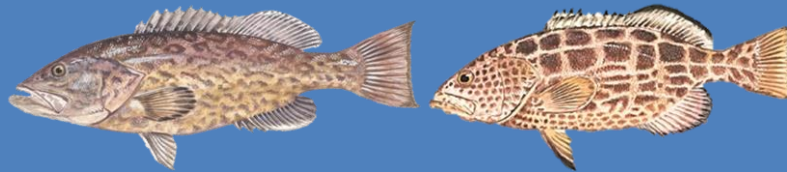


Amendment 53 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

Catch Level Adjustments, Rebuilding
Schedule, and Allocations for Gag and
Management Measures for Black Grouper



AP Discussion Document

October 2022

Background

Gag

The most recent stock assessment for gag, SEDAR71, was completed in 2021. The terminal year of the assessment is 2019. This assessment used revised estimates for recreational catch from the Marine Recreational Information Program (MRIP) based on the Fishing Effort Survey (FES). The results of this assessment indicated that the stock is overfished and experiencing overfishing (**Figure 1**). The Council's Scientific and Statistical Committee (SSC) reviewed SEDAR 71 at their April 2021 meeting and

determined that the assessment is based on the best scientific information available (BSIA). SEDAR Assessment:

http://sedarweb.org/docs/sar/SEDAR_71_SAR_4.19.21_final_withaddendum.pdf/

Gag management measures have been modified through past amendments to end overfishing and better achieve ACLs. These modifications have included changes to the bag limit, minimum size limit, and season length (**Appendix A**).

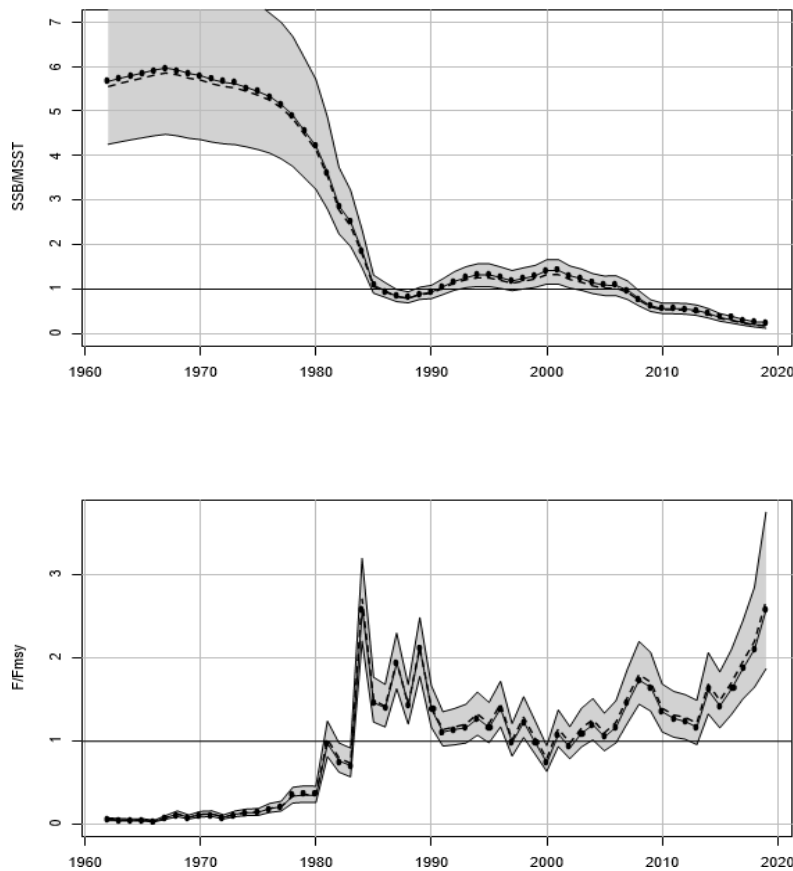


Figure 1. Estimated time series of spawning stock biomass (SSB) and fishing mortality (F) relative to benchmarks. Solid line indicates estimates from base run of the Beaufort Assessment Model; gray error bands indicate 5th and 95th percentiles of the ensemble modeling. Top panel: SSB relative to the minimum stock size threshold (MSST); if less than 1, stock is overfished. Bottom panel: F relative to F_{MSY} ; if > 1 stock is undergoing overfishing. *Source: SEDAR 71 (2021).*

The Council reviewed the results of the assessment and the SSC’s recommendations for the overfishing limit (OFL) at their June 2021 meeting and initiated a plan amendment to adjust catch levels to end overfishing and rebuild the stock.

The National Marine Fisheries Service (NMFS) notified the Council on July 23, 2021, that management action is necessary for gag as the stock is undergoing overfishing and remains overfished. Once the Council is notified that a stock is undergoing overfishing and is overfished, the Magnuson-Stevens Fishery Conservation and Management Act requires the Council and NMFS to end overfishing immediately and implement a rebuilding plan within two years.

Under National Standard 1 guidelines, if a stock can be rebuilt in 10 years or less, then the rebuilding plan may not exceed 10 years. Assessment projections indicated the gag stock can rebuild in 7 years in the absence of fishing mortality, therefore, the rebuilding plan for gag may not exceed 10 years.

During their April 2022 meeting, the Snapper Grouper Advisory Panel (AP) reviewed a discussion document updated after the March 2022 Council meeting, which included some preferred alternatives. AP comments are provided in the [AP Report](#).

Fishery Overview: https://safmc-shinyapps.shinyapps.io/SA_FisheryDataGag/

Black Grouper

The Southeastern stock of black grouper was scheduled to be assessed through SEDAR 48 (2017) however due to concerns regarding uncertainty in the commercial landings history and the uncertainty around recreational estimates, the assessment process was stopped.

Black grouper is part of the shallow water grouper complex, which has an annual spawning season closure from January 1 through April 30. There is currently a 3-fish aggregate recreational bag limit which states that no more than one fish may be gag or black grouper combined.

In February 2022 the LE AP noted concerns over identification issues between gag and black grouper.

Table 1. A summary of the stock status and milestone history for South Atlantic gag.

Background Overview		
SEDAR History	Stock Status	
Assessment	Overfished	Overfishing
SEDAR 10 (2006)		X
SEDAR 10 Update (2014)		X
SEDAR 71 (2021)	X	X
Pre-Amendment Action Schedule		
Assessment results reviewed	21-Jun	

Direction to start amendment	21-Jun
Rebuilding timeframe (T_{max}) provided	21-Sep
NFMS letter received	July 23rd 2021

Proposed management changes in this amendment

- Establish a rebuilding plan for gag
- Adjust catch levels (acceptable biological catch and annual catch limit) and revise annual optimum yield for gag
- Revise sector allocations for gag
- Consider other changes to commercial management measures
- Consider other changes to recreational management for gag and black grouper

Amendment timing

June 2021	Reviewed SEDAR 71 results and direct staff to begin a plan amendment
September 2021	Review options paper and provide guidance to staff
October 2021	Obtain input from AP
December 2021	Review AP comments, review preliminary analyses, and approve for scoping
March 2022	Review scoping comments and make needed modifications
April 2022	Obtain input from AP
June 2022	Preliminary analysis, and provide guidance to staff
September 2022	Review draft amendment, select preferred alternatives, and approve for public hearings
Fall 2022	AP Review
December 2022	Review public hearing comments, select preferred alternatives, and approve all actions
January 2023	Conduct in-person public hearings
March 2023	Review final amendment and approval for final review

Council action at previous meeting

- **Purpose and Need:** Approved the Purpose and Need with the removal of the OFL and addition of black grouper.
- **Action 4b (Commercial Spawning Season Closure):** Retained the preferred alternative but provided direction to staff to gather specific information from the AP and public regarding extending the spawning season through May or to consider regionally specific spawning season modifications.
- **Action 5a (Recreational Vessel Limit):**
 - Removed the 6 fish vessel limit alternative (Alternative 4).
 - Removed the vessel limit increase alternatives (Alternatives 5-7).
 - Directed staff to revise the action to include vessel limits per-day for the private recreational component, and per-trip for the for-hire recreational component.
 - Directed staff to include an Alternative to prohibit captain and crew from retaining the recreational bag limit.
- **Action 5b (Recreational Spawning Season Closure):** Retained the preferred alternative but provided direction to staff to gather specific information from the AP and public regarding extending the spawning season through May or to consider regionally specific spawning season modifications.
- Made a motion to include actions to that modify recreational management measures for black grouper due to identification issues between gag and black grouper.

Purpose and Need Statements

Purpose: The *purpose* of this fishery management plan amendment is to establish a rebuilding plan for South Atlantic gag, set an acceptable biological catch and revise the annual catch limits, and sector allocations based on the results of the most recent South Atlantic gag stock assessment, and make modifications to management measures and accountability measures for South Atlantic gag and black grouper and accountability measures for South Atlantic gag.

