

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

**SOCIO-ECONOMIC PANEL OF THE
SCIENTIFIC AND STATISTICAL COMMITTEE**



SEP Meeting Report

April 13, 2021

Held via Webinar

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
- A social census of Georgia’s working waterfronts,
- Allocation Decision Tree Blueprint draft,
- Dolphin Wahoo Participatory Workshops,
- Using Fishery Performance Reports to evaluate management success.

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1. Introduction

1.1. Documents

- **Attachment 1a.** Socio-Economic Panel Agenda Overview
- **Attachment 1b.** Minutes from the April 2021 meeting

1.2. ACTIONS

- Introductions
- Review and approve the agenda
- Approve April 2020 Minutes
- Opportunity for public comment

The SEP welcomed several new members, and approved the agenda and last year's meeting minutes. There was no public comment before the meeting.

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)

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. This amendment begins development in September 2020 and will review the ITQ goals and objectives, and actions from the 2019 review such as electronic reporting, changes to allowable landing procedures, cost recovery, etc. In addition, the Council will consider adopting updated goals and objectives for the entire Snapper Grouper FMP as part of this amendment.

At the September 2020 Council meeting the Council directed staff to hold a meeting with the Wreckfish shareholders and wholesale dealers to discuss the potential actions for the amendments and timing for the amendment ahead of the December 2020 meeting. A meeting of the Wreckfish shareholders and wholesale dealers was held via webinar on October 26, 2020. At their December 2020 meeting the Council reviewed input from the shareholders and dealers, provided guidance to staff on actions and alternatives to develop, and approved the amendment for scoping at the March 2021 meeting. At the March 2021 meeting, staff presented a revised timeline for completion of Amendment 48. Moving to an electronic reporting system will require review of the entire CFR and will take a significant amount of staff time, as a result it is unlikely that this amendment will be ready for final approval by the end of 2021. Staff presented work completed to date, including draft actions and alternatives and received guidance to continue

development of the actions and alternatives, including those needed for consideration of a VMS requirement. The Council will review draft actions and alternatives for approval at the September Council meeting. A meeting of the wreckfish shareholders will be convened this summer.

Amendment 50 (Red Porgy Rebuilding and Allocations)

The Council received a report of the results of SEDAR 60 for Red Porgy at their June 2020 meeting. Red Porgy are overfished, and overfishing is occurring and the stock is not making adequate progress towards rebuilding. The Council also received an ABC recommendation from the SSC in June 2020 and directed staff to begin development of an amendment. The Council is required to establish a rebuilding plan for Red Porgy no later than June 12, 2022. In September 2020, the Council reviewed an options paper to address catch levels, rebuilding, management measures, and sector allocations. At the December meeting, the Council reviewed preliminary analyses, recommendations on management measures from the Snapper Grouper AP, and approved the amendment for scoping. Scoping hearings were held February 3 and 4, 2021. The Council will review updated analyses in June 2021 and approve the amendment for public hearings.

Amendment 49 (Greater Amberjack Catch Levels and Allocations and Snapper Grouper Recreational Annual Catch Targets)

In June 2020, the Council received the results of SEDAR 59 for Greater Amberjack. Greater Amberjack were determined to be neither overfished nor was overfishing occurring. This amendment will consider modifications to the annual catch limit, optimum yield, and sector allocations for Greater Amberjack. Additionally, this amendment considers removal of recreational annual catch targets that are not currently being used in management from the Snapper Grouper FMP. In March 2021, the Council approved Amendment 49 for scoping. Scoping hearings will be held on April 14 and 15, 2021. In June, the Council will review scoping comments, comments from the Snapper Grouper Advisory Panel, and preliminary analyses and provide guidance to the IPT on further development of the draft amendment.

Dolphin Wahoo 10 (Dolphin and Wahoo management measures)

As of the March 2021 Council meeting, the actions in Amendment 10 would accommodate updated recreational data from the Marine Recreational Information Program and new catch level recommendations from the SSC by revising the annual catch limits and sector allocations for Dolphin and Wahoo. The amendment also contains actions that implement various other management changes in the fishery including revising recreational accountability measures, accommodating possession of Dolphin and Wahoo on vessels with certain unauthorized gears onboard, removing the operator card requirement, reducing the recreational vessel limit for Dolphin, reducing the recreational bag limit for Wahoo, and implementing a recreational vessel limit for Wahoo.

