SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SCIENTIFIC AND STATISTICAL COMMITTEE

SSC Meeting Report – *DRAFT3.0*

April 15-17, 2025

Approved by SSC May **, 2025

Town & Country Inn

2008 Savannah Highway

Charleston, SC

VERSION
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CONTENTS

TABLES AND FIGURES

DOCUMENTS

*Indicates materials not available for briefing book at time of posting. These materials will be added to the recent materials section when available.

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 10:00 a.m., April 17, 2025.

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 and 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. April 2025 SSC Agenda
Attachment 1b. October 2024 SSC Meeting Minutes
Attachment 1c. October 2024 Final Report - Revised

1.2 Action

- Introductions
- Review and approve agenda.
  - *Agenda was approved.*
- Approve minutes from October meeting.
  - *Minutes were approved with some editorial changes.*
- Approve revised Oct 2024 final report
  - *Revised final report was approved.*
- Updates from SERO/SEFSC (SAFMC Staff)
  - *The SSC received a report about recent staffing changes at SERO and SEFSC, and the possible impact on SSC activities.*

2. PUBLIC COMMENT

No public comment was provided.

3. SEDAR 92: ATLANTIC BLUELINE TILEFISH SOUTHERN REGION MODEL

3.1 Documents

Attachment 3a. Summary of Stock Assessment Review Plan
Attachment 3b. SEDAR 92: Terms of Reference
*Attachment 3c. Blueline Tilefish Production Model Presentation
Attachment 3d. SEDAR 92 (2025): Atlantic Blueline Tilefish SAR
Attachment 3e. South Atlantic ABC-CR Tables
Attachment 3f. SEDAR 50 (2017) Atlantic Blueline Tilefish SAR (*supplementary*)

3.2 Presentation

Dr. Nikolai Klibansky, SEFSC and Dr. Judd Curtis, SAFMC Staff

3.3 Overview

The SEDAR 92 Operational Assessment process updated the previous SEDAR 50 Atlantic Blueline Tilefish stock assessment. The assessment was conducted by the SEFSC within the SEDAR process with a terminal year of 2023. Two Topical Working Groups (TWG) were

convened by SEDAR to review and provide recommendations on data to use in SEDAR 92. The Landing Streams TWG focused on landings and discards north of Cape Hatteras and met five times via webinar between April and September 2024. The Life History TWG focused its discussion on age data and met three times via webinar between October and December 2024.

Following SEDAR 50, stock assessment of blueline tilefish in the Atlantic was divided into southern and northern regions, separated at Cape Hatteras, NC. The assessment was split largely because fishing effort north of Cape Hatteras increased substantially after 2005, while the available indices of abundance did not adequately represent that area. More detailed explanation is provided in the Stock Structure section of the SEDAR 50 Assessment Report (SEDAR 2017) and the preceding Stock ID Workshop Report (SEDAR 50 Stock ID Work Group 2016). The southern region extends from Cape Hatteras, NC, south to the Council boundary at Key West, FL. The northern region extends north of Cape Hatteras to the northern extent of the blueline tilefish range (i.e. waters off of Massachusetts).

For the northern region, the analytical team applied a data limited methods (DLM) model using R package DLM tool (Carruthers et al. 2022). A subgroup of SSC members from the Mid-Atlantic and South Atlantic Councils will review the northern model in late April. Additional discussions at the South Atlantic and Mid-Atlantic SSCs will occur to determine OFL and ABC recommendations.

For the southern region, the analytical team applied an age-aggregated logistic surplus production model (AAPM) using ASPIC software to estimate stock status of blueline tilefish south of Cape Hatteras. This model focuses on the dynamics of the removals as they relate to the indices of abundance, without incorporating any age data or age-structure when modeling the population. Data sources supplied to an AAPM include a time series of removals (i.e. landings plus dead discards) and one or more indices of abundance (i.e. catch per unit of effort). These inputs are in units of biomass (i.e. weight). Biological reference points (benchmarks) were calculated based on maximum sustainable yield (MSY). Computed benchmarks included MSY, fishing mortality rate at MSY (F_{MSY}), and total biomass at MSY (B_{MSY}).

Time series of estimated stock status (B_{2023}/MSST) showed a nearly unexploited stock until the early 1980s when stock status dropped from > 2.5**MSST* to below 0.5**MSST* by 1987. Biomass subsequently remained below the current estimate of *MSST* until 2010. Biomass has continued to increase in recent years and remains well above *MSST* in 2023 and is not currently overfished (B_{2023}/MSST = 1.98). Although bootstrapping shows there is a wide range of B_{2023}/MSST values, there is little statistical uncertainty in the status estimate, with more than 95% of bootstrap runs showing B_{2023}/MSST > 1.0. The time series of estimated F/F_{MSY} suggests that fishing mortality of blueline tilefish in the US South Atlantic had been above the current estimate of F_{MSY} for most years between 1981 and 2003, a period of over 20 years. Since then, F has been below F_{MSY} in all years except 2013. Based on the three most recent years, $F_{current} < F_{MSY}$, overfishing is not currently occurring ($F_{2021–2023}/F_{MSY}$ = 0.28). The range in $F_{2021–2023}/F_{MSY}$ from the bootstrap runs is fairly narrow and there is little statistical uncertainty in the fishing status, with > 95% of estimates of $F_{2021–2023}/F_{MSY} < 1.0$.

The SSC is tasked with recommending whether the assessment adequately met the terms of reference, are consistent with the Best Scientific Information Available (BSIA), and whether the results presented in the SARs are useful for providing management advice and developing fishing level recommendations for the Council. The SSC may request additional analyses be conducted or may use the information provided in the SAR as the basis for their Fishing Level Recommendations (e.g., Overfishing Limit and Acceptable Biological Catch). The South Atlantic Fishery Management Council's SSC will review the southern assessment model at its April 2025 meeting and make recommendations for the Council to review during their June 2025 council meeting.

3.4 Public Comment

Capt. Dewey Hemilright provided public comment (see meeting transcript for details).

3.5 Action

- **Review assessment**
  - Does the assessment address the ToRs to the SSCs satisfaction?
    - *Not completely. TORs specified "adding all new and recent available data sufficient for use in the stock assessment through 2023". The analyst followed the S50 recommendation not to use the fishery-independent short bottom long line (SBLL) index of abundance for blueline tilefish due to limited spatial coverage and years with low sample size, and inclusion of this data did not come up during the assessment process. However, new data were available from a recent MARFIN funded study that included 2 years of survey data with a broader spatial coverage and an increased number of sites that the analyst may not have been aware of. There was a concern raised about the limited coverage of this survey, but it was pointed out that the fishery-dependent landings data south of Cape Hatteras mostly come from off FL, so the landings are also limited in spatial extent. The short bottom long line index shows an increased catch rate in recent years relative to earlier time periods, but the magnitude of the increase is not as large as the increase in stock biomass predicted by the surplus production model.*
  - Is the assessment consistent with BSIA guidance and practices?
    - *No. Data is inadequate to support use of the current age aggregated prediction model (AAPM) to provide defensible scientific conclusions. The SSC concluded that the use of this model is not consistent with BSIA guidance and practices and not suitable for use in making management decisions.*

- *The SSC was primarily skeptical of the surplus production model results because of the large number of years at the end of the time series (>10 years) that are not informed by any effort data. Landings data are not sufficient for surplus production models to provide robust results; these models are only informed by catch/effort time series. The lack of effort and index data at the end of the time series led to the SSC's rejection of the blueline operational assessment for management. Additionally, there were no other data sources that supported the magnitude of increase in biomass of blueline tilefish predicted by the model in the most recent years.*

- Does the assessment reliably capture past trends in the fishery and population?
  - *No, the following justification and caveats were discussed:*
  - *The handline and longline indices used in the assessment are only available from 1993-2007, meaning that the latest model includes even more years at the end of the time series without index data. The SSC accepted the AAPM/ASPIC modeling approach for S50, but rejected this approach for S92 because the increased length of time beyond the end of the index, and the resulting issues discussed above and below.*
  - *Two models fit to either the longline index or the handline index indicate differing levels of productivity. Bootstrap predictions are bimodal with an overlap of the individual distributions. Merging the two distributions may not be the best solution. One index is likely to be more representative of the true population dynamics of the stock, but it is uncertain which index best captures stock dynamics.*
  - *For17 years after the termination of the observed index, model predictions are driven solely by removals. Other sources of information (CPUE, length and/or age compositions, nominal index) were not available or were not used to inform or verify the model predictions. Increasing biomass would likely correspond with a broader age structure with older fish becoming more common in the population.*
  - *This assessment cannot discriminate between increasing biomass attributed to lower F rates and increases in recruitment. Anecdotal information may indicate one or the other. For instance, there was information from the Advisory Panel's Fisheries Performance Report that the portion of the stock from NC and FL indicated that a healthy mix of size classes, both smaller and larger fish are being caught.*

- *Confidence intervals surrounding F in more recent years (since 2011) demonstrate much higher precision than earlier in the time-series (when indices were available). This is counterintuitive and may perhaps be due to the convergence of the two index models later in the time series, yet confidence intervals for biomass show wider confidence intervals than F over the same years.*
- *The spike in removals (4-fold increase) in 1982 could be quite influential on the model. Sensitivity run with reducing the high spike was conducted in SEDAR 50 for the age-structured production model. A similar sensitivity run could help to resolve some of the SSC's concerns with the current SEDAR 92 model and, if included in the model (now or in future), provide a more appropriate range of uncertainty for this data-limited model.*
- *Longline and handline models had different CVs, but these were not weighted in the assessment projections. Best practices recommend use/upweight of the commercial CPUE index with highest catches across the time series (assumes this index most likely to follow stock trends. A recent paper by Kokkalis et al., (2024) recommends that the choice of CPUE index should favor "the part of the fishing fleet that is responsible for the majority of the catches", which for blueline is the commercial handline across most of the time series. Note that the SSC commented that a commercial index with consistently high catches could be indicative of hyperstability in CPUE and thus may fail to accurately reflect years/periods of lower stock biomass.*
- *The SCDNR short bottom longline survey should be considered for use in future surplus production model-based assessments for this stock. This survey shows a slight positive trend in relative abundance since 2000, which is not as steep as the model index predictions.*

- Does the assessment provide a reliable, quantitative estimate of current stock status?
  - *No, for reasons stated above.*
- Does the assessment provide reliable predictions of future conditions to support fishing level recommendations?
  - *No, for reasons stated above.*

- **Identify, summarize, and discuss assessment uncertainties.**
  - *See statements above regarding assessment uncertainties.*

- Review, summarize, and discuss the factors of this assessment that affect the reliability of estimates of stock status and fishing level recommendations.
- Describe the risks and consequences of the assessment uncertainties with regard to status and fishing level recommendations.
- Are methods of addressing uncertainty consistent with SSC expectations and the available information?
- List (in order of the greatest contribution to risk and overall assessment uncertainty) and comment on the effects of those assessment factors that most contribute to risk and impact status determinations and future yield predictions.

➢ **Provide fishing level recommendations.**

- Apply the South Atlantic ABC Control Rule and complete the fishing level recommendations (Table 2).
  - *The SSC determined that the assessment was not consistent with BSIA and thus was not adequate for providing management advice.*
- Comment on any difficulties encountered in applying the Control Rule, including any required information that is not available.