Need: The *need* for this fishery management plan amendment is to end overfishing of South Atlantic gag, rebuild the stock, and achieve optimum yield while minimizing, to the extent practicable, adverse social and economic effects.

PURPOSE AND NEED APPROVED IN SEPTEMBER 2022

Proposed Actions

Action 1. Establish a rebuilding plan for gag

Purpose of Action

A rebuilding plan must be established to end overfishing and rebuild the stock of gag in the South Atlantic as a result of the overfished determination from the SEDAR 71 (2021) stock assessment.

Alternative 1 (No Action). The South Atlantic stock of gag is currently not under a rebuilding plan.

Alternative 2. Establish a rebuilding plan with a rebuilding timeframe to equal the shortest possible time to rebuild in the absence of fishing mortality (T_{min}). This would equal 7 years with the rebuilding period ending in 2029. 2023 would be Year 1.

Preferred Alternative 3. Establish a rebuilding plan with a rebuilding timeframe to equal T_{max} . This would equal 10 years with the rebuilding period ending in 2032. 2023 would be Year 1.

Table 2. ACL, OY, and ABC alternatives of Action 1.

Alternative	Rebuilding Timeframe	Terminal Year
Alternative 1 (no change)	0 years	NA
Alternative 2	T_{min} , 7 Years	2029
Preferred Alternative 3	T_{max}, 10 Years	2032

○

AP Action:

- REVIEW RANGE OF ALTERNATIVES AND COUNCIL PREFERRED.

Action 2. Revise the acceptable biological catch, total annual catch limit, and annual optimum yield for gag

Purpose of Action

The gag total annual catch limit (ACL) is being revised to incorporate the new acceptable biological catch (ABC) recommendations of the SSC, based on the SEDAR 71 (2021) stock assessment, as well as the updated recreational landings from the Marine Recreational Information Program's (MRIP) Fishing Effort Survey (FES).

Alternative 1 (No Action). The total annual catch limit and annual optimum yield for gag are equal to 95% of the **current** acceptable biological catch (734,350 pounds gutted weight).

Preferred Alternative 2. Revise the acceptable biological catch for gag and set them equal to the most recent recommendation from the Scientific and Statistical Committee. Revise the total annual catch limit and annual optimum yield for gag and set them **equal to the recommended** acceptable biological catch.

Alternative 3. Revise the acceptable biological catch and set them equal to the most recent recommendation from the Scientific and Statistical Committee. Revise the total annual catch limit and annual optimum yield for gag and set them equal to **95% of the recommended** acceptable biological catch.

Alternative 4. Revise the acceptable biological catch and set them equal to the most recent recommendation from the Scientific and Statistical Committee. Revise the total annual catch limit and annual optimum yield for gag and set them equal to **90% of the recommended** acceptable biological catch.

Table 3. Summary of ACL, OY, and ABC alternatives for **Action 2**.

Alternative	ABC, total ACL, annual OY	Recreational landings data used
Alternative 1 (No Action)	ACL=OY=current ABC	MRIP-CHTS
Preferred Alternative 2	ACL=OY=updated ABC	MRIP-FES
Alternative 3	ACL=OY=95% updated ABC	MRIP-FES
Alternative 4	ACL=OY=90% updated ABC	MRIP-FES

Table 4. Total ACL values in pounds gutted weight for each alternative under **Action 2**.

	ACL (pounds gw)									
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032*
Alternative 1**	734,350	734,350	734,350	734,350	734,350	734,350	734,350	734,350	734,350	734,350
Preferred Alternative 2***	175,632	261,171	348,352	435,081	524,625	617,778	711,419	800,088	879,758	948,911
Alternative 3***	166,850	248,112	330,934	413,327	498,394	586,889	675,848	760,084	835,770	901,465
Alternative 4***	158,069	235,054	313,517	391,573	472,163	556,000	640,277	720,079	791,782	854,020

*2032 values would remain in place until modified.

**The ACL for Alternative 1 is inclusive of recreational landings tracked using the MRIP Coastal Household Telephone Survey.

***The ACLs for Alternatives 2 through 5 would be inclusive of recreational landings tracked using the MRIP Fishing Effort Survey.

Discussion:

- The Council has specified OY=ACL=ABC for most snapper grouper species. NS 1 guidelines state that although a Council can establish an annual OY, it must establish a long-term OY.
- OFL and ABC recommendations are for landed catch, as discards are estimated elsewhere in the assessment.
- While not applicable to the existing sector ACL, recreational landings were similar to commercial landings in recent years when examined in FES terms (**Figure 2**).

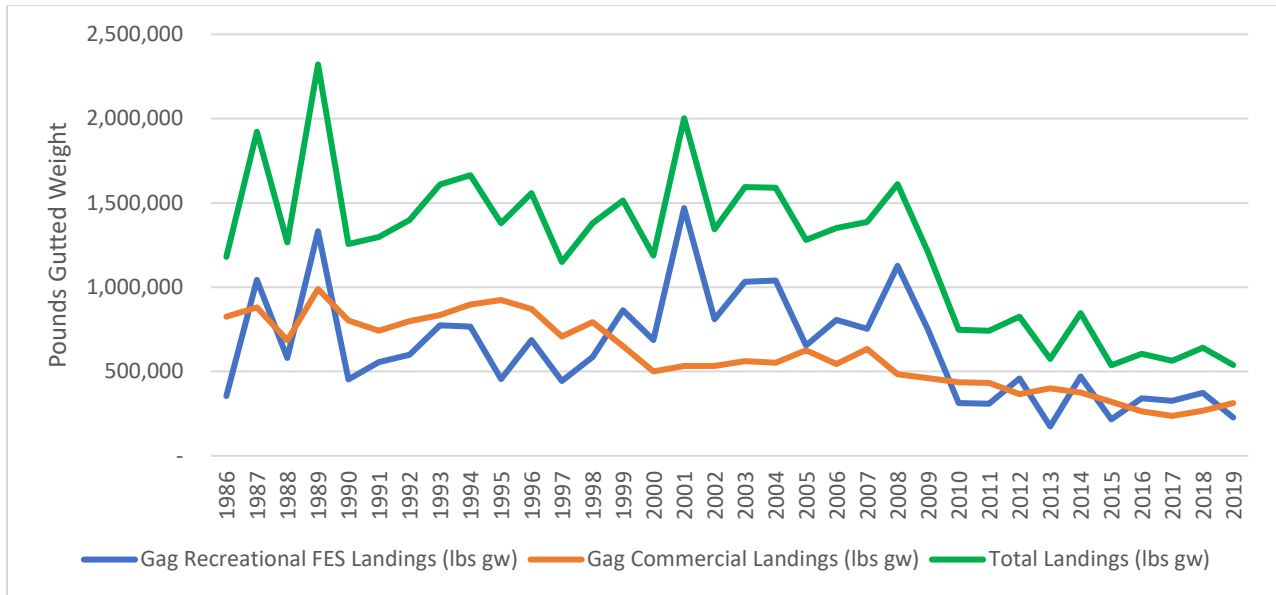


Figure 2. The recreational (MRIP FES) (blue), commercial landings (orange), and total landings (green) from 1986-2019.

- When compared to the last 5 years of total landings (lbs gw, inclusive of MRIP FES recreational landings) the ACL is predicted to be constraining on harvest when compared to average 2015-2019 landings until the year 2028 when it is higher than average 2015-2019 landings (**Figure 3**).

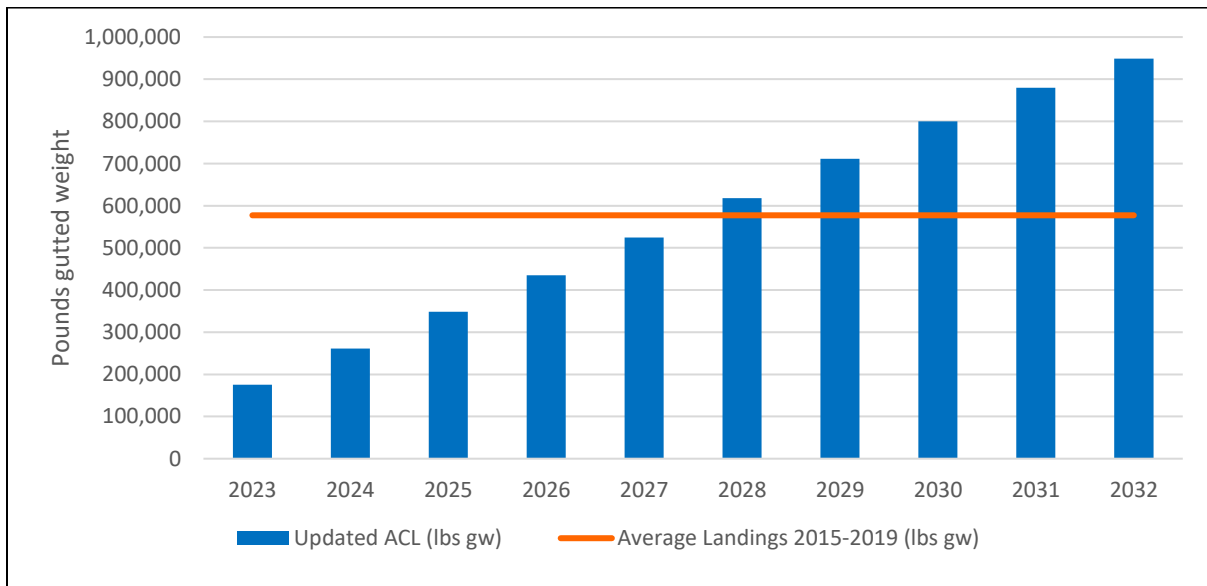


Figure 3. The comparison of the total gag landings (i.e. commercial and recreational) from 2015-2019 (orange line) and proposed total ACLs (blue) under **Preferred Alternative 2** for **Action 2**.

