Tab B, No.

Standing and Special Reef Fish SSC
Meeting Summary
WEBINAR
October 31, 2017

The webinar meeting of the Standing and Special Reef Fish SSC was held on October 31, 2017 beginning at 12:00 p.m. The agenda was approved without changes. The minutes of the March 27-29, 2017 SSC meeting and the May 10, 2017 SSC webinar were approved as written. Selection of an SSC representative to attend the January 2018 Council meeting in New Orleans was deferred until the January 2018 SSC meeting.

Review of Relevant Legislative Approaches to Recreational Red Snapper Management

The SSC was asked to review some of the alternative approaches to management of recreational fisheries suggested by Congress through wording included in a number of bills regarding Magnuson-Stevens Act reauthorization. The alternative management wording in these bills was as follows:
‘‘. . . use alternative fishery management measures in a recreational fishery (or the recreational component of a mixed-use fishery), including extraction rates, fishing mortality targets, and harvest control rules, in developing a fishery management plan, plan amendment, or proposed regulations.’’

Staff requested guidance on how such alternatives could be constructed and implemented. SSC members noted that the wording probably came from the recreational fishing industry and the concept was initially proposed at the 2013 Managing Our Nations Fisheries Conference (see Brame, Dick. 2013. Managing recreational fisheries: A new perspective. Pages 46-50 In Pacific Fishery Management Council. 2014. Managing Our Nation’s Fisheries 3: Advancing Sustainability. Proceedings of a conference on fisheries management in the United States held in Washington, D.C. on May 6-9, 2013).

The SSC discussed alternative management measures in relation to annual catch limits. They noted that extraction rates, fishing mortality targets and harvest control rules could easily be implemented as catch limits, but in order to replace annual catch limits, these alternative measures would require some way to monitor them in-season with respect to management reference points. This may not be possible with some of the suggested alternative strategies, but instead may require a stock assessment to determine if the stock status is adequately protected.

Staff was asked to provide a working example of how an extraction rate approach would work at the next SSC meeting.

SEDAR Activities

SEDAR 48 – Black Grouper Assessment

Florida FWC requested that the SEDAR 48 stock assessment of southeastern black grouper be canceled after the conclusion of the data workshop. Their main concern with the species was the preponderance of issues with misidentification of gag as black grouper. Since gag landings are several magnitudes higher than those of black grouper, this issue would be a substantial confounding factor for black grouper. The FWC recommended that the next assessment of black grouper be one which attempts more data-limited approaches, given the nature of the available data. The landings for black grouper suggest it is more of a bycatch species than one which is specifically targeted by fishermen. Further, a data-intensive assessment may be forced to assume factors related to the condition of the stock which cannot be verified with the current data, resulting in a potentially misleading assessment result. The last stock assessment (SEDAR 19 in 2010) projected the black grouper population to be healthy, and anecdotal information from fishermen has not refuted that previous assertion.

SSC members noted that the SEFSC, as well as the SSC, would review any assessment on black grouper completed by the FWC.

SEDAR 37 Update Terms of Reference

Staff reviewed the terms of reference for an update stock assessment for the Gulf of Mexico stock of hogfish, noting that the terms of reference largely followed those typical of an update stock assessment. SSC members expressed concern over the difference between the dividing line used in the SEDAR 37 stock assessment (the Collier County/Monroe County line) and the management boundary used by the Councils (running west of Cape Sable, FL). Changing the stock boundary in the assessment to match the boundary used by management would result in fundamental changes to the ways in which many of the data are constructed, and would cost a great deal of time to address. SSC members ultimately recommended running the update assessment, using the previous stock boundary from SEDAR 37, and then tweaking the projections as necessary to satisfy management needs.

> **Motion: To approve the Terms of Reference for the 2017 Hogfish Update Assessment (SEDAR 37). BG, MC**
>
> ***Motion carried with no opposition.***

SEDAR 61 Terms of Reference

Staff reviewed the terms of reference for a standard stock assessment for Gulf of Mexico red grouper. SSC members noted the absence of projections using equilibrium yield. Term of Reference #5 was modified to include projections for the equilibrium yield at F_{MSY}.

> **Motion: To accept the Terms of Reference, as amended, for the Gulf Red Grouper Standard assessment (SEDAR 61). BB, BG**

***Motion carried with no opposition*.**

SEDAR 61 Project Schedule

Staff reviewed the project schedule for a standard stock assessment for Gulf of Mexico red grouper. SSC members expressed concern that the project timeline was limiting the assessment to a data terminal year of 2016, when starting the assessment a few months later than currently planned would possibly allow for the use of data through 2017. Staff from the SEFSC and the Council noted the considerable logistics required to set assessment schedules and the numerous tasks which need to be completed prior to the first model runs. Though adding 2017 data after the assessment process is completed would not likely be feasible, SEFSC staff said that provisional landings from 2017 may be incorporated in the projections.