Amendment 34 (King Mackerel Assessment and Allocations)

In June 2020 the Council received the results of SEDAR 38 Update for King Mackerel. King Mackerel were determined to be neither overfished nor was overfishing occurring. This amendment will consider modifications to management measures and sector allocations. A

meeting of the Mackerel Cobia Advisory Panel was held via webinar on November 2, 2020. The AP reviewed the amendment and provided recommendations. At their December 2020 meeting the Council reviewed input from the AP and provided guidance to staff on actions and alternatives to develop. They also approved the amendment for scoping to be held during the March 2021 meeting. At their March 2021 meeting the Council reviewed scoping comments and approved actions and alternatives to be analyzed. In June 2021, staff will present preliminary analysis for the Council to consider when selecting preferred alternatives and approval for public hearings.

2.3. Presentation and Discussion

John Hadley and Christina Wiegand, 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 thanked staff for the information, but had no specific recommendations.

3. Update on the Citizen Science Program

3.1. Documents

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

3.2. Overview

Staff will present a brief update on the Council's Citizen Science Program and pilot projects, highlighting activities that have occurred since the Spring 2020 SEP meeting. Additionally, staff will provide an overview of a project to develop a customizable citizen science mobile application that encourages and supports the capture and sharing of information about Atlantic coast fish. The Council is partnering with ACCSP and NCDMF to host a series of scoping meetings this spring to develop a roadmap for the design and development of this app. A series of Town Hall meetings were held in March 2021 where fishermen, scientists, and managers were invited to share their ideas on what they would like to see out of a citizen science app.

3.3. Presentation and Discussion

Julia Byrd and Allie Iberle, SAFMC staff

3.4. ACTIONS

Provide feedback and guidance on some of the socio-economic issues and ideas raised during the citizen science mobile application town hall meetings.

Discussion Questions:

1. What niche can citizen science fill for social and economic information that is different from what we can learn through surveys and academic research?
2. How can it help inform decision making?
3. What information can't be collected through other means?
4. Which of the socio-economic town hall ideas may lend themselves well to inclusion in the customizable citizen science app?

SEP RECOMMENDATIONS:

The SEP agrees that citizen science could fill many ongoing data gaps in both commercial and recreational data collection, especially as it relates to socio-economic data. Initial concerns regarding citizen science are the amount of PII required to collect adequate data from stakeholders, as well as the idea of “app saturation,” and how other reporting tools currently exist. The SEP did agree with the Council that those current apps do still have data gaps, and goals moving forward are to fill those gaps as best as possible.

In terms of the role citizen science can play, the SEP agreed that traditional research and surveys could likely cover the same information with sufficient budget, but a dedicated app may be a much easier and cheaper way to collect this data. Questions about angler decision-making were noted as difficult to obtain via traditional methods and highly suited for citizen science.

Examples of questions that the SEP posed for citizen science are:

- *Inventory of fishing infrastructure*
- *Ways to capture when fishermen couldn't go fishing due to storm events, water quality problems, etc.*
- *Did trip start at public or private location?*
- *If you weren't fishing today, what would you be doing instead?*
- *If you put your boat in at a public ramp, how long did it take you to get it in the water?*
- *What are the lengths of discarded fish caught today?*
- *How long do durable goods last? (as NOAA estimates that have not been updated recently)*
- *In general, would you rather have: (a) more days in the fishing season with a lower bag limit per day, or (b) fewer days in the fishing season with a higher bag limit per day?*
- *Do you use social media (such as Facebook, Instagram, Twitter, Flickr, etc.) to figure out *where* to go fishing?*
- *Do you use social media (such as Facebook, Instagram, Twitter, Flickr, etc.) to figure out *when* to go fishing?*
- *On this trip, did you have cell phone service while you were actually fishing, or were you out of range of cell service while you were actually fishing?*
- *Did your fishing trip start at a public access point (such as a public boat ramp or public marina) or did it start from a private location (such as a private boat dock or private marina)?*