AP Action:

- REVIEW RANGE OF ALTERNATIVES AND COUNCIL PREFERRED.

Action 3. Revise the gag sector allocations and sector annual catch limits

Purpose of Action

Allocations need to be reviewed since the recreational landings stream changed in the new assessment. Recreational landings are now estimated using data from the Fishing Effort Survey (FES) rather than the Coastal Household Telephone Survey (CHTS).

Alternative 1 (No Action). Retain the current commercial and recreational allocations as 51.00% and 49.00%, respectively, of the revised total annual catch limit for gag.

Alternative 2. Allocate 36.37% of the revised total annual catch limit for gag to the commercial sector and 63.63% of the revised total annual catch limit for gag to the recreational sector.

Alternative 3. Allocate 43.06% of the revised total annual catch limit for gag to the commercial sector and 56.94% of the revised total annual catch limit for gag to the recreational sector.

Preferred Alternative 4. To determine allocations throughout the rebuilding plan, use the following method: Use the total commercial and Marine Recreational Information Program Fishery Effort Survey recreational landings (*Sub-Alternatives 4a and 4b*) as a baseline for initial reductions; apply the percent reduction from the total landings scenarios to the 2023 total annual catch limit evenly between sectors; apply each subsequent annual increase in the total annual catch limit evenly to each sector annual catch limit for Year 2 and each year thereafter throughout the rebuilding plan. Sector annual catch limits in the terminal year of the rebuilding plan (2032) would remain in place until modified.

Sub-Alternative 4a. To determine allocations throughout the rebuilding plan, use the average commercial and recreational Marine Recreational Information Program Fishing Effort Survey landings from 2017-2019 as the baseline (3-year average).

Preferred Sub-Alternative 4b. To determine allocations throughout the rebuilding plan, use the average commercial and recreational Marine Recreational Information Program Fishing Effort Survey landings from 2015-2019 as the baseline (5-year average).

Table 5. A summary of alternatives for **Action 3**.

Alternative	Commercial/Recreational Allocation	Basis for allocation
Alternative 1 (No Action)	51.00%/49.00%	Landings distribution 1999-2003 used in Amendment 19 that incorporated CHTS recreational landings
Alternative 2	36.37%/63.63%	Updated landings distribution 1999-2003 incorporating MRIP FES recreational landings
Alternative 3	43.06%/56.94%	Comp ACL Amendment Allocation Formula that uses $(0.5 * \text{landings from 1986 to 2008}) + (0.5 * \text{landings from 2006 to 2008})$.
Preferred Alternative 4		
Sub-alternative 4a	Changes each year depending on initial decrease and subsequent increases	Distribution of commercial and recreational (MRIP FES) landings from 2017-2019
Preferred Sub-alternative 4b	Changes each year depending on initial decrease and subsequent increases	Distribution of commercial and recreational (MRIP FES) landings from 2015-2019

Note: all alternatives applied to the preferred alternative for the total ACL in **Action 2**.

Table 6. Total ACL and allocations for Alternatives 1 (No Action)-3 under Action 3.

Alternative 1 (No Action)			
Year	Total ACL (lbs gw)	Total Commercial ACL (lbs gw) (51%)	Recreational ACL (lbs gw) (49%)
2023	175,632	89,572	86,060
2024	261,171	133,197	127,974
2025	348,352	177,660	170,692
2026	435,081	221,891	213,190
2027	524,625	267,559	257,066
2028	617,778	315,067	302,711
2029	711,419	362,824	348,595
2030	800,088	408,045	392,043
2031	879,758	448,677	431,081
2032	948,911	483,945	464,966
Alternative 2			
Year	Total ACL (lbs gw)	Total Commercial ACL (lbs gw) (36.37%)	Recreational ACL (lbs gw) (63.63%)
2023	175,632	63,877	111,755
2024	261,171	94,988	166,183
2025	348,352	126,696	221,656
2026	435,081	158,239	276,842
2027	524,625	190,806	333,819
2028	617,778	224,686	393,092
2029	711,419	258,743	452,676
2030	800,088	290,992	509,096
2031	879,758	319,968	559,790
2032	948,911	345,119	603,792
Alternative 3			
Year	Total ACL (lbs gw)	Total Commercial ACL (lbs gw) (43.06%)	Recreational ACL (lbs gw) (56.94%)
2023	175,632	75,627	100,005
2024	261,171	112,460	148,711
2025	348,352	150,000	198,352
2026	435,081	187,346	247,735
2027	524,625	225,904	298,721
2028	617,778	266,015	351,763
2029	711,419	306,337	405,082
2030	800,088	344,518	455,570
2031	879,758	378,824	500,934
2032	948,911	408,601	540,310

Note: The revised sector annual catch limits in Alternative 1 (No Action) through 3 reflect the revised total annual catch limit in Preferred Alternative 2 of Action 2. The revised total annual catch limit includes recreational landings from MRIP using the FES method where appropriate, as well as updates to commercial and headboat landings used in the latest assessment (SEDAR 71).

- **Tables 7 and 8** present sector ACLs under **Sub-Alternative 4a** and **Preferred Sub-Alternative 4b**.

Table 7. Sector ACLs for **Sub-Alternative 4a** for **Action 3**, based on average gag landings from 2017-2019. Recreational landings are based on the MRIP FES method. Total ACL is reflective of Preferred Alternative 2 of Action 2.

Basis Years	Average Commercial Landings (lbs gw)	Average Recreational Landings (lbs gw)	Total Landings (lbs gw)				
Average from 2017-2019	231,736	364,331	596,067				
Year 1 Allocations							
Year 1	Total ACL (lbs gw)	Percent Reduction Needed	Commercial ACL (lbs gw)	Commercial Allocation %	Recreational ACL (lbs gw)	Recreational Allocation %	
2023	175,632	71%	68,281	39%	107,350	61%	
Remaining Rebuilding Years Allocations							
Years 2-10	Total ACL (lbs gw)	Total Increase from Previous Year	Total Increase for Each Sector	Commercial ACL (lbs gw)	Commercial Allocation %	Recreational ACL (lbs gw)	Recreational Allocation %
2024	261,171	85,539	42,770	111,051	43%	150,120	57%
2025	348,352	87,181	43,591	154,641	44%	193,710	56%
2026	435,081	86,729	43,365	198,006	46%	237,075	54%
2027	524,625	89,729	44,772	242,778	46%	281,847	54%
2028	617,778	89,544	46,577	289,354	47%	328,423	53%
2029	711,419	93,544	46,821	336,175	47%	375,244	53%
2030	800,088	79,670	44,335	380,509	48%	419,578	52%
2031	879,758	79,670	39,835	420,344	48%	459,413	52%
2032	948,911	69,153	34,576	454,921	48%	493,990	52%

Table 8. Sector ACLs for **Preferred Sub-Alternative 4b** for **Action 3**, based on average gag landings from 2015-2019. Recreational landings are based on MRIP FES methods. Total ACL is reflective of Preferred Alternative 2 of Action 2.

Basis Years	Average Commercial Landings (lbs gw)	Average Recreational Landings (lbs gw)	Total Landings (lbs gw)				
Average from 2015-2019	280,440	296,804	577,244				
Year 1 Allocations							
Year 1	Total ACL (lbs gw)	Percent Reduction Needed	Commercial ACL (lbs gw)	Commercial Allocation %	Recreational ACL (lbs gw)	Recreational Allocation %	
2023	175,632	70%	85,326	49%	90,306	51%	
Remaining Rebuilding Years Allocations							
Year 2-10	Total ACL (lbs gw)	Total Increase from Previous Year	Total Increase for Each Sector	Commercial ACL (lbs gw)	Commercial Allocation %	Recreational ACL (lbs gw)	Recreational Allocation %
2024	261,171	85,539	42,770	128,096	49%	133,057	51%
2025	348,352	87,181	43,591	171,687	49%	176,666	51%
2026	435,081	86,729	43,365	215,051	49%	220,030	51%
2027	524,625	89,729	44,772	259,823	50%	264,802	50%
2028	617,778	89,544	46,577	306,400	50%	311,379	50%
2029	711,419	93,544	46,821	353,220	50%	358,199	50%
2030	800,088	88,669	44,335	397,555	50%	402,534	50%
2031	879,758	79,670	39,835	437,390	50%	442,369	50%
2032	948,911	69,153	34,577	471,966	50%	476,945	50%

Discussion:

- **Preferred Alternative 4** is a novel allocation method that was proposed in December 2021. The method aims to implement the equal reductions in harvest needed in year one to achieve updated catch levels, proportional on a percent-basis to the way the fishery is operating. After the initial year, the catch levels increase, and this increase is split equally between sectors.
- For the last 5 years, both sectors have been harvesting under their respective sector ACLs. There have been no in-season closures for gag from 2015-2019 for either sector.
- The proposed commercial ACLs for 2023-2027 for all alternatives (colored bars) are below the average commercial landings from 2015-2019 (blue dashed line), with **Alternative 1 (No Action)** nearing average landings in 2027 (**Figure 4**).