Motion: To approve the Gulf Red Grouper Standard assessment schedule as presented (SEDAR 61). BG, JP

***Motion carried with no opposition*.**

SSC members further discussed the need for changes to the SEDAR process to reduce the amount of time required to complete assessments. Council staff added that a motion passed at the October 2017 Gulf Council meeting had directed staff to explore exactly such measures, and that effort was currently underway. SSC members requested that discussion of how to improve SEDAR be added to the agenda for their January 2018 meeting.

SEDAR 61 Assessment Panelist Volunteers

The following members of the SSC volunteered to participate as panelists in the SEDAR 61 stock assessment: **Mary Christman**, **Bob Gill**, **Jeff Isely**, and **Will Patterson**.

SEDAR 58 Stock Identification Workshop and Volunteers

Staff recounted the stock identification process for stock assessments, and noted that such a process would be held for Gulf and Atlantic migratory groups of cobia, ahead of the SEDAR 58 stock assessment on the Atlantic migratory group. Since the results of this stock identification workshop could affect the management of the Gulf migratory group, participation in the workshop by members of the Gulf SSC was requested. An SSC member asked whether data from and/or participation by individuals from the Caribbean or Mexico would be considered. Staff from SEDAR clarified that at this time, no data or participation from the Caribbean or Mexico was expected.

Three workshops for the stock identification process for cobia are anticipated: the stock identification workshop will be held from April 10-12, 2018 in Raleigh, NC; the review workshop will be held from June 5-7, 2018 in Raleigh, NC or Charleston, SC; and a possible cooperator review of the results will be held via webinar in August of 2018, if necessary. **Jeff Isely** and **Jim Tolan** volunteered to participate in the stock identification workshop, and **Luiz**

Barbieri volunteered to participate in the review workshop. No volunteers were requested for the cooperator review webinar at this time.

SEDAR Scamp Research Track Planning

Staff re-briefed the SSC on the proposed research track stock assessment process. The Gulf and South Atlantic Councils are considering piloting the proposed process with scamp in 2019. The SEFSC has been tasked with developing terms of reference and a detailed project schedule for the assessment. The SEDAR Steering Committee has requested that the affected cooperators nominate two volunteers to review the proposed terms of reference and project schedule. **Jim Tolan** and **Mary Christman** volunteered for this task, to be completed via webinar before the end of 2017.

A Comparison of Recent Stock Assessment Results Using SS3 vs. DLMToolkit

Dr. Skyler Sagarese presented a summary review of the Data Limited MethodsToolkit (DLMToolkit), and then reviewed the results of applying the DLMToolkit to two stocks (greater amberjack and gray triggerfish) that have had recent assessments using Stock Synthesis 3 (SS3), in order to compare results. The application of the DLMToolkit was discussed in detail at the January and March 2017 SSC meetings under SEDAR 49 - Data-limited Species Assessment, and is incorporated here by reference. Many of the methods available in the DLMToolkit require a reference time period where there is no trend in the catch levels. Mean catch during the reference period could be sustainable but does not guarantee maximum sustainable yield.

For greater amberjack, the reference period used was the 2000-2008 reference period used by the Generic ACL/AM Amendment to set ACLs for amberjacks based on mean catch. During this period there was no significant trend in landings. For gray triggerfish, the Generic ACL/AM Amendment did not specify a reference period. All periods show a significant trend in gray triggerfish catch except for the most recent period (2011-2015).

The approach used to conduct a data limited assessment was to first determine which of the 80+ methods in the DLMToolkit were feasible based on available data. A data-limited Management Strategy Evaluation was then used to identify which methods are robust to uncertainty and bias in input parameters. For greater amberjack, indicator-based methods using index of abundance (Islope, Itarget) and mean length (LstepCC) met the performance criteria. However, tradeoffs were evident between the higher conservation criteria at lower yields. For gray triggerfish, management strategy evaluation indicated that none of the methods available were robust to uncertainty and bias in the input parameters. Therefore, no methods met the performance criteria. As a result, the DLMToolkit methods could only be applied to greater amberjack.

Once the DLM methods are chosen for a particular species, catch level advice is produced by generating a probability density function (PDF) from 10,000 random draws of data inputs. The recommended catch level is the catch at the median of the PDF. Coefficients of variation are developed along with the point estimates of catch advice. The catch level results of the four

data-limited methods used for greater amberjack and their standard deviations are shown in Table 1 along with the OFL determined from the SS3 assessment.

