant freshwater input events.

Additional square-meter sampling was conducted in the Lake Pontchartrain and Barataria basins in May 2020 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.

Sampling conducted as part of the annual oyster stock assessment plays a valuable role in predicting the success of the upcoming oyster season, which generally opens in early September and runs through April of the following year. However, the season may be closed or delayed if biological concerns or enforcement problems are encountered. LDWF uses oyster stock assessment information to make recommendations regarding setting the oyster season to the Louisiana Wildlife and Fisheries Commission.

Finfish Sampling

LDWF conducts biological monitoring for finfish statewide in the coastal, nearshore, and offshore areas of Louisiana. During fiscal year 2019-20, the fisheries independent finfish sampling program collected 953 gillnet samples, 1,271 seine samples, and 271 trammel net samples for a 99.3 percent overall completion rate statewide. Electro-fishing samples (159 total) are being conducted within some Louisiana estuarine environments to provide fisheries data to CPRA.

Other State Activities

Finfish Seasons and Regulations

Louisiana waters closed to the harvest of sharks in the aggregated large coastal group (nurse, bull, lemon, sandbar, silky, spinner, and tiger) and hammerhead group (smooth, scalloped, and great) on March 14, 2020.

Louisiana waters closed to the recreational harvest of gray triggerfish on May 2, 2020.

On May 20, 2020 a final rule published that modified the existing recreational red snapper season framework to set the season to open each year on the Friday before Memorial Day as a weekends only season including the Mondays of Memorial Day and Labor Day as well as the 4th

of July regardless of what day it falls upon. The final rule also clarified language relating to the state delegation of the recreational red snapper season.

Louisiana and federal waters off of Louisiana opened to the recreational harvest of red snapper on May 22, 2020 on weekends only (Friday, Saturday, and Sunday) including the Mondays of Memorial Day and Labor Day.

At its regular meeting on May 7, 2020 the Louisiana Wildlife and Fisheries Commission (LWFC) ratified a Notice of Intent (NOI) to modify the recreational and commercial minimum size limit for Cobia to 36 inches fork length. Public comments on the NOI were taken until Thursday, July 2, 2020.

At its regular meeting on June 4, 2020 the LWFC promulgated a NOI to modify the commercial trip limits for greater amberjack from 1,500 pounds gutted weight to 1,000 pounds gutted weight and allow for Secretarial authority to modify commercial reef fish trip limits if notified by NOAA Fisheries of in-season changes.

Louisiana and federal waters off of Louisiana closed to the recreational harvest of red snapper on August 13, 2020.

Louisiana and federal waters off of Louisiana reopened to the recreational harvest of red snapper for the Labor Day weekend on September 4, 2020 and closed on September 7, 2020.

Louisiana waters reopened to the recreational harvest of gray triggerfish from September 1, 2020 through October 26, 2020.

Marine Mammal and Sea Turtle Monitoring

The marine mammal stranding program and the sea turtle stranding program are administered and coordinated directly by NOAA in Louisiana.

Michael C. Voisin Oyster Hatchery

The Michael C. Voisin Oyster Hatchery located on Grand Isle, Louisiana, is operated through a collaborative effort between LDWF and Louisiana Sea Grant (LSG). LSG assists with facility operations, provides technical guidance, manages the LSG Breeding Program, and supports the oyster industry through extension, outreach, and research projects. LDWF focuses on the production of diploid and triploid seed and larvae for state restoration projects, as well as commercial sales to support the industry.

Spring 2020 hatchery production focused on producing diploid pediveligers and seed for LDWF sales. A total of approximately 42 million diploid pediveliger larvae were produced, of this approximately 14 million were sold to farmers. Approximately 397,391 diploid seed were sold to farmers prior to June 30th. Additional seed remained in the nursery system pending sale.

Extra diploid pediveligers (PV), those which farmers could not accept at the time, were either set on microcultch to produce seed for sales (16 million PVs) or set on macrocultch for restoration (11 million PVs). Of the 11 million PVs set on macrocultch, there were approximately 1.25 million spat that set and were deployed at LDWF's West Karako Bay Artificial/Broodstock Reef site.

The hatchery started algae production in January. Marine microalgae is grown in a Stock Room and Algal Production Room to feed oyster larvae. Staff tested the survival of algae grown in flasks treated with combinations of EDTA and different media volumes, to test if current growing procedures provided optimal growth and survival for algae cultures. The flask trials were based on a trial done in fall 2019 where hatchery seawater was treated with EDTA and survival of algae grown in bags was observed. Results for the bag trial showed that the addition of EDTA in seawater resulted in poor algal survival. Final results for the flask trial are pending, however, initial observations did not show obvious differences between treatments. Algae production continued in the Stock Room and Algal Production Room throughout the spring and summer using Standard Operating Procedures.

Spat on Shell Projects

The Louisiana Department of Wildlife and Fisheries Michael C. Voisin Oyster Hatchery produces diploid oyster larvae for setting on shell, which is then referred to as spat-on-shell and is used for State oyster restoration projects. To prepare for setting on shell, mesh bags that are three feet long are filled with recycled oyster shell and are called shellbags. Recycled shell is obtained through a collaboration with the Coalition to Restore Coastal Louisiana's Oyster Shell Recycling Program.

In February and March 2020, the Oyster Hatchery coordinated multiple shellbagging events at the Grand Isle Fisheries Research Lab (FRL) with assistance from LDWF, Louisiana Sea Grant and LDWF Aquatic Volunteer Instructors. Approximately 110 cubic yards of shell were bagged, generating almost 4,170 shellbags, which is enough shell for setting at least 64 million diploid pediveligers.

In early spring, four setting tanks capable of holding approximately 115-130 shellbags each, located underneath the FRL, were prepared for spat-on-shell production. Spat-on-shell production and deployments were delayed during the spring of 2020 due to COVID-19. During June 2020, the Oyster Hatchery set 11,350,000 pediveligers on macrocultch that were deployed by LDWF staff within the public oyster seed grounds of Karako Bay.

After 6 months of monitoring, the 2019 Barataria POSG spat on shell deployment sites were discontinued in December 2019 because no live oysters were observed. No live oysters were observed during May 2020 after monitoring the 2019 Breton Sound POSG sites for 12 months.

