

Regulatory Amendment 29 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

(Gear Requirement Modifications)

Information and Education Advisory Panel Summary

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). 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 is considering 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 or 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 are allowed in federal waters off North Carolina, Georgia, and Florida. To allow for more consistent regulations for the dive component of the snapper grouper fishery, the Council may consider removing the powerhead prohibition in federal waters off South Carolina.

2016-2020 Vision Blueprint for the Snapper Grouper Fishery

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 is considering were suggested during Visioning Meetings, including 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).

Proposed Actions and Alternatives

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

Alternative 2. Require a *descending device** be onboard a vessel possessing species in the snapper grouper fishery management unit.

Sub-alternative 2a. private recreational.

Sub-alternative 2b. for-hire vessels.

Sub-alternative 2c. commercially permitted South Atlantic snapper grouper vessels.

Alternative 3. Require a *venting device*** be onboard a vessel possessing species in the snapper grouper fishery management unit.

Sub-alternative 3a. private recreational.

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 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 should 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 excess gases accumulated in 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.

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.

Alternative 2. Require the use of 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:

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

Alternative 3. 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:

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).

Alternative 4. Require *non-offset*, non-stainless-steel circle hooks be *onboard* a vessel possessing species in the snapper grouper fishery management unit when fishing in the exclusive economic zone:

Sub-alternative 4a. north of 28 degrees north latitude (approximately 25 miles south of Cape Canaveral, Florida).

Sub-alternative 4b. throughout the extent of the South Atlantic Council's jurisdiction (North Carolina/Virginia border through Key West, Florida).

Alternative 5. Remove the requirement for use of 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 north of 28 degrees north latitude:

Sub-alternative 5a. private recreational and for-hire vessels.

Sub-alternative 5b. commercially permitted South Atlantic snapper grouper vessels.

Alternative 6. 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.

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.

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

Sub-alternative 2a. private recreational and for-hire vessels.

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 complex 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.

DRAFT Communication Plan

Scoping was conducted for Snapper Grouper Regulatory Amendment 29 in August 2018. Majority of comments received during that time suggested the Council put together an extensive outreach plan to educate anglers on best fishing practices, in particular the use of proper use of descending and venting devices.

Target Audiences

The Fishing Industry

- Fishermen that will utilize descending and venting devices (commercial, private recreational, and for-hire fishermen).
- The general fishing public that can encourage fishermen to use descending and venting devices (tackle shops, marinas, fish houses, online fishing forums, industry groups, fishing clubs).

Management and Science Groups

- State fishery management agencies
- Gulf and Mid-Atlantic Council members
- NOAA Fisheries Southeast Fisheries Science Center
- Southeast Data, Assessment, and Review (SEDAR)

Other Outreach Venues

- Sea Grant programs.
- Media.

Objectives for Each Target Audience

1. Build awareness of venting and descending device requirements being considered in Regulatory Amendment 29. (Everyone)
2. Build awareness of the proper use of descending and venting devices considering frequency, consistency, and different approaches. (Fishing Industry)
3. Encourage the continued use of descending and venting devices when fishing offshore. (Fishing Industry)
4. Build awareness of opportunities to report descending and venting device use, such as MyFishCount. (Everyone)
5. Increase understanding about the science behind management. (Fishing Industry)

Key Messaging

Main Messages

- The South Atlantic Council is considering a modification to current gear requirements that would require commercial and/or recreational snapper grouper fishermen to carry descending devices and/or venting devices.
- Floaters (fish experiencing barotrauma) may not survive without some assistance. When used properly, descending devices and venting devices can be successful at reducing discard mortality.

- Estimates of discard mortality are important components of stock assessments and for subsequent management actions aimed at improving survivorship of discarded snapper grouper species.
- Information on how to properly use descending and venting devices is readily available through management agencies and fishing industry groups.

