

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SCIENTIFIC AND STATISTICAL COMMITTEE



SSC MEETING REPORT FINAL

October 25-27, 2022

**Town and County Inn
Charleston, SC**

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SAFMC PUBLIC COMMENT PROCESS

Written comment:

Written comment on SSC agenda topics is provided to the Committee through an online form, similar to all other Council briefing materials. Written comment can be submitted at [this link](#). For this meeting, the deadline for submission of written comment is 5:00 p.m., October 26, 2022.

Verbal comment:

Two opportunities for comment on agenda items will be provided at set times during SSC meetings. The first will be at the beginning of the meeting, and the second near the conclusion. Those wishing to comment should indicate such in the manner requested by the Chair, who will then recognize individuals to provide comment.

An opportunity for comment on specific agenda items will also be provided as each item comes up for discussion. Comments will be taken after all the initial presentations are given and questions from the SSC are answered, but before the SSC starts making recommendations to address the action items. As before, those wishing to comment should indicate such in the manner requested by the Chair, who will then recognize individuals to provide comment. All comments are part of the record of the meeting.

Meeting Format:

This meeting will be held in-person at the Town & Country Inn, Charleston, SC. Online registration for the meeting can be found at the Council's website: <https://safmc.net/scientific-and-statistical-committee-meeting/>

1. INTRODUCTIONS

1.1 Documents

Attachment 1a: SSC October 2022 Revised Agenda
Attachment 1b: Transcript from the August meeting

1.2 Action

- Introductions
- Review and approve agenda
 - [Agenda approved](#)
- Approve transcript from August meeting
 - [August transcript approved](#)

2. PUBLIC COMMENT

The public is provided this comment period for any general comments pertaining to any items on the agenda. There will also be time provided for public comment during each specific agenda item as they are discussed. Those wishing to make comment should indicate their desire to do so to the Committee Chair.

3. SEFSC INTERIM ANALYSIS STRATEGY

3.1 Documents

Attachment 3a. Interim analysis strategy presentation
Attachment 3b. Interim analysis strategy full report

3.2 Presentation

Dr. Nikolai Klibansky and Dr. Cassidy Peterson, SEFSC

3.3 Overview

We conducted a management strategy evaluation (MSE) to investigate how management procedures that adjust catch advice between stock assessments performed compared with existing management procedures. We built operating models (OM) for four reef fish species from the US Southeast Atlantic, based on recent stock assessments including Black Sea Bass, Red Porgy, Snowy Grouper, and Vermilion Snapper. These OM contained parameters and data specific to each stock, associated fisheries, and the sampling programs that monitor them. The analysis assumed efficient implementation of management, such that observed catch was equal to total allowable catch (TAC). Our analysis focused on a base scenario intended to most closely characterize the reality of each stock. We also developed multiple alternative scenarios to investigate the sensitivity of the analysis to deviations from the base configuration. A set of management procedures (MP) were applied independently in closed loop simulation for each species and scenario, with many replicate runs. The MP varied in terms of how often stock

assessments were conducted (every 1, 5, or 10 years), and how catch advice (i.e. TAC) was adjusted between stock assessments. Between assessments, TACs were either fixed, adjusted based on projections or adjusted based on a reference index of abundance. Results varied among species and scenarios, but generally showed that healthy stock and fishery status ($SSB > SSB_{MSY}$ and $F < F_{MSY}$) and comparable levels of total catch could be maintained with stock assessments conducted every 1, 5 or 10 years, whether TACs were fixed, projected, or adjusted based on indices of abundance. But these management procedures vary in terms of average annual variability in yield (AAVY), which was highest when TACs were adjusted based on indices of abundance and lowest when TACs were fixed between assessments.

