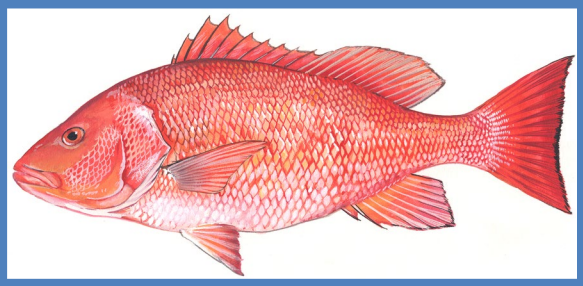
Regulatory Amendment 35

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

Red Snapper Catch Levels and Snapper Grouper Discard Mortality Reduction



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Background

Red snapper have been in a rebuilding plan since 2011, with the stock expected to be rebuilt by 2044. The most recent stock assessment for South Atlantic red snapper, SEDAR 73 (2021) with data through 2019, determined the stock to still be overfished and undergoing overfishing, but making progress in rebuilding (**Figure 1**). Stock assessment summary information, a history of

management, and the most recent fishery performance report for red snapper can be found in its Fishery Overview.

Following completion of SEDAR 73 (2021), the Council's Scientific and Statistical Committee (SSC) recommended new acceptable biological catch (ABC) levels for red snapper based on the results of the stock assessment. Therefore, the Council must reduce ABC and the total annual catch limit (ACL) based on the SSC's most recent recommendation, consistent with National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). Action 1 of Regulatory Amendment 35 (described below) would reduce the catch levels for red snapper based on the SSC's most recent recommendation.

How is stock status determined?

Stock status is determined through the assessment process conducted by Southeast Data, Assessment, and Review (SEDAR)

Maximum sustainable yield (MSY): The largest long-term average catch that can be taken from a stock under prevailing environmental and fishery conditions.

Overfishing: A stock having a harvest rate higher than the rate that produces its MSY.

Overfished: A stock having a population size that is too low and that jeopardizes the stock's ability to produce its MSY.

Rebuilt: A stock that was previously overfished and that has increased in abundance to the target population size that supports its MSY.

How are red snapper overfished?

Red snapper abundance (numbers of fish) is increasing and is at the highest level observed in over 30 years. However, much of this increase has occurred since 2010 and is due to a recent increase in recruitment (the number of young fish that reach the sizes caught by the fishery). Therefore, a large majority of the population is estimated to be 3 years old or younger. The percentage of fish in older ages is increasing, and the stock is likely to be rebuilt as the abundant, younger age classes progress to older ages.

Why do old fish matter to the long-term health of the red snapper stock?

Population with **fewer** old (large) fish	Population with **more** old (large) fish
1. More fish needed for stock biomass (poundage of the population) to exceed the biomass needed to produce MSY (B_{MSY}).	1. Fewer fish needed for stock biomass to exceed B_{MSY}.
2. 20 pounds = 3 to 4 red snapper; more fish need to grow to replace removal of that poundage.	2. 20 pounds = 1 to 2 red snapper; fewer fish need to grow to replace removal of that poundage.
3. Fewer eggs produced per female fish. Younger red snapper spawn less frequently and in smaller batches than older red snapper. - E.g. 2-year-old female: ~7 million eggs per year; 10-year-old female: ~255 million eggs per year - 10-year-old egg production = ~34 2-year-olds	3. More eggs produced per female fish.
4. Harvest of large females has greater impact on egg production. Requires survival and growth of many young fish into the next year to replace egg production of a harvested older female. - E.g. For every 10-year-old female removed, 12 2-year-old females must survive to age 3 to replace lost egg production	4. Harvest of large females has less impact on egg production. More fish surviving from older ages can replace large females removed from the population.
5. Single year of extremely high removals or extremely low recruitment (due to fishing or environment) is more likely to have drastic effects. Less overall egg production to offset impacts.	5. Single year of extremely high removals or extremely low recruitment (due to fishing or environment) less likely to have drastic effects. More old females can better maintain egg production.

How is overfishing occurring?

Fish can be removed from the population via landings (fish that are caught and kept) or discard mortality (fish that are caught, released, and die due to that process). If the fishing mortality rate (F; including both landings and dead discards) exceeds the fishing mortality rate that produces maximum sustainable yield (F_{MSY}), overfishing is occurring.

