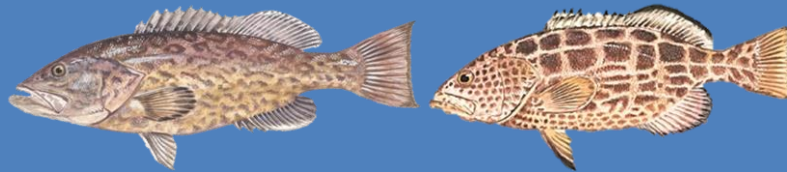


# Amendment 53 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

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



Decision Document

December 2022

## Background

### Gag

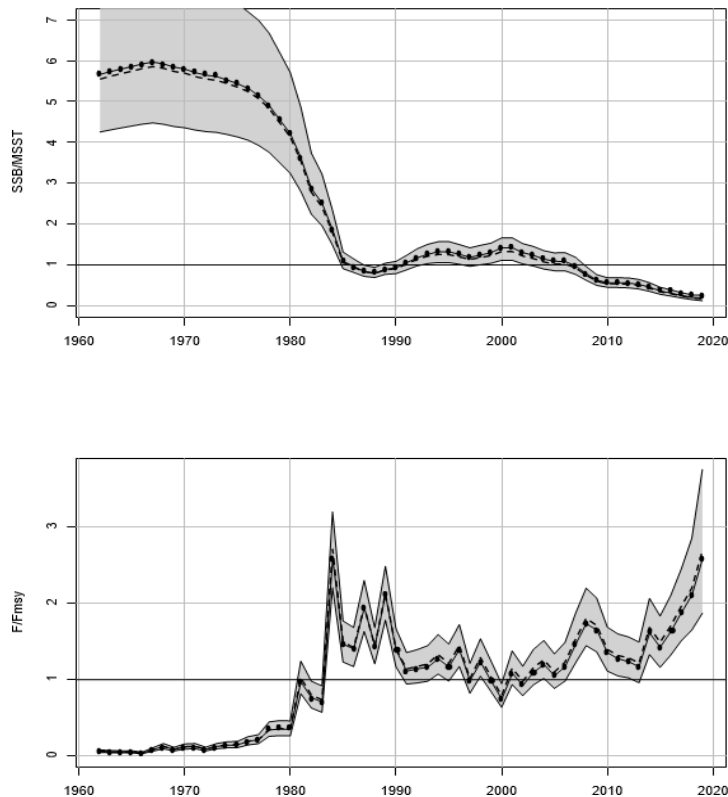
The most recent stock assessment for gag, SEDAR71, was completed in 2021. The terminal year of the assessment is 2019. This assessment used revised estimates for recreational catch from the Marine Recreational Information Program (MRIP) based on the Fishing Effort Survey (FES). The results of this assessment 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/](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 (Draft Amendment, Chapter 1.7).



**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 5<sup>th</sup> and 95<sup>th</sup> 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 October 2022 meeting, the Snapper Grouper Advisory Panel (AP) reviewed a document updated after the September 2022 Council meeting, which included revised actions and alternatives including those for black grouper. AP comments are provided with relevant actions and can be found in the [December Briefing Book](#).

Fishery Overview: [https://safmc-shinyapps.shinyapps.io/SA\\_FisheryDataGag/](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. There is also a 24-inch minimum size limit for both the commercial and recreational sectors. In February 2022 the LE AP noted concerns over identification issues between gag and black grouper when discussing spearfishing regulations previously considered in this amendment.

**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 changes to **gag** commercial management measures
- Consider changes to recreational management for **gag** and **black grouper**

## Objectives for this meeting

- Review actions and alternatives, analysis, and draft effects
- Select preferred alternatives as appropriate:
  - **Sub-Action 5a** – gag recreational vessel limit
  - **Sub-Action 5c** – gag captain and crew bag limit
  - **Sub-Action 7a** – black grouper recreational vessel limit
  - **Sub-Action 7b** – black grouper spawning season closure
  - **Sub-Action 7c** – black grouper captain and crew bag limit
- Consider moving Sub-Actions with a preferred alternative of No Action to the Considered but Rejected Appendix if preferred is retained:
  - **Sub-Action 4b** – commercial gag spawning season closure
  - **Sub-Action 5b** – recreational gag spawning season closure

## 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
<b>December 2022</b>	<b>Review updated analysis, and select preferred alternatives</b>
January 2023	Conduct in-person public hearings
March 2023	Review final amendment, approve all actions, and approve 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 that modify recreational management measures for black grouper due to identification issues between gag and black grouper.

## Purpose and Need Statements

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

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.

### SG Advisory Panel Feedback:

#### Non-consensus feedback on Action 1

- An AP member noted concerns over the success of the rebuilding plan because of how quickly the catch levels increase throughout the rebuilding timeframe.

### Summary of Biological Effects:

- **Alternative 1 (No Action)** is not a viable alternative.
- A rebuilding timeframe that rebuilds the stock quicker can be expected to have the most biological benefit, therefore **Alternative 2** would provide the highest benefit followed by **Preferred Alternative 3**.

### Summary of Economic Effects:

- A rebuilding plan does not have a direct economic effect.
- A rebuilding plan with a shorter timeframe has the highest implied long-term economic benefit therefore **Alternative 2** would have the highest implied economic benefit followed by **Preferred Alternative 3**.

### Summary of Social Effects:

- Generally, the shorter the rebuilding plan the more severe the harvest restrictions, the more severe the harvest restrictions, the greater the short-term negative effects.
- Considering the short-term social effects **Preferred Alternative 3** is likely to have fewer negative social effects when compared to **Alternative 2**.

**Committee Action:**

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES.

## 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 ). The current acceptable biological catch level is inclusive of recreational estimates from the Marine Recreational Information Program’s Coastal Household Telephone Survey.

Year	OFL (lbs gw)	ABC (lbs gw)	Annual OY (lbs gw)	ACL (lbs gw)
2015	782,000	666,000	632,700	632,700
2016	765,000	671,000	637,450	637,450
2017	792,000	713,000	677,350	677,350
2018	813,000	748,000	710,600	710,600
2019	825,000	773,000	734,350	734,350
2020	825,000	773,000	734,350	734,350
2021	825,000	773,000	734,350	734,350
2022	825,000	773,000	734,350	734,350

**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 gag 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.

Year	OFL (lbs gw)	ABC (lbs gw)	Annual OY (lbs gw)	Total ACL (lbs gw)
2023	367,235	175,632	175,632	175,632
2024	494,338	261,171	261,171	261,171
2025	605,227	348,352	348,352	348,352
2026	706,366	435,081	435,081	435,081
2027	808,266	524,625	524,625	524,625
2028	912,033	617,778	617,778	617,778
2029	1,011,133	711,419	711,419	711,419
2030	1,098,379	800,088	800,088	800,088
2031	1,171,120	879,758	879,758	879,758
2032	1,230,363	948,911	948,911	948,911

**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 gag and set them equal to 95% 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.

