Regulatory Amendment 29

to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

(Gear Requirement Modifications)

Decision Document

Background

Commercial and recreational fishermen have expressed concern about regulations that result in released fish that do not survive. This has been particularly true for red snapper since 2010. Observations from recent fishery-independent studies show the population of red snapper has increased (SEDAR 41 2017)[1]. As a result, fishermen are reporting an increase in the number of released red snapper. A portion of released fish will die due to foul hooking (hooking the fish in the stomach or throat), injuries caused by barotrauma (injury due to expansion of gas when reeled up from depth), and predation. To reduce the number of released fish and improve the survivorship of released fish, the Council may consider best fishing practices as either mandatory or voluntary options.

Best fishing practices aim to reduce bycatch and discard mortality by avoiding non-target species or sizes through fishing techniques and/or gear that minimizes the impact of capture. Common examples of best fishing practices include recompressing fish, reducing the number of hooks fished, using hooks that reduce or minimize gut hooking or foul-hooking, using knotless landing nets, etc.

Additionally, fishermen have expressed concern regarding inequitable access for the dive component of the snapper grouper fishery. Powerheads, also known as bang sticks (spears with a charge that is fired when in contact with target), may not be used to harvest snapper-grouper in federal waters off South Carolina but allowed in federal waters off North Carolina, Georgia, and Florida. To allow for more consistent regulations for the dive component of the snapper grouper

[1] SEDAR 41. 2017. Stock assessment of red snapper off the Southeastern United States. Southeast Data, Assessment and Review. North Charleston, South Carolina. http://www.sefsc.noaa.gov/sedar/.

fishery, the Council may consider removing the powerhead prohibition in federal waters off South Carolina or prohibiting powerheads to harvest snapper grouper species throughout the South Atlantic exclusive economic zone (EEZ).

2016-2020 Vision Blueprint for the Snapper Grouper Fishery: Strategies and Objectives

The 2016-2020 Vision Blueprint for the Snapper Grouper Fishery (Vision Blueprint) was approved in December 2015 and is intended to inform management of the snapper grouper fishery through 2020. The Vision Blueprint serves as a "living document" to help guide future management, build on stakeholder input, and illustrate actions that could be developed through the amendment process to address the goals identified during the visioning process. Specifically, the Vision Blueprint is organized into four goal areas: (1) Science, (2) Management, (3) Communication, and (4) Governance. Each goal area has a set of objectives and a set of strategies aimed at meeting each objective. The actions in Regulatory Amendment 29 correspond to different objectives and strategies in the Vision Blueprint. The full Vision Blueprint for the Snapper Grouper Fishery in the South Atlantic can be found here: https://safmc.net/useful-info/council-visioning-project/

Actions 1 and **2** address best fishing practices intended to reduce the number of released fish and improve the survivorship of released fish for snapper grouper species. Some of the alternatives the Council many consider were suggested during Visioning Meetings, including the use of single hook rigs when targeting deep-water species and requiring descending devices. The circle hook alternatives were developed based on management in other areas and include an option to remove the circle hook requirement.

Action 3 includes alternatives that would provide consistent regulations for the dive component of the snapper grouper fishery. Currently, South Carolina is the only state where powerheads are prohibited. The alternatives include options to remove the powerhead restriction off South Carolina or prohibit powerheads when fishing in the South Atlantic exclusive economic zone (EEZ).

Actions in this amendment

- **Action 1.** Specify requirements for the use of descending devices and/or venting devices when possessing species in the snapper grouper fishery management unit.
- **Action 2.** Modify the requirement for the use of non-stainless-steel circle hooks when fishing for and/or possessing snapper grouper species with hook-and-line gear.
- **Action 3.** Adjust powerhead prohibitions in the South Atlantic Region.

Objectives for this meeting

- Consider input from public hearings and advisory panels
- Review Purpose and Need statement,
- Review actions and alternatives,
- Review preferred alternative(s),

Expected amendment timing

	Process Steps	Dates
✓	Review draft options paper	March 2018
✓	Approve for scoping	June 2018
✓	Scoping hearings	August 2018
✓	Review scoping comments, approve actions/alternatives to be analyzed.	September 2018
✓	Review draft amendment, modify as necessary, select preferred alternatives, and approve for public hearings.	March 2019
✓	Public hearings	Spring 2019
	Review public hearing and advisory panel comments, approve all actions and alternatives.	June 2019
	Final action to approve for Secretarial review	September 2019

Purpose and Need Statement

Purpose for Actions

The *purpose* is to modify gear requirements for the snapper grouper fishery to promote best fishing practices and to ensure consistent regulations for the dive component of the snapper grouper fishery.

