DRAFT DOCUMENT

Amendment 55

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

Re-organization of complexes; Establishment of new Scamp and Yellowmouth Grouper complex, Status determination criteria, Rebuilding plan, Catch levels, Sector allocations, Management measures, Accountability measures; and Catch level modification for the Other South Atlantic Shallow Water Grouper complex

Environmental Assessment, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis

March 2024 DRAFT

South Atlantic Fishery Management Council
4055 Faber Place Drive; Suite 201
North Charleston, SC 29405

Award Number FNA15NMF4410010

DRAFT DOCUMENT

Amendment 55 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

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Proposed action(s):

Reorganize the Other South Atlantic Shallow Water Grouper complex, establish a new Scamp and Yellowmouth Grouper complex including stock determination criteria, catch levels, sector allocations, management measures, and accountability measures. Modify the catch levels for the remaining species within the Other South Atlantic Shallow Water Grouper complex.

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This Environmental Assessment applies CEQ's NEPA regulations currently in effect. See 50 C.F.R. § 1506.13.

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Summary

The latest Southeast Data, Assessment, and Review (SEDAR) stock assessment (SEDAR 68 Operational Assessment [OA] 2022) assessed scamp and yellowmouth grouper in the South Atlantic as a single species due to misidentification issues between the two species. SEDAR 68 OA (2022) indicated that the scamp and yellowmouth grouper stock is overfished, but that overfishing is not occurring. Because this assessment provided stock status recommendations for both species in combination, the Other South Atlantic Shallow Water Grouper complex (OSASWG complex) which currently contains yellowmouth grouper needs to be reorganized. This complex has a single catch level and accountability measure applied to the six species within it, whereas the South Atlantic stock of scamp has separate catch level and accountability measures. This amendment would remove yellowmouth grouper from the OSASWG complex and establish a new Scamp and Yellowmouth Grouper complex.

Because the Scamp and Yellowmouth Grouper complex has yet to be established, Amendment 55 would implement the following for the new complex: the stock maximum sustainable yield (MSY), maximum fishing mortality threshold (MFMT), minimum stock size threshold (MSST), and equilibrium optimum yield (OY). In addition to these stock determination criteria, a rebuilding plan would be established for the new complex in response to the overfished status as per the stock assessment. Under the Magnuson-Stevens Fishery Conservation and Management Act, a Council must develop a new rebuilding plan for an overfished stock two years from when it receives notification from the National Marine Fisheries Service (NMFS). NMFS notified the South Atlantic Fishery Management Council (Council) of the overfished status of scamp and yellowmouth grouper on September 21, 2023; therefore, a rebuilding plan must be implemented by September 2025.

The Council's Scientific and Statistical Committee (SSC) reviewed the assessment and recommended an overfishing limit (OFL) and acceptable biological catch (ABC). The Council would adopt these catch levels and establish an annual catch limit (ACL). The current catch levels for scamp (individual) and yellowmouth grouper (within the OSASWG complex) are inclusive of recreational landings estimates using the Marine Recreational Information Program (MRIP) Coastal Household Telephone Survey (CHTS) method. The new catch levels for the Scamp and Yellowmouth Grouper complex will include recreational landings estimates using the MRIP's Fishing Effort Survey (FES) method, which is considered more reliable and robust compared to the MRIP-CHTS method (see Section 1.6). After catch levels are established, sector allocations, sector ACLs, and accountability measures (AMs) would be put in place.

Because yellowmouth grouper would be removed from the OSASWG complex, the total ACL and sector ACLs would be modified for the remaining five species: coney, graysby, rock hind, red hind, and yellowfin grouper. This ACL is currently inclusive of recreational landings estimates using the MRIP-CHTS method. This amendment would modify the ACL to reflect the reorganization of the complexes. However the ACL would remain inclusive of recreational estimates from the MRIP-CHTS. This is because the OSASWG species are data limited and do not have stock assessments. Following the Unassessed Stocks Workgroup meeting in 2020, the Council's SSC provided ABC recommendations for these five species using recreational

landings estimates using the MRIP-FES method. However the catch levels were determined using the 3rd highest landings and Only Reliable Catch (ORCS) methods, both of which are no longer considered best scientific information available (BSIA). During the April 2023 SSC meeting, the SSC recommended the OSASWG ACL be revised in the upcoming Unassessed Species Amendment. However, this would likely not be completed and provided to the Council for review until September or December of 2024, which would be too late for this amendment as it has a statutory deadline

What actions are being proposed in this plan amendment?

Amendment 55 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region proposes 11 actions. Below are the Council's preferred alternatives for each action.

Action 1. Reorganize the Other South Atlantic Shallow Water Grouper complex and establish a new Scamp and Yellowmouth Grouper complex

Purpose of Action: SEDAR 68 OA (2022) assessed scamp and yellowmouth grouper in the South Atlantic together due to misidentification issues between the species. The SSC provided catch levels, based on the assessment, for scamp and yellowmouth grouper combined; therefore, yellowmouth grouper must be removed from the OSASWG complex to establish a new Scamp and Yellowmouth Grouper complex. In addition, the catch levels for the OSASWG complex must be adjusted accordingly.

Preferred Alternative 2. Remove yellowmouth grouper from the Other South Atlantic Shallow Water Grouper complex and establish a new Scamp and Yellowmouth Grouper complex. The reorganized Other South Atlantic Shallow Water Grouper complex would contain rock hind, red hind, coney, graysby, and yellowfin grouper.

Action 2. Establish maximum sustainable yield, maximum fishing mortality threshold, minimum stock size threshold, and optimum yield for the Scamp and Yellowmouth Grouper complex

Purpose of Action and Sub Actions: Because the Scamp and Yellowmouth Grouper complex is being established through this amendment, status determination criteria must be defined for the new complex. Status determination criteria that would need to be defined for the complex include maximum sustainable yield, maximum fishing mortality threshold, minimum stock size threshold, and optimum yield.

Sub Action 2a. Establish the maximum sustainable yield for the Scamp and Yellowmouth Grouper complex.

Preferred Alternative 3. Establish the maximum sustainable yield proxy at the fishing mortality at 40% of the spawning potential ratio for the Scamp and Yellowmouth Grouper complex.

Sub Action 2b. Establish the maximum fishing mortality threshold for the Scamp and Yellowmouth Grouper complex.

Preferred Alternative 3. Establish the maximum fishing mortality threshold equal to the maximum sustainable yield proxy of fishing mortality at 40% spawning potential ratio for the Scamp and Yellowmouth Grouper complex.

Sub Action 2c. Establish the minimum stock size threshold for the Scamp and Yellowmouth Grouper complex.

Preferred Alternative 3. Establish the minimum stock size threshold equal to 75% of the spawning stock biomass at maximum sustainable yield.

Sub Action 2d. Establish the optimum yield for the Scamp and Yellowmouth Grouper complex.

Preferred Alternative X. TO BE COMPLETED

Action 3. Establish a rebuilding timeframe for the Scamp and Yellowmouth Grouper complex

Purpose of Action: The results of the SEDAR 68 OA (2022) stock assessment indicated that the South Atlantic stock of scamp and yellowmouth grouper is overfished but not experiencing overfishing. A rebuilding timeframe must be established to rebuild the stock. Establishing the timeframe for rebuilding is part of the rebuilding plan.

Preferred Alternative 3. Establish a rebuilding timeframe equal to Tmax. This would equal 10 years with the rebuilding period ending in 2035. 2025 would be Year 1.

Action 4. Establish the acceptable biological catch and total annual catch limit for the Scamp and Yellowmouth Grouper complex

Purpose of Action: Catch levels are being established for the new South Atlantic Scamp and Yellowmouth Grouper complex to respond to the most recent stock assessment, SEDAR 68 OA (2022). The recommended ABC from SEDAR 68 OA (2022) are inclusive of recreational estimates from the MRIP-FES survey.

Preferred Alternative 2. Establish the acceptable biological catch and set it equal to the recommendation from the Scientific and Statistical Committee. Establish the total annual catch limit for the Scamp and Yellowmouth Grouper complex and set it 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.

Action 5. Establish sector allocations and sector annual catch limits for the Scamp and Yellowmouth Grouper complex

Purpose of Action: Allocations need to be established for the new Scamp and Yellowmouth Grouper complex in response to catch levels provided by the SSC from the most recent SEDAR 68 OA (2022) stock assessment.

Preferred Alternative X. TO BE COMPLETED

Action 6. Modify the commercial and recreational fishing season for scamp and yellowmouth grouper

Purpose of Action: Because of both the stock status indicated by SEDAR 68 OA (2022) and the reduced catch levels recommended by the SSC, the Council is considering shortening the fishing season to achieve the reduction in harvest needed to constrain catch to the updated ACLs.

Preferred Alternative X. TO BE COMPLETED

Action 7. Modify the recreational retention limit for scamp and yellowmouth grouper

Purpose of Action: The Council is considering modifying the current bag limit or establishing a recreational vessel limit to achieve the reduction in harvest needed to constrain catch to the updated recreational ACLs, while maintaining recreational access.

Preferred Alternative X. TO BE COMPLETED

Action 8. Establish an aggregate commercial trip limit for scamp and yellowmouth grouper

Purpose of Action: The Council is considering establishing an aggregate commercial trip limit to achieve the reduction in harvest needed to constrain catch to the updated commercial ACLs.

Preferred Alternative X. TO BE COMPLETED

Action 9. Establish commercial accountability measures for the Scamp and Yellowmouth Grouper complex

Purpose of Action: Accountability measures need to be established for the new Scamp and Yellowmouth Grouper complex to contribute to the rebuilding plan by ensuring that commercial annual catch limits are not exceeded and to correct for overages if they occur.

Preferred Alternative 2. If commercial landings for the Scamp and Yellowmouth Grouper complex reach or are projected to reach the commercial annual catch limit, the commercial sector will close for the remainder of the fishing year.

If commercial landings for the Scamp and Yellowmouth Grouper complex exceed the commercial annual catch limit, the total annual catch limit is exceeded, and the Scamp and Yellowmouth Grouper complex is overfished, the commercial annual catch limit for the following fishing year will be reduced by the amount of the commercial annual catch limit overage in the prior fishing year.

Action 10. Establish recreational accountability measures for the Scamp and Yellowmouth Grouper complex

Purpose of Action: Accountability measures need to be established for the new Scamp and Yellowmouth Grouper complex to contribute to the rebuilding plan by ensuring that recreational annual catch limits are not exceeded and to correct for overages if they occur.

Preferred Alternative X. TO BE COMPLETED

Action 11. Revise the total annual catch limit, and sector annual catch limits for the Other South Atlantic Shallow Water Grouper complex

Purpose of Action: In Action 1 the OSASWG was modified and yellowmouth grouper was removed. The OSASWG ACL must therefore be updated to remove the portion that was previously allocated for yellowmouth grouper. The ABC and ACL for this complex currently include recreational landings estimates using the MRIP-CHTS method and would not change in this amendment. The current sector allocation percentages would also not change.

Preferred Alternative X. TO BE COMPLETED

Chapter 1. Introduction

1.1 What actions are being proposed in this plan amendment?

The actions in Amendment 55 to the Fishery Management Plan (FMP) for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP) would reorganize the Other South Atlantic Shallow Water Grouper complex (OSASWG complex) and establish a new Scamp and Yellowmouth Grouper complex in the South Atlantic (Scamp and Yellowmouth Grouper complex). For the Scamp and Yellowmouth Grouper complex, status determination criteria, a rebuilding plan, acceptable biological catch (ABC), total annual catch limit (ACL), sector allocations, sector ACLs, management measures, and accountability measures (AM) would be established. The ACL for the remaining species in the OSASWG complex would be.

South Atlantic Fishery Management Council

- Responsible for conservation and management of fish stocks in the South Atlantic Region.
- Consists of 13 voting members and 4 non-voting members; voting members include 1 representative from each of the 4 South Atlantic state fishery management agencies, 8 members appointed by the Secretary of Commerce, and the Southeast Regional Administrator of NMFS.
- Responsible for developing fishery management plans and amendments under the Magnuson-Stevens Act; recommends actions to NMFS for implementation.
- Management area is from 3 to 200 nautical miles off the coasts of North Carolina, South Carolina, Georgia, and east Florida through Key West, except for Mackerel which is from New York to Florida, and Dolphin-Wahoo, which is from Maine to Florida.

1.2 Who is proposing the amendment?

The South Atlantic Fishery Management Council (Council) is responsible for managing snapper grouper species in the South Atlantic region. The Council develops the amendment and submits it to the National Marine Fisheries Service (NMFS) who determines whether to approve the amendment and publish a rule to implement the amendment on behalf of the Secretary of Commerce. NMFS is an agency of the National Oceanic and Atmospheric Administration within the Department of Commerce. Guided by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the Council works with NMFS and other partners to sustainably manage fishery resources in the South Atlantic.

