

Amendment 49

Catch Level Adjustments and Allocations for Greater Amberjack and Snapper Grouper Recreational Annual Catch Targets

Snapper Grouper Advisory Panel Discussion Document

April 2022

Background

Amendment 49 to the Fishery Management Plan (FMP) for the Snapper Grouper Fishery in the South Atlantic Region (Snapper Grouper FMP) responds to the SEDAR 59 (2020) stock assessment of South Atlantic greater amberjack, which indicated that the stock is not overfished nor undergoing overfishing. The South Atlantic Fishery Management Council's (Council) Scientific and Statistical Committee (SSC) reviewed the assessment in April 2020 and recommended levels for the Overfishing Limit (OFL) and Acceptable Biological Catch (ABC). In June 2020, the Council initiated Amendment 49 to adjust catch levels based on the SSC recommendations and address sector allocations. The Council later added actions addressing management measures to increase equitability and efficiency in the fishery.

An application providing an overview of the fishery, including management history, landings, and assessment information, has been developed and can be found here: https://safmc-shinyapps.shinyapps.io/SA_FisheryDataGreaterAmberjack/.

In 2012, the Comprehensive Annual Catch Limit (ACL) Amendment established ACLs for many species managed through the Council's fishery management plans (FMP). This amendment also established recreational Annual Catch Targets (ACT), values lower than the

ACL that establish a precautionary buffer accounting for uncertainty in the recreational catch estimates. While ACTs were developed and established as part of the management process (thus, they must be changed through plan amendments as the ACL changes), these values were not used in developing regulations and were not included in codified regulatory text. Given their lack of regulatory use, in March 2021, the Council’s Snapper Grouper Committee directed staff to include an action in Amendment 49 that would consider removal of recreational ACTs throughout the Snapper Grouper FMP.

Management actions in this amendment

- Action 1.** Revise the greater amberjack total annual catch limit and annual optimum yield
- Action 2.** Revise the greater amberjack sector allocations and sector annual catch limits
- Action 3.** Increase the recreational minimum size limit for greater amberjack
- Action 4.** Reduce the commercial minimum size limit for greater amberjack
- Action 5.** Increase the seasonal commercial trip limits for greater amberjack
- Action 6.** Revise the April spawning closure for greater amberjack
- Action 7.** Remove recreational annual catch targets from the Snapper Grouper Fishery Management Plan

Amendment timing

December 2020	Review options paper and provide guidance to staff
March 2021	Review draft actions and alternatives and approve for scoping
Apr 14 & 15, 2021	Conduct scoping hearings
September 2021	Review scoping comments, review preliminary analyses, and provide guidance to staff
December 2021	Review modifications to the amendment, select preferred alternatives, and provide additional guidance
March 2022	Review modifications to the amendment, select preferred alternatives, and approve for public hearings
June 2022	Conduct public hearing, review updated analyses, and select preferred alternatives
September 2022	Review final draft amendment and consider approval for formal review
Early-Mid 2023	Regulations effective

Objective for this meeting

- Review previous comments and current actions and alternatives.
- Provide any changes to previous advice, as well as any additional comments or recommendations for preferred alternatives.

Proposed Actions

Action 1. Revise the greater amberjack acceptable biological catch, total annual catch limit, and annual optimum yield

Alternative 1 (No Action). The total annual catch limit and annual optimum yield for greater amberjack are equal to the **current** acceptable biological catch (1,968,001 pounds whole weight). The current acceptable biological catch is inclusive of recreational estimates from the Marine Recreational Information Program’s Marine Recreational Fishery Statistics Survey.

Preferred Alternative 2. Revise the acceptable biological catch and set it equal to the most recent recommendation from the Scientific and Statistical Committee. Revise the total annual catch limit and annual optimum yield for greater amberjack and set them equal to the **recommended** acceptable biological catch. The recommended acceptable biological catch is inclusive of recreational estimates from the Marine Recreational Information Program’s Fishing Effort Survey. The 2026/2027 total annual catch limit and annual optimum yield would remain in place until modified.

Fishing Year	ABC (lbs ww)	Annual OY (lbs ww)	Total ACL (lbs ww)
2022/2023	4,380,000	4,380,000	4,380,000
2023/2024	3,233,000	3,233,000	3,233,000
2024/2025	2,818,000	2,818,000	2,818,000
2025/2026	2,699,000	2,699,000	2,699,000
2026/2027+	2,669,000	2,669,000	2,669,000

Alternative 3. Revise the acceptable biological catch and set it equal to the most recent recommendation from the Scientific and Statistical Committee. Revise the total annual catch limit and annual optimum yield for greater amberjack and set them equal to 90% of the **recommended** acceptable biological catch. The recommended acceptable biological catch is inclusive of recreational estimates from the Marine Recreational Information Program’s Fishing Effort Survey. The 2026/2027 total annual catch limit and annual optimum yield would remain in place until modified.

Fishing Year	ABC (lbs ww)	Annual OY (lbs ww)	Total ACL (lbs ww)
2022/2023	4,380,000	4,380,000	3,942,000
2023/2024	3,233,000	3,233,000	2,909,700
2024/2025	2,818,000	2,818,000	2,536,200
2025/2026	2,699,000	2,699,000	2,429,100
2026/2027+	2,669,000	2,669,000	2,402,100

Alternative 4. Revise the acceptable biological catch and set it equal to the most recent recommendation from the Scientific and Statistical Committee. Revise the total annual catch limit and annual optimum yield for greater amberjack and set them equal to 80% of the **recommended** acceptable biological catch. The recommended acceptable biological catch is inclusive of recreational estimates from the Marine Recreational Information Program’s Fishing Effort Survey. The 2026/2027 total annual catch limit and annual optimum yield would remain in place until modified.