➢ **Provide advice on monitoring the stock until the next assessment.**

  - *As the assessment was not consistent with BSIA, additional advice on monitoring the stock will follow review of alternative model (see recommendation below).*
- What indicators or metrics should be included in the SAFE Report to monitor and evaluate the stock until the next assessment? Current data will be included:
  - Total Landings relative to ABC from the previous assessment until values from SEDAR 92 are adopted.
  - Recreational (CHTS and FES values) and Commercial Landings
  - Trends in abundance included in SEDAR 92
  - Economic trends
    - Recreational – MRIP Directed Trips
    - Commercial – Ex-Vessel Value
  - Social trends
    - Observations of Closures
    - Comments from Fishery Performance Report
  - Recent management actions
  - Other?
- Is there a recommended trigger level for these metrics? How should the Council respond if a trigger is activated?

- **Provide research recommendations and guidance on the next assessment.**
  - Review the included research recommendations and indicate those most likely to reduce risk and uncertainty in the next assessment.
  - Provide any additional research recommendations the SSC believes will improve future stock assessments.
    - *Once available, the incorporation of data from the SADL survey is expected to considerably improve a blueline tilefish stock assessment. The SSC noted that it had previously recommended postponement of the next assessment until the SADL survey data became available to use as a fishery-independent index. This recommendation was because of the uncertainties identified in S50, primarily because of the terminal year (2007) of the handline and longline indices is now more than 15 years ago.*
  - Provide guidance on the next assessment, addressing its timing and type.
    - *The SSC requested two potential alternate models to run before making catch level recommendations:*
      - *Application of the Data Limited Methods (DLM) toolkit focusing on average catch approaches similar to the models evaluated for the northern region (Cape Hatteras through Mid-Atlantic).*
      - *Re-run of the ASPIC model with inclusion of the SC short bottom longline survey.*
    - *Alternative approach for ABC recommendations: Examine the time series of removals and compare to time series of B/B_{msy} during the time frame in which the survey data were available (e.g., terminating in 2007) to provide some estimate of MSY derived from the model that would be usable, or in other words, give some idea what a sustainable OFL might look like.*

SSC RECOMMENDATION:
For Council staff to request the SEFSC provide two additional runs:

- ***(1) Application of the DLM toolkit similar to approach applied to the stock in the area north of Cape Hatteras.***
- ***(2) Re-run of ASPIC production model with inclusion of an index based on the SCDNR short bottom longline survey.***
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4. SMILE METHODS AND DATA PRODUCTS UPDATE

4.1 Documents

Attachment 4a. SMILE Presentation
Attachment 4b. SMILE Report

4.2 Presentation

Dr. Jen Loch, REEF

4.3 Overview

Length-frequency estimation is a common source of demographic data for fisheries assessments, as these data can inform length-at-age, population age structure, biomass, population change, and length-based spawning potential ratio. Traditional length estimation methods require handling or harvesting the fish, which can impact local fish populations, and may represent a limited distribution of fish sizes and species due to harvest restrictions, thus creating a knowledge gap for underrepresented fishes and lengths. Non-traditional data sources, like citizen science data streams, can be used to affordably help fill data gaps and supplement existing data collection programs. Citizen science programs such as Reef Environmental Education Foundation's (REEF) Volunteer Fish Survey Project empower the public to generate monitoring data and promote active participation in resource management science. Roving diver surveys involving trained divers and snorkelers record observed fish for many reef species coupled with diver metadata (e.g. bottom time, current, visibility, depth, habitat) to produce relative abundance estimates.

While relative abundance is a key datum of REEF's visual surveys, length data have not been previously incorporated. Length frequency is an important metric for assessment of data-limited species and can help detect changes in reef fish population status. To address these needs, we are in the final year of the pilot study of the SMILE (Size Matters: Innovative Length Estimates) project which equips citizen scientists with a single laser-mounted, affordable, waterproof camera ("FishSenseLite", "FSL") to collect images in situ that are post-processed through an AI workflow to calculate fork length.

As a citizen science and fisheries ecology focused project, the primary goals and components of the SMILE project are to: (1) Produce a cost-effective tool to obtain high quality, high accuracy *in situ* length estimation of data-limited fish species; (2) Engage citizen scientists' involvement in fisheries science; and (3) Supplement fisheries stock assessments with reliable length data.

The SSC will receive a presentation on the data collection methodology and initial results of the pilot SMILE project, and should provide feedback on the sampling methodology, initial data collection and analytical products, and identify areas of uncertainty that need to be explored for inclusion of these data into the stock assessment process and management.

4.4 Public Comment

No public comment was provided

4.5 Action

Methodology

- Is the SMILE methodology appropriate for producing size data needed for stock assessments and/or management?
    - Are there any methodology suggestions or concerns, particularly to boost confidence in this data source?
        - *The data from the SMILE project can be very useful for future assessments and aid in formulating management advise. In particular since the REEF surveys are broadly conducted in South Atlantic areas that might be under-sampled or less accessible by other scientific surveys. Because of this, it may provide a broader spatial context of reef fish populations to the extent of their distributional range.*
        - *Comparison of the selectivity of each diver and variability among divers, but this could be resolved within an assessment framework.*
        - *Randomization of the survey, or the determination of bias due to non-random sampling, and identifying correction factors for addressing these biases.*
        - *Look at fishery dependent literature or datasets for validation. Comparison of citizen science collected data and fishery dependent data. Yellowtail snapper may be a good species to start with.*
        - *Disproportionate number of samples coming from few locations (spatial resolution concerns); will the data be representative for the entire spatial distribution of the stock or just localized areas with extensive diving).*
        - *Creation of a survey to learn what factors motivate participants to collect and contribute data*.
    - How to best handle potential repeat sightings of individual fish?
        - *The SSC did not have any suggestions.*
- Data Suggestions
    - Are the selected target species suitable?
        - *Recommend adding Yellowtail Snapper*
    - What additional data sources and products would be useful for assessors and managers? (e.g. metadata, citizen science experience)
        - *Assessing density estimates from surveys in addition to obtaining length estimates.*
        - *Habitat and water physicochemical information.*
        - *Data provision: species, size distribution, mean length over time, heatmap for lengths.*

5. SEFSC PRECISION THRESHOLD WORKGROUP UPDATE

5.1 Documents

Attachment 5. SEFSC Precision Threshold Workgroup Presentation

5.2 Presentation

Dr. Vivian Matter and Dr. Erik Williams, SEFSC

5.3 Overview

A joint NOAA Southeast Fishery Science Center (SEFSC) and NOAA Office of Science and Technology (OST) workgroup has continued work to analyze highly imprecise estimate scenarios that are impacting assessments and how to address these concerns. The workgroup is proposing a simple moving average wave-level catch rate estimation method that will increase precision and consistency across strata. The SSC will receive an update on the progress of this workgroup.

5.4 Public Comment

No public comment was provided.

5.5 Action

- Receive update on the workgroup progress
- Provide feedback on the proposed method and identify possible scientific uncertainties in the approach.
  - *The SSC looks forward to seeing the final recommendations of this workgroup and how these methods can be integrated into upcoming stock assessments and used in management.*

6. SEDAR 76 UPDATE: BLACK SEA BASS STOCK ASSESSMENT UPDATE

6.1 Documents

Attachment 6a. SEDAR 76U: Black Sea Bass Update Presentation
Attachment 6b. SEDAR 76U (2025): Black Sea Bass Update SAR
Attachment 6c. SEDAR 76 (2023): Black Sea Bass SAR (*supplementary*)
*Attachment 6d. Stock Risk Ratings Matrix for Black Sea Bass
Attachment 3e. South Atlantic ABC-CR Tables

6.2 Presentation

Dr. Matt Vincent, SEFSC and Dr. Judd Curtis, SAFMC Staff

6.3 Overview

This SEDAR 76 Update assessment evaluated the stock of black sea bass, *Centropristis striata*, off the southeastern United States. The primary objectives were to update and improve the 2022 SEDAR 76 assessment of black sea bass and to conduct new stock projections. Using data through 2021, SEDAR 76 had indicated that the stock was overfished, but not undergoing overfishing although there was considerable uncertainty in this metric. For this assessment, data compilation and assessment methods were guided by the methodology of SEDAR 76, as well as by current SEDAR practices. The assessment period is 1978‑2023.

Available data on this stock included indices of abundance, landings, discards, and samples of annual length and age compositions from fishery dependent and fishery independent sources. Four indices of abundance were fitted by the model: one from the recreational headboat fleet, one from the commercial lines fleet, one from the MARMAP blackfish/snapper trap survey, and one from the SERFS that combined chevron trap and video sampling. Data on landings and discards were available from recreational and commercial fleets.

The primary model used in SEDAR 76 operational assessment and updated in this assessment was the Beaufort Assessment Model (BAM), a statistical catch-age formulation. A base run of BAM was configured to provide point estimates of key management quantities, such as stock and fishery status. Uncertainty in estimates from the base run was evaluated through a Monte-Carlo Bootstrap Ensemble (MCBE) procedure.

Results suggest that spawning stock declined until the early 1990s, increased slightly and remained stable until the late-2000s, with a large increase from 2009 to 2011, and then declined precipitously. The base run estimate of terminal year (2023) spawning stock is well below the MSST ($SSB_{2023}/MSST = 0.13$) indicating that the stock is overfished and the estimated fishing rate is above F_{MSY}. The terminal estimate, which is based on a three-year geometric mean, is well above F_{MSY} in the base run ($F_{2021–2023}/F_{MSY} = 4.69$). Thus, this assessment indicates that the stock is overfished and undergoing overfishing.

The MCBE analysis indicates that these estimates of stock and fishery status are robust, but with some uncertainty in the conclusions. Nearly all MCBE runs (99.7%) were in qualitative agreement that the stock is overfished ($SSB_{2023}/MSST < 1.0$), and 89.3% of all models show that the stock is undergoing overfishing ($F_{2011–2023}/F_{MSY} > 1.0$).

The SSC is tasked with recommending whether the assessment adequately met the terms of reference, are consistent with the Best Scientific Information Available (BSIA), and whether the results presented in the SAR are useful for providing management advice and developing fishing level recommendations for the Council. The SSC may request additional analyses be conducted or may use the information provided in the SAR as the basis for their Fishing Level Recommendations (e.g., Overfishing Limit and Acceptable Biological Catch).

6.4 Public Comment

No public comment was provided

6.5 Action

- **Review assessment**
  - Does the assessment address the ToRs to the SSCs satisfaction?
    - *Note that Terms of Reference were not provided for this update assessment. T What impact will fleets outside the south have on the entire system since we aren't controlling them or trying to achieve the same goals?*
    - *he SEFSC followed recommendations provided by the SSC in Oct 2024 for updating the SEDAR76 Black Sea Bass operational assessment. The SSC was satisfied that these recommendations were addressed.*
  - Is the assessment consistent with BSIA guidance and practices?
    - *Yes; the SSC agreed the assessment could be considered consistent with BSIA under the assumption of stationarity using the Beverton-Holt stock recruitment relationship to estimate productivity; however, several caveats, parameter, and modeling decisions were questioned and are detailed in the uncertainties section. In particular, some major changes were made to the model relative to the S76model that the SSC previously reviewed such as:*
      - *The General recreational and headboat fleets share selectivity curve,*
      - *The Beverton-Holt stock recruitment relationship was used.*
      - *Steepness of the Beverton-Holt Stock Recruitment Relationship was estimated.*
      - *Recruitment in the last 2 years (2022-2023) was calculated from the Beverton-Holt stock recruitment relationship and a mean recruitment deviate from the years 2014-2021.*
      - *Reference points from F MSY for total harvest in weight (landings and discards).*
  - Does the assessment reliably capture past trends in the fishery and population?
    - *The SSC noted the (possibly unreasonably) high F in the terminal year (2023). The SEFSC liaison Dr. Williams pointed out that this may be an indication that the model has a hard time predicting the cause of the low biomass. The model can adjust M, F, or recruitment to account for the low population biomass. In the Black Sea Bass model M is constant, and recruitment is fixed in the terminal, so the model can only adjust F.*
    - *The SSC further noted several issues that were discussed previously relative to the model assumptions of stationarity and*

a closed population that may no longer be realistic (see discussion below also).

