

Catch Level Adjustments and Allocations for Red Snapper

Options Paper

September 2021

Background

The red snapper stock in the South Atlantic was first assessed through the Southeast Data, Assessment, and Review (SEDAR) process in 2009. SEDAR 15 (2009) determined the stock to be overfished and undergoing overfishing.

In response to SEDAR 15, the South Atlantic Fishery Management Council (Council) implemented a moratorium on the harvest of red snapper through Amendment 17A to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP) (SAFMC 2010). Amendment 17A also established a plan to rebuild the South Atlantic red snapper stock by 2044. Another stock assessment (SEDAR 24) was conducted in 2010, which found the stock to be overfished and undergoing overfishing. In 2013, a method to annually evaluate whether a limited red snapper season could occur, based on red snapper removals in the previous year relative to the acceptable biological catch (ABC), was developed and implemented through Amendment 28 to the Snapper Grouper FMP (SAFMC 2013).

The South Atlantic red snapper stock was assessed again through SEDAR 41 (2017) and found to still be overfished and undergoing overfishing. However, based on new scientific information presented to the Council, a limited harvest of red snapper was allowed in 2017 through emergency action pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). In 2018, the Council changed the process for

History of Red Snapper Stock Status

Assessment	Overfished	Overfishing
SEDAR 15 (2009)	X	X
SEDAR 24 (2010)	X	X
SEDAR 41 (2017)	X	X
SEDAR 73 (2021)	X	X

annually determining whether a season would occur based on landings relative to the ABC that was developed in Amendment 28. In Amendment 43 to the Snapper Grouper FMP (SAFMC 2018), the Council determined that a limited harvest of red snapper would be allowed by implementing a total annual catch limit (ACL) of 42,510 fish, based on the landings observed during the limited red snapper season in 2014. That ACL was less than the SSC's total ABC recommendation of 53,000 red snapper. Under the total ACL specified in Amendment 43, and based upon the Council's sector allocation (28.07% commercial and 71.93% recreational), the commercial ACL equals 124,815 pounds (whole weight) and the recreational ACL equals 29,656 fish. On an annual basis, the National Marine Fisheries Service (NMFS) determines the length of the recreational fishing season based on these catch levels and catch rates from the previous year.

The most recent stock assessment for South Atlantic red snapper, SEDAR 73 (2021) with data through 2019, determined the stock to be overfished and undergoing overfishing (Figure 1). The Council's Scientific and Statistical Committee (SSC) reviewed results of the assessment at their April and July 2021 meetings, and recommended a new overfishing limit (OFL) and ABC. The SSC's recommendations are summarized below and will be presented to the Council at the September 2021 meeting.

The Council received notification from NMFS (via letter dated July 23, 2021) of the status of the red snapper stock in the South Atlantic. Following notification that a stock is undergoing overfishing and is overfished, the Magnuson-Stevens Act requires the Council to develop an FMP amendment with actions that end overfishing immediately and rebuild the affected stock. Since a rebuilding plan is already in place and SEDAR 73 (2021) shows progress towards rebuilding is being made, the Council can continue working through its current rebuilding plan but is still required to take action to end overfishing.