3.4 Public Comment

3.5 Action

- Review, discuss, and provide feedback on the interim analysis strategy
- Can interim analysis be a tool to improve management during the interval between assessments? If yes, how should it be implemented?
- Yes, interim analysis (IA) will be a useful tool with several considerations as described below:
 - In addition to the index of abundance, other elements of the survey [size composition (e.g. evidence of truncation?), spatial distribution (e.g. expanding vs contracting), etc.] and fishery [size/age composition, quotas (e.g. are quotas being met? how quickly?)] should be considered when conducting the IA.
 - Specific feedback from Advisory Panels should be considered for use in the IA.
 - IA could be triggered by a value or a trend in an index, rather than a pre-determined time interval.
 - What hurdles might the SSC run across in recommending/adopting new recommendations or actions based on interim analysis?
 - The availability of a reliable abundance index is critical for the application of the IA process; however, a reliable abundance index is not available for all species.
 - How additional indices of abundance and more sources of information (e.g., length frequencies, distribution changes, stakeholder observations) could improve the IA process should be investigated.
 - Stationarity in the operating model assumes no regime or life history changes. How can MSE approaches use non-stationary operating models to compare among IA and normal assessment approaches? This could help identify when regime change is occurring.
 - How do the operating models comport with MSA? (e.g., Is P^* considered)
 - Consider recruitment projection issues (S-R curve, recent mean, etc.) when determining time between assessments. An empirical index of recruitment would be particularly valuable. Models do use recruitment variability from stock assessment.
- How would the interim analysis strategy integrate with the proposed ABC control rule? What would realistic management procedures look

like. How do TACs actually get set relative to output from IA, particularly when there is a bias?

- Risk level in new ABC-CR recommended by SSC (and ultimately set by Council) could be reconsidered based on results of an IA. SSC would then review the changes to the ABC indicated by IAs and recommend new ABCs.
- SSC would recommend change in TAC (ABC/ACLs) from IA and specify how many years until next review.
 - o 5-year IA interval may be too long based on fishery triggers and species biology.
 - o Consider higher IA/assessment frequency if stock is in a rebuilding plan
 - o IAs will likely be conducted at different intervals (e.g., every 2 to 3 years) depending on realistic workload and management expectations and needs. Using triggers in stock status or fishery landings could be used to initiate an IA (would be great to simulate this).
 - o SERFS trap and video index tracking closely for many species. Since the processing of the video data takes considerably longer (1.5 to 2 yrs) than analyzing trap catches (<1yr), look at trap only data (for species that trap) to expedite data inputs for IA.
 - o In addition to IA results, SSC should look more broadly at fishery and stock performance. For example, did the fishery reach quota in recent years? What is the size distribution of catch in fishery-dependent and fishery-independent samples? Were there trends in recruitment? Any changes in stock or fishery reported by port samplers? SAFE reports (see below) may help with this.
- To what degree can/should interim analysis replace current stock assessments or reduce the frequency of full stock assessments?
- Initial focus should be to reduce frequency of full stock assessments, but not to replace those assessments.
- Preliminary results from MSE simulation studies for some species indicate that projections may be unnecessary if interim analysis become available and reliable.
- Not having any implementation error is major hurdle to SSC endorsement. Implementation error needs to be explored further:
 - o Explore implementation error with regards to inability to control the magnitude of recreational discards/recreational effort.
 - o If IAs are reasonably robust to implementation error, then the time interval between full assessments could be longer.
- Does the SSC have any advice for next steps in studying the effectiveness of interim analysis? (e.g., Is more simulation analysis required? Does this need to be done for more species?)
- Consider retrospective analysis to determine effectiveness of IA approach.
- Explore more thoroughly the consequences of model misspecifications to the IA approach.
- “Torture test” models a bit more with respect to catch (e.g., catch with buffer).

- Attempt to more closely mimic actual management procedures. For example, accounting for the time it takes to implement management measures once a decision has been made to do so.
- The IA frequency could be triggered based on the index (or other key metrics). This might help with prioritization of species in need of IA.
- Exact implementation may differ among species because of substantial variation in performance of IAs (e.g., projections appear to work better for vermilion snapper).
 - o Consider expanding this study to include a few more of the critical SAFMC species and assess performance across a wider range of species. If possible, identify common traits among species that make the IA approach more suitable and successful for some species than others (max age, longevity, specific life-stage).
- A council option does exist to approve changes from IA within a year. However, we recommend simulating a longer lag between terminal data year and management year.