Oyster Transplant Projects

Oyster impacts from the increased freshwater flows in the spring and summer of 2019 were investigated via standard and enhanced fisheries independent sampling (dredge) on public oyster areas. The highest freshwater output was concentrated in Coastal Study Area (CSA) 1-North. CSA-1 North is the outfall area for the Bonnet Carré Spillway as well as the Pearl River. This flooding event dramatically reduced salinities in the receiving basins and increased oyster mortalities were documented in subsequent biological sampling.

In an effort to facilitate natural recovery from the 2019 flooding event, LDWF collected oysters from reefs in the least impacted basins of the State and transplanted to previously productive reefs in Pontchartrain Basin. Adult reproductive oysters were collected in Sister Lake and in Calcasieu Lake during each routine dredge events in October 2019, November 2019, and January 2020 and transplanted to Round Island, Shell Island, and Lake Fortuna sites, respectively. The objective of the project was for these transplanted animals to spawn and reseed reefs as the salinities in the area return to a suitable range for oyster production.

With each transplant, a sub sample of 20 oysters were set in a containment device (modified crab trap) with a spat plate attached to it for monthly monitoring. As of June 2020, only one containment device remained at the Shell Point site to be monitored. It contained 92 live spat found attached to the spat plate. All other containment devices were lost and not replaced over the course of the monthly monitoring.

Boating and Non-Boating Access Projects

LDWF has several new and ongoing boating and fishing access projects, which are funded through the Sport Fish Restoration Program and administered by local entities. LDWF accepts project proposals on an annual basis and evaluates them based on ranking criteria and available funding. Current projects include:

- Port Sulphur Civic Drive Fishing Pier – construction contract has been awarded
- St. Tammany Fishing Pier – review of construction contract
- West End – Breakwater Drive Boat Launch – construction complete
- New Iberia Boat Slips Boating Infrastructure Grant Program – advertised for bid
- City of New Iberia CVA Sanitation Facility – design phase
- Indian Creek Recreation Area Fishing Pier – bid awarded
- City of New Iberia Civic Center Marina Phase I – design phase
- Marina Del Ray Renovations – permitting phase
- City of New Iberia Civic Center Marina Phase II – permitting phase
- Town of Leonville Boat Launch Improvements – design phase
- Town of Madisonville Boat Launch Improvements – advertised for bid

Additional boating and fishing access projects were recently approved by the Louisiana Trustee Implementation Group for funding from the *Deepwater Horizon* oil spill and are currently being designed and implemented.

Seafood Industry Professionalism

LDWF seeks to give the state's seafood industry access and training to the latest trends, requirements, and technology in their profession, as expert training will yield higher quality products and give the 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.

The Louisiana Fisheries Forward contract was renewed for one year beginning January 2020. During the first half of the year an oyster remote setting whiteboard video was created along with a corresponding fact sheet. Additionally, fact sheets were developed on the impact of shrimp imports in Louisiana, HACCP training and sanitation control for processors.

In addition, a report characterizing the recreational for hire sector in Louisiana was completed as well as a report on the status and trends in Louisiana's commercial freshwater fisheries. The results of these reports were presented at the 2020 Louisiana Fisheries Forward summit which was held in early March 2020. Louisiana was in the beginning stages of Covid-19 at this time which likely accounted for the lower than normal attendance figures. In response to Covid-19, the Louisiana Fisheries Forward team quickly developed informational materials on safety guidelines for commercial fishermen as well as seafood processors.

Aquatic Plant Control

Invasive aquatic vegetation continues to threaten access and recreational activities throughout Louisiana. Spring surveys conducted from March - May 2020 revealed an estimated 257,746 acres of nuisance aquatic plant coverage, mostly composed of water hyacinth (74,160 acres) and giant salvinia (53,660 acres). Spring surveys are conducted at the beginning of the growing season and usually reflect slightly less coverage than fall surveys conducted at the end of the growing season. From January 1, 2020 through June 30, 2020, LDWF applied EPA-approved herbicides to 21,699.32 acres of nuisance vegetation across the state. The majority of plant control efforts focused on giant salvinia and water hyacinth, with 10,497.91 and 8,482.63 acres treated, respectively. A major area of focus was Black and Clear Lakes in Natchitoches Parish, both of which suffer from a chronic giant salvinia infestation. A total of 3,255.8 acres of giant salvinia were treated on Black and Clear Lakes. LDWF treated approximately 2,160 acres of water hyacinth on Bayou Penchant.

Winter temperatures and isolated flood events have the potential to be major factors in determining the severity of aquatic vegetation impacts, especially giant salvinia, in Louisiana. Occurrences of below freezing temperatures, for the duration of several hours, provide

excellent control of aquatic vegetation. The lack of below freezing temperatures experienced last winter has led to higher than usual spring aquatic vegetation coverage. Drawdowns are currently being conducted on several waterbodies throughout Louisiana. Vegetation assessments will be made in the fall, and herbicide applications will be made accordingly.

Gulf States Marine Fisheries Commission
71st Annual Fall Meeting
Technical Coordinating Committee
Wednesday, 14 October 2020
Virtual Meeting

1. Emerging Issues Pertinent to Gulf of Mexico Fisheries.

PROPOSED REGULATORY CHANGES

Statewide Recreational and Commercial Fishing

Proposed changes to flounder regulations

To manage a declining flounder fishery, two proposals were submitted to the TPW Commission that would decrease fishing effort during the fall spawning run, as well as protect smaller spawning capable females. We estimate this will increase spawning biomass by 58%. These proposed regulations were:

- Closing November 1 to December 14 to all flounder fishing (currently no gigging in Nov and reduced catch of 2 fish/person for that period compared to 5 during rest of year).
- Increase the minimum size limit to 15-inches (currently 14-inch min size limit).

These proposals were adopted by the commission; however, due to COVID issues, the Nov-Dec closure was pushed back to take effect September 2021. The 15" minimum size limit took effect on September 1, 2020.

