Standing, Shrimp, Reef Fish, and Socioeconomic SSC
Meeting Summary
Tampa, Florida
March 27-29, 2017

The meeting of the Standing, Shrimp, Reef Fish, and Socioeconomic SSC was convened at 9:00 am on March 27, 2017. The agenda and summary minutes of the January 10-11, 2017 SSC meeting were approved as written. Luiz Barbieri announced that he would be the SSC representative at the April 3-6, 2017 Council meeting in Birmingham, Alabama.

Standing and Shrimp SSC Session

Penaeid Shrimp Stock Assessments

Dr. Rick Hart presented the updated 2015 stock assessments for pink, brown, and white shrimp using the previously approved models. In all species the spawning stock biomass is above SSB_{MSY}, and the current fishing mortality rate is below F_{MSY} (Table 1). None of the penaeid shrimp are overfished nor are undergoing overfishing. There was discussion on the terminal year of the data being different from previous years, likely being driven by favorable economic conditions. Even though there was likely more effort, it did not result in exceeding any of the thresholds (juvenile red snapper or turtle) thresholds on the fishery. The SSC also discussed the implementation of TEDs (1990) and BRDs (1998) and noted that landings through time have remained fairly consistent. Changes in efforts and landing through time are driven by changing environmental and economic conditions. One SSC member noted that white shrimp SSB has been steadily declining since 2010; white shrimp may just be returning to its normal baseline in current environmental conditions which would be consistent with the timeframe. Lastly, the SSC discussed the model and were informed that environmental covariates are not currently used in the stock assessment model. However, efforts are underway to incorporate environmental parameters. It was noted that the expansion of SEAMAP has helped with the pink shrimp model.

Table 1. Estimates of SSB and F associated with MSY for Penaeid shrimp species.

	Pink Shrimp	Brown Shrimp	White Shrimp
SSB_{MSY}	23,686,465 pounds of tails	6,098,824 pounds of tails	365,611,862 pounds of tails
F_{MSY}	1.35	9.12	3.48

General SSC Session

Updated Draft Stock Assessment Improvement Plan

Dr. Patrick Lynch provided an overview of the updates to NOAA Fisheries' Stock Assessment Improvement Plan (SAIP) since the first draft was released in 2001 (http://www.st.nmfs.noaa.gov/StockAssessment/). Scientists have been working on updates to the strategic guidance for stock assessment programs for the last couple of years. Originally the SAIP was based on tiers of excellence and was an initial push for surplus production versus baseline

modeling. Ten resulting recommendations increased research and awareness, including budget and staff increases, additional training, partnerships, and research as well as increase awareness and credibility. The 2001 SAIP resulted in an increase in funding, which led to an increase in the number of stock assessments completed. Both of these variables have leveled out since 2015.

The updated SAIP includes a regional overview of the NOAA Fisheries Organization and Fishery Management and Advisory Organizations and an Assessment Program Overview. The presentation highlighted the holistic and ecosystem-linked efforts for consideration, including ecosystem and socioeconomic drivers and potential effects. The updated SAIP suggests assessments can provide more accurate and comprehensive advice, yet recognizes the tradeoffs between expanding the scope of an assessment and the degree of uncertainty around assessment results. The SAIP also includes innovative nation-wide efforts for science recommendations for data collection and processing; assessment modeling; and determining timely, efficient, and effective stock assessment processes. Within the updated SAIP plan are separate research and operational assessment tracks for a more streamlined preparation, documentation and review compared to when it is necessary to conduct a more thorough document and exploration of new inputs for stock assessments with a research cycle. Dr. Lynch requested any feedback on or before June 15, 2017 and that comments be a single standalone document that represents the SSC's and Gulf Council's feedback.

The SSC asked several questions and made several recommendations regarding the updated SAIP. One member of the SSC asked about the guidance for switching from a research track to operation track assessment; specifically, what constitutes such a change and what was the frequency of this change for Councils in other regions. Another SSC member noted that the updated SAIP suggests that the peer review process for stock assessments was not initiated until 2002, when in fact the Southeast Data Assessment and Review Process (SEDAR) was initiated at that time; however, there was already a peer review process for stock assessments prior to SEDAR. Several SSC members commented on their concerns with standardization of stock assessments, especially with the more parameterized models and the need for decreasing uncertainty and buffers. Finally, one member commented on consideration of the details for inclusion of the socioeconomic parts of an assessment and if an economist would need to be present during a stock assessment for inclusion of the holistic and ecosystem-linked approach. Staff suggested SSC members provide any additional comments on the updated SAIP via email.