The Council and NMFS are also responsible for making this document available for public comment. The draft environmental assessment (EA) was made available to the public during the scoping process, public hearings, and Council meetings. The EA/amendment would be made available for comment during the rulemaking process.

1.3 Where is the project located?

Management of the federal snapper grouper fishery located off the southeastern United States (South Atlantic) in the 3-200 nautical miles U.S. exclusive economic zone (EEZ) is conducted under the Snapper Grouper FMP (SAFMC 1983) (Figure 1.3.1). There are 55 species managed by the Council under the Snapper Grouper FMP.

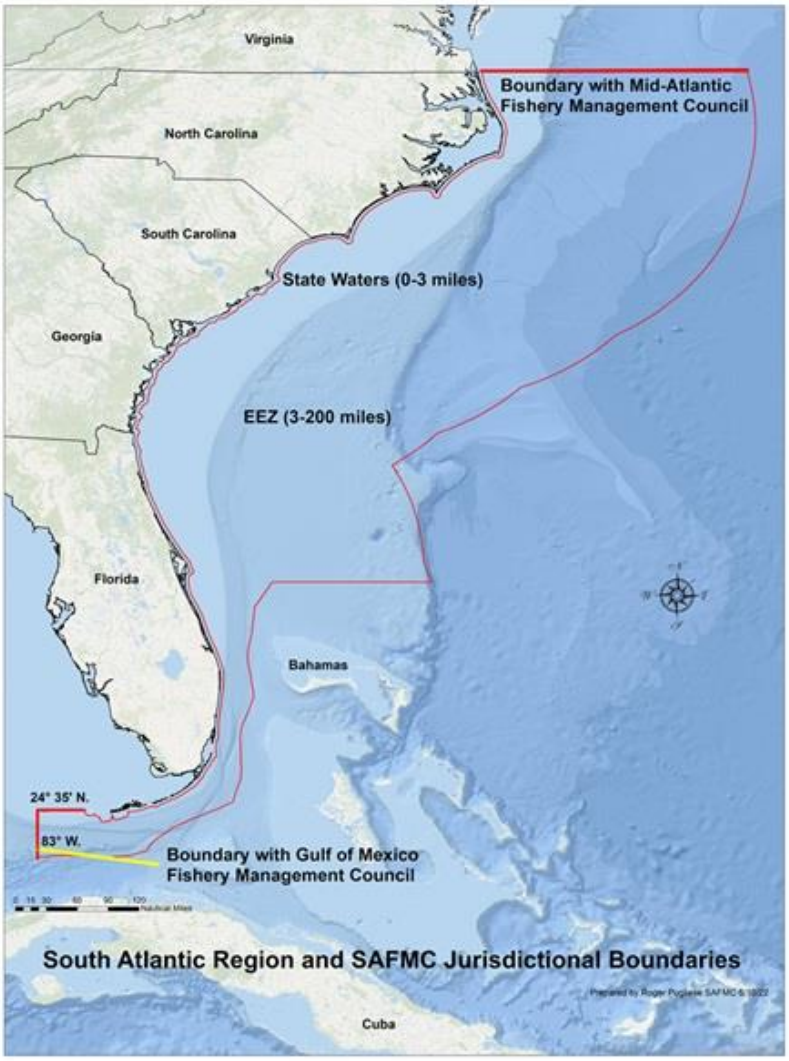

Figure 1.3.1. Jurisdictional boundaries of the Council.

1.4 Why is the Council considering action (Purpose and need statement)?

Purpose: The *purpose* of this amendment is to modify the Other South Atlantic Shallow Water Grouper complex by removing yellowmouth grouper from the complex and establishing a new Scamp and Yellowmouth Grouper complex. For the new complex, establish conservation and management measures, stock status determination criteria, a rebuilding plan, catch levels, sector allocations, and accountability measures based on the results of the SEDAR 68 operational assessment (2022) stock assessment. For the South Atlantic Other Shallow Water Grouper complex, modify catch levels.

Need: The *need* for this fishery management plan amendment is to rebuild the scamp and yellowmouth grouper stock, and achieve optimum yield while minimizing, to the extent practicable, adverse social and economic effect.

The Council is considering action to respond to the most recent stock assessment for scamp and yellowmouth grouper in the South Atlantic (SEDAR 68 Operational Assessment [OA] 2022). The assessment indicated that the scamp and yellowmouth grouper stock in the South Atlantic is overfished but is not experiencing overfishing. The National Marine Fisheries Service (NMFS) notified the Council of the overfished status of scamp and yellowmouth grouper on September 21, 2023. Under the Magnuson-Stevens Act, a Council has to develop a new rebuilding plan for an overfished stock two years from when it receives notification from NMFS. Therefore, a rebuilding plan for scamp and yellowmouth grouper in the South Atlantic must be implemented by September 2025.

1.5 What are the acceptable biological catch and overfishing limit recommendations for the Scamp and Yellowmouth Grouper complex?

The Council's Scientific and Statistical Committee (SSC) reviewed the scamp and yellowmouth grouper stock assessment (SEDAR 68 OA 2022) at their April 2023 meeting. The assessment included data through 2021 and incorporated the revised landings estimates for recreational catch using the Marine Recreational Information Program (MRIP) Fishing Effort Survey (FES). The SSC found that the assessment was conducted using the best scientific information available (BSIA) and was adequate for determining stock status and supporting fishing level recommendations (Table 1.5.1).

Table 1.5.1. OFL and ABC recommendations for the scamp and yellowmouth grouper stock provided by the SSC in April 2023. Total removals are provided in numbers and pounds (lbs) whole weight (ww).

OFL RECOMMENDATIONS	
Year	**Total Removals (lbs ww)**
2025	88,000
2026	109,000
2027	157,000
2028	210,000
2029	252,000

ABC RECOMMENDATIONS (TOTAL REMOVALS)		
Year	**Total Removals (lbs ww)**	**Total Removals (numbers)**
2025	71,000	12,000
2026	76,000	12,000
2027	79,000	13,000
2028	82,000	13,000
2029	84,000	14,000

ABC values were provided in total removals by the NMFS Southeast Fisheries Science Center (SEFSC). The ABC was converted to landings and dead discards in addition to the total removals values provided by the SSC. Two methods were explored to ascertain landings and dead discards, and ultimately it was determined that total removals could be split into 95% landings and 5% dead discards (Table 1.5.2). For full details on this analysis see **Appendix D, section 1.1**.

Table 1.5.2. ABC recommendations in landings and dead discards.

ABC RECOMMENDATIONS		
Year	**Landings (lbs ww)**	**Dead Discards (lbs ww)**
2025	67,450	3,550
2026	72,200	3,800
2027	75,050	3,950
2028	77,900	4,100
2029	79,800	4,200

1.6 How has recreational data collection changed in the Southeast?

For a current (as of January 2024) description of the Marine Recreational Fisheries Statistics Survey Program (MRFSS) and the surveys used, the reader is hereby referred to Snapper Grouper Amendment 53, Chapter 1.6 (SAFMC 2023d).

Recent Survey Information

In August 2023, NMFS published a report, "Evaluating Measurement Error in the MRIP Fishing Effort Survey[1]", that summarized results from a small-scale pilot study to evaluate potential sources of bias in the FES. The pilot study, using data from four states from July to December 2015, found that switching the current sequence of survey questions resulted in fewer reporting errors and illogical responses. As a result, effort estimates for shore and private boat anglers were generally 30 to 40 percent lower. NMFS is now conducting a large-scale follow up study to gain a better understanding of differences in effort estimates between the current survey design and revised survey designs. This study will be conducted throughout 2024, with results available the following year(s).

1.7 What is the history of management for scamp and yellowmouth grouper?

Snapper grouper regulations in the South Atlantic were first implemented in 1983. The reader is referred to the following link for the management history, summary of changes under each amendment, implementation dates, an up-to-date list of amendments under development and more, for all of the species in the Snapper Grouper FMP: https://safmc.net/fishery-management-plans/snapper-grouper/. Below are amendments to the Snapper Grouper FMP addressing scamp and yellowmouth grouper within the South Atlantic EEZ.

Snapper Grouper FMP (1983)
The FMP included provisions to prevent growth overfishing in thirteen species in the snapper grouper complex and established a procedure for preventing overfishing in other species; established minimum size limits for red snapper, yellowtail snapper, red grouper, Nassau grouper, and black sea bass; established a 4-inch trawl mesh size to achieve a 12-inch total length (TL) minimum size limit for vermilion snapper; and included additional harvest and gear limitations.

Amendment 8 (1992)
The amendment established initial eligibility for two limited entry snapper grouper permits: a non-transferable permit with a 225-pound trip limit and a transferrable unlimited landings permit.

Amendment 15B (2009)
The amendment prohibited the sale of bag-limit caught snapper grouper species.

Amendment 16 (2009)
The amendment established a shallow-water grouper spawning season closure from January 1 to April 30 and the 51% commercial and 49% recreational allocations. It also set a commercial quota for gag that when met, closed the shallow-water grouper complex.

Amendment 17A (2011)

[1] https://safmc.net/documents/03b_evaluating-measurement-error-in-the-fes-consolidated-final-w-review-pdf/

The amendment required the use of non-stainless steel circle hooks north of 28 degrees North Latitude when fishing with natural baits for snapper grouper species.

Regulatory Amendment 15 (2013)
The amendment modified the accountability measures (AMs) for the shallow water grouper complex to the following: if commercial landings, as estimated by the Scientific Research Division (SRD), reach or are projected to reach the annual catch limit (ACL), the commercial fishery will close for the remainder of the year. This amendment, however, retained the individual ACLs and AMs for black and red grouper and scamp.

Amendment 34 (2016)
The amendment modified AMs for snapper grouper species, including scamp and yellowmouth grouper.

Amendment 36 (2016)
The amendment established special management zones to enhance protection for snapper grouper species in spawning condition.

Regulatory Amendment 29 (2020)
The regulatory amendment required all vessels fishing for or possessing snapper grouper species in the South Atlantic to possess a descending device readily available for use. It also required the use of non-offset, non-stainless steel circle hooks north of 28 degrees North Latitude when fishing for snapper group species with natural baits.

Chapter 2. Proposed Actions and Alternatives

2.1 Action 1. Reorganize the Other South Atlantic Shallow Water Grouper complex and establish a new South Atlantic Scamp and Yellowmouth Grouper complex

Alternative 1 (No Action). There is no Scamp and Yellowmouth Grouper complex. The Other South Atlantic Shallow Water Grouper complex contains rock hind, red hind, coney, graysby, yellowmouth grouper and yellowfin grouper.

Preferred Alternative 2. Remove yellowmouth grouper from the Other South Atlantic Shallow Water Grouper complex and establish a new Scamp and Yellowmouth Grouper complex. The reorganized Other South Atlantic Shallow Water Grouper complex would contain rock hind, red hind, coney, graysby, and yellowfin grouper.

2.1.1. Comparison of Alternatives

SouthEast Data Assessment and Review (SEDAR) 68 Operational Assessment (OA) (2022) assessed the stocks of scamp and yellowmouth grouper as a single unit, due to misidentification between the two species. Catch levels recommended by the Science and Statistical Committee (SSC) based on this assessment were provided for scamp and yellowmouth grouper combined. Currently, the South Atlantic scamp stock has an annual catch limit (ACL) and accountability measures (AM) whereas yellowmouth grouper is part of the Other South Atlantic Shallow Water Grouper complex (OSASWG complex), which has an ACL and AM associated with the following group of species within this complex: coney, graysby, red hind, rock hind, yellowmouth grouper, and yellowfin grouper.

Alternative 1 (No Action) would leave yellowmouth grouper within the OSASWG complex and would not establish a new Scamp and Yellowmouth Grouper complex. This is not a viable alternative because recommended catch levels are inclusive of both scamp and yellowmouth grouper. **Preferred Alternative 2** would remove yellowmouth grouper from the OSASWG complex and create a new Scamp and Yellowmouth Grouper complex, for which the recommended catch levels would be applicable.

As a result of this action, stock determination criteria, a rebuilding plan (as a result of stock being overfished based on SEDAR 68 OA (2022), a complex ACL, sector allocations, management measures, and AMs need to be established, which would be addressed in **Actions 2-10**. The OSASWG total ACL and sector ACLs would also need to be modified as a result of one of the species within the complex being removed, which is addressed in **Action 11**.
TO BE COMPLETED

2.2 Action 2. Establish maximum sustainable yield, maximum fishing mortality threshold, minimum stock size threshold, and optimum yield for the Scamp and Yellowmouth Grouper complex

2.2.1 Sub Action 2a. Establish the maximum sustainable yield for the Scamp and Yellowmouth Grouper complex.

Alternative 1 (No Action). There is no maximum sustainable yield for the Scamp and Yellowmouth Grouper complex.

Alternative 2. Establish the maximum sustainable yield proxy at the fishing mortality at 30% of the spawning potential ratio for the Scamp and Yellowmouth Grouper complex.