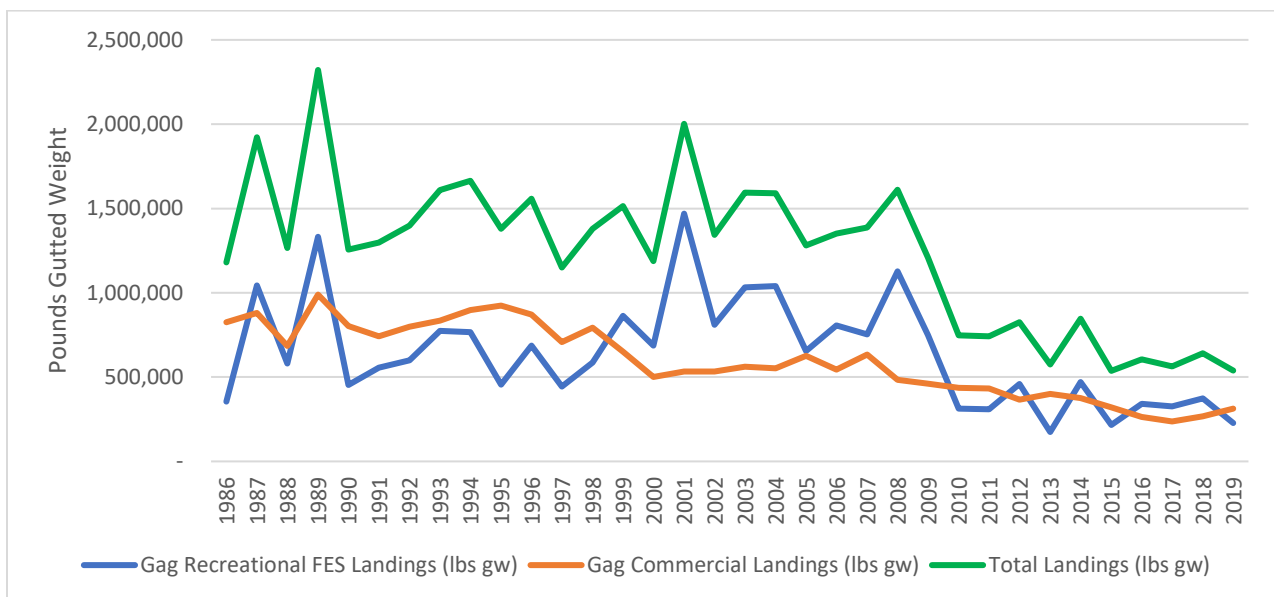
Year	OFL (lbs gw)	ABC (lbs gw)	Annual OY (lbs gw)	Total ACL (lbs gw)
2023	367,235	175,632	166,850	166,850
2024	494,338	261,171	248,112	248,112
2025	605,227	348,352	330,934	330,934
2026	706,366	435,081	413,327	413,327
2027	808,266	524,625	498,394	498,394
2028	912,033	617,778	586,889	586,889
2029	1,011,133	711,419	675,848	675,848
2030	1,098,379	800,088	760,084	760,084
2031	1,171,120	879,758	835,770	835,770
2032	1,230,363	948,911	901,465	901,465

**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 gag 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.

Year	OFL (lbs gw)	ABC (lbs gw)	Annual OY (lbs gw)	Total ACL (lbs gw)
2023	367,235	175,632	158,069	158,069
2024	494,338	261,171	235,054	235,054
2025	605,227	348,352	313,517	313,517
2026	706,366	435,081	391,573	391,573
2027	808,266	524,625	472,163	472,163
2028	912,033	617,778	556,000	556,000
2029	1,011,133	711,419	640,277	640,277
2030	1,098,379	800,088	720,079	720,079
2031	1,171,120	879,758	791,782	791,782
2032	1,230,363	948,911	854,020	854,020

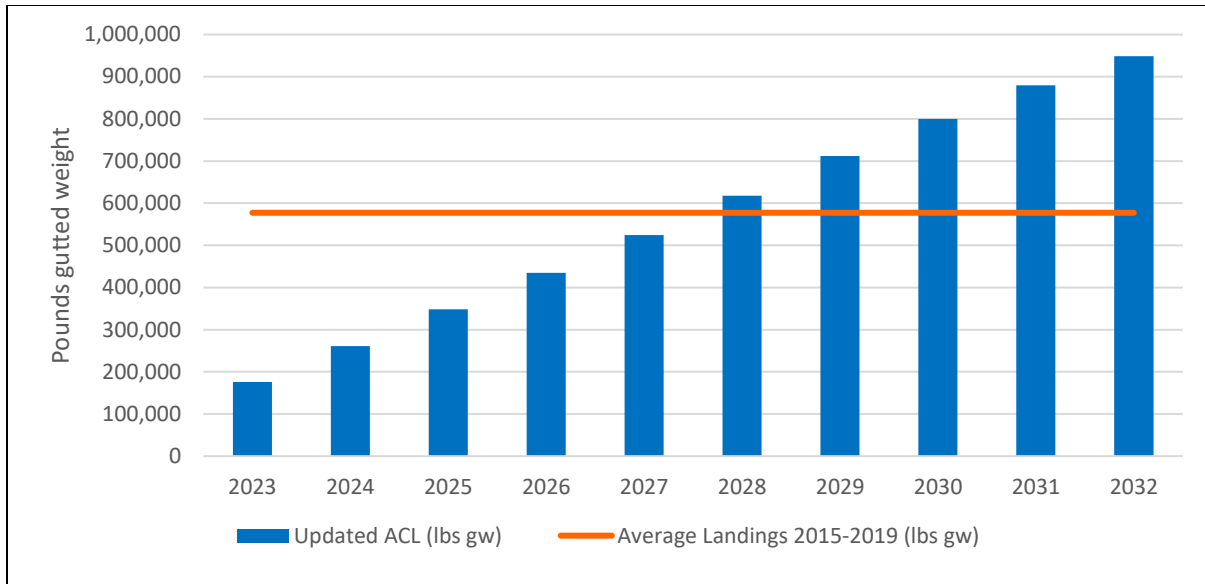
## Discussion:

- 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.
  - Consider the reduction in harvest needed and if additional management measures proposed in this amendment are sufficient to achieve these reductions.
- 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**.

### Summary of Biological Effects:

- **Alternative 1 (No Action)** is not a viable alternative, all other alternatives would be expected to end overfishing.
- A higher buffer in between ACL/OY and the ABC increases the biological benefit
  - **Alternative 4** provides the highest buffer and therefore benefit
  - **Preferred Alternative 2** provides no buffer and therefore the least benefit when compared to the other viable alternatives.

### Summary of Economic Effects:

- All alternatives are initially expected to be constraining on harvest.
- **Preferred Alternative 2** has the highest ACL and therefore the highest potential economic benefits.

**Table 2.** Estimated change in potential net economic benefits for the commercial and recreational sectors under **Preferred Alternative 2** for **Action 2**.

Year	Commercial	Recreational	Both Sectors Combined
2023	-\$520,122	-\$2,140,163	-\$2,660,285
2024	-\$432,083	-\$1,797,338	-\$2,229,421
2025	-\$342,353	-\$1,447,932	-\$1,790,285
2026	-\$253,089	-\$1,100,337	-\$1,353,426
2027	-\$160,928	-\$741,461	-\$902,388
2028	-\$65,052	-\$368,120	-\$433,172
2029	\$31,326	\$7,177	\$38,503
2030	\$122,587	\$362,547	\$485,134
2031	\$204,586	\$681,850	\$886,436

2032+	\$275,760	\$959,003	\$1,234,763
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**Summary of Social Effects:**

- ACL’s do not directly affect resource users.
- Higher ACLs generally equate to higher social benefit; therefore **Preferred Alternative 2** would provide the highest social benefit.

**Committee Action:**

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES.

### 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.

Year	Total ACL (lbs gw)	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

\*2032 allocations will remain in place until modified.

**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.

Year	Total ACL (lbs gw)	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

\*2032 allocations will remain in place until modified.

**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.** Commercial and recreational allocation percentages would change each year from 2023 to 2032 (where they would remain in place until modified) based on:

**Sub-Alternative 4a.** Total average commercial and recreational landings from 2017-2019(3-year average).

Year	Total ACL (lbs gw)	Commercial ACL (lbs gw)	Commercial Allocation %	Recreational ACL (lbs gw)	Recreational Allocation %
2023	175,632	68,281	39%	107,350	61%
2024	261,171	111,051	43%	150,120	57%
2025	348,352	154,641	44%	193,710	56%
2026	435,081	198,006	46%	237,075	54%
2027	524,625	242,778	46%	281,847	54%
2028	617,778	289,354	47%	328,423	53%
2029	711,419	336,175	47%	375,244	53%
2030	800,088	380,509	48%	419,578	52%
2031	879,758	420,344	48%	459,413	52%
2032*	948,911	454,921	48%	493,990	52%

\*2032 allocations will remain in place until modified.

**Preferred Sub-Alternative 4b.** Total average commercial and recreational landings from 2015-2019 (5-year average).

Year	Total ACL (lbs gw)	Commercial ACL (lbs gw)	Commercial Allocation %	Recreational ACL (lbs gw)	Recreational Allocation %
2023	85,326	85,326	49%	90,306	51%
2024	261,171	128,096	49%	133,075	51%
2025	348,352	171,687	49%	176,666	51%
2026	435,081	215,051	49%	220,030	51%
2027	524,625	259,823	50%	264,802	50%
2028	617,778	306,400	50%	311,379	50%
2029	711,419	353,220	50%	358,199	50%
2030	800,088	397,555	50%	402,534	50%
2031	879,758	437,390	50%	442,369	50%
2032*	948,911	471,966	50%	476,945	50%

\*2032 allocations will remain in place until modified.