Fishing Year	ABC (lbs ww)	Annual OY (lbs ww)	Total ACL (lbs ww)
2022/2023	4,380,000	4,380,000	3,504,000
2023/2024	3,233,000	3,233,000	2,586,400
2024/2025	2,818,000	2,818,000	2,254,400
2025/2026	2,699,000	2,699,000	2,159,200
2026/2027+	2,669,000	2,669,000	2,135,200

Previous AP Comments and Recommendations (from April 2021):

- For Action 1 (Total Annual Catch Limit and Optimum Yield), rather than the Preferred Alternative that results in a large, short-term increase to the ACL, the AP recommended a more conservative approach that benefits both sectors and consideration of a consistent ACL. The AP also recommended the Council consider the potential economic implications of large, sudden changes in the ACL.
- The AP recommended an additional Action 1 alternative of a consistent 2.8 million pound total ACL.
 - An alternative derived from this recommendation was considered but removed from consideration by the Council in December 2021. The Council expressed desire to allow additional fishing opportunities for greater amberjack through the increased ACL, given the positive stock status indicated by the assessment.

AP Discussion:

- Provide any additional comments or recommendations for Action 1.

Action 2. Revise the greater amberjack sector allocations and sector annual catch limits

Note: The revised sector annual catch limits shown in Table 2.1 reflect the revised total annual catch limit in Preferred Alternative 2 of Action 1. The revised total annual catch limit includes recreational landings from the Marine Recreational Information Program using the Fishing Effort Survey method where appropriate, as well as updates to commercial and headboat landings used in SEDAR 59 (2022).

Alternative 1 (No Action). Retain the current recreational sector and commercial sector allocations as 59.34% and 40.66%, respectively, of the revised total annual catch limit for greater amberjack.

Alternative 2. Allocate 70.16% of the revised total annual catch limit for greater amberjack to the recreational sector and 29.84% of the revised total annual catch limit for greater amberjack to the commercial sector.

Preferred Alternative 3. Allocate 65.00% of the revised total annual catch limit for greater amberjack to the recreational sector and 35.00% of the revised total annual catch limit for greater amberjack to the commercial sector.

Alternative 4. Allocate 55.00% of the revised total annual catch limit for greater amberjack to the recreational sector and 45.00% of the revised total annual catch limit for greater amberjack to the commercial sector.

Alternative 5. Allocate 50.00% of the revised total annual catch limit for greater amberjack to the recreational sector and 50.00% of the revised total annual catch limit for greater amberjack to the commercial sector.

NOTE: In March 2022, Council changed preferred from Alternative 1 (no Action) to Alternative 3 and added Alternatives 4 and 5 for consideration.

Table 1. Sector allocations for greater amberjack based on the revised total ACL from Preferred Alternative 2 in Action 1 for the 2022/2023 fishing year.

Alternative	Recreational Allocation of the Total ACL	Recreational ACL (lbs ww)	Commercial Allocation of the Total ACL	Commercial ACL* (lbs gw)	Commercial Season 1 Quota (lbs gw)	Commercial Season 2 Quota** (lbs gw)
1 (No action)	59.34%	2,599,092	40.66%	1,712,412	1,027,447	684,965
2	70.16%	3,073,008	29.84%	1,256,723	754,034	502,689
3	60.00%	2,847,000	35.00%	1,474,038	884,423	589,615
4	55.00%	2,409,000	45.00%	1,895,192	1,137,115	758,077
5	50.00%	2,190,000	50.00%	2,105,769	1,263,462	842,308

*The total annual catch limit (ACL) is allocated in pounds whole weight (lbs ww) to the commercial and recreational sectors. The commercial allocation is then converted to pounds gutted weight (lbs gw) for regulatory use in the commercial ACL and seasonal quotas.

**Any remaining quota from commercial Season 1 (March-August) transfers to Season 2 (September-February). Remaining quota from Season 2 is not carried forward.

Discussion

The allocation percentages in **Preferred Alternative 1 (No Action)** were originally derived by applying the formula: sector annual catch limit = ((mean sector landings 2006-2008)*0.5) + ((mean sector landings 1986-2008)*0.5) to the landings dataset used in the Comprehensive Annual Catch Limit Amendment (Amendment 25 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region), which included recreational estimates from the Marine Recreational Fisheries Statistics Survey. Future recreational catches under **Preferred Alternative 1 (No Action)**, as well as the rest of the Action 2 alternatives, would be monitored via the MRIP FES. Table 1 summarizes the allocation percentages and resulting ACLs for the alternatives considered only for the 2022/2023 fishing year.

Table 2. Sector annual catch limits (ACL) for greater amberjack based on the revised total ACL from **Preferred Alternative 2** in Action 1 and allocation percentages from **Preferred Alternative 3** in Action 2 (65.00% recreational and 35.00% commercial).

Year	Recreational ACL (lbs ww)	Commercial ACL* (lbs gw)	Commercial Season 1 Quota (lbs gw)	Commercial Season 2 Quota** (lbs gw)
2022/2023	2,847,000	1,474,038	884,423	589,615
2023/2024	2,101,450	1,088,029	652,817	435,212
2024/2025	1,831,700	948,365	569,019	379,346
2025/2026	1,754,350	908,317	544,990	363,327
2026/2027+	1,734,850	898,221	538,933	359,288

*The total annual catch limit (ACL) is allocated in pounds whole weight (lbs ww) to the commercial and recreational sectors. The commercial allocation is then converted to pounds gutted weight (lbs gw) for regulatory use in the commercial ACL and seasonal quotas.

**Any remaining quota from commercial Season 1 (March-August) transfers to Season 2 (September-February). Remaining quota from Season 2 is not carried forward.

- A summary of analyses is included in [Appendix 3](#).