Preferred Alternative 3. Establish the maximum sustainable yield proxy at the fishing mortality at 40% of the spawning potential ratio for the Scamp and Yellowmouth Grouper complex.

2.2.1.1. Comparison of Alternatives

Maximum sustainable yield (MSY) is defined as the largest long-term average catch that can be taken from a stock under current conditions. Currently scamp and yellowmouth grouper (as part of the OSASWG complex) have MSY proxies of fishing mortality (F) at 30% of the stock's spawning potential ratio (SPR, $F_{30\%SPR}$), however SEDAR 68 OA (2022) recommended an MSY proxy for the scamp and yellowmouth grouper combined of $F_{40\%SPR}$. This was because of recent scientific literature recommending the use of $F_{30\% SPR}$ for very resilient stocks and the use of $F_{40\%SPR}$ for species such as scamp and yellowmouth grouper.

Alternative 1 (No Action) is the current status quo for the Scamp and Yellowmouth Grouper complex established in **Action 1**, which is no existing MSY, since the complex has yet to have its stock determination criteria established. **Alternative 2** would establish the current MSY proxy in place for scamp individually and yellowmouth grouper within the OSASWG complex, however the Southeast Fisheries Science Center (SEFSC) has indicated that this MSY proxy would not be consistent with best scientific information available (BSIA). **Preferred Alternative 3** would establish the MSY proxy recommended in SEDAR 68 OA (2022) for the Scamp and Yellowmouth Grouper complex.

Table 2.2.1.1. The range of alternatives and corresponding values for Sub-Action 2a.

Alternative	MSY (1,000 lbs)
Alternative 1 (No Action)	none
Alternative 2 (MSY = $F_{30\%SPR}$**)**	416.20
Preferred Alternative 3 (MSY = $F_{40\%SPR}$**)**	372.28

TO BE COMPLETED

2.2.2 Sub Action 2b. Establish the maximum fishing mortality threshold for the Scamp and Yellowmouth Grouper complex.

Alternative 1 (No Action). There is no maximum fishing mortality threshold for the Scamp and Yellowmouth Grouper complex.

Alternative 2. Establish the maximum fishing mortality threshold equal to the maximum sustainable yield proxy of fishing mortality at 30% spawning potential ratio for the Scamp and Yellowmouth Grouper complex.

Preferred Alternative 3. Establish the maximum fishing mortality threshold equal to the maximum sustainable yield proxy of fishing mortality at 40% spawning potential ratio for the Scamp and Yellowmouth Grouper complex.

2.2.2.1. Comparison of Alternatives

Maximum fishing mortality threshold (MFMT) is defined as the level of fishing mortality above which overfishing is occurring. Currently scamp and yellowmouth grouper (as part of the OSASWG complex) have a MFMT equal to the MSY proxy of $F_{30\%SPR}$, however SEDAR 68 OA (2022) recommended an MSY proxy for the scamp and yellowmouth grouper combined of $F_{40\%SPR}$.

Alternative 1 (No Action) is the current status quo for the Scamp and Yellowmouth Grouper complex established in **Action 1**, which is no MFMT, since the complex has yet to have stock determination criteria established. **Alternative 2** would establish the current MFMT (MSY proxy of $F_{30\%SPR}$) in place for scamp and yellowmouth grouper within the OSASWG complex. **Preferred Alternative 3** would establish an MFMT using the MSY proxy of $F_{40\%}$, consistent with **Preferred Alternative 3** from **Sub-Action 2a**.

Table 2.2.2.1. The range of alternatives and coordinating values for Sub-Action 2b.

Alternative	MFMT
Alternative 1 (No Action)	none
Alternative 2 (F_{MSY} or proxy = $F_{30\%SPR}$**)**	0.52
Preferred Alternative 3 (F_{MSY} or proxy = $F_{40\%SPR}$**)**	0.28

TO BE COMPLETED

2.2.3 Sub Action 2c. Establish the minimum stock size threshold for the Scamp and Yellowmouth Grouper complex.

Alternative 1 (No Action). There is no minimum stock size threshold for the Scamp and Yellowmouth Grouper complex.

Alternative 2. Establish the minimum stock size threshold equal to the spawning stock biomass at maximum sustainable yield times either one minus the natural mortality or 0.5, whichever is greater, for the Scamp and Yellowmouth Grouper complex.

Preferred Alternative 3. Establish the minimum stock size threshold equal to 75% of the spawning stock biomass at maximum sustainable yield.

2.2.3.1. Comparison of Alternatives

Minimum stock size threshold (MSST) is defined as the spawning stock biomass level at which a stock is declared overfished. Currently scamp and yellowmouth grouper (as part of the OSASWG complex) have a MSST equal to the spawning stock biomass (SSB) at MSY (SSB_{MSY}) times either 1-natural mortality (M) or 0.5, whichever is greater. Regulatory Amendment 21 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Regulatory Amendment 21, 2014) redefined MSST for select species within the Snapper Grouper Fishery Management Unit (SG FMU). Regulatory Amendment 21 changed the definition of MSST to 75% of SSB_{MSY} for species with an estimation of M at 0.25 or lower within the stock assessment. SEDAR 68 OA (2022) defined the M for scamp and yellowmouth grouper at 0.155.

Alternative 1 (No Action) is the current status quo for the Scamp and Yellowmouth Grouper complex established in **Action 1**, which is no MSST, since the complex has yet to have stock determination criteria established. **Alternative 2** would establish the current MSST (SSB_{MSY} (1-M) or 0.5, whichever is greater) in place for scamp and yellowmouth grouper within the OSASWG complex. **Preferred Alternative 3** would establish an MSST consistent with the guidance from Regulatory Amendment 21, using 75% of SSB_{MSY}.

Table 2.2.3.1. The range of alternatives and coordinating values for Sub-Action 2c.

Alternative	MSST (metric tons)
Alternative 1 (No Action)	none
Alternative 2 (SSB_{MSY} (1-M) or 0.5)	601.12
Preferred Alternative 3 (75% of SSB_{MSY})	801.60

TO BE COMPLETED

2.2.4 Sub Action 2d. Establish the optimum yield for the Scamp and Yellowmouth Grouper complex.

Alternative 1 (No Action). There is no optimum yield for the Scamp and Yellowmouth Grouper complex.

Alternative 2. Establish an optimum yield of 75% of maximum sustainable yield for the Scamp and Yellowmouth Grouper complex.

Alternative 3. Establish an optimum yield of 90% of maximum sustainable yield for the Scamp and Yellowmouth Grouper complex.

Alternative 4. Establish an optimum yield of 95% of maximum sustainable yield for the Scamp and Yellowmouth Grouper complex.

Alternative 5. Establish an optimum yield equal to the fishing mortality at 45% of the spawning potential ratio.

Alternative 6. Establish an optimum yield equal to the fishing mortality at 50% of the spawning potential ratio.

2.2.4.1. Comparison of Alternatives

The Council has defined OY values for the snapper grouper stocks, but in the context of setting ACLs has opted to set annual OYs (see SAFMC Comprehensive ACL Amendment (SAFMC 2011b). OY is the long-term average amount desired from a stock or fishery. OY is reduced from MSY for the fishery based on relevant economic, social, and ecological factors. **Alternatives 2** through **4** are reduced from MSY at different percentages to account for factors in the fishery that may influence OY.

Alternative 1 (No Action) is the current status quo for the Scamp and Yellowmouth Grouper complex established in **Action 1**, which is no OY since the complex has yet to have stock determination criteria established. **Alternatives 2** through **4** would establish an OY instead of an annual OY for the Scamp and Yellowmouth Grouper complex. **Alternative 2** would set an OY equal to 75% of the MSY or MSY proxy, **Alternative 3** would set an OY equal to 90% of the MSY or MSY proxy, and **Alternative 4** would set an OY equal to 95% of the MSY or MSY proxy. Values for the OY in **Alternatives 2** through **5** are dependent on the MSY proxy selected in **Sub-Action 2a**. OY values in **Alternatives 2** through **4** are target values and represent a yield for when the stock is in equilibrium, therefore these values are higher than the catch levels of the ACL and acceptable biological catch (ABC). **Alternatives 2** through **4** account for the biological considerations, however **Alternatives 5** and **6** consider potential biological, social, and economic factors by setting the OY equal to $F_{45\%SPR}$ or $F_{50\%SPR}$ respectively.

Table 2.2.4.1. The range of alternatives and coordinating values for Sub-Action 2d.

Alternative	OY (1,000 lbs)
Alternative 1 (No Action)	none
Alternative 2 (75% of F_{MSY}**)**	279.21
Alternative 3 (90% of F_{MSY}**)**	335.05
Alternative 4 (95% of F_{MSY}**)**	353.67
Alternative 5 ($F_{45\%SPR}$**)**	348.12
Alternative 6 ($F_{50\%SPR}$**)**	322.43

TO BE COMPLETED

2.3 Action 3. Establish a rebuilding timeframe for the Scamp and Yellowmouth Grouper complex

Alternative 1 (No Action). There is no timeframe for rebuilding the Scamp and Yellowmouth Grouper complex.

Alternative 2. Establish a rebuilding timeframe equal to the shortest possible time to rebuild in the absence of fishing mortality (T_{min}). This would be equal to 5 years with the rebuilding period ending in 2030. 2025 would be Year 1.

Preferred Alternative 3. Establish a rebuilding timeframe equal to T_{max}. This would equal 10 years with the rebuilding period ending in 2035. 2025 would be Year 1.

2.3.1 Comparison of Alternatives

The results of the SEDAR 68 OA (2022) assessment indicated that the stock of scamp and yellowmouth was overfished but not experiencing overfishing. As per the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the South Atlantic Fishery Management Council (Council) has two years from the time when it receives notification that a stock is overfished from the National Marine Fisheries Service (NMFS) to prepare and implement a new rebuilding plan. The Council was notified on September 21, 2023; therefore, the plan must be implemented by September 2025. In June 2023, the Council received guidance that in the absence of fishing mortality, assuming long-term average recruitment, the stock would be able to be rebuilt in 10 years. The Magnuson-Stevens Act National Standard 1 Guidelines indicates that if the stock is projected to rebuild in 10 years or less, then T_{max} is 10 years (50 CFR §600.310(j)(3)(i)(B)(1)).

Alternative 1 (No Action) would not establish a rebuilding plan for the Scamp and Yellowmouth Grouper complex. **Alternative 2** would establish a rebuilding plan equal to T_{min} (5 years) starting in 2025. **Preferred Alternative 3** would establish a rebuilding plan using T_{max} (10 years) starting in 2025. Under both **Alternative 2** and **3**, SEDAR 68 OA (2022) indicated that there would be a greater than 50% chance of rebuilding the stock in 5 years (Figure 2.3.1).

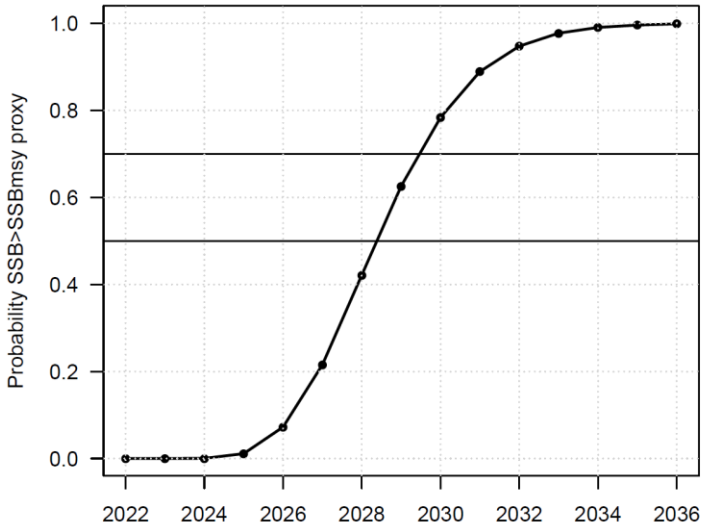

Figure 2.3.1. Projected probability of rebuilding under scenario 1—fishing mortality rate at F = 0 and long-term average recruitment. The curve represents the proportion of projection replicates for which SSB has reached the replicate-specific SSBF40%, with reference lines at 0.5 and 0.7. Source: SEDAR 68 OA (2022), Figure 53.

TO BE COMPLETED

2.4 Action 4. Establish the acceptable biological catch and total annual catch limit for the Scamp and Yellowmouth Grouper complex

Alternative 1 (No Action). There is no acceptable biological catch or total annual catch limit for the Scamp and Yellowmouth Grouper complex.

Preferred Alternative 2. Establish the acceptable biological catch and set it equal to the recommendation from the Scientific and Statistical Committee. Establish the total annual catch limit for the Scamp and Yellowmouth Grouper complex and set it 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.

Alternative 3. Establish the acceptable biological catch and set it equal to the recommendation from the Scientific and Statistical Committee. Establish the total annual catch limit for the Scamp and Yellowmouth Grouper complex and set it 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.