The results of SEDAR 73 (2021) indicated that overfishing of red snapper is being primarily driven by high numbers of dead discards[1] by the recreational sector. Dead discards comprise

[1] This document denotes fish caught and released alive by the recreational fishery as recreational "discards". "Discards" in this document is equivalent to the term "releases" used in the Council's Best Fishing Practices materials or "Released Alive (Type B2)" used by the Marine Recreational Information Program.

approximately 85% of the allowable removals (landings + dead discards) for red snapper. **Due to the high proportion of removals being dead discards, reduction of landings alone, even to no allowable landings, will not end overfishing of red snapper. Therefore, in order to end overfishing of red snapper, the Council must also reduce dead discards of red snapper.**

How is the Council reducing dead discards of red snapper?

Dead discards can be reduced in two ways:

1. Increasing discard survivorship; that is, increase the percentage of caught and released fish that survive.
2. Decreasing the number of discarded fish by reducing the effective effort applied toward catching those fish. This can include altering gear to reduce the number of fish caught or avoiding fishing in areas where or times of year when that species is common.

Snapper Grouper Amendment 43 (2018) set current circle hook requirements and Regulatory Amendment 29 (2020) required descending devices be on board and ready for use. Increased survivorship of red snapper with increased usage of circle hooks and descending devices was included in discard mortality rate estimates applied in SEDAR 73 (2021). The Council has also increased outreach and education efforts promoting Best Fishing Practices (BFP) that maximize survival of released fish. Regulatory Amendment 35 includes an appendix describing current efforts, as well as an expansion that has been directed by the Council. Expansion of the outreach and education program is described in Regulatory Amendment 35, but will occur independently of Regulatory Amendment 35.

Red snapper are caught with other species in the South Atlantic snapper grouper fishery. Many of these other species have longer open seasons due to different stock statuses and management histories, which results in year-round fishing in many areas where red snapper occur. Therefore, while retention and landing of red snapper have been reduced over time and are very limited under current management, effective fishing effort in areas where red snapper exist and catches of red snapper (mostly resulting in release) may have not changed because anglers catch red snapper while targeting co-occurring snapper grouper species. For the recreational sector, red snapper catches (landings + releases) have actually increased during the most recent years due to effort targeting co-occurring species and increased abundance of red snapper (see Recreational Sector graphs in Fishery Overview).

To reduce the number of discarded red snapper, effective effort must be reduced for the snapper grouper fishery, particularly the group of species that are caught together with red snapper. This would reduce the catch and discarding of other snapper grouper species, as well. While dead discards are the large majority of red snapper removals, dead discards also comprise notable portions of allowable removals for other South Atlantic snapper grouper stocks. For example, in SEDAR 71 (2021), annual estimates of South Atlantic gag grouper dead discards range from 14% to 60% of removals between 2010 and 2019. Large numbers of dead discards limit the Council's ability to prevent overfishing and reduce the number of fish that can be landed by the fishery. Therefore, to reduce effective effort and dead discards throughout the snapper grouper fishery, a prohibition of the use of more than one hook per line while recreationally fishing for snapper grouper species with natural bait is considered in Regulatory Amendment 35.

In addition to Regulatory Amendment 35 and the expansion of BFP outreach and education, the Council is also developing an amendment that would consider establishment of a federal recreational snapper grouper permit (Snapper Grouper Amendment 46) and conducting a management strategy evaluation (MSE) that will consider a more holistic approach toward managing the snapper grouper fishery. Both of these projects are expected to contribute to reduction of dead discards and management better suited to the specific needs and values of the South Atlantic snapper grouper fishery.

Other projects are also underway that seek to improve scientific information used to assess the status of the South Atlantic red snapper stock. These include the Estimation of US Atlantic Red Snapper Abundance (a sister project ot the Gulf of Mexico's Great Red Snapper Count) as well as research being conducted by the Southeast Fisheries Science Center. Improved scientific understanding of population size and catch estimation from these projects is expected to contribute to improved management of red snapper and other South Atlantic snapper grouper species.

What changes are proposed in Regulatory Amendment 35?

- Adjust catch levels for red snapper in the South Atlantic based on latest stock assessment (SEDAR 73, 2021).
- Prohibit the use of more than one hook per line for the recreational sector of the snapper grouper fishery.

When would any changes take place?

Regulatory Amendment 35 will be developed through March 2023. Changes are expected to take place in mid to late 2023.

What is the current and recommended acceptable biological catch?

Catch Level Definitions

Overfishing limit (OFL): The catch level that corresponds to the stock's maximum sustainable yield (MSY). Fishing above the OFL would likely result in overfishing and jeopardize the stock's capacity to produce MSY.

Acceptable biological catch (ABC): A catch limit that is adjusted downward from the overfishing limit to account for scientific uncertainty and the Council's risk tolerance. The Council may not set an ABC greater than the level recommended by the ABC.

