EXPLORING APPROACHES FOR INNOVATIVE MANAGEMENT OF THE PRIVATE RECREATIONAL SECTOR OF THE SOUTH ATLANTIC SNAPPER GROUPER FISHERY

Workshop
September 16-17, 2018
Charleston, SC

Attachment 1. Background and Summary Document for Workshop Discussion

1. Previous Meetings
    a. Approaches for Improved Federal Saltwater Recreational Fisheries Management
    b. Gulf Angler Focus Group Initiative Report
    c. March 2018 Recreational Summit Report
2. Snapper Grouper Vision Blueprint
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    a. Recreational Reporting
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1. Previous Meetings

a. *Approaches for Improved Federal Saltwater Recreational Fisheries Management (TRCP/ASA)*
In 2016, two workshops were organized by the Theodore Roosevelt Conservation Partnership, American Sportfishing Association, and other organizations to discuss alternative management for recreational fishing in coordination with National Marine Fisheries Service (NMFS) staff. The workshop generated recommendations for several approaches, including harvest rate management, depth/distance-based management, harvest tags, angler reporting, release mortality reduction, conservation equivalency, and reevaluation of Optimum Yield. The report is available online at: http://www.trcp.org/wp-content/uploads/2017/07/103098-TRCP-Alt-Mgmt-Report-4.pdf

b. *Gulf Angler Focus Group Initiative*
A series of meetings with representatives of the private and for-hire recreational fishing communities in the Gulf of Mexico held in 2016 produced several options for recreational management of Gulf red snapper. The discussions identified pros and cons for several potential management options for Gulf red snapper, similar to those discussed in the TRCP/ASA Alternative Management report above.

NMFS and state agency staff provided input and answered questions that came up during these meetings. The NMFS responses will be helpful for our workshop as well, and can be found in the

appendices of the Gulf Angler Group report available online at: https://asafishing.org/wp-content/uploads/Red-Snapper-Private-Recreational-Mgmt-Options-Report-1-2017.pdf

c. *March 2018 National Saltwater Recreational Fisheries Summit*
The 2018 Summit followed meetings held in 2010 and 2014, coordinated by NMFS and Atlantic States Marine Fisheries Commission. The goals of the 2018 Summit were to discuss experiences, perspectives, and challenges for innovative management approaches with the goal of improved recreational fishing opportunity and stability. In addition to discussing specific ideas, participants also identified potential solutions to obstacles in implementing new recreational management approaches. The Summit also included topics on socioeconomics in recreational fisheries, angler engagement through data collection and reporting, and increasing opportunities through conservation. The report is available online at: https://www.fisheries.noaa.gov/webdam/download/77852099

2. Snapper Grouper Vision Blueprint

In 2012, the South Atlantic Council started the process to develop a vision blueprint for the Snapper Grouper fishery, with the goal to create a long-term strategic plan for management of the Snapper Grouper fishery. Port meetings were held in 2014 to get public input, followed by a Council workshop and prioritized strategies and actions for the 2016-2020 Vision Blueprint. Many focus areas included goals and strategies for the recreational sector, and the Council initiated Snapper Grouper Regulatory Amendment 26 to revise recreational management measures to align with the Vision Blueprint.

Public hearings for Regulatory Amendment 26 were held in Spring 2018. The Council will review the amendment in September 2018 and are expected to approve the final document for formal review in December 2018. Actions include creating a deepwater species aggregate with bag limit and season; removing the minimum size limit for some deepwater species; reducing the minimum size limit for gray triggerfish in the EEZ off east Florida; and modifying the bag limit for the 20-fish aggregate.

Information on the Visioning Project is available online at: http://safmc.net/useful-info/council-visioning-project/.

The complete 2016-2020 Vision Blueprint is available at: http://cdn1.safmc.net/wp-content/uploads/2016/11/28102839/2016_2020_VisionBlueprint.pdf.

The most recent version of Regulatory Amendment 26 will be available in the Snapper Grouper folder in the September 2018 SAFMC meeting briefing book.