4. SNAPPER-GROUPER MANAGEMENT STRATEGY EVALUATION (MSE) MODEL

4.1 Documents

Attachment 4a. Blue Matter Science Snapper Grouper MSE presentation

4.2 Presentation

Dr. Adrian Hordyk, Blue Matter Science

4.3 Overview

Management Strategy Evaluation (MSE) is internationally recognized as best practice for evaluating the performance of alternative management approaches and identifying the mode of management that is most likely to meet the various management objectives of a fishery. The MSE process is designed to support evidence-based decision-making in the face of uncertainty on the status and dynamics of a fishery system. It was developed in response to a common situation where there were conflicting interpretations of a stock assessment process, and there was no clear path for making an informed and transparent management decision. In short, the MSE process involves building a range of models which span the key uncertainties in the fishery system and using computer simulations to evaluate the performance of alternative management methods against established management objectives.

Stakeholder participation is a fundamental component of the MSE process. Discussions with stakeholders are used to establish the three main areas of the MSE process: 1) Uncertainties in the Fishery System, 2) Feasible Management Options, and 3) Objectives for Evaluating Performance. Stakeholder input and feedback will be primarily obtained from the SAFMC Snapper-Grouper Advisory Panel.

The SSC is requested to discuss potential uncertainties with the model framework and data inputs, and how these uncertainties may affect model performance. The SSC will have the opportunity to review the final operating models produced by the MSE process at a later meeting.

4.4 Public Comment

4.5 Action

- Review MSE model structure, potential data inputs, and uncertainties:
 - What are the most important uncertainties in the fishery system?
- What happens under different management procedures?
- How do stakeholders respond to management policies, such as reallocation under different Management Procedures?
- Discards are not well-understood and are changing through time. This affects ability to predict fishing mortality
- Recruitment uncertainty is a pervasive challenge
- Interactions between species in a multi-species fishery, and which species to include in the multi-species MSE (stakeholders switching species).
- Data-limited species
- Spatial considerations
- Other recommendations:
 - Incorporating co-occurrence of species, spatial/temporal differences in species, and differences among fleets
 - Investigate best time-steps to use in the model as they may differ by species (e.g., short- vs long-lived)
 - Consider Bayesian modeling as part of updating management strategies, inverse sampling for rare species, and VAR (vector autoregression) and time series modeling
 - Suggest consulting research recommendations from SEDAR stock assessment reports to determine what has and has not been addressed regarding uncertainties.
 - What are the main data sources that can be used to evaluate the state of the fishery? What data **not** in the assessments would be helpful for the MSE?
 - What are the primary concerns with the data sources?
- Investigate level of detail for all data sources needed for spatial analysis in MSE, including spatial distribution of species data that is not integrated in stock assessments. (fishery-dependent and -independent)
- Socioeconomic data over time (fuel prices, unemployment rate, market prices)
- Stakeholder input from other sources in addition to APs – citizen science data, fishery performance reports. Be transparent of all different ways input is obtained.

- Investigate catchability changes over time (assumed constant but potential for continuous increase due to advances in marine electronics and vessel positioning systems)
- Fishery data used in operating models will not be any more informative than what was used for stock assessments.
- Changing environmental conditions affect all stocks in a multitude of ways. There is no background for magnitude and directionality in terms of distributions and abundances.
- Recommend SEP also provide feedback for MSE
- Recommend looking at the range of sensitivities from the stock assessments to inform configurations of MSE simulations and address uncertainties.

5. SEFSC MSE STRATEGIC PLAN

5.1 Documents

Attachment 5a: MSE Strategic plan for South Atlantic

5.2 Presentation

Dr. Cassidy Peterson & Dr. John Walter, SEFSC

5.3 Overview

The Southeast Fishery Science Center (SEFSC) will present their strategic plan for using management strategy evaluations (MSE) for three flagship case studies that focus on regime-changing, high-profile applications that have the potential to improve management of fisheries in the southeast region. The three case studies presented will include Dolphin in the South Atlantic, Gulf of Mexico shrimp, and Kemp's Ridley Sea turtles. Beyond these flagship cases, the SEFSC will also describe other potential collaborations and processes related to the MSE strategic plan for the South Atlantic and other regions.