Previous AP Comments and Recommendations:

- For Action 2 (Sector Allocations), the AP recommended **Alternative 1 (No Action)** to be preferred.
- AP members also made the following comments regarding Action 2:
 - Consider the potential of increased pressure on Greater Amberjack as other fisheries become more restricted.
 - Consider economic implications of a large increase to the recreational ACL possibly resulting in an influx of new entrants into the fishery, followed by reductions to the ACL over time and limiting use of the resource to the recent entrants.
 - There is not a huge public demand for Greater Amberjack, so no need for very large increase to the commercial ACL (i.e., the supply). This could negatively impact the price, which currently is pretty good.

AP Discussion:

- Should Alternatives 4 and 5 be included for further consideration?
- Does the AP support the current preferred alternative (Preferred Alternative 3; 35% commercial and 65% recreational)?
- Provide any additional comments or recommendations for Action 2.

Action 3. Increase the recreational minimum size limit for greater amberjack

Preferred Alternative 1 (No Action). The recreational minimum size limit is 28 inches fork length.

Alternative 2. Increase the recreational minimum size limit to 30 inches fork length.

Alternative 3. Increase the recreational minimum size limit to 32 inches fork length.

Alternative 4. Increase the recreational minimum size limit to 36 inches fork length.

Discussion:

- Minimum size limits for the commercial and recreational sectors (Amendment 4, 1991):
 - Commercial: 36-inch fork length.
 - Recreational: 28-inch fork length.

Table 3. Age, fork length, and percent of mature females for South Atlantic greater amberjack. Source: SEDAR 59 (2020).

Age	Fork Length (in)	Female Maturity
1	19.6	53%
2	25.0	89%
3	29.1	99%
4	32.1	100%
5	34.4	100%

- A summary of analyses is included in [Appendix 3](#).

Previous AP Comments and Recommendations:

- For Action 3 (Recreational Minimum Size Limit), the AP recommended that the Council consider equal commercial and recreational size limit of 28 inches, 30 inches, or 32 inches.
- AP members also made the following comments regarding Action 3:
 - Some AP members want the recreational minimum size limit to remain at 28 inches.

AP Discussion:

- Provide any additional comments or recommendations for Action 3.

Action 4. Reduce the commercial minimum size limit for greater amberjack

Alternative 1 (No Action). The commercial minimum size limit is 36 inches fork length.

Alternative 2. Reduce the commercial minimum size limit to 32 inches fork length.

Alternative 3. Reduce the commercial minimum size limit to 30 inches fork length.

Alternative 4. Reduce the commercial minimum size limit to 28 inches fork length.

Discussion

- Minimum size limits for the commercial and recreational sectors (Amendment 4, 1991):
 - Commercial: 36-inch fork length.
 - Recreational: 28-inch fork length.
- The most current maturity schedule, from SEDAR 59 (2020) is shown in Table 7.
- Consideration of a reduced commercial minimum size limit was recommended during public scoping and from the Snapper Grouper Advisory Panel (AP) at their April 2021 meeting.
 - Rationale for consideration include:
 - Increased equity between the sectors.
 - Longer times needed to bring larger fish onboard. Longer boarding times reduce trip efficiency, increase risk of injury to the fish (which would be released if below the minimum size limit), and may serve as an attractant for sharks, potentially leading to depredation.
 - Increased risk of injury to fishermen and fish when trying to bring larger greater amberjack onboard. Injuries to the fish can impact release survival.
 - Smaller greater amberjack are more commercially desirable.
 - The stock assessment indicates that the greater amberjack biomass is above the biomass that would achieve maximum sustainable yield. Thus, the population could possibly sustain harvest of smaller fish.
- A summary of analyses is included in [Appendix 3](#).

Previous AP Comments and Recommendations:

- For Action 4 (Commercial Minimum Size Limit), the AP recommended that the Council consider decreasing the minimum size limit to 34 inches, 32 inches, or 30 inches. The AP also recommended that the Council consider equal commercial and recreational size limit of 28 inches, 30 inches, or 32 inches.
- AP members also made the following comments regarding Action 4:
 - A fish near 36 inches is quite large and means fish near this limit are more likely to need to be gaffed to be measured. This could impact survivorship of the fish after release.

- Smaller Greater Amberjack are preferred due to fewer potential for worms, less potential for ciguatera toxin, easier/quicker to board for increased trip efficiency and to reduce damage to fish that are potentially discarded due to the size limit.
- Increasing harvest of preferred, smaller fish may be biologically beneficial, as larger fish won't be harvested as often and will be left to spawn in the future.
- Florida's state commercial minimum size limit is 36 inches, which was part of the reasoning for setting the federal minimum size limit at that length, as opposed to other options considered.

AP Discussion:

- Does the AP have a recommended preferred alternative for Action 4? If selected, what are the potential benefits and risks of implementing this alternative?
- Provide any additional comments or recommendations for Action 4.

Action 5. Increase the seasonal commercial trip limits for greater amberjack

Alternative 1 (No Action). The March 1 through August 31 (Season 1) commercial trip limit is 1,200 pounds gutted or whole weight for greater amberjack, and the September 1 through the end of February (Season 2) commercial trip limit is 1,000 pounds gutted or whole weight.

Alternative 2. Increase the March 1 through August 31 (Season 1) commercial trip limit for greater amberjack to:

Sub-Alternative 2a. 1,500 pounds gutted or whole weight.

Sub-Alternative 2b. 2,000 pounds gutted or whole weight.

Sub-Alternative 2c. 2,500 pounds gutted or whole weight.

Alternative 3. Increase the September 1 through the end of February (Season 2) commercial trip limit for greater amberjack to:

Sub-Alternative 3a. 1,200 pounds gutted or whole weight.