- Does the assessment provide a reliable, quantitative estimate of current stock status?
  - *The SSC noted concerns with estimation of MSY and steepness that may affect the "overfishing" stock status determination. See next section for discussion of uncertainties.*
  - *Fishery independent index values estimate a ~95% decline from historic maximum supporting the "overfished" determination.*
- Does the assessment provide reliable predictions of future conditions to support fishing level recommendations?
  - *There is a very high level of uncertainty for the prediction of future conditions, but there was a broad consensus within the SSC that the black sea bass population several indicators of a depleted state (see further notes concerning uncertainties in projections below).*

➢ **Identify, summarize, and discuss assessment uncertainties.**

- Review, summarize, and discuss the factors of this assessment that affect the reliability of estimates of stock status and fishing level recommendations.
  - *The impacts of the change from using mean recruitment in SEDAR 76 to using a Beverton-Holt stock-recruitment relationship in SEDAR 76U and its ability to estimate the steepness parameter are substantial. The steepness value (h=0.39) seems unrealistically low. The estimated steepness value is characteristic of steepness values estimated for long-lived (80-100+ years old) bony fishes, often inhabiting deep waters, as well as elasmobranchs (increased longevity, low natural mortality). In contrast, steepness values (0.6 – 0.8) have been typically estimated for shorter-lived species occupying shallower shelf habitats, with other life history traits aligned with black sea bass. The stock-recruitment relationship currently assumes stationarity, however this low estimate of steepness may suggest a non-stationary relationship.*
    - *In previous assessments for Black Sea Bass the historical biomass trends look markedly different than the biomass trend in S76U. This is likely attributed to using an estimate of MSY estimate in S76U versus an SPR proxy used in previous black sea bass assessments.*
    - *Pattern of non-stationarity in the stock recruit relationship curve is possible given the modeled curve*

shows temporal directionality over the time series and does not fit many of the most recent years in the time series (~2014-2022). It is also possible that depensation not accounted for in the stock-recruitment relationship is occurring and thus the Beverton-Holt curve is not a good representation of the stock-recruitment relationship.

- *SSC recommends investigating the use of an SPR-based MSY proxy in a future assessment because of the uncertainties in the stock recruitment relationship and the potential for non-stationarity.*

- *Terminal year F is extremely high (over 10-fold ratio compared to F_{msy}) and may not be accurate, but the model has no other ways to adjust for the low biomass than to increase F. Mis-specifying low biomass as elevated F could be due to incomplete cohorts (little age structure to inform model estimates of F), incorrect selectivity curves being applied, underreporting of discards, increases in natural mortality (M), or low recruitment that the model is explaining by high F rates. These processes that are unaccounted for are likely influencing the terminal year F estimate (terminal year F biases). However, observed time series of landings and discards (S76U SAR, Table 2) over the most recent 5-year period shows a slight increasing trend when coupled with decreases in index values would contribute to a higher F. The SSC discussed if a different range of years for F/F_{msy} and biomass benchmarks should be used (e.g., 2020-2022) for projections to mitigate the influential the high F value in the terminal year. However, the SC also discussed that this assumes more optimistic starting point for biomass projections. Given that the SERFS Index values in 2024 show further decline, which would indicate further declines in biomass, the SSC ultimately recommended that the use of 2021-2023 was more appropriate for $F_{current}$.*
- *The SSC also noted that a single selectivity curve was used for Headboat and General recreational fishery landings and discards. Although selectivity of landings may not be as influential, discard selectivity is likely to be very influential because the majority of discards are coming from inland/state waters versus federal waters, and federal catches have halved while inland/state catches have nearly doubled over the time series. Some of the following concerns were discussed:*

- *Discard lengths for the Recreational fishery are obtained from headboat observer discard data only, and none from private sector (inland, shore mode).*
- *Discard selectivity for ages 0-2 is low, and probably not reflective of the length at age of fish encountered in state and inland waters. This observation is based on fisherman feedback (see Fishery Performance Report [SAFMC April 2022] which mentions NC private rec anglers saying that larger fish [>13 inches] are not available inside 12 miles offshore) and what has been seen in state fishery independent surveys but note that this only includes length information.*
- *Other information may be available to characterize General Recreational discards selectivity for younger age classes.*
  There is some hook and line age data from NC in state waters, also several states have surveys that capture Black Sea Bass in inland (and maybe ocean state waters), but it was not certain if that covers the full gradient of inland to 3 miles offshore. It may be possible to infer info from lengths collected even if associated age data is not available.

- Describe the risks and consequences of the assessment uncertainties with regard to status and fishing level recommendations.
  - *The causes of the low recruitment and biomass trends over the most recent time period (last 15 years) are highly uncertain. The SSC discussed that the cause is likely a combination of fishing effort, environmental non-stationarity, and inadequate data reporting, but the magnitude of the significance of each is unknown. The stock has experienced increased fishing pressure, indicating that recruitment failure and biomass declines could be the result of fishing effort in addition to environmental non-stationarity and changes in stock productivity.*
  - *Are there patterns of northern range expansion?*
    - *The most recent genetic study from Lewandowski, 2014 (but see also Roy et al., 2012; McCartney et al, 2013) indicated two separate genetic stocks along the Atlantic coast; however, additional genetic data should be available soon.*

- *NEAMAP survey does not show much catch south of Delaware Bay*
- *Most recent Mid-Atlantic assessment of BSB shows current biomass 2.5x the benchmark with a moted northward shift.*

- *The recent declines in recruitment coincide with a period of reporting with either considerably reduced or no discards marked and a sudden increase in commercial lines landings with a concurrent reduction in the commercial fleet discards (S76U SAR, Fig 39) that the model is interpreting as a sudden lack of recruitment and is a major potential source of uncertainty.*

- *Regardless of the cause of the decline, fishing effort will need to be reduced.*
- *Regarding the likelihood of rebuilding; The stock biomass is very low. If environmental factors are an important driver of the (continued) decline in recruitment, and if that pattern continues into the future, then the model is misspecified. This means that we likely have a population that is less productive and therefore MSY is likely poorly estimated.*
- *The SSC noted that the SERFS index, that tracks Black Sea Bass well, shows continued decline over the last 10 years of the time series (including in 2024), when it was the lowest in the time series.*

- Are methods of addressing uncertainty consistent with SSC expectations and the available information?
  - *See notes elsewhere in this report.*
- List (in order of the greatest contribution to risk and overall assessment uncertainty) and comment on the effects of those assessment factors that most contribute to risk and impact status determinations and future yield predictions.
  - *Magnitude of selectivity of discards:*
    - *High uncertainty in discards from commercial logbooks reports,*
    - *Inshore vs offshore in discards are trending in opposite directions, and*
    - *Discard selectivity from headboats being applied to the general recreational sector.*
  - *Biases in estimated terminal F.*
  - *Reasons for low recruitment and biomass (non-stationary environment or fishing pressure, etc.)*

- *Non-stationarity with respect to the stock recruitment relationship and other parameters (particularly estimated steepness).*
- *Natural mortality and discard mortality may be much higher than assumed.*
- *CVID index used to inform latter half of assessment time series may not be representative of total population biomass because the survey does not include inland/shore areas. Also, index may have density-dependent catchability due to trap saturation at varying higher levels of biomass.*

- **Provide fishing level recommendations.**
  - Apply the ABC control rule and complete the fishing level recommendations (Table 3).
    - *See recommendation below.*
  - Comment on any difficulties encountered in applying the Control Rule, including any required information that is not available.
    - *Concerns with language in stock risk ratings table definition in criteria (see previous SSC reports).*
  - Discuss and make recommendations on probability of rebuilding projections.
    - *The SSC recognizes that the stock is not expected to recover under current conditions unless recruitment improves given the current Beverton Holt model predictions.*
    - *There was some disagreement among the SSC on whether the stock has the capacity to rebuild should fishing effort be greatly reduced due to the unknown effect of environmental factors.*

- **Provide advice on monitoring the stock until the next assessment.**
  - What indicators or metrics should be included in the SAFE Report to monitor and evaluate the stock until the next assessment? Current data will be included:
    - Total Landings relative to ABC from the previous assessment until values from SEDAR 76U are adopted.
    - Recreational (CHTS and FES values) and Commercial Landings and Discards
      - *Partitioned between inshore/offshore given the differing trends in landings and discards*
    - Trends in abundance included in SEDAR 76U
    - Economic trends
      - Recreational – MRIP Directed Trips
      - Commercial – Ex-Vessel Value

        - Social trends
            - Observations of Closures
            - Comments from Fishery Performance Report
        - Recent management actions
    - Is there a recommended trigger level for these metrics? How should the Council respond if a trigger is activated?

- **Provide research recommendations and guidance on the next assessment.**
    - Review the included research recommendations and indicate those most likely to reduce risk and uncertainty in the next assessment.
        - *Investigations of low recruitment concerns*
        - *Spatial differences in recruitment and densities*
        - *Reasons for increased mortality*
    - Provide any additional research recommendations the SSC believes will improve future stock assessments.
    - Provide guidance on the next assessment, addressing its timing and type.
        - *Consider using a SERFS index-based interim analysis approach for more frequent assessment updates. Black Sea Bass is good candidate species because the models demonstrate strong fits to the SERFS trap index.*

SSC Recommendation: *Use $F_{current}$ for $F_{2021\text{-}2023}$ for interim years of 2024-2026 and F_{msy} for OFL projections starting in 2027. Set ABC at a level of F_{msy} buffered by uncertainty (P* = 20%) contingent upon Council's stock risk rating of 'high.' The SSC recommends a stock risk rating of 'high' and biomass rating of 'low' (see attached risk rating scoring table).*

The SSC realizes the stock is not expected to recover under current conditions unless stock recruitment improves given the current Beverton-Holt stock-recruit model predictions. There was disagreement among the SSC on whether the stock has the capacity to rebuild even with significant reductions in fishing effort.

The SSC Requested Additional Projection Runs from the SEFSC: Use geometric mean of years ($F_{2021\text{-}2023}$) for $F_{current}$ as an alternate projection (omit the terminal year due to biases) and BH stock-recruit relationship.