Oyster Updates

Oyster Mariculture Update

The Texas commercial oyster fishery has primarily relied upon the harvest of oysters from natural reefs in areas approved by the Texas Department of State Health Services and under certificates of location, or lease programs, in Galveston Bay. However, as the value of oysters continues to increase, interest in off-bottom cage culture of oysters has gained popularity throughout the United States and Texas. During the 86th Texas Legislative Session, HB 1300 granted authority to the Parks and Wildlife Commission to develop an off-bottom oyster mariculture program using enclosed cages. In May 2020, the Parks and Wildlife Commission adopted rules establishing this program. We have created a website that can now be accessed by any persons interested in beginning the process of applying for a permit and designating a location for their lease.

https://tpwd.texas.gov/fishboat/fish/commercial/com_cf/com_index.phtml

We are working closely with prospective applicants to provide them with information of areas available for lease in Texas bays.

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. So far, in 2019-20 landings reported to the Texas Commercial Landings Program (LY20 Sep-Jul), 868,743 sacks (110 lbs/sack) of oysters were landed from TX bays. That total amounts to 15,082 cubic yards of cultch or \$1,146,740 due from oyster dealers. In LY 2019, dealers worked with TPWD to place 9,705 cubic yards of cultch back into TX bays, while remaining dealers paid \$205,972 into the Shell Recovery Fund (for future planting) (Table 1). Some dealers have had issues putting out cultch or paying in LY2020 due to COVID, so we are working with them as much as possible to accommodate their issues.

Table 1. Summary of Oyster Shell Recovery program (LY2018-2020)

LY (Sep-Aug)	Sacks Harvested	Cultch Due (cu yds)	Fee in lieu of cultch	Final Disposition	
				Cultch	Fee
2018	564,787	9,805.3	\$745,518	6,590.6	\$241,815
2019	754,565	13,100.0	\$996,025	9,705.3	\$205,972
*2020	868,743	15,082.2	\$1,146,740	3,220.0	\$229,258

*As of 9/8/2020 (through July landings)

- Approximately 9,000 cu yds of cultch was placed in Aransas Bay this summer at Grass Island. This was mostly funded by Hurricane Harvey Emergency grants, but partially by shell recovery fees. An additional 4,000 cu yds is scheduled to be placed in Sabine Lake.
- CCA purchased two sets of oyster patent tongs for the Galveston and Aransas Bay field labs. We plan on assessing their utility in monitoring our oysters in the near future.

Texas Oyster Landings

Oyster landings in LY2020 were greater than landings in any of the previous five years (figure 1). There was some apparent reduction of catch at the end of the 2020 season most likely due to COVID. In previous years, there were also reductions of catch later in the season for various reasons (area closures and possibly reductions of available stock). In LY2019, there were several areas closed to harvest in December due to rainfall/runoff, which resulted in a decrease in trips made in December, possibly explaining some reduction in harvest. The 2015-16 season started off with closures due to red tide, and harvest levels never recovered to average levels as compared to more recent years (figure 1).

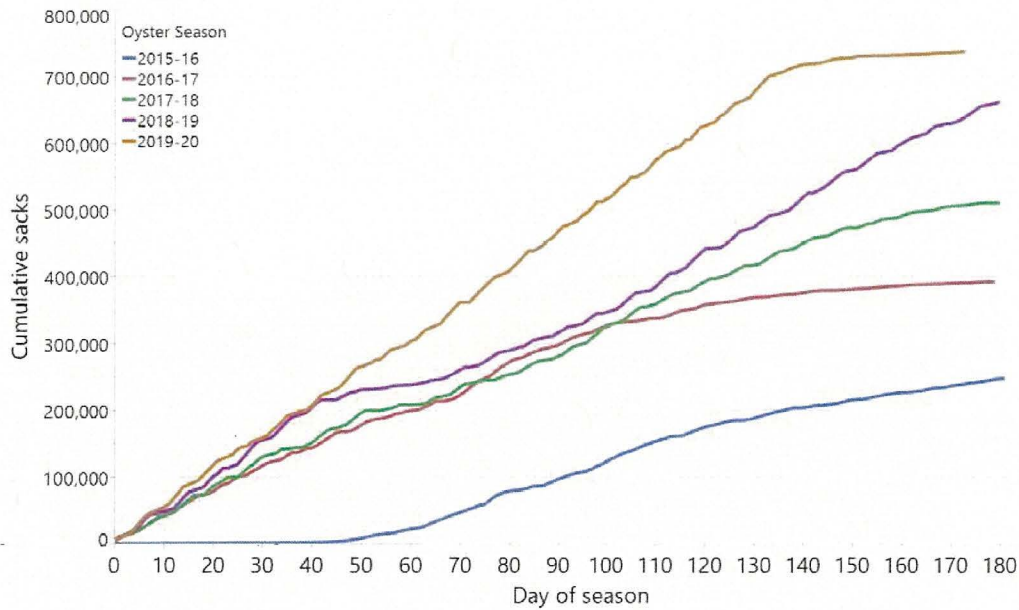


Figure 1. Cumulative number of sacks collected by the Texas oyster fishery during the last 5 years of the public season (Nov-Apr).

2. Activities Related to Artificial Reef Programs.

All travel and non-essential meetings and field work has been placed on hold due to COVID-19.

Rigs-to-Reefs

The Reef Program did not receive any donations to the program.

Date	Rig	Removal type	Donation	Jacket
NA – No Donations				

- The USACOE reef permit for Fieldwood Energy’s HI-A-520 was received. Fieldwood Energy has been the main donor for Texas Rigs-to-Reefs and in a recent call stated it is unlikely that they will be doing any reeving in Texas this year due to the COVID-19 slowdowns of work and the slow process of getting platforms decommissioned by the Bureau of Safety and Environmental Enforcement (BSEE).
- The deployment of three (3) deep-water spars¹ currently owned by Anadarko Oil and Gas is currently being considered for inclusion in the Rigs-to-Reefs program. An 80-acre location for these spars and future deployments has been identified in 450 ft water and Anadarko has completed a basic ROV survey to determine if this area is free of bottom hazards.
- The USACOE reef permit for HI-A-520 was received in APR. Fieldwood Energy has not moved forward with reeving of the 8-pile structure due to economic conditions.

¹ large cylinders that offshore platforms float on top of; about 450ft long x 100 in diameter

- Initial discussions about a new Rigs-to-Reefs project, HI-A-557A platform, began with Talus Petroleum (via Athena Consulting).