5.4 Public Comment

5.5 Action

➤ No actions needed.

6. SPANISH MACKEREL REVISED OPERATIONAL ASSESSMENT

6.1 Documents

Attachment 6a: SEDAR 78 Spanish Mackerel update MRIP 2020 data

Attachment 6b: SAFMC Sept 2022 Meeting - Mackerel Cobia Committee Report

6.2 Presentation

Dr. Erik Williams, SEFSC

6.3 Overview

The SEDAR 78 South Atlantic Spanish Mackerel operational assessment was reviewed by the SSC at the August 2022 meeting. The SSC noted several concerns with the assessment (see August meeting final report), and determined it was not suitable for providing management advice until several issues could be resolved. This recommendation was given to the Council at the September 2022 meeting. During Council discussions, the SEFSC indicated that one of the SSC's primary concerns (the recreational landing estimates in the terminal year of the assessment), could be further investigated and adjusted. The SEFSC agreed to rerun the SEDAR 78 assessment model with new landings to address uncertainty with the MRIP estimates in the terminal year. The SSC will review the changes at this meeting and determine whether the changes were sufficient to address their cited concerns or if additional changes are needed. If additional changes are substantial, a research track assessment would be needed for Atlantic Spanish mackerel.

6.4 Public Comment

6.5 Action

- Review any additional data provided since the SEDAR 78 Spanish Mackerel operational assessment if available.
- Based on the issues stated during the SEDAR 78 stock assessment review, recommend whether a re-run of the operational assessment with requested or additional changes, research track assessment, or other method is more appropriate.
- Discuss and recommend procedure for stock status determination and acceptable biological catch levels if assessment is not accepted.

General Comments:

- The SSC discussed high PSEs on Spanish mackerel recreational landings for some modes/waves. The SSC discussed establishing general criteria for a threshold in PSE to be acceptable as we currently do not have one, although it has been discussed before. The elevated uncertainty of some MRIP estimates points to the need for a method to determine estimated points that require additional scrutiny.
 - SSC recommends reviewing the MRIP calibrations document and NAS report at a future SSC meeting to address more global committee concerns (i.e. determine CV threshold). MRIP currently reports values with CV at 0.5 or less, estimates of 0.3 or higher with warning.
 - Annual Spanish mackerel MRIP estimates from working paper 03 in SEDAR 78 show CVs less than or equal to 0.3 since 1986. Precision in 2020 similar despite perceived effects of the pandemic, lower sampling effort, and imputation. Years 2020 and 2021 included imputed data, though sampling effort has been increasing in recent years. SSC concerned that PSEs are biased low for these years.

- For species other than Spanish mackerel, look at other methods that remove data points which exceed a threshold of uncertainty or collapsing across frames to reduce PSEs across strata. This was determined not to be necessary for Spanish mackerel because of reasonable CV values (~0.3) for terminal year estimates (see above; working paper 03 in SEDAR 78).
- For Spanish mackerel, pull specific MRIP data from suspect modes/waves/areas to get estimates with PSEs. Compare estimates between recreational shore mode vs. recreational private boat mode. For example, there is a high PSE for the shore/inland mode estimate of harvest in 2020, and that harvest value makes up a substantial fraction of the 2020 total harvest.
- In addition to concerns with recreational catch data, the SSC expressed concern with lack of age composition data in both fishery sectors, uncertainty in max age, plus groups, and uncertainty in natural mortality demonstrated by the likelihood profile.
- Prior to 2020, trends in F/Fmsy appeared to have been declining, and B/Bmsy appeared to have been increasing; that trend changed with a much higher estimate of harvest in 2020.