Sub-Alternative 3b. 1,500 pounds gutted or whole weight.

Sub-Alternative 3c. 2,000 pounds gutted or whole weight.

Sub-Alternative 3d. 2,500 pounds gutted or whole weight.

Discussion

- If the trip limit is being changed for both seasons, one Sub-Alternative would be selected as preferred under Alternative 2 and one Sub-Alternative would be selected as preferred under Alternative 3.
- The commercial ACL is allocated into two quotas: 60% to the period March 1 through August 31 (Season 1) and 40% to the period September 1 through the end of February (Season 2) (Regulatory Amendment 27 2019). Any remaining quota from Season 1 transfers to Season 2. Any remaining quota from Season 2 is not carried forward.
 - The Season 1 commercial trip limit is 1,200 pounds, and the Season 2 commercial trip limit is 1,000 pounds.
- During April each year, no person may sell or purchase a greater amberjack harvested from the South Atlantic exclusive economic zone and the harvest and possession limit is one per person per day or one per person per trip, whichever is more restrictive.
- Prior to Regulatory Amendment 27, the commercial trip limit was 1,200 pounds year-round. Rationale for changing the trip limit (along with implementation of the commercial split season):
 - [The approved split season and seasonal trip limits] “would strike a balance between improved access to the greater amberjack resource for fishermen

throughout the region and economic profitability. Fishermen in Florida target greater amberjack early in the fishing year, when they can also fish for other jacks species; whereas, in the fall, greater amberjack schools are found off North Carolina. Hence, allocating a smaller portion of the ACL at a higher trip limit early in the year and a larger portion of the ACL at a lower trip limit during the latter part of the year ensures access and profitability to fishermen throughout the region and allows for the entire ACL to be harvested.”

- A summary of analyses is included in [Appendix 3](#).

Previous AP Comments and Recommendations:

- For Action 5 (Commercial Trip Limit), the AP recommended that the Council consider increasing the season 2 (September-February) trip limit to 1,200 pounds (same as season 1/March-August).

AP Discussion:

- Noting other changes considered in this amendment (e.g. changes to the total and sector ACLs, minimum size limits, and April spawning closure), does the AP have a recommended preferred alternative for Action 5? If selected, what are the potential benefits and risks of implementing this alternative?
- Provide any additional comments or recommendations for Action 5.

Action 6. Revise the April spawning closure for greater amberjack

Alternative 1 (No Action). During April each year, no person may sell or purchase a greater amberjack harvested from the South Atlantic exclusive economic zone and the harvest and possession limit is one per person per day or one per person per trip, whichever is more restrictive.

Alternative 2. Specify during April each year, no person may sell, purchase, harvest, or possess a greater amberjack from the South Atlantic exclusive economic zone and the harvest and possession limits are zero. This closure would apply to both the recreational and commercial sectors.

Alternative 3. Remove the April spawning closure for greater amberjack. Allow purchase, harvest, and possession of greater amberjack from the South Atlantic exclusive economic zone according to regulations specified for the rest of the year.

Discussion

- During April, each year, possession of greater amberjack on commercial or for-hire (charter and headboat) vessels is limited to one per person per day or one per person per trip, whichever is more restrictive. This limit is the same as the recreational bag limit; however, commercial and recreational vessels are still subject to their respective sector-specific minimum size limit (36 inches fork length for commercial; 28 inches fork length for recreational).
- Also during April, commercial sale or purchase of greater amberjack from the South Atlantic region is prohibited.
- The spawning closure was implemented through Amendment 9 as an expansion of the original closure established south of Cape Canaveral, FL, through Amendment 4. Council rationale for the expansion of the original closure included concern about the status of greater amberjack and uncertainty about the 1996 NMFS stock assessment.
- **Alternative 2** would expand the April spawning closure, such that all harvest and possession of greater amberjack (including both recreational and commercial sectors) would be prohibited in April.
- **Alternative 3** would remove the April spawning closure, such that all harvest and possession of greater amberjack (including both recreational and commercial sectors) would be allowed in April according to regulations specified for the rest of the year.
- Spawning occurs from January through June, with peak spawning in April and May. Spawning for greater amberjack primarily occurs off southeast Florida and the Florida Keys. (Harris et al. 2007; SEDAR 2008)
- Although SEDAR 59 (2020) updated the age at maturity for greater amberjack, new data did not indicate a different spawning seasonality than that estimated in SEDAR 15 (2008).
- A summary of analyses is included in [Appendix 3](#).

Previous AP Comments and Recommendations:

- For Action 6 (April Spawning Closure), the AP recommended that the Council consider including the recreational sector in the April closure of Greater Amberjack, allowing sale of commercially-landed fish during April , or full closure for both sectors (This recommendation was not unanimous).
 - Rationale for consideration included:
 - Increased equity between the sectors.
 - Additional biological/reproductive benefit to the stock from reduced harvest during spawning.

AP Discussion:

- Noting other changes considered in this amendment (e.g. changes to the total and sector ACLs, size limits, and commercial trip limits), does the AP have a recommended preferred alternative for Action 6? If selected, what are the potential benefits and risks of implementing this alternative?
- Provide any additional comments or recommendations for Action 6.

Action 7. Remove recreational annual catch targets from the Snapper Grouper Fishery Management Plan

Alternative 1 (No Action). Retain recreational annual catch targets for species managed under the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region.

Preferred Alternative 2. Remove recreational annual catch targets for species managed under the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region.

Discussion

- Recreational annual catch targets (ACT) for the Snapper Grouper FMP, established through the Comprehensive ACL Amendment, have been in place since 2012, are not codified, and are not used for management purposes. **Preferred Alternative 2** would remove the need for ACTs to be evaluated and changed when changes are made to the recreational ACL.
- Some recreational ACTs are applied to individual species, while others are applied to species complexes. **Preferred Alternative 2** would remove ACTs from both individual species and complexes.