Alternative 4. Establish the acceptable biological catch and set it equal to the recommendation from the Scientific and Statistical Committee. Establish the total annual catch limit for the Scamp and Yellowmouth Grouper complex and set it 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.

Table 2.4.1. Alternatives for Action 4 establishing the ABC and total ACL for the Scamp and Yellowmouth Grouper complex.

	ACL (pounds whole weight)				
Alternative	**2025**	**2026**	**2027**	**2028**	**2029**
Alternative 1 (No Action, no ABC)	n/a				
Preferred Alternative 2 (ACL = ABC)	67,450	72,200	75,050	77,900	79,800
Alternative 3 (95% of ABC)	64,078	68,590	71,298	74,005	75,810
Alternative 4 (90% of ABC)	60,705	64,980	67,545	70,110	71,820

2.4.1 Comparison of Alternatives

The SSC provided overfishing limit (OFL) and ABC recommendations based on SEDAR 68 OA (2022) at their April 2023 meeting. OFL and ABC levels were in total removals. Additional ABC values were requested in landings and dead discards in pounds (lbs) whole weight (ww), **Alternatives 2** through **4** would be based on the ABC in landings (lbs ww).

Alternative 1 (No Action) is the current status quo for the Scamp and Yellowmouth Grouper complex established in **Action 1**, which is no OFL or ABC since the complex has yet to have

catch levels established. **Preferred Alternative 2** would adopt the recommended ABC values and set the ACL equal to these ABC values. **Alternative 3** would adopt the recommended ABC values and set the ACL equal to 95% of these ABC values including a 5% buffer between the ABC and ACL. **Alternative 4** would adopt the recommended ABC values and set the ACL equal to 90% of these ABC values including a 10% buffer between the ABC and ACL.

TO BE COMPLETED

2.5 Action 5. Establish sector allocations and sector annual catch limits for the Scamp and Yellowmouth Grouper complex

Alternative 1 (No Action). There are no sector allocations or sector annual catch limits for the Scamp and Yellowmouth Grouper complex.

Alternative 2. Commercial and recreational allocations would change each year from 2025-2029, where they would remain in place until modified, based on the total average commercial and recreational landings of scamp and yellowmouth grouper from 2018 through 2022.

Alternative 3. Commercial and recreational allocations would change each year from 2025-2029, where they would remain in place until modified, based on the total average commercial and recreational landings of scamp and yellowmouth grouper from 2013 through 2022.

Alternative 4. Allocate 63.40% of the total annual catch limit of Scamp and Yellowmouth Grouper complex to the commercial sector and 36.60% to the recreational sector.

Alternative 5. Allocate 64.90% of the total annual catch limit of Scamp and Yellowmouth Grouper complex to the commercial sector and 35.10% to the recreational sector.

Table 2.5.1. Sector ACLs based on the preferred total ACL (Action 4) and alternative allocations (Action 5). For allocation percentages and sector ACLs for **Alternatives 3** and **4** for Action 4, see Appendix D.1.2, Table D.1.2.4.

ACL Alternatives	Allocation Alternatives									
	Alternative 1 (No Action)		*Alternative 2 Split Reduction (2018-2022)*		*Alternative 3 Split Reduction (2013-2022)*		*Alternative 4 Distribution of Landings (2018-2022)*		*Alternative 5 Distribution of Landings (2013-2022)*	
Action 4, Alternative 2 (ACL = ABC) (Preferred)	**Commercial**	**Recreational**	**Commercial %, (lbs ww)**	**Recreational %, (lbs ww)**	**Commercial %, (lbs ww)**	**Recreational %, (lbs ww)**	**Commercial %, (lbs ww)**	**Recreational %, (lbs ww)**	**Commercial %, (lbs ww)**	**Recreational %, (lbs ww)**
67450 (2025)	none	none	64.90% (43,775)	35.10% (23,675)	63.40% (42,763)	36.60% (24,687)	63.40% (42,763)	36.60% (24,687)	64.90% (43,775)	35.10% (23,675)
72200 (2026)	none	none	63.92% (46,150)	36.08% (26,050)	62.51% (45,132)	37.49% (27,068)	63.40% (45,775)	36.60% (26,425)	64.90% (46,858)	35.10% (25,342)
75050 (2027)	none	none	63.39% (47,574)	36.61% (27,476)	62.04% (46,561)	37.96% (28,489)	63.40% (47,582)	36.60% (27,468)	64.90% (48,707)	35.10% (26,343)
77900 (2028)	none	none	62.90% (48,999)	37.10% (28,901)	61.6% (47,986)	38.40% (29,914)	63.40% (49,389)	36.60% (28,511)	64.90% (50,557)	35.10% (27,343)
79800 (2029)	none	none	62.59% (49,947)	37.41% (29,853)	61.32% (48,933)	38.68% (30,867)	63.40% (50,593)	36.60% (29,207)	64.90% (51,790)	35.10% (28,010)

2.5.1 Comparison of Alternatives

Alternative 1 (No Action) is the current status quo for the Scamp and Yellowmouth Grouper complex established in **Action 1**, which is no allocations since the complex does not have existing sector allocations or sector ACLs. The method for **Alternatives 2** and **3** was developed by the Council in December 2021, and used for the allocations of gag grouper through Amendment 53 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 53, SAFMC 2023d). This method would implement the reductions in harvest needed to achieve the new ACL proportionally for each sector, based upon the distribution of landings under selected time periods that reflect the way the fishery is currently operating (referred to as the Split Reduction Method). **Alternative 2** bases the allocation method on the five-year average commercial and recreational (FES) landings of both scamp and yellowmouth grouper from 2018 through 2022. **Alternative 3** bases the allocation method on the ten-year average of commercial and recreational (FES) landings of scamp and yellowmouth grouper from 2013 through 2022. Both **Alternative 2** and **Alternative 3** allocate the new ACL proportional to each sector's landings based on the sector's landings from the baseline years. Each year thereafter, throughout the rebuilding plan, as the total ACL increases, the ACL poundage increase is allocated equally between both sectors and added to each sector's ACL from the previous year. For both **Alternatives 2** and **3** the allocation percentages and sector ACLs in the last year would remain in place until modified.

Alternatives 4 and **5** would allocate based on the distribution of landings of scamp and yellowmouth grouper landings from either 2018-2022 (**Alternative 4**) or 2013-2022 (**Alternative 5**) respectively.
TO BE COMPLETED

2.6 Action 6. Reduce the commercial and recreational fishing season for scamp and yellowmouth grouper

Alternative 1 (No Action). The commercial and recreational fishing season for scamp and yellowmouth grouper in the exclusive economic zone is open May 1 – December 31. A spawning season closure is in place annually from January 1 through April 30.

Alternative 2. Reduce the commercial and recreational fishing season for scamp and yellowmouth grouper in the exclusive economic zone to be open May 1 through July 31. The season will be closed January 1 through April 30 (spawning season closure) and August 1 through December 31.

Alternative 3. Reduce the commercial and recreational fishing season for scamp and yellowmouth grouper in the exclusive economic zone to be open May 1 through August 31. The season will be closed January 1 through April 30 (spawning season closure) and September 1 through December 31.

Alternative 4. Reduce the commercial and recreational fishing season for scamp and yellowmouth grouper in the exclusive economic zone to be open May 1 through September 30. The season will be closed January 1 through April 30 (spawning season closure) and October 1 through December 31.

2.6.1 Comparison of Alternatives

SEDAR 68 OA (2022) indicated that the stock of scamp and yellowmouth grouper is overfished and catch levels recommended by the SSC are notedly reduced from the current scamp catch levels. Because of this reduction in catch levels the Council is considering modifying the fishing season for both sectors by establishing new seasonal closures to constrain harvest to these reduced catch levels. **Currently, scamp and yellowmouth grouper are subject to an annual spawning season closure from January 1 through April 30. This closure is not being modified through this amendment and will remain in place regardless of the modifications made to the end of the season.**

Alternative 1 (No Action) would retain the calendar year fishing season from January 1 through December 31 for both sectors and the season would be closed for the annual spawning season closure from January 1 through April 30. **Alternative 2** would shorten the fishing season to May 1 through July 31 for both sectors. **Alternative 3** would shorten the fishing season to May 1 through August 31 for both sectors. **Alternative 4** would shorten the fishing season to May 1 through September 30 for both sectors. For **Alternatives 2** through **4** the season would be closed from January 1 through April 30th for the annual spawning season closure and then close on July 31, August 31, or September 30 respectively through December 31.

TO BE COMPLETED

2.7 Action 7. Modify the recreational retention limit for scamp and yellowmouth grouper

2.7.1 Sub-Action 7a. Modify the recreational bag limit

Alternative 1 (No Action). The recreational bag limit is 3 scamp or 3 yellowmouth grouper per person per day within the 3-grouper aggregate

Alternative 2. Establish an aggregate complex bag limit of 2 fish (either scamp or yellowmouth grouper) per person per day within the 3-grouper aggregate.

Alternative 3. Establish an aggregate complex bag limit of 1 fish (either scamp or yellowmouth grouper) per person per day within the 3-grouper aggregate.

2.7.1.1 Comparison of Alternatives

The Council is considering modifying the recreational retention limit for scamp and yellowmouth grouper to constrain harvest to the reduced recreational catch levels. Currently scamp and yellowmouth grouper both have a bag limit of 3 fish per person per day within the 3-grouper aggregate[2]. **Alternative 1 (No Action)** would retain this bag limit of 3 grouper, either scamp or yellowmouth grouper or a combination of the two species. **Alternative 2** would establish a more restrictive aggregate bag limit of 2 fish, either scamp or yellowmouth grouper or a combination of the two species within the 3-grouper aggregate. Similarly, **Alternative 3** would also establish an aggregate bag limit, however this would be the most restrictive of the alternatives at 1 fish of either species within the new complex per person per day. **Alternatives 2** and **3** would eliminate the need for anglers to identify between the species as the bag limit would be applicable to both species.

TO BE COMPLETED

[2]For information on the 3-grouper aggregate see §622.187 and Appendix A to Part 622, Table 2 (https://www.ecfr.gov/current/title-50/chapter-VI/part-622#622.187)

2.7.2 Sub-Action 7b. Establish a recreational vessel limit

Alternative 1 (No Action). There is no vessel limit for scamp and yellowmouth grouper.

Alternative 2. Establish a private recreational aggregate vessel limit for scamp and yellowmouth grouper of:

> **Sub-Alternative 2a.** 2 fish (either scamp or yellowmouth grouper) per vessel per **day**, not to exceed the daily bag limit, whichever is more restrictive.
>
> **Sub-Alternative 2b.** 4 fish (either scamp or yellowmouth grouper) per vessel per **day,** not to exceed the daily bag limit, whichever is more restrictive.

Alternative 3. Establish a for-hire (charter vessel/headboat) recreational aggregate vessel limit for scamp and yellowmouth grouper of:

> **Sub-Alternative 3a.** 2 fish (either scamp or yellowmouth grouper) per vessel per **trip,** not to exceed the daily bag limit, whichever is more restrictive.
>
> **Sub-Alternative 3b.** 4 fish (either scamp or yellowmouth grouper) per vessel per **trip,** not to exceed the daily bag limit, whichever is more restrictive.

2.7.2.1 Comparison of Alternatives

The Council is considering establishing a recreational vessel limit for scamp and yellowmouth grouper to constrain harvest to the reduced recreational catch levels. Currently, scamp and yellowmouth grouper do not have a vessel limit. **Alternative 1 (No Action)** would not establish a recreational vessel limit, however recreational retention would continue to be limited to the recreational bag limit. **Alternatives 2** and **3** would establish a vessel limit for both components of the recreational sector separately. **Alternative 4** would establish a **per-day** vessel limit for the private recreational component, with sub-alternatives of either 2 or 4 fish per vessel per day. **Alternative 5** would establish a **per-trip** vessel limit for the for-hire component (charter vessels/headboats), with sub-alternatives of either 2 or 4 fish per vessel per trip.
TO BE COMPLETED

2.8 Action 8. Establish an aggregate commercial trip limit for scamp and yellowmouth

Alternative 1 (No Action). There is no commercial trip limit for scamp and yellowmouth grouper.

Alternative 2. Establish an aggregate commercial trip limit for scamp and yellowmouth grouper of 200 pounds whole weight.

Alternative 3. Establish an aggregate commercial trip limit for scamp and yellowmouth grouper of 300 pounds whole weight.

Alternative 4. Establish an aggregate commercial trip limit for scamp and yellowmouth grouper of 400 pounds whole weight.

Alternative 5. Establish an aggregate commercial trip limit for scamp and yellowmouth grouper of 500 pounds whole weight.