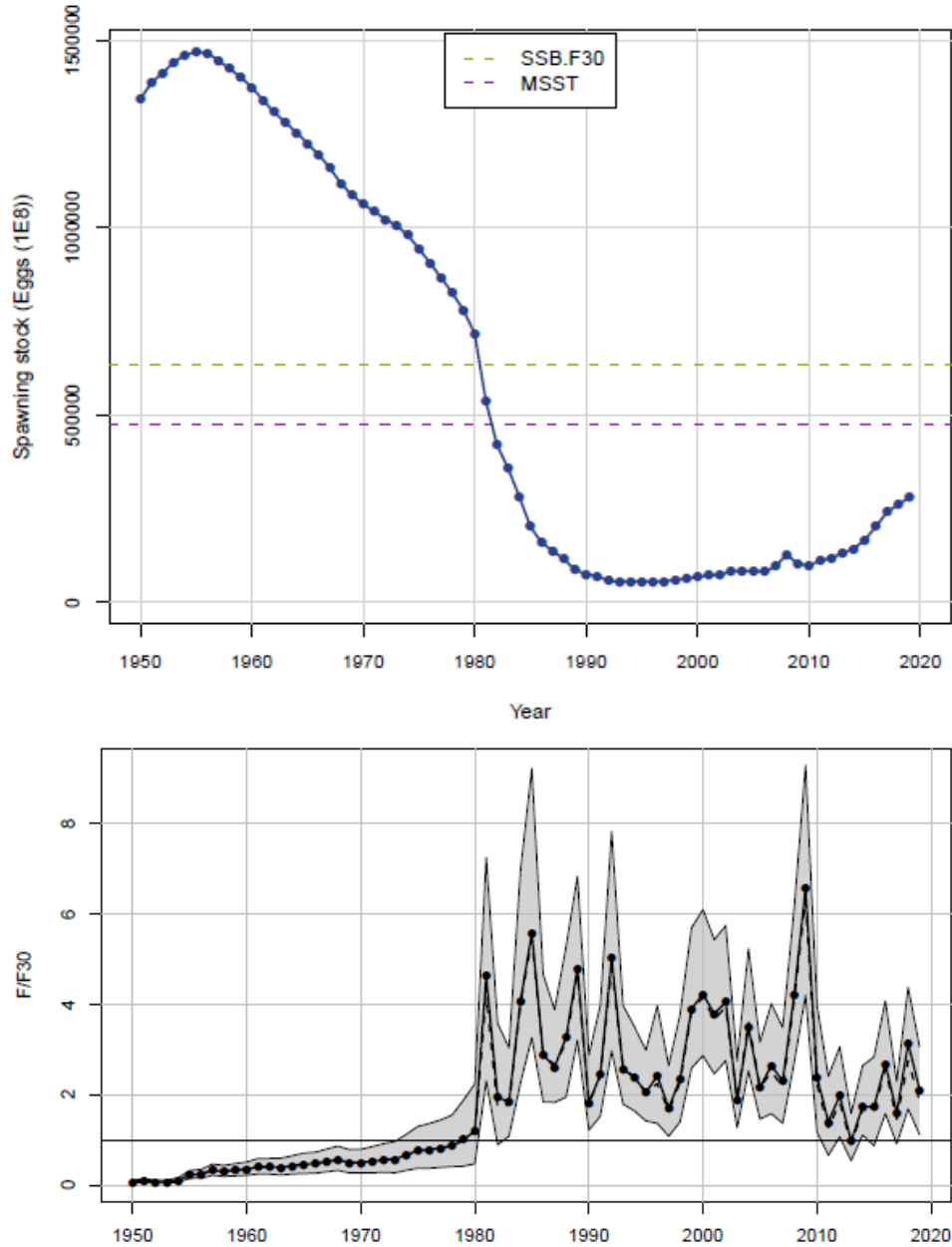


Figure 1. Estimated time series of spawning stock (number of eggs) and fishing mortality (F) relative to benchmarks. Top: Estimated spawning stock and levels at $SSB_{F30\%}$ and the minimum stock size threshold (MSST); if spawning stock is less than the level at MSST, then stock is overfished. Bottom: F relative to $F_{30\%}$, if greater than 1 stock is undergoing overfishing.

Proposed management changes

- Adjust catch levels (annual catch limits)
- Revise sector allocations

Objectives for this meeting

Provide guidance on options and timing for amendment development.

Tentative amendment timing

The steps listed below are typical for development of a full plan amendment. These steps are often completed one Council meeting at a time. However, multiple steps have been combined into a single meeting for some amendments, dependent on Council prioritization and workload management.