Previous AP Comments and Recommendations:

- For Action 7 (Recreational ACTs), the AP recommended that the Council select Alternative 2 (remove recreational ACTs) as preferred.

AP Discussion:

- Provide any additional comments or recommendations for Action 7.

Appendix 1. Recommended Acceptable Biological Catch and Overfishing Limit for Greater Amberjack

The SSC reviewed SEDAR 59 (2020) during their April 2020 meeting and found that the assessment addressed the terms of reference appropriately, was conducted using the best scientific information available, is adequate for determining stock status and supporting fishing level recommendations, and the methods to address uncertainty were consistent with expectations and available information. The SSC recommended revising the OFL based on projections under a fishing mortality rate that would produce maximum sustainable yield ($F = F_{MSY}$) and applied the ABC control rule to recommend the ABC for greater amberjack. These recommendations were updated to account for additional projections from the Southeast Fisheries Science Center (SEFSC) that applied management from 2022 through 2026 (Table 1.5.1). Discards were projected as separate values from the landings shown in Table 1.5.1.

When developing options for ACLs, years for annual ABCs were considered to apply to the start of the non-calendar fishing year used for greater amberjack (March-February). For example, the 2022 ABC from Table 1.5.1 would be used to define the ACL for the March 2022-February 2023 fishing year.

Table A1.1. South Atlantic greater amberjack OFL and ABC recommendations, in pounds whole weight (lbs ww), based on projections from SEDAR 59 (2020). The assessment and these projections use recreational data calibrated to the MRIP FES.

Year	OFL (lbs ww)	ABC (lbs ww)
2022	4,615,000	4,380,000
2023	3,283,000	3,233,000
2024	2,839,000	2,818,000
2025	2,719,000	2,699,000
2026	2,691,000	2,669,000

Appendix 2. Sector Allocation Alternatives

Table A2.1. Sector annual catch limits (ACL) for greater amberjack based on the revised total ACL from **Preferred Alternative 2** in Action 1 and allocation percentages from **Alternative 1 (No Action)** in Action 2 (59.34% recreational and 40.66% commercial).

Year	Recreational ACL (lbs ww)	Commercial ACL* (lbs gw)	Commercial Season 1 Quota (lbs gw)	Commercial Season 2 Quota** (lbs gw)
2022/2023	2,599,092	1,712,412	1,027,447	684,965
2023/2024	1,918,462	1,263,979	758,387	505,591
2024/2025	1,672,201	1,101,730	661,038	440,692
2025/2026	1,601,587	1,055,205	633,123	422,082
2026/2027+	1,583,785	1,043,476	626,086	417,391

*The total annual catch limit (ACL) is allocated in pounds whole weight (lbs ww) to the commercial and recreational sectors. The commercial allocation is then converted to pounds gutted weight (lbs gw) for regulatory use in the commercial ACL and seasonal quotas.

**Any remaining quota from commercial Season 1 (March-August) transfers to Season 2 (September-February). Remaining quota from Season 2 is not carried forward.

Table A2.2. Sector annual catch limits (ACL) for greater amberjack based on the revised total ACL from **Preferred Alternative 2** in Action 1 and allocation percentages from **Alternative 2** in Action 2 (70.16% recreational and 29.84% commercial).

Year	Recreational ACL (lbs ww)	Commercial ACL* (lbs gw)	Commercial Season 1 Quota (lbs gw)	Commercial Season 2 Quota** (lbs gw)
2022/2023	3,073,008	1,256,723	754,034	502,689
2023/2024	2,268,273	927,622	556,573	371,049
2024/2025	1,977,109	808,549	485,130	323,420
2025/2026	1,893,618	774,405	464,643	309,762
2026/2027+	1,872,570	765,798	459,479	306,319

*The total annual catch limit (ACL) is allocated in pounds whole weight (lbs ww) to the commercial and recreational sectors. The commercial allocation is then converted to pounds gutted weight (lbs gw) for regulatory use in the commercial ACL and seasonal quotas.

**Any remaining quota from commercial Season 1 (March-August) transfers to Season 2 (September-February). Remaining quota from Season 2 is not carried forward.

Table A2.3. Sector annual catch limits (ACL) for greater amberjack based on the revised total ACL from **Preferred Alternative 2** in Action 1 and allocation percentages from **Preferred Alternative 3** in Action 2 (65.00% recreational and 35.00% commercial).

Year	Recreational ACL (lbs ww)	Commercial ACL* (lbs gw)	Commercial Season 1 Quota (lbs gw)	Commercial Season 2 Quota** (lbs gw)
2022/2023	2,847,000	1,474,038	884,423	589,615
2023/2024	2,101,450	1,088,029	652,817	435,212
2024/2025	1,831,700	948,365	569,019	379,346
2025/2026	1,754,350	908,317	544,990	363,327
2026/2027+	1,734,850	898,221	538,933	359,288

*The total annual catch limit (ACL) is allocated in pounds whole weight (lbs ww) to the commercial and recreational sectors. The commercial allocation is then converted to pounds gutted weight (lbs gw) for regulatory use in the commercial ACL and seasonal quotas.

**Any remaining quota from commercial Season 1 (March-August) transfers to Season 2 (September-February). Remaining quota from Season 2 is not carried forward.

Table A2.4. Sector annual catch limits (ACL) for greater amberjack based on the revised total ACL from **Preferred Alternative 2** in Action 1 and allocation percentages from **Alternative 4** in Action 2 (55.00% recreational and 45.00% commercial).