Key Information

- What is Barotrauma?
 - Barotrauma is a condition often experienced by bottom-dwelling snapper grouper species when rapidly reeled up from depth.
 - The change in pressure causes the fish's swim bladder to expand, and in some cases burst, causing air to fill the body cavity. Along with internal damage, this expansion can prevent the fish from swimming back down to the capture depth, decreasing its chances of survival and making it more vulnerable to predators.
 - Signs of barotrauma: bulging eyes, swollen abdomen, and stomach or intestines protruding from the mouth.
 - Not all fish will need help descending, for example, fish harvested in shallow water may not experience signs barotrauma and would not need treatment from a venting device or descending device.
- Venting devices
 - Sharp, hollow tools that can be used to release gases that have over expanded in a fish's swim bladder due to rapid ascent in the water column.
 - Fishermen should hold the fish on its side and insert the venting tool at a 45-degree angle approximately one to two inches behind the base of the pectoral fin. The venting tool should be inserted just deep enough to release the gases. Never puncture the fish's stomach, even if it is protruding from the mouth.
- Descending devices
 - Tools that quickly send a fish back to the depth where it was caught. Generally, descending devices are some kind of weighted device that is attached to fishing line or rope with a clamp or hook to attach to the mouth of the fish.
 - Descending devices can be purchased or made by hand.
 - Examples of devices available for purchase:
 - [SeaQualizer](#)
 - [Shelton Fish Descender](#)
 - [RokLees Fish Descender](#)
 - [Blacktip Catch and Release Tool](#)
 - [FishSaver](#)
 - [Safe Release Weight](#)
 - Examples of constructed devices:
 - [Milk crate method](#) (Video, FL FWCC)
 - [Fish grip method](#) (OR DFW)
- Descending devices are recommended 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.

- Additional outreach materials on descending and venting devices:
 - [Catch & Release Fishing](#) (Sea Grant Florida)
 - [FishSmart](#)
 - [Ethical Angling: A Guide to Responsible Fishing](#) (NC DMF)
 - [Catch & Release: Ways You Can Help Saltwater Fish Survive](#) (FL FWCC)
 - [Seven Tips for Successful Catch and Release](#) (SC DNF)
 - [Venting: A Guide to Releasing Reef Fish with Ruptured Swimbladders](#) (Sea Grant Florida)
 - [How to Treat Barotrauma](#) (Video, FL FWCC)

- Discard Mortality
 - Deepwater grouper caught between 60-120m and then descended back to depths of 150-200m showed substantially higher survival rates than fish that were not recompressed using a descending device (Runde and Buckel, 2018).
 - Red snapper treated for barotrauma using a descending device have been shown to be three times more likely to survive than untreated fish (Curtis et al., 2015).
 - When done correctly, venting has been found to significantly improve survival of released black sea bass and, to a lesser extent, vermilion snapper (Collins et al., 1999).

- Accounting for regulations pertaining to descending and venting devices in estimates of discard mortality rates utilized in stock assessments is challenging, especially without a way to quantify their use in the fishery.
 - Currently, commercial logbooks, for-hire reporting, and the marine recreational information program do not require fishermen to report whether or not released fish were treated for barotrauma with descending or venting devices.
 - MyFishCount, a pilot reporting project for recreational anglers to voluntarily report their catch through an electronic web application and web portal, does allow fishermen to record treatment of released fish.

Timeline

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	April 2019
	Review public hearing comments, approve all actions and alternatives.	June 2019
	Final action to approve for Secretarial review	September 2019

Questions for the Information and Education Advisory Panel

- Are the key messages appropriate for the target audiences? Should the Council consider communicating about best fishing practices more broadly?
- What methods/tools should be used to communicate information on Regulatory Amendment 29 and proper descending and venting device use? Social media, website, infographics, brochures, press releases?
- What strategies should be used to make the material engaging for fishermen who might utilize these devices?
- Given the amount of available information on proper descending and venting device use, should the Council create additional resources or direct fishermen to those that already exist?
- When should the outreach related to proper descending and venting device use begin, before or after the Council has taken final action on Regulatory Amendment 29? How often should the Council push information on descending and venting devices? Frequently? Special occasions?
- How can the Council encourage leaders in the fishing industry to inspire other fishermen to use descending and venting devices as part of being experienced and successful anglers?

References

Collins, M.R., J.C. McGovern, G.R. Sedberry, H.S. Meister, and R. Pardieck. 1999. Swim bladder deflation in black sea bass and vermilion snapper: potential for increasing postrelease survival. *North American Journal of Fisheries Management*. 19:828-832.

Curtis, J.M., M.W. Johnson, S.L. Diamond, and G.W. Stunz. 2015. Quantifying delayed mortality from barotrauma impairment in discarded red snapper using acoustic telemetry. *Marine and Coastal Fisheries*. 7:434-449.

Runde, B.J. and J.A. Buckel. 2018. Descender devices are promising tools for increasing survival in deepwater groupers. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 10:100–117.

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/>.