September 2021	Review options paper
	Approve for scoping
	Conduct scoping hearings
	Review scoping comments and preliminary analyses
	Select preferred alternatives, and approve for public hearings
	Conduct public hearings
	Review public comment and approve all actions
	Consider approval for formal review
About 6 months after previous step	Regulations effective

Committee Action:

Provide guidance on the desired timeline for an amendment.

Acceptable Biological Catch and Overfishing Limit

The SSC reviewed the South Atlantic red snapper stock assessment (SEDAR 73 2021) at their April 2021 and July 2021 meetings. The SSC found that the assessment addressed the terms of reference appropriately, was conducted using the best scientific information available, was adequate for determining stock status and supporting fishing level recommendations and addressed uncertainty consistent with expectations and available information.

The SSC reviewed projections depicting a variety of recruitment, fishing mortality, and discard mortality scenarios. The SSC recommended the OFL be based on results of a projection that included recent (last 10 years) average recruitment, a discard mortality rate that accounts for descender device usage based on current and predicted levels of use, a fishing mortality rate of F30% (the fishing mortality rate when the spawning potential ratio equals 30%; a proxy for F_{MSY}), and no reallocation of fishing mortality from discards to landings. This projection was run out through 2044 to determine if the stock rebuilt within the rebuilding timeframe. The projections indicated the stock would rebuild. Recommended landings and projected discard levels are provided for the next 5 years (**Table 1**).

The current total ABC for South Atlantic red snapper is 53,000 fish and the total ACL is 42,510 fish (Amendment 43, SAFMC 2018).

Table 1. South Atlantic red snapper OFL/ABC recommendations (SEDAR 73 2021). The SSC recommended that ABC=OFL. OFL/ABC recommendations are based on landed catch and are bolded.

Year	Landings (numbers of fish)	Discards (numbers of fish)	Landings (lbs ww)	Discards (lbs ww)
2022	25,000	195,000	284,000	983,000
2023	28,000	202,000	327,000	1,036,000
2024	31,000	207,000	368,000	1,076,000
2025	33,000	210,000	408,000	1,104,000
2026	35,000	211,000	446,000	1,122,000

Options for Proposed Actions

1. Revise the red snapper annual catch limit and annual optimum yield to reflect the updated acceptable biological catch level

- New ACLs are needed since the SSC recommended new OFL and ABC values.
- Based on SEDAR 41 (2017), the SSC’s total ABC recommendation was 53,000 red snapper.
- Amendment 43 to the Snapper Grouper FMP established the current total ACL at 42,510 fish. This was based on the highest observed landings that occurred in a single year from 2012 to 2014.
- Optimum yield (OY) is not currently specified for red snapper in the South Atlantic. The Council has specified $OY=ACL=ABC$ for most snapper grouper species. National Standard 1 Guidelines state that a Council can establish an annual OY.
- The recreational ACL is specified in numbers of fish, and the commercial ACL is specified in pounds whole weight (lbs ww).
- South Atlantic red snapper commercial landings exceeded the commercial ACL in 2018, 2019, and 2020. Commercial in-season closures have occurred every year since 2018 (**Table 2**).

Table 2. Commercial landings of red snapper from 2017 through 2021 and percentage of the commercial ACL landed each year.

Year	Landings (lbs ww)	ACL (lbs ww)	% ACL
2021*	61,011*	124,815	48.9*
2020	134,465	124,815	107.7
2019	126,010	124,815	101.0
2018	128,153	124,815	102.7
2017	89,274	124,815	71.5

Source: SEFSC Commercial ACL website data (<https://www.fisheries.noaa.gov/southeast/sustainable-fisheries/2021-preliminary-south-atlantic-commercial-landings>) (8/20/21)

* 2021 data are preliminary

- Since the current ACL was implemented (first via emergency rule in 2017), recreational landings of red snapper in the South Atlantic have exceeded the recreational ACL in 3 out of 4 years (**Table 3**).