Stock Assessment Prioritization

Dr. Shannon Calay provided a presentation on the stock assessment prioritization developed for the South Atlantic Council. The stock assessment prioritization process has been under development for several years now and was released in August of 2015 as a NOAA Technical Memorandum. Dr. Calay highlighted six prioritization steps used in each region for stock assessment purposes. The final step of this process is important as the species considered for stock assessments should be used as objective guidance in selecting assessments for the upcoming cycle. She provided an overview of the roles for each agency in regional prioritization before the information is given to the SEDAR Steering Committee. Dr. Calay highlighted scoring factors and approaches, sources of data, and a range of scores that have been used by other Councils. She prepared a draft spreadsheet for the SSC to consider for all Gulf stocks that are currently within a

fishery management plan. It was noted that there are several "scores" which need to be developed for a number of factors, including: commercial importance, recreational importance, importance to subsistence fisheries, non-catch value, constituent demand, rebuilding status, relative stock abundance, relative fishing mortality, key role in ecosystem, unexpected changes in indicators, new information available, and years assessment overdue. She noted the fishing mortality values that are available after stock assessment are completed for reef fish are not necessarily compatible with those completed for invertebrates. She explained that the non-catch value score was for use with species where there was little harvest and that similarly species that had not been assessment were ranked higher.

The SSC asked several questions about obtaining input for the process, including the process other Councils had used. The current method of prioritization is complicated, and simplifying the process and decision making paradigms will be helpful. One SSC member noted several species were clustered and had the same score. An SSC member suggested that sometimes an assessment is needed immediately but did not see how that fit into the spreadsheet. One SSC member noted that it would be interesting to include a metric for the cost of a stock assessment for a particular species, and to include the number of years an assessment was considered reliable. A process for multi-species assessments and prioritization was also discussed as a possibility, although it is not currently being considered. Another SSC member asked about the frequency of completing the prioritization process once it is finalized. Dr. Calay responded that the prioritization process should be revisited annually. Overall, the need for this prioritization was to ensure that stocks were not being missed for assessments and, at some point, stock status determinations are needed for all species in the fishery management plan. Executive Director Doug Gregory recommended Council staff assist Science Center staff with assigning management metrics for another review by the SSC at a subsequent meeting.

Standing, Socioeconomic, and Reef Fish SSC Session

Review of Studies Included in the 5-Year Grouper-Tilefish IFQ Review

Quinn Weninger presented a study on "Fishing behavior across space and time: An application to the Gulf of Mexico commercial reef fish fishery." The study proposes a tool for policy evaluation of spatial-temporal fishery management measures. Dr. Weninger discussed the steps of the modelling approach: deriving trip level harvests and discards, linking harvests and discards to space and time, and embedding the estimated cost function within a fishery-wide bio-economic model. Dr. Weninger indicated that the model is ready to be used to evaluate and assist in the design of spatial-temporal management policy. Examples of management measures that could be evaluated include: how will a reduction in the total allowable catch for a given species change the spatial-temporal distribution of harvests, discards and profits; and how will a switch from controlled access regulations to an IFQ program affect spatial-temporal harvest and discard patterns, and labor employment?

Dr. Weninger also presented a study on cross-species flexibility in the grouper-tilefish IFQ program. Dr. Weninger discussed the proposed modeling approach for multi-species harvests and discards under IFQ programs with cross-species flexibility, the evaluation of discards in the Gulf of Mexico

commercial reef fish fishery between 2005 and 2014, and model extensions to solve dynamic management problems.

David Griffith presented the results of a study on the impacts of the grouper-tilefish IFQ program on fishing communities. The study focused on four main communities: Madeira Beach and Panama City, Florida; Golden Meadow, Louisiana; and Galveston, Texas. A total of 182 interviews were conducted with IFQ program participants including shareholders, dealers, captains, crew, and others. Dr. Griffith summarized the study's findings and compared the positive and negative views of the program. For example, some participants noted that work had stabilized in the fishery and crews had become professionalized; others felt captains and crew had become "sharecroppers," and felt it was unfair that former fishermen no longer had to go fishing. Dr. Griffith noted a common theme among interviews was the belief that program participants should be required to have "skin in the game."

Larry Perruso presented a study on the impact of the grouper-tilefish IFQ program on fishing capacity and capacity utilization. The study covers a 10-year period including 5 years before and after the implementation of the grouper-tilefish IFQ program. Dr. Perruso discussed the methodology and data used and summarized the results of the study. Dr. Perruso indicated that fleet capacity decreased between 17.3% and 34.3% and that no large changes in capacity utilization were observed post-IFQ. Dr. Perruso noted that overcapacity still remains significant in the fishery since the implementation of the IFQ programs and that, on average, 50% of the current fleet (297 vessels) could harvest the aggregate grouper-tilefish quota.