Ships-to-Reefs / Nearshore Reefs

- Friends of Rio Grande Valley Reef are proposing to reef clusters of railway ties around the Texas Clipper at no cost to TPWD. This would provide additional low-profile material to the site for enhancing the prey base for larger fishes such as red snapper. TPWD ARP will be renewing the reef permit for the work and UT-RGV will be following up with scientific studies/observations.
- The deployment of a steel-hulled sailboat has been coordinated with a Freeport public member who wants to donate the vessel to the nearshore program through the Public Reefing Program. It is being cleaned and readied for reefing at Kate's reef, off Galveston. A Houston public member will partially fund the efforts. The vessel has been inspected and will be deployed in September 2020. All work will be completed without any funding from TPWD. TPWD will assume liability for the vessel once it is properly reefed according to the agreement between TPWD and the public member.
- Two steel-hulled vessels are being cleaned and readied for reefing by the Friends of RGV Reef. They will be reefed within the Rio Grande Valley Nearshore Reef (PS-1105).

Nearshore Reefs

- Reefing has been completed for the MU-775 (Corpus Christi Nearshore Reef), using Hurricane Harvey Relief Funds. The work was completed by The Friends of Rio Grande Valley Reef (a 501-c3 group). The contract called for reefing 1,000 tons of concrete railway ties in 8 piles, but the group reached beyond that and added 1500 tons of material to the reef in 12 piles, keeping the contract under our \$750,000 budget. In addition, they added 800 additional tons to the reef under funding from CCA. So, in total, they added 2300 total tons of concrete to the reef for enhancing juvenile marine fish habitat.
 - Dr. Rick Kline (UT-RGV) conducted a sidescan survey of the railway tie deployment at MU-775 above for the final survey report. This completed one of three Hurricane Harvey Relief Fund projects.
- The Program is working with Saltwater Fisheries Enhancement Association (SEA) and the City of Corpus Christi to secure a 2-acre tract of property at the Port of Corpus Christi to store future reef materials. The US181 Harbor Bridge will be dismantled soon, and we hope to gain some of that material for offshore reef building.
- The Request for Proposals for 3 reefing projects was placed on bid by TPWD Contracting and closed 4 August. Funding is through the Hurricane Harvey Relief Funds (Kate's and Big Man's Reefs off Galveston) and CCA. Plans call for concrete pyramids and low-relief materials. Bid evaluations are currently ongoing. All work must be completed by 31 August 2021.
- A deployment of memorial balls has been coordinated between Eternal Reefs and TPWD ARP. The deployment is scheduled for September.
- A Memorandum of Agreement was drafted between TPWD and UT-RGV for conducting a side-scan survey of the entire PS-1105 Rio Grande Valley Nearshore Reef. Dr. Rick Kline will work with graduate students to complete the survey and provide hydrographic training to students. Training will also include the use of underwater scooters and the program's Outlander ROV.

Grants / Administration

- The GLO Coastal Coordination Advisory Committee and the Texas Coastal Management Program notified the ARP of a successful grant PRE-proposal for the construction and enhancement of artificial reefs in the Northern Gulf of Mexico. If the full proposal is accepted, the grant would create and deploy 100 pyramids and 100 low-relief reef plates.
- The GLO Asset Removal team and the ARP have been in communication to discuss the planned removal of the old Queen Isabella Causeway off Port Isabel/South Padre Island. The Coastal Management Program accepted the proposal and Phase 1 of the process has been approved. The next steps include an engineering study and deployment/reefing plan (\$170,000) to provide measurements and technical specifications of what remains of the Port Isabel side (~3500 linear ft). The GLO has ownership of the bridge and it must be removed at some point soon. Estimates show that it may require \$10-12m for removal (and reefing). Once the engineering study is complete, next steps would involve coordinating with the GLO for the complete removal of the old causeway and the deployment of it as reef material. Due to the high cost of the removal and deployment of the old causeway, Gulf of Mexico Energy Security Act (GoMESA) funds would be involved.

Resource Sampling / Harvest Monitoring Updates / Science

- The ARP has been working with Katie O'Shaughnessy (Science Policy Fellow - National Academy of Sciences; assigned to CF) to complete a summary report for the biological monitoring from 1990 – 2019. The report will be published as an internal TPWD Management Data Series. The draft manuscript has been submitted for internal review and editorial comments.

Equipment / Construction / Housekeeping Matters

- TPWD Contracting extended the ARP's current buoy maintenance contracts for 6 additional months to allow time for staff to draft a new Invitation for Bid (IFB). The upcoming FY end, rollover into CAPPs, and COVID-19 has slowed contracting progress. These buoy maintenance contracts are re-bid every 2-4 years.

Meetings / Outreach / Education Events

- The 2020 Florida Artificial Reef Summit (Melbourne, FL), originally scheduled for April, was delayed to November due to COVID-19. It was then converted to a virtual event, again due to COVID-19. The ARP intends to create a poster to share the preliminary results from the ARP and USGS biological, chemical, and physical monitoring. The ARP has had an ongoing interagency contract with the USGS since 2013 to study 4-5 reef sites in the High Island (HI) shelf area about 70 miles off Galveston.

- The ARP continues to participate in a Flower Garden Banks National Marine Sanctuary Special Advisory Committee as a non-voting representative. The last three meetings have moved from in-person to virtual.

3. Activities Associated with the Gulf of Mexico Crab Fisheries.

Abandoned Crab Trap Removal Program

The Texas Parks and Wildlife Department (TPWD) closed state waters to crabbing (with crab traps) from February 21 – March 1, 2020. During this time, crab traps encountered are classified as “abandoned” and may be removed by Law Enforcement personnel, Department staff, and any member of the general public. A grand total of 2,029 traps were removed. We documented 327 volunteers participating onboard 95 boats during the annual closure. Table 1. has the data broken down by major bay.