3. Components for Recreational Management Approaches

This section provides an overview of several components that could be incorporated into a management approach for the recreational sector.

a. *Recreational Reporting*
Accurate and timely data on recreational harvest will be crucial to meeting management goals through new approaches. The Marine Recreational Information Program (MRIP) currently

provides recreational catch estimates that are used for quota monitoring, but there have been concerns raised about accuracy and the timing of available data (45 days after a wave ends). Recreational anglers have expressed interest in providing data and collaborating on data collection, which may help management measures be successful.

In partnership with the Snook and Gamefish Foundation, the South Atlantic Council launched a voluntary recreational reporting pilot program called MyFishCount in 2017 for the red snapper recreational season (Nov 3-5, Nov 10-12, Dec 8-10). Participants were asked to use a website or smartphone app to provide information about red snapper caught on recreational trips and report on number of fish, if the fish were discarded, method of discard, length, weight, depth, and if the trip was completed or abandoned, along with photos. In 2018, the program was expanded so that participants can report other species in addition to red snapper. The data will be used to understand fishing trends, improve recreational reporting, and could inform management decisions. Information and links to download the app are available at: https://www.myfishcount.com/.

In Snapper Grouper Amendment 46 (in development), the South Atlantic Council is considering an action for mandatory or voluntary private recreational reporting, along with a possible federal permit requirement for the private recreational sector. The most recent version of Amendment 46 is available at: http://safmc.net/download/BBJune2018_Am46OptionsPaper.

Several states have mandatory and voluntary private recreational reporting programs. Along with MyFishCount, Florida, Louisiana and Texas both have voluntary recreational reporting programs in place. Examples of mandatory reporting include Virginia's required reporting for recreational cobia, recreational salmon in some Pacific states, and Highly Migratory Species (HMS) recreational species. In the Gulf of Mexico, Mississippi and Alabama have required recreational reporting programs, and Alabama's program was recently certified by NMFS to be used to supplement MRIP data (more information available here)

b. *Barotrauma Reduction*

Release (or discard) mortality is a significant concern for anglers and managers due to negative effects on a stock, which can in turn affect recreational fishing opportunities. There are several practices that can help to reduce release mortality including barotrauma reduction along with fishing techniques, avoiding certain species, and gear types. Data on release method are being collected through the MyFishCount app, and could be used in a future stock assessment or management decisions.

The South Atlantic Council is considering mandatory or voluntary best fishing practices in Snapper Grouper Regulatory Amendment 29 to reduce release mortality. Specifically, the Council will consider a requirement to use venting devices to increase survival of released fish, in addition to circle hooks and rig limits. Scoping meetings for Regulatory Amendment 29 were held in August 2018, and the Council will review the amendment at the September 2018 meeting. The scoping document is available online at: http://safmc.net/snapper-grouper-regulatory-amendment-29/, and an updated version will be available in the September 2018 briefing book.

c. *Exempted Fishing Permit (EFP)*
NMFS has the authority to issue an EFP for purposes of fisheries-related research, including pilot management programs. An EFP would allow fishing activity to be exempted from specified regulatory requirements, such as closures, which would allow a pilot approach to be tested and evaluated without restrictions from annual catch limits and associated accountability measures.

Recently, NMFS issued EFPs to the Gulf states to allow for a pilot program in which the Gulf states manage recreational harvest of red snapper landed in their states for the 2018 and 2019 fishing seasons. The pilot program for state management is in response to concerns of short recreational seasons for Gulf red snapper, and the EFPs will allow states to demonstrate their capability to manage red snapper. Through each EFP, recreational participants with the required state permit are allowed to land red snapper from state or federal waters during that state's red snapper season, and are exempted from the federal regulations for recreational accountability measures for Gulf red snapper. [Florida, Alabama and Mississippi will manage only the private recreational component, while Louisiana and Texas will manage private and federal for-hire components through the pilot program.] Additionally, each state was allocated a portion of the recreational private and/or for-hire quota.

States provided management plans including seasons, permits/licenses, landing requirements, catch limits, monitoring catch, and closing harvest when the state's allocation is reached. The EFPs are valid through December 31, 2019. The Gulf Council is currently developing amendments to the Gulf Reef Fish Fishery Management Plan (FMP) to establish an ongoing program for state management of Gulf red snapper to potentially continue the pilot program after the EFPs. A separate amendment will be approved by the Gulf Council for each state.