Walter Keithly presented a study on the influence of the grouper-tilefish IFQ program on dockside prices. The study focuses on the dockside prices of grouper species and the species groups included in the IFQ program. Dr. Keithly discussed the methodology and data used and summarized the main findings of the study. Dr. Keithly indicated that, after controlling for other factors that influence prices, the implementation of the IFQ programs has not significantly influenced Gulf of Mexico dockside prices. Dr. Keithly also noted that there appears to be limited changes in seasonal demand associated with Gulf of Mexico species. For example, the demand for red snapper is highest in February and March while the demand for red grouper and other groupers appears to be relatively low from February to April.

Standing and Reef Fish SSC Session

Greater Amberjack Update Assessment

Model Configuration

Dr. Nancy Cummings (SEFSC) presented an overview of the greater amberjack SEDAR 33 update stock the assessment. The start year of the SEDAR 33 update assessment was 1950 and the terminal year of the assessment was 2015. Preliminary landings information was also used for 2016. As in the previous SEDAR 33 benchmark assessment, a length-based, age-structured, forward projecting population model was used to assess the status of the greater amberjack stock. The model was implemented using "Stock Synthesis 3" (Methot 2010) and the continuity model configuration was identical to the SEDAR 33 benchmark assessment.

Model Outputs

The model output for the SEDAR 33 update assessment (continuity model) indicated that the trends in spawning stock biomass, recruits, recruit deviations, and exploitation rates are similar between the SEDAR 33 benchmark and the current update assessment (Table 1). Model performance was examined using retrospective analysis by sequentially dropping the last four years of data one at a time while keeping all other inputs unchanged.

The SSC asked for two additionally sensitivity runs to evaluate the model. The effect of APAIS re-estimates on the model was examined as the re-estimated APAIS data indicate that recreational landings were likely lower than previously thought in the early portion of the time series and higher than previously estimated in the most recent years of the time series. The sensitivity analysis indicated that the model was not particularly sensitive to these inputs and no changes in management advice given would result from this change in the input landings data. A second sensitivity run was made to examine the projection of retained yield from the benchmark the observed landings from 2013 through 2016 to the projected OFL from the previous SEDAR 33 assessment. The observed landings as compared with the OFL from the SEDAR 33 update assessment indicate that that overfishing has occurred after the SEDAR 33 benchmark assessment, most recently in 2016.

Table 1. Management advice from the SEDAR 33 update model and the SEDAR 33 benchmark model for Gulf of Mexico greater amberjack.

Criteria	**Definitions**	**SEDAR 33 Update**	**SEDAR 33**
M		0.28	0.28
Steepness		0.85	0.85
Virgin Recruitment	1,000s	2,761	2,827
SSB Unfished		18,779	17,356
Mortality Rate Criteria			
F_{MSY} or proxy	$F_{SPR30\%}$	0.20	0.22
MFMT	$F_{SPR30\%}$	0.20	0.22
$F_{CURRENT}$	Geometric mean (F(nyr-3)-nyr)	0.33	0.26
$F_{CURRENT}$/MFMT		1.69	1.15
Biomass Criteria			
SSB_{MSY} or proxy	$SSB_{SPR30\%}$	5,686	4,646
MSST (Mtons)	(1-M)*$SSB_{SPR30\%}$	4,094	3,345
$SSB_{CURRENT}$ (Mtons)	SSB_{2015}	1,640	2,188
$SSB_{CURRENT}/SSB_{SPR30\%}$	SSB_{2015}	0.288	0.47
$SSB_{CURRENT}$/MSST	SSB_{2015}	0.400	0.65

Stock Status

The annual estimates of SSB and exploitation relative to the management reference points (e.g., SSB_FSPR30%, MSST, FSPR30%) indicate that Gulf of Mexico greater amberjack is currently overfished and undergoing overfishing (Table 1). The results also indicate that Gulf of Mexico greater amberjack has been overfished in all years since 1987 and has been undergoing overfishing since 1985. These results are generally consistent with the SEDAR 33 benchmark assessment however, the update assessment produced lower estimates of SSB/SPR30 and SSB/MSST (Figure 1a and b) and higher estimates of F/SPR30 (Figure 2) in the most recent years.

OFL and ABC Projections

Deterministic projections were carried out to evaluate stock status for a period of 10 years beginning in 2016. The SSC reviewed the SEDAR 33 update assessment including additional sensitivity runs to evaluate the model and results. Following this presentation and discussion of the model results, the SSC passed the following motion to accept the SEDAR 33 update assessment and yield stream shown below (Table 2).