Table 3. Recreational landings (lbs ww) of red snapper from 2017 through 2021 and percentage of recreational ACL landed each year.

Year	Landings (numbers of fish)	ACL (numbers of fish)	% ACL
2021*	NA	29,656	NA
2020	42,772	29,656	144.2
2019	49,674	29,656	167.5
2018	38,318	29,656	129.2
2017	14,270	29,656	48.1

Source: NOAA Fisheries Southeast Regional Office Annual Reports based on the Florida State Reef Fish Survey, Marine Recreational Information Program, and Southeast Regional Headboat Survey

Note: Dataset includes headboat landings. 2021 data are not yet available.

- Time series of red snapper commercial and recreational removals are shown in **Figures 2** and **3**, respectively.

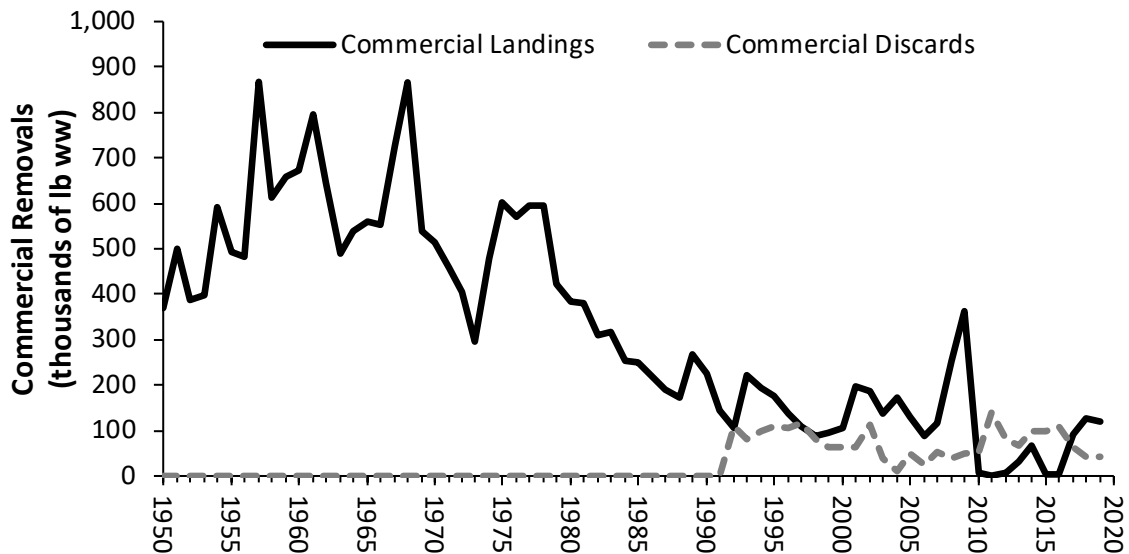


Figure 2. Red snapper commercial landings (black solid) and dead discards (gray dashed) (lbs ww) from SEDAR 73 (2021) by year from 1950 through 2019. Commercial dead discards were converted from numbers to pounds using the commercial average weight from SEDAR 73.

