Tab D, No. 8

Shrimp Advisory Panel Summary
Webinar Meeting
March 23, 2021
8:30am – 5:00pm

Members Present:
Corky Perret, Chair
Steve Bosarge, Vice-Chair
Thu Bui
Kim Chauvin
Glenn Delaney
Gary Graham
Andrea Hance
Harris Lasseigne
Lance Nacio
Franklin Parker
John Williams

Council Staff:
Matt Freeman
John Froeschke
Karen Hoak
Lisa Hollensead
Jessica Matos
Natasha Mendez-Ferrer
Bernadine Roy
Charlotte Schiaffo
Camilla Shireman
Carrie Simmons

NMFS Staff:
Heather Blough
Michael Barnette
Jessica Beck-Stimpert
Eric Buck
Lindsey Feldman
David Gloeckner
Julia Goss
Frank Helies
Michael Jepson
Jennifer Leo
Mara Levy
Christopher Liese
Alan Lowther
Rich Malinowski
Michelle Masi
Jack McGovern
Amy Piko
Jeff Pulver
James Reinhardt
Andrew Richard
Ken Riley
Elizabeth Scott-Denton
Joe Shields
Kelly Spalding
Maria Starr
Andy Strelcheck
Michael Travis
John Walter
Jo Williams
Sara Wissmann
Peter Hood

Council Members:
Leann Bosarge
Dale Diaz

The Shrimp Advisory Panel met on March 23, 2021 via webinar. The agenda was adopted, as modified with the addition of one Other Business item: South Atlantic Operator Cards. The minutes from the November 16, 2020, meeting were approved.

Council Actions in Response to Motions from the November 2020 Shrimp AP Meeting

Dr. Freeman presented on the three motions from the November 2020 Shrimp AP meeting and the corresponding Council actions taken in response to those motions.

Update on NMFS Shrimp Working Groups

Dr. Masi provided an update on the five shrimp working groups (shrimp fishery effort estimation; SEAMAP shrimp indices; shrimp life history and environmental data; shrimp catch estimation). The shrimp fishery effort estimation working group is on hold until establishment of a new effort data collection program. The SEAMAP shrimp indices working group has concluded, and a report is being drafted on the outcomes from these meetings. Dr. Masi reviewed the four objectives of that working group and the progress accomplished. Dr. Masi then discussed the shrimp life history and environmental data working group's objectives and current progress. Updating life history parameters is still underway, and Dr. Masi reviewed the work being conducted. The shrimp catch estimation working group has concluded, and a final report is available for review. Dr. Masi reviewed the four objectives of that working group and the progress accomplished. Lastly, Dr. Masi reviewed the shrimp bycatch estimation working group's progress on its two objectives.

An AP member commented that previous stock assessments appeared to be heavily fishery-dependent based (CPUE-based) and inquired if that would still be the case with future models. Dr. Masi responded that, in most stock assessments, don't usually rely on the fishery CPUE data is usually only relied on if there is no other data available; this is because there can be a decrease in effort without a corresponding decrease in abundance. One of the working groups examined if SEAMAP would be a useful index for stock assessment models.

An AP member asked about the current level of observer coverage of the shrimp fleet used to generate bycatch estimates. Dr. Masi responded that she thinks it is about 2% of the fishery, in terms of days fished. Dr. Scott-Denton confirmed that percentage, while noting that the percentage had decreased slightly in 2020 due to coronavirus and safety protocols.

Another AP member inquired how, for brown shrimp primarily, environmental factors like water temperature and/or Mississippi River or other river discharges could be used to predict an annual crop a year in advance through empirical dynamic modeling (EDM). Dr. Masi replied that weather prediction models could be incorporated for rainfall, for instance, in EDM in the future, and rainfall and salinity should be correlated.

Council member Bosarge commented that, as one working group finishes, it may be useful for that group to have a presentation to the other working groups.

2019 Gulf Shrimp Fishery Effort and Landings

Dr. Masi reviewed the Gulf shrimp fishery effort and landings from 2019. She noted that the 2019 information is based on cELB data that was transmitted to NOAA. While Louisiana, Texas, and an area around the Dry Tortugas showed high levels of fishing effort in 2019, total offshore shrimp landings decreased in 2019 from the previous year and were at the lowest level in the 1981-2019 time series. All managed shrimp species are included within the total offshore shrimp landings and effort in the figures shown to the AP. While a slight decline was shown in the 2019 CPUE, it is consistent with inter-annual fluctuations observed over the past 15 years. The target reduction goal for shrimp effort threshold is 60% below the baseline effort in the years 2001-2003; 2019 had a 76.09% reduction, which not only meets but exceeds the 60% required reduction threshold.