> **Motion: The SSC accepts that the Greater Amberjack SEDAR 33 update assessment represents the best available science and is suitable to provide management advice.**
> Motion passed with 1 opposed**.**

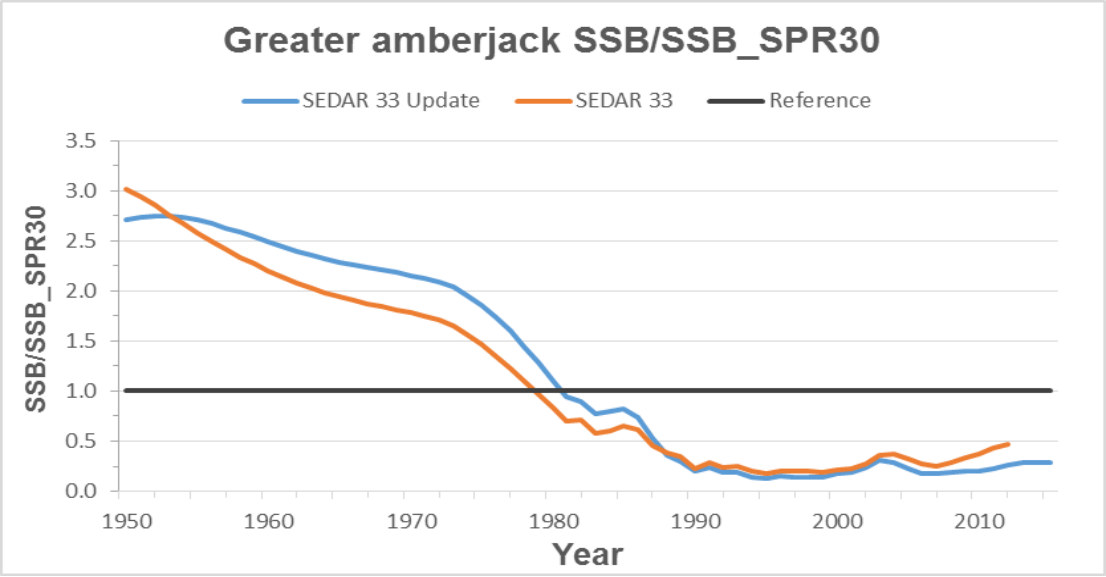
The SSC made a second motion for OFL and ABC for the years 2018-2020.

> **Motion: The SSC recommends yield at FSPR30% for OFL and ABC as yield 75% of FSPR30 for the years 2018-2020 for GOM Greater Amberjack as reported in Table 7 of the SEDAR 33 Stock Assessment update.**
> Motion carried 17-2.

Table 2. Overfishing limit (OFL) and Acceptable Biological Catch (ABC) recommendations from the SSC based upon the SEDAR 33 update. The OFL corresponds to the annual yield at MFMT (MP,ww) = $F_{SPR30\%}$. The ABC corresponds to the annual yield at F_{OY} (MP,ww) = 75%$F_{SPR30\%}$.

Year	OFL	ABC
2018	1.500	1.182
2019	1.836	1.489
2020	2.167	1.794

For comparison, the previous recommendation for OFL yield was 2.986, 3.068, 3.170 (MP, ww) for the years 2018-2020 based on the SEDAR 33 benchmark assessment. The previous recommendation for ABC was 2.616, 2.730, 2.852 (MP, ww) based on the SEDAR 33 benchmark assessment. The SEDAR 33 update represents considerable reductions in both OFL and ABC as compared to the SEDAR 33 benchmark assessment.