- *For you personally, how many years does a <fill in name of a type of fishing equipment, such as "boat", "boat trailer", "fishing rod", "electronic fish finder", "electronic depth finder"> last before it breaks or wears out and needs to be replaced?*
- *How much money did you spend at restaurants and bars on this fishing trip?*
 - *<Follow up:> How much money would you have spent on restaurants and bars during this time if you had not taken this fishing trip?*
- *How much money did you spend for lodging on this fishing trip?*
 - *<Follow up:> How much money would you have spent on lodging during this time if you had not taken this fishing trip?*

Another interesting topic that generated conversation and seemed well-suited for citizen science was shark interactions by anglers. The SEP noted that shark abundance and predation has been rising (qualitatively), which can be an interesting environmental indicator. A broader takeaway from this conversation was to consider less tangible issues such as this when designing citizen science questionnaires, as this is the type of information that is well suited to these methods.

Dr. Jennifer Sweeney-Tookes and Dr. Tracy Yandle have some existing data on fisher attitudes towards management and its impacts, and they would be happy to discuss further. As they have researched similar topics in Georgia and South Carolina, they may also be able to offer some experience/insight as the interview guides are created.

Lastly, Dr. Chris Dumas provided multiple suggestions for new or innovative uses of citizen science data. To combine citizen science data and survey data mentioned by Dr. Jennifer Sweeney-Tookes/Dr. Tracy Yandle, you could try Multi-frame survey methodology (start with Hartley 1962). Dr. Dumas also suggested linking a citizen science app to photography-based social media platforms in order to reduce app fatigue, and that there should be an attempt to come up with unique fisher/trip identifier number (a data "standard") that will be used by all apps, including both government apps and private sector apps. To reduce "angler saturation," or "fish app fatigue", you could try having your CitSci app automatically post on Facebook, Instagram, so anglers don't have to post both places. Finally, Dr. Dumas discussed an idea to use citizen science reporting to help fill in data gaps between MRIP wave estimates in order to support management. Dr. Dumas offered that if daily/weekly reporting data from citizen science appeared to correlate strongly to later MRIP wave estimates, they could be used to fill short-term data gaps and help manage quotas and closures. Council staff was interested in the idea, but noted current citizen science data collection methods would need to be updated in order to support that approach.

4. A Social Census of Georgia's Working Waterfronts

4.1. Documents

- **Attachment 4.** Social Census of Georgia's Working Waterfronts presentation

4.2. Overview

Current data on the Georgia seafood industry's demographics, economics, and social conditions is missing. This research project fills that gap through its investigation of 1) Current

demographic, economic, and social conditions of the seafood industry, and how these compare to historical trends, and 2) Labor supply conditions for the industry, and strategies that can address the distressed workforce and aging of the fleet. This project conducted a social census of Georgia's working waterfronts to provide a current snapshot of Georgia's seafood industry, and an assessment of changes in the industry over the last 20-40 years. This collaborative research engagement with the fishing community has produced findings that may prove useful to other working waterfronts around the nation. The project has identified labor force concerns voiced by the industry, and identified best practices to remedy these issues, assisted by case study analysis. Drawing on these case studies, the collaborative work with those in fishing communities, and analysis conducted in this project, project outreach has the potential to assist policymakers, businesses, and fishing families in identifying solutions to sustain Georgia's commercial seafood industry.

4.3. Presentation

Dr. Jennifer Sweeney-Tookes, Georgia Southern University/SEP Member

4.4. ACTIONS

Discuss and make recommendations as appropriate. In general, this agenda item is meant to update the SEP on research relevant to south Atlantic fisheries.

SEP RECOMMENDATIONS:

Dr. Chris Dumas asked what sorts of data was gathered from the small regional libraries and archives described in the presentation. Dr. Jennifer Sweeney-Tookes explained it often clarified ownership transitions and provided background data to the area. The experience also deepened undergraduate student researcher engagement with the project and region.

Dr. Adam Stemle asked about the reactions and perceptions of city and county governments to the idea of creating new municipal docks, in light of Brunswick's unsuccessful public dock at Mary Ross Waterfront Park (which became a bit of an eyesore/unsavory area when fishers were hanging out there, drinking, etc.). Dr. Sweeney-Tookes explained that these recommendations were still being developed into a format to share with county and city governments, but that she and the research team were cautiously optimistic that well-run municipal docks (like those in other regions) are possible in Georgia.