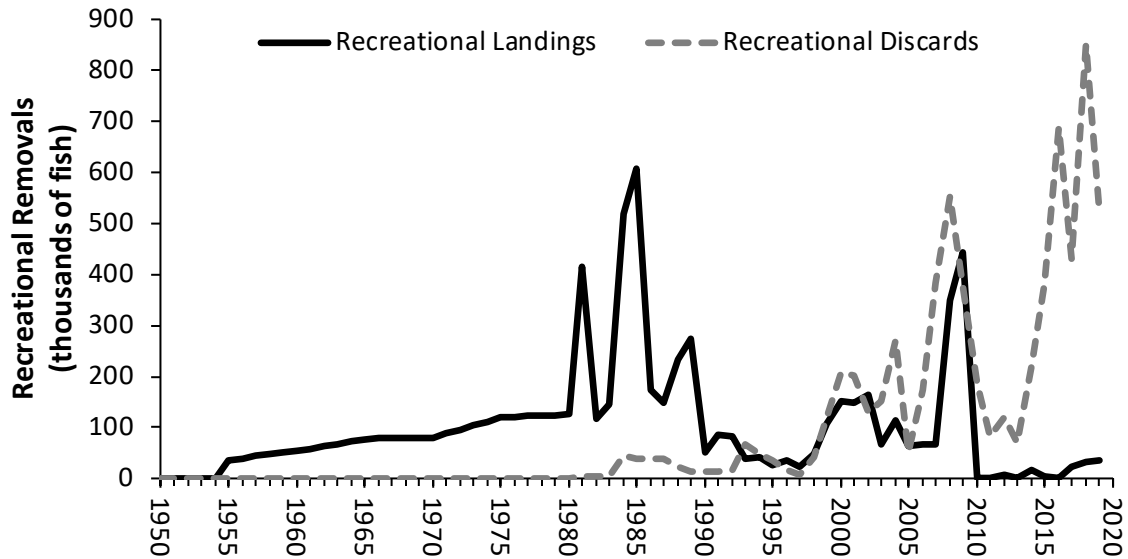


Figure 3. Red snapper recreational landings (black solid) and dead discards (gray dashed) (numbers of fish) from SEDAR 73 (2021) by year from 1950 through 2019.

Options for developing a range of alternatives:

Option 1 (No Change). The total annual catch limit for red snapper is equal to 42,510 fish, as specified by Amendment 43 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region.

Option 2. Revise the total annual catch limit and set the annual optimum yield for red snapper to equal the updated acceptable biological catch based on the results of the latest stock assessment (SEDAR 73 2021). The 2026 total annual catch limit would remain in place until modified.

Table 4. Total ACL for red snapper under Options 1 and 2.

Option	Year	Total ACL=ABC=OY (numbers of fish)	Total ACL=ABC=OY (lbs ww)
1 (No Change)	-	42,510*	-
2**	2022	25,000	284,000
2**	2023	28,000	327,000
2**	2024	31,000	368,000
2**	2025	33,000	408,000
2**	2026+	35,000***	446,000***

*This was derived using data that included Coastal Household Telephone Survey recreational catch estimates.

**Option 2 values use MRIP FES estimates where appropriate for recreational data.

***The 2026 total annual catch limit would remain in place until modified.

NOTE: Depending on the scheduled timing of amendment development, updated projections may be needed. The above estimates assume management under Option 2 to begin in 2022.

Committee Action:

Provide guidance on range of options to develop.

2. Revise sector allocations and sector annual catch limits for red snapper

- Allocations need to be reviewed since the recreational landings stream changed in the new assessment. MRIP catch estimates now conform to the new Fishing Effort Survey. Red snapper recreational catches are also estimated by the Southeast Regional Headboat Survey and the Florida State Reef Fish Survey.
- Sector allocations for red snapper were implemented through the Comprehensive ACL Amendment (SAFMC 2011). Current allocation formula (all units lbs ww): $ACL = ((\text{mean landings } 2006-2008) * 0.5) + ((\text{mean landings } 1986-2008) * 0.5)$.
- Amendment 43 implemented a total ACL of 42,510 fish. The total ACL was converted to pounds and allocated to the sectors. Applying the commercial allocation of 28.07% resulted in a commercial ACL of 124,815 pounds. To calculate the recreational ACL, the commercial ACL in pounds was converted to numbers of fish (commercial average weight from 2012-2014 estimated by SEDAR 41 [2017] was 9.71 lbs), and subtracted from the total ACL. This resulted in a recreational ACL of 29,656 fish.
- Average weights from 2017-2019 SEDAR 73 (2021) estimated landings to potentially use in conversions:
 - Total: 9.80 lbs ww
 - Commercial: 8.67 lbs ww
 - Recreational: 10.30 lbs ww
- Options for developing a range of alternatives:

Option 1 (No Change). Retain the current allocation of 28.07% to the commercial sector and 71.93% to the recreational sector. These percentages were derived by applying the allocation formula from the Comprehensive Annual Catch Limit Amendment (2011), $\text{sector annual catch limit} = ((\text{mean sector landings } 2006-2008) * 0.5) + ((\text{mean sector landings } 1986-2008) * 0.5)$, to landings in pounds whole weight as estimated at the time of the amendment. Allocate the total annual catch limit according to these percentages.