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

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

## Discussion:

- **Alternative 1 (No Action)** would retain the current allocation percentages that were determined through Regulatory Amendment 22 (2015) and would be based on CHTS recreational landings. **Alternative 2** would recalculate allocations using the same methods used in Regulatory Amendment 22 (2015) but would use the updated recreational landings estimates from the MRIP FES.
- **Alternative 3** would utilize the Comprehensive ACL Amendment’s Allocation Formula:

$$\text{Sector Allocation Percentage} = ((\text{sector's mean landings 2006 to 2008}) * 0.5) + ((\text{sector's mean landings 1986 to 2008}) * 0.5)$$

- **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 in poundage is split equally between sectors.
  - **Alternative 4a** is based on the 3-year average landings from 2017-2019:

**Table 4.** The baseline years and average landings by sector used to determine allocations under **Sub-Alternative 4a** from **Action 3**.

Allocation Basis Years	Average 2017-2019 Commercial Landings (lbs gw)	Average 2017-2019 Recreational Landings (lbs gw)	Total Average 2017-2019 Landings (lbs gw)
3 Year Average from 2017-2019	231,736	364,331	596,067

**Table 5.** The resulting sector ACLs and percent allocation from the split reduction method used to determine year 1 allocations under **Sub-Alternative 4a** from **Action 3**.

Year	Total ACL (lbs gw)	Percent Reduction for each Sector Needed to Achieve Updated ACL	Commercial ACL (lbs gw)	Commercial Allocation %	Recreational ACL (lbs gw)	Recreational Allocation %
2023	175,632	71%	68,281	39%	107,350	61%

- **Preferred Alternative 4b** is based on the 5-year average landings from 2015-2019:

**Table 6.** The baseline years and average landings by sector used to determine allocations under **Preferred Sub-Alternative 4b** from **Action 3**.

Allocation Basis Years	Average 2015-2019 Commercial Landings (lbs gw)	Average 2015-2019 Recreational Landings (lbs gw)	Total Average 2015-2019 Landings (lbs gw)

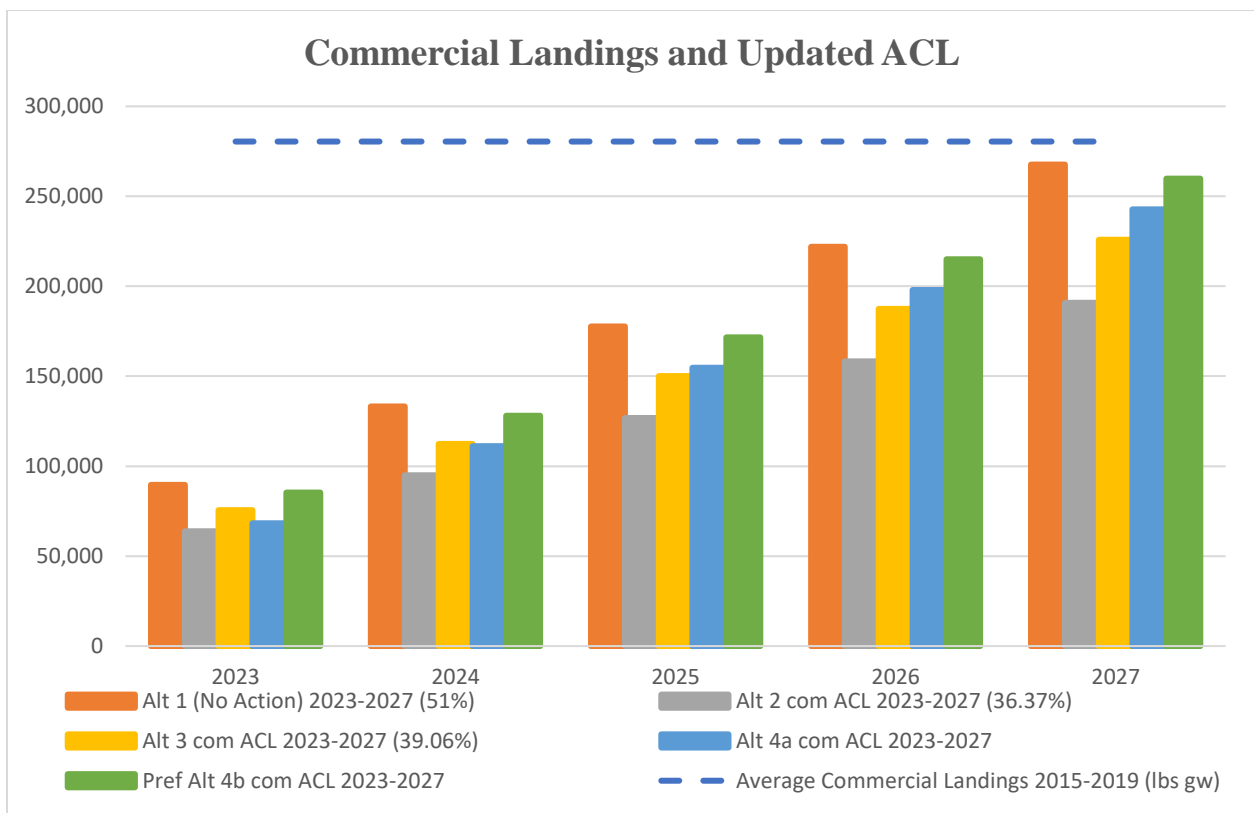


5 Year Average from 2015-2019	280,440	296,804	577,244
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**Table 7.** The resulting sector ACLs and percent allocation from the split reduction method used to determine year 1 allocations under **Sub-Alternative 4b** from **Action 3**.

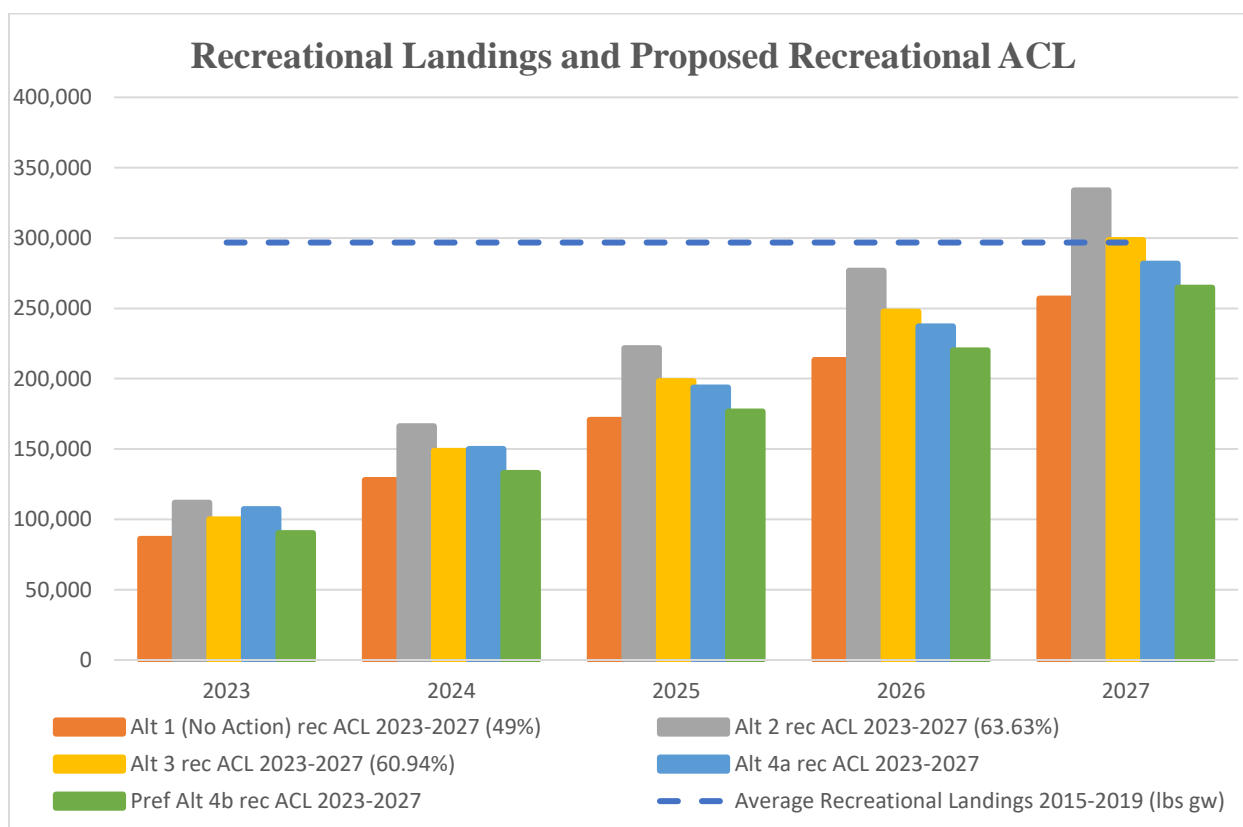
Year	Total ACL (lbs gw)	Percent Reduction for each Sector Needed to Achieve Updated ACL	Commercial ACL (lbs gw)	Commercial Allocation %	Recreational ACL (lbs gw)	Recreational Allocation %
2023	175,632	70%	85,326	49%	90,306	51%

- 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 8**:
  - 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 **Draft Amendment Appendix F** for full analysis.