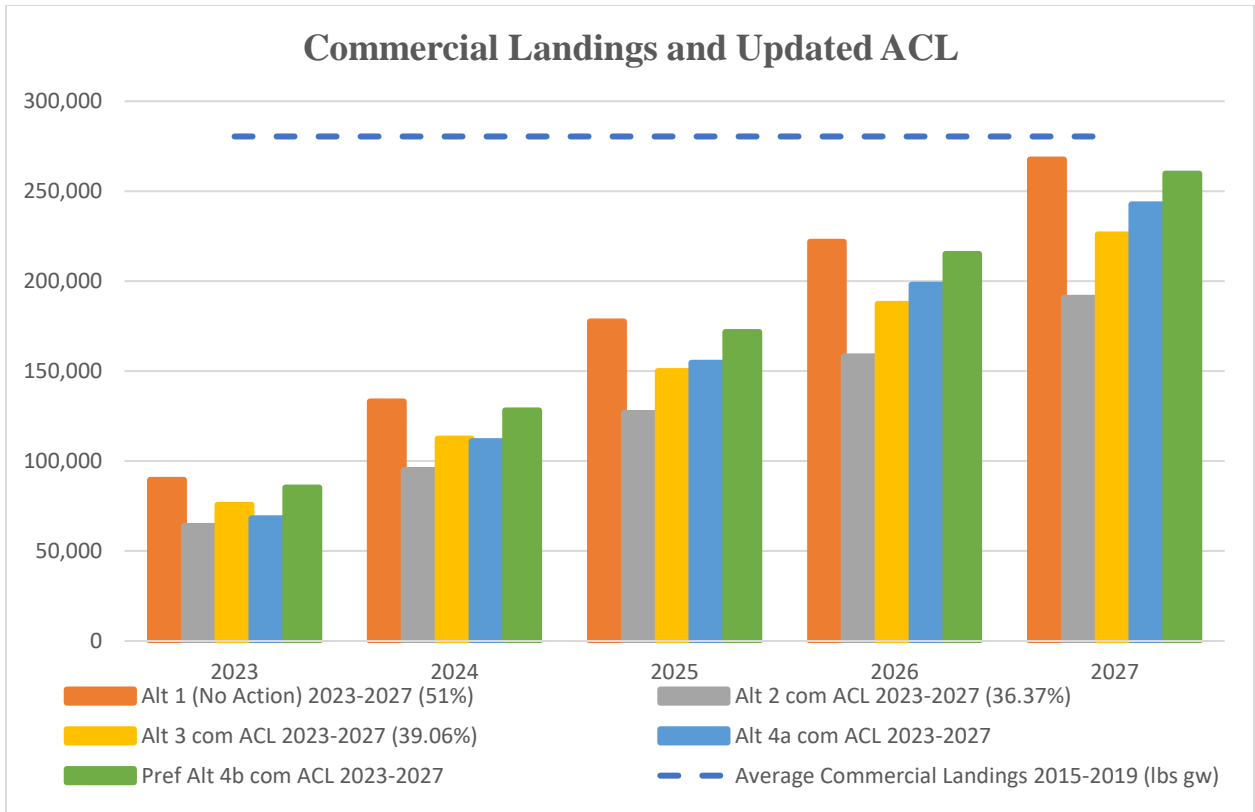


Figure 4. Average commercial landings (lbs gw) from 2015-2019 compared to the proposed ACLs from **Alternative 1 (No Action) – Preferred Sub-Alternative 4b** for **Action 3**.

- The proposed recreational ACLs for 2023-2027 for all alternatives (colored bars) are below the average recreational landings from 2015-2019 (blue dashed line), with **Alternative 2** and **Alternative 3** nearing average landings in 2027 (**Figure 5**).

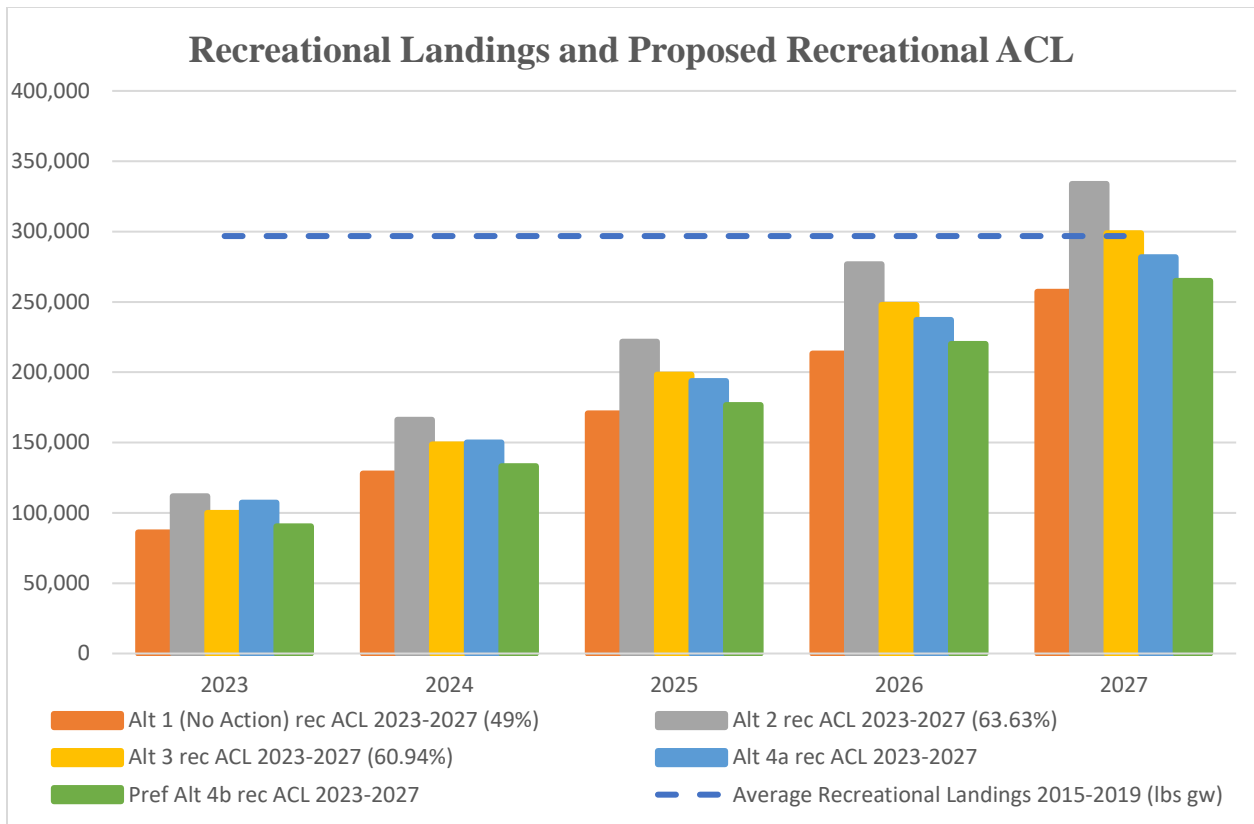


Figure 5. Average recreational landings (lbs gw) from 2015-2019 (MRIP FES units) compared to the proposed ACLs from **Alternative 1 (No Action) – Preferred Sub-Alternative 4b** for **Action 3**.

Preliminary Analysis:

- The predicted season length for each sector is summarized in **Table 9**:
 - Commercial sector
 - Under **Alternatives 2 and 3** the commercial sector is predicted to close in early June within the first year of the rebuilding plan (2023).
 - By 2027 the season is predicted to close in early November for **Alternative 2** and mid-December for **Alternative 3**.
 - By 2032 (end of the rebuilding plan) there are no expected closures. 2029 is the first year the landings are predicted to be below the commercial ACL.
 - Under **Sub-Alternatives 4a and 4b (Preferred)** the commercial sector is predicted to close for early June and end of June respectively, within the first year of the rebuilding timeframe (2023). In 2027 and thereafter, there are no expected closures.
 - Recreational sector
 - Under **Alternative 2** the recreational sector is predicted to close after 58 days in 2023. The recreational season is predicted to continue to close each year until 2027. 2027 and each year thereafter, throughout the rebuilding plan there are no expected closures.