- *Implications of shifting year to exclude 2023 to represent $F_{current}$ (F2020-2022): assumes more optimistic starting point for biomass projections. SERFS Index values in 2024 show further decline which would indicate further declines in biomass.*
- *Likelihood of rebuilding contingent upon recruitment returning to historical levels. If low recruitment is a result of environmental factors, this changes the stock productivity and would shift the B_{msy} benchmarks.*

- *Setting ABC at a level of F_{msy} buffered by uncertainty (through ABC-CR or other mechanism):*
  - *May be biased high based on model assumptions*
  - *Increases in mortality from sources other than fishing effort F, (including reduction in R, environmental concerns and natural mortality, unknown sources of mortality) are not considered in projections.*
  - *Reductions in landings/discards may not reduce overall F as much as projected due to other sources of mortality.*
  - *Consider that other sources of mortality could still be attributed to F, resulting in a potentially misspecified F in the model.*
  - *Concern that under all projected rebuild scenarios, the stock will not attain the benchmarks.*

Table 1. SEDAR 76 Update: Black Sea Bass Stock Assessment Output

Table 18. Estimated status indicators, benchmarks, and related quantities from the base run of the BAM, conditional on estimated current selectivities averaged across fleets. Also presented are median values and measures of precision (standard errors, SE) from the Monte Carlo/Bootstrap ensemble analysis. Rate estimates (F) are in units of y^{-1}; status indicators are dimensionless; biomass estimates are in units of thousands of pounds, as indicated; and recruits are in millions of age-0 fish. Spawning stock biomass (SSB) is measured as mature weight (1000 lbs). $L_{current}$ and $D_{current}$ are the average landings and discards from 2021–2023, respectively. Estimates of yield include landings and discards in weight; D_{MSY} represents discard mortalities expected when fishing at F_{MSY}; T_{MSY} represents total harvest (landings and discards) expected when fishing at F_{MSY}.

Quantity	Units	Estimate	Median	SE
F_{MSY}	y^{-1}	0.32	0.33	0.15
$75\%F_{MSY}$	y^{-1}	0.24	0.25	0.11
B_{MSY}	1000 lb	23946.38	31774.95	47522.56
SSB_{MSY}	1E10 eggs	14182.85	14546.38	37762.97
MSST	1E10 eggs	8864.28	7574.79	28417.79
MSY	1000 lb	1956.49	2148.97	3685.48
MSY	1000 dead fish	1154.26	1008.55	2130.65
$L_{75\%MSY}$	1000 lb	1308.81	1047.19	2875.41
$L_{current}$	1000 lb	508.00	509.39	67.39
D_{MSY}	1000 lb	685.83	1093.68	966.57
D_{MSY}	1000 dead fish	1485.11	2426.36	2078.38
T_{MSY}	1000 lb	2642.32	3249.55	4547.01
T_{MSY}	1000 dead fish	2639.36	3420.59	3896.09
$D_{75\%MSY}$	1000 dead fish	594.71	2127.04	1819.98
$D_{current}$	1000 dead fish	947.46	1255.76	540.76
R_{MSY}	millions fish	8.67	16.61	14.38
$F_{2021-2023}/F_{MSY}$	—	4.08	3.11	2.45
$SSB_{2023}/MSST$	—	0.16	0.27	0.22
SSB_{2023}/SSB_{MSY}	—	0.10	0.15	0.09

7. SERFS 2024 TRENDS REPORT

7.1 Documents

Attachment 7a. SERFS 2024 Trends Report
*Attachment 7b. SERFS 2024 Trends Presentation

7.2 Presentation

Dr. Tracey Smart, SC-DNR

7.3 Overview

The Southeast Reef Fish Survey (SERFS) annual trends report is intended to serve as an overview of catches and abundance trends of selected species from a collaborative fishery-independent survey using standardized gears. Abundance indices developed for this report are standardized to account for factors that may affect abundance and may have varied over the years such as temperature, depth of sampled stations, location, etc. This report presents a summary of the fishery-independent monitoring and analyses for 20 species in the region derived from chevron-video trap (CVT) catch data collected from 1990 through 2024 by the three monitoring programs (MARMAP, SEAMAP-SA, and SEFIS) involved in SERFS. Specifically, it presents updated annual standardized abundance for CVTs (referred to as an index of abundance). Standardization is applied to account for the effects of potential covariates on abundance. Species distribution maps and annual length information of captured fish are also provided. Data presented in this report are based on a database maintained by SCDNR which houses data from all SERFS partners that was accessed in February 2025.

The SSC will receive an update on the sampling efforts and results of the SERFS sampling program through 2024.

7.4 Public Comment

No public comment was provided.

7.5 Action

- Receive update on trends report.
  The SSC appreciates the fishery independent survey update and looks forward to continue receiving these updates.

8. ECOSPACE MODULE FOR REEF FISH ECOPATH WITH ECOSIM MODEL

8.1 Documents

Attachment 8a. Ecospace Model Presentation
Attachment 8b. Ecospace Model Report

8.2 Presentation

Dr. Dave Chagaris, UF and Lauren Gentry, FWCC-FWRI

8.3 Overview

The South Atlantic Fishery Management Council (SAFMC) tasked the model team with developing and parameterizing an Ecospace module for the South Atlantic Reef Fish (SARF) EwE Model. The immediate objective of the SARF EwE with Ecospace model will be to explore the most likely drivers of declining black sea bass availability.

The South Atlantic Region (SAR) EwE Model was adapted and refined from South Atlantic Bight models first developed in 2001. It has since been through 20 years of improvements and updates, with the current iteration reviewed and endorsed by the Scientific and Statistical Committee in 2020. This high complexity model serves as the primary source of data for the intermediate South Atlantic Reef Fish (SARF) Model.

The SARF model is a model of intermediate complexity (MICE) built from the primary SAR EwE Model to address specific ecological questions. The model contains 41 functional groups and emphasizes species in the Snapper Grouper Complex which are represented by 31 of those biomass pools. The Ecopath and Ecosim components were reviewed by the SAFMC SSC Model Workgroup and refined via a multi-day workshop. The results were presented to the SSC and Council in 2021. The FWRI EwE Modeling Team has been collaborating with the Scientific and Statistical Committee (SSC) Modeling Workgroup and SAFMC staff via webinars to create an Ecospace module of the SARF model and make other modifications to address questions related to black sea bass spatial dynamics. The FWRI Modeling Team has also been adding any available updated data from stock assessments, diet studies, or other literature.

The SARF model will explore possible drivers of shifting black sea bass distributions, which may include changes in habitat, productivity, competition, and predator-prey dynamics. This effort will provide the SAFMC with a tool capable of evaluating the most likely drivers of declining black sea bass availability that can easily be extended to other reef fish species that are currently experiencing declines.

8.4 Public Comment

No public comment was provided.

8.5 Action

- Receive update on ongoing progress to the SARF model
- Provide feedback on data inputs, calibration procedures, Ecospace structure, and the modeling uncertainties.
    - *The SSC was very happy with the team's progress on the development of the Ecospace model and encouraged them to continue. The final product will represent a valuable tool for the SSC and Council to potentially look at species interactions and other processes.*
    - *The modeling team plans to try to incorporate some of SSC suggestions into their work.*

- *Approaches to "ground truth" the model will take a little more thought. Seems to be a relatively novel modeling approach, with little guidance in the literature as to how to calibrate.*
- *If possible, incorporate monthly timesteps and any interactions to allow Ecological Niche Models to vary seasonally. For example, a "depth x month" interaction in the Ecological Niche Models would allow the species or group to migrate seasonally within the modeled area.*
- *Functional response curves are estimated external to the model, and it is important to get those right as a small difference can have a big impact on model outputs.*
- *Use universe of hard-bottom vs predicted hard bottom habitat to calibrate the model. Incorporate video data (ROV, camera drop) from other surveys to calibrate habitat type.*

9. DOLPHINFISH MANAGEMENT STRATEGY EVALUATION (MSE) UPDATE

9.1 Documents

Attachment 9. Dolphinfish MSE Update Presentation

9.2 Presentation

Dr. Cassidy Peterson, SEFSC

9.3 Overview

The purpose of the Dolphinfish Management Strategy Evaluation (MSE) project is to develop an empirical management procedure for dolphin in the US Atlantic that can be used to set catch levels along with additional management actions. This procedure will be simulation tested to be robust to uncertainty and incorporate stakeholder participation to ensure the management procedure meets stakeholder-defined objectives.

This update represents the first opportunity for the SSC to provide feedback on the development of the operating model and its uncertainties, various performance metrics, and initial perspectives on select management procedures. There will be one more opportunity for SSC feedback before the management procedure undergoes CIE review during the fall SSC meeting.

9.4 Public Comment

No public comment was provided.

9.5 Action

- Receive update on ongoing progress to the Dolphinfish Management Strategy Evaluation project.

- Provide feedback on the operating model, its uncertainties, and performance metrics.

- *The SSC received a presentation by Dr. Cassidy Peterson (SEFSC) on the update on the Dolphin Management Strategy (MSE) Evaluation. The presentation provided an opportunity for the SSC to provide feedback on the (1) operating model (OM): (2) the uncertainties for the OM grid; (3) the performance metrics of the OM; and (4) the initial perspectives on management procedures. This represented a chance for the SSC to provide feedback before the CIE review, expected in early 2026.*
- *The SSC supported the MSE Update details as presented and noted that the MSE Stakeholder Science Team included two SEFSC members (Julia Byrd and John Hadley); four SEFSC members, and one member each from SERO; the Beyond Our Shores Foundation, and Avangrid. The MSE Technical Team includes three members from Blue Matter Science, four members from the SEFSC, one member from NSCU, and a number of stakeholder participants.*
- *One of the key uncertainties is that this is basically a data limited resource, including the lack of, or limited, availability of length and age data.*
- *The SSC had some questions about the ultimate goal of the MSE, given the nature of the population and fishery. E.g., predicting the available exploitable Dolphin biomass, maximizing use of fish across sectors, making sure each geographic area gets their share within a sustainable fishery. Essentially, what are the main management challenges this is trying to address? Ultimately, we the goal is to meet stakeholder needs and a sustainable population. Optimally, access to the resource should be available to everyone in region, avoiding closures before certain regions missed an opportunity for access.*
- *The SSC was wondering what to base a future ABC recommendation on without an assessment, and how the MSE may play a role in developing fishing level recommendation by the SSC and prevent overfishing. However, those may not be MSE objectives.*
- *The advantage of the current MSE is the open source of the modeling package, allowing for easier, better review and further development, but the SSC noted that this still takes considerable expertise (and time).*
- *The SSC asked about spikiness on the data and quarters with zero catches, but it was explained that this was due to seasonal shifts of the fishery and the resource.*
- *The SSC noted that the MSE includes areas outside the SA jurisdiction, but that was done to include areas that have access to the resource. The SSC was wondering what impact the fleets outside the south have on the entire system since the south Atlantic management is not affecting (controlling) fisheries in these "outside" areas.*
- *The SSC was informed that there is a document forthcoming on how MSE fits into the national management structure.*
- *The SSC looks forward to discussing the outcome of the CIE review when it becomes available next year.*

~~10. SEDAR PROCESS UPDATE~~ – *POSTPONED*

~~10.1 Documents~~

~~*Attachment 10. SEDAR Process Update Presentation~~

~~10.2 Presentation~~

~~Dr. Shannon Cass-Calay, SEFSC and Dr. Julie Neer, SEDAR Staff~~

~~10.3 Overview~~

~~During the March Council meeting, Dr. Shannon Cass-Calay (SEFSC) gave a presentation on modifications to the SEDAR Process. The timeline for stock assessments had expanded under the Research Track Process, and the South Atlantic and Gulf Councils wanted more timely assessments, resulting in the need to revise the SEDAR process. More timely assessments would be accomplished by having the SEFSC control scheduling during the assessment phase of the process. During this phase, the analysts could ask questions to a Council approved technical workgroup, if needed. Additionally, the analyst could provide updates on assessment progress to the Scientific and Statistical Committee (SSC) and request input on certain issues identified during assessment development. The Council supported the revised process but wanted to get feedback from the SSC before approving the new process. The SSC should review the proposed changes to the SEDAR process and the reworked role the SSC would have in the assessment phase of the process and provide feedback for the Council to consider when they continue discussion on this topic at their June meeting.~~

~~10.4 Public Comment~~

~~10.5 Action~~

~~Receive update on the SEDAR process changes.~~
~~Comment on new proposed role of the SSC in the assessment phase.~~

11. SEDAR 92, SEDAR 76U: ADDITIONAL PROJECTIONS AND CATCH LEVELS

11.1 Documents

*Attachment 11a. Additional Projections for Blueline Tilefish (as needed)
*Attachment 11b. Additional Projections for Black Sea Bass (as needed)

11.2 Presentation

Dr. Nikolai Klibansky and Dr. Matt Vincent, SEFSC

11.3 Overview

Based upon SSC feedback on stock assessment reviews earlier in the meeting, the SSC should review the additional requested projection scenarios and make catch level recommendations to the Council.