Table 1. Abandoned Crab Trap Removal Program Summary

ACTRP 2020 Results	Traps	Volunteers	Boats
Sabine Lake	5	0	1
Galveston Bay	366	162	24
Matagorda Bay	140	23	15
San Antonio Bay	1,249	107	41
Aransas Bay	243	34	12
Corpus Christi Bay	21	0	0
Upper Laguna Madre	2	0	0
Lower Laguna Madre	3	1	2
Totals	2,029	327	95

Blue Crab Updates

Coastwide declines in fishery independent surveys (bag seine and bay trawl) continued through 2019 (Figures 1-2). This trend was generally consistent in all Texas bay systems but was especially pronounced in central Texas coast bays and especially in bay trawl sampling gear. These declining fishery independent trends largely began in the mid-1990’s. While declining trends into the early 2000’s have slowed, relative abundance remains at low levels. Recent analyses of blue crab mortality using a length-based mortality estimator (Hoenig 1987) indicate that juvenile mortality (~15-40 mm) may be the factor inhibiting the recovery of the population. Correlations of juvenile mortality with abundance of common finfish predators may indicate predation as the primary cause here (Figure 3). Mortality (Z) of juveniles is related to abundance of cancrivorous finfish.

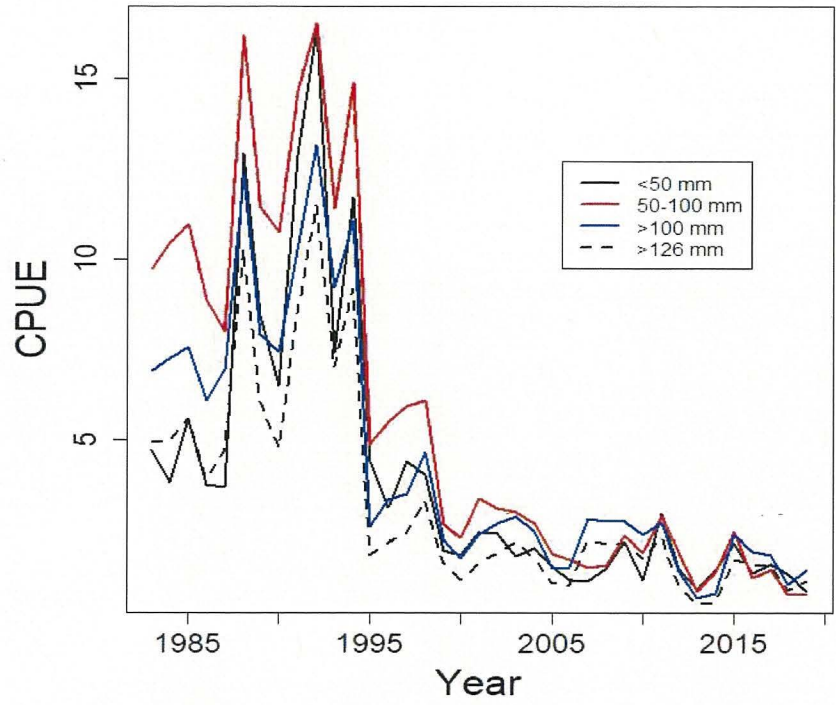


Figure 1. Fishery independent bay trawl catch rates of blue crabs in Texas.

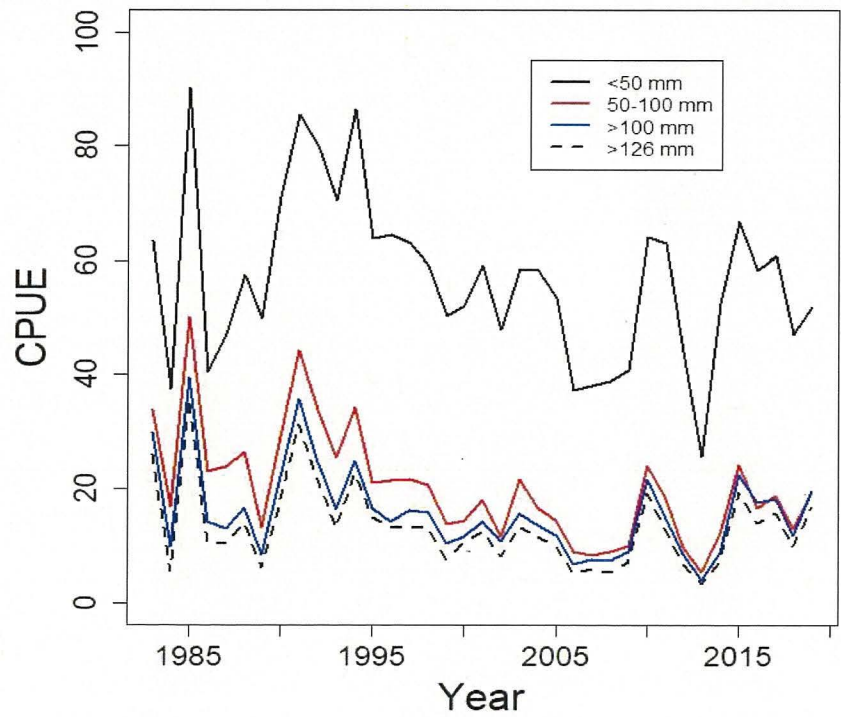


Figure 2. Fishery independent bag seine catch rates of blue crabs in Texas.

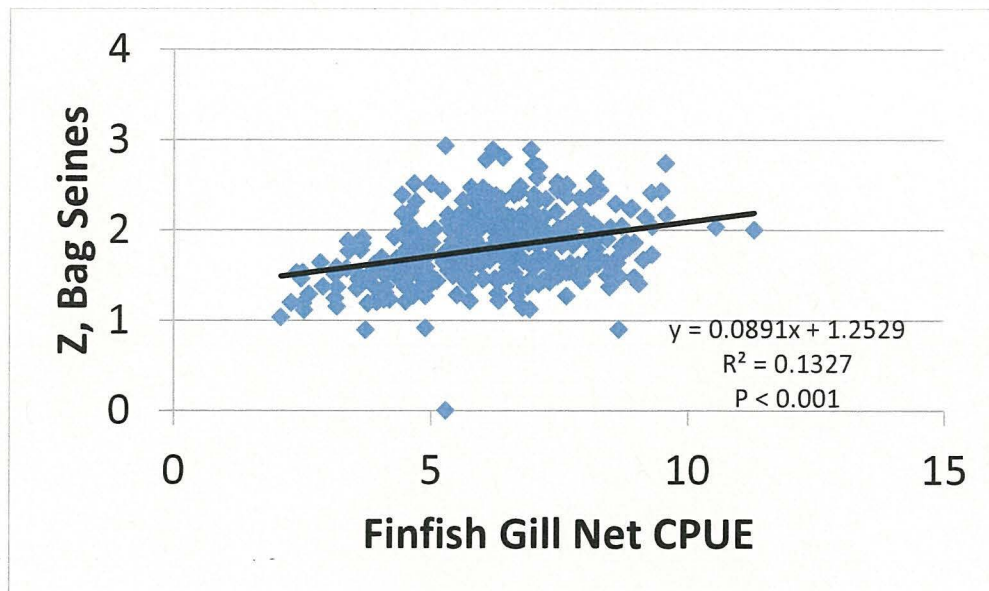


Figure 3. Blue crab mortality (Z) estimates vs. finfish abundance.