2.8.1 Comparison of Alternatives

The Council is considering an aggregate trip limit for scamp and yellowmouth grouper to constrain harvest to the reduced commercial catch levels. Currently neither scamp nor yellowmouth grouper have a trip limit. **Alternative 1 (No Action)** would not establish a trip limit. **Alternative 2** would establish an aggregate trip limit for scamp and yellowmouth grouper of 200 pounds (lbs) whole weight (ww), which is the most restrictive of all the alternatives. **Alternatives 3** through **5** would increase the trip limit in 100 lbs increments to 500 lbs. The aggregate trip limit would ensure that the limit of scamp and yellowmouth grouper are the same for both species and remove the need to identify between the two species. Both scamp and yellowmouth grouper have a ww to gutted weight (gw) conversion factor of 1.18. This conversion factor was used to determine the conversion from ww to gw for each alternative.
TO BE COMPLETED

2.9 Action 9. Establish commercial accountability measures for the Scamp and Yellowmouth Grouper complex

Alternative 1 (No Action). There are no commercial accountability measures for the Scamp and Yellowmouth Grouper complex.

Preferred Alternative 2. If commercial landings for the Scamp and Yellowmouth Grouper complex reach or are projected to reach the complex commercial annual catch limit, the commercial sector for the complex will close for the remainder of the fishing year.

If commercial landings for the Scamp and Yellowmouth Grouper complex exceed the complex commercial annual catch limit, the total annual catch limit is exceeded, and the Scamp and Yellowmouth Grouper complex is overfished, the commercial annual catch limit for the complex for the following fishing year will be reduced by the amount of the commercial annual catch limit complex overage in the prior fishing year.

Alternative 3. If commercial landings for the Scamp and Yellowmouth Grouper complex reach or are projected to reach the complex commercial annual catch limit, commercial harvest of scamp and yellowmouth grouper is closed for the remainder of the fishing year.

If commercial landings for the Scamp and Yellowmouth Grouper complex exceed the complex commercial annual catch limit, regardless of stock status or whether the total annual catch limit was exceeded the complex commercial annual catch limit for the following fishing year will be reduced by the amount of the complex commercial annual catch limit overage in the prior fishing year.

2.9.1 Comparison of Alternatives

Alternative 1 (No Action) does not establish an accountability measure (AM) since the Scamp and Yellowmouth Grouper complex was established in **Action 1**, the complex does not have existing commercial AMs. **Preferred Alternative 2** would establish an AM that has an in-season closure that would be triggered if the commercial landings exceed or are projected to exceed the commercial ACL, regardless of whether the total ACL was exceeded or the stock status. In addition, this alternative would have a post-season AM where the commercial ACL would be reduced by any overage in the following fishing season if the following criteria are met: the commercial landings exceed the commercial ACL, the total ACL is exceeded, and the stock is overfished. All three of these triggers must occur for the post-season AM to be triggered. This alternative is representative of the current commercial AM in place for scamp and yellowmouth grouper within the OSASWG complex.

Alternative 3 would establish an AM that has an in-season closure that would be triggered if the commercial landings exceed or are projected to exceed the commercial ACL, regardless of whether the total ACL was exceeded or the stock status. **Alternative 3,** like **Preferred Alternative 2**, has a post-season AM it but would be triggered only by the commercial landings exceeding the commercial ACL, and would not be tied to the total ACL and stock status.
TO BE COMPLETED

2.10 Action 10. Establish recreational accountability measures for the Scamp and Yellowmouth Grouper complex

Alternative 1 (No Action). There are no recreational accountability measures for the Scamp and Yellowmouth Grouper complex.

Alternative 2. If recreational landings for the Scamp and Yellowmouth Grouper complex, reach or are projected to reach the complex recreational annual catch limit, the recreational sector for the complex will close for the remainder of the fishing year.

If recreational landings for the Scamp and Yellowmouth Grouper complex, exceed the complex recreational annual catch limit, the total annual catch limit is exceeded, and the Scamp and Yellowmouth Grouper complex is overfished, the length of the following year's recreational fishing season for the complex will be reduced by the amount necessary to prevent the recreational annual catch limit for the complex from being reached in the following year.

Alternative 3. If recreational landings for the Scamp and Yellowmouth Grouper complex reach or are projected to reach the complex recreational annual catch limit, recreational harvest for the complex is closed for the remainder of the fishing year.

If recreational landings for the Scamp and Yellowmouth Grouper complex exceed the complex recreational annual catch limit, the length of the following year's recreational fishing season will be reduced by the amount necessary to prevent the recreational annual catch limit for the complex from being exceeded in the following year, regardless of stock status.

Alternative 4. If recreational landings for the Scamp and Yellowmouth Grouper complex reach or are projected to reach the complex recreational annual catch limit, recreational harvest is closed for the remainder of the fishing year.

If recreational landings for the Scamp and Yellowmouth Grouper complex exceed the complex recreational annual catch limit, the recreational annual catch limit for the complex is reduced for the following year by the amount of the overage, regardless of stock status.

Alternative 5. If recreational landings for the Scamp and Yellowmouth Grouper complex exceed the recreational annual catch limit for the complex the length of the following year's recreational fishing season for the complex will be reduced by the amount necessary to prevent the recreational annual catch limit for the complex from being exceeded in the following year, regardless of stock status.

2.10.1 Comparison of Alternatives

Alternative 1 (No Action) is the current status quo for the Scamp and Yellowmouth Grouper complex established in **Action 1**, which is no recreational AMs since the complex does not have

existing recreational AMs. **Alternative 2** would establish an AM that has an in-season closure that would be triggered if the recreational landings exceed or are expected to exceed the recreational ACL, regardless of whether the total ACL was exceeded or the stock status. In addition, this alternative would have a post-season AM where the recreational ACL would be reduced by any overage in the following fishing season if the following criteria are met: the recreational landings exceed the recreational ACL, the total ACL is exceeded, and the stock is overfished. All three of these triggers must occur for the post-season AM to be triggered. This alternative is representative of the current recreational AM in place for scamp individually and yellowmouth grouper within the OSASWG complex.

Alternative 3 would establish an AM that has an in-season closure that would be triggered if the recreational landings exceed or are expected to exceed the recreational ACL, regardless of whether the total ACL was exceeded or the stock status. **Alternative 3,** like **Alternative 2** and **3**, has a post-season AM that would be triggered only by the recreational landings exceeding the recreational ACL, and would not be tied to the total ACL and stock status. **Alternative 4** has an in-season closure and both a season reduction and payback provision not tied to the total ACL and stock status which would reduce the recreational ACL for the following year by the amount of the overage in the current year. **Alternative 4** would be the most biologically conservative alternative for Action 10.

Alternative 5 would establish an AM that does not have an in-season closure. This alternative, like **Alternative 2** would implement a post-season AM, but this AM would be triggered only by recreational landings exceeding the recreational ACL and would not be tied to the total ACL and stock status.
TO BE COMPLETED

2.11 Action 11. Revise the total annual catch limit, and sector annual catch limits for the Other South Atlantic Shallow Water Grouper complex

Alternative 1 (No Action). The acceptable biological catch for the Other South Atlantic Shallow Water Grouper complex (including yellowmouth grouper) is 104,190 pounds whole weight. The total annual catch limit is set equal to this acceptable biological catch and is inclusive of recreational estimates from the Marine Recreational Information Program's Coastal Household Telephone Survey. The commercial annual catch limit is 55,542 pounds whole weight and the recreational annual catch limit is 48,648 pounds whole weight.

Alternative 2. The acceptable biological catch for the updated Other South Atlantic Shallow Water Grouper complex is 104,190 pounds whole weight. The total annual catch limit is100,151 and is inclusive of recreational estimates from the Marine Recreational Information Program's Coastal Household Telephone Survey. The commercial annual catch limit is 53,380 pounds whole weight and the recreational annual catch limit is 46,771 pounds whole weight.

Table 2.11.1. An explanation of the modifications to the Other South Atlantic Shallow Water Grouper complex ACL and sector ACLs. The total and sector ACLs for both alternatives are based on CHTS recreational estimates. The current commercial allocation is 53.30% and the current recreational allocation is 46.70%.

Alternative	ABC (lbs ww)	Total ACL (lbs ww)*	Commercial ACL (lbs ww)	Recreational ACL (lbs ww)
Alternative 1 (No Action)	104,190	104,190	55,542	48,648
Alternative 2	104,190	100,151	53,380	46,771

2.11.1 Comparison of Alternatives

As a result of the reorganization and establishment of the new complex in **Action 1**, the OSASWG ACL needs to be modified to remove the portion that was previously designated for yellowmouth grouper since landings for this stock would be accounted for in the new Scamp and Yellowmouth Grouper complex (Table 2.11.1, Figure 2.11.1). **Alternative 1 (No Action)** would retain the current ABC, total, and sector ACLs for the OSASWG complex. This is not a viable alternative as it would retain a catch level including a yellowmouth grouper portion, which is now accounted for in the total ACL for the Scamp and Yellowmouth Grouper complex (**Action 4**). Both the ABC and ACL for this alternative are inclusive of recreational estimates from the Marine Recreational Information Program's Coastal Household Telephone Survey (MRIP-CHTS).

Alternative 2 would retain the current ABC but remove the 4,039 lbs ww from the total ACL that was designated for yellowmouth grouper. This alternative does not alter the current sector allocation percentages (53.31% commercial, 46.69% recreational) but modifies the sector ACL based on the modified total ACL and current allocation percentages. While this alternative addresses the establishment of the new Scamp and Yellowmouth Grouper complex, the modified total ACL would continue to be inclusive of MRIP-CHTS recreational estimates. The OSASWG

species are data limited and do not have a stock assessment (unassessed species). Following the Unassessed Stocks Workgroup meeting in 2020, an ABC was recommended, however this catch level was determined using the 3rd highest and Only Reliable Catch (ORCS) which are both no longer considered best scientific information available (BSIA). During the April 2023 SSC meeting, the SSC recommended the OSASWG ACL be modified but left inclusive of CHTS recreational estimates in this amendment, and then be revised in the upcoming Unassessed Species Amendment, where updated recreational estimates would be used. This would likely not be completed and provided to the Council for review until September or December of 2024, which would not allow for this amendment to meet its statutory deadline.

Table 2.11.2. The portion of the OSASWG ACL for each species within the complex prior to the establishment of the Scamp and Yellowmouth Grouper complex.
NOTE: the species and total ACL values are set equal to the ABC and values are inclusive of recreational estimates from the MRIP-CHTS.

Shallow-Water Groupers complex	Species ACL (lbs ww)
Red Hind	33,084
Rock Hind	37,493
Yellowmouth Grouper	4,039
Yellowfin Grouper	9,258
Coney	2,718
Graysby	17,598
Total ACL	**104,190**

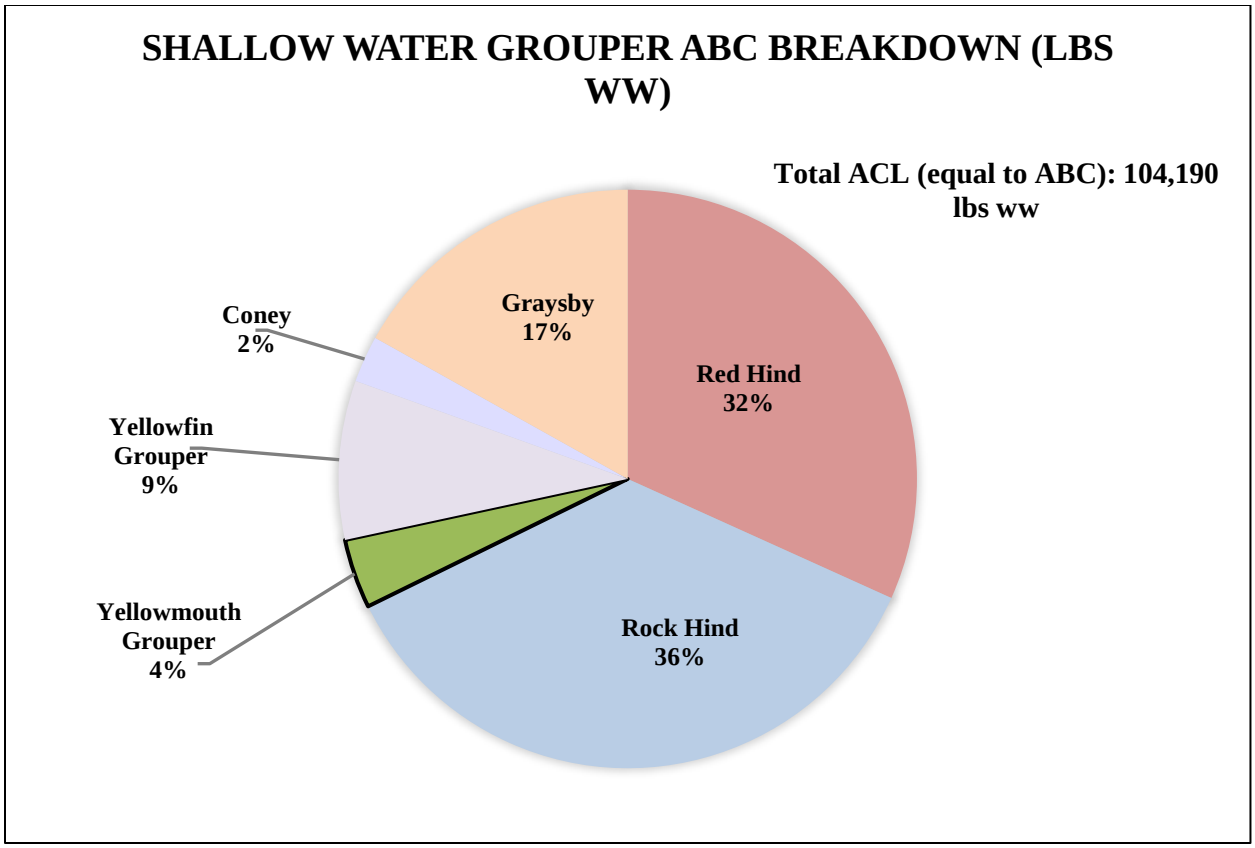

Figure 2.11.1. The percentage breakdown of the ABC amongst the 6 species within the OSASWG species prior to the establishment of the Scamp and Yellowmouth Grouper complex. **NOTE:** The current OSASWG ACL is set equal to the ABC.