Dr. Dumas described data emerging in one of his current projects, where they have found that approximately 25% of registered commercial fishers in North Carolina are commercially fishing without a fishing vessel (e.g. clams, oysters, shrimping from shore) and show positive levels of seafood sales. Dr. Sweeney-Tookes responded that this has never been mentioned in Georgia, and even the least active and financially successful crabbers and fishers seem to be operating from vessels (their own or not).

It was mentioned in the presentation that younger, more able commercial fisherman (especially related to shrimpers) are investing in the larger freezer boats and taking longer trips (outside state territorial waters), whereas older commercial fisherman are typically still taking day trips and their vessel are falling into disrepair.

This study has provided insight into the current demographic, economic, and social conditions of the commercial seafood industry of Georgia, which is in apparent decline and in jeopardy of local collapse.

This study has highlighted several key issues contributing to the overall decline of Georgia's commercial seafood industry since the 1970's. The issues should be further explored and prioritized in another research study to address the most pressing and immediate needs of the industry and the efficacy such as workforce training, vessel and gear triage, and direct payments has on the long-term sustainability of the industry.

5. Allocation Decision Tree Blueprint

5.1. Documents

- **Attachment 5a.** Allocation Decision Tree Blueprint
- **Attachment 5b.** Allocation Decision Tree Blueprint presentation

5.2. Overview

Making sector allocation decisions is a difficult and complicated process. To help the Council incorporate other sources of information, in addition to landings, when making sector allocations, the Council is exploring the use of a Decision Tree Approach to help the determine salient issues when discussing sector allocations and develop an objective and organized approach to allocations. At the September 2020 meeting, the Council endorsed the concept of the Decision Tree Approach and directed staff to work on developing the approach with input from its advisors. The Council did express concerns over establishing an approach that would be overly prescriptive in nature and wanted to maintain flexibility in allocation decisions on a species-by-species basis. As such, the approach design seeks to be informative in a methodical and objective manner without being prescriptive in the exact outcome that the Council is obligated to take in deciding allocations.

5.3. Presentation

John Hadley and Christina Wiegand, SAFMC staff

5.4. ACTIONS

Discuss and provide feedback on the draft Allocation Decision Tree Blueprint Document, with a focus on draft decision tree questions and outcomes.

Discussion Questions:

1. Economic

- a. Keeping in mind the need to focus on readily available data and completion of the decision tree in a relatively short time (several weeks to a few months), does the SEP feel that the set of questions presented covering economic topics is adequate?

The set of questions presented covering economic topics seems adequate given the need to focus on readily available data to complete a decision tree in a relatively short time.

- b. Are there additional economic-related questions or topics that should be covered in this portion of the decision tree approach? Are there questions that should be removed?

The questions included are appropriate given data availability and time constraints.

- c. Does the SEP feel that the outline potential data analyses are adequate? Are there other readily available analyses or data sources that should be examined?

The data analysis steps outlined are rather briefly described but seem to be designed to gather appropriate and available data and analyze the data in a manner that can provide beneficial information. Adequacy of analyses will require nuance; for example, using landings and dockside value to measure demand will involve considering the role and trends in other species targeted by the sector.

- d. Are the resulting recommendations from the economic decision trees appropriate? Will they help guide allocation decisions without being too prescriptive?

The prescriptiveness of the allocation decision tree is decided by how it is used by the Council. That said, the allocation decision tree outlined is not overly prescriptive and can provide the Council the opportunity to consider other species-specific information not covered by the decision tree in making allocation decisions.

Additional economic comments on allocation trees:

*Staff mentioned that, for a given fish species, if it is possible to re-allocate ACL share to one sector without harming the other sector (a "Pareto improvement"), then the re-allocation should be made (all else equal). This same idea can be extended to "trading" ACL shares *across species*, and it might make *both* sectors better off. Consider the answer to this question for all species pairs A and B: "If the recreational sector gives some of its ACL share of species A to the commercial sector, and in exchange the commercial sector gives some of its ACL share of species B to the recreational sector, are *both* sectors made better off?" This can be true when the recreational sector values species B more highly than species A, and at the same time the commercial sector values species A more highly than species B. The same idea might apply *across states* (or other geographic regions) when ACL is allocated across states. "If the state X gives some of its ACL share of species A to the state Y, and in exchange state Y gives some of its ACL share of species B to state X, are *both* states made better off?"*