Year	Recreational ACL (lbs ww)	Commercial ACL* (lbs gw)	Commercial Season 1 Quota (lbs gw)	Commercial Season 2 Quota** (lbs gw)
2022/2023	2,409,000	1,895,192	1,137,115	758,077
2023/2024	1,778,150	1,398,894	839,337	559,558
2024/2025	1,549,900	1,219,327	731,596	487,731
2025/2026	1,484,450	1,167,837	700,702	467,135
2026/2027+	1,467,950	1,154,856	692,913	461,942

*The total annual catch limit (ACL) is allocated in pounds whole weight (lbs ww) to the commercial and recreational sectors. The commercial allocation is then converted to pounds gutted weight (lbs gw) for regulatory use in the commercial ACL and seasonal quotas.

**Any remaining quota from commercial Season 1 (March-August) transfers to Season 2 (September-February). Remaining quota from Season 2 is not carried forward.

Table A2.5. Sector annual catch limits (ACL) for greater amberjack based on the revised total ACL from **Preferred Alternative 2** in Action 1 and allocation percentages from **Alternative 5** in Action 2 (50.00% recreational and 50.00% commercial).

Year	Recreational ACL (lbs ww)	Commercial ACL* (lbs gw)	Commercial Season 1 Quota (lbs gw)	Commercial Season 2 Quota** (lbs gw)
2022/2023	2,190,000	2,105,769	1,263,462	842,308
2023/2024	1,616,500	1,554,327	932,596	621,731
2024/2025	1,409,000	1,354,808	812,885	541,923
2025/2026	1,349,500	1,297,596	778,558	519,038
2026/2027+	1,334,500	1,283,173	769,904	513,269

*The total annual catch limit (ACL) is allocated in pounds whole weight (lbs ww) to the commercial and recreational sectors. The commercial allocation is then converted to pounds gutted weight (lbs gw) for regulatory use in the commercial ACL and seasonal quotas.

**Any remaining quota from commercial Season 1 (March-August) transfers to Season 2 (September-February). Remaining quota from Season 2 is not carried forward.

Appendix 3. Summary of Analyses

Analytical Methods

All recreational season projections (for all actions where applicable) assumed a total ACL from Action 1-Preferred Alternative 2 (highest total ACL considered) and were generated from three different landings scenarios:

- 1) three-year average of the most recent years of complete data (2018/2019 - 2020/2021)
- 2) five-year average of the most recent years of complete data (2016/2017 - 2020/2021)
- 3) the maximum landings in the last five years of complete data.

All commercial season 1 (March-August) projections (for all actions where applicable) assumed a total ACL from Action 1-Preferred Alternative 2 (highest total ACL considered) and were generated from three different landings scenarios:

- 1) three-year average of the most recent years of complete data (2017/2018 - 2019/2020),
- 2) five-year average of the most recent years of complete data (2015/2016 - 2019/2020),
- 3) the maximum landings in the last five years of complete data.

All commercial season 2 (September-February) projections (for all actions where applicable) assumed a total ACL from Action 1-Preferred Alternative 2 (highest total ACL considered) and were generated from two different landings scenarios:

- 1) three-year average of the most recent years of complete data (2014/2015, 2018/2019, and 2019/2020).
- 2) the maximum landings in the last five years.

Any additional assumptions or conditions are listed with the results of each projection. At the time analyses were conducted, recreational data for the 2020/2021 fishing year were available, but commercial data for 2020/2021 were not. Including historical years prior to 2015/2016 to have at least 3 years of data in each wave was not preferable because the fishing year was changed in 2015/2016 from May-April to March-February. With inclusion of the 2020/2021 fishing year, recreational analyses were able to be conducted with at least 3 years of data in each wave, while also accounting for lack of data in some waves due to recreational closures in 2016/2017 and 2017/2018. However, closures that occurred for the commercial sector in 2015/2016, 2016/2017, and 2017/2018 necessitated use of the 2014/2015 fishing year for the commercial sector. Because of the change in fishing year and lack of data in later months due to commercial closures, commercial season 2 analyses did not include a 5-year average scenario.

Action 2. Revise the greater amberjack sector allocations and sector annual catch limits

ALTERNATIVES 4 AND 5 UNDER ACTION 2 WERE ADDED TO THIS AMENDMENT IN MARCH 2022, AND SEASON PROJECTION ANALYSES FOR THESE PROJECTIONS HAS NOT YET BEEN COMPLETED. THESE ANALYSES WILL BE COMPLETED PRIOR TO THE JUNE 2022 COUNCIL MEETING AND PUBLIC HEARING FOR AMENDMENT 49.

Table A3.1. Projected closure dates for the greater amberjack recreational sector under each of the allocation strategies considered in Action 2. Scenario 1 (three-year average) did not estimate any closures for any future years or allocation alternatives.

Action 2 Alternative	Year	Recreational ACL	Scenario 2 (5-year average) Closure Date	Scenario 3 (5-year maximum) Closure Date
1	2022/2023	2,599,092	None	17-Sep
1	2024/2025	1,672,201	None	12-Jul
1	2026/2027	1,583,785	6-Feb	7-Jul
2	2022/2023	3,073,008	None	None
2	2024/2025	1,977,109	None	29-Jul
2	2026/2027	1,872,570	None	23-Jul
3 (Preferred)	2022/2023	2,847,000	None	19-Jan
3 (Preferred)	2024/2025	1,831,700	None	21-Jul
3 (Preferred)	2026/2027	1,734,850	None	15-Jul
Recreational percentage allocations under Alternatives 4 (55%) and 5 (50%) are less than those of Alternative 1 (59.34%). Therefore, recreational season closures under Alternatives 4 and 5 are expected to be earlier than those projected for Alternative 1.				