**Table 8.** 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.

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

**Summary of Biological Effects:**

- Biological effects have the potential to decrease if a sector with historically higher discards receives a higher allocation.
  - The recreational sector has historically higher discards vs landings ratios (Chapter 4, Table 4.3.1.1).

- Therefore, **Alternative 2, 3, and 4a** could incur negative effects since they allocate more to the recreational sector.
- **Preferred Alternative 4b** is not expected to substantially differ from **Alternative 1 (No Action)** since the allocation percentages would be similar.

**Summary of Economic Effects:**

- Economic benefits may increase if a sector is allocated more of the total ACL and decreases if their sector ACL is reduced.
- Under **Preferred Alternative 2** the following changes in net economic benefit are expected:

**Table 9.** Estimated change in potential net economic benefits for the commercial and recreational sectors under **Preferred Alternative 4b** in **Action 3** compared to **Alternative 1 (No Action)** (2021 \$).

<b>Year</b>	<b>Commercial</b>	<b>Recreational</b>	<b>Both Sectors Combined</b>
2023	-\$8,569	\$34,729	\$26,160
2024	-\$10,294	\$41,575	\$31,281
2025	-\$12,054	\$48,863	\$36,809
2026	-\$13,804	\$55,946	\$42,142
2027	-\$15,612	\$63,275	\$47,663
2028	-\$17,491	\$70,898	\$53,407
2029	-\$19,382	\$78,553	\$59,172
2030	-\$21,170	\$85,808	\$64,638
2031	-\$22,778	\$62,327	\$69,549
2032+	-\$241,725	\$97,979	\$73,804

**Summary of Social Effects:**

- Social benefits may increase if a sector is allocated more of the total ACL and decreases if their sector ACL is reduced.
- Both sector ACLs are expected to be constraining on harvest as a result of reduced catch levels.

**Committee Action:**

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES.

## 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.

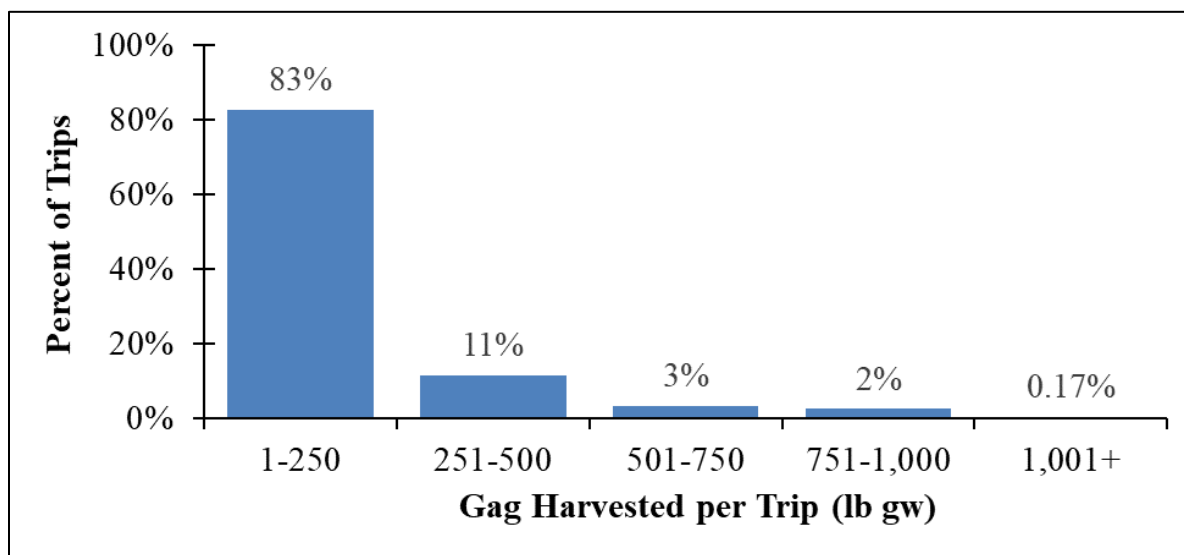
- From 2014 to 2019 there has been only one commercial closure, which occurred in November of 2014 (**Table 11**).

**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 table to display when overages are expected to end under different trip limits. The commercial overages were determined using the [Commercial Decision Tool](#) 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%

**Table 14.** The date the commercial ACL is projected to be met under each trip limit alternative for **Sub-Action 4a**. Dates are based on a total ACL from **Preferred Alternative 2** from **Action 2** and sector ACLs from **Preferred Alternative 4b** from **Action 3**.

Year	Alternative	Alternative/Trip Limit	Approximate Date ACL will be Met
2023	Alternative 1 (No Action)	1,000 lbs gw	June 25th
2027	Alternative 1 (No Action)	1,000 lbs gw	No Closure
2032	Alternative 1 (No Action)	1,000 lbs gw	No Closure
2023	Alternative 2	200 lbs gw	Aug 5th
2027	Alternative 2	200 lbs gw	No Closure
2032	Alternative 2	200 lbs gw	No Closure



2023	Preferred Alternative 3	300 lbs gw	July 15th
2027	Preferred Alternative 3	300 lbs gw	No Closure
2032	Preferred Alternative 3	300 lbs gw	No Closure
2023	Alternative 4	400 lbs gw	July 5th
2027	Alternative 4	400 lbs gw	No Closure
2032	Alternative 4	400 lbs gw	No Closure
2023	Alternative 5	500 lbs gw	June 30th
2027	Alternative 5	500 lbs gw	No Closure
2032	Alternative 5	500 lbs gw	No Closure
2023	Alternative 6	300 lbs gw in 2023, 500 lbs gw in 2026, and 1,000 lbs gw in 2027	July 15th
2027	Alternative 6	300 lbs gw in 2023, 500 lbs gw in 2026, and 1,000 lbs gw in 2027	No Closure
2032	Alternative 6	300 lbs gw in 2023, 500 lbs gw in 2026, and 1,000 lbs gw in 2027	No Closure

## SG Advisory Panel Feedback:

### Non-consensus feedback on Sub-Action 4a:

- NC: Prefer a 200 lbs trip limit to a May closure.
- NC: 200 lbs trip limit, open May 15<sup>th</sup>.

## Summary of Biological Effects:

- Biological effects are not expected to differ among alternatives in terms of risk to overfishing because harvest would be limited to the commercial ACL.
- Under **Alternative 6**, the commercial trip limit would be increased regardless of whether adequate rebuilding occurs, which could have negative effects on the stock.
- Reducing the commercial trip limit could extend the length of the commercial season, therefore alternatives that provide the largest trip limit could result in a shorter season and an increase in discards.

## Summary of Economic Effects:

- Lower trip limits would allow for lower levels of revenue over more trips, thus potentially decreasing net economic benefits through decreased net revenue.
- Under **Preferred Alternative 3** there is expected to be a \$93,505 reduction in net economic benefits in the 2023 fishing year.

## Summary of Social Effects:

- Lower trip limit may extend the commercial season however trip limits that are low may make trips too inefficient and too costly.

- All alternatives, assuming the preferred alternatives from Actions 1 through 3 are applied, are expected to be constraining on commercial harvest.
- The increase in trip limit under **Alternative 6** is likely to result in some social benefit as the access to the resource is increased over time.

**Committee Action:**

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES.
- REVIEW SG AP FEEDBACK.

## 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).** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney).

**Alternative 2.** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney). For gag only, revise the timing of these restrictions to January 1 through May 31 throughout the exclusive economic zone.