*The discussion in the points above referred to trades that would make both sectors or states better off *economically*, but, the same idea could be applied to trades that make two fish species better off *biologically*. For example, suppose there was a "trade" that transferred ACL share in species A from recreational sector to the commercial sector, and in exchange transferred ACL share in species B from the commercial sector to the recreational sector. Suppose, after this trade, that both sector were about as well off *economically* as they were before the trade, but suppose that one or both fish species*

*are better off *biologically*, then this is a trade that should happen. For example, suppose that the recreational and commercial sectors each get about the same economic value from each species A fish landed, but the recreational sector has more dead discards. Then, transfer some share from recreational sector to commercial sector. This helps the biology of species A. Now, in compensation, some share of species B is transferred from commercial sector to recreational sector, an amount of share so that both the recreational sector and the commercial sector are as well off economically as they were before the trade, but the biology of species A was helped by the trade. So, net gain to species A biologically with little net impact economically on either recreational sector or commercial sector.*

2. Social

- a. Are there additional sociocultural-related questions or topics that should be covered in this portion of the decision tree approach? Are there questions that should be removed?

The sociocultural decision tree questions included seem appropriate given time and data constraints associated with the allocation decision process.

- b. Does the SEP feel that the outlined data analyses are adequate? Are there other readily available analyses or data sources that should be examined?

The data analyses outlined is of appropriate scope given the data and time limitations associated with the decision tree process.

- c. Given the need to complete any decision tree related analysis in a short amount of time, what is the best way to summarize and present available qualitative data?

The data seems to lend itself to summary reports with the data quantified where possible (for instance, presentations of local quotients and number of directed trips).

- d. Should the vulnerability social indicators be incorporated into the social decision trees?

No.

- e. Are the resulting recommendations from the social decision trees appropriate? Are they clear enough to guide allocation decisions without being too prescriptive?

The allocation decision tree outlined is not overly prescriptive and can provide the Council the opportunity to consider additional information not covered by the decision in making informed allocation decisions.

- f. Should questions listed in the decision trees be posed to Advisory Panels when conducting Fishery Performance Reports?

This question is best decided by Council staff that are more familiar with the APs and the development of Fishery Performance Reports. If the data could be gathered in a manner

that did not impede the AP in other duties the additional information gathered seems valuable; however, such input should not be overweighted due to the small size of APs and the potential for AP representatives personal experiences not to be indicative of the broader fishery/stakeholder groups they represent on specific issues.

Additional social comments on allocation trees:

*In addition to community's *dependence* on fishing, and whether fishing plays an important role in the community's history/culture, might also want to consider whether there is some *unique* social/cultural/historical aspect of a fishing community *relative to other fishing communities*. (e.g., maybe the Gullah culture?)*

Other social questions to consider:

*What are the dimensions of social/cultural/historical *uniqueness*? What would be a good measure for each dimension of uniqueness? (speculation: answers to these questions might be found in the sociology/history/historical preservation literature, rather than in the economics/biology/fish management literature)*

3. Overall

- a. Given the overlap of some information that falls across multiple topics, such as landings or importance of a fishery to a given sector, does the SEP suggest the continued use of a “siloeed approach” where the decision tree questions remain organized by subject (Social, Economic, Landings, and Stock Status) or should a more mixed approach be used where appropriate crossing multiple topics in one branch of the decision tree? For example, the overarching topic of Landings could be addressed using biologic, social, and economic questions.

The SEP preferred a ‘siloeed approach’. While the data used and topics overlap, they are used differently for each decision tree and evaluate different criteria.

- b. Does the SEP feel that the use of a decision tree method as outlined would be useful for the Council to systematically and objectively examine allocations?

The decision tree process outlined would be useful for the Council to systematically and objectively examine allocations. The decision trees created are not overly prescriptive and will provide the Council with basic inputs for making allocation decisions with the ability to gather and consider any additional decision specific information not included in the trees. That said, the process and trees should be routinely (every few years) assessed to determine if each tree is still relevant, if the data collected is the best available, and if new data analysis techniques might be better suited to the task.