Gulf States EFPs for Red Snapper Management are available online at:https://www.fisheries.noaa.gov/southeast/state-recreational-red-snapper-management-exempted-fishing-permits

Gulf Amendments for the Red Snapper State Management program are available at: http://sero.nmfs.noaa.gov/sustainable_fisheries/gulf_fisheries/reef_fish/2017/RSStateManagement/RSStateManageindex.html

4. Approach: Depth/Distance-Based Management

This approach centers around a spatial closure for private recreational harvest of a selected species or several species based on a specified maximum/minimum depth or distance from shore. The basis for depth/distance-based management is that a portion of a fish population would be protected from fishing pressure, while allowing harvest in open areas. This approach has been discussed at the TCRP/ASA Alternative Management workshop, Gulf Angler Focus Group and the March 2018 National Saltwater Recreational Fishing Summit.

An application of this approach that prohibits harvest beyond a specified depth or distance could help to decrease fishing pressure on the portion of the stock found in deeper waters, in addition to a potential reduction in release mortality by only allowing the species to be targeted in shallower waters. The Council would need to coordinate with the states for a depth/distance approach to be successful. Detailed data on fishing grounds would be necessary to identify the boundaries of the spatial closure.

The challenges for this approach is that the expected reduction in fishing pressure may not occur if a large proportion of harvest already occurs nearer to shore than offshore, along with potential issues with compliance and enforcement of the boundary. Additionally, if fishing for other species is permitted, there could be incidental catch of the prohibited species.

An example of this approach are rockfish conservation areas in the Pacific region. To reduce incidental catch of several overfished species of rockfish that co-occur with other targeted groundfish species, select areas are closed based on depth contours along the Pacific coast.

Additionally, the South Atlantic Council discussed a distance-based management approach for Snapper Grouper [developed by Ben Hartig (past Council member) using recommendations from Robert Johnson (SG AP)], with a focus on red snapper, in March 2017. The Council reviewed options in which private and for-hire recreational harvest of snapper grouper species would be allowed year-round (with bag/size limit and reporting) in depths of 100 feet or less, with harvest of red snapper only occurring during an open recreational red snapper season. Another component to the approach would be to allow recreational harvest of snapper grouper species in depths greater than 100 feet only during the open recreational red snapper season each year. The for-hire sector could be treated the same as private anglers or if they needed a longer season for economic reasons, some limit on the number of for-hire vessels would be needed to cap their fishing mortality. The depth-based restrictions would be expected to reduce discards of red snapper and other species through lower rates of incidental catch and decreased discard mortality in shallower waters. Reporting catches and using a descender device in waters deeper than 100 feet are integral to this approach. The Council did not move forward with this approach. A useful graphic of the proposed measures is available here: http://safmc.net/download/BriefingBookMarch2017/TAB07SnapperGrouperCommittee/Presentations/RedSnapperAdaptiveManagement_02212017.pdf

Discussion Questions
- What aspects of depth/distance-based management would contribute to management (Council/NMFS/States) supporting or not supporting this approach for the South Atlantic?
- What aspects would contribute to stakeholders supporting or not supporting this approach for the South Atlantic?
- What information would Council and stakeholders need to make a decision about this approach? Is it available?

If discussion indicates this is a viable approach to explore, continue discussion with:
- What species would this approach be applied to?
- Would it be the same for the whole region for X species, or would it vary throughout the region?
- What is the minimum depth/distance that would be needed to make this approach work?
- What is the maximum depth/distance that would be acceptable for this approach?
- What are the trade-offs and are they acceptable for management and stakeholders?
- What components (reporting, barotrauma reduction, EFP, etc) could be incorporated into this approach to make it successful?
- Are there other approaches that could work in combination with this approach to be successful?