SSC Recommendations:

- Recommend revising current operational assessment. A revised operational assessment will be generated by the SEFSC that addresses the concerns outlined by the SSC during the August 2022 review of SEDAR 78 and also during the Fall 2022 SSC meeting; these concerns will be summarized by an SSC sub-group, reviewed by the entire SSC, and then provided to SEFSC analysts.
 - o If MCBEs can be re-run, recommend using revised operational assessment model for ABC setting in spring 2023. If changes in terminal year or substantial changes to current OA occur, would require addition to the SEDAR schedule and specifying TORs for next OA.
 - o Alternative methods in setting ABCs and projections could be investigated if necessary.
- Subgroup task and timeline:
 - o Sub-group members: Yan Li, Dustin Addis, Marcel Reichert, Eric Johnson, with participation by SEFSC analysts
 - o Sub-group meets by Dec 1 to determine terms for potential OA model re-runs for the SEFSC based on concerns and recommendations from August and October 2022 SSC meetings.
 - o January webinar: Full SSC review of sub-group findings.
 - o Request SEFSC perform analysis.
 - o Review results of model re-runs and new projections for setting ABC at April SSC meeting.
 - o Task: Review M, MCBE distributions and likelihood profiles, growth models, steepness. Given likelihood profiles indicated M is likely much higher than assumed in the base model, consider revising natural mortality and/or distribution assumptions for M in the MCBEs. Consult likelihood profiles,

estimates of natural mortality for congeners from other regions worldwide ($M = 0.49-0.54$), and Then et al. 2015 or other estimators of M to inform analyses. Current base $M=0.35$ and range= $0.3-0.42$.

7. RELEASE MORTALITY REDUCTION FRAMEWORK AMENDMENT 35

7.1 Documents

Attachment 7a: FWC FL hook analyses

Attachment 7b: SAFMC SC hook analyses

7.2 Presentation

Dr. Heather Christiansen, FWC and SAFMC Staff

7.3 Overview

The SAFMC is considering means to reduce the discard rate for snapper grouper species as an action in Amendment 35: Snapper Grouper Release Mortality Reduction and Red Snapper Catch Levels, in order to increase the level of acceptable biological catch for red snapper from the last stock assessment projections. One of the mechanisms being investigated is the requirement of using single hook tackle (as opposed to double hook) to reduce encounter rates and catch per unit effort. FWC has single-hook/double-hook data that will be investigated to determine how these datasets can be used together to characterize efficiency differences between single and double-hook rigs. A pilot project is also being conducted by Council staff off the coast of South Carolina comparing catch rates between single hook and double hook rigs.

7.4 Public Comment

7.5 Action

- Comment on the utility of using single hook versus double hook tackle for reducing catch rates in the snapper grouper fishery.
- Issue is complex due to a variety of single- and multiple-hook rigs used on trips targeting multiple species managed under different plans (e.g., snapper/grouper and cobia/mackerel).
- Preliminary data suggest a small reduction in catch of red snapper when using a single hook relative to a double hook rig.
- Observer data summary of for-hire (charter/headboat) anglers on east coast of Florida found that the majority used a single hook rig and only 8.5% use separate double hooks. Thus, a change to a single hook rig for this stakeholder group will not have a substantial effect on catch reductions.
- Total number of double hook vs. single hook rigs used in the private recreational sector is unknown and is a critical piece of information to assess the overall impact of single vs. separate double hook rigs.

- What is the ratio of landings for private recreational compared to for-hire? The majority of effort/landings is from private recreational fishery, emphasizing the need for information on their gear use practices.
- If possible, add a question to the private recreational survey about use of one vs. two hook rigs. Answers to this question may be complicated because of nuances and variety in rig types used.