11.4 Public Comment

11.5 Action

- Review additional requested projections and make catch level recommendations to Council for Golden Tilefish.
- Review additional requested projections and make catch level recommendations to Council for Black Sea Bass.

See notes above under agenda items 3 and 6.

12. RESEARCH AND MONITORING PLAN REVIEW

12.1 Documents

*Attachment 12. Research and Monitoring Plan Draft

12.2 Presentation

Dr. Chip Collier, SAFMC Staff

12.3 Overview

The Council revises their research and monitoring plan every two years. The research and monitoring plan is used by the Council and NOAA Fisheries staff to identify and prioritize research needs for fisheries in the South Atlantic. These research needs are circulated to funding agencies to be included as research grant priorities and used by researchers during development of research proposals. The Committee is provided with an opportunity to review the South Atlantic Research and Monitoring plan. Additional feedback was also obtained at the April 2025 SEP meeting. The Council will consider the plan and recommendations made by the SSC and Advisory Panels at its June 2025 meeting.

12.4 Public Comment

12.5 Action

- Review draft Research and Monitoring Plan
- Make recommendations on additional items as needed.

The SSC was asked to review the R&M plan after the meeting and provide feedback later.

13. ~~FISHERY MANAGEMENT PLAN AMENDMENT UPDATES –~~ *POSTPONED*

~~13.1 Documents~~

~~Attachment 13. FMP Amendments Summary~~

~~13.2 Presentation~~

~~Dr. Judd Curtis, SAFMC Staff~~

~~13.3 Overview~~

~~The SSC will receive updates on several ongoing fishery management plan amendments in progress or completed where SSC review was involved. The entire list of ongoing amendments is provided in Attachment 13, but the focus for this update will be on highlighted amendments. The goal for this agenda topic is to update the SSC on the current status of these amendments and potential future involvement in the development of these fishery management plan amendments with scientific input and recommendations~~

~~13.4 Public Comment~~

~~13.5 Action~~

~~Receive updates on fishery management plan amendments.~~

14. SEP REPORT SUMMARY

14.1 Documents

*Attachment 14. SEP meeting draft report (when available)

14.2 Presentation

Dr. Jennifer Sweeney-Tookes, SEP Chair

14.3 Overview

The SSC will receive a summary of topics discussed at the SEP meeting. The SEP meeting summary and report will be added to the final SSC report.

14.4 Public Comment

14.5 Action

- Receive update on business conducted at the SEP meeting.
  - *The SEP Chair provided a written SEP Final Report that will be provided as an appendix to the SSC report*

15. SSC WORKGROUP AND SEDAR PANELS

15.1 Documents

Attachment 15a. SSC Workgroup and SEDAR Appointments
Attachment 15b. February 2025 Joint SSC Final Report
Attachment 15c. Mutton and Yellowtail Snapper Review Summary Presentation

15.2 Presentation

Dr. Marcel Reichert, SSC Chair and Dr. Judd Curtis, SAFMC Staff

15.3 Overview

Council staff will review the list of SSC workgroups and SEDAR panel membership and provide any updates from recent work accomplished by the workgroups or SEDAR panels. SSC Chair and Staff will provide a summary of the Joint Gulf/SA SSC review of the Mutton and Yellowtail Snapper Stock Assessments that occurred in February 2025.

15.4 Public Comment

No public comment was provided.

15.5 Action

- Receive update on SSC Workgroup and SEDAR panel appointments.
    - *There were no updates or discussions of SSC Workgroups.*

- Receive summary on the Joint SSC stock assessment reviews.
    - *The SSC received a presentation by the Chair on the Mutton Snapper and Yellowtail Snapper stock assessments joint SSC review and recommendations (see attachment 15b in briefing book).*

16. SCIENTIFIC COORDINATION SUBCOMMITTEE

16.1 Documents

Attachment 16. SCS8 Final Report

16.2 Presentation

Dr. Judd Curtis, SAFMC Staff

16.3 Overview

The Scientific Coordination Subcommittee final report for the 8th annual meeting (SCS8) is now available. Planning is underway for the 9th annual meeting (SCS9) that will be hosted by the Gulf Fishery Management Council ~~in summer/fall 2026~~ **in 2027**. The planning team is soliciting ideas

for a general meeting theme and sub-theme topic areas. The SSC should discuss and provide any ideas to pass onto the planning team.

16.4 Public Comment

No public comment was provided.

16.5 Action

- Provide potential ideas for SCS9 meeting theme and sub-theme areas.
  - *The SSC was informed that the SCS9 is postponed to 2027 due to uncertainty in funding.*
  - *The SSC proposed SPR as one of the SCS topics and also recommended considering including Socio and Economic issues as these were very well received at SCS8.*

17. OTHER BUSINESS

The was no other business.

18. PUBLIC COMMENT

No public comment was provided.

19. CONSENSUS STATEMENT AND RECOMMENDATIONS

The Committee is provided with 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, May 9, 2025 (approximately 3 weeks from the end of the meeting) for inclusion in the briefing book for the June 2025 Council meeting.

20. NEXT MEETINGS

20.1 Scientific and Statistical Committee Meetings

April 21 and 23, 1-4pm (BLT sub-group review)
~~Week of May 26,~~ **Wednesday, May 28, 9am-3pm** (Webinar)
October 21-23, 2025 in Charleston, SC

20.2 South Atlantic Fishery Management Council Meetings

June 9-13, 2025 in Cape Canaveral, FL
September 15-19, 2025 in North Charleston, SC
December 8-12, 2025 in Kitty Hawk, NC

ADJOURNED AT 12:10PM

21. APPENDIX A: SEP FINAL REPORT

22. APPENDIX B: BLACK SEA BASS STOCK RISK RATINGS

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SOCIAL AND ECONOMIC PANEL OF THE SCIENTIFIC AND STATISTICAL COMMITTEE

SEP Meeting Overview and Summary Report

April 14-15, 2025

Town and Country Inn
2008 Savannah Highway
Charleston, SC 29407

PURPOSE

This meeting is convened to discuss and provide input to the Scientific and Statistical Committee (SSC) and the South Atlantic Fishery Management Council (Council) on:

- Recent and developing Council actions and amendments,
- Citizen Science Program Projects,
- Citizen Science Program Evaluation,
- Eighth National Meeting of the Scientific Coordination Subcommittee of the Council Coordination Committee recommendations,
- Utilizing information gathered during outreach initiatives,
- Situation assessment on stakeholder perspectives of the Snapper Grouper Management Strategy Evaluation,
- Council climate-readiness projects updates,
- Council research and monitoring priorities.

CONTENTS

DOCUMENTS

Attachment 1a: Social and Economic Panel Agenda Overview
Attachment 1b: Minutes from the October 2024 meeting

Attachment 2: Recent and developing South Atlantic Council amendments

Attachment 3: Citizen Science Program update presentation

Attachment 4a: Citizen Science Initial Program Evaluation Overview
Attachment 4b: Survey of Scientists and Managers Working in the Region Covered by SAFMC
Attachment 4c: Overview Presentation of Scientist and Managers Survey Findings Presentation

Attachment 4d: Decoding the Motivations of Fishers Considering Participation in Citizen Science Projects
Attachment 4e: Decoding the Motivations of Fishers Overview Presentation
Attachment 4f: Comparison of Research Findings, Citizen Science Program Efforts and Recommendations

Attachment 5a: Eighth National Meeting of the Scientific Coordination Subcommittee of the Council Coordination Committee Report
Attachment 5b: Eighth National Meeting of the Scientific Coordination Subcommittee of the Council Coordination Committee Presentation

Attachment 6: Utilizing Information Gathered During Outreach Initiatives Presentation

Attachment 7: Situation Assessment on Stakeholder Perspectives of the Snapper Grouper Management Strategy Evaluation Presentation

Attachment 8: Climate Readiness Projects Update Presentation

Attachment 9: South Atlantic Council Research and Monitoring Prioritization Plan Draft

1. Introduction

1.1. Documents

- **Attachment 1a**. Social and Economic Panel Agenda Overview
- **Attachment 1b**. Minutes from the October 2024 meeting

1.2. ACTIONS

- Introductions
- Review and approve the agenda
- Approve October 2024 minutes
- Opportunity for public comment

SEP RECOMMENDATIONS:

- The SEP approved the October 2024 minutes and April 2025 agenda.

2. Recent and Developing Council Actions

2.1. Document

- **Attachment 2**. Recent and Developing South Atlantic Council Amendments

2.2. Overview

Council staff will provide a briefing on recent and upcoming amendments and actions (***Attachment 2***). The following amendments may be of particular interest to SEP members:

Amendment 48 (Wreckfish ITQ Program Modernization)

Staff Lead: Christina Wiegand

Purpose of Amendment: The Council finished its second review of the Wreckfish ITQ program in September of 2019. As part of the review there were several recommendations made to modernize the program, which will be addressed in this amendment.

Action Summary: moving away from a paper coupon-based program to an electronic program; fishing season; cost recovery; wreckfish permit requirement; allocation issues; offloading sites and times; and monitoring requirements.

Development Level: Under review. Amendment submitted to NMFS on December 19, 2024.

Amendment 46 (Private Recreational Permit and Education Requirement)

Staff Lead: John Hadley

Purpose of the Amendment: Address deficiencies in recreational data through the creation of a permit requirement for private recreational vessels or anglers. Additionally, considers establishing a required education component to encourage best fishing practices that help reduce discard mortality in the snapper grouper fishery.

Action Summary: This amendment considers establishing a permit and education requirement for anglers or vessels to participate in the private recreational component of the snapper grouper fishery.

Development Level: Scoping has been conducted and the amendment is being developed. Approval for public hearings is expected at the June 2025 meeting.

Snapper Grouper Amendment 56 (Black Sea Bass)

Staff Lead: Mike Schmidtke

Purpose of Amendment: Respond to most recent stock assessment (SEDAR 76).

Action Summary: Revise catch levels and status determination criteria, consider revision of sector allocations, other black sea bass management measures.

Development Level: Post-scoping; draft amendment under development.

Snapper Grouper Amendment 44/ Reef Fish Amendment 55(Yellowtail Snapper)

Staff Lead: Allie Iberle

Purpose of Amendment: Respond to the latest stock assessment (SEDAR 64). Yellowtail snapper are not overfished and overfishing is not occurring.