**Alternative 3.** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney). For gag only, revise the timing of these restrictions to December 1 through April 30 throughout the exclusive economic zone.

**Alternative 4.** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney). For gag only, revise the timing of these restrictions to December 1 through May 31 throughout the exclusive economic zone.

**Table 15.** A summary of alternatives for Action 4, Sub-action 4b.

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

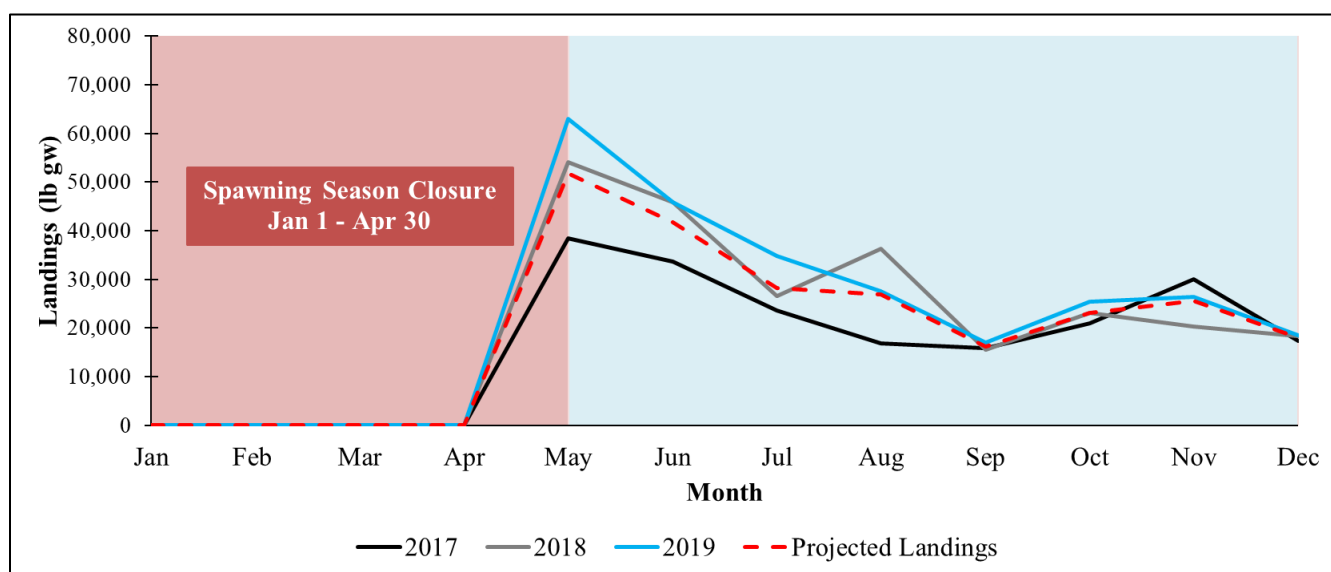
### Discussion:

- The shallow water grouper spawning season closure was established through Amendment 16 to the FMP (2009) to protect shallow water grouper spawning aggregations, including gag (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 stated they observed fish in spawning condition 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.

### SG Advisory Panel Feedback:

#### Non-consensus feedback on Sub-Action 4b, Sub-Action 5b, and Sub-Action 7b (Spawning Season Closures):

- Commercial-NC: Opposed to May closure because it is a very important month for the fishery.
  - Would prefer a lower trip limit over a longer closure.
- Spawning activity noticed in May.
  - Less spawning activity noted in December vs May.
- Commercial/Recreational: May is an important month for both sectors.
- Commercial-FL: Opposed to a May closure as this is the best time to catch them off Florida, after May they migrate north.
- Recreational-FL: Opposed to May closure because of concerns with discards while fishermen target other shallow water grouper species.

- Prefer to rely on trip limits and MPAs during the rebuilding plan.
- Recreational-NC: Opposed to a December closure.
- For-Hire-GA: Opposed to May closure, December would be OK for the charter vessels.
- SC: Opposed to May closure because it is a very important month for the fishery.
- Suggestion of closing a portion of May and portion of December or matching the spawning closure of gag with red grouper.

### Summary of Biological Effects:

- A longer spawning season closure provides the most biological benefit to the stock, therefore **Alternative 4** would provide the most biological benefit followed by **Alternative 3** and **2**, and then **Alternative 1 (No Action)**.
- The current spawning season closure encompasses peaking spawning.

### Summary of Economic Effects:

- A shorter season would reduce short-term economic benefits.
- From a short-term economic benefits perspective, **Preferred Alternative 1 (No Action)** would provide the highest economic benefits followed by **Alternative 3**, **Alternative 2**, and **Alternative 4**.

### Summary of Social Effects:

- The spawning season closure will be a trade-off between the biological benefits of extending the closure and increased commercial fishing opportunities if it remains unmodified.
- **Preferred Alternative 1 (No Action)** would cause the least amount of disruption to commercial fishing businesses as fishermen have already adjusted their practices to this closure. Thus, in the short-term, **Preferred Alternative 1 (No Action)** would provide the most access to fishing communities, followed by **Alternative 2**, **Alternative 3**, and **Alternative 4**.

### Committee Action:

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES.
- REVIEW SG AP FEEDBACK

**DRAFT MOTION:** MOVE SUB-ACTION 4B TO THE CONSIDERED BUT REJECTED APPENDIX

## 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 3a.** 2 fish per vessel per trip

**Sub-Alternative 3b.** 4 fish per vessel per trip

**Table 16.** 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.

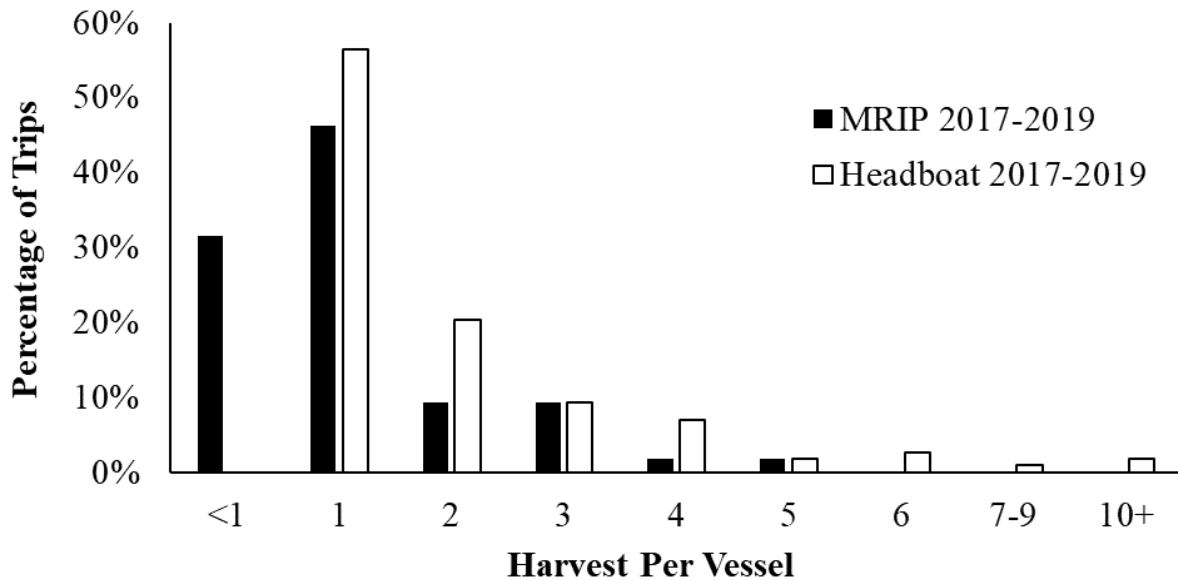
#### Discussion:

- 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.
- 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.

- Per Day vs Per Trip Analysis:
  - Within the MRIP data, information is not available on how many trips private recreational vessels make in a day.
  - No charter or headboat vessels within the dataset indicated multiple trips per day.
  - Within the headboat dataset, no headboats indicated multiple trips per day.