Need for Actions

The *need* is to reduce discards and discard mortality of snapper grouper species and to decrease the burden of compliance with differing regulations for the dive component of the snapper grouper fishery while minimizing, to the extent practicable, adverse social and economic effects.

Committee Action

- REVIEW PURPOSE AND NEED STATEMENT
- MODIFY AS NECESSARY
- OTHERS?

Draft Actions and Alternatives

Action 1. Specify requirements for the use of descending devices* and/or venting devices** when fishing for or possessing species in the snapper grouper fishery management unit.

Alternative 1 (No Action). Descending devices and/or venting devices are not required to be onboard a vessel fishing for or possessing species in the snapper grouper fishery management unit.

Preferred Alternative 2. Within six months of implementation of Snapper Grouper Regulatory Amendment 29, require a *descending device** be on board a vessel fishing for or possessing species in the snapper grouper fishery management unit.

Preferred Sub-alternative 2a. private recreational vessels.
Preferred Sub-alternative 2b. for-hire vessels.
Preferred Sub-alternative 2c. commercially permitted South Atlantic snapper grouper vessels.

Alternative 3. Within six months of implementation of Snapper Grouper Regulatory Amendment 29, require a *venting device*** be on board a vessel fishing for or possessing species in the snapper grouper fishery management unit.

Sub-alternative 3a. private recreational vessels.
Sub-alternative 3b. for-hire vessels.
Sub-alternative 3c. commercially permitted South Atlantic snapper grouper vessels.

* For the purpose of this requirement, "descending device" means an instrument that will release fish at a depth sufficient for the fish to be able to recover from the effects of barotrauma, generally 33 feet (twice the atmospheric pressure at the surface) or greater. The device can be, but is not limited to, a weighted hook, lip clamp, or box that will hold the fish while it is lowered to depth. The device should be capable of releasing the fish automatically, releasing the fish by actions of the operator of the device, or by allowing the fish to escape on its own. Since minimizing surface time is critical to increasing survival, descending devices shall be rigged and ready for use while fishing is occurring.

** For the purpose of this requirement, "venting device" means a device capable of penetrating the abdomen of a fish in order to release the excess gas accumulated in the body cavity when a fish is retrieved from depth. A venting device must be a sharpened, hollow instrument, such as a hypodermic syringe with the plunger removed, or a 16–gauge needle fixed to a handle. A larger gauge needle is preferred in order to allow more air to escape rapidly. A device that is not hollow, such as a knife or ice pick, is not a venting device and will cause additional damage.

Discussion

Biological Effects

- If the devices are properly used and maintained, **Preferred Alternative 2** and **Alternative 3** could provide increased survivorship and reduced mortality of discarded snapper grouper species, this resulting in both short and long-term positive biological effects to snapper grouper species.
- Studies have shown that use of descending and venting devices does relieve symptoms of barotrauma and can decrease potential discard mortality, especially when compared to treatments with no barotrauma relief. A recent literature review (76 publications) and comparative analysis completed by Eberts and Somers (2017) found both venting and descending had positive effects on survival, but overall found no significant difference in survival rates when using a descending device versus a venting device.
- Some recent studies have recommended the use of descending devices over venting devices for treating fish experiencing symptoms of barotrauma. Though faster to use, venting devices have the potential to damage vital organs and cause additional stress if not used correctly.
- **Alternative 1** (**No Action**) is not expected to have an impact on protected species. **Preferred Alternative 2** and **Alternative 3** are likely to reduce the risk of adverse effects to Nassau grouper, which is an ESA listed species, from interactions with the fishery.

Economic Effects

- **Preferred Alternative 2** or **Alternative 3** would require descending or venting devices on board a vessel fishing for or possessing snapper grouper species, however owners or operators that already own a qualifying descending or venting device would not incur direct costs under either alternative.
- Prices for venting and descending devices that range from approximately $6.30 to $78.00 for descending devices and $6.30 to $29.00 for venting devices (2017 dollars). Alternatively, vessel owners or operators may construct a device out of existing materials, which could be a lower cost option.
- In comparison to **Alternative 1 (No Action)**, **Preferred Alternative 2**, and **Alternative 3** may increase survivorship of fish that are discarded. This may lead to improvements in affected fish stocks, which in turn, could yield greater numbers of exploitable fish in the future, higher catch rates, and less stringent harvest limits, such as higher trip limits and bag limits, as well as longer open harvest seasons.