Annual catch limit (ACL): The amount of landings that can be harvested by the fishery in one fishing year. The ACL for the entire stock (total ACL) may be allocated into sector or regional ACLs. The total ACL may not exceed the ABC.

The current OFL for red snapper is 56,000 fish, and the current ABC is 53,000 fish, based on the SSC's recommendation following the SEDAR 41 stock assessment (2017). The total ACL is 42,510 fish (Amendment 43, SAFMC 2017).

The SSC recommended the new OFL be based on a projection of the SEDAR 73 assessment model that estimates the stock to rebuild by 2044. The SSC recommended that ABC be set equal to the recommended OFL (**Table 1**).

Table 1. OFL and ABC levels recommended for South Atlantic red snapper by the SSC for 2023 onwards (the SSC recommended ABC equal OFL), based on projections from SEDAR 73 (2021).

Year	ABC/OFL Landings (lbs ww)	ABC/OFL Dead Discards (lbs ww)	ABC/OFL Landings (numbers of fish)	ABC/OFL Dead Discards (numbers of fish)	Percent Reduction in ABC/OFL Landings (numbers of fish) from Current ACL (42,510 fish)
2023	327,000	1,036,000	28,000	202,000	34.13%
2024	368,000	1,076,000	31,000	207,000	27.08%
2025	408,000	1,104,000	33,000	210,000	22.37%
2026	446,000	1,122,000	35,000	211,000	17.67%
2027+	480,000	1,133,000	36,000	212,000	15.31%

Proposed Actions and Alternatives

Action 1. Reduce the acceptable biological catch, total annual catch limit, and sector annual catch limits, and establish an annual optimum yield for South Atlantic red snapper

Alternative 1 (No Action).

- Current acceptable biological catch (ABC): 53,000 fish
- Current total annual catch limit (ACL): 42,510 fish
- Commercial ACL: 124,815 pounds whole weight (lbs ww)
- Recreational ACL: 29,656 fish
- Red snapper may only be harvested or possessed in or from the South Atlantic Exclusive Economic Zone during the commercial and recreational fishing seasons

Preferred Alternative 2.

- Reduce the red snapper ABC and set it equal to the most recent recommendation from the Scientific and Statistical Committee
- Total ACL = Annual Optimum Yield = ABC
- Red snapper may only be harvested or possessed in or from the South Atlantic Exclusive Economic Zone during the commercial and recreational fishing seasons

Fishing Year	ABC (numbers of fish)	Annual OY=Total ACL (numbers of fish)	Commercial ACL (lbs ww)	Recreational ACL (numbers of fish)
2023	28,000	28,000	77,016	19,119
2024	31,000	31,000	85,268	21,167
2025	33,000	33,000	90,769	22,533
2026	35,000	35,000	96,270	23,899
2027+	36,000	36,000	99,021	24,581

Alternative 3.

- Reduce the red snapper ABC and set it equal to the most recent recommendation from the Scientific and Statistical Committee
- Total ACL = Annual Optimum Yield = **0 fish**
- Red snapper may not be harvested or possessed in or from the South Atlantic Exclusive Economic Zone
- These restrictions also apply in the South Atlantic on board a vessel for which a valid Federal commercial or charter vessel/headboat permit for South Atlantic snapper grouper has been issued, regardless of where the fish has been harvested

Fishing Year	ABC (numbers of fish)	Annual OY=Total ACL (numbers of fish)	Commercial ACL (lbs ww)	Recreational ACL (numbers of fish)
2023	28,000	0	0	0
2024	31,000	0	0	0
2025	33,000	0	0	0
2026	35,000	0	0	0
2027+	36,000	0	0	0

Action 2. Prohibit the use of more than one hook per line for the snapper grouper recreational sector

Alternative 1 (No Action).

- The recreational sector is required to use non-offset, non-stainless steel circle hooks when fishing for South Atlantic snapper-grouper species with hook-and-line gear and natural baits north of 28° N latitude.
- The recreational sector is required to use non-stainless steel hooks when fishing for South Atlantic snapper-grouper species with hook-and-line gear and natural baits south of 28° N latitude.

Alternative 2.

- The recreational sector is required to use one non-offset, non-stainless steel circle hooks when fishing for South Atlantic snapper-grouper species with hook-and-line gear and natural baits north of 28° N latitude.
- The recreational sector is required to use one non-stainless steel hooks when fishing for South Atlantic snapper-grouper species with hook-and-line gear and natural baits south of 28° N latitude.
- Commercial regulations for hook-and-line gear and natural baits would not change under this alternative.

Questions for Consideration

- Which alternative(s) should the Council select under each action?
- What other changes besides those being considered in this and other amendments would you recommend to improve management of red snapper and the snapper grouper fishery as a whole?