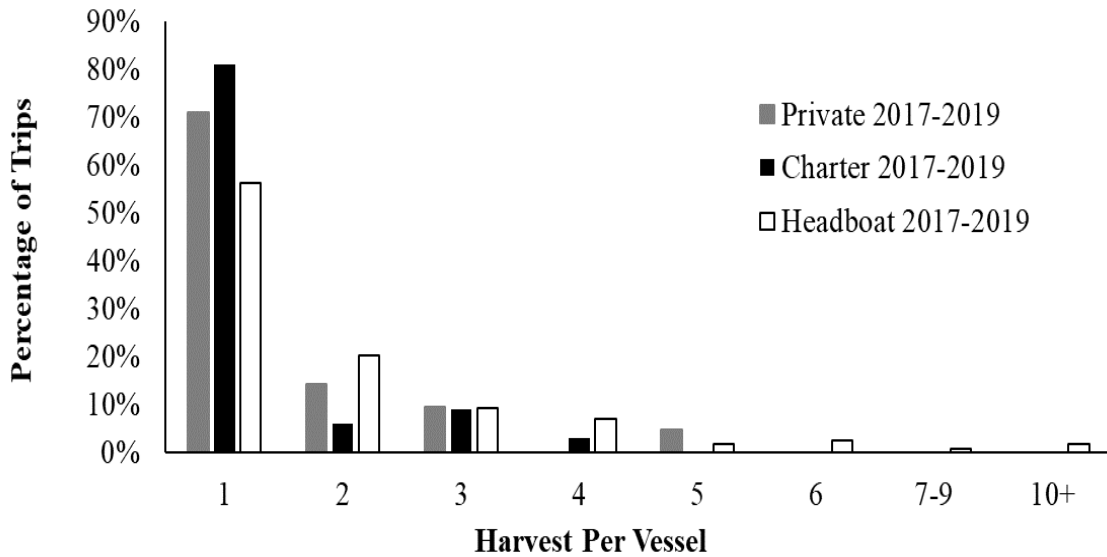


**Figure 8.** Distribution of South Atlantic gag harvested per vessel trip from the two recreational datasets: MRIP FES (n = 54 trips), and headboat (n= 897 trips).

**Table 17.** 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).

- Estimated reductions from projected landings for potential trip limits are shown in **Table 18**.

**Table 18.** The predicted percent change in landings per trip from the current 1 fish per person per day (pp/day) limit. Each **Sub-Action 5a** alternative specifies that a vessel limit or a 1 fish pp/day limit will be imposed, depending on whichever is more restrictive. Since current regulations already specify 1 fish pp/day, there is no predicted percent change in landings per trip should the bag limit of 1 fish pp/day be more restrictive.

Action 5 Alternatives	Potential Vessel Limit (# of fish)	MRIP Private Predicted Change in Landings	MRIP Charter Predicted Change in Landings	SRHS Predicted Change in Landings
<b>Alternative 1 (No Action)</b>	1 fish pp/day	0%	0%	0%
<b>Alternative 2</b>	2 per vessel			
<b>Alternative 2a</b>	2 per vessel: private sector	-20%	--	--
<b>Alternative 2b</b>	2 per vessel: for-hire sector	--	-13%	-30%
<b>Alternative 3</b>	4 per vessel			
<b>Alternative 3a</b>	4 per vessel: private sector	-3%	--	--



<b>Alternative 3b</b>	4 per vessel: for-hire sector	--	0%	-11%
<b>Alternative 4</b>	6 per vessel			
<b>Alternative 4a</b>	6 per vessel: private sector	0%	--	--
<b>Alternative 4b</b>	6 per vessel: for-hire sector	--	0%	-5%
<b>Alternative 5</b>	6 per vessel			
<b>Alternative 5a</b>	6 per vessel: private sector	0%	--	--
<b>Alternative 5b</b>	6 per vessel: for-hire sector	--	0%	-5%

## SG Advisory Panel Feedback:

### Non-consensus feedback on Sub-Action 4b:

- Concerns noted over the abuse of the “per-day” vessel limit.
- 4 fish/vessel/trip preferred for both components of the recreational sector.

### Recommendations Informally Voted On:

- 2 gag per vessel per day for private and for-hire components – 10 in favor, 3 opposed, 3 abstained.
- 2 gag per vessel per day for private vessels, 4 gag per vessel per day for for-hire vessels – 0 in favor.
- 1 gag per vessel per day for private vessels, 2 fish per vessel per day for charter vessels, and a division of fish per headcount for for-hire vessels (10-20 people: 6 fish, 30+ people: 10 fish) – 8 in favor.

### Formal Motions:

- **MOTION 1: RECOMMEND THE COUNCIL CONSIDER THE GAG RECREATIONAL VESSEL LIMIT BE 1 FISH PER VESSEL PER DAY FOR THE PRIVATE COMPONENT, 2 FISH PER VESSEL PER DAY FOR THE CHARTER COMPONENT, AND DEPENDENT ON CUSTOMER COUNT FOR HEADBOAT (10-30 PEOPLE: 6 FISH PER VESSEL PER DAY, 30+ PEOPLE: 10 FISH PER VESSEL PER DAY)**  
**Motion Passed (5/3/8)**
- **RECOMMEND THE COUNCIL CONSIDER THE GAG RECREATIONAL BAG LIMIT BE 1 FISH PER 3 PEOPLE ON A VESSEL**  
**Motion Failed**

## Summary of Biological Effects:

- Biological effects are not expected to differ among alternatives in terms of risk to overfishing because harvest would be limited to the recreational ACL.
- Reducing the commercial trip limit could extend the length of the recreational season, therefore alternatives that provide the largest vessel limit could result in a shorter season and an increase in discards.

### Summary of Economic Effects:

- Establishing a vessel limit will result in a reduction in harvest and economic benefits, however it would allow longer access to the fishery during the fishing year.
- The estimated change in net economic benefits in 2023:

**Table 19.** Comparison of the estimated change in recreational landings of gag grouper and associated net economic benefits (CS) for **Sub-Action 5a** in the 2023 fishing year (2021 \$).

Alternative	Estimated change in landings (lbs gw)	Change in CS (2021 \$)
Alternative 1 (No Action)	0	-
Alternative 2, Sub-Alt 2a	-54,449	-\$445,351
Alternative 2, Sub-Alt 2b	-8,409	-\$68,779
Alternative 3, Sub-Alt 3a	-6,918	-\$56,584
Alternative 3, Sub-Alt 3b	-663	-\$5,423

### Summary of Social Effects:

- Vessel limits are a trade-off between longer access during a fishing season and a vessel limit that makes trips too inefficient and/or costly.
- Sector components that have a more restrictive vessel limit may have more negative social effects.

### Committee Action:

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES AND SELECT A PREFERRED ALTERNATIVE.
- REVIEW SG AP FEEDBACK

## 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).** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney).

**Alternative 2.** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney). For gag only, revise the timing of these restrictions to January 1 through May 31 throughout the exclusive economic zone.

**Alternative 3.** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney). For gag only, revise the timing of these restrictions to December 1 through April 30 throughout the exclusive economic zone.

**Alternative 4.** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney). For gag only, revise the timing of these restrictions to December 1 through May 31 throughout the exclusive economic zone.

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

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

### Discussion:

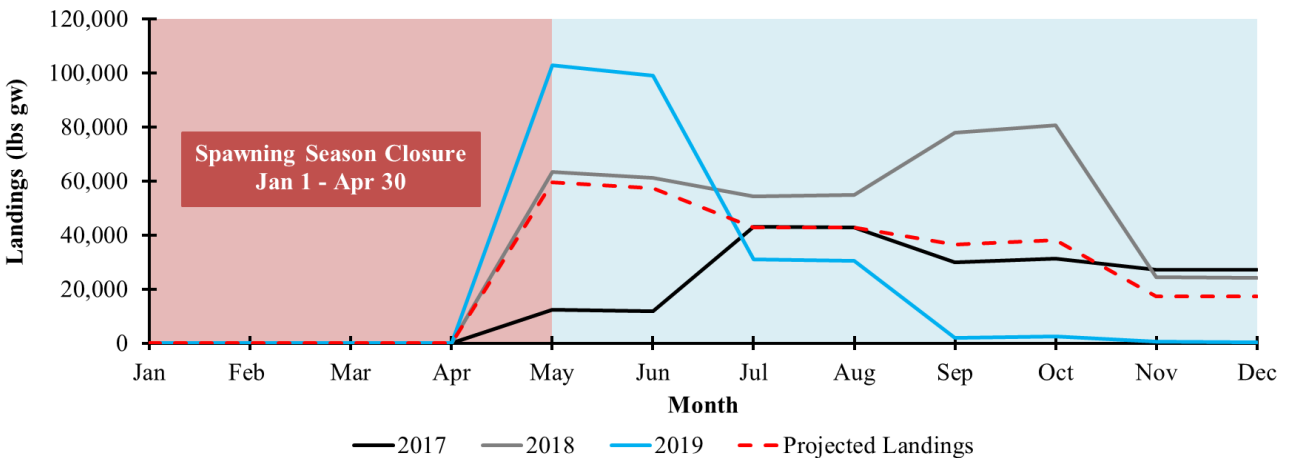
- The shallow water grouper spawning season closure was established through Amendment 16 to the FMP (2009) to protect shallow water grouper spawning aggregations, including gag

(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 **Draft Amendment Appendix F** for full analysis.