Social Effects

- Management measures that increase the survivorship of discarded fish typically result in long-term positive social effects throughout the fishery in the form of increased access in the future. If requiring descending devices (**Preferred Alternative 2** and **Preferred Sub-alternatives 2a-c**) and/or venting devices (**Alternative 3**) results in lower discard mortality, as anticipated, fishing communities would experience long-term indirect social benefits.
- **Preferred Alternative 2 (Preferred Sub-alternatives 2a-c)** and **Alternative 3** incorporate recommendations made by fishermen during development of the 2016-2020 Vision Blueprint for the Snapper Grouper Fishery. Responding to fishermen's concerns

about regulations that result in released fish that do not survive could have the social benefit of improving perceptions of the management process.

- Requiring possession of a descending device and/or venting tool on board without requiring usage may be perceived by fishermen as unnecessary government regulation. Additionally, it is possible that, under **Alternative 3**, fishermen who are not comfortable or competent venting a fish would be required to attempt the procedure, potentially injuring the fish further.

Note: A draft research and monitoring plan for the use of descending devices is included in Appendix E of the amendment document.

IPT Recommendation:

The IPT recommends removing the language specifying delayed implementation from Alternative 2 and Alternative 3. This information can be included in the discussion and addressed during rulemaking.

Law Enforcement Advisory Panel Comments and Recommendations:

The Law Enforcement Advisory Panel (LE AP) met on May 23rd and 24th, 2019. LE AP comments on the definition of descending device will be presented during the Law Enforcement Committee.

Snapper Grouper Advisory Panel Comments and Recommendations:

April 2019:

- The amendment document should include examples (with photos or diagrams) of descending devices that have proven to be effective.
- The AP discussed developing an agency approval process of different descending devices with a practical common-sense design. Staff noted Council concerns regarding who would be responsible for approving devices as well as concerns about time and agency effort associated with such a process, which would have to be updated regularly as new devices become available.
- AP members questioned the 33-foot depth threshold for releasing a fish, as currently stated in the definition of descending device. This depth threshold seems insufficient for deep-water species such as snowy grouper. Consider instead stating that "a fish should ideally be released at the same depth that it was caught."
- To address the "rigged and ready" requirement, the AP suggested including language such as "in close proximity to where fishing is occurring" or "easily accessible and available in the vessel's deck area."
- One AP member shared a practice he maintains on his boat when he encounters snowy grouper while targeting tilefish: he attaches the descending device to the snap swivel on the baited rig being used to fish for tilefish. That way, the grouper is released, and he can immediately go back to catching tilefish.
- Telemetry studies conducted on rockfish on the West Coast have documented high survival over extended periods of fish being reeled up from over 800 feet. In the South

Atlantic, research being conducted off North Carolina on deep-water snapper grouper species has shown that survivorship with the use of descending devices is indeed high.

October 2018:

- Need to consider issue of liability with the use of venting devices on for for-hire vessels. Descending devices have less liability and are not likely to cause additional damage to the fish. It is more feasible to require the use of descending devices than venting devices. Venting devices are often not used correctly.
- Description of descending and venting devices currently in the amendment are well thought out but consider that fishermen sometimes construct descending devices that are tailored to a specific species.
- Definition of descending device includes "rigged and ready for use while fishing is occurring." It is important that this aspect of the definition is enforceable.
- Venting works better for smaller fish and descending works better in deeper water so venting and descending should both be options.
- AP members stated that stakeholders are very likely to support best fishing practices.

MOTION: RECOMMEND THAT THE COUNCIL REQUEST THAT NMFS ADDRESS DESCENDING DEVICE USAGE AND RELEASE TREATMENT THROUGH EXISTING PROGRAMS (COMMERCIAL, FOR-HIRE LOGBOOKS AND MRIP). INCLUDE INFORMATION ON COMPLIANCE RATES AND TYPE OF DEVICE USED. APPROVED BY AP (UNANIMOUS)

Information and Education Advisory Panel (IE AP) Recommendations:

- Law enforcement officers on the IE AP stated that the enforceability of any descending device or venting device requirement was important. The definition needs to be written such that an officer can clearly identify whether a vessel is in compliance. This can be challenging with homemade devices.
- The IE AP felt that any communication plan organized by the Council take advantage of educational material already available to avoid muddying the waters. It is important to ensure that messaging is consistent across organizations.
- IE AP members suggested that the Council create a one-page brochure containing the most important information for fishermen. The brochure could then be distributed by port samplers and tackle shops.
- Working with partners will be important to avoid Council fatigue. Communication should focus on success stories, such as those on the west coast, and the benefit to anglers as well as to fish populations. Descending device and venting device use should be framed as an important part of being a conservation-oriented angler.