An AP member asked how many active shrimp permits are in the Gulf. Dr. Travis (SERO) stated that there are 1,382 permits that are valid or renewable as of March 23, 2021, and that there were just over 1,000 active permits in 2018 and in 2019. Another AP member commented that a proxy for incidental take of sea turtle is the 2009 total effort cap of 132,900 days. Dr. Masi responded that the total effort (as 24-hour days fished, for inshore and offshore fishery) was 86,067 in 2019; she did note that a minor modification to that number would be needed to adjust for skimmer trawls.

2019 Royal Red Shrimp Index

Dr. Masi presented the 2019 Royal red shrimp index, with landings from 1994-2019. The Annual Catch Limit (ACL) was established in 2011 at 337,000 lbs of tails and is based on 1994 landings. In 2019, roughly 118,000 pounds of tails were landed, the lowest level of landings for the 1994-2019 time period. An AP member asked if there was a corresponding reduction in effort to the 2019 level of landings. Dr. Masi replied that there was not a way to examine that at this time, but she would inquire if that information could be obtained. An AP member inquired as to how many Royal red shrimp permits exist. Dr. Masi replied that there were 289 Royal red endorsements in 2015, but she does not have more recent data. An AP member requested that future presentations show the number of valid and renewable permits and number of active permits over time. Dr. Masi stated that she could begin incorporating that information. An AP member inquired as to what percent, if any, of Royal red landings occurring in the South Atlantic are actually caught in the Gulf. The Science Center will provide that information at a later date.

> **Motion: To request from the Science Center information on years 2000-current, white/brown/pink/royal red species, and number of active, and number of valid and renewable permits in the Gulf of Mexico.**
>
> **Motion carried unanimously.**

Biological Review of the Texas Closure

Dr. Masi presented a biological review of the Texas Closure. She noted that the Original Shrimp Fishery Management Plan was implemented in 1981 with one of the goals being to increase the yield of brown shrimp harvested from offshore Texas waters. She also noted that, historically, the closure has been from mid-May to mid-July; since 1990, the near-shore (less than 4 fathoms) area has also been closed in conjunction with the Texas closure.

Since the 1980s, there has been an overall decline in July for offshore Texas brown shrimp landings, which corresponds to the Texas Closure. Since the mid-1990s, there has been an increase in August landings overall, which corresponds with the initiation of the near-shore closure. For May-August 2020, catches are lowest in May and June, with the highest catches in August. The lowest amount of August catch is in the smallest market size category (>67 count), suggesting that the Texas Closure is successful in allowing for shrimp to grow to larger sizes.

Dr. Masi next reviewed the annual percentage of Texas total shrimp landings from 1981-2020 by region (upper, middle, and lower). Proportional to 2019, the upper and lower regions had a decrease in the percentage of total shrimp landings, while the middle region had an increase.

Offshore Texas white shrimp catch for both July and August 2020 was highest in the 15-20 count. The distribution shifts to the larger size count categories in August, compared to July, showing the impacts of the Texas closure allowing the shrimp to reach larger sizes.

An AP member asked about the geographic splits for the lower, middle, and upper portions of Texas. Dr. Masi responded that AP members could locate that information in the Texas closure report.

An AP member commented that, recently, a number of vessels in Texas have remained tied at the docks during peak season due to the inability to find crew.

> **Motion: To request NMFS to continue with the Texas Federal Closure in the coming year in conjunction with the states of Texas Closure in 2021.**
>
> **Motion carried unanimously.**

Update on Effort Data Collection

Status of 3G cELBs

Dr. Gloeckner presented on the shrimp cellular electronic logbook (cELB) interim data collection process. The cELB units ceased transmitting on December 31, 2020; however, the Stennis unit shut down the machine receiving the data on December 7, 2020. The units are still collecting data, just not transmitting. The data will be manually retrieved from the units in 2021. Dr. Gloeckner reviewed the timeline and steps for manual collection of the data. This entails the

Science Center sending new SanDisk cards in self-addressed envelopes to shrimp permit holders with instructions for changing out the old SanDisk card with the new one.

An AP member asked if the letters would be multilingual. Dr. Gloeckner replied that the letters would be multilingual. An AP member asked why the SanDisk cards with data would be mailed to the Galveston Lab, if the data is then sent to the Miami Center and to the Gulf States Marine Fisheries Commission (GSMFC). Dr. Gloeckner responded that a stamped pre-addressed letter can not be provided to fishers for the GSMFC, hence why it has to be mailed to the Galveston Lab first. The SanDisk cards cannot be downloaded onto machines at the Galveston Lab for security reasons, but they can be downloaded with the GSMFC's facilities and then data retrieved by NMFS. Another AP member noted that the time to return the cards needs to account for the fact that some shrimpers are on trips for 30-45 days, particularly around the time in May-June when the Science Center was planning to send and receive the SanDisk Cards from permit holders. Dr. Gloeckner commented that shrimpers would be allowed enough time to return those cards.