The current percentage of the sector allocations for the remaining five species will not be modified in this amendment.

TO BE COMPLETED

Chapter 3. Affected Environment

This section describes the affected environment in the proposed project area. The affected environment is divided into five major components:

- **Habitat Environment** (Section 3.1)
- **Biological and Ecological Environment** (Section 3.2)
- **Economic and Social Environment** (Sections 3.3, 3.4)
- **Administrative Environment** (Section 3.5)

3.1 Habitat Environment

Information on the habitat utilized by species managed under the Fishery Management Plan (FMP) for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP) is included in Volume II of the Fishery Ecosystem Plan (FEP; SAFMC 2009c) which is incorporated here by reference. South Atlantic Fishery Management Council (Council)-designated essential fish habitat (EFH) and EFH-Habitat Areas of Particular Concern (HAPC) are described in the SAFMC User Guide and spatial representations of these and other habitat-related layers are in within the Council's SAFMC Atlas.

3.1.1 Essential Fish Habitat

For current (as of January 2024) EFH information for species managed under the Snapper Grouper FMP information, the reader is hereby referred to Snapper Grouper Amendment 53, Chapter 3.1.1 (SAFMC 2023d).

3.1.2 Habitat Areas of Particular Concern

For current (as of January 2024) EFH-Habitat Areas of Particular Concern (EFH-HAPC) for species managed under the Snapper Grouper FMP, the reader is hereby referred to Snapper Grouper Amendment 53, Chapter 3.1.2 (SAFMC 2023d).

3.2 Biological and Ecological Environment

3.2.1 Scamp and Yellowmouth Grouper

Life History

Scamp (*Mycteroperca phenax*) are protogynous hermaphrodite groupers (changing sex from female to male with an increasing size [age]) that ranges from North Carolina to Key West, the

Gulf of Mexico, and along the southern shore of the Caribbean (Heemstra and Randall 1993). Scamp are found in areas of living *Oculina* coral formations at depths of 70 to 100 m off the east coast of Florida (Gilmore and Jones 1992), and at low-profile bottoms at depths of 30 to 100 m in North Carolina (Heemstra and Randall 1993). Juveniles are found in shallow water at jetties and in mangrove areas (Heemstra and Randall 1993). Scamp are highly piscivorous (Dodrill et al. 1993) and feed on fish, cephalopods, and crustaceans (Matheson et al. 1986).

Yellowmouth groupers (*Mycteroperca interstitialis*) are also protogynous hermaphrodites and are widely distributed throughout the western Atlantic Ocean. It ranges throughout the southeastern U.S. from North Carolina through the Florida Keys and into the Gulf of Mexico and is also found in the waters off Bermuda and the Bahamas (Smith 1971). They can also be found throughout the Caribbean Sea south to Brazil (Smith 1978). Yellowmouth grouper are found in subtropical and temperate hard-bottom areas to depths of 150 m (Heemstra and Randall 1993), but are most commonly found at depths of 2–35 m (Bullock and Smith 1991; Gaspirini and Floeter 2001). Juveniles commonly occur in mangrove-lined lagoons (Heemstra and Randall 1993). Yellowmouth grouper are piscivorous and feed on fish and small crustaceans (Heemstra and Randall 1993).

SEDAR 68 Research Track (RT) (2021) reported a maximum age for scamp and yellowmouth grouper as 34 years with a range of ± 2 years, a maximum size of 880 millimeter (mm) fork length (FL), and maximum weight of 21 kilograms (kg). Spawning occurs during February through July with peak spawning during March through May (Harris et al. 2002). 50% maturity of female age and length was? 2.9 years and 375.2 mm FL, respectively, and sex transition (to male) of age and length at 50% were 10.6 years and 646.9 mm FL, respectively (SEDAR 68 RT [2021]).

Stock Status

The Southeast Data, Assessment, and Review (SEDAR) process is a cooperative Fishery Management Council initiative to improve the quality and reliability of fishery stock assessments in the South Atlantic, Gulf of Mexico, and U.S. Caribbean[3]. SEDAR seeks improvements in the scientific quality of stock assessments, constituent and stakeholder participation in assessment development, transparency in the assessment process, and a rigorous and independent scientific review of completed stock assessments.

SEDAR is organized around three public workshops. First is the Data Workshop, during which fisheries monitoring and life history data are reviewed and compiled. Second is the Assessment Workshop, which may be conducted via a workshop and several webinars, during which assessment models are developed and population parameters are estimated using the information provided from the Data Workshop. Third and final is the Review Workshop, during which independent experts review the input data, assessment methods, and assessment products. The completed assessment, including the reports of all three workshops and all supporting documentation, are then forwarded to the Council's Scientific and Statistical Committee (SSC).

[3] For more details on the different types of stock assessments under SEDAR see https://sedarweb.org/.

The SSC considers whether the assessment represents the best available science and develops fishing level recommendations for Council consideration.

The South Atlantic stock of scamp was assessed for the first time through the Southeast Data, Assessment, and Review (SEDAR) 68 RT assessment in September 2021 (SEDAR 68 RT [2021]). In 2020, the first stage of the SEDAR 68 data process was a Stock ID Workshop (SEDAR 68 Stock ID Workshop [2020]), which concluded that scamp are very difficult to distinguish from yellowmouth grouper and thus, much of the assessment data likely represent both species in unknown proportions. The SEDAR 68 Stock ID Workshop (2020) recommended that the stock assessment be conducted on both scamp and yellowmouth grouper jointly, with the two species treated as a single complex (hereafter referred to as Scamp and Yellowmouth Grouper complex). In December 2022, the SEDAR 68 operational assessment (OA) was conducted with data through 2021 and considered scamp and yellowmouth grouper a single stock due to identification issues between the two species (SEDAR 68 OA [2022]). **SEDAR 68 OA (2022) indicated that the scamp and yellowmouth grouper stock is overfished, but that overfishing is not occurring** (Figure 3.2.1.1). The assessment noted that stock status was driven mainly by poor recruitment, with a pattern of low recruitment in the most recent 10 to 15-year period. This pattern of low recruitment raised the question of a regime shift, which would necessitate re-evaluation of biological reference points for this stock. However, the SSC considered that there was not enough evidence to determine a regime shift has occurred, primarily referencing criteria developed by Klaer et al. (2015).

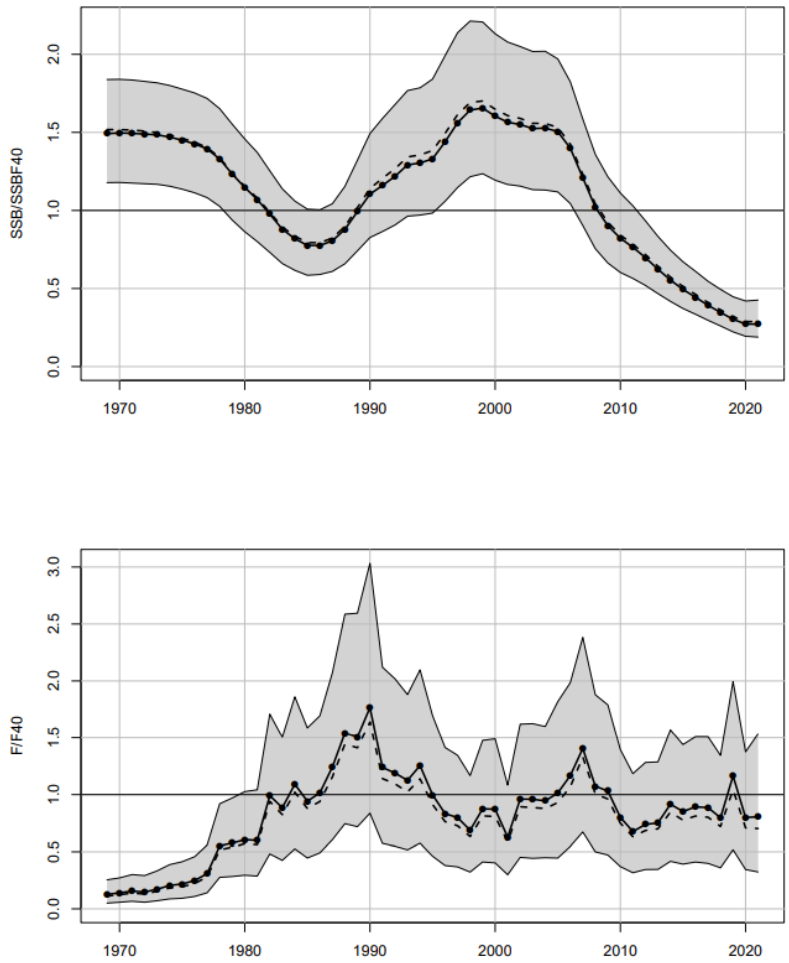

Figure 3.2.1.1. Top panel: spawning biomass relative to $SSB_{F40\%}$. Bottom panel: F relative to $F_{40\%}$. Solid line indicates estimates from the SEDAR 68 OA (2022) base run; dashed lines represent median values of the Monte Carlo/Bootstrap Ensemble (MCBE) analysis; gray error bands indicate the 5th and 95th percentiles of the MCBE.

Landings

3.2.3 Bycatch

The implications of bycatch on the scamp and yellowmouth grouper stock and snapper grouper fishery are discussed in Appendix INSERT COORDINATING APPENDIX LETTER (Bycatch Practicability Analysis).

3.2.4 Other Species Affected

This amendment indirectly affects other species in the Snapper Grouper fishery management unit (FMU) that are caught while fishing for scamp and yellowmouth grouper (other shallow-water grouper species, gag, red porgy, almaco jack, greater amberjack, and red snapper). Scamp and yellowmouth grouper are most often found at similar depth ranges and habitat types as other shallow-water grouper species. This group includes gag, black grouper, coney, graysby, red

hind, red grouper, rock hind, and yellowfin grouper. Off the Carolinas, scamp and gag exhibited the most similar preference for the same habitat variables, especially surface geologic component, biotic class, percent biotic cover and bottom temperature (Glasgow, D. M. 2017). For summary information on other snapper grouper species that may be affected by the actions in this plan amendment, refer to Section 3.2 in Vision Blueprint Regulatory Amendment 27 to the FMP (SAFMC 2019).

3.2.5 Protected Species

For current (as of January 2024) information on protected species, the reader is hereby referred to Snapper Grouper Amendment 53 Chapter 3.2.5 (SAFMC 2023d).

3.3 Economic Environment

3.3.1 Commercial Sector

Economic information pertaining to the commercial sector of the snapper grouper fishery is provided in the draft comprehensive commercial electronic logbook amendment (SAFMC 2023b), Amendment 46 to the FMP (SAFMC 2023a), Liese (2023), and Buck (2018), and is incorporated herein by reference. Select updates to this information specific to scamp and yellowmouth grouper are provided below. The major sources of data summarized in this section are the NMFS Southeast Regional Office (SERO) Permits Information Management System (PIMS), the Southeast Fisheries Science Center (SEFSC) Social Science Research Group (SSRG) Socioeconomic Panel[4] data set, and the SEFSC Fishing Communities Web Query Tool. Inflation adjusted values are reported in 2022 dollars, through application of the annual, not seasonally adjusted GDP implicit price deflator provided by the U.S. Bureau of Economic Analysis.

Permits

Any fishing vessel that harvests and sells any of the snapper grouper species from the South Atlantic exclusive economic zone (EEZ) must have a valid South Atlantic commercial snapper grouper permit, which is a limited access permit. As of August 26, 2021, there were 579 valid or renewable[5] South Atlantic Snapper Grouper unlimited permits and 112 valid or renewable 225-lb trip-limited permits. Commercial harvest of snapper grouper species in the EEZ may only be sold to dealers with a federal dealer permit. As of August 26, 2021, there were 379 entities with a federal Gulf and South Atlantic Dealers permit.