**Figure 10.** 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.

### Summary of Biological Effects:

- A longer spawning season closure provides the most biological benefit to the stock, therefore **Alternative 4** would provide the most biological benefit followed by **Alternative 3** and **4**, and then **Alternative 1 (No Action)**.
- The current spawning season closure encompasses peaking spawning.

### Summary of Economic Effects:

- From a short-term economic benefits perspective, **Preferred Alternative 1 (No Action)** would provide the highest economic benefits followed by **Alternative 3**, **Alternative 2**, and **Alternative 4**.

### **Summary of Social Effects:**

- The spawning season closure will be a trade-off between the biological benefits of extending the closure and increased recreational fishing opportunities if it remains unmodified
- **Preferred Alternative 1 (No Action)** would cause the least amount of disruption to recreational fishermen as they have already adjusted their practices to this closure. Thus, in the short-term, **Preferred Alternative 1 (No Action)** would provide the most access to fishing communities, followed by **Alternative 2**, **Alternative 3**, and **Alternative 4**

### **Committee Action:**

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES.

**DRAFT MOTION:** MOVE SUB-ACTION 5B TO THE CONSIDERED BUT REJECTED APPENDIX

## 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 and crew on a for-hire vessel with a Federal for-hire snapper-grouper permit may retain the daily bag limit of gag as allowed for each passenger.

**Alternative 2:** The gag bag limit for captain and crew on a for-hire vessel with a Federal for-hire snapper-grouper permit is zero.

### Discussion:

- MRIP files do not categorize captain and crew, so the retention by captain and crew is assumed when the catch exceeds the party size. From 2017-2019 all for-hire and private trips reported no more than 1 gag per angler per trip.
- Assuming that the customer is retaining this fish, then prohibiting the retention of captain and crew bag limits may have little to no effect on the for-hire sector.

### SG Advisory Panel Feedback:

**MOTION:** RECOMMEND THE COUNCIL CONSIDER ALTERNATIVE 2 AS THE PREFERRED FOR SUB-ACTION 5C

**Motion Passed (16/0/0)**

### Summary of Biological Effects:

- Reductions in landings from captain and crew are hard to quantify because surveys do not provide information on the number of fish retained by captain and crew.
- **Alternative 2** would reduce the daily bag limit for captain and crew and potentially result in a longer recreational season.

### Summary of Economic Effects:

- Removing the captain and crew bag limit would likely result in a reduction in harvest and economic benefits associated with that harvest.
- **Alternative 2** would be expected to reduce economic benefits on some fishing trips.
- Since the revised recreational sector ACL is expected to be fully harvested when initially implemented in 2023 and many subsequent years, total CS in the recreational gag fishery is expected to be similar between the alternatives.

### Summary of Social Effects:

- Removing the captain and crew bag limit could adversely affect the captain and crew satisfaction.
- Slowing the rate of harvest may have positive long-term social benefits.

**Committee Action:**

- REVIEW DRAFT EFFECTS
- REVIEW RANGE OF ALTERNATIVES AND SELECT PREFERRED ALTERNATIVE
- REVIEW SG AP FEEDBACK

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

## **SG Advisory Panel Feedback:**

**MOTION:** RECOMMEND THE COUNCIL CONTINUE TO CONSIDER PREFERRED ALTERNATIVE 4 AS THE PREFERRED FOR ACTION 6

**Motion Passed (15/0/1)**

## **Summary of Biological Effects:**

- Biological effects would be expected to be greater for the alternative that provides the most timely and realistic option chosen to trigger and implement an AM.
- In-season AMs may not be able to be implemented in time for fisheries with short seasons.
- Considering these factors, biological benefits would be greatest under **Alternative 1 (No Action)**, **2, Preferred Alt. 4**, and **3**.

## **Summary of Economic Effects:**

- Economic effects can be examined on a short and long-term basis:
  - Negative short-term effects would occur when AMs are put in place that result in more closures and paybacks and less access to the resource.
  - This situation would in turn result in long-term benefits because the AM would ensure sustainable harvest and could contribute to rebuilding of the stock.
  - In terms of potential short-term negative economic effects to the recreational sector, **Alternative 1 (No Action)** would have the highest potential negative economic effects since there is a payback provision, followed by **Preferred Alternative 4**, **Alternative 2**, and **Alternative 3**.

## **Summary of Social Effects:**

- AMs do not have a direct social effect, but in-season closures and paybacks can have negative social effects when access to the resource is restricted.
- **Preferred Alternative 4** retains this in-season closure, which, if triggered would have negative social effects but it removes the payback provision which would prevent the direct and indirect negative social effects of a smaller ACL following an overage

## **Committee Action:**

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES.
- REVIEW SG AP FEEDBACK

## 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 3a.** 2 fish per vessel per trip

**Sub-Alternative 3b.** 4 fish per vessel per trip

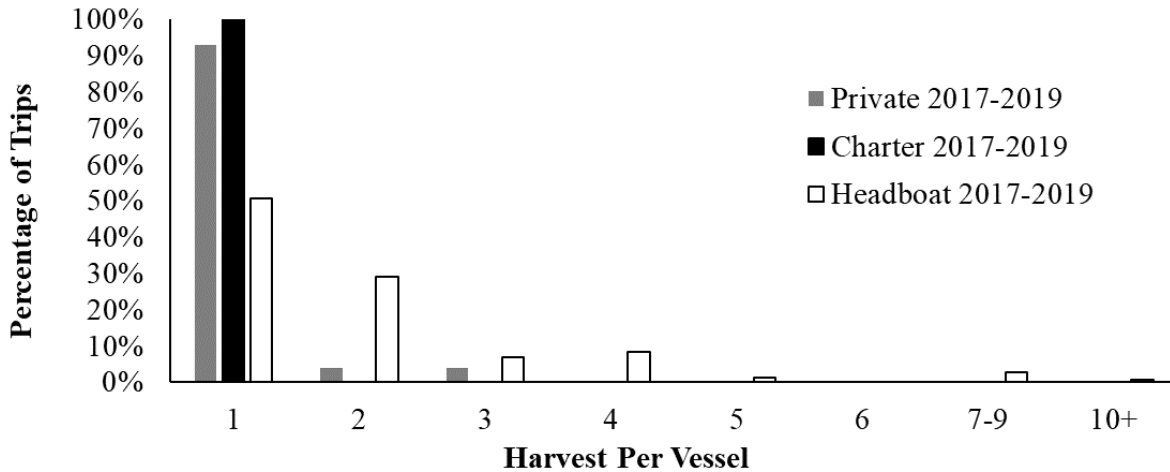
**Table 22.** A summary of alternatives under **Action 5, Sub-action 5a.**

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:

- Recent recreational catch-effort data from the MRIP FES and the SRHS were used to examine vessel limits in the South Atlantic black grouper recreational fishery. From 2017 through 2019, there were:
  - 9 charter trips and 28 private trips in the MRIP FES that reported black grouper
  - 144 trips in the SRHS that reported harvesting black grouper in the South Atlantic
  - All trips reported landing one black grouper or fewer per person per day
  - Majority of for-hire trips (100% charter and 54% headboat) and private trips (93%) reported harvesting one black grouper or fewer per trip (Figure 10).



**Figure 11.** Distribution of South Atlantic black grouper harvested per vessel trip from the two recreational datasets: MRIP FES (n = 27 private trips and 9 charter trips), and SRHS (n= 144 headboat trips).

- Estimated reductions from projected landings for potential trip limits are shown in **Table 22**.