Council member Bosarge asked how mailed data cards would be used for permit renewal. Dr. Gloeckner responded that they would work in conjunction with the permitting office, and if cards had not been returned by the following year, only then would permit renewal be an issue. Council member Bosarge suggested this process may need to be further discussed and fleshed out at the Council level.

Pilot Program Using P-Sea WindPlot

Dr. Gallaway provided an overview of the transmittal issue with the current cELBs and the industry-led solution for monitoring shrimping effort through use of P-Sea WindPlot, which would record the same information as the existing cELB program (location data at 10-minute intervals). Collected location data could be run through the effort calculation programs with catch data simultaneously paired. Two proposal alternatives were discussed, which would be potential next steps for the project.

An AP member asked if it would be possible to use existing wifi at docks or existing hotspots, so that additional costs would not be incurred. Dr. Gallaway responded that it does appear that existing wifi and hotspots could be utilized, they just have not had the opportunity to test this concept.

An AP member asked how many vessels are involved in the pilot. Dr. Gallaway responded that three vessels are actively involved currently and are located the in Palacios area.

An AP member asked if ethnic shrimpers are being involved at this stage. Dr. Gallaway responded that those shrimpers have not been engaged in the pilot testing, but he is aware that they will need to be engaged in the testing as the pilot proceeds.

Dr. Gloeckner commented that having the dealers send the data could possibly be an interim process but would require rulemaking and dealer permits if permanent. An AP member

commented that dealers may also be concerned about computer viruses and may not be amenable to transmitting data on behalf of shrimpers.

An AP member commented that there would a tremendous cost-savings opportunity by using P-Sea WindPlot compared to installation of new technology. Another AP member confirmed that P-Sea WindPlot is present on a vast majority of the fleet, that shrimpers are already familiar with the software, which saves time, and that P-Sea WindPlot also provides locations of underwater obstructions. An AP member stated that effort data transmittal should be the responsibility of shrimpers, not dealers.

Alternative Options for Consideration

Dr. Gloeckner discussed the key characteristics of the cELB system that need to be carried over to a new effort data collection program. He then noted regulations that must be considered, including the definitions of a Vessel Monitoring System (VMS) and Enhanced Mobile Transceiver Unit, Cellular Based (EMTU-C). He also reviewed the list for type approval and then covered the reimbursement process for a NOAA Office of Law Enforcement (OLE) Type-Approval VMS unit. Dr. Gloeckner's presentation provided some important definitions and national regulations from 50 CFR part 600 subpart Q that were published on August 7, 2020, regarding Vessel Monitoring System (VMS) and cellular based transmission requirements. Specifically, an EMTU-C only needs to be capable of transmission two-ways when in the range of a cellular network (MTUs (one-way transmission) are no longer approved for new installations on VMS vessels) (§600.1502(a)(6)).[1]

Dr. Scott-Denton presented briefly on a proposed RESTORE pilot project, which would implement an Automatic Identification System (AIS) to better understand nearshore/inshore fishing effort in the shrimp fishery to reduce sea turtle bycatch, and noted that AIS uses transponders on vessels to collect information such as speed and course at regular intervals. This was discussed a potential alternative for data collection for the current cELBs.

Dr. Simmons asked what type of information is transmitted to fishermen via VMS under the current system. Dr. Spalding (VMS Program Manager within NMFS OLE) stated that, for one example, an automatic communication may go out if an electronic form is not properly transmitted by a vessel, to notify the vessel.

Dr. Walter (NMFS) commented that other factors, such as cost-effectiveness and ease of use, need to be considered in fleet-wide coverage.

An AP member asked the purpose of NMFS having two-way communication. Dr. Spalding stated that there is a national specification for two-way communication, but if a particular fishery does not need to receive communication and only needs to transmit, that is fine.

[1] https://www.federalregister.gov/documents/2020/07/08/2020-14600/vessel-monitoring-systems-requirements-for-type-approval-of-cellular-transceiver-units

Council member Bosarge commented that two-way communication and tracking is necessary for enforcement of fisheries with quota monitoring, hail-in/hail-out requirements, etc. whereas, for the shrimp industry, tracking is for scientific data.

Several AP members expressed frustration at the requirement for two-way communication on devices and not hearing about this requirement prior to industry support of Dr. Gallaway's pilot program.

> **Motion: The Shrimp AP requests the Council to contribute $350,000 of its unexpended FY 2020 funds to the cost of LGL Ecological Research Associates' proposed Phase II-B project to develop software that will automatically transmit ELB data obtained from P-Sea WindPlot to a designated server.**
>
> **Motion carried unanimously.**

Dr. Simmons noted that if the Council decided to pursue this project, it could not provide sole source funding to one entity over $99,000. Instead it would need to be a competitive process with a call for proposals, review, and selection process.