- Under **Alternative 3**, a 52-day season, closing in June is predicted in 2023. The season length is predicted to increase in 2027, with a closure expected in early December. After 2028, there are no expected closures under this alternative.
 - Under **Sub-alternatives 4a and 4b (Preferred)** a roughly 50-day season is expected in 2023 for both alternatives. Closures are predicted to continue through 2027 where the season is expected to close in early November for **Sub-Alternative 4a** and mid-October for **Preferred Sub-Alternative 4b**. By 2028 and thereafter, closures are not expected.
- See **Appendix C** for full analysis.

Table 9. The projected South Atlantic gag commercial and recreational landings (lbs gw) and closure dates expected with each proposed annual catch limit alternative for **Action 3**.

Alternative 1 (No Action) of Action 3 is omitted since it is identical to Action 2 Alternatives.

Note: All sector allocation options considered in **Action 3** were applied to the revised total ACL of preferred Alternative 2 of Action 2. All ACLs and projected landings are in pounds gutted weight.

*The recreational ACLs presented are inclusive of recreational landings tracked using the MRIP Fishing Effort Survey.

Action 3, Alternative 2: 63.63% recreational and 36.37% commercial								
Year	Rec. ACL*	Predicted Rec. Landings	Rec. Closure Date	Days Open in Rec. Season	Comm. ACL	Predicted Comm. Landings	Comm. Closure Date	Days Open in Comm. Season
2023	111,755	311,339	Jun 28	58	63,877	231,667	Jun 9	39
2027	333,819		None	245	190,806		Nov 4	187
2032	603,792		None	245	345,119		None	245
Action 3, Alternative 3: 43.06% recreational and 56.94% commercial								
Year	Rec. ACL*	Predicted Rec. Landings	Rec. Closure Date	Days Open in Rec. Season	Comm. ACL	Predicted Comm. Landings	Comm. Closure Date	Days Open in Comm. Season
2023	100,005	311,339	Jun 22	52	75,627	231,667	Jun 18	48
2027	298,721		Dec 9	222	225,904		Dec 22	235
2032	540,310		None	245	408,601		None	245
Action 3, Sub-Alternative 4a: 3-year average shared reduction								
Year	Rec. ACL*	Predicted Rec. Landings	Rec. Closure Date	Days Open in Rec. Season	Comm. ACL	Predicted Comm. Landings	Comm. Closure Date	Days Open in Comm. Season
2023	107,350	311,339	Jun 26	56	68,281	231,667	Jun 12	42
2027	281,847		Nov 9	192	242,778		None	245
2032	493,990		None	245	454,921		None	245
Action 3, Preferred Sub-Alternative 4b: 5-year average shared reduction								
Year	Rec. ACL*	Predicted Rec. Landings	Rec. Closure Date	Days Open in Rec. Season	Comm. ACL	Predicted Comm. Landings	Comm. Closure Date	Days Open in Comm. Season
2023	90,306	311,339	Jun 17	47	85,327	231,667	Jun 25	55
2027	264,802		Oct 22	174	259,823		None	245
2032	476,945		None	245	471,966		None	245

AP Action:

- REVIEW NOVEL ALLOCATION ALTERNATIVES METHOD.
- REVIEW RANGE OF ALTERNATIVES AND COUNCIL PREFERRED.

Action 4. Modify the commercial management measures for gag

4.1 Sub-action 4a. Reduce the commercial trip limit for gag

Purpose of Sub-action

The Council is considering modifying the commercial trip limit to achieve the reduction in harvest needed to constrain catch to the updated commercial ACLs, while maintaining an extended commercial season.

Alternative 1 (No Action). The commercial gag trip limit is 1,000 pounds gutted weight until 75% of the commercial annual catch limit is met, at which time the commercial trip limit is reduced to 500 pounds gutted weight for the remainder of the fishing year or until the commercial annual catch limit is met.

Alternative 2. Reduce the gag commercial trip limit to 200 pounds gutted weight.

Preferred Alternative 3. Reduce the gag commercial trip limit to 300 pounds gutted weight.

Alternative 4. Reduce the gag commercial trip limit to 400 pounds gutted weight.

Alternative 5. Reduce the gag commercial trip limit to 500 pounds gutted weight.

Alternative 6. Reduce the gag commercial trip limit to 300 pounds gutted weight in 2023 then increase the commercial trip limit to 500 pounds gutted weight in 2026 and to 1,000 pounds gutted weight in 2027 where the trip limit would remain 1,000 and thereafter until modified.

Table 10. Summary of Alternatives under Action 4, Sub-action 4a.

Alternatives	Trip Limit
Alternative 1 (No Action)	1,000 lbs gw until 75% of the commercial ACL is met then 500 lbs gw
Alternative 2	200 lbs gw
Preferred Alternative 3	300 lbs gw
Alternative 4	400 lbs gw
Alternative 5	500 lbs gw
Alternative 6	300 lbs gw in 2023, 500 lbs gw in 2026, 1,000 lbs gw in 2027 and thereafter until modified

Discussion:

- The current gag commercial trip limit and step down were established through Regulatory Amendment 14 to the FMP (2014).
- Since its implementation, landings exceeded 75% of the commercial ACL in 2014, 2015, and 2016; however, the trip limit step-down was triggered in 2015 only.

- From 2014 to 2019 there has been only one commercial closure, which occurred in November of 2014 (**Table 11**).

Table 11. Commercial landings history under the current trip limit and step-downs from 2014 (implementation) to 2019.

Year	% Commercial ACL Used	Trip Limit Reduction Y/N	Reduction Date
2019	74.5	N	NA
2018	71.5	N	NA
2017	61.8	N	NA
2016	78.9	N	N
2015	96.3	Y	October 18, 2015
2014	102.9	N	N

Preliminary Analysis:

- A majority (78%) of trips harvesting gag landed less than 200 lbs gw, and most (94%) landed less than 500 lbs gw (**Figure 6**).
- See **Appendix C** for full analysis.

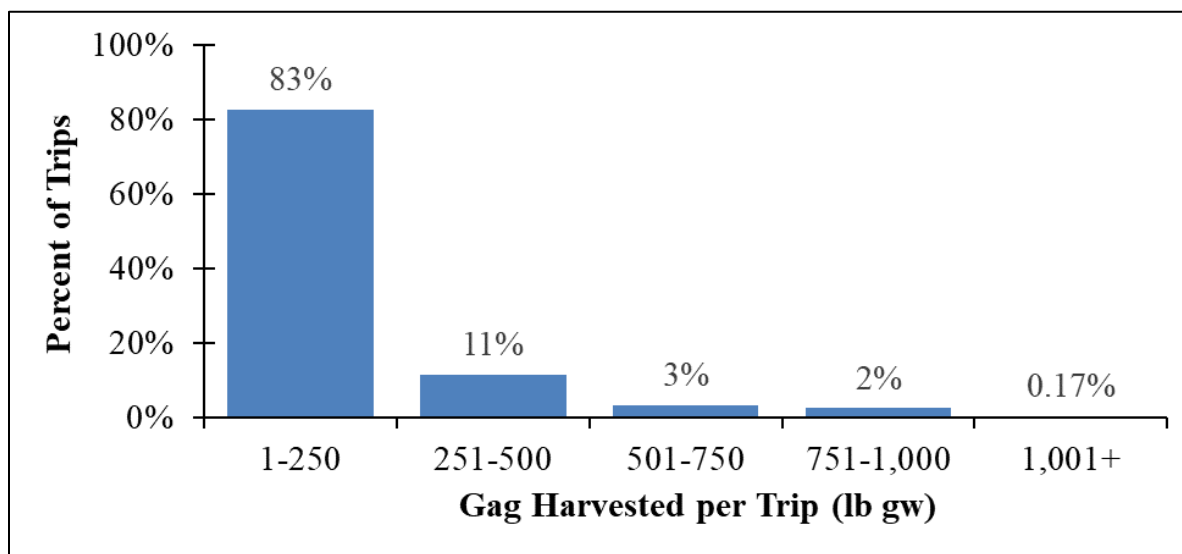


Figure 6. The percent of commercial trips (n=8,607) harvesting gag by bin from 2017 through 2019. Source: SEFSC commercial logbook (May 6, 2021).

Table 12. The predicted percent change in landings per trip from the current 1,000 lbs gw trip limit.

Current Trip Limit (lbs gw)*	Potential Trip Limit (lbs gw)	Predicted Change in Landings
1,000	500	-8%
1,000	400	-13%
1,000	300	-20%
1,000	200	-32%

* current trip limit includes a step down to 500 lbs gw when 75% of the commercial ACL is met.