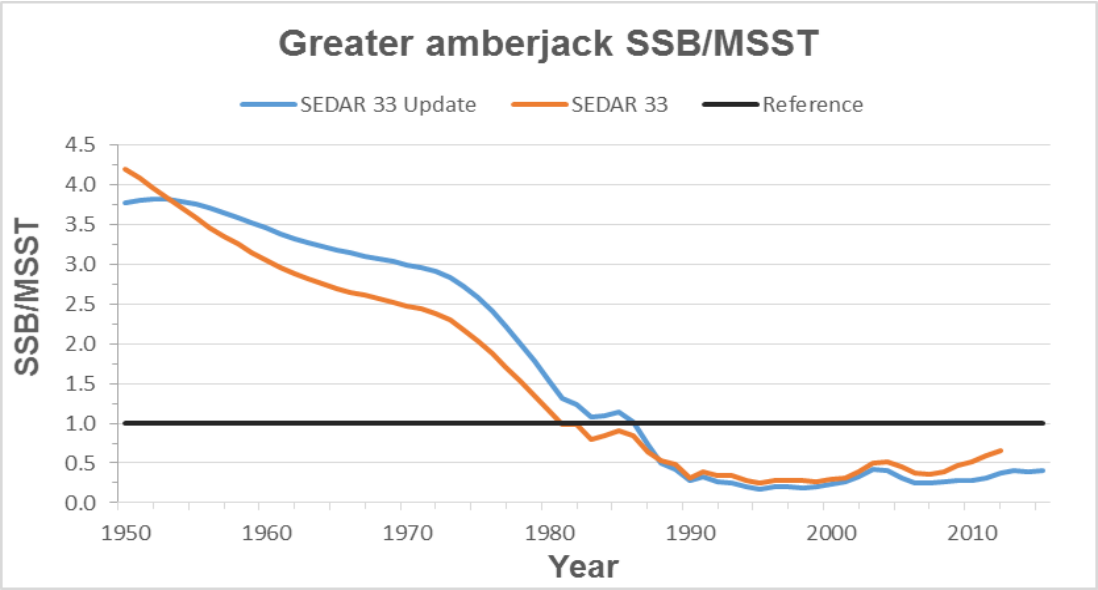


Figure 1a and b. Estimated annual trajectory of $SSB/SSB_{SPR30\%}$ (top panel) and SSB/MSST (bottom panel) that indicate that Gulf of Mexico greater amberjack are overfished. SSB_{2015}/MSST = 0.40

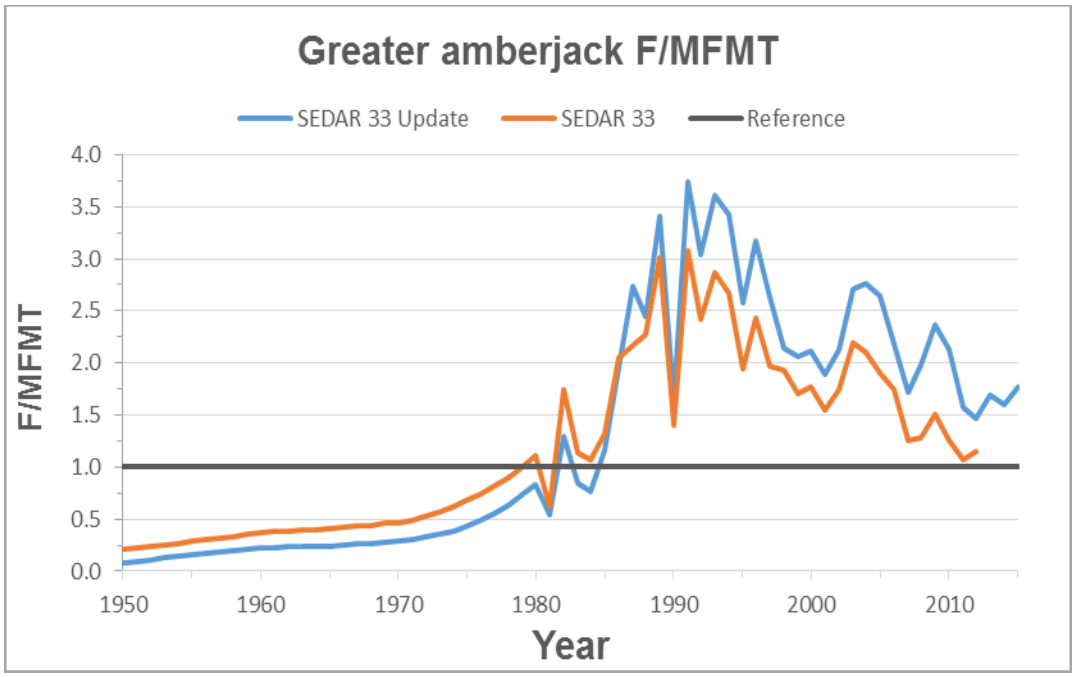


Figure 2. Estimated annual trajectory of F/MFMT that indicates that Gulf of Mexico greater amberjack are undergoing overfishing. $F_{CURRENT}$/MFMT = 1.68

SEDAR 49 Data-Limited Species Assessment, Part 2

Dr. Skylar Sagarese continued an evaluation on the evaluation on the use of data limited methods to set catch levels. The data-limited methods were selected from a collection of methods known as the Data Limited Methods Toolkit (DLMToolkit version 3.2.2). Eight species were previously selected for initial evaluation based on data availability and quality. After further evaluation, the following species could potentially be evaluated, but would require tuning to complete assessment:

Lane snapper, wenchman, almaco jack, and lesser amberjack

The following species could not be further evaluated using the data limited methods due to issues with the available data:

- Red drum – Lack of a reference period limited analyses which could be implemented
- Speckled hind – Shifts in the fishery prevented analyses using index of abundance or length
- Snowy grouper – Shifts in the fishery prevented analyses using index of abundance or length
- Yellowmouth grouper – Were not evaluated further due to limitation of available data and mis-identification issues.