8. RED SNAPPER RECRUITMENT PATTERNS

8.1 Documents

Attachment 8a: Red snapper recruitment patterns presentation

Attachment 8b: Karnauskas et al. 2022 *Fisheries Oceanography*

8.2 Presentation

Dr. Mandy Karnauskas, SEFSC

8.3 Overview

Abstract: Geopolitical fishery management boundaries are often misaligned with the ecological population structure of marine species, which presents challenges for assessment and management of these species. Red snapper, *Lutjanus campechanus*, is an iconic and heavily exploited species in both the US Gulf of Mexico and off the southeastern US Atlantic coast and is managed separately in the two jurisdictions. It is hypothesized that the Atlantic red snapper stock is sustained partially by larval subsidies from the Gulf of Mexico. Here we use a biophysical modeling approach to simulate recruitment of red snapper across the entire Southeastern US region and quantify rates of larval exchange across management jurisdictions. The biophysical framework simulates realistic red snapper behaviors and traits with respect to spatial distribution and timing of spawning, larval vertical migration and pelagic larval duration, and settlement habitat. Our results suggest that areas of the West Florida Shelf south of Tampa Bay are important sources of larvae for the Atlantic population, supplying as much as one third of the recruitment during some years. Yet, contributions of Gulf-spawned red snapper to the Atlantic stock are highly dynamic given large variability in spatial and temporal patterns of red snapper recovery in each region. As such, effective management of the Gulf of Mexico red snapper stock, particularly the spawning population in southwest Florida, may have important consequences for the sustainable harvest of red snapper off the Atlantic coast.

8.4 Public Comment

8.5 Action

- Review paper on red snapper source-sink dynamics
- Discuss the implications of these findings in the context of the latest red snapper operational assessment and for providing fishing level recommendations.

- Forecasting red snapper recruitment in the SA may be even more challenging with influx of red snapper larvae from GOM. The stock-recruitment relationship for SA red snapper may not be as informative if considerable recruitment is coming from the GOM.
- Lends more support for not estimating a stock-recruitment curve in the assessment and for using recent average recruitment in SA red snapper projections.

9. SEFSC MINIMIZING DISCARDS IN THE SNAPPER GROUPER FISHERY

9.1 Documents

Attachment 9a: SEFSC discards project for snapper grouper

9.2 Presentation

Dr. Scott Crosson & Dr. Kyle Shertzer, SEFSC

9.3 Overview

The SEFSC will provide a summary and some preliminary results of a project seeking to explore mechanisms for reducing discards in the snapper grouper fishery. Specifically, the project aims to: (1) Compute improved discard estimates for the reef fish fishery in the U.S. South Atlantic and, (2) Model the economic and biological effects of a limited number of significantly different regulatory regimes that would minimize those discards while potentially increasing retained catch. Scenario modeling in the project includes both short-term and long-term options and explores the tradeoffs between regulatory ease and fishing access.

9.4 Public Comment

9.5 Action

- Does this modeling approach have potential utility?
 - Specifically, could it help the SSC frame its scientific guidance to the Council?
- Yes, the ability to explore other options to reduce effort outside of broad area/time closures is extremely valuable and helpful. SSC presentation to Council from June meeting: education/gear modifications not likely to have a substantial effect on discard mortality (i.e., will not achieve necessary percent reduction in effort), time/area closures predicted to have the largest effect (not favored by Council).
 - Any recommendations for model configuration or development?
- Add time/season coefficient matrix, look at proportion of effort as it shifts spatially and temporally during spatial and time closures. Where does efforts shift to in time and space, and to different species? In areas where effort is displaced to there could be positives (increased catch of other species) or negatives (discarding of species the closure was designed for).

- Potential splitting of the recreational fleets (private rec fleet and a charter-for-hire fleet). This would enable the exploration of additional management strategy options.
- Potential source of information for effort shifting by depth is the increasing amount of observer coverage.
 - Any recommendations for specific output that would be useful?
- Current outputs: landings, dead discards, total kills, population dynamics
- With additional species added to the model, tradeoff plots showing species-specific benefits/detriments, and sub-region tradeoffs.
- Displacement of effort to or from abundance hotspots.
- Abundance by area.
 - Any recommendations of additional management scenarios to explore?
- Model effort over length of season (patterns of decreasing effort over season length, as has been seen in spiny lobster fishery)
- Bag limit by trip
- Changes in gear types (empirical studies on single/double hooks, electric reels), what reduction in dead discards results from the reduction of catchability?