- **Alternative 6** was developed after the June 2022 meeting where the Council gave the IPT discretion to determine the years where the commercial ACL would not be exceeded, and therefore appropriate to increase the commercial trip limit. The IPT constructed the following tables to display when overages are expected to end under different trip limits. The commercial overages were determined using the decision tool (see Attachment 5c) and are based on projected landings.

Table 13. The expected commercial ACL overage expected under the 300 lbs gw trip limit for **Alternative 6** for **Sub-Action 4a**. Note: the total ACL used is $ACL=OY=ABC$, commercial ACL is based on the Share the Pain Share the Gain (SPSG) 5 yr basis allocation method (Preferred Alternative 4, Preferred Sub-Alternative 4b of Action 3).

Year	Allocations Alternative	Trip Limit	Commercial ACL Overage? Y/N	Overage %
2023	SPSG, 5 yr basis	300 lbs gw	Y	117%
2024	SPSG, 5 yr basis	300 lbs gw	Y	45%
2025	SPSG, 5 yr basis	300 lbs gw	Y	8%
2026	SPSG, 5 yr basis	300 lbs gw	N	-14%
2027	SPSG, 5 yr basis	300 lbs gw	N	-29%
2028	SPSG, 5 yr basis	300 lbs gw	N	-40%
2029	SPSG, 5 yr basis	300 lbs gw	N	-48%
2030	SPSG, 5 yr basis	300 lbs gw	N	-53%
2031	SPSG, 5 yr basis	300 lbs gw	N	-58%
2032	SPSG, 5 yr basis	300 lbs gw	N	-61%

AP Action:

- REVIEW RANGE OF ALTERNATIVES AND COUNCIL PREFERRED.

4.2 Sub-action 4b. Modify the commercial spawning season closure for gag

Purpose of Sub-action

The Council is considering modifying the commercial spawning season closure to allow for an increased opportunity for gag spawning before being harvested.

Preferred Alternative 1 (No Action). The annual commercial gag spawning season closure is from January 1 through April 30.

Alternative 2. Extend the annual commercial gag spawning season closure to January 1 through May 31.

Alternative 3. Extend the annual commercial gag spawning season closure to December through April 30.

Alternative 4. Extend the annual commercial gag spawning season closure to December 1 through May 31.

Table 13. A summary of alternatives for **Action 4, Sub-action 4b.**

Alternatives	Spawning Season Closure
Preferred Alternative 1 (No Action)	January 1 - April 30
Alternative 2	One additional spring month (May)
Alternative 3	One additional winter month (December)
Alternative 4	One additional winter month (December) and one additional spring month (May)

Discussion:

- The gag spawning season closure was established through Amendment 16 to the FMP (2009) to protect gag grouper, and other shallow water groupers, spawning aggregations (Coleman *et al.* 2000). Spawning aggregations are particularly vulnerable to fishing gear due to aggression during these events (Thompson and Munro 1974; Gilmore and Jones 1992).
- In 2020, through Regulatory Amendment 30 to the FMP, the annual red grouper spawning season closure was extended to May 31 in federal waters off of North Carolina and South Carolina only. Many fishermen noted observing spawning aggregations in May which led to concerns over the efficacy of the spawning season closure. The spawning season closure was extended to provide red grouper additional spawning opportunities.

Preliminary Analysis:

- When examining the seasonality of the commercial fishery, historical and projected landings are highest May through July, leveling out from September through December (**Figure 7**).
- See **Appendix C** for full analysis.

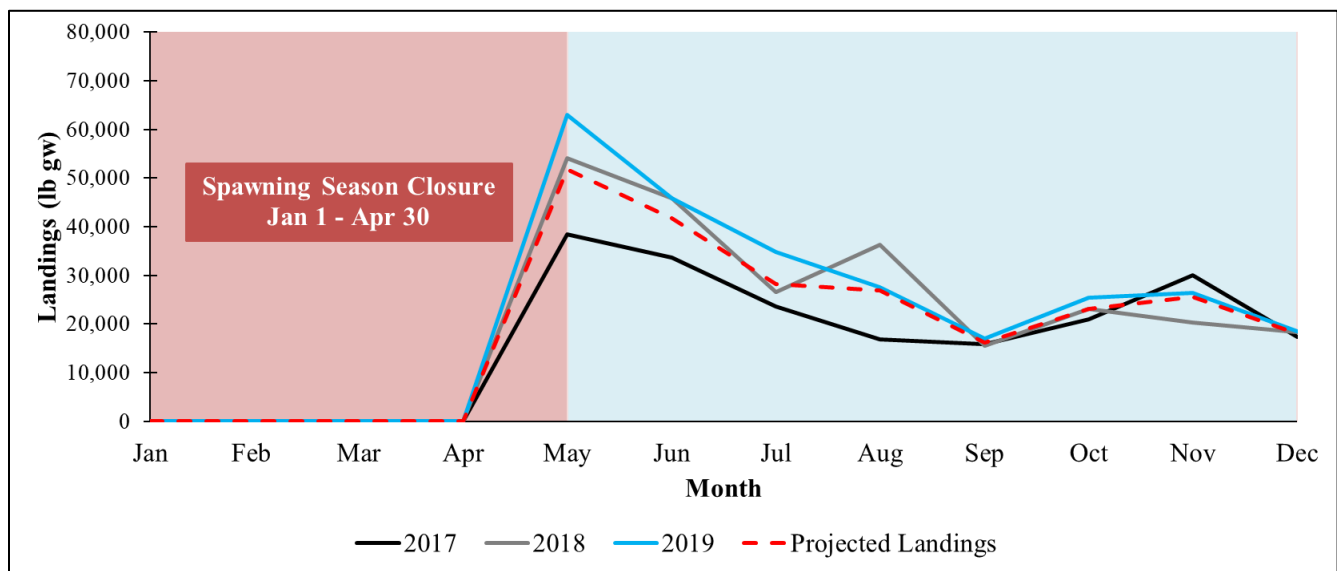


Figure 7. South Atlantic gag commercial landings by month from 2017-2019 and predicted 2023 landings. All of the landing projections assume no landings between January and April 30 for the spawning season closure.

AP Action:

- REVIEW RANGE OF ALTERNATIVES AND COUNCIL PREFERRED.
- PROVIDE FEEDBACK ON THE FOLLOWING QUESTIONS:
 - Does the AP prefer a May closure? The Council is considering selecting this as the preferred moving forward
 - What the AP’s thoughts on regionally specific spawning season closures and if so, what regional closures does the AP recommend?

Action 5. Modify the recreational management measures for gag

5.1 Sub-action 5a. Establish a recreational vessel limit for gag

Purpose of Sub-action

The Council is considering establishing a recreational vessel limit to achieve the reduction in harvest needed to constrain catch to the updated recreational ACLs, while maintaining recreational access.

Alternative 1 (No Action). There is no recreational vessel limit for gag. The recreational gag bag limit is 1 fish per person per day within the 3 shallow water grouper aggregate (no more than 1 grouper may be gag or black grouper).

Alternative 2. Establish a private recreational vessel limit for gag of:

Sub-Alternative 2a. 2 fish per vessel per day

Sub-Alternative 2b. 4 fish per vessel per day

Alternative 3. Establish a for-hire recreational vessel limit for gag of:

Sub-Alternative 2a. 2 fish per vessel per trip

Sub-Alternative 2b. 4 fish per vessel per trip

Table 14. A summary of alternatives under **Action 5, Sub-action 5a.**

Alternative	Recreational Component	Vessel Limit*
Alternative 1 (No Change)	Both	none
Alternative 2a	Private Recreational	2 fish/vessel/day
Alternative 2b	Private Recreational	4 fish/vessel/day
Alternative 3a	For-Hire	2 fish/vessel/trip
Alternative 3b	For-Hire	4 fish/vessel/trip

*vessel limit not to exceed the 1 per person per day bag limit.

Discussion:

- The proposed reduction in the recreational ACL will result in an approximately 70% reduction in harvest from 2019 catch levels to the updated catch levels for 2023. To maintain recreational access, a vessel limit would help to constrain catch to the updated catch levels. Catch levels are predicted to increase in subsequent years.
- The current gag bag limit is tied to the grouper aggregate and specifies one gag OR one black grouper. The current alternatives do not modify the bag limit for black grouper, which would remain as 1 black grouper per person per day within the grouper aggregate.

Preliminary Analysis:

- See **Appendix C** for full analysis.