Commercial season 1 (March-August) projections were generated for each of the allocation strategies considered in Action 2. **Scenario 1 (three-year average) and Scenario 2 (five-year average) did not estimate any season 1 closures for any future years. Scenario 3 (five-year maximum) estimated closures ranging from August 3 (2026/2027) to no closure.**

Commercial percentage allocations under Alternatives 4 (45%) and 5 (50%) are greater than those of Alternative 1 (40.66%). Therefore, commercial season closures (for both seasons 1 and 2) under Alternatives 4 and 5 are expected to be later than those projected for Alternative 1.

Commercial season 2 (September-February) projections were generated for each of the allocation strategies considered in Action 2. **Scenario 1 (three-year average) and Scenario 2 (five-year maximum) did not estimate any season 2 closures for any future years.**

[Action 2](#)

Action 3. Increase the recreational minimum size limit for greater amberjack

Table A3.2. Calculated percent reductions of South Atlantic recreational greater amberjack landings for each of the Amendment 49 Action 3 alternatives. These estimates include both MRIP and headboat landings estimates, with weighting according to percent contribution of each data set to landings from 2015 to 2020.

Action 3 Alternative	Size Limit (Inches FL)	Weighted Percent Reduction (%)
1 (Preferred)	28	0.0
2	30	7.6
3	32	14.7
4	36	35.1

Recreational season projections were generated, assuming combined effects of Alternatives 1-3 from Action 2 (sector allocations) and each increased recreational minimum size limit from Action 3. **Scenario 1 (three-year average) and Scenario 2 (five-year average) did not estimate any recreational closures for any future years under any Action 3 alternatives. Scenario 3 (five-year maximum) estimated closures delayed from those shown in Table A2.1 and ranging from July 20 to no closure.** Recreational percentage allocations under Alternatives 4 (55%) and 5 (50%) are less than those of Alternative 1 (59.34%). Therefore, recreational season closures under Alternatives 4 and 5 are expected to be earlier than those projected for Alternative 1.

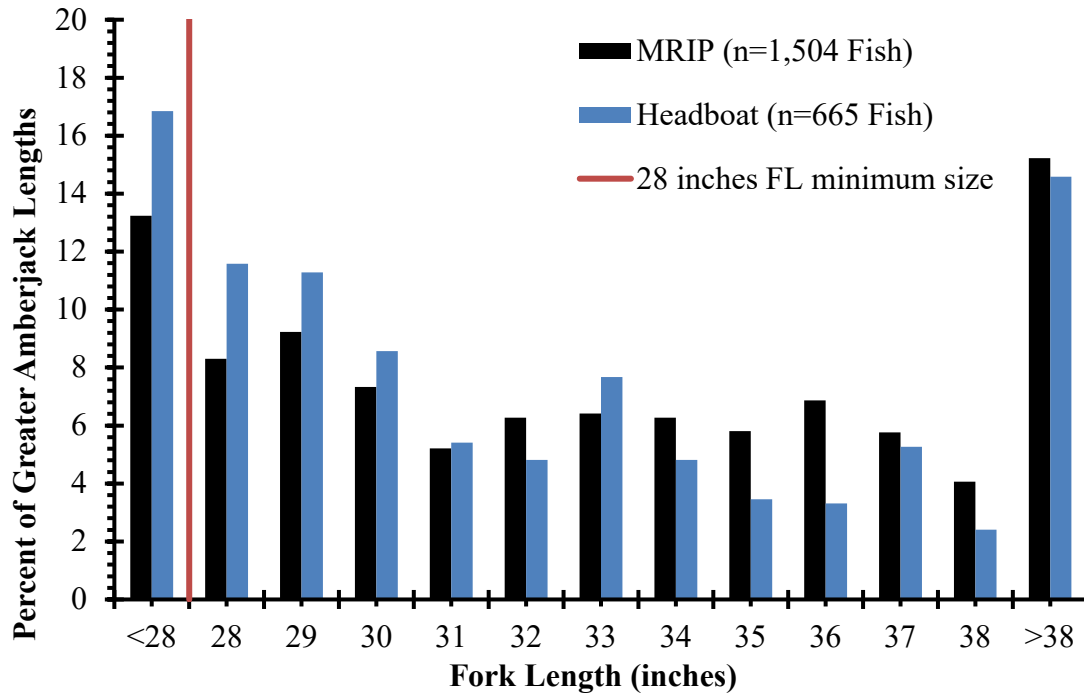


Figure A3.1. Length distribution of greater amberjack landed recreationally from 2015 through 2020 in the private-charter component (black bars) and the headboat component (blue bars). The orange line represents the current recreational minimum size limit of 28 inches FL. Source: MRIP and Southeast Region Headboat Survey.

[Action 3](#)

Action 4. Reduce the commercial minimum size limit for greater amberjack

Information on commercial catch of greater amberjack less than the current legal minimum size limit (36 inches fork length) is limited to commercial observer data, shown in Figure 2. Due to this limited information, seasonal closures were not able to be projected with consideration of Action 4 alternatives.