Landings, Value, and Effort

The number of federally permitted commercial vessels that landed South Atlantic scamp or yellowmouth grouper trended down from 2018 through 2022 (Table 3.3.1.1). Annual landings of scamp and yellowmouth grouper also decreased steadily during this period, with an overall decline of approximately 54%. On average (2018 through 2022), vessels that landed scamp or

[4] This data set is compiled by the SEFSC Social Science Research Group from Federal Logbook System data, supplemented by average prices calculated from the Accumulated Landings System. Because these landings are self-reported, they may diverge slightly from dealer-reported landings presented elsewhere.

[5] A renewable permit is an expired limited access permit that cannot be actively fished, but can be renewed for up to one year after expiration.

yellowmouth grouper did so on approximately 20% of their South Atlantic trips and these species accounted for approximately 11% of revenue on such trips. Additionally, scamp and yellowmouth grouper landings together comprised 4.1% of average annual all species revenue (2018 through 2022) for these vessels, including revenue from Gulf of Mexico trips (Table 3.3.1.1 and Table 3.3.1.2). Average all species vessel-level revenue for scamp and yellowmouth grouper harvesters decreased steadily from 2018 through 2021, then bounced back in 2022 (Table 3.3.1.2). The average annual price per lb gw for scamp and yellowmouth grouper during this period was $7.44 (2022 dollars). Although not shown in the table, the maximum annual revenue from all species reported by a single one of the vessels that harvested scamp or yellowmouth grouper from 2018 through 2022 was $441,332 (2022 dollars).

Liese (2023)[6] generated annual vessel-level estimates of costs (as a percentage of revenue) and net revenue from operations for vessels that harvested scamp in the South Atlantic. There is no comparable information for yellowmouth grouper available; however, given the low level of yellowmouth grouper landings, the overlap of vessels that land each species, and the misidentification issues between scamp and yellowmouth grouper that form the basis of the action to combine them into one complex, it is assumed the scamp-based economic performance measures are representative of vessels that harvest either of these species. Estimates of producer surplus (PS) can be calculated from the cost information contained in Liese (2023) in conjunction with estimates of annual revenue from the SEFSC-SSRG Socioeconomic Panel. PS is total annual revenue minus the costs for fuel, other supplies, hired crew, and the opportunity cost of an owner's time as captain. Net revenue from operations, which most closely represents economic profits to the owner(s), is total annual revenue minus the costs for fuel, other supplies, hired crew, vessel repair and maintenance, insurance, overhead, and the opportunity cost of an owner's time as captain, as well as the vessel's depreciation. According to Liese (2023), PS for commercial vessels that harvested South Atlantic scamp was approximately 28.7% of their annual gross revenue, on average, from 2014 through 2018. Net revenue from operations was -0.9% of their annual gross revenue, on average, during this period. Applying these percentages to the results provided in Table 3.3.1.2 would result in an estimated per vessel average annual PS of $2,367 (2022 dollars) and an average annual net revenue from operations of -$742 per year. It is important to note that the net revenue from operations estimate included in Liese (2023) considers implicit costs in its calculation, namely the opportunity cost of an owner's time as captain and vessel depreciation. As a result, the negative value for net revenue presented here does not necessarily mean the average business is operating at a loss in an accounting sense, but rather, the owner is not being fully compensated for their time or asset depreciation when compared to the next best use of their labor and capital resources. In other words, the data suggest that the average owner's time and vessel would generate greater returns doing something else.

Liese (2023) also provides annual trip-level estimates of costs (as a percentage of trip revenue) and trip net revenue for vessels that harvested scamp in the South Atlantic. According to Liese (2023), labor, including both hired and owner's time, consumed 50% of trip revenue and fuel and supplies consumed 22.9%, leaving a trip net revenue margin of 27.1%, on average, from 2014 through 2018. Based on the relatively low average percentage of trip-level level revenue that is

[6] This report is available via the NOAA repository: https://repository.library.noaa.gov/view/noaa/56480

composed of scamp and yellowmouth grouper landings from 2018 through 2022 (11%) and anecdotal information provided in Section 3.4.1 that states these species are not typically targeted but are often caught while fishing for other snapper grouper species, it is assumed that scamp and yellowmouth grouper are predominantly incidental catch. Further justification for this assumption is provided in Liese (2023), which contains a figure that graphs the percent of trip revenue comprised by scamp against the percent of all trips that harvested scamp in 2018. This figure clearly shows that for the vast majority of scamp trips, scamp accounted for less than a quarter of trip revenue. Therefore, in assessing the economic effects of the actions contained in this amendment, it is assumed that although landings and revenue are subject to change, there is no expectation of a meaningful change in fishing behavior, effort, or trip-level operating costs. As a result, changes in producer surplus and economic profit, for the purposes of assessing the economic effects of this amendment, shall be treated equivalent to estimated changes in gross revenue, as opposed to applying the aforementioned annual vessel-level and trip-level economic measures provided in Liese (2023). These measures are, however, still useful for understanding the economic performance of the commercial fishing businesses affected by this amendment.

Table 3.3.1.1. Number of vessels, number of trips, and landings (lbs gw) by year for South Atlantic scamp and yellowmouth grouper.

Year	# of vessels that caught scamp and yellowmouth grouper (> 0 lbs gw)	# of trips that caught scamp and yellowmouth grouper	scamp and yellowmouth grouper landings (lbs gw)	Other species' landings jointly caught w/ scamp and yellowmouth grouper (lbs gw)	# of South Atlantic trips that only caught other species	Other species' landings on South Atlantic trips w/o scamp and yellowmouth grouper (lbs gw)	All species landings on Gulf trips (lbs gw)
2018	148	927	89,538	1,130,373	3,540	1,897,337	188,363
2019	153	882	73,857	940,772	3,275	1,934,076	214,670
2020	146	823	62,680	944,453	3,071	1,632,480	220,666
2021	128	641	49,407	789,905	2,814	1,480,192	141,294
2022	112	561	40,985	737,370	2,166	1,295,634	91,466
Average	137	767	63,293	908,575	2,973	1,647,944	171,292

Source: SEFSC-SSRG Socioeconomic Panel (July 2023 version).
Note: South Atlantic trips refer to trips taken in Council jurisdictional waters and Gulf trips refer to trips taken in Gulf of Mexico Fishery Management Council jurisdictional waters.

Table 3.3.1.2. Number of vessels and ex-vessel revenue by year (2022 dollars) for South Atlantic scamp and yellowmouth grouper.

Year	# of vessels that caught scamp and yellowmouth grouper (> 0 lbs gw)	Dockside revenue from scamp and yellowmouth grouper	Dockside revenue from 'other species' jointly caught w/ scamp and yellowmouth grouper	Dockside revenue from 'other species' caught on South Atlantic trips w/o scamp and yellowmouth grouper	Dockside revenue from 'all species' caught on Gulf trips	Total dockside revenue	Average total dockside revenue per vessel
2018	148	$640,751	$4,593,538	$6,893,124	$807,978	$12,935,391	$87,401
2019	153	$537,745	$4,009,570	$7,175,410	$886,930	$12,609,654	$82,416
2020	146	$464,699	$4,083,192	$6,167,057	$878,839	$11,593,787	$79,409
2021	128	$376,393	$3,301,622	$5,471,000	$579,894	$9,728,910	$76,007
2022	112	$316,856	$3,426,856	$5,620,524	$386,294	$9,750,530	$87,058
Average	137	$467,289	$3,882,956	$6,265,423	$707,987	$11,323,654	$82,458

Source: SEFSC-SSRG Socioeconomic Panel (July 2023 version).

Dealers

The information in Table 3.3.1.3 illustrates the purchasing activities of dealers that bought South Atlantic scamp and yellowmouth grouper landings from vessels during 2018 through 2022.[7] Like vessels, dealer participation in particular fisheries is fluid, and not all dealers purchased scamp and yellowmouth grouper in each year during this time. On average, from 2018 through 2022, scamp and yellowmouth grouper purchases comprised approximately 0.5% of all purchases made by these dealers. The average annual value of total purchases per scamp and yellowmouth grouper dealer experienced a decreasing trend with fluctuation from 2018 through 2022 (Table 3.3.1.3). Although not shown in the table, the maximum annual value of all purchases made by a single scamp and yellowmouth grouper dealer from 2018 through 2022 was approximately $14 million (2022 dollars), which occurred in 2022.

Table 3.3.1.3. Purchase statistics for dealers that bought South Atlantic scamp and yellowmouth grouper landings (2022 dollars).

Year	Number of Dealers	Scamp and Yellowmouth Grouper landed lbs gw	Scamp and Yellowmouth Grouper Purchases	Other South Atlantic Purchases	Gulf Purchases	Average purchases value per dealer
2018	70	91,148	$650,099	$21,816,572	$64,527,761	$12,559,852
2019	63	76,054	$556,103	$25,755,027	$73,779,362	$10,731,876

[7] The estimates in this table are based on Accumulated Landings System data, which tends to produce slightly different estimates of landings and ex-vessel value for scamp and yellowmouth grouper than the SEFSC-SSRG socio-economic panel database.

Year	Number of Dealers	Scamp and Yellowmouth Grouper landed lbs gw	Scamp and Yellowmouth Grouper Purchases	Other South Atlantic Purchases	Gulf Purchases	Average purchases value per dealer
2020	64	61,943	$440,472	$20,972,622	$63,862,551	$11,382,487
2021	62	50,240	$364,073	$21,973,052	$67,342,069	$6,059,289
2022	51	39,669	$305,604	$17,424,623	$52,390,499	$9,151,623
Average	62	63,811	$463,270	$21,588,379	$64,380,448	$9,977,025

Source: SEFSC Fishing Communities Web Query Tool (Version Aug 28, 2023 Years: 2018-2022).

Imports

Imports of seafood products compete in the domestic seafood market and have in fact dominated many segments of the seafood market. Imports affect the price for domestic seafood products and tend to set the price in the market segments in which they dominate. Seafood imports have downstream effects on the local fish market. At the harvest level for grouper species, imports affect the returns to fishermen through the ex-vessel prices they receive for their landings. As substitutes to the domestic production of grouper species, imports tend to cushion the adverse economic effects on consumers resulting from a reduction in domestic landings. The following describes the imports of fish products that directly compete with the domestic harvest of grouper species. Import data for scamp or yellowmouth grouper, in particular, are not available.

Imports of fresh grouper ranged from 10.4 million lbs product weight (pw) to 12.4 million lbs pw from 2018 through 2022. During this time, total revenue from fresh grouper imports ranged from approximately $43.6 million (2022 dollars) to $63.1 million. The average annual price per lbs pw for fresh grouper ranged from $4.19 to $5.39 (2022 dollars). Imports of fresh grouper primarily originated in Mexico, Central America, or South America and entered the U.S. through the ports of Miami, Florida, Tampa, Florida, and San Diego, California. On average (2018 through 2022), monthly imports of fresh grouper were mostly stable with a peak in July.

Imports of frozen grouper ranged from 0.8 million lbs pw to 4.6 million lbs pw during 2018 through 2022. The annual value of these imports ranged from approximately $1.6 million (2022 dollars) to $6.6 million, with a peak in 2018. The average annual price per lb pw for frozen grouper increased steadily from $1.43 in 2018 to $2.50 in 2021 and then decreased moderately in 2022 to $2.15 (2022 dollars). Imports of frozen grouper primarily originated in Mexico and India. The majority of frozen grouper imports entered the U.S. through the ports of Miami, Florida, Tampa, Florida, and New York, New York. On average (2018 through 2012), monthly imports of frozen groupers were greatest during the months of March, July, and November.

Business Activity

The commercial harvest and subsequent sales and consumption of fish generate business activity as fishermen expend funds to harvest the fish and consumers spend money on goods and services, such as seafood purchased at a local fish market and served during restaurant visits. These expenditures spur additional business activity in the region(s) where the harvest and purchases are made, such as jobs in local fish markets, grocers, restaurants, and fishing supply

establishments. In the absence of the availability of a given species for purchase, consumers would spend their money on substitute goods, such as other finfish or seafood products, and services, such as visits to different food service establishments. As a result, the analysis presented below represents a distributional analysis only; that is, it only shows how economic effects may be distributed through regional markets and should not be interpreted to represent the impacts if these species are not available for harvest or purchase.

In addition to these types of impacts, economic impact models can be used to determine the sources of the impacts. Each impact can be broken down into direct, indirect, and induced economic impacts. "Direct" economic impacts are the results of the money initially spent in the study area (e.g., country, region, state, or community) by the fishery or industry being studied. This includes money spent to pay for labor, supplies, raw materials, and operating expenses. The direct economic impacts from the initial spending create additional activity in the local economy, i.e., "indirect" economic impacts. Indirect economic impacts are the results of business-to-business transactions indirectly caused by the direct impacts. For example, businesses initially benefiting from the direct impacts will subsequently increase spending at other local businesses. The indirect economic impact is a measure of this increase in business-to-business activity, excluding the initial round of spending which is included in the estimate of direct impacts. "Induced" economic impacts are the results of increased personal income caused by the direct and indirect economic impacts. For example, businesses experiencing increased revenue from the direct and indirect impacts will subsequently increase spending on labor by hiring more employees, increasing work hours, raising salaries/wage rates, etc. In turn, households will increase spending at local businesses. The induced impact is a measure of this increase in household-to-business activity.