- c. It is likely that the outcomes of working through the decision tree will vary by topic.
 - i. To provide the Council more conclusive guidance, should some topics be weighted more heavily than others? If so, which ones should be prioritized?
 - ii. Would it be better to not provide a weighting to the topics and rely on a “majority rules” approach where each topic has equal ranking and the Council should consider allocation decisions based on net outcome of the topics. For example, if

three of the five topics point towards additional allocation to the sector, the Council would be encouraged to prioritize additional ACL to that sector.

The question of weighting is hard to answer in a general sense and is likely to change with each decision based on the particulars of the fishery being analyzed and the data available. If, for example, social decision tree data is not available for an allocation decision providing a pre-determined weight would cause issues in the decision process. Based on the decision specific nature of the data, the Council should determine weights on a case-by-case basis.

SEP RECOMMENDATIONS:

Please see above responses.

6. Dolphin Wahoo Participatory Workshops

6.1. Document

- **Attachment 6.** Dolphin Wahoo Participatory Workshops presentation

6.2. Overview

In March 2020, the Southeast Fisheries Science Center (SEFSC), along with South Atlantic Council staff, conducted a series of participatory workshops with Dolphin Wahoo fishermen at locations in Beaufort, North Carolina, Manteo, North Carolina, and Virginia Beach, Virginia. These workshops gathered information on biological, social, economic, and regulatory factors affecting fisheries for Dolphin and Wahoo, risks to these fisheries, how changes in the ecosystem have affected fishing businesses and communities, and future research needs. This information was used to develop a social-ecological system conceptual model of the human dimensions and environmental factors that influence the fishery in the region.

A similar set of workshops was planned for locations in South Florida for the summer months of 2020 but were delayed and eventually cancelled due to complications related to COVID-19. In the spring of 2021, SEFSC and SAFMC staff made the decision to move the in-person workshops to a virtual format, first seeking input via phone from individuals conducted interviews with fishermen involved in the Dolphin Wahoo fishery from the South Florida region, and then bringing a larger group together over a webinar as a replacement for the in-person workshops. These efforts allowed researchers to gather similar types of information that was collected in North Carolina and Virginia and led to the development of a conceptual model for the Dolphin Wahoo fishery of South Florida.

In addition to the participatory workshops, SEFSC staff conducted an analysis of pictures posted on social media to collect information on for-hire vessels involved in the Dolphin Wahoo fishery including the seasonality of catch, variations in the general size of Dolphin and Wahoo landed, and other species commonly caught on for-hire trips. This research, when combined with findings from the data collected during the participatory workshops, has been used to identify emerging themes in the fishery and provide in-depth biological, social, and economic information not previously available on the Dolphin Wahoo fishery.

An overview and preliminary findings will be presented (*Attachment 6*) to the SEP by SEFSC staff.

6.3. Presentation

Dr. Mandy Karnauskas and Dr. Matt McPherson, SEFSC

6.4. ACTIONS

The cross-disciplinary research resulted in identifying several social, economic, and management factors driving the Dolphin Wahoo fishery. While there was also a notable biological component to the research, the conceptual models are heavily focused on the human dimension aspects of the fishery. As such, the SEP is being asked to review the work conducted and provide feedback.

Discussion Questions and Feedback Requests:

1. Please comment on the utility and appropriate application of the findings (i.e. inform managers, set research priorities, aid in analysis of social and economic effects of fishery management actions, etc.)

The SEP feels that this is a useful exploratory tool that could be brought into FMP process as a descriptive tool providing additional information on the effects of management. In particular, the SEP discussed how analysis of these meetings could systematically document a level of proof of what is heard informally providing evidence for more fine grain management (especially, localized differences). The most useful types of information gleaned seems to be information about what is harvested and when, how effort has changed over time, what is going on in the water and how species targeting substitutions occur in terms of seasonality and trends. This information could be useful as an early warning system since quantitative data provides information with a lag. In the future, another round of meetings might be useful for better understanding shifts in stock and the impacts of climate change.

But, it would be helpful to have been provided explicit examples describing how qualitative data and analysis could be used by the SSC and Council.