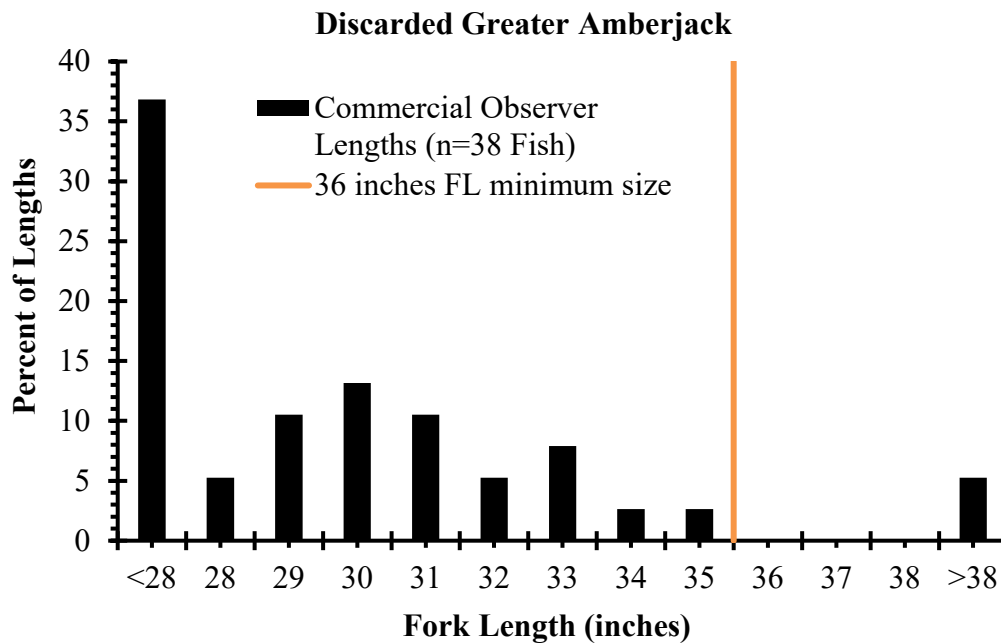


Figure A3.2. Length distribution (fork length) of greater amberjack landed from released fish in the commercial sector from 2018 through 2020 in 1-inch length increments. The orange line represents the current commercial minimum size limit of 36 inches fork length. Source: Commercial observer program (started in the South Atlantic region in 2018).

[Action 4](#)

Action 5. Increase the seasonal commercial trip limits for greater amberjack

NOTE: THE PROJECTIONS LISTED BELOW ASSUMED COMMERCIAL ACLS FROM ACTION 2-ALTERNATIVE 1 (COMMERCIAL ACL=40.66% OF THE TOTAL ACL), WHICH IS NO LONGER THE PREFERRED ALTERNATIVE. ACTION 2-PREFERRED ALTERNATIVE 3 ALLOCATES A SMALLER PERCENTAGE (35%) OF THE TOTAL ACL TO THE COMMERCIAL SECTOR, THUS PROJECTED SEASON CLOSURES UNDER THE CURRENT PREFERRED COMMERCIAL ACL ARE EXPECTED TO BE EARLIER THAN THOSE LISTED IN THIS SECTION.

Commercial season 1 (March-August) projections were generated, assuming commercial ACLs from Action 2- Alternative 1 (current sector allocation percentages) and each of the commercial season 1 trip limits from Action 5.

- **Scenario 1 (three-year average) and Scenario 2 (five-year average) did not estimate season 1 closures under any of the trip limit alternatives for any future years.**
- **Scenario 3 (five-year maximum) estimated closures for each of the trip limit alternatives, with no closures in any of the 2022/2023 fishing year projections but closures in all the 2026/2027+ projections ranging from July 3 (Action 5-Sub-Alternative 2c) to August 3 (Action 5-Sub-Alternative 2a).**

Commercial season 2 (September-February) projections were generated, assuming a commercial ACL from Action 2-Alternative 1 (current sector allocation percentages) and each of the commercial season 2 trip limits from Action 5:

- **Scenario 1 (three-year average) did not estimate season 2 closures under any of the trip limit alternatives for any future years.**
- **Scenario 2 (five-year maximum) estimated no closures for any of the 2022/2023 fishing year projections, no closures for the the 2026/2027+ projections of Sub-Alternatives 3a and 3b, and closures for 2026/2027+ projections of Sub-Alternative 3c (February 28) and 3d (February 8).**

[Action 5](#)

Action 6. Revise the April spawning closure for greater amberjack

Recreational season projections were generated, assuming recreational ACLs from Alternatives 1-3 in Action 2 (sector allocations), each of the recreational minimum size alternatives from Action 3, and closure of the recreational sector in April (Action 6-Alternative 2). **Scenario 1 (three-year average) and Scenario 2 (five-year average) did not estimate any seasonal recreational closures for any future years with an April recreational closure (Action 6-Alternative 2). Scenario 3 (five-year maximum) estimated closures delayed from those shown in Table A3.1 and ranging from July 13 to no closure.**

NOTE: THE PROJECTIONS LISTED BELOW ASSUMED COMMERCIAL ACLS FROM ACTION 2-ALTERNATIVE 1 (COMMERCIAL ACL=40.66% OF THE TOTAL ACL), WHICH IS NO LONGER THE PREFERRED ALTERNATIVE. ACTION 2-PREFERRED ALTERNATIVE 3 ALLOCATES A SMALLER PERCENTAGE (35%) OF THE TOTAL ACL TO THE COMMERCIAL SECTOR, THUS PROJECTED SEASON CLOSURES UNDER THE CURRENT PREFERRED COMMERCIAL ACL ARE EXPECTED TO BE EARLIER THAN THOSE LISTED IN THIS SECTION.

Commercial season 1 (March-August) projections were generated, assuming commercial ACLs Action 2-Alternative 1 (current sector allocation percentages), each of the commercial season 1 trip limits from Action 5, and April being open to commercial harvest (Action 6-Alternative 3). **Scenario 1 (three-year average) and Scenario 2 (five-year average) did not estimate any season 1 closures for any future years. Scenario 3 (five-year maximum) estimated no closures in the 2022/2023 fishing year projections of the current season 1 trip limit or Action 5 (commercial trip limit)-Sub-Alternatives 2a and 2b. Scenario 3 projections estimated closures for 2022/2023 under Action 5-Sub-Alternative 2c (August) and closures for the 2026/2027+ fishing year under each of the Action 5 season 1 trip limit alternatives, ranging from May 23 (Action 5-Sub-Alternative 2c) to June 3 (current season 1 trip limit).**

[Action 6](#)