Dr. Sagarese conducted a detailed analyses of lane snapper, and briefly discussed attempts to evaluate wenchman, almaco jack, and lesser amberjack. The analysis of land snapper was divided into three parts.

Part 1 – Feasibility

A catch reference period of 1999-2008 was previously selected by the SSC for use in calculating OFL and ABC using Tier 3a of the ABC control rule. This was a period when there was no significant trend in landings. The mean of the landings during this period could be considered sustainable, but does not guarantee maximum sustainable yield. The headboat survey was considered to provide a good index of relative abundance. A reliability score for length data from private recreational vessels and headboats was scored as good. Overall, 4 data-limited methods were scored as having reliable data for analyses; 2 index-based methods (Islope, Itarget), and 2 length-based methods (Lstep CC, Ltarget).

One consideration is whether the catch levels produced by data-limited methods should be considered OFL or ABC. NMFS provides the following guidance in making this determination. If the stock is considered to be overexploited or near MSY, the resulting catch level recommendation should be OFL. If the stock is considered to be underexploited, the resulting catch level recommendation should be ABC. Lane snapper was assumed to be at or near MSY during the reference period.

Part 2 – Management Strategy Evaluation (MSE)

This step reviewed data inputs for use in evaluating performance metrics and tuning of the analysis. The application of MSE can help to eliminate methods that respond to the data inappropriately, or that are highly sensitive to differing stock conditions. A depletion range was determined from catch-at-size reduction analysis and recent mean length. Natural mortality estimate was reevaluated using several established methods. Several other performance metrics were evaluated, including probability of not undergoing overfishing, long-term yield, and short-term yield. Based on these metrics, scalers were selected specific to each of the four data limited methods being applied.

Part 3 – Catch recommendations for Management Advice

All of the methods considered can produce some historical target level, but not necessarily the MSY level. A probability density function (PDF) can be produced from 10,000 runs using random draws of data inputs. The catch associated with the median (50% probability level) can then be considered OFL, and ABC can be set at the desired probability level less than 50%. The catch level results in pounds whole weight from each of the four methods are shown below (Table 3). Of the four methods evaluated, NMFS recommended using the Ltarget approach (in bold in the table below). This method was robust to assumptions and provided a greater chance of higher yields.

Table 3. Lane snapper catch levels (pounds whole weight) at 30%, 40% and 50% probabilities of exceeding OFL for four data-limited methods.

Method	ABC		OFL	SE	CV
	30%	40%	50%		
Islope_0.4_10yr	263,079	265,419	267,651	88	0.033
Itarget0.5_0.7_1.0	**355,501**	**360,059**	**364,082**	**170**	**0.047**
Ltarget0.5_0.8_1.0	314,122	318,052	321,792	149	0.046
LstepCC_0.05_0.96_0.98_1.05	302,427	306,173	309,837	141	0.045

Following the presentation, the SSC agreed that the data limited approach provided the best scientific information available, and that the Itarget method provided the best management advice for lane snapper.

> **Motion: The SSC moves that the SEDAR 49 data limited assessment results for lane snapper are the best scientific information available and the results of the Itarget data limited method are suitable for management advice.**
> Motion carried with one opposition.

The SSC agreed that the catch results from the Itarget method for the 50th percentile of the PDF provided the best estimate of OFL. For ABC, some SSC members expressed concern that the most conservative catch level (30% probability) was only 2.5% below the OFL. A suggestion was made to set the ABC at 75% of the OFL, but a review of the PDF distribution curve indicated that this catch level was far below the catch at which there was a 0% probability of overfishing. The SSC decided to stay with the 30% probability level for the ABC recommendation, with OFL and ABC recommendations rounded to the nearest 100 pounds. SSC members also felt that there should be specific time period set for the OFL/ABC recommendations in order to assure that the recommendations are reevaluated periodically. Dr. Sagarese noted that once the initial analysis is completed and the scalars are set, a reanalysis can be conducted quickly.

> **Motion: The SSC moves that the Lane Snapper OFL be set at the catch recommendation result of the Itarget Lane Snapper data limited assessment which is 364.1 thousand pounds. The SSC also moves that the ABC be set at 355.5 thousand pounds which is the 30th percentile of the PDF produced by the Itarget method based on the CV on landings estimates among years in the evaluation time series. The estimates of ABC and OFL should be recomputed at a frequency of no greater than every 3 years.**
> Motion carried with one opposition.