5. Approach: Harvest rate management

Harvest rate management has been discussed at several previous meetings and workshops on alternative management approaches. The approach centers around using exploitation rate targets, selected to provide a desired rate of removal and overall stock biomass level, and regularly updated assessment information to establish allowable harvest levels associated with the exploitation rate target. In this regard, harvest rate management is similar to how the Council sets the annual catch limits for assessed stocks. However, in cited harvest rate management examples such as Striped Bass management by the Atlantic States Marine Fisheries Commission (AMFC), the recreational harvest levels are not viewed as strict 'quotas', or hard limits that result in punitive measures when exceeded. Instead, desired catch levels from each assessment are compared to past catch levels, and the management measures that produced them, to determine how management should respond to the updated assessment and allowable catch recommendation. Overall, harvest rate management for one or more Snapper Grouper stocks would likely focus on how the Council monitors and responds to changes to adjust management to reach a desired target that is established through the current stock assessment process.

An alternative to annual catch limits and associated accountability measures is to use a target and threshold parameter based on a stock assessment and more recent landings data. For Striped Bass, the ASMFC uses an approach to manage harvest that sets a threshold and target fishing mortality (F) that will provide a desired level of Spawning Stock Biomass (SSB). Each year, landings and biological information such as Juvenile Abundance Indices are reviewed and relative to trends and targets. Depending on this comparison, the ASMFC may direct states to adjust management measures. Approximately every two years the stock assessment is updated, and the catch levels associated with the target harvest rate are adjusted. Management changes resulting from updated assessments are typically expressed as a % change in harvest levels from the prior period, rather than as an ACL style hard catch limit. There are seasons, but no in-season closures, and anglers in different states may be subject to more restrictive measures if a reduction in landings in their state is required. The system allows ASMFC to respond to changes in recreational effort (by monitoring catch and effort) and the fish population (by monitoring juvenile abundance) using more recent information.

Harvest rate management is not a new topic to the Council. In the 1980s and 1990s, Atlantic and Gulf king mackerel and Spanish mackerel management included review of fishery and stock information each year, to support changes to the Total Allowable Catch and bag or trip limit as necessary through framework actions. In-season closures were still used for king and Spanish mackerel, but this approach also incorporated the most recent data and fishery information with an annual review by a Technical Committee and the SSC to better align management with current fishery conditions. This approach also allowed the Gulf and South Atlantic Councils to respond to changes in the fishery and population more efficiently. More recently, king and Spanish mackerel catch limits are revised less frequently, usually following a stock assessment or update assessment.

When the harvest rate approach was discussed by the Gulf Angler Focus Group, NMFS provided input that this approach could be applied in the Gulf but would require additional data and staff time that may not be available. While details were not specified, the extra time is likely necessary to prepare the fishery and population information for review on an annual basis. For an example of the type of review and evaluation required, see the 2018 ASFMC Striped Bass

Fishery Management Plan (FMP) Review (available online at: http://www.asmfc.org/uploads/file/5b72e4easbfmpreview2018.pdf). This may be a similar situation for South Atlantic species, depending on the biological parameters that will be used to regularly evaluate stock conditions.

It is also important to clarify that HRM is a tool that may not be appropriate for all stocks. The ASFMC has 26 Fishery Management plans, including those such as Coastal Sharks and Shad and River Herring that include multiple species or stocks. Not all are managed the same as Striped Bass. Therefore, HRM should be considered another tool that the Council uses in appropriate situations, rather than a change in the management approach for all stocks.

The following table provides a comparison of a harvest rate management approach (using ASMFC's Striped Bass as an example) with the current SAFMC approach with annual catch limits.

Trait		**Annual Catch Limit**	**Harvest Rate Management (ex: ASMFC Striped Bass)**
Exploitation Rate Target and Limit	Based on:	MSY	SSB level
Allowable harvest	Based on:	Assessment; F rate x abundance	Assessment; F rate x abundance
	Limit or target	Limit	Target
	Overage consequences	Varies, can include in-season closure or post-season payback (accountability measures)	Monitor, may adjust regulations
Annual Monitoring	Values	Catch levels	Catch, effort, JAI
	Reporting	Informal – Council receives reports on landings from NMFS	Formal - Annual plan review by ASMFC

Acronyms: MSY=Maximum Sustainable Yield; SSB=Standing Stock Biomass; F rate= Fishing Mortality Rate; JAI=Juvenile Abundance Index

Discussion Questions

- What aspects of harvest rate management would contribute to management supporting or not supporting this approach for the South Atlantic?
- What aspects would contribute to stakeholders supporting or not supporting this approach for the South Atlantic?
- What information would Council and stakeholders need to make a decision about this approach? Is it available?