Commercial Landings

When adjusted for effort, landings of blue crab in Texas have been fairly consistent over the last five years (2015-2019, see Figure 4). However, in 2019 total landings of blue crab in Texas were 3,912,577 lbs which is about 31% lower than the 37-year annual average of 5,672,167 lbs (Figure 5). With reduced landings and high demand, value has shown an increasing trend since 2014. The value of total landings in Texas in 2019 was \$5,529,154 which is about 55% higher than the 37-year average of \$3,560,901 (Figure 5).

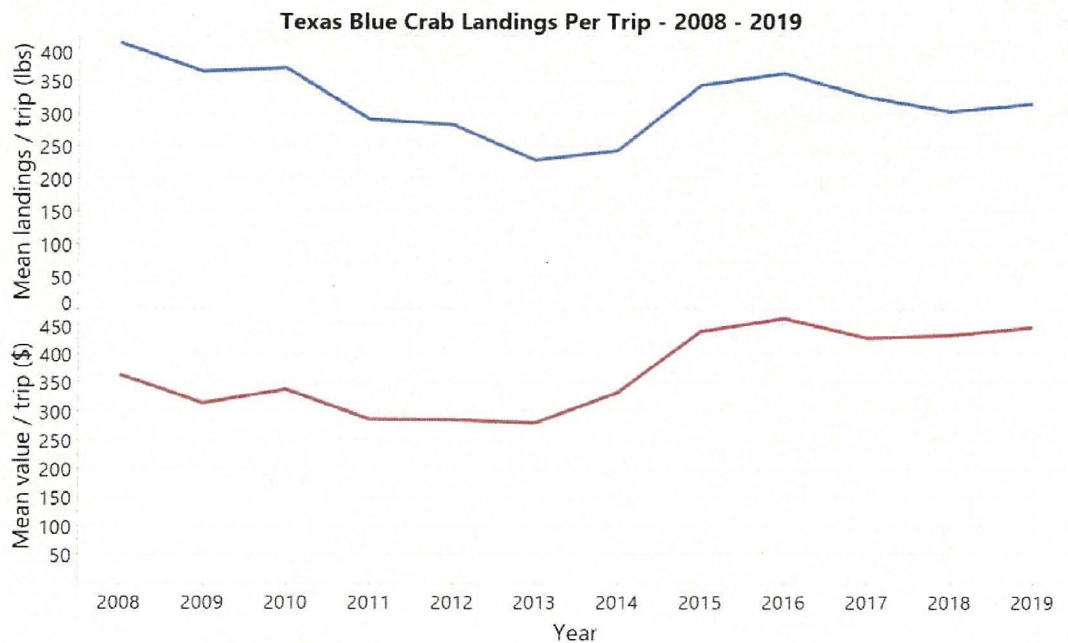


Figure 4. Mean Landings and value of blue crab per trip.

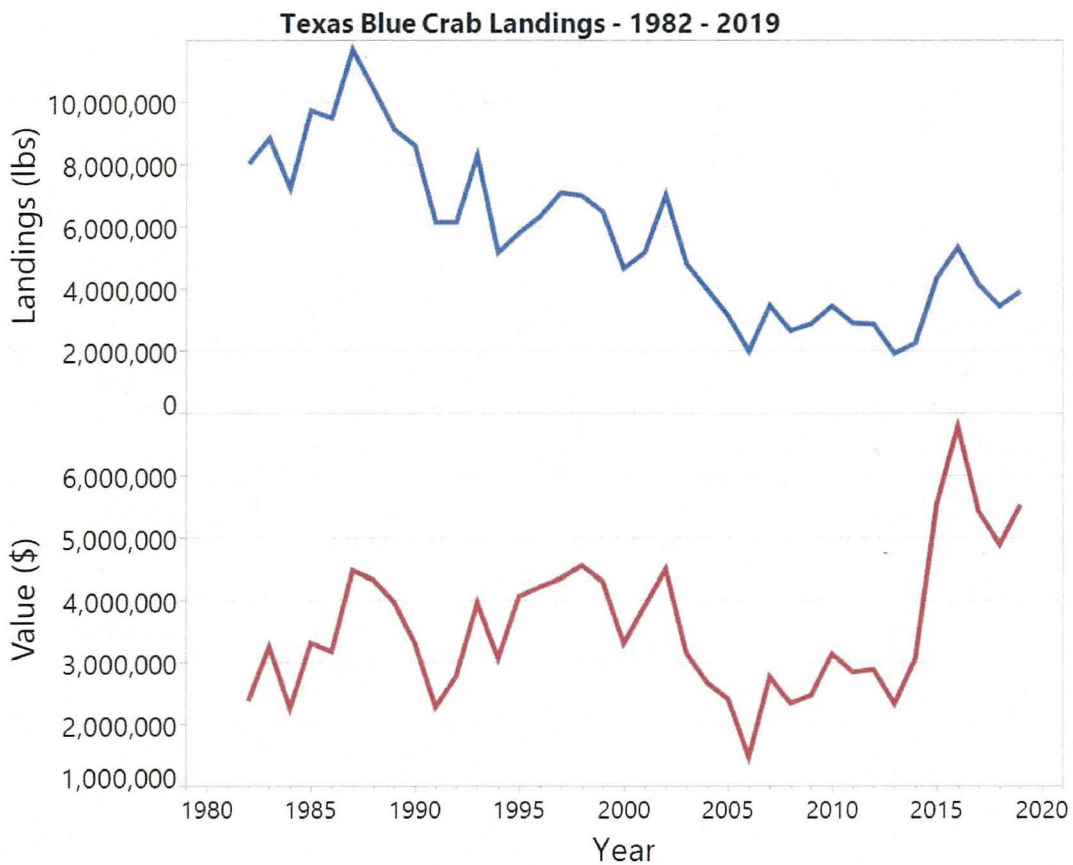


Figure 5. Total annual landings and value of blue crab in Texas.