Table 1. Preliminary catch level advice and standard deviations for greater amberjack using data limited methods in comparison to SS3

Method	OFL (metric tons)	
	Median	SD
Data-limited		
Islope_5yr	1,533	776
Islope_10yr	1,777	608
Itarget[1]	1,352	661
LstepCC	2,035	1,015
Data-rich		
SS OFL	680	

[1] Dependent upon specification of reference period and target CPUE value

The OFL catch level recommendations from the DLM methods were much higher than the OFL derived from the SS3 model. This could be because catches during the reference period were high. In an unconstrained fishery, re-running the DLM models periodically over a number of years would likely result in the catch levels estimates converging to some stable level. The large standard deviations also reflected a high level of uncertainty in the results.

The conclusion was that, while the DLM methods are useful, actual implementation of these approaches would require vetting of assumptions (e.g., reference period) and data inputs by an expert panel and rigorous sensitivity analyses. Furthermore, implementation of the DLM methods to produce management advice for OFL and ABC would require a new ABC control rule or a new tier to the existing ABC control rule. SSC members suggested putting an item on the January SSC meeting agenda to discuss how the ABC control rule could be revised.

Review of Framework Action to Modify the ACT for Red Snapper Federal For-Hire and Private Angler Components

Staff reviewed the Reef Fish Framework Action on Modifications to the Recreational Red Snapper ACT Buffers. SSC members asked how the proposed alternatives would affect the application of the current accountability measures, which enforce a recreational component-specific payback of the previous year's overage if the stock ACL is exceeded. Staff said that the adjustments to the respective buffers would happen prior to the application of the accountability measures, making those accountability measures the last adjustment to the respective recreational component ACLs prior to the determination of the lengths of the fishing seasons. However, if Reef Fish Amendment 44 is approved by the Secretary of Commerce, the minimum stock size threshold will be calculated differently, resulting in red snapper no longer being determined to be overfished. As such, the current accountability measures would no longer apply.

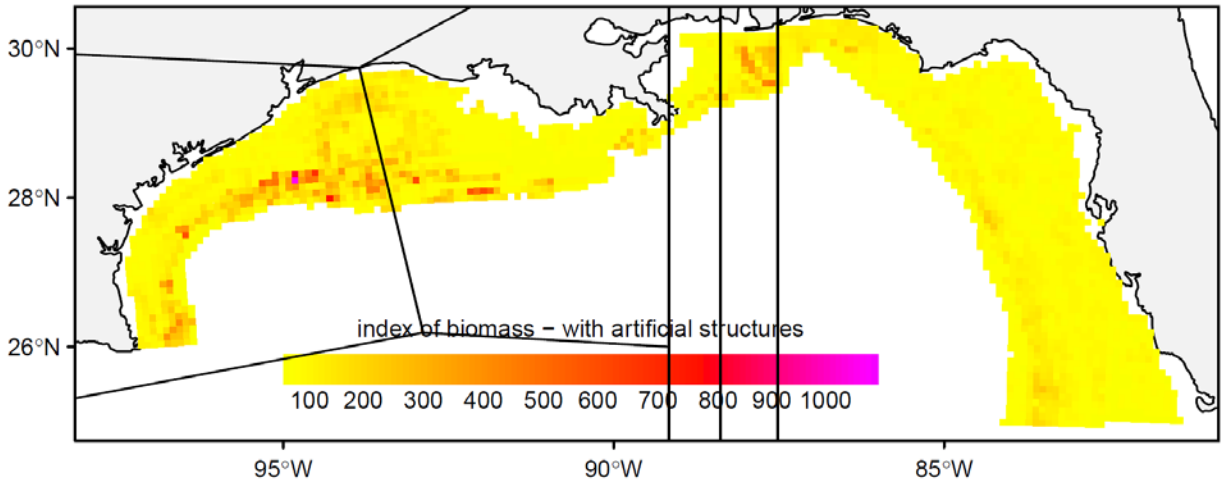
The idea of a maximum buffer level was posed, and staff noted that such a measure was proffered in Alternative 4 in the framework action. SSC members commented that the act of setting a buffer below the ACL is a Council policy, and not one which is under the purview of the SSC. Current limitations in recreational red snapper data were not likely to be solved overnight, and the present levels of uncertainty in those data were likely to remain in the short term. The Council representative noted that the goal of the framework action is the fair application of buffers to the for-hire and private angling components.