If discussion indicates this is a viable approach to explore, continue discussion with:

- What species could this approach be applied to? Is the necessary information (from stock assessments, yearly fishery-independent surveys, etc) available?
- When would you evaluate the landings and what would you use to evaluate the landings to decide if there will be management changes in the following fishing year?

- How would the Council process be able to accommodate more frequent management changes, or would the amendment process need to be revised to apply this approach?
- What components (reporting, barotrauma reduction, EFP, etc) could be incorporated into this approach to make it successful?
- Are there other approaches that could work in combination with this approach to be successful?

6. Approach: Season-Based management

An application of a season-based approach would include a specified period each year during which harvest for a species or group of species would be allowed, most likely with no in-season closure. Harvest would still be subject to bag/size limits and the recreational annual catch limit for the species, but would provide a definitive season for fishing each year, improving stability and predictability for harvest. A season could be set for the same period each year, or set annually based on the projected time to reach an annual catch limit. This approach could be useful for single species, or for species under an aggregate or co-occurring species. The challenges for this approach is that fishing opportunities may be restricted when it is not necessary for some species.

Snapper Grouper Regulatory Amendment 14 (2013) revised the recreational accountability measure for black sea bass to remove the in-season closure when the recreational annual catch limit is reached. Instead, the Council recommended a specified season for black sea bass harvest, determined each year by NMFS through projections for when recreational landings would reach the recreational annual catch limit. Since the changes became effective in 2014, the recreational season for black sea bass has not been shorter than the full fishing year (April 1- March 31). However, prior notification for the black sea bass recreational season is expected to improve predictability and planning for the recreational sector if the season length is reduced in the future.

Management for Florida Keys/East Florida stock of South Atlantic hogfish also include a specified recreational season of May 1 through October 31 (Amendment 37; 2017). The recreational accountability measure for the FLK/EFL hogfish stock also specifies that an in-season closure is possible when recreational landings reach or are projected to reach the recreational annual catch limit, unless NMFS determines that a closure is not necessary based on the best scientific information available.

In the Recreational Visioning Amendment (Snapper Grouper Regulatory Amendment 26), the South Atlantic Council will consider establishing a deepwater species aggregate (potential species include snowy grouper, misty grouper, yellowedge grouper, blueline tilefish, golden tilefish, wreckfish, silk snapper, queen snapper, blackfin snapper). The species included in the deepwater aggregate may then be subject to a designated season (current preferred: May 1-August 31) and a bag limit (current preferred: 3/person/day, with 1/person/day for golden tilefish, and 1/vessel/day for snowy grouper and wreckfish). [Currently, recreational harvest of snowy grouper and blueline tilefish is allowed only from May 1 through August 31 as established in Regulatory Amendment 20 (2015) and Regulatory Amendment 25 (2016), respectively.] The actions in the Recreational Visioning Amendment are expected to reduce the harvest and help decrease discard mortality for the deepwater species. Although a designated season could also help to reduce overages, this has not occurred for snowy grouper and blueline tilefish even with the May-August recreational seasons for these species. It is likely that

recreational reporting would be necessary for a season-based approach if a goal is to also reduce the risk of overage for the species/complex included in the season.

For all species being considered for the deepwater aggregate in Regulatory Amendment 26, there is a recreational accountability measure that could result in an in-season closure when landings reach or are projected to reach the recreational landings for the species/complex unless NMFS determines that the closure is not necessary based on the best scientific information available. If an in-season closure is determined to be necessary, this could result in harvest of one or more species in the selected aggregate to be closed while harvest for the other species is open. However, this is unlikely due to the proposed seasons being only a few months, as MRIP estimates would not be available in time to determine if landings have exceeded the annual catch limit for a species and to implement an in-season closure.