When asked whether the Council should implement formal regulations or engage in an extensive outreach campaign, similar to the Gulf Council, in order to encourage the use of descending and/or venting devices, the IE AP was unable to reach a consensus.

Some IE AP members felt behavior modification requires formal regulations and accountability. Alternatively, some IE AP members felt descending and/or venting device required a sense of personal motivation to care for the resource and suggested "phase in" where outreach was conducted prior to any formal regulations.

Public Comments:[2]

Public Hearings – April 2019:

- Majority of commenters support the Council's effort to require descending devices on board vessels fishing for snapper grouper species in order to reduce mortality of released fish. There were no comments made against Action 1.
    - Commenters in support of requiring descending devices felt it was essential to the long-term health of the snapper grouper fishery, particularly red snapper.
- 14 commenters expressed support for a research and monitoring plan that would look at the effectiveness of descending devices and help inform science-based discard mortality rates for use in stock assessments.
- Two commenters discussed the importance of education the public on use of descending devices.
- Three commenters supported the use of descending devices over venting devices because venting may cause more damage to the fish if not done correctly.
- One commenter suggested mandating the use of descending devices at a certain depth (80 feet).
- Three commenters said they had success with and would recommend using the SeaQualizer. One commenter had success with the FishSaver device.
- Florida Wildlife Federation supports Alternatives 2a, 2b, and 2c and recommends clearly defining what constitutes "rigged and ready" and developing a research and monitoring plan.
- Council for Sustainable Fishing supports Alternatives 2a, 2b, and 2c and expressed concerns about Alternative 3 (venting devices) unless training is made available to fishermen who may not know how to properly use venting devices.
- Pew Charitable Trusts supports Alternatives 2a, 2b, and 2c and recommends the formation of a working group to quantify effectiveness and changes in discard mortality rates. Pew also recommends including language to define "rigged and ready" descending devices. They request that the Council approve the amendment and implement regulations as soon as possible and continue to pursue otherwise to reduce discard mortality and obtain better discard data.
- The American Sportfishing Association supports Alternatives 2a, 2b, and 2c and suggests that Council make Alternative 3 a preferred as well given the prevalence of venting. ASA

[2] Public comments, including letters from non-governmental organizations, can be found in detail on the Council's website: https://safmc.wufoo.com/reports/snapper-grouper-regulatory-amendment-29-report/

notes that, when done correctly, venting and descending have comparable success rates. ASA believes the current definition for descending devices allows for flexibility and innovation and recommends the Council include language that would "require the use" of devices when fish exhibit signs of barotrauma in addition to being rigged and ready.

- Coastal Conservation Association supports the mandatory use of descending devices or venting devices so long as there are quantifiable estimates of discard mortality for use in stock assessments. CCA also recommends the Council allow the use of venting tools only on for-hire vessels because venting devices need to be used by trained and experienced anglers.
- The Natural Conservancy supports Alternatives 2a, 2b, and 2c and agrees that "performance standards" are better than specifiy makes and models to allow for individual choice and innovation. The Natural Conservancy also supports the development of a research and monitoring plan because it is critical for tracking discard and fishing community buy-in.

Scoping Comments – August 2018:

- Twenty-six commenters believe the Council should put together an extensive outreach plan to educate anglers on best fishing practices, especially the use of venting and descending devices.
- Eighteen commenters believe the Council should discuss how the required use of best fishing practices can be monitored and how a change in regulation would be considered in future stock assessments to improve discard mortality rates.
- Four commenters felt that, while best fishing practices were important, they should not be required. Rewarding those who use best fishing practices would be better than punishing those who are not using them. Alternatively, two commenters felt that enforcement and penalties would be important for regulations that require best fishing practices.
- Majority of commenters support the use of venting devices and descending devices. Six commenters specifically expressed a preference for descending device due to concerns that venting devices, especially when used incorrectly, cause more harm to the fish.

Committee Action:

- REVIEW ACTION AND ALTERNATIVES
- MODIFY AS NECESSARY
- SELECT PREFERRED ALTERNATIVE(S)
- OTHERS?

Action 2. Modify the requirement for the use of non-stainless-steel circle hooks when fishing for and/or possessing snapper grouper species with hook-and-line gear.

Alternative 1 (No Action). Use of non-stainless-steel circle hooks is required when fishing for and/or possessing species in the snapper grouper fishery management unit with hook-and-line gear and natural baits north of 28 degrees north latitude.