Regulatory Proposals

There were no changes made to the commercial or recreational fishing regulations concerning blue crabs during FY 2020. The following regulation is being considered for modification in FY 2022:

The use of crab traps along a small section of shoreline in Aransas Bay, Aransas County has been prohibited since the 1980's. *"May not fish a crab trap... in the water area of Aransas Bay within one-half mile of a line from Hail Point on the Lamar Peninsula, then direct to the eastern end of Goose Island, then along the southern shore of Goose Island, then along the eastern shoreline of the Live Oak Peninsula past the town of Fulton, past Nine Mile Point, past the town of Rockport to a point at the east end of Talley Island including that part of Copano Bay within 1,000 feet of the causeway between Lamar Peninsula and Live Oak Peninsula."*

<https://tpwd.texas.gov/regulations/outdoor-annual/fishing/general-rules-regulations/legal-devices-for-fish/#crab-traps>

This regulation is being considered for modification as: 1) it has no significant biological impact to the crab fishery and 2) it unreasonably impacts property owners in this area.

4. Activities Related to Fisheries Dependent Data Collection.

Fishery-Dependent harvest data collection (creel surveys)

Due to COVID-19, TPWD made temporary changes to their creel sampling protocols. Our “low-use season” creel sampling is conducted from mid-November until mid-May. Creel surveys in April – May 14th were modified to not count/measure fish, and only recorded trips. On May 15th, we returned to full sampling protocols.

Fishery-dependent collection of otoliths for the Gulf States Biosampling program

We are collecting otoliths from multiple species in conjunction with the GSMFC biosampling program. Otoliths are being collected from recreational anglers and aged via independent contractors paid by GSMFC. To date, the following samples have been processed at our facility:

Table 4. Summary of otoliths collected from recreational species at boat ramps for Gulf States Biosampling program.

Common Name	Scientific Name	Processed	Requested
Gray Snapper	<i>Lutjanus griseus</i>	20	100
Vermillion Snapper	<i>Rhomboplites aurorubens</i>	26	200
Red Snapper	<i>Lutjanus campechanus</i>	106	400
Triggerfish	<i>Balistes capriscus</i>	0	50
King Mackerel	<i>Scomberomorus cavalla</i>	0	300
Sheepshead	<i>Archosargus probatocephalus</i>	100	100
Southern Flounder	<i>Paralichthys lethostigma</i>	144	200
Black Drum	<i>Pogonias cromis</i>	244	400
Red Drum	<i>Sciaenops ocellatus</i>	279	800
Spotted Seatrout	<i>Cynoscion nebulosus</i>	946	1700

5. Activities Related to Fisheries-Independent Sampling.

SEAMAP

Vertical line (VL)

2020 Vertical longline operations were cancelled due to COVID. Staffing RVs to levels needed to conduct sampling was not possible due to distancing restrictions. We attempted to reach out to several groups to contract the work out but were unsuccessful. Operations are planned to begin again during 2021.

Bottom longline (BLL)

2020 Bottom longline operations were cancelled due to COVID. Staffing RVs to levels needed to conduct sampling was not possible due to distancing restrictions. We were able to acquire a longline winch for the field lab vessel in stat zone 21, so once sampling is able to commence, we can expand sampling into south Texas areas.

6. Other State Activities.

License Buyback Program

Shrimp

Buyback Round 38

- Application period closed January 17, 2020 (Open approximately 60 days)
- 20 applications received
- Currently reviewing bids
- Purchased a total of 7 (4 bay and 3 bait)
- Total purchase price was \$64,500
- Avg. purchase price was \$9,214

Finfish

Buyback Round 26

- Application period closed January 17, 2020 (Open approximately 60 days)
- 2 applications received
- Currently reviewing bids
- No bids accepted – independent sales as high as \$25K

Crab

Buyback Round 23

- Application period closed January 17, 2020 (Open approximately 60 days)
- No applications received

Oyster

Buyback Round 3

- Application period closed January 17, 2020 (Open approximately 60 days)
- 2 applications received
- Currently reviewing bids
- Purchased a total of 1 license
- Total purchase price was \$12,000

Fisheries Enhancement Program (Hatcheries)

FY 2020 Water Body	Red Drum Fingerlings stocked	Spotted Seatrout Fingerlings stocked	Southern Flounder Fingerlings stocked
Aransas	2,412,477	54,766	22,377
Corpus Christi	729,711		
East Matagorda	1,993,739	2,329,842	
Galveston	6,786,757	55,635	2,958
Lower Laguna Madre	2,916,008	531,064	
Sabine Lake	1,923,992		
San Antonio	554,991	15,000	
West Matagorda	2,589,604	1,607	
Upper Laguna Madre	2,561,227		

Freshwater

Calaveras	693,291		
Kleberg Park	2,879		
Lake Bryan	171,933		
Victor Brauning	352,036		
Total	23,688,645	2,987,914	25,335

Perry R. Bass Marine Fisheries Research Station Updates

1. PRB Projects

Sciaenidae otolith collection

All *Sciaenops ocellatus* and *Cynoscion nebulosus* 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 (*Cynoscion nebulosus*) 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 used to assess drivers of growth and mortality. Currently, work is ongoing on a publication dealing with spotted seatrout age and body growth over a near 30-year span. Spotted seatrout otolith collections were discontinued due to COVID-19, and these collections are unlikely to resume in the near future. Similarly, we are evaluating whether to continue with red drum collections next year.

Eastern oyster (*Crassostrea virginica*) population genomics

This project consists of sampling oysters throughout the Gulf and using high-throughput “next generation” approaches for generating a high resolution SNP genomic data set. This will allow us to assess patterns of migration and gene flow (stock structure) as well as potential genetic loci under localized natural selection. To date, we have received samples from Florida ($n = 3$), Louisiana ($n = 2$), Alabama ($n = 1$) and Texas ($n = 11$), and sampling has been completed. Genomic sequencing has begun, and preliminary bioinformatics have been completed. Sequencing and bioinformatics are being supported by the Marine Genomics lab at Texas A&M Corpus Christi. We anticipate all lab work will be completed and final data analysis will begin this year. We conducted a side project using these oyster samples, examining morphological (shell shape) differences among oysters at the sample and regional scale. This analysis yielded interesting results that validate previous analyses of population structure based on genetics, and the findings have been written and submitted to a journal.