Following the evaluation of the lane snapper analysis, Dr. Sagarese reviewed her analysis of wenchman, almaco, and lesser amberjack stocks. For wenchman, only the iSlope method met the performance metrics. Although catch levels can be derived using Islope, they would be less than current catch levels. Also, the wenchman index of abundance was based on the NMFS Small Pelagics survey which is no longer operational. Therefore, an alternative index of abundance would need to be developed. For almaco jack and lesser amberjack, the Islope and Itarget methods meet the performance metrics. Although catch level advice can be developed, there is very limited data

available for these stocks, and misidentification could be a problem. For these stocks, a possible suggestion was to combine them for an aggregate analysis. The SSC felt that, because of the data issues with these stocks, the data limited methods used in SEDAR 49 do not provide an improvement over the Tier 3a method used in the current ABC control rule

> **Motion: The SSC moves that SEDAR 49 represents best available science for Wenchman, Almaco Jack, and Lesser Amberjack. However, the SSC feels the catch recommendation results from SEDAR 49 analyses for these species do not represent an improvement over the current approach utilized to estimate OFL and ABC based on mean landings.**
> Motion carried unanimously.

The SSC discussed the 4 species that NMFS determined could not be further evaluated using the data limited methods due to issues with the available data

> **Motion: The SSC moves to accept the SEDAR 49 assessment review recommendations that data limitations precluded the utility of the applied Data Limited Methods (DLM Toolkit 3.2.2) to estimate OFL and ABC for Red Drum, Yellowmouth Grouper, Snowy Grouper, and Speckled Hind.**
> Motion carried unanimously.

Dr. Sagarese suggested that the ABC control rule be modified to incorporate use of the data limited analysis methods where appropriate, possibly by revising Tier 2.

Gulf of Mexico Data Triage

Dr. Sagarese reviewed the data triage methodology applied to the remaining 11 unassessed reef fish species to determine the feasibility of applying the data limited methodology. She constructed spreadsheets reviewing all of the data sources available for each species and which data limited method those data could potentially be applied to. She emphasized that the data had not been vetted, and further analysis of the data would be needed before the data limited methods could be applied. Based on the review of available data she made the following recommendations for each species as to whether an alternative data limited method cold be used, or whether a catch-only method (i.e., Tier 2) should continue to be used (Table 4).

Table 4. Ranking by total removals and feasibility for using alternative data limited assessment methods for 11 remaining unassessed reef fish species.

Rank in Total Removals	Species	Assessment Feasibility
1	Gray Snapper	Alternative
2	Scamp	Alternative
3	Warsaw Grouper	Alternative
4	Silk Snapper	Alternative
5	Banded Rudderfish	Alternative
6	Blueline Tilefish	Alternative
9	Queen Snapper	Alternative
11	BlackfinSnapper	Alternative
7	CuberaSnapper	Catch-only
8	Yellowfin Grouper	Catch-only
10	GoldfaceTilefish	Catch-only

TOR for MRIP Calibration Review and Review Workshop Volunteers

The SSC reviewed the terms of reference for the upcoming MRIP calibration workshop to review the calibration models accounting for changes in recreational fisheries survey methods. The SSC was supportive of the provided terms of reference. Sean Powers agreed to serve as a non-CIE reviewer for the workshop although he advised reaching out to SSC member Mary Christman to gauge her interest in participating as a non-CIE review. If Dr. Christman is willing to participate, Dr. Powers would withdraw his participation. Council staff will reach out to Dr. Christman and coordinate with Dr. Powers to ensure that one member of the SSC is able to serve as a non-CIE reviewer in the workshop.

TOR, Schedule, and Assessment Workshop Volunteers for SEDAR 52 (Red Snapper Standard Assessment)

Staff reviewed the terms of reference for SEDAR 52, which will be a standard-track assessment for Gulf red snapper. This means that the assessment will have one in-person workshop, with the formal review of the assessment to be conducted by the SSC. The second term of reference specifies which new data streams are to be considered for inclusion in the analyses. SSC members questioned the specificity of the items listed, asking whether a more broad generalization of what new data to consider would be more appropriate. Staff replied that the specificity was necessary to prevent the assessment from failing to meet the terms of reference. State representatives on the SSC then discussed various fishery-independent and fishery-dependent surveys in their respective states, especially those being conducted using monies from the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund. The SSC then added the following text to the data to be included under term of reference #2:

"Investigate the use of FL, MS and AL survey data collected through the NFWF Gulf Environmental Benefit Fund"

The SSC then unanimously passed the following motion:

> **Motion to approve the TORs for SEDAR 52 GOM Red Snapper as modified.**
> Motion is approved unanimously.