Action Summary: adopt recommended ABC, adjust jurisdictional allocation between the South Atlantic and Gulf of Mexico Councils, adjust ACLs, and sector allocations (SA only).

Development Level: Post-scoping. Development paused.

Snapper Grouper Management Strategy Evaluation

Staff Lead: Chip Collier, Judd Curtis

Purpose of the Amendment: Dead releases are a major issue in the snapper grouper fishery as a whole and affect many species within the complex. The Council has directed a management strategy evaluation (MSE) project that would consider multispecies effects of potential management changes and be used to develop a more holistic approach to management of the snapper grouper fishery. The amendment will follow the MSE project and consider implementation of management changes evaluated through the MSE.

Action Summary: This amendment will provide actions intended to incorporate recommendations from the MSE project. The MSE is currently undergoing additional work, including research to potentially capture some of the human behavior components of the recreational Snapper Grouper fishery.

Comprehensive Recreational For-Hire Limited Entry Amendment
Staff Leads: John Hadley & Myra Brouwer
Purpose of Amendment: To establish limited entry for the for-hire components of the snapper grouper, coastal migratory pelagics, and dolphin wahoo fisheries.
Action Summary: TBD
Development Level: Pre-scoping.

Comprehensive For-Hire Reporting Improvement Amendment
Staff Leads: John Hadley & Myra Brouwer
Purpose of Amendment: To improve compliance with for-hire reporting requirements.
Action Summary: TBD
Development Level: Scoping.

2.3. Presentation and Discussion

John Hadley, SAFMC staff

2.4. ACTIONS

Discuss and make recommendations as appropriate. In general, this agenda item is meant to brief the SEP on potential Council actions that may be presented to the group for review later in the meeting or at a future SEP meeting.

SEP RECOMMENDATIONS:

- The SEP appreciated the updates but had no questions.

3. Update on the Citizen Science Program

3.1. Document

- **Attachment 3**. Citizen Science Program update presentation

3.2. Overview

Julia Byrd, SAFMC staff, will provide an update program activities and recent efforts of the SAFMC's Citizen Science Program. Program activities currently underway include the Citizen Science Project Idea Portal, the SMILE Project, FISHstory, and SAFMC Release. Staff will also present new efforts to track relationship building to look for patterns in engagement with the Citizen Science Program.

Presentation and Discussion

Julia Byrd and Meg Withers, SAFMC staff

3.3. ACTIONS

Discuss and make recommendations as appropriate.

Discussion Questions:

1. What modes of contact do you think would be most beneficial to track to document relationship building?
2. What details (without logging any personal information) would be useful to us illustrating the path to relationship-building?

SEP RECOMMENDATIONS:

- SEP members raised several questions for the Council regarding the Citizen Science Program update:
    - What is the status of the app-project idea portal? How many submissions have been received so far (any metrics)?
    - Are there geographic data available on user submissions or logins?
    - Why does South Carolina have more logins compared to other states? What is driving higher engagement there?
    - Are participants receiving any recognition or credit, particularly when their projects inform Council decisions?
    - Is there concern about upward bias in data—e.g., fishers may be more likely to photograph and report larger catches, which could skew size and catch data over time?

Discussion question: What modes of contact do you think would be most beneficial to track to document relationship building?

- The SEP suggests looking at successful examples of relationship building in the number of SAFMC Release submissions from South Carolina, where staff is likely interact with anglers most often due to the location of the Council office. Consider working with partners in other states to expand this relationship building.
    - *It was noted that staff currently work to do this by leveraging relationships with state agencies, fishing clubs, etc. but understand the importance of in-person interaction.*
- The SEP recommends that staff consider modifying QR Codes to record data that would allow staff to better understand who is sharing information and where that information is being shared. This would help identify community leaders.
    - It will be important to make sure anyone receiving one of these QR codes knows that their information will be recorded (trust building).
- Look at correlation of the number of events in a given area with active participation in Citizen Science projects and other Council public participation opportunities.
    - Sign-ups on SciFish, Release, etc. surrounding an event.

Discussion Question: What details (without logging any personal information) would be useful to us illustrating the path to relationship-building?

- The number of times someone reached out to request information, a seminar, attendance at an event, etc.
- Consider developing a spreadsheet to record interactions (date, name, project, conversation etc.) This can be valuable even if kept confidential.

    - Look at templates from other industries that track interactions with clients, customers, etc.
- Contact Sea Grant peers, who often quantify and track interactions yearly to include in various grant and annual reports.
- It is important to consider the difference of outputs vs. outcomes. It would be beneficial to note what individuals are involved and how they are helping to achieve *outcomes* (like a logic model).
    - Social network analysis software with different symbols based on outcomes, geographic location, etc.
- Consider trying push notifications to see if individuals will interact with the app.
    - Ex. *Have you been fishing in the last two weeks?*

FISHstory Recommendations

- Individuals are more likely to take a picture and retain a photo long-term with larger catch (size and number of fish), concern about upward bias.
    - *FISHstory focuses on photos that include the entire catch displayed and not just one individual fish. Individual preference and regulations will influence what fish and size of fish are caught over time.*

Project Portal Recommendations

- Important to consider intellectual property and how to continue involvement of someone who submitted an idea that the Program decides to move forward with developing.

SAFMC Release Recommendations

- Recommendation to talk to those that are star participants to see what is motivating them to continue to be involved in the SAFMC Release project.

4. Citizen Science Program Evaluation

4.1. Document

- **Attachment 4a.** Citizen Science Initial Program Evaluation Overview
- **Attachment 4b.** Survey of Scientists and Managers Working in the Region Covered by SAFMC
- **Attachment 4c:** Overview Presentation of Scientist and Managers Survey Findings Presentation
- **Attachment 4d:** Decoding the Motivations of Fishers Considering Participation in Citizen Science Projects
- **Attachment 4e:** Decoding the Motivations of Fishers Overview Presentation
- **Attachment 4f:** Comparison of Research Findings, Citizen Science Program Efforts and Recommendations

4.2. Overview

At their December 2020 meeting, the Council supported working with Rick Bonney on an initial evaluation plan for the SAFMC's Citizen Science Program (Program). The plan focuses on

gathering baseline data on knowledge, attitudes, collaborations, engagement, and trust from various stakeholder groups to help evaluate the Program's fourth goal to 'foster mutual learning, collaboration, and program engagement'.

In the original evaluation plan, baseline data was proposed to be collected in three phases: 1) interviews, 2) the development and piloting of an online survey, and 3) the implementation of the online survey. Rick Bonney presented findings from the phase one interviews to the Operations Committee in May 2023 and to the SAFMC in June 2023. Conclusions from the interviews noted the fisherman audience needed to be studied in much more detail and that research into the needs, desires, and motivations of fishermen and how best to reach fishermen will be critical to the Program. Bonney also noted that deploying an online survey to scientists and managers should not be too challenging, but deploying an online survey to fishermen could be challenging.

During summer 2022, additional funding was obtained for this project through NOAA Fisheries and the SAFMC. Staff consulted with Rick Bonney on how best to apply the funds for these evaluation efforts. The decision was made to have Rick Bonney lead the research to gather information from a broader group of scientists and managers through an online survey and to put out a request for proposals in December 2022 to gather information from a broader group of fishermen. Jennifer Sweeney Tookes and Tracy Yandle's proposal was selected for funding. They collected information from a broader group of fishermen via interviews. **Attachment 4a** provides background information on the Citizen Science Program's initial evaluation.

Bonney conducted the online survey with scientists and managers from approximately March through September 2024. The final report summarizing survey findings is **Attachment 4b**. Julia Byrd, Citizen Science Program Manager, will present an overview of survey findings highlighting recommendations on how the Program can respond to this research (**Attachment 4c**).

The Sweeney Tookes' et al. research team conducted interviews with fishermen from approximately July 2023 to February 2024. The final report summarizing survey findings is **Attachment 4d**. Sweeney Tookes will present an overview of survey findings highlighting recommendations on how the Program can respond to this research (**Attachment 4e**).

Julia Byrd will provide an overview comparing key findings from the Bonney and Sweeney Tookes et al. research; share efforts the Citizen Science Program is currently undertaking that help address report recommendations; and provide recommendations for additional strategies and activities the Program can implement to further respond to this research effort (**Attachment 4f**). The recommendations presented were developed and reviewed by the Citizen Science Operations Committee at their October 2024 meeting.

4.3. Presentation

Julia Byrd, SAFMC Staff
Jennifer Sweeney-Tookes, Georgia Southern University

4.4. ACTIONS

Discuss and make recommendations as appropriate.

Discussion Questions

1. Does the SEP support the recommendations developed by the Citizen Science Operations Committee? Are there additional ways the Citizen Science Program should adapt or be refined based on these research efforts?
2. What issues, challenges, and recommendations should the Program prioritize addressing in the short term (1-3 years)? In the long term (> 3 years)?

SEP RECOMMENDATIONS:

Discussion Question: Does the SEP support the recommendations developed by the Citizen Science Operations Committee? Are there additional ways the Citizen Science Program should adapt or be refined based on these research efforts?

- SEP members support the recommendations developed by the Citizen Science Operations Committee.
- SEP members have heard from stakeholders about interest in improving communication by meeting fishermen in their communities and using new or alternative forms of media.
    - Podcasts could be a way to "meet fishermen where they are" through a new media.
- SEP notes that there is also a mistrust issue amongst scientists (not just fishermen) especially in terms of the program meeting scientific standards (study design, sampling, etc.)
- SEP suggests that in terms of building trust, it is important to tell the story and process of *how* decisions are being made for fisheries to help stakeholders feel that their input is being actively considered. This will be important for Citizen Science projects and management, generally.
    - Need to understand the root of why fishermen do not trust managers and do not feel that their input is genuinely considered, suggest consulting recent research by Tookes et al. and the Lorenzen Lab.

Discussion Question: What issues, challenges, and recommendations should the Program prioritize addressing in the short term (1-3 years)? In the long term (> 3 years)?

- Keep doing what you're doing! The Citizen Science program is doing great work!
- **Acknowledging fishermen input should be a priority.** Look at what the Gulf Council does in response to public comments as well as sentiment analysis done with their Fishermen Feedback tool.
- Ask fishermen what would make them feel like their input is being considered.
- Finding the spot where fishermen data and scientist trust can meet - turning fishermen knowledge into Citizen Science data streams.
- Determine what scientists need more information on, and where Citizen Science and fishermen are uniquely suited to address the gap.
- Win-Win projects are important, but **messaging** will be important. Management often works on a long-term time horizon, so it will be important that stakeholders understand that this might be a long-term win-win.

- Prioritize reaching out to neutral parties (ex. Sea Grant, university partners) because it helps to leverage resources and capitalize on the relationships those organizations have already cultivated.
- Don't forget that building relationships and trust takes a long, long time and **consistent effort and communication to achieve**. It is hard won and easily lost.
- Building relationships and trust should be a priority because it will ultimately help with the frustration around fisheries management being a black box.
- Focus on short videos and useful infographics as a way to address fisheries management being a "black box."
- Transparency in the process is important, but the messenger is equally important.