Preferred Alternative 2. Require the use of *non-offset*, non-stainless-steel circle hooks when fishing for and/or possessing species in the snapper grouper fishery management unit with hook-and-line gear and natural baits in the exclusive economic zone:

Preferred Sub-alternative 2a. north of 28 degrees north latitude (approximately 25 miles south of Cape Canaveral, Florida).

Sub-alternative 2b. throughout the extent of the South Atlantic Council's jurisdiction (North Carolina/Virginia border through Key West, Florida).

Alternative 3. Require *non-offset*, non-stainless-steel circle hooks be *on board* a vessel possessing species in the snapper grouper fishery management unit when fishing in the exclusive economic zone:

Sub-alternative 3a. north of 28 degrees north latitude (approximately 25 miles south of Cape Canaveral, Florida).

Sub-alternative 3b. throughout the extent of the South Atlantic Council's jurisdiction (North Carolina/Virginia border through Key West, Florida).

Preferred Alternative 4. Require the use of non-stainless-steel hooks when fishing for and/or possessing species in the snapper grouper fishery management unit in the exclusive economic zone.

Discussion:

Biological Effects

- In general, studies on the effects of circle hooks on discard mortality rates of snapper grouper species remain sparse. However, several, studies show that use of circle hooks can reduce traumatic hooking rates (incidence of foul hooking and bleeding) of certain species of snapper grouper (e.g. red snapper, red grouper), when compared to J hooks
    - The impact of hook type appears to be species specific and can vary between studies.
    - The top co-occurring species for the snapper grouper hook-and-line component are red snapper, black sea bass, red grouper, gag, scamp, greater amberjack, vermilion snapper, and gray triggerfish. These species, excluding gray triggerfish, have similar mouth morphology and mortality on these species could be reduced.
- **Preferred Alternative 2** and its sub-alternatives could reduce discard mortality for snapper grouper species and result in benefits to the biological environment.
    - Requiring use of non-offset, non-stainless-steel circle hooks throughout the extent of the Council's jurisdiction (**Sub-Alternative 2b**) could reduce discard mortality

for species in the snapper grouper complex. However, this requirement could negatively affect the yellowtail snapper stock.

- If circle hooks increase catch rates a negative effect on the biological environment is possible. Similarly, if circle hooks decrease catch per unit effort and/or reduce the incidence of fatal hooking events, then a net benefit to the stock could occur. In addition, circle hooks could reduce regulatory discards, thereby providing additional benefits.
- If fishermen decide to utilize circle hooks, **Alternative 3** could provide biological benefits to species in the snapper grouper complex. However, use would be voluntary and would ultimately depend on fisherman preference.
- Hooks made of non-stainless steel should degrade faster in the marine environment then stainless-steel. Fish that are gut hooked could theoretically have a greater chance of survival if the hook is made of non-stainless steel, as proposed in **Preferred Alternative 4**.
- **Preferred Alternative 2** is likely to reduce the severity of injuries associated with the incidental hooking of ESA-listed species, particularly Nassau grouper and sea turtles. **Alternative 3** would only reduce the severity of interactions between the fishery and ESA-listed species if fishermen choose to utilize circle hooks. **Preferred Alternative 4** could reduce incidental hooking mortality if the hook corrodes faster, however, studies have shown hook type has a larger positive impact on survival of incidentally hooked ESA-listed species, particularly sea turtles.

Economic Effects

- **Preferred Alternative 2** and **Alternative 3** would result in direct costs for some commercial and recreational participants involved in the snapper grouper fishery who would need to purchase non-offset, non-stainless-steel circle hooks circle hooks of proper size for the species that they target if they do not already own such hooks.
    - In general, the cost per hook may vary from approximately $0.30 per hook to a $1.00 per hook.
- Additionally, non-offset circle hooks may reduce the catchability of some species, which could negatively affect catch efficiency on some fishing trips. This may result in reduced landings for some species, which in turn would result in negative economic effects.
    - These negative direct effects may be mitigated as recreational and commercial participants become accustomed to using non-offset circle hooks and increase their efficiency and effectiveness while fishing with circle hooks.
- **Preferred Alternative 2** may increase survivorship of fish that are discarded which may lead to improvements in affected fish stocks, which in turn, could yield greater numbers of exploitable fish in the future, higher catch rates, and less stringent harvest limits, such as higher trip limits and bag limits, as well as longer open harvest seasons.
- For commercial and recreational participants involved in the snapper grouper fishery that fish north of the 28 degrees north latitude, **Alternative 3** may result in direct cost reductions, as circle hooks would only be needed to be on board the vessel and not put in use. Under such circumstances, multiple circle hook types and sizes would not be necessary to satisfy the circle hook requirement.
- J hooks or treble hooks could be used to harvest snapper grouper species, which may increase the catchability of some species in comparison to circle hooks, which would positively affect catch efficiency on some fishing trips. This may result in increased landings for some species, which in turn would result in economic benefits.