During development of Regulatory Amendment 26, the Council reviewed options to also establish aggregates with seasons for shallow-water groupers and other shallow-water species. The proposed options for actions and alternatives for the three aggregates with seasons and management measures were based in part on examples of management for several game species, in which there is a set season and bag limit for the animal to reach a target number taken each year. Options for aggregates of deepwater species, shallow-water groupers, and other shallow-water species were presented to the Council in September 2017 and added to the revised organization of the actions in the amendment (presentation available here: http://safmc.net/download/BriefingBookSept2017/LateMaterials/TAB05/Tab05_VBReg26Presentation.pdf**)**. The actions were removed from consideration in December 2017. The most recent version of Regulatory Amendment 26 will be available in the September 2018 briefing book.

Discussion Questions
- What aspects of season-based management would contribute to management supporting or not supporting this approach for the South Atlantic?
- What aspects would contribute to stakeholders supporting or not supporting this approach for the South Atlantic?
- What information would Council and stakeholders need to make a decision about this approach? Is it available?

If discussion indicates this is a viable approach to explore, continue discussion with:
- What species would this approach be applied to?
- Would it be the same for the whole region for X species, or would it vary throughout the region?
- What is the maximum season length that would be acceptable to make this approach work to reach the biological goals (reduce discards, etc)?
- What is the minimum season length that would be acceptable to stakeholders?
- What are the trade-offs and are they acceptable for management and stakeholders?
- What components (reporting, barotrauma reduction, EFP, etc) could be incorporated into this approach to make it successful?
- Are there other approaches that could work in combination with this approach to be successful?

7. Approach: Harvest Tags

Harvest tags for recreational species have been discussed at the TRCP/ASA Alternative Management Workshop, Gulf Angler Focus Group, and the 2018 National Recreational Fishing Summit Approaches as a way to manage effort or for data collection of some fish species. Tags are commonly used for game management for data collection, but some programs also restrict effort under a quota for the animal. On the Pacific coast, salmon tags are issued to limit individual harvest but with no limit on the number of individuals who can obtain tags. Additionally, Florida requires a tag for each tarpon harvested but no limit on the number of tags per person. In the South Atlantic, harvest tags are most likely to be useful for species with low annual catch limits rather than the more popular recreational species.

Harvest tags for recreational species would require a fair and equitable means to distribute the tags, which may be a major obstacle for this approach. When the Gulf Angler Focus Group discussed harvest tags for Gulf red snapper, it was noted that distribution would either require a lottery open to residents beyond the Gulf (to comply with the requirement to not discriminate against residents of other states in federal fishery management measures), or detailed participation data would be necessary to narrow the pool of recipients to active fishery participants. The latter would likely also qualify the harvest tag program as a limited access privilege program and require the associated regulatory mandates in the Magnuson-Stevens Act.

The South Atlantic Council explored harvest tags for recreational harvest of red snapper, snowy grouper, golden tilefish, and wreckfish in Snapper Grouper Amendment 22, but did not proceed with developing the amendment. NOAA General Counsel advised that a harvest tag program may need to meet the regulatory requirements for a limited access privilege program under the Magnuson-Stevens Act, an issue also raised during the Gulf Angler Focus Group discussions on tags for Gulf red snapper. There are also concerns about how tags would be distributed and the effects of not having access to a species for the private and for-hire recreational participants if tags are made available to non-participants as well. The Council suspended development of Amendment 22 in March 2015 (http://cdn1.safmc.net/wp-content/uploads/2016/11/28101726/A3_Am22_Options20Paper_021015.pdf).

Discussion Questions

- What aspects of harvest tags would contribute to management supporting or not supporting this approach for the South Atlantic?
- What aspects would contribute to stakeholders supporting or not supporting this approach for the South Atlantic?
- What information would Council and stakeholders need to make a decision about this approach? Is it available?

If discussion indicates this is a viable approach to explore, continue discussion with:

- What species would this approach be applied to?
- Would tags be used for effort control or data collection?
- If tags were limited (effort control), how could tags fairly be distributed?
- What are the trade-offs and are they acceptable for management and stakeholders?
- What components (reporting, barotrauma reduction, EFP, etc) could be incorporated into this approach to make it successful?
- Are there other approaches that could work in combination with this approach to be successful?