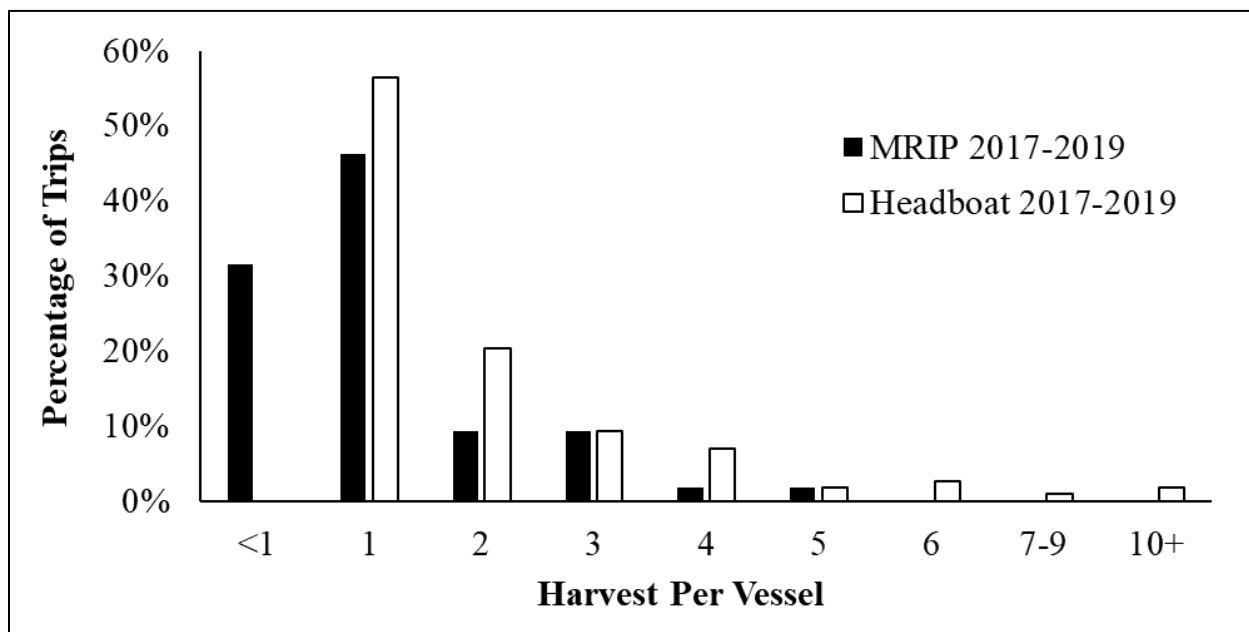


Figure 8. Distribution of South Atlantic gag harvested per vessel trip from the two recreational datasets: MRIP FES (n = 54 trips), and headboat (n= 897 trips).

Table 19. The predicted percent change in landings per recreational trip (MRIP and Southeast Region Headboat Survey) from the current 1 fish per person per day limit.

Current Vessel Limit (# of fish)	Potential Vessel Limit (# of fish)	MRIP (Private and Charter Vessels) Predicted Change in Landings	SRHS (Headboat Vessels) Predicted Change in Landings
1 pp/day	6 per vessel	0%	-5%
1 pp/day	4 per vessel	-1%	-11%
1 pp/day	2 per vessel	-16%	-30%

- From 2017 through 2019, there were 33 charter trips and 21 private trips in the MRIP FES and 897 trips in the SRHS that reported harvesting gag in the South Atlantic. All trips reported landing one gag or fewer per person per day. Additionally, a majority of trips (82% charter and 71% private) in the MRIP FES and over half (57%) in the SRHS reported harvesting one gag or fewer per trip (**Figure 9**).

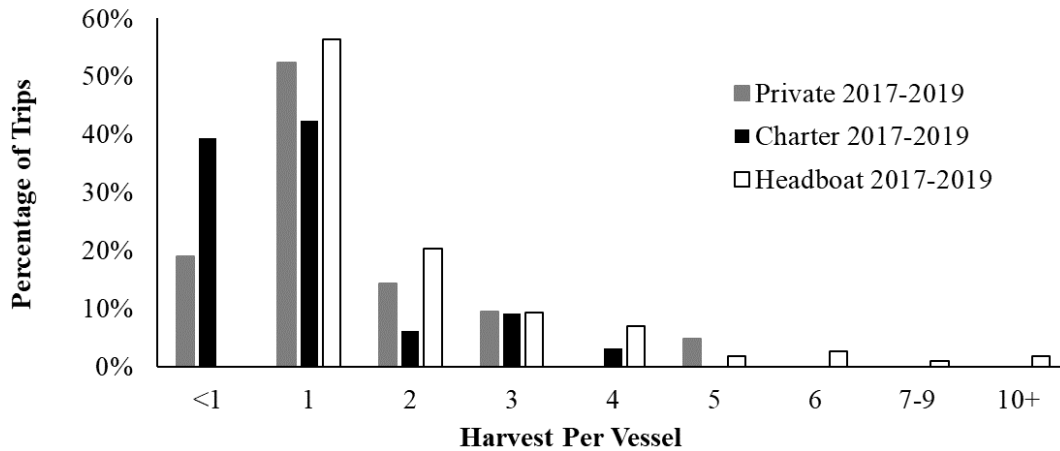


Figure 9. Distribution of South Atlantic gag harvested per vessel trip from the two recreational datasets: MRIP FES (n = 21 private trips and 33 charter trips), and SRHS (n= 897 headboat trips).

AP Action:

- REVIEW RANGE OF ALTERNATIVES.

5.2 Sub-action 5b. Modify the recreational spawning season closure for gag

Purpose of Sub-action

The Council is considering modifying the recreational spawning season closure to allow for an increased opportunity for gag spawning before being targeted by the fishery.

Preferred Alternative 1 (No Action). The gag annual recreational spawning season closure is from January 1 through April 30.

Alternative 2. Extend the annual recreational gag spawning season closure to January 1 through May 31.

Alternative 3. Extend the annual recreational gag spawning season closure to December 1 through April 30.

Alternative 4. Extend the annual recreational gag spawning season closure to December 1 through May 31.

Table 20. A summary of alternatives for Action 5, Sub-Action 5b.

Alternatives	Spawning Season Closure
Preferred Alternative 1 (No Action)	January 1 - April 30
Alternative 2	One additional month in the spring (May)
Alternative 3	One additional month in the winter (December)
Alternative 4	One additional month in the winter (December) and one additional month in the spring (May)

Discussion:

- The gag spawning season closure was established through Amendment 16 to the FMP (2009) to protect gag grouper, and other shallow water groupers, spawning aggregations (Coleman *et al.* 2000). Spawning aggregations are particularly vulnerable to fishing gear due to aggression during these events (Thompson and Munro 1974; Gilmore and Jones 1992).
- In 2020, through Regulatory Amendment 30 to the FMP, the red grouper spawning season closure was extended to May 31 in federal waters off of North Carolina and South Carolina only. Many fishermen noted observing spawning aggregations in May which led to concerns over the efficacy of the spawning season closure. The spawning season closure was extended to provide red grouper additional spawning opportunities.

Preliminary Analysis:

- The seasonality of recreational landings of gag is variable; however, landings were highest historically for 2019 and are projected to be highest in May through July. During 2018 landings were highest in the fall.

- See **Appendix C** for full analysis.

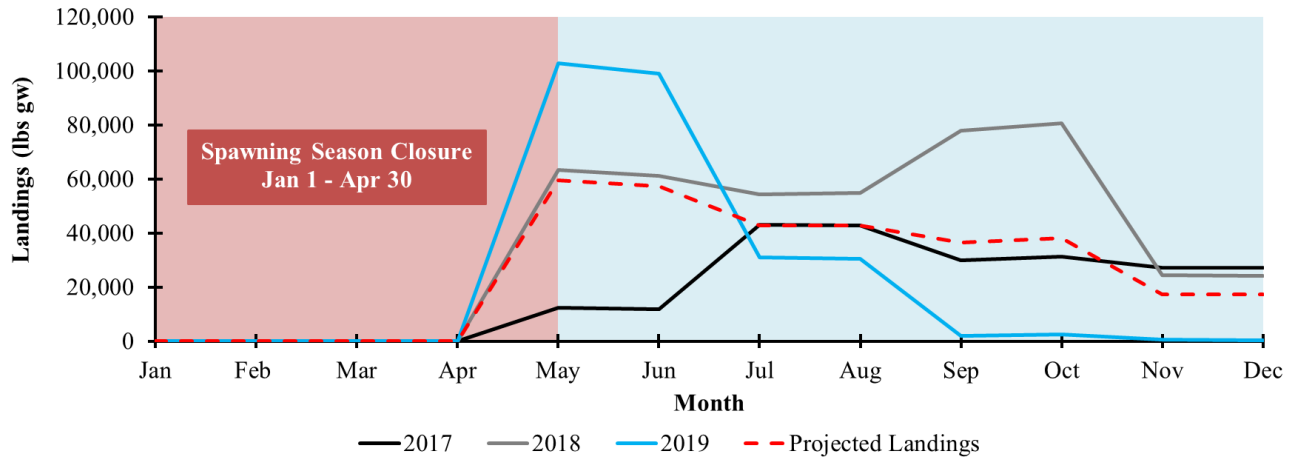


Figure 9. South Atlantic gag recreational landings by month from 2017-2019 and predicted 2023 landings. All of the landing projections assume no landings between January 1 and April 30 for the spawning season closure.