- **Alternative 3** may decrease survivorship of fish that are discarded as the use of non-circle hooks has been shown to increase release mortality in some circumstances. This may lead to some deterioration in affected fish stocks, which in turn, could yield smaller numbers of exploitable fish in the future, lower catch rates, and more stringent harvest limits, such as lower trip limits and bag limits, as well as shorter open harvest seasons.
- **Preferred Alternative 4** would result in direct costs for commercial and recreational participants involved in the snapper grouper fishery that fish south of the 28 degrees north latitude within the South Atlantic Council's jurisdiction and do not already own non-stainless-steel hooks.

Social Effects

- Some fishermen prefer to be able to choose the type of hooks they use when they fish, regardless of what may be best for the fish. While other fishermen may prefer to use whichever hook is the most environmentally friendly. If the Council chooses to set standards for the type of circle hook that must be used under **Preferred Alternative 2**, some fishermen will agree that it is in the interest of saving the species while others may object to the loss of personal choice in the selection of hook types, especially if they feel they will experience a reduction in catch rates.
- If the required use of non-offset circle hooks improves the survivorship of discarded species, as envisioned, it is expected to contribute to the sustainability of harvest and the health of snapper grouper stocks and provide for increased long-term social benefits in the form of increased access.
- Requiring non-offset circle hooks to be on board, but not requiring their use under **Alternative 3**, would allow fishermen the ability to choose the hook-type appropriate for the snapper grouper species they are targeting.
- It is unknown, however, whether **Preferred Alternative 2** or **Alternative 3** would be expected to result in the better social outcome, though the implicit recognition in **Alternative 3** that circle hooks may be inappropriate for some species may result in **Alternative 3** providing more social benefit to communities.
- **Preferred Alternative 4** may result in minor negative social effects if commercial and recreational fishermen south of 28 degrees north latitude are not already using non-stainless-steel hooks and must replace their gear. However, requiring non-stainless-steel hooks may reduce hooking mortality due to hooks being able to corrode at a faster rate, improving discard mortality and providing for increased long-term social benefits in the form of increased access.

IPT Recommendation:

Protected Resources would like the Council to consider extending the circle hook requirement throughout the South Atlantic EEZ (excluding yellowtail snapper). **The terms and conditions in the 2016 Biological Opinion on the snapper grouper fishery of the South Atlantic include a measure to assess the effectiveness of non-stainless-steel circle hooks on reducing injury and mortality to Nassau grouper and, if effective, consider revisions of regulations to expand the use of circle hooks south of 28 degrees north latitude.**

Snapper Grouper Advisory Panel Comments and Recommendations:

October 2018:

- The AP reiterated that yellowtail snapper should continue to be excluded from the requirement for circle hooks.
- It is particularly difficult to dehook a gray triggerfish that was caught on a circle hook. Hence, circle hooks do not necessarily translate into less discard mortality for all species. In the case of gray triggerfish, circle hooks may contribute to higher discard mortality.
- Consider adding information in the amendment on how the use of circle hooks is likely to benefit a stock over the long-term, particularly how the information is used in a stock assessment.
- Alternative 4 under Action 2 is not useful. Consider removing.
- If Alternative 2 will continue to be included in the amendment, consider making an exception on the use of circle hooks for yellowtail snapper.
- Might want to consider circle hook regulations based on species and/or the size of hook.

MOTION #1: AP RECOMMENDS ALTERNATIVE 1 (NO ACTION) UNDER ACTION 2

Action 2. Modify the requirement for the use of non-stainless-steel circle hooks when fishing for and/or possessing snapper grouper species with hook-and-line gear.

Alternative 1 (No Action). Use of non-stainless-steel circle hooks is required when fishing for and/or possessing species in the snapper grouper fishery management unit with hook-and-line gear and natural baits north of 28 degrees north latitude.