2. Please comment on the use of social media analysis to supplement findings.

The social media analysis is useful for supplementing and contextualizing the fishery but questions remain about how much to trust it given representative sample, etc. The social media analysis process identified in this report is labor intensive, and would need to be automated. The SEP noted that the new reporting requirements for the for-hire sector might make social media analysis less useful.

3. Does the SEP recommend considering this approach for future research into other Council-managed fisheries?

- a. Are there specific research topics or fisheries that the SEP would like to identify that could benefit from the application of similar research efforts?

These meetings, qualitative data and analysis are very applicable to Dolphin-Wahoo, which are popular, data limited species with no stock assessment. Results like these would be most useful to similar species that are in the same situation. The SEP noted that this analysis is less likely to be useful in a more commercial fishery. The committee also concurred with the presenters that the analysis is not yet complete. The SEP will review the final completed analysis to better assess the potential of this generated in this report and how that information can improve the flow of information between fishers and management. If further research in this area is conducted, the results could be useful for species that aren't responding to management measures very well. Finally, the next step might be a trial period with dolphin-wahoo management to determine its utility in that process before more research is conducted.

SEP RECOMMENDATIONS:

Please see above responses.

7. Fishery Performance Reports to Evaluate Management Success

7.1. Document

- **Attachment 7.** Fishery Performance Report discussion document

7.2. Overview

The purpose of fishery performance reports (FPR) is to assemble information from the South Atlantic Fishery Management Council (Council) fishery advisory panel members' experience and observations on the water and in the marketplace to complement scientific and landings data. The FPRs are used to complement stock assessment reports and aid in developing stock status recommendations, as well as inform future Council management decisions. Additionally, the FPRs are posted publicly on the [Council's website](#).

Recently, Council staff has been discussing ways to better explore the efficacy of current and past management actions. Understanding what management measures have or haven't been successful in the past could help guide the Council as they discuss modifications to the regulatory system in currently place. To that end, staff would like to get fishermen's perspective on management success through the FPR process.

7.3. Presentation

Christina Wiegand, SAFMC staff

7.4. ACTIONS

Discuss and provide guidance to the staff on Fishery Performance Report questions to examine management success.

Discussion Questions

1. Should questions about management efficacy be roped into the other discussion questions? For example, how have management measures affected the price/demand? How have management measures influenced shifts in effort to/from the fishery?
2. What other additions or improvements could be made to the discussion questions to produce more valuable information on management efficacy?
3. How can staff work to address confounding changes that may influence perceptions successful/unsuccessful management has been such as changing environmental conditions, overall change in value of stock etc.
4. How should the information gathered during the FPR process be presented and incorporated into the management process?

SEP RECOMMENDATIONS:

The SEP remains pleased/excited/impressed with the development of FPRs and their potential for informing management. Committee members concur that it is appropriate to expand discussion with participants to include management effects. There was also agreement that it is appropriate for discussion to move beyond “effectiveness and be more specific “e.g., what measures are easier or more difficult to comply with”. Extended discussion focused on the wide-ranging nature of these conversations and the need to let them develop organically for most effective information gathering (rather than treating them more strictly as one would with survey participants). The SEP also agreed that when discussing management effectiveness, it is best to consider adjectives other than “appropriate.” Specifically, SEP recommends defining management success and effectiveness uniquely based on the fishery/measure being discussed. It is important for Council to design FPR questions in way that is most relatable to the respondent, not necessarily to managers.

The SEP argued that FPR’s should be considered raw data, and that it is the responsibility of Council staff to connect dots, identify themes, and make assertions about overall management effectiveness. There was also discussion of the importance and value in making sure FPRs are continually updated over time, as the information from temporal trends or changes would be extremely useful for management.

Regarding reporting on findings, discussion focused on new developments in qualitative data visualization as well as the power of adding brief audio clips to presentation made to Council. Lastly, SEP member Dr. Jennifer Sweeney-Tookes mentioned that she recently attended an anthropology conference where new methods of data presentation and visualization were discussed and can discuss them with Council staff.

8. Other Business

The SEP bid farewell to longtime member Tracy Yandle and wishes her well in her future endeavors.

9. Opportunity for Public Comment

There was no public comment at the end of the meeting.

10. Report and Recommendations Review

11. Next SEP Meeting

- Spring 2022, Charleston SC