> **Motion: Request that the Council write a letter to NOAA OLE notifying them that the Gulf of Mexico shrimp industry should be exempted from the final rule documenting VMS requirements that published on August 7, 2020. These requirements specified the enhanced mobile transceiver unit, cellular based (EMTU-C) be capable of transmission and reception (2-way); which is an undue and unnecessary regulatory requirement, since the shrimp industry only needs one-way transmission of effort data.**
>
> **Motion carried unanimously.**

> **Motion: Request that the Council and NMFS work closely and in a timely fashion with LGL Research Associates to ensure the P-Sea WindPlot pilot program is compliant with the current NMFS minimum requirements for data collection and transmission for the Gulf of Mexico shrimp fishery.**
>
> **Motion carried unanimously.**

Aquaculture Opportunity Areas in the Gulf of Mexico

Dr. Beck-Stimpert discussed the request for information related to Aquaculture Opportunity Areas (AOAs) and comments received from the Southern Shrimp Alliance. Dr. Riley discussed the Executive Order on Promoting American Seafood Competitiveness and Economic Growth, specifically Section 7: Aquaculture Opportunity Areas. He also explained the timeline from

August 2020 through May 2021 and the spatial planning workflow. An Atlas of Potential AOAs will be developed.

An AP member inquired when the Atlas would be available to the public. Dr. Riley stated that it should be published in August or September 2021. For additional information, he commented that his team had met with the Coastal Zone Management Act directors. An AP member asked if there would be consistent rules for aquaculture based on which Army Corps region they were located in. Ms. Damico (Army Corps, Jacksonville District) stated that their authorities were the same under Section 10, and so there should not be differences.

Council member Bosarge asked if all tow points are being considered at 10-minute intervals and how many tow points are being used. Dr. Riley stated that he did not have that information on-hand but could provide it later.

> **Motion: The Shrimp AP requests the Council in its consultations with the Secretary of Commerce to take into consideration the comments submitted by the Southern Shrimp Alliance to the NOAA Office of Aquaculture on December 21, 2020, regarding the Request for Information on identifying Aquaculture Opportunity Areas in the Gulf of Mexico.**
>
> **Motion carried unanimously.**

Recommendations for Conducting a Kemp's Ridley Sea Turtle Stock Assessment

Dr. Putman discussed recommendations for conducting a Kemp's ridley sea turtle stock assessment. He noted that the nesting is primarily in the western Gulf of Mexico. He posed the question of whether the Deepwater Horizon oil spill, shrimping, or density dependence caused the drop in Kemp's ridley stock in 2010. He then discussed relevant papers to rule out the Deepwater Horizon oil spill and shrimping, leaving density dependence as one potential explanatory factor. Next, he showed the migratory pattern and posed the question of whether different stages of that pattern (foraging conditions, recruitment, or hatchling production) could explain future nesting.

> **Motion: The Shrimp AP requests the Council to support the conduct of a new stock assessment of the Kemp's Ridley sea turtle population according to the modelling approach presented to the AP by LGL Ecological Research Associates, and for the Council to communicate that support to NOAA.**
>
> **Motion carried unanimously.**

Research Projects to Improve Bycatch Estimates in the Shrimp Industry

Dr. Scott-Denton discussed the U.S. Gulf of Mexico and South Atlantic penaeid and rock shrimp fisheries observer program. She noted that annual coverage has been approximately <1% to 2% of total shrimp effort. She provided information on a LGL project to resolve barriers to sustainable fisheries certification for the Gulf of Mexico federal shrimp trawl fishery. She then discussed a separate project to expand the use and improve the utility of electronic monitoring data in the Gulf of Mexico shrimp trawl fishery.

Public Testimony

Due to timing of agenda items, public testimony was moved before the agenda item Research Projects to Improve Bycatch Estimates in the Shrimp Industry. No members of the public provided testimony.

Other Business

Dr. Freeman discussed the timeline for Shrimp AP recruitment, with final selection of AP members to be made at the June 2021 Council meeting. Dr. Freeman then notified the AP that the Southeast Region Permit Office would no longer be issuing an operator permit on a plastic card, but instead on paper, for rock shrimp in the South Atlantic; an option to be emailed an operator permit, which can be printed, is also available.

An AP member noted that, by April 30, NMFS has to complete its actions to comply with the federal court's remand regarding the Oceana lawsuit regarding the shrimp fishery, particularly with respect to sea turtle bycatch. Another AP member requested that Council staff keep the AP informed on developments related to that.

The AP meeting adjourned at 5:25 pm eastern time.