APPROVED BY AP

Public Comments:

Public Hearings – April 2019:

- One commenter supported the requirement for non-stainless-steel hooks throughout the South Atlantic. Commenter was unsure how non-offset circle hooks will help release mortality but supports the requirement.
- One commenter requested that the Council continue to allow offset circle hooks because they catch more fish and both hooks (offset and non-offset) usually end up catching in the corner of the fish's mouth.
- The Council for Sustainable Fishing supports Alternative 1 (No Action).
- The American Sportfishing Association supports the current preferred alternatives (Alternative 2a and Alternative 4).

Scoping Comments – August 2018:

- Two commenters expressed support for requiring circle hooks. Two other commenters did not support the use of circle hooks because they do not work for all species.
- One commenter discussed the need to focus on management measures that would decrease the likelihood of regulatory discards in addition to best fishing practices.

Committee Action:

- REVIEW ACTION AND ALTERNATIVES
- MODIFY AS NECESSARY
- SELECT PREFERRED ALTERNATIVE(S)
- OTHERS?

Action 3. Adjust powerhead prohibitions in the South Atlantic Region.

Alternative 1 (No Action). A powerhead may not be used in the exclusive economic zone off South Carolina to harvest South Atlantic snapper grouper. The possession of a mutilated South Atlantic snapper grouper species in or from the exclusive economic zone off South Carolina, and a powerhead is prima facie evidence that such fish was harvested by a powerhead.

Preferred Alternative 2. Allow the use of a powerhead for harvest of species in the South Atlantic snapper grouper fishery management unit in the exclusive economic zone off South Carolina.

Preferred Sub-alternative 2a. private recreational and for-hire vessels.
Preferred Sub-alternative 2b. commercially permitted South Atlantic snapper grouper vessels.

Alternative 3. Prohibit the use of a powerhead for harvest of species in the South Atlantic snapper grouper fishery management unit in the exclusive economic zone of the South Atlantic Region.

Sub-alternative 3a. private recreational and for-hire vessels.
Sub-alternative 3b. commercially permitted South Atlantic snapper grouper vessels.

Discussion:

Biological Effects

- **Preferred Alternative 2** would increase the potential for localized depletion of snapper grouper on reefs off South Carolina by the recreational sector (**Preferred Sub-alt. 2a**) and/or the commercial sector (**Preferred Sub-alt. 2b**) (SAFMC 1994).
    - Localized depletion can delay repopulation of reefs, as long as a year or more, particularly for species that are long-lived (SAFMC 1991).
    - The greatest impact would be on larger species that aggregate around the artificial and natural reefs at certain times of the year.
- **Preferred Alternative 2** could reduce bycatch and discards of snapper grouper species off South Carolina during trips utilizing dive and spear gear.
    - The commercial and recreational dive components of the fishery only make up approximately 5% and 2% of landings and targeted trips, respectively, so overall impacts on bycatch would be low.
- **Alternative 3** would remove a highly effective gear type and a source of fishing mortality for the recreational sector (**Sub-alt. 3a**) and/or commercial sector (**Sub-alt. 3b**).
    - Preventing a cause of localized depletion could provide long-term biological benefits to snapper grouper species targeted by powerheads in the form of higher biomass and increased reproductive potential.

Economic Effects

- **Preferred Alternative 2** and **Alternative 3** would align federal regulations for the use of this gear with other areas of the South Atlantic EEZ which may result in indirect economic benefits by enhancing compliance with and enforcement of such regulations.

- **Preferred Alternative 2** may provide additional opportunities to harvest snapper grouper species in the EEZ off of South Carolina. These opportunities may lead to increased net operating revenue for some commercial and for-hire businesses and increased consumer surplus for some recreational and for-hire anglers.
- **Preferred Alternative 2** may lead to increased harvest of snapper grouper species in general, or additional harvest of larger specimens of exceptional biological benefit to a fish stock. Such harvest changes would be a direct benefit to users of powerhead gear but could also diminish the size or reproductive capacity of some stocks.
    - In turn, this could lead to fewer exploitable fish in the future, lower catch rates, and more stringent harvest limits, such as lower trip limits and bag limits, as well as shorter open harvest seasons.
- **Alternative 3** removes some opportunities to harvest snapper grouper species, which may lead to decreased net operating revenue for some commercial and for-hire businesses and decreased consumer surplus for some recreational and for-hire anglers.
    - Based on landings reported through the Southeast Coastal Fisheries Trip Report form, from 2013 through 2017 an annual average of 82,583 pounds gutted weight of snapper grouper species were commercially landed in the South Atlantic with the use of powerheads[14]. These annual landings accounted for $255,313[3] in trip gross revenue, $107,232 in trip net cash flow, and $61,020 in trip net revenue[4] (2017 dollars).
- **Alternative 3** may also lead to decreased harvest of snapper grouper species in general, or reduced harvest of larger specimens of exceptional biological benefit to a fish stock. Such harvest changes would be a direct cost to current users of powerhead gear, as described in the previous paragraph, but could also increase the size or reproductive capacity of some stocks.
    - In turn, this could lead to more exploitable fish in the future, higher catch rates, and less stringent harvest limits, such as higher trip limits and bag limits, as well as longer open harvest seasons.