Staff reviewed the proposed schedule for SEDAR 52. An SSC member noted that the schedule seemed "optimistic", since it would be unlikely that the SSC would be able to review the assessment in time for the Council to take action prior to the opening of the recreational red snapper season in 2018. Staff clarified that the timing was the result of an effort to ensure the use of 2016 data, and to allow for the incorporation of updated recreational catch statistics. Additional webinars beyond the two proposed could be scheduled, if needed. The SSC then unanimously passed the following motion:

> **Motion to approve the SEDAR 52 GOM Red Snapper Standard assessment schedule as presented.**
> Motion is approved unanimously.

Staff requested the participation of four SSC volunteers as panelists for the SEDAR 52 assessment. Drs. Sean Powers, Will Patterson, Kai Lorenzen, and Jim Tolan, and Mr. Bob Gill all volunteered. The Council will select four panelists for the assessment from these five volunteers.

Review Additional MSST Alternative for Amendment 44

Following an SSC review in January 2017 of an analysis by the SEFSC on the time needed for stocks to recover from various MSST levels, staff prepared a draft Reef Fish Amendment (Amendment 44) to establish MSST for all reef fish. The Council, upon reviewing the draft amendment, selected Alternative 3 as the preferred alternative (MSST = (1-M)*B_{MSY} or 75% of B_{MSY}, whichever produces the larger buffer between MSY and MSST), but the Council also asked that a new alternative be added to set MSST at 85% of B_{MSY}, and requested feedback from the SSC on the effect of setting MSST at 75% vs. 85% of MSST. SSC members noted that the 85% level had been included in the January analyses. They felt that the selection of MSST was a management decision, and they did not have anything further to add. However, SSC members recommended that the alternative remain in the amendment for public consideration.

ABC Control Rule White Paper

This item was not reviewed due to a lack of time. It will be placed on the agenda for the next SSC meeting.

Update on National SSC VI Meeting

Staff informed the SSC that planning has begun for the sixth national SSC meeting. Steven Atran and Joseph Powers are members of the Scientific Coordination Subcommittee planning team. The meeting will be hosted by the Pacific Fishery Management Council (PFMC), and will be held January 17-19, 2018 in the San Diego, California area. The proposed theme of the meeting is "Management Strategy Evaluations (MSEs) as Tools to Provide Management Advice in the Face of Uncertainty and

Environmental Change". The PFMC will pay for 4 SSC members and 1 staff from each Council. Others can attend, but will need to arrange their own financing. SSC members will be selected later in the year.

Other Business

The SSC reviewed the list of tentative meeting dates in 2017. The May SSC meeting was rescheduled from May 16-18 to May 9-11 to eliminate a conflict with a Council Coordination Committee Meeting and with other scheduling conflicts that week. Staff informed the SSC that the Council would like to reduce the number of SSC meetings in 2017 from 5 to 4 meetings due to budget uncertainties. Several SSC members indicated that they had scheduling conflicts with the July 18-20 meeting, so that meeting has been cancelled. The final SSC meeting of the year is still scheduled for September 12-14.

SSC Members Present

Standing SSC

Luiz Barbieri, Chair
Joe Powers, V. Chair
Lee Anderson
Harry Blannchet
Benjamin Blount
David Griffith
Jack Isaacs
Jeff Isely
Walter Keithly
Kai Lorenzen
Paul Mickle
Will Paterson
Sean Powers
Ken Roberts
Steven Scyphers[1]
Robert Shipp
James Tolan[1]

Reef Fish SSC

Jason Adriance
Marcus (James) Drymon
Robert Ellis
Jennifer Herbig
John Mareska

Shrimp SSC

Richard Burris[2]
Ryan Gandy[2]
Leslie Hartman[3]
Jeffrey Marx[2]
James Nance[2]

Socioeconomic SSC

Steve Jacob

1 – Attended via webinar, days 1, 2, and 3
2 – Attended in-person, day 1 only
3 – Attended via webinar, day 1 only

Council Staff

Steven Atran
Assane Diagne
Matt Freeman
John Froeschke
Doug Gregory
Morgan Kilgour
Ava Lasseter

Others

Shannon Calay, NMFS/SEFSC
Nancie Cummings, NMFS/SEFSC
Rick Hart, NMFS/SEFSC
Peter Hood, NMFS/SERO
Mara Levy, NOAA/GC
Patrick Lynch, NMFS/S&T[1]
Rich Malinowski, NMFS/SERO
Michael Drexler, Ocean Conservany
Elizabeth Herdter, USF
Quinn Weninger, Iowa State Univ.[1]

Jessica Matos	Larry Perruso, NMFS/SEFSC
Emily Muehlstein	Jeff Pulver, NMFS/SERO
Ryan Rindone	Skyler Sagarese, NMFS/SEFSC
Charlotte Schiaffo	Beth Wrege, NMFS/SEFSC
Carrie Simmons	

1 – via webinar

Council Representative
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