5. Eighth National Meeting of the Scientific Coordination Subcommittee of the Council Coordination Committee Report

5.1. Documents

- **Attachment 5a:** Eighth National Meeting of the Scientific Coordination Subcommittee of the Council Coordination Committee Report
- **Attachment 5b:** Eighth National Meeting of the Scientific Coordination Subcommittee of the Council Coordination Committee Presentation

5.2. Overview

The Scientific Coordination Subcommittee convened its 8th workshop (SCS8) in Boston, MA on August 26-28, 2024, hosted by the New England Fishery Management Council (NEFMC). The SCS8 meeting theme was Applying ABC Control Rules in a Changing Environment and featured three sub-themes: (1) Advances in ecosystem science and assessment to inform ABC control rules in a dynamic environment, (2) Application of social science to achieve management goals under dynamic conditions, and (3) Adaptation of reference points, control rules, and rebuilding plans to a changing environment. The meeting included several keynote speakers in sub-theme areas and regional case studies from SSC members and NOAA staff followed by break-out groups and synthesis of ideas. On the final day, participants broke out into regional SSC groups and brainstormed several ideas for actionable outcomes, implementation, and pathways forward for their respective regional SSCs. Staff will present a summary of the discussions relative to sub-theme two (application of social science), including challenges and recommendations.

5.3. Presentation

Christina Wiegand, SAMFC staff

5.4. ACTIONS

Discuss and make recommendations as appropriate.

Discussion Questions:

1. What are the most significant data gaps in our understanding of the South Atlantic social and economic environment.
    a. Are there available data sources or ongoing research that has not been explored to-date that would help fill these gaps?

2. How can the Council better illustrate the ways in which they utilize public testimony and LEK in the management process?
    a. How can the Council improve the public testimony process?
3. How can the Council encourage participation in the public participation processes that already exist (public comment, advisory panels, Citizen Science, Lines, etc.)?
4. Are there opportunities for Council staff to better coordinate with external entities to leverage resources that have not been explored to-date?
5. Given limited staff resources, how can Council staff capitalize on nontraditional sources of social and economic data (foreshadowing, for a presentation later in the meeting)?
6. How can Council staff better illustrate the role of social and economic data in the analysis of management actions to the Council?
    a. How can the decision-making process more explicitly incorporate social science?
7. Does the Social and Economic Panel feel they need more information on how Council members understand social science and what they are looking to receive from the Panel?
8. SCS9 will be hosted by the Gulf Fishery Management Council in 2026. Does the SEP have suggestions for a social science sub-theme(s) to include?

SEP RECOMMENDATIONS:

Discussion Questions: What are the most significant data gaps in our understanding of the South Atlantic social and economic environment? Are there available data sources or ongoing research that has not been explored to-date that would help fill these gaps?

- The SEP suggested that to fully answer this question, it is necessary to consider updating and revising the list of data sources that was previously presented to the SEP.
- The SEP noted that there is so much good work happening, it can be difficult to keep track.
    - They suggest the creation of a landing page for ongoing projects in the region.
        - Could potentially be housed through the Council Coordinating Committee (CCC).
    - Also consider coordinating across state and federal agencies, including non-marine fisheries related agencies.
        - Could be a good potential workshop theme to encourage information sharing.
- The SEP would like to see more economic impact data at the county level, which could be important within the state as well as useful for the Council. Overall, the SEP would appreciate the ability to look at information in finer detail.

Discussion Questions: How can the Council better illustrate the ways in which they utilize public testimony and LEK in the management process? How can the Council improve the public testimony process? How can the Council encourage participation in the public participation processes that already exist (public comment, advisory panels, Citizen Science, Lines, etc.)?

- Demographic information could be used to target specific locations and communities.
- *How* people are received at a meeting is important to participants.
- Consider incorporating brief "origin stories" on where projects originate, particularly if they originate from a public comment.

Discussion Questions: Given limited staff resources, how can Council staff capitalize on nontraditional sources of social and economic data (foreshadowing, for a presentation later in the meeting)? How can Council staff better illustrate the role of social and economic data in the analysis of management actions to the Council? How can the decision-making process more explicitly incorporate social science?

- The SEP noted that it can be difficult to point out where the social and economic information is consistently included in FMPs.
    - Can be difficult to explain how information is specifically used in the management process.
    - It is important that all people with management insights continually try to direct people to where the information is located and that it is produced for all managed species.
- The SEP suggests following the excellent examples from Georgia Sea Grant (by Adam Stemle and Eugene Frimpong), and consider summarizing information in infographics that are widely released to the public and other agencies.
    - During fisheries disaster assessment, communicate how the data is being used for relief efforts.

Discussion Question: Does the Social and Economic Panel feel they need more information on how Council members understand social science and what they are looking to receive from the Panel?

- The SEP suggested holding a conversation with the Council to find out what kind of social & economic information *they* find most important in management. Then using this to co-create a list between the SEP and the Council. However, this may be less effective as Council might now be as aware of existing gaps or needs as they relate to social science.
    - Would be helpful to gather information from the Council on what they consider is trustworthy data.
        - This could help focus future projects.

Discussion Question: SCS9 will be hosted by the Gulf Fishery Management Council in 2026. Does the SEP have suggestions for a social science sub-theme(s) to include?

- The SEP felt that all of the discussion questions included above could be a sub-theme at a future meeting. Other ideas presented by the SEP include:
    - Highlight the regional differences in how different councils incorporate TEK/LEK/regional knowledge sets outside the norm.
    - Conversations between social scientists and non-social scientists could be particularly beneficial.
    - Strongly recommend that SCS9 explicitly and concretely identify and explain ways to incorporate qualitative data into management. This needs to be explored and discussed further at the national scale.
        - Specifically, explicit guidance on how to add to sections on SE data to FMPs and other areas of management would be highly desirable.

6. Utilization of Information Gathered During Outreach Initiatives

6.1. Document

- **Attachment 6.** Utilizing Information Gathered During Outreach Initiatives Presentation

6.2. Overview

The Council has an extensive Outreach and Communication Program allowing outreach staff to engage with fishery stakeholders throughout the Council's jurisdiction. Through these activities outreach staff passively collects a significant amount of qualitative information on Council managed fisheries. While not collected using any formal social science methodology, it is important to consider the value of these activities and how to better utilize the information to inform the Council decision making process. Staff will review the in-person outreach initiatives conducted by Council staff and the information they collect both explicitly and passively. Additionally, staff will cover how the value of these outreach programs is tracked and presented to the Council.

6.3. Presentation

Christina Wiegand, SAFMC staff

6.4. ACTIONS

Discuss and make recommendations as appropriate.

Discussion Questions:

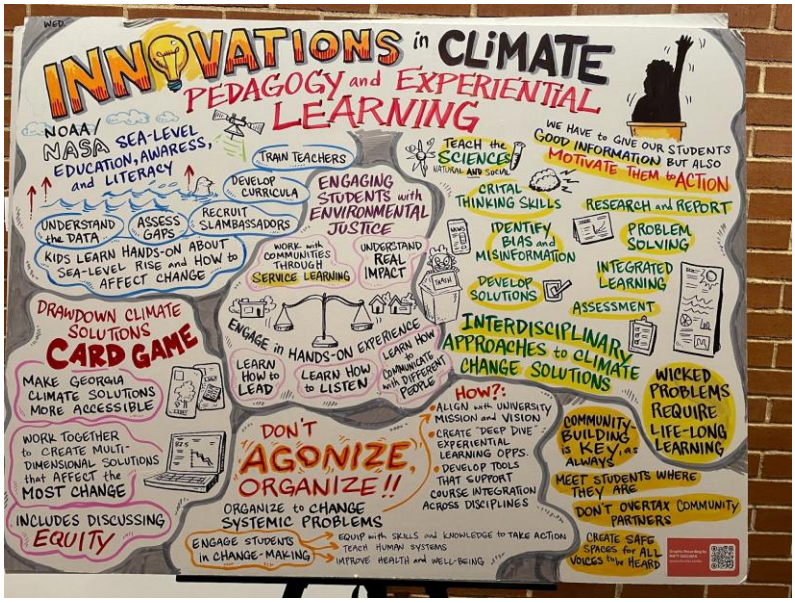
1. How can the information gathered through these various efforts be captured, if not already?
    a. How can we track qualitative information consistently and comparably across different outreach events?
2. How can the information captured be analyzed to better understand trends in South Atlantic fisheries?
3. How can Council staff effectively present and communicate the qualitative insights to the Council?
    a. Present this information as more than purely anecdotal evidence.
4. How can Council staff better track the development of relationships over time?
5. How can the Council effectively present and communicate the value of outreach efforts to achieve Council goals and objectives?

SEP RECOMMENDATIONS:

Discussion Questions: How can the information gathered through these various efforts be captured, if not already? How can we track qualitative information consistently and comparably across different outreach events? How can the information captured be analyzed to better understand trends in South Atlantic fisheries?

- The SEP gave feedback on ways qualitative information can be tracked consistently and comparably across different outreach events and to effectively present and communicate qualitative insights to the Council. The SEP recommended a number of options to explore, including:
    - Drafting a consistent series of questions to answer following each different type of event.
    - Entering each event with specific goals and questions in mind to try to answer and revisit after each event to evaluate what is and isn't working.
    - Exploring Social Network Analysis.

    - Debriefing and summarizing what was collected during each event, especially if there are several top questions of focus during the effort will help illuminate the common themes across the events and interactions.
- The SEP recommended *starting with* thinking about how they will analyze information (such as sticky notes data or answers to generated questions) *systematically*, to identify how much they can answer questions with some level of agreement in order to identify larger salient points.
    - Planning for analysis from the start and framing actionable questions in engagement exercises were noted as potentially helpful– thinking ahead of time about "what are our goals and what do we think we can learn/answer here?" in order to end with data-driven results: "These are the 3 key topics that came out across the interactions." Also be cognizant of what cannot be answered with this data.
    - It was also recommended to look at how workshop questions can complement findings in other studies, such as the Bonney work.
    - Focus on the guiding research questions and/or event goals (which must be clearly articulated before the event) and determine whether the goals were met or not.
- The SEP also noted that it could be useful to identify the opinion leaders at each meeting to determine:
    - Where do people go or who do they trust for this type of information?
    - Collect social network information at each meeting in order to be able to analyze over the long term to see if the same names come up throughout the engagement.
    - This information could shape effective relationship building.
- The SEP suggested staff consider the tradeoffs of quantity and quality in outreach, such as tackle shop visits, acknowledging that with limited capacity sometimes more visits to fewer shops may help build those relationships and be ultimately more beneficial to trust-building and relationship-building than fewer visits to more shops.
- The SEP urged Council staff to consider the sequencing and goals of these meetings, and to consider offering people an opportunity to tell you what is on their minds first. It may also be useful to focus questions/discussion on topics that the Council can change or has jurisdiction over; specifically focus on questions that feed into actionable items by the Council. Part of this may include teaching about the management process, and how information is provided.
- The SEP recommended considering the use of a sketch artist to listen to the information and present it as a visual synopsis/graphic representation of what participants said (such as the example below).



Discussion Question: How can Council staff effectively present and communicate the qualitative insights to the Council?

- In addition to ideas listed above, the SEP recommends that Council staff:
    - Be deliberate and systematic about *what* is collected (e.g. are there items of interest, such as relationships, etc.?) over a period of time.
    - Be thoughtful about who and how the meetings and resultant information are being recorded; consider having a social scientist involved.
    - Use a consistent process throughout all the events to gather information/data in a systematic way to get at what is salient– this consistent methodology is necessary to differentiate the information from anecdotes.
    - Develop a social science analysis plan to result in rigorous results, and explain methods of data collection and analysis to illustrate how the information is more than anecdotal.
    - When presenting this information, be clear and detailed about the differences between social science data and findings vs. anecdote.

