Standing, Reef Fish, Shrimp, and Socioeconomic SSC Meeting Summary March 11, 2020

The webinar meeting of the Standing, Reef Fish, Shrimp, and Socioeconomic Scientific and Statistical Committees (SSC) was convened at 9:00 a.m. on March 11, 2020. The agenda for this webinar, the meeting summary, and verbatim minutes from the January 9, 2020, meeting were approved. Verbatim minutes from past SSC meetings can be reviewed here.

Dr. Sean Powers agreed to serve as the SSC representative at the March 30 – April 2, 2020, Gulf of Mexico (Gulf) Fishery Management Council (Council) meeting in Gulf Shores, Alabama. However, this meeting was recently cancelled, and this report will be presented at the next Council meeting currently scheduled for June 2020.

Review of Gulf of Mexico Shrimp Species

Presentation on Brown, Pink, and White Shrimp

Dr. Michelle Masi presented the SSC with the stock status reports for brown, pink, and white shrimp. Dr. Masi began her presentation by addressing a question from the March 2019 SSC meeting as to why the white shrimp spawning stock biomass (SSB) is an order of magnitude greater than the brown shrimp SSB. She commented that, because pink and white shrimp are incorporated as a monthly input, unlike brown shrimp, this affects the SSB values for pink and white shrimp. She noted that, in recent years, landings of brown shrimp were fairly stable and that, since 2004/2005, the catch per unit effort (CPUE) for brown shrimp had increased for several years before declining in more recent years. For pink shrimp, landings have recently increased to levels observed in the mid-1990s. For brown shrimp, landings had increased since the 1980s and 1990s, but landings in 2018 had shown a decrease compared to other recent years. From 2004 – 2013, the CPUE for white shrimp had increased, but decreased in more recent years.

The SSC inquired as to environmental uncertainty being incorporated into the models. Dr. Masi responded that, since the models are Gulf-wide, unless the models become region-specific, such as an east and west model, it is difficult to capture regional environmental uncertainty in the current models. The SSC suggested getting a presentation from the socioeconomic staff from the Southeast Fisheries Science Center (SEFSC) to assist them in better understanding the Gulf shrimp industry, beyond stock assessments.

2018 + Preliminary 2019 Gulf Shrimp Fishery Effort and Landings

Dr. Masi presented the SSC with information on Gulf shrimp fishery effort and landings. She noted that while landings have remained relatively stable over the timeframe displayed, effort has decreased since 2004. For 2018, the shrimp industry met the target reduction goal for the shrimp effort threshold.

Preliminary 2019 Royal Red Index

Dr. Masi presented the 2018 and preliminary 2019 royal red shrimp index. The Gulf shrimp industry's landings are below the ACL set in Shrimp Amendment 16.

Scope of Work –Gulf of Mexico Yellowedge Grouper Operational Assessment

Staff reviewed the scope of work for the upcoming 2022 operational assessment of yellowedge grouper, which was last assessed in 2011 using data through 2009. The Fishing Effort Survey (FES) adjusted Marine Recreational Information Program (MRIP) recreational catch and effort data will be considered for this assessment, along with any data to infer the effect of the red tide events in 2005, 2014, and 2018. The SSC asked that the SEFSC detail the changes in catch advice resulting from the use of the FES-adjusted MRIP data versus from the change in stock abundance. The SSC also asked that the SEFSC calculate optimum yield (OY) based on how it has been defined by the Council.

Scope of Work –Gulf of Mexico Migratory Group Spanish Mackerel Operational Assessment

Staff reviewed the scope of work for the upcoming 2022 operational assessment of Gulf migratory group Spanish mackerel, which was last assessed in 2013 using data through 2011. The FES adjusted MRIP recreational catch and effort data will be considered for this assessment. The SSC asked that the SEFSC detail the changes in catch advice resulting from the use of the FES-adjusted MRIP data versus from the change in stock abundance. The SSC also asked that the SEFSC calculate OY based on how it has been defined by the Council.

Update of SEDAR 49: Lane Snapper with MRIP-FES Data including OFL and ABC Recommendations Excluding Discards

Dr. Nancie Cummings presented the updated lane snapper projections excluding discards, using FES-adjusted MRIP catch and effort data through 2018. The model used is the iTarget model from the Data-Limited Toolkit, using a reference index from the headboat fleet for lane snapper (1999 – 2008). This reference period is one of stable catch, which is used to inform catch advice based on the landings. Generally, the index shows an increase in lane snapper CPUE from the late-1990s through 2017, with a decrease in 2018. The resulting catch advice is described in the table below:

	ABC					
OFL/ABC Source	**30%**	**40%**	**OFL**	**SD**	**SE**	**CV**
MRIP_FES Recreational Catch Estimates	1,028,973	1,041,873	1,053,834	50,102	501	0.046
MRIP_MRFSS Recreational Catch Estimates	578,953	586,211	592,941	27,616	276	0.046

The “MRIP_FES Recreational Catch Estimates” row reflects the catch advice resulting from the application of the FES-adjusted MRIP recreational catch and effort data. Previously, at its January

2020 meeting, the SSC determined it to be most appropriate to set the ABC at a 30% probability of overfishing, given the general data-poor nature of the lane snapper assessment.