SSC members ultimately concluded that the options presented in the framework action were logical in nature, and that there were no immediate concerns with the methodologies proffered. It was acknowledged that the amount of uncertainty in recreational data, particularly for private anglers, is considerable. Given the history of large overages in past years, the SSC thought it may be difficult to predict the magnitude of harvest in the recreational sector.

Preliminary Discussion on Approaches to Estimating Red Snapper Biomass off Each Gulf State

Dr. Mandy Karnauskas discussed the application of a method described in Karnauskas et al. (2017) to estimate the spatial distribution of red snapper biomass in the Gulf of Mexico. The study area encompassed the northern Gulf of Mexico in depths of 7-140 m. Catch data came from Congressional Supplemental Sampling Program (CSSP) longline and handline surveys conducted in 2011, plus a second survey conducted in 2007 that deployed vertical line gear on oil platforms from Alabama to Louisiana, plus a third survey conducted in 2011 deploying vertical lines on artificial reef structures off Alabama. Within each 2 km^2 grid cell, the area of habitat was multiplied by the catch rate on each habitat type to produce a relative abundance, which was then summed across all habitats. Relative biomass values by age were modified based on the 2014 update of the red snapper stock assessment, and plotted for each grid cell. Boundaries used to delineate each state were agreed upon by the Council representatives from each state marine resource agency at the February 2013 Council meeting (Amendment 39 – November 2, 2015 version). Results were heavily dependent on relative catch rates at age, and with the caveat that the estimate of 2011 red snapper distribution was based on a platform survey conducted in a different year (2007) (Figure 1).

Figure 1. Estimated biomass distribution of red snapper in 2011 and relative proportion of biomass by state.



TX	LA	MS	AL	FL
42.1%	20.3%	1.3%	6.3%	29.9%

Dr. Nick Farmer followed up with a presentation on using recreational effort to determine allocation, based on directed trips, i.e., trips landing red snapper in the EEZ during the federal season for the years 1986-2016. One issue with trying to allocate based on recreational effort is that the effort estimates are based on 4 surveys which collect data in different ways (MRIP 1986-2016, Headboat 1986-2016, LA Creel 2014-2016, and TPWD 1986-2014). Consequently, this raises the question of whether it is appropriate to allocate on trips, given that "angler-trips" are computed differently by each survey. Specifically,

- This approach might over- or under-estimate the effort off LA and TX, and there is no calibration factor available to determine the direction.
- Is it appropriate to allocate using one metric (effort) and monitor using another (landings), especially given the lack of calibration between these two metrics and the lack of calibration between the initial metric amongst states?

Given the caveats, an allocation tool could be developed with user inputs for percent off each state based on biomass, landings, and effort estimates, with options for weighting between the metrics. However, depending on the weightings and on the years used in the analysis, different allocations would result. For this reason, the SSC did not feel that such a table is scientifically sound for making allocations. The decision tool will be presented to the Council at their January 2018 meeting.

REFERENCE:

Karnauskas, M., J.F. Walter III, M.D. Campbell, A.G. Pollack, J.M. Drymon and S. Powers. 2017. Red snapper distribution on natural habitats and artificial structures in the northern Gulf of Mexico. Marine and Coastal Fisheries, 9:1, 50-67

The webinar meeting was adjourned at 5:20 p.m.

SSC Members Present

Standing SSC
Luiz Barbieri, Chair
Joe Powers, V. Chair
Lee Anderson
Harry Blanchet
Benjamin Blount
Mary Christman
Bob Gill
David Griffith
Jack Isaacs
Jeff Isely
Walter Keithly
Sean Powers
Steven Scyphers
Jim Tolan
Will Patterson

Special Reef Fish SSC
Jason Adriance
Marcus Drymon
Robert Ellis
Jennifer Herbig
John Mareska

Council
Dale Diaz
Leann Bosarge

Council(s) and NMFS Staff
Steven Atran
Shannon Cass-Calay
Doug Gregory
Karen Hoak
Mandy Karnauskas
Julie Neer SAFMC
Ryan Rindone
Skyler Sagarese
Carrie Simmons

Others (listen only)
Adyan Rios
Ben Posadas
Bernie Roy
Chad Hanson
Chris Schieble
Curtis Judd
Frank Parker
John Froeschke
JP Booker
Jeff Pulver
Juan Agar
Jessica Matos
Julia Byrd
Julien Lartigue
Lauren Waters
Martha Guyas
Michael Drexler
Michael Larkin
Myron Fischer
Sue Gerhart
Sepp Haukebo
MS Commercial Fisheries United, Inc.