Discussion Question: How can Council staff better track the development of relationships over time?

- The SEP recommended ways to help staff track relationships over time, including:
    - Having questions to ask those doing outreach over time to record these elements.
    - Looking to extension for evaluation tools.
    - Asking attendees about their motivations.
    - Tracking outcomes as well as outputs (e.g., QR codes that can track), developing targets (e.g., the number of people who use a QR code).
- The SEP proposed:
    - Using Expectancy Disconfirmation Theory which would include gathering expectations prior to the meeting to help with gap analysis and to calibrate future effort.
    - Use a pre and post expectation analysis to determine whether expectations were met and whether time is appropriately being spent during the meeting on specific items.
    - Compiling general metrics and trying to understand demographic and fisher motivations.

- Asking participants about their relationship with the Council, how they learned about the meeting, and what motivated them to be involved.
- QR codes linked to specific outreach events can help with tracking.
  - Goals for what percent of attendees go to social media sites, QR codes, etc.
  - Output oriented goals to evaluate outcomes.
- Asking networks (APs, ambassadors, etc.) to help push out information.

- Overall, the SEP urged that Council staff keep notes and records– "If you don't write it down, it didn't happen."

Discussion Question: How can the Council effectively present and communicate the value of outreach efforts to achieve Council goals and objectives?

- The SEP noted that relationship graphics in presentations would be helpful (e.g. what is the relationship between a stakeholder idea and this particular program/project). It is also useful to show metrics over time, including:
  - Interactions over time.
  - Multiple interactions with the same individual or organizations.
  - Tracking invites, repeats, interactions, etc.
- The SEP recommends deferring to extension agencies for their expertise and best practices, such as:
  - Building infographics for social and economic data.
  - Explaining the connectivity between social and economic data and disaster relief initiatives and applications.
  - Piggy back on the studies that have been done on outreach (Cit Sci survey and evaluation) to develop outreach questions.
  - Develop a targeted approach to piggy back on work that has already been accomplished.

7. Situation Assessment on Stakeholder Perspectives of the Snapper Grouper Management Strategy Evaluation Presentation

7.1. Document

- **Attachment 7.** Situation Assessment on Stakeholder Perspectives of the Snapper Grouper Management Strategy Evaluation Presentation

7.2. Overview

As part of the South Atlantic Snapper Grouper Management Strategy Evaluation (MSE) a situation assessment of stakeholder perspectives on the snapper grouper fishery, the discard mortality issues, management process and role of snapper grouper MSE developed by Blue Matter Science was conducted. A key part of MSE is gathering information on stakeholder perspectives. This situation assessment will be used to improve the next iteration for the snapper grouper MSE. Outcomes include identification of key stakeholders to engage, main concerns of stakeholders, areas where public input could shape the discussion, and issues or constraints that could impact participation.

7.3. Presentation

Kai Lorenzen, University of Florida

7.4. ACTIONS

Discuss and make recommendations as appropriate.

SEP RECOMMENDATIONS:

- The SEP noted that the MSE could be used to examine data inputs and implications of different assumptions, and suggested that literature on angler satisfaction in the Southeast US could be useful.
- The SEP suggested integrating angler satisfaction into MSE outcomes, specifically to define satisfaction and how to evaluate it, such as asking: "What are the expectations of angler satisfaction?" and examining the gap between performance and expectations. They suggested that there would likely be biological vs socially determined outcomes- or some combination of both.
- The SEP suggested determining who can access the fish and how that access occurs, particularly in relation to a tradeoff of access vs landings (open seasons, retention limits, etc.)
- They further suggested that the MSE prioritize quantifying effort shifts between modes of fishing (bottom fishing vs trolling) based on MSE scenarios, and tie this into extended in-depth engagement with different stakeholder groups.

8. Climate Readiness Projects Update

8.1. Documents

- **Attachment 8.** Climate Readiness Projects Update Presentation

8.2. Overview

The National Oceanic and Atmospheric Administration (NOAA) has provided funding to support Council efforts to develop and advance climate ready fisheries management. This presentation will provide background information and updates on the Council's Climate Readiness Projects including various Resilient Fisheries Initiatives, and ongoing collaborations with East Coast and Southeast Regional management partners and an update on the four Council Climate Readiness Projects.

8.3. Presentation

Lara Klibansky, SAFMC Staff

8.4. ACTIONS

Discuss and make recommendations as appropriate. In general, this agenda item is meant to brief the SEP on potential Council activities that may be presented to the group for review at a future SEP meeting.

SEP RECOMMENDATIONS:

- The SEP appreciated this overview of current and upcoming projects.

- Members expressed interest in being consulted or somehow included in the 4th project described, which will focus on "Communicating Climate Impacts with Fishing Communities."
    - Council staff confirmed that this will likely be possible and opportunities will be communicated to the SEP when they arise.

9. South Atlantic Research and Monitoring Prioritization Plan

9.1. Documents

- **Attachment 9.** South Atlantic Research and Monitoring Prioritization Plan Draft

9.2. Overview

The Council revises their research and monitoring plan every two years. The research and monitoring plan is used by Council and NOAA Fisheries staff to develop research concepts that are intended for use in management, provided to NOAA Fisheries for potential inclusion in research grants as priorities, and used by other researchers during development of research proposals. The Panel is provided with an opportunity to review the 2025-2029 South Atlantic Research and Monitoring plan. The Council will consider the plan at its June 2025 meeting.

9.3. Presentation

Chip Collier, SAFMC staff

9.4. ACTIONS

Discuss and make recommendations as appropriate.

Discussion Questions:

1. Do the social and economic priorities in the South Atlantic Research and Monitoring Prioritization Plan accurately reflect the needs in this region?
2. Are there any additional priorities that should be added to the current list? Consider general needs as well as recent nationwide initiatives.

SEP RECOMMENDATIONS:

Discussion Question: Do the social and economic priorities in the South Atlantic Research and Monitoring Prioritization Plan accurately reflect the needs in this region?

- Edits made to goals in document during meeting per SEP discussion- see separate document to follow via email.

Discussion Question: Are there any additional priorities that should be added to the current list? Consider general needs as well as recent nationwide initiatives.

- The SEP recommends using/revising "Fishing Community Snapshots" instead of profiles.
- The SEP is interested in concise reports that address the social aspects of each fishery or FMP.
    - For example, look to the "Social dimensions of the Gulf shrimp fishery."

10. Other Business

There were no items under Other Business

11. Report and Recommendations Review

12. Next SEP Meeting

APPENDIX B: BLACK SEA BASS STOCK RISK RATING

PRELIMINARY

	Risk of Overexploitation			Black Sea Bass				
Biological Attributes	**High (1)**	**Medium (2)**	**Low (3)**	**Notes**	**Default Score**	**AP Score**	**SSC Score**	**Council Score**
Estimated natural mortality (M)	M ≤ 0.20	0.20-0.40	M ≥ 0.4	SEDAR 56 (2018): M = 0.38 SEDAR 76 (2023): M = 0.375	**2**	**2**	**2**	
Age at maturity	≥ 4 years	2-4 years	≤ 2 years	The size at 50% maturity (L50) for females fell from 137 to 108 mm SL in the southern segment (FL/GA) and from 145 to 115 mm SL in the northern segment (McGovern et al. 2002). These SL correspond to age ~0-1. Size at 50% probability of sex change was 355 mm TL (McGovern et al 2002). This TL cooresponds to age ~5-6.	**3**	**3**	**3**	
Final Biological Score					**2.5**	**2.5**	**2.5**	**#DIV/0!**
Human Dimension Attributes	**High (1)**	**Medium (2)**	**Low (3)**	**Notes**	**Default Score**	**AP Score**	**SSC Score**	**Council Score**
Ability to regulate fishery	fishery consistently exceeds Total ACL (ex. 3+ out of 5 years) and/or exceeds Total ACL by more than 15%	fishery mostly kept below Total ACL (ex. Exceeds ACL 1-2 out of 5 years) and/or does not exceed ACL by more than 15%	fishery consistently kept below Total ACL	**Total ACL:** not exceeded in any year 2020-2024 **Commercial ACL:** not exceeded in any year 2020-2024 **Recreational ACL:** not exceeded in any year 2020-2024 Notes: - Commercial, Recreational, and Total Landings all consistently around 30% of ACL. AP: not hitting ACL targets is a warning	**3**	**3**	**3**	
Potential for discard losses	Dead discards are a significant proportion of the total catch (over 40%)	Dead discards are a moderate proportion of the total catch (20%-40%)	Dead discards very small component of total catch (<15%-20%)	**Recreational Discards:** DMR: 13.7%, MRIP Average (2020-2024) Proportion of Dead Discards (B2*DMR) to Total Catch (A+B1+B2) = 13.1% Proportion of Dead Discards (B2*DMR) to Total Removals (A+B1+Dead Discards) = 74.3% **Commercial Discards:** recent discard data unavailable; from SEDAR 76 (avg: 2015-2019), commercial discards = 3.89%, DMR: 14% (pots) - 19% (handline)	**1**	**1**	**1**	
Annual Commercial value	> 10% total annual revenue	Between 1% and 10% of total annual revenue	< 1% total annual revenue	Average Annual Revenue (2019-2023) = 2.8% AP: deflating price leading to less fishing activity, influence of mid-atlantic boats	**2**	**2**	**2**	
	> 40% of total trip revenue, on average	Between 10% and 40% of total trip revenue, on average	< 10% total trip revenue, on average	Average Total Trip Revenue (2019-2023) = 11.3%	**2**	**2**	**2**	
Recreational desirability	> 5% trips report targeting this species	Between 1% and 5% of trips report targeting this species	< 1% trips report targeting this species	Average percent of all trips (2019-2024) = 2.2% Average percent of all SG trips (not including Gray Snapper) = 13.2% AP: non targeted anymore in FL (fort pierce south), regional differentiation	**2**	**2**	**2**	
Social concerns	>13 communities highly reliant on this species	7-13 communities highly reliant on this species	<7 communities highly reliant on this species	Of the communities with the highest black sea bass landings, 4 were highly reliant on commercial and/or recreational fishing. (Sneads Ferry, Wanchese, and Hobucken, NC; Murrells Inlet, SC).	**3**	**3**	**3**	
Final Human Dimension Score					**2.17**	**2.17**	**2.17**	**#DIV/0!**
Environmental Attributes	**High (1)**			**Notes**	**Default Score**	**AP Score**	**SSC Score**	**Council Score**
Ecosystem importance	Does this species significantly affect other species, e.g. as a keystone predator, primary prey, habitat builder etc.?			SSC: important component of the SG complex before declines in biomass			**1**	
Climate change	Is this species likely to experience/be experiencing negative stock impacts due to climate change?							
Other Environmental Variables	Are other environmental variables causing negative effects on this stock, e.g. in the form of regime shifts, recruitment failure, etc.?			Occurrence of potential range shift? Recent recruitment is lowest in time series for South Atlantic, Mid-Atlantic biomass is highest in time series. AP: range shifts occurring		**1**	**1**	
Final Environmental Score					**0**	**1**	**1**	**0**
Final Risk Score					**2.333**	**1.889**	**1.889**	**#DIV/0!**
					Medium	**High**	**High**	#DIV/0!