AP Action:

- REVIEW RANGE OF ALTERNATIVES AND COUNCIL PREFERRED.
- PROVIDE FEEDBACK ON THE FOLLOWING QUESTIONS:
 - Does the AP prefer a May closure? The Council is considering selecting this as the preferred moving forward
 - What the AP’s thoughts on regionally specific spawning season closures and if so, what regional closures does the AP recommend?

5.3 Sub-action 5c. Prohibit the retention of gag by captain and crew

Purpose of Action

The Council is considering prohibiting the retention of gag by captain and crew to constrain recreational harvest to the updated catch levels and contribute to rebuilding.

Alternative 1 (No Action): The captain(s) and crew of a for-hire vessel may retain the same daily bag limit of gag as allowed for each passenger.

Alternative 2: The gag bag limit for captain(s) and crew of for-hire vessels is zero.

AP Action:

- REVIEW RANGE OF ALTERNATIVES.

Action 6. Revise the gag recreational accountability measures

Purpose of Action

Modifications to gag recreational accountability measures are being considered to prevent recreational landings from exceeding the recreational ACL and correct for overages if they occur.

Alternative 1 (No Action). If recreational landings reach or are projected to reach the recreational annual catch limit, recreational harvest of gag is closed for the remainder of the fishing year, regardless of stock status, unless National Marine Fisheries Service determines that no closure is necessary based on the best scientific information available. If recreational landings exceed the recreational annual catch limit, then during the following fishing year recreational landings will be monitored for a persistence in increased landings. If the total annual catch limit is exceeded and gag are overfished, the length of the recreational fishing season and the recreational annual catch limit are reduced by the amount of the recreational annual catch limit overage.

Alternative 2. The recreational gag season will start annually on May 1. The National Marine Fisheries Service will annually announce the recreational fishing season end dates in the Federal Register and by other methods, as deemed appropriate. The fishing season will end on the date National Marine Fisheries Service projects the recreational annual catch limit will be met.

Alternative 3. Remove the current recreational in-season accountability measures. If recreational landings exceed the recreational annual catch limit, reduce the length of the following year's recreational fishing season by the amount necessary to prevent the recreational annual catch limit from being exceeded in the following year. However, the length of the recreational season will not be reduced if the Regional Administrator determines, using the best scientific information available, that it is not necessary.

Preferred Alternative 4. Retain the current recreational in-season accountability measures. If recreational landings exceed the recreational annual catch limit, reduce the length of the following year's recreational fishing season by the amount necessary to prevent the recreational annual catch limit from being exceeded in the following year. However, the length of the recreational season will not be reduced if the Regional Administrator determines, using the best scientific information available, that it is not necessary.

Table 21. Summary of recreational accountability measure alternatives for **Action 7.**

	In-Season AM		Post-Season AM	
	Triggers	AM	Triggers	AM
Alternative 1 (no change)	Recreational landings exceed/expected to exceed sector ACL	Current recreational season closes	<ul style="list-style-type: none"> Recreational landings exceed/expected to exceed the recreational ACL <ul style="list-style-type: none"> Total ACL exceeded Stock is overfished <p>*All triggers must be present for AM to occur</p>	<ul style="list-style-type: none"> Recreational landings are monitored during the following year and if necessary: Recreational ACL for the following year reduced by the overage Recreational season for the following year is reduced to ensure the recreational ACL is not exceeded
Alternative 2	NMFS will annually announce the recreational fishing season end date			
Alternative 3	NONE		Recreational landings exceed recreational ACL *No longer tied to stock status or total ACL	Recreational season for the following year is reduced by the amount necessary to prevent the recreational ACL from being exceeded
Preferred Alternative 4	Recreational landings exceed/expected to exceed sector ACL	Current recreational season closes	Recreational landings exceed recreational ACL *No longer tied to stock status or total ACL	Recreational season for the following year is reduced by the amount necessary to prevent the recreational ACL from being exceeded

Discussion:

- Recreational AMs for other snapper grouper species with short recreational seasons, such as red porgy (Amendment 50), have proposed removing the in-season closure and “uncoupling” the post-season AM trigger from the total ACL and stock status.
- Alternative 2** would operate similar to the season announcement for black sea bass except that NMFS would only be announcing the end of the season. Commercial harvest would be allowed after the end of the spawning season closure (Sub-action 4b).

AP Action:

- REVIEW RANGE OF ALTERNATIVES AND COUNCIL PREFERRED.

Action 7. Modify the recreational management measures for black grouper

7.1 Sub-action 7a. Establish a recreational vessel limit for black grouper

Purpose of Sub-action

The Council is considering establishing a recreational vessel limit for black grouper because of concerns over identification between gag and black grouper in the recreational sector.

Alternative 1 (No Action). There is no recreational vessel limit for black grouper. The recreational black grouper bag limit is 1 fish per person per day within the 3 shallow water grouper aggregate (no more than 1 grouper may be gag or black grouper).

Alternative 2. Establish a private recreational vessel limit for black grouper of:

Sub-Alternative 2a. 2 fish per vessel per day

Sub-Alternative 2b. 4 fish per vessel per day

Alternative 3. Establish a for-hire recreational vessel limit for black grouper of:

Sub-Alternative 2a. 2 fish per vessel per trip

Sub-Alternative 2b. 4 fish per vessel per trip

Table 14. A summary of alternatives under **Action 5, Sub-action 5a.**

Alternative	Recreational Component	Vessel Limit*
Alternative 1 (No Change)	Both	none
Alternative 2a	Private Recreational	2 fish/vessel/day
Alternative 2b	Private Recreational	4 fish/vessel/day
Alternative 3a	For-Hire	2 fish/vessel/trip
Alternative 3b	For-Hire	4 fish/vessel/trip

*vessel limit not to exceed the 1 per person per day bag limit.

AP Action:

- REVIEW RANGE OF ALTERNATIVES.

7.2 Sub-action 7b. Modify the recreational spawning season closure for black grouper

Purpose of Sub-action

The Council is considering modifying the recreational spawning season closure because of concerns over identification between gag and black grouper in the recreational sector.

Alternative 1 (No Action). The black grouper annual recreational spawning season closure is from January 1 through April 30.

Alternative 2. Extend the annual recreational black grouper spawning season closure to January 1 through May 31.

Alternative 3. Extend the annual recreational black grouper spawning season closure to December 1 through April 30.

Alternative 4. Extend the annual recreational black grouper spawning season closure to December 1 through May 31.

Table 20. A summary of alternatives for Action 5, Sub-Action 5b.

Alternatives	Spawning Season Closure
Alternative 1 (No Action)	January 1 - April 30
Alternative 2	One additional month in the spring (May)
Alternative 3	One additional month in the winter (December)
Alternative 4	One additional month in the winter (December) and one additional month in the spring (May)

Discussion:

- The gag spawning season closure was established through Amendment 16 to the FMP (2009) to protect gag grouper, and other shallow water groupers, spawning aggregations (Coleman *et al.* 2000). Spawning aggregations are particularly vulnerable to fishing gear due to aggression during these events (Thompson and Munro 1974; Gilmore and Jones 1992).
- In 2020, through Regulatory Amendment 30 to the FMP, the red grouper spawning season closure was extended to May 31 in federal waters off of North Carolina and South Carolina only. Many fishermen noted observing spawning aggregations in May which led to concerns over the efficacy of the spawning season closure. The spawning season closure was extended to provide red grouper additional spawning opportunities.

AP Action:

- REVIEW RANGE OF ALTERNATIVES.
- PROVIDE FEEDBACK ON THE FOLLOWING QUESTIONS:
 - Does the AP prefer a May closure? The Council is considering selecting this as the preferred moving forward

- What the AP's thoughts on regionally specific spawning season closures and if so, what regional closures does the AP recommend?

7.3 Sub-action 7c. Prohibit the retention of black grouper by captain and crew

Purpose of Action

The Council is considering prohibiting the retention of black grouper by captain and crew because of concerns over identification between gag and black grouper in the recreational sector.

Alternative 1 (No Action): Captain and crew may retain the recreational bag limit of black grouper.

Alternative 2: Retention of black grouper by captain and crew is prohibited.

AP Action:

- REVIEW RANGE OF ALTERNATIVES.

Literature Cited

- Coleman, F.C., C.C. Koenig, G.R. Huntsman, J.A. Musick, A.M. Eklund, J.C. McGovern, R.W. Chapman, G.R. Sedberry, and C.B. Grimes. 2000. Long-lived reef fishes: The grouper-snapper complex. *Fisheries* 25(3): 14-21.
- Thompson, R. and J.L. Munro. 1974. The biology, ecology and bionomics of Caribbean reef fishes: Lutjanidae (snappers). Zoology Dep., Univ. West Indies, Kingston, Jamaica Res.Rep. 3.
- Gilmore, R.G. and R.S. Jones. 1992. Color variation and associated behavior in the epinepheline groupers, *Mycteroperca microlepis* (Goode and Bean) and *M. phenax* (Jordan and Swain). *Bulletin of Marine Science* 51: 83-103.