> **MOTION: That the updated March 2020 Gulf of Mexico lane snapper assessment using the iTarget model with FES-calibrated MRIP data is the best scientific information available.**
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> **Motion carried without opposition.**
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> **MOTION: The SSC finds that the updated Gulf of Mexico lane snapper assessment, using the iTarget model with FES-calibrated MRIP data, is useful for management advice. The OFL using the 50th percentile of the PDF is 1.05 million pounds, whole weight in landings. The ABC using the 30th percentile of the PDF is 1.03 million pounds, whole weight in landings.**
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> **Motion carried without opposition.**

Discussion of Revised Optimum Yield Options in Reef Fish Amendment 48/Red Drum Amendment 5

Dr. Clay Porch presented the SEFSC's recommendations for revising the definition of OY. "Optimum" yield does not necessarily correspond to the "maximum" yield, and is reduced to account for biological, ecological, economic, and social considerations. The Council is presently considering several options for defining OY for several reef fish stocks and red drum. The yield at OY is often requested as part of the yield projections following a stock assessment. The SEFSC clarified that setting the OY at, for example, 75% of the fishing mortality at maximum sustainable yield (F_{MSY}) does not correspond to a 25% reduction in fishing mortality. However, basing the OY as a scalar (less than 100%) of the MSY proxy itself can achieve the desired outcome. For example, setting OY equal to 90% of the MSY proxy (e.g., $F_{30\%SPR}$) would closely correspond to the equilibrium yield when fishing at 75% of F_{MSY}. The rationale for establishing OY as a scalar of the MSY proxy is because it is less intuitive to determine how much fishing mortality should be reduced, as opposed to by how much to reduce catch, since the stock tends to grow more with less fishing. Further, how an F_{MSY} proxy is defined may confound managing to that level in the future, since recruitment is assumed constant in projections but is known to vary in reality.

> **Motion: Alternative 2: For reef fish stocks from Action 1 and for hogfish, where long term OY is undefined, OY, implicitly accounting for relevant economic, social, or ecological factors, would be:**
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> **Option 2a.** 85% of MSY or MSY_{proxy}.
> **Option 2b.** 90% of MSY or MSY_{proxy}.
> **Option 2c.** 95% of MSY or MSY_{proxy}.
> **Option 2d.** (ACL/OFL) * MSY or MSY_{proxy}; or zero if the ACL equals zero.

Motion carried without opposition.

Other Business

National SSC Meeting in Sitka, Alaska – August 2020

The National SSC Meeting is scheduled for August 4-6, 2020, in Sitka, Alaska. The SSC volunteered the following members for participation in the meeting: Will Patterson, Dave Chagaris, Kai Lorenzen, Andrew Ropicki, Jim Tolan, and Paul Sammarco. Each regional fishery management council is allowed to send three SSC members and a staff member. If there is space available at the meeting the Gulf Council will pay for the other three SSC members. Presently, Drs. Kai Lorenzen, Jim Tolan, and Dave Chagaris will represent the Council. If space is available, the Council will also send Drs. Will Patterson, Andrew Ropicki, and Paul Sammarco.

The meeting was adjourned at 12:00 pm on March 11, 2020.

Participants (*all via webinar*)

Standing SSC
Joe Powers, Chair
Kai Lorenzen, Vice Chair
Lee Anderson
David Chagaris
Benny Gallaway
Bob Gill
Doug Gregory
Jeff Isely
Walter Keithly
Camp Matens
Jim Nance
Will Patterson
Sean Powers
Ken Roberts
Steven Scyphers
James Tolan

Reef Fish SSC
Judson Curtis

Shrimp SSC
Thomas Shirley
Richard Burris

Socioeconomic SSC
Kari Buck
Andrew Ropicki

Council Staff
Ryan Rindone
Natasha Mendez-Ferrer
John Froeschke
Carrie Simmons
Matt Freeman
Jessica Matos
Ava Lasseter
Assane Diagne

Presenters
Nancie Cummings, NMFS
Clay Porch, NMFS
Michelle Masi, NMFS

Council Member
Leann Bosarge

Others
Jack Isaacs, LDWF
Dustin Addis, FWC
Steven Atran
Charlie Bergmann
James Bruce, RFAP
Catie Bruger, OC
Michael Drexler, OC
Kristin Foss
Frank Helies, NMFS
Mike Jepson, NMFS
Mike Larkin, NMFS
Mara Levy, NMFS
Dan Luers, NMFS
Rich Malinowski, NMFS
Julie Neer, SEDAR
Adam Pollack, NMFS
Ted Safarian
Katie Siegfried, NMFS
Mike Travis, NMFS
Sue Gerhart, NMFS
Peter Hood, NMFS
Jennifer Craig
Jonathan Goodson
Joseph Hudson
Morgan Kilgour, Coral AP
George Mayo
Mike Norberg, FWC
Chris Schieble, LDWF
George Sedberry