Option 2. Allocate 13.01% of the total annual catch limit to the commercial sector and 86.99% of the total annual catch limit to the recreational sector. These percentages were derived by applying the current allocation formula, $\text{sector annual catch limit} = ((\text{mean sector landings } 2006-2008) * 0.5) + ((\text{mean sector landings } 1986-2008) * 0.5)$, to observed Fishing Effort Survey-calibrated recreational landings and commercial landings used in SEDAR 73 (2021) in pounds whole weight.

Others?

Table 5. Sector allocations for red snapper based on the revised total ACLs from Action 1 (Option 2), current sector ACL calculation methodology, and average weights from 2017-2019 as estimated by SEDAR 73 (2021).

Option	Year	Recreational Allocation Percentage	Recreational ACL (numbers of fish)	Commercial Allocation Percentage	Commercial ACL (lbs ww)
1 (No Change)	2022	71.93%	15,807	28.07%	79,719
1 (No Change)	2023	71.93%	17,415	28.07%	91,789
1 (No Change)	2024	71.93%	19,088	28.07%	103,298
1 (No Change)	2025	71.93%	19,794	28.07%	114,526
1 (No Change)	2026	71.93%	20,564	28.07%	125,192
2	2022	86.99%	20,739	13.01%	36,952
2	2023	86.99%	23,094	13.01%	42,547
2	2024	86.99%	25,479	13.01%	47,881
2	2025	86.99%	26,878	13.01%	53,086
2	2026	86.99%	28,308	13.01%	58,030

Committee Action:

Provide guidance on range of options to develop.

Does the Council wish to modify this method of calculating the sector ACLs? (e.g. Allocate the total ACL according to the unit specified in Action 1, then convert sector ACLs to appropriate units for management as necessary)

Appendix 1

Current Red Snapper Management Measures

- Current commercial regulations:
 - Trip limit of 75 pounds gutted weight and no minimum size limit.
 - The commercial fishing season begins on the second Monday in July. The commercial red snapper season closes when the commercial sector ACL is met or projected to be met. The NMFS Southeast Regional Administrator has the authority to delay the opening of red snapper fishing seasons in the event of a tropical storm or hurricane affecting the Council's area of authority.
 - Gear requirements:
 - Descending device and dehooking tool required on board.
 - Non-offset, non-stainless steel circle hooks required for hook-and-line north of 28°N. Non-stainless steel hooks required for hook-and-line south of 28°N.
 - Sea turtle release gear required.
 - Species must be landed with head and fins intact.

- Current recreational regulations:
 - Bag limit of 1 fish per person per day and no minimum size limit.
 - Each year, NMFS announces the length of the recreational fishing season. The recreational fishing season (weekends) begins on the first Friday in July. The end of the recreational red snapper season is projected and announced before the start of the recreational season. The NMFS Southeast Regional Administrator has the authority to delay the opening of red snapper fishing seasons in the event of a tropical storm or hurricane affecting the Council's area of authority.
 - Gear requirements:
 - Descending device and dehooking tool required on board.
 - Non-offset, non-stainless steel circle hooks required for hook-and-line and natural baits north of 28°N. Non-stainless steel hooks required for hook-and-line and natural baits south of 28°N.
 - Sea turtle release gear required (for-hire only).
 - Species must be landed with head and fins intact.
 - Recreational bag limit sales prohibited.