Social Effects

- Creating consistency in regulations throughout federal waters under **Preferred Alternative 2** and **Alternative 3** would be expected to reduce confusion among commercial and recreational dive fishermen and aid in compliance and enforcement efforts resulting in indirect positive social effects.
- Allowing powerhead use off South Carolina (**Preferred Alternative 2**) may result in localized depletion of heavily fished reef areas, especially of larger species, delaying repopulation. Should this localized depletion result in deterioration of snapper grouper

[3] SEFSC Socioeconomic Panel (Version 7) accessed by the SEFSC Economic Query System (May 2019).

[4] According to Overstreet, Perruso, and Liese (2018), from 2014 through 2016, "trip net cash flow" from snapper grouper trips was 42% of the gross trip revenue, while "trip net revenue" was 23.9% of the gross trip revenue. "Trip net cash flow" represents the additional flow of money to the business from taking a trip, while "trip net revenue" represents economic profit at the trip level and thus is the best measure of net economic benefits. "Trip net cash flow" is gross revenue minus the costs for fuel, bait, ice, groceries, miscellaneous, and hired crew. "Trip net revenue" is gross revenue minus the costs for fuel, bait, ice, groceries, miscellaneous, hired crew, as well as the opportunity cost of the owner's time as captain.

fish stocks, fishing communities may experience negative social effects associated with decreased access in the form of more stringent regulations.

- Negative social effects would be experienced all fishermen participating in the snapper grouper fishery regardless of gear type utilized. This could increase conflict between fishermen participating in the dive component of the snapper grouper fishery and other snapper grouper user groups.

- Prohibiting the use of powerheads under **Alternative 3** would result in negative short-term social effects to fishing communities that participate in the dive component of the snapper grouper fishery and utilize powerheads
    - Prohibiting powerheads may prevent localized depletion and allow larger fish to survive, improving the sustainability of the fishery and resulting in direct long-term social benefits to fishing communities in the form of increased access for all sectors and components of the snapper grouper fishery.

Snapper Grouper Advisory Panel Comments Recommendations:

October 2018:

- Regarding the use of powerheads, the AP expressed concern over the potential for localized depletion of some species (i.e., black grouper, greater amberjack).
- Powerheads are used for protection from sharks by divers, so any restriction should address the use of the gear specifically for harvest of snapper grouper species.
- Fish that have been harvested with a powerhead are much harder to market.
- The AP would like for any regulation that is considered to be the same for the commercial and recreational sectors.

MOTION #2: AP RECOMMENDS ALTERNATIVE 3, SUB-ALTERNATIVES 3A AND 3B UNDER ACTION 3

Action 3. Adjust powerhead prohibitions in the South Atlantic Region.

Alternative 3. Prohibit the use of a powerhead for recreational and commercial harvest of species in the South Atlantic snapper grouper complex species in the exclusive economic zone of the South Atlantic Region.

Sub-alternative 3a. private recreational and for-hire vessels.

Sub-alternative 3b. commercially permitted South Atlantic snapper grouper vessels.

APPROVED BY AP (1 OPPOSED, 4 ABSTENTIONS)

Public Comments:

Public Hearings – April 2019:

- Five commenters felt that powerheads were important for the safety of divers. Regular spearfishing gear can become entangled, which is dangerous for divers and shark populations have increased. Additionally, powerheads are an efficient method of harvest with zero bycatch.
- One commenter expressed concerns about the impact commercial diving was having on grouper and hogfish population. Undersized fish that are taken using a powerhead cannot be released.
- One commenter felt that powerheads could be carried for self-defense but should not be used to harvest fish because it detracts from the skill needed for the sport.

- The Council for Sustainable Fishing supports Alternative 2.

Scoping Comments – August 2018:

- Ten commenters supported allowing the use of powerheads in federal waters off South Carolina citing the gear's high level of selectivity and low discard rate. One commenter did discuss stricter trip limits for divers, another discussed concerns about user conflict.

Committee Action:

- REVIEW ACTION AND ALTERNATIVES
- MODIFY AS NECESSARY
- SELECT PREFERRED ALTERNATIVE(S)
- OTHERS?