**Table 22.** The predicted percent change in landings per trip from the current 1 fish per person per day (pp/day) limit. Each **Sub-Action 7a** Alternative specifies that a vessel limit or a 1 fish pp/day limit will be imposed, depending on whichever is more restrictive. Since current regulations already specify 1 fish pp/day, there is no predicted percent change in landings per trip should the bag limit of 1 fish pp/day be more restrictive.

Action 7 Alternatives	Potential Vessel Limit (# of fish)	MRIP Private Predicted Change in Landings	For-hire Predicted Change in Landings
Alternative 1 (No Action)	1 fish pp/day	0%	0%
Alternative 2	2 per vessel	-6%	-24%
Alternative 3	4 per vessel	0%	-7%

- From 2017-2021, black grouper landings have averaged below 50% and less of the ACL, and therefore any reduction in landings as a result of a vessel or bag limit will make it even less likely that black grouper landings meet or exceed the ACL (**Table 23**).

**Table 23.** The percentage of the black grouper ACL harvested from 2017-2021.

Year	Percentage of ACL Harvested
2017	52%
2018	73%
2019	19%
2020	49%

2021	44%
<b>5-yr Average</b>	47%

Source: Southeast Region Annual Catch limit Monitoring.

- When examining the SEFHIR data, 1% of charter trips showed overlap between gag and black grouper.

### Summary of Biological Effects:

- It is the goal of the Council to implement black grouper recreational harvest constraints to indirectly benefit the gag fishery and reduce misidentification issues.
- **Alternatives 2 and 3** and the respective sub-alternatives are expected to constrain harvest compared to **Alternative 1 (No Action)**. Harvest constraint is not needed for the black grouper fishery but assuming gag and black grouper are misidentified, it could indirectly provide greater biological benefits for the gag stock.
- **Sub-Alternative 2a** is expected to be most constraining on the private recreational sector which could increase discards.
- **Sub-Alternative 2b** is not expected to constrain black grouper harvest.
- **Sub-Alternative 3a** is most constraining on the for the for-hire component which could results in increased discards.
- **Sub-Alternative 3b** is expected to have a very little (7%) reduction in harvest.

### Summary of Economic Effects:

- Since **Alternative 2 and 3** will restrict black grouper harvest, these alternatives would be expected to decrease net economic benefits when compared to **Alternative 1 (No Action)**

### Summary of Social Effects:

- Vessel limits are a trade-off between longer access during a fishing season and a vessel limit that makes trips too inefficient and/or costly
- Sector components that have a more restrictive vessel limit may have more negative social effects

### Committee Action:

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES AND SELECT A PREFERRED ALTERNATIVE.

## 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).** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney).

**Alternative 2.** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney). For black grouper only, revise the timing of these restrictions to January 1 through May 31 throughout the exclusive economic zone.

**Alternative 3.** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney). For black grouper only, revise the timing of these restrictions to December 1 through April 30 throughout the exclusive economic zone.

**Alternative 4.** During January through April, no person may fish for, harvest, or possess in or from the South Atlantic exclusive economic zone any shallow-water grouper (gag, black grouper, scamp, red grouper, yellowfin grouper, yellowmouth grouper, red hind, rock hind, graysby, or coney). For black grouper only, revise the timing of these restrictions to December 1 through May 31 throughout the exclusive economic zone.

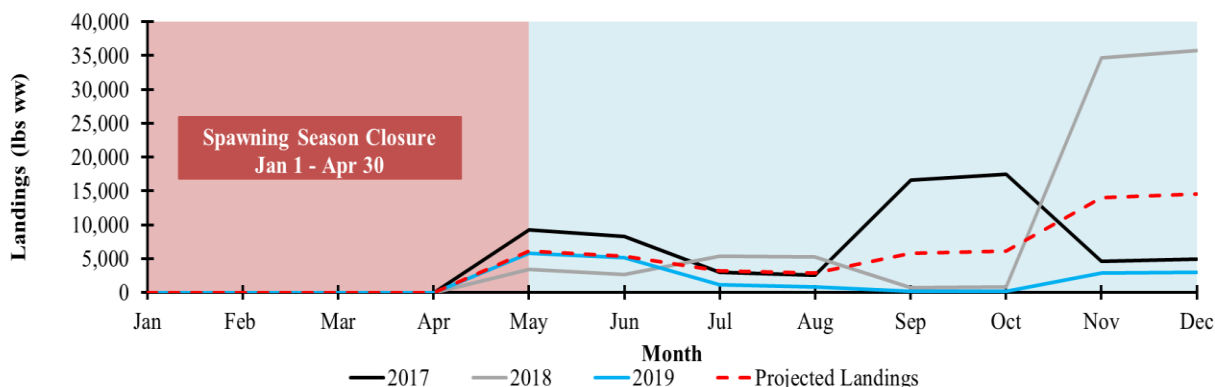
**Table 25.** A summary of alternatives for Action 5, Sub-Action 5b.

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 shallow water grouper spawning season closure was established through Amendment 16 to the FMP (2009) to protect shallow water grouper spawning aggregations, including black grouper (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.
- Black grouper landings from 2017 through 2019 show an increase in landings in mid-August through mid-October and another increase in landings in November for some years (Figure 12).



**Figure 12.** South Atlantic black grouper recreational landings by month from 2017-2019 and predicted 2023 landings.

### SG Advisory Panel Feedback

- **MOTION: RECOMMEND THE COUNCIL CONSIDER ALTERNATIVE 1 (NO ACTION) FOR ACTION 7B AS THE PREFERRED Motion Passed (8/2/6)**

### Summary of Biological Effects:

- A longer season provides the most biological benefit to the stock, therefore **Alternative 4** would provide the most biological benefit followed by **Alternative 3** and **4**, and then **Alternative 1 (No Action)**.

### Summary of Economic Effects:

- From a short-term economic benefits perspective, **Preferred Alternative 1 (No Action)** would provide the highest economic benefits followed by **Alternative 3**, **Alternative 2**, and **Alternative 4**.

### Summary of Social Effects:

- The spawning season closure will be a trade-off between the biological benefits of extending the closure and increased recreational fishing opportunities if it remains unmodified

- **Preferred Alternative 1 (No Action)** would cause the least amount of disruption to recreational fishermen as they have already adjusted their practices to this closure. Thus, in the short-term, **Preferred Alternative 1 (No Action)** would provide the most access to fishing communities, followed by **Alternative 2**, **Alternative 3**, and **Alternative 4**.

**Committee Action:**

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES AND SELECT A PREFERRED ALTERNATIVE.



## 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):** The captain and crew on a for-hire vessel may retain the same daily bag limit of black grouper as allowed for each passenger.

**Alternative 2:** The captain and crew on a for-hire vessel may retain the same daily bag limit of black grouper as allowed for each passenger.

### Discussion:

- MRIP files do not categorize captain and crew, so the retention by captain and crew is assumed when the catch exceeds the typical party size. From 2017-2019 all for-hire and private trips reported no more than 1 black grouper per person per trip.
- Assuming that the customer is retaining this fish then prohibiting the retention of captain and crew will have little to no effect on the for-hire sector.

### SG Advisory Panel Feedback

- **MOTION:** RECOMMEND THE COUNCIL CONSIDER ALTERNATIVE 2 FOR ACTION 7C AS THE PREFERRED  
**Motion Passed (13/0/2)**
- **RECOMMENDATION:** CONTINUE TO EXCLUDE ANY AND ALL COMMERCIAL MODIFICATIONS FOR BLACK GROUPER IN AMENDMENT 53

### Summary of Biological Effects:

- Reductions in landings from captain and crew are hard to quantify because surveys do not provide information on the number of fish retained by captain and crew.
- **Alternative 2** would reduce the daily bag limit for captain and crew and potentially result in a longer recreational season.

### Summary of Economic Effects:

- Removing the captain and crew bag limit (**Alternative 2**) would likely result in a reduction in harvest and economic benefits associated with that harvest.

### Summary of Social Effects:

- Removing the captain and crew bag limit could adversely affect the captain and crew satisfaction.

- Slowing the rate of harvest would not have the same long-term benefits as gag because black grouper is not overfished or experiencing overfishing.

**Committee Action:**

- REVIEW DRAFT EFFECTS.
- REVIEW RANGE OF ALTERNATIVES AND SELECT PREFERRED ALTERNATIVE.

**DRAFT MOTION:** DIRECT STAFF TO CONDUCT TWO WEBINAR PUBLIC HEARINGS IN JANUARY 2023

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