Black Drum (*Pogonias cromis*) high-resolution population genomics

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, mtDNA and discriminant analysis of principle components (DAPC) to demonstrate weak but significant genetic divergence between Baffin Bay and other Texas bays. Samples were selected for a high-resolution genomic library, and these samples have now been sequenced using the reduced-representation “ddRAD” method. Analysis of sequence data is complete, and two papers have been submitted to a journal detailing the findings. Our preliminary findings indicate weak but significant population structure of this species in Texas, and imply at least three regional populations of black drum in the western Gulf.

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

We measured the presence and prevalence of white spot syndrome virus (WSSV) in brown and white shrimp from Texas. We collaborated 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 identified and utilized an appropriate PCR-based laboratory assay for detecting WSSV in Texas shrimp. Sampling has been completed for this study, data is analyzed, and manuscript preparation is under way. We do not intend to collect additional samples for this project.

Detection of shrimp black gill disease in wild Gulf shrimp

We are continuing work on a study on the presence and prevalence of shrimp black gill (sBG) in white (*Litopenaeus setiferus*) and brown (*Farfantepenaeus aztecus*) shrimp in Texas. We have identified the pathogen that seems to drive this condition in Texas, using DNA sequencing technology. In 2019, $n = 1,605$ shrimp (white and brown combined) were sampled and sBG detection was conducted using a PCR test coupled with lab examination/diagnosis. Seasonal patterns in prevalence were identified, as was linkage between prevalence, temperature, and salinity. A paper detailing these findings has been submitted to a journal. We are continuing and expanding our sampling effort for this project. In an effort to assess impacts to Gulf commercial shrimping, we have partnered with Texas Agrilife Sea Grant extension and the offshore shrimp trawl fishing community to expand sampling offshore and link it directly to the industry.

Observation of growth in two sizes of post-release red drum *Sciaenops ocellatus*

We are cooperating with the TPWD stock enhancement branch to determine whether there are differences in growth and body condition between stock enhancement red drum that are above versus below the size targeted at the time of harvest (35 mm). Samples of fish were collected at harvest, and individuals were fit with coded wire tags and released into wet lab tanks. Three trials have been completed (May, August, November 2020) and data analysis is ongoing. Preliminary results suggest that fish below target have a higher mortality rate post-harvest, and there are also differences in daily growth between individuals above and below harvest targets.

Determination of hatching dates in wild southern flounder (*Paralichthys lethostigma*)

Young-of-the-year southern flounder are being collected during fishery independent sampling (TPWD). Otoliths are being extracted from all individuals and daily increment rings are being used to determine hatching dates for southern flounder. Hatching dates will be related back to environmental (water quality) conditions to render understanding of spawning and hatching conditions for southern flounder. In preliminary observations, it appears that daily rings are present and countable. We have also observed accessory growth centers that might be associated with metamorphosis. This year we included a collaborative component to this project with the TPWD stock enhancement program, and we are expecting to receive $n = 30$ YOY flounder spawned in captivity, with known birth dates. Hatchery-reared flounder will be used to validate growth rings and accessory growth centers, and growth and timing of metamorphosis will be compared between wild and hatchery fish.

Taxonomic uncertainty in ladyfish (*Elops saurus* versus *E. smithi*) in the western Gulf of Mexico

Research conducted in the last decade described a new species of ladyfish, *Elops smithi*, which occurs in sympatry with *E. saurus* in the Gulf of Mexico. It is unknown with what regularity this species occurs in Texas waters. Preliminary observations based on DNA sequencing (in our lab) of ladyfish previously collected in Texas suggest that both species are present. We are in the process of collecting additional

specimens *via* TPWD fishery independent sampling, paired with occasional angling. Morphological characters which diagnose each species are being counted and paired with mtDNA sequencing to take census of these species in Texas' waters. Additionally, if both species are present with regularity, we intend to construct a reduced-representation genomic library in an effort to identify historical admixture or contemporaneous hybridization between species. Expansion of this project to include other Gulf states will be considered, and coordination of this effort *via* GSMFC would be beneficial. These data will be used to clarify the taxonomy of *Elops sp.* in Texas' marine waters and improve our breadth of knowledge of Texas' marine biodiversity.

2. Collaborative projects

Range-wide population genetic structure of alligator gar (*Atractosteus spatula*)

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 of Mexico basin. Sampling has been completed, and all genetic data has been collected and organized. Analysis of both data sets is nearing completion (mtDNA, Texas Parks and Wildlife; genomic microsatellites, University of Mississippi) and we are moving towards writing a manuscript detailing this effort and its findings.

Age and growth of snook species in Texas' estuaries

In collaboration with biologists from our upper and lower Laguna Madre field stations, we are using otoliths to examine the age structure of common and fat snook (*Centropomus undecimalis* and *C. mexicanus*, respectively) in Texas estuaries. TPWD field biologists are using internal structures of fishes caught in fishery independent sampling to examine sex ratios and fecundity in adult snook species. We are supporting this work by aging snook previously captured in TPWD sampling gear, using thin-sectioning and microscopy of saggital otoliths. Otolith collections are ongoing in the Laguna Madre, but approximately 150 previously collected samples have also been cut and aged to expand the scope of this work.

Taxonomic uncertainty of *Menidia sp.* in Aransas and Galveston Bays

We are supporting the work of Dr. James Derek Hogan who is conducting targeted sampling for a rare all-female silverside species, *Menidia clarkhubbsi*. Dr. Hogan's group is looking for morphological characters that might distinguish this species from other species of *Menidia*, and pairing his analysis with genomic sequencing in an effort to compare genomic loci among *M. clarkhubbsi* and the more common species *M. peninsulae* and *M. beryllina*. We are principally supporting Dr. Hogan's work with sampling effort, but J. Anderson (TPWD) is listed as a cooperator on this work, which is funded *via* a state wildlife grant (TPWD-SWG).