10. GREATER AMBERJACK ESTIMATION PROJECT UPDATE

10.1 Documents

Attachment 10a: Presentation of Greater Amberjack estimation project
Attachment 10b: Greater Amberjack project narrative
Attachment 10c: Powers et al TRP response

10.2 Presentation

Dr. Mark Albins and Dr. Sean Powers, University of South Alabama

10.3 Overview

The overarching goal of the proposed research initiative is to provide an independent estimate of GAJ abundance in the US Gulf GoM and SA in waters out to 150 m in depth. The independent estimate of abundance derived from the proposed research will be compared with the estimates derived from the stock assessment models used by NOAA Fisheries (Stock Synthesis, Beaufort Assessment Model), allowing validation, calibration, and further refinement of the model. To accomplish this goal, an expansive sampling program focused on providing a rigorous estimate of Age 1+ GAJ that can be separated into length bins and stratified by region and habitat type. The sampling design will be informed by a comprehensive data synthesis (fisheries-dependent and independent data, previous habitat mapping and traditional fishermen knowledge). Sampling approaches will be refined through intensive calibration studies. Key assumptions of our sampling design and approaches as well as supportive information will be collected through a series of companion studies. These supportive projects include studies that are designed to

examine unresolved issues associated with our understanding of movement and connectivity of GAJ in the southeastern U.S.

10.4 Public Comment

10.5 Action

- Comment and provide feedback on the methods and potential uncertainties for the Greater Amberjack research project.
- Uncertainties:
 - SCDNR short bottom longline gear data showed 17% of GAJ surveyed in greater than 150m (the max depth of the proposed study)
 - Ability of bioacoustic fingerprinting to differentiate between GAJ and other closely related species could change as function of depth-related pressure.
 - eDNA sensitivity to detect GAJ given currents, movement, DNA deterioration, etc.
- Discuss how this estimate will be integrated into next Greater Amberjack stock assessment process.
 - What potential obstacles might there be in using these data?
- Single snapshot of absolute abundance in time/space, and how to integrate into the stock assessment. There are several ways to integrate into the stock assessment (fit to abundance, scale abundance estimates using uncertainties) that should be explored.
- Many other elements (biological data, etc.) that will be generated by this study, besides the final estimate of abundance, have potential to provide valuable information for the stock assessment and management advice.
- Conversion of abundance estimates into biomass using size data.
- Matching sampling strata with management boundaries.
- Characterizing uncertainty in final estimates and will these estimates be too uncertain to be informative for the assessment.
- Make sure to incorporate biological data from project with existing methods in aging/growth to maintain continuity with the assessment process. Ensure representation in aging groups across study region (GOM and SA).

11. SEDAR: GOLDEN TILEFISH, BLUELINE TILEFISH, SADL SURVEY

11.1 Documents

Attachment 11a: Golden Tilefish TORs, schedule, participants – option 1
Attachment 11b: Golden Tilefish TORs, schedule, participants – option 2

11.2 Presentation

Kathleen Howington, SEDAR Staff

11.3 Overview

Review terms of reference, schedule, and recruit participants for Golden Tilefish operational assessment. Review schedule and recruit participants for Blueline Tilefish operational assessment. Appoint 4-5 SSC members to workgroup for review of the South Atlantic Deepwater Longline (SADL) survey.

11.4 Public Comment

11.5 Action

- Review TORs, schedule and participants for Golden Tilefish
- Option 2 as preferred TOR: more generic language provides for additional flexibility and inclusion of newer data.
- Catch level projections workgroup recommendations will be incorporated into the TOR.
- Formation and review of topical working group items should be done early in assessment schedule.
- Participants: Wally Bublely, Marcel Reichert

- Review schedule and recruit participants for Blueline Tilefish
- Use DLM tool for all catch and data streams in the “sliver” (Cape Hatteras to VA-NC border) and northward
- Participants: Scott Crosson, George Sedberry

- Appoint 4-5 SSC members to SADL workgroup to review TORs
- Workgroup Participants: George Sedberry, Marcel Reichert, Wally Bublely, Fred Scharf

12. NATIONAL SSC MEETING SUMMARY

12.1 Documents

Attachment 12a: National SSC meeting summary
Attachment 12b: SCS7 meeting agenda

12.2 Presentation

Dr. Scott Crosson & Dr. Amy Schueller, SEFSC

12.3 Overview

The 7th national SSC meeting (SCS7) was held in Sitka, Alaska in August to discuss overarching topics related to “Adapting Fisheries Management to a Changing Environment.” Three topical sessions were held, each with a keynote speaker and several case studies related to the topic, followed by breakout discussion sessions amongst all meeting participants. The three main sessions were: (1) How to incorporate ecosystem indicators into the stock assessment process?

(2) Developing information to support management of interacting species in consideration of EBFM, and (3) How to assess and develop fishing level recommendations for species exhibiting distributional changes due to climate variability and climate change?

12.4 Public Comment

12.5 Action

- No actions needed.

13. SAFE REPORTS REVIEW

13.1 Documents

Attachment 13a: SAFE reports review

13.2 Presentation

Dr. Chip Collier, SAFMC Staff

13.3 Overview

Council staff have started to develop Stock Assessment and Fishery Evaluation (SAFE) Reports. These reports are required through National Standard 2 of the Magnuson-Stevens Act. The report should contain the best scientific information available on the condition of the stock, essential fish habitat, marine ecosystems, and fishery. These reports can serve as regular updates to the SSC and Council to aid in discussing the condition of the stock and potential need for adjusting current management measures. The SSC is asked to provide feedback on information that is crucial for a SAFE report and information that would be good to include.

13.4 Public Comment

13.5 Action

- Review the SAFE report template and provide feedback on existing content and other potential content to include.
 - What other information is needed for the SAFE Report?
 - [Climate vulnerability assessments have been done for many species. Provide link to these reports in the SAFE Report.](#)
 - [Ecosystem status report has been published. Provide link to the report.](#)
 - [Sea surface temperature plot updated annually.](#)
 - [Price per pound. Estimate of economic profits \(link or include information\)](#)
 - [Anticipated date for next stock assessment.](#)
 - [Pre-recruit or recruitment index graphic that can be compared to catch and other indices presented graphically.](#)
 - [When index is not available note that information is not available.](#)

- What other information would be useful to include in the SAFE Report?
- Compare index from stock assessment to index provided
- Look at information used to set ABC
- Research recommendations including identifying recommendations that have been addressed.
- Size distribution for landed and released fish

14. FISHERY MANAGEMENT PLAN AMENDMENT UPDATES

14.1 Documents

Attachment 14a: Fishery management plan amendment updates

14.2 Presentation

Dr. Mike Schmidtke, SAFMC Staff

14.3 Overview

Updates to various fishery management plan amendments will be provided for informational purposes related to Snowy Grouper, Greater Amberjack, Golden Tilefish, Gag Grouper, and the ABC Control Rule. The intent of these updates is to inform the SSC of the Council's decisions regarding these amendments and how SSC recommendations were integrated into the decision-making process.

14.4 Public Comment

14.5 Action

- No action needed.

15. OTHER BUSINESS

- Unassessed stocks workgroup update → send reports from previous workgroups
 - Need to draft TORs for new workgroup (explore techniques for ABCs of 0)
 - Joint workgroup (w/GOM) TORs to address Goliath Grouper species only.

16. PUBLIC COMMENT

The public is provided one final opportunity to comment on SSC recommendations and agenda items.

17. CONSENSUS STATEMENT AND RECOMMENDATIONS

The Committee is provided an opportunity to review its report, final consensus statements, and final recommendations.

The Final SSC report will be provided to the Council by noon on Friday, November 18, 2022 (approximately 3 weeks from the end of the meeting) for inclusion in the briefing book for the September Council meeting.

18. NEXT MEETINGS

18.1 Scientific and Statistical Committee Meetings

- January 20, 2023 (webinar)
- April 18-20, 2023 in Charleston, SC
- October 24-26, 2023 in Charleston, SC

18.2 South Atlantic Fishery Management Council Meetings

- December 5-9, 2022 in Wrightsville Beach, NC
- March 6-10, 2023 in Jekyll Island, GA
- June 12-16, 2023 in PonteVedra, FL

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