Estimates of the U.S. average annual business activity associated with the commercial harvest of scamp and yellowmouth grouper in the South Atlantic were derived using the model developed for and applied in NMFS (2023) and are provided in Table 3.3.1.4.[8] This business activity is characterized as jobs (full- and part-time), output impacts (gross business sales), income impacts (wages, salaries, and self- employed income), and value-added impacts, which represent the contribution made to the U.S. Gross Domestic Product (GDP). These impacts should not be added together because this would result in double counting. These results are based on average relationships developed through the analysis of many fishing operations that harvest many different species. Separate models to address individual species are not available. For example, the results provided here apply to a general "reef fish" category, rather than just scamp or yellowmouth grouper, and a harvester job is "generated" for approximately every $37,872 (2022 dollars) in ex-vessel revenue. These results contrast with the number of harvesters (vessels) with recorded landings of scamp or yellowmouth grouper presented in Table 3.3.1.1.

Between 2018 and 2022, landings of South Atlantic scamp and yellowmouth grouper resulted in approximately $467,000 (2022 dollars) in gross revenue on average. In turn, this revenue generated employment, income, value-added, and output impacts of 52 jobs, $1.7 million, $2.4 million, and $4.6 million per year, respectively, on average (Tables 3.3.1.4).

[8] A detailed description of the input/output model is provided in NMFS (2011).

Table 3.3.1.4. Average annual business activity (2018 through 2022) associated with the commercial harvest of scamp and yellowmouth grouper in the South Atlantic. All monetary estimates are in thousands of 2022 dollars.*

Harvesters	Direct	Indirect	Induced	Total
Employment impacts	9	1	2	12
Income impacts	252	47	113	412
Total value-added impacts	269	169	194	631
Output Impacts	467	380	376	1,224
Primary dealers/processors	**Direct**	**Indirect**	**Induced**	**Total**
Employment impacts	2	1	1	4
Income impacts	82	76	72	230
Total value-added impacts	88	97	135	320
Output impacts	265	200	264	729
Secondary wholesalers/distributors	**Direct**	**Indirect**	**Induced**	**Total**
Employment impacts	1	0	1	2
Income impacts	49	15	52	115
Total value-added impacts	52	24	88	165
Output impacts	131	48	171	351
Grocers	**Direct**	**Indirect**	**Induced**	**Total**
Employment impacts	4	0	1	5
Income impacts	101	34	51	185
Total value-added impacts	108	54	86	247
Output impacts	172	88	168	428
Restaurants	**Direct**	**Indirect**	**Induced**	**Total**
Employment impacts	23	2	4	29
Income impacts	405	123	232	759
Total value-added impacts	431	219	391	1,041
Output impacts	789	343	771	1,903
Harvesters and seafood industry	**Direct**	**Indirect**	**Induced**	**Total**
Employment impacts	39	4	9	52
Income impacts	889	294	519	1,702
Total value-added impacts	948	563	893	2,404
Output impacts	1,825	1,059	1,751	4,634

Source: Calculated by NMFS SERO using the model developed for and applied in NMFS (2023).
*Converted to 2022 dollars using the annual, not seasonally adjusted GDP implicit price deflator provided by the U.S. Bureau of Economic Analysis.

3.3.2 Recreational Sector

The recreational sector is composed of the private and for-hire modes. The private mode includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire mode is composed of charter vessels and headboats. Charter vessels generally carry fewer passengers and charge a fee on an entire vessel basis, whereas headboats carry more passengers

and payment is per person. The type of service, from a vessel- or passenger-size perspective, affects the flexibility to search different fishing locations during the course of a trip and target different species because larger concentrations of fish are required to satisfy larger groups of anglers.

Economic information pertaining to the recreational sector of the snapper grouper fishery is provided in Amendment 45 to the FMP (SAFMC 2023a) and Draft Amendment 46 to the FMP (SAFMC 2023c) and is incorporated herein by reference. Select updates to this information specific to scamp and yellowmouth grouper are provided below.

Permits

For anglers to fish for or possess snapper grouper species in or from the South Atlantic EEZ on for-hire vessels, those vessels are required to have an open access South Atlantic Snapper-Grouper Charter/Headboat permit (snapper grouper for-hire permit). As of August 26, 2021, there were 1,930 valid for-hire snapper grouper permits. This sector operates as an open access fishery and not all permitted vessels are necessarily active in the fishery, as evidenced in Souza and Liese (2019). Some vessel owners may have obtained open access permits as insurance for uncertainties in the fisheries in which they currently operate.

Although the for-hire permit application collects information on the primary method of operation, the permit itself does not identify the permitted vessel as either a headboat or a charter vessel and vessels may operate in both capacities. However, only federally permitted headboats are required to submit harvest and effort information to the NMFS Southeast Region Headboat Survey (SRHS).[9] Participation in the SRHS is based on determination by the SEFSC that the vessel primarily operates as a headboat. During 2023, 65 South Atlantic headboats were registered in the SRHS (K. Brennan, NMFS SEFSC, pers. comm. 2024). The majority of these headboats were located in Florida/Georgia (38), followed by North Carolina (15) and South Carolina (12). As a result, of the 1,930 vessels with snapper grouper for-hire permits, up to 65 may primarily operate as headboats.[10]

There are no specific permitting requirements for recreational anglers to harvest snapper grouper species. Instead, anglers are required to possess either a state recreational fishing permit that authorizes saltwater fishing in general or be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions. As a result, it is not possible to identify with available data how many individual anglers would be expected to be affected by this proposed amendment.

[9] All federal charter/headboat permit holders, including charter vessel owners or operators, are required to comply with the new Southeast For-Hire Electronic Reporting Program as of January 2021. Under this program, all such permit holders must submit logbooks weekly, by 11:59 pm, local time, the Tuesday following a reporting week (Monday-Sunday). Those vessels selected to report to the SRHS (i.e., federally permitted headboats) will continue to submit their reports under the new requirements directly to the SRHS program. For more information, see: https://www.fisheries.noaa.gov/southeast/recreational-fishing-data/southeast-hire-integrated-electronic-reporting-program/.

[10] This estimate is based on the SEFSC criteria; however, there may be additional vessels not included in the SRHS that also identify as headboats.

Angler Effort

Recreational effort derived from the MRIP database can be characterized in terms of the number of trips as follows:

- Target effort - The number of individual angler trips, regardless of duration, where the intercepted angler indicated that the species or a species in the species group was targeted as either the first or the second primary target for the trip. The species did not have to be caught.
- Catch effort - The number of individual angler trips, regardless of duration and target intent, where the individual species or a species in the species group was caught. The fish did not have to be kept.
- Total recreational trips - The total estimated number of recreational trips in the South Atlantic, regardless of target intent or catch success.

Target effort for scamp and yellowmouth grouper was very sparse in the MRIP data, with recorded trips appearing only once for the period of 2018 through 2022. . Specifically, there were 5,535 target trips recorded for the private mode in Florida in 2022.[11] As discussed in Section 3.4.2 of this document, anecdotal evidence from for-hire captains suggests that although these species are caught on occasion and valued by anglers, they are typically not targeted because they usually occur in deep waters far from shore (35 plus miles).

Estimates of scamp and yellowmouth grouper catch effort are provided in Table 3.3.2.1 Catch trips decreased steadily from 2018 through 2020, then rose sharply to a five year high in 2022 (Table 3.3.2.1). The majority of these trips occurred in Florida and the private/rental mode was the dominant mode of fishing (Table 3.3.2.1). Because scamp and yellowmouth grouper are rare event species in MRIP, the estimates presented in this section are imprecise[12] and should be viewed accordingly. It is also important to note that in 2018, MRIP transitioned from the CHTS to the mail-based FES. The estimates presented in this section are calibrated to the MRIP FES and may be greater than estimates that are non-calibrated.[13]

Table 3.3.2.1. South Atlantic scamp and yellowmouth grouper recreational catch trips, by mode and state, 2018-2022.*

Year	FL	GA	NC	SC	Total
	Charter Mode				
2018	0	0	789	345	1,134
2019	357	65	864	322	1,609
2020	1,282	10	1,891	146	3,330

[11] This estimate was based on a single intercept with a percent standard error (PSE) of 100, indicating a highly imprecise estimate.

[12] PSEs for estimates of scamp and yellowmouth grouper catch trips (by year, mode, and state) range from around 50 up to 100.

[13] As of August 2018, all directed trip estimate information provided by MRIP (public use survey data and directed trip query results) for the entire time series was updated to account for both the Access Point Angler Intercept Survey (APAIS) design change in 2013, as well as the transition from the CHTS to the FES in 2018. Back-calibrated estimates of directed effort are not available. For more information, see: https://www.fisheries.noaa.gov/recreational-fishing-data/recreational-fishing-estimate-updates/.

Year	FL	GA	NC	SC	Total
2021	1,776	0	738	755	3,269
2022	2,380	0	150	130	2,660
Average	1,159	15	886	340	2,400
	Private/Rental Mode				
2018	8,808	0	0	0	8,808
2019	644	0	1,064	2,396	4,105
2020	0	0	383	820	1,204
2021	3,938	0	2,495	0	6,433
2022	5,535	0	0	4,510	10,045
Average	3,785	0	788	1,545	6,119
	All Modes				
2018	8,808	0	789	345	9,942
2019	1,001	65	1,929	2,718	5,713
2020	1,282	10	2,274	966	4,533
2021	5,714	0	3,233	755	9,702
2022	7,915	0	150	4,640	12,705
Average	4,944	15	1,675	1,885	8,519

Source: MRIP database, SERO, NMFS (January 2024).
*Headboat data are unavailable.
Note: These were no shore trips recorded.

Similar analysis of recreational angler trips is not possible for the headboat mode because headboat data are not collected at the angler level. Estimates of effort by the headboat mode are provided in terms of angler days, or the total number of standardized full-day angler trips.[14] From 2018 through 2022, headboat effort in the South Atlantic, in terms of angler days, fluctuated with a five-year low in 2020 (Table 3.3.2.2). Headboat effort was the highest, on average, during the summer months of June through August (Table 3.3.2.3).

Table 3.3.2.2. South Atlantic headboat angler days and percent distribution by state (2018 through 2022).

	Angler Days			Percent Distribution		
Year	**FL/GA***	**NC**	**SC**	**FL/GA**	**NC**	**SC**
2018	120,560	16,813	37,611	68.9%	9.6%	21.5%
2019	119,712	15,546	41,470	67.7%	8.8%	23.5%
2020	84,005	14,154	34,080	63.5%	10.7%	25.8%
2021	120,367	19,719	47,908	64.0%	10.5%	25.5%
2022	104,989	16,140	38,748	65.7%	10.1%	24.2%

[14] Headboat trip categories include half-, three-quarter-, full-, and 2-day trips. A full-day trip equals one angler day, a half-day trip equals .5 angler days, etc. Angler days are not standardized to an hourly measure of effort and actual trip durations may vary within each category.

	Angler Days			Percent Distribution		
Year	FL/GA*	NC	SC	FL/GA	NC	SC
Average	109,927	16,474	39,963	66.0%	9.9%	24.1%

*East Florida and Georgia are combined for confidentiality purposes.
Source: NMFS SRHS (January, 2024).

Table 3.3.2.3. South Atlantic headboat angler days and percent distribution by month (2018 through 2022).

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Headboat Angler Days											
2018	4,428	9,862	14,080	15,167	13,264	29,038	30,235	26,233	9,715	8,072	7,673	7,217
2019	7,746	8,476	15,186	15,566	19,368	26,587	32,914	20,177	6,716	9,011	8,587	6,394
2020	6,920	7,805	8,445	407	8,711	23,250	26,565	16,320	10,973	9,855	6,251	6,737
2021	7,629	7,421	14,582	16,062	19,582	28,669	32,887	20,631	13,183	10,920	6,739	9,689
2022	6,546	8,146	10,158	13,361	17,176	24,421	27,074	20,210	10,528	8,785	6,139	7,333
Avg	6,654	8,342	12,490	12,113	15,620	26,393	29,935	20,714	10,223	9,329	7,078	7,474
	Percent Distribution											
2018	3%	6%	8%	9%	8%	17%	17%	15%	6%	5%	4%	4%
2019	4%	5%	9%	9%	11%	15%	19%	11%	4%	5%	5%	4%
2020	5%	6%	6%	0%	7%	18%	20%	12%	8%	7%	5%	5%
2021	4%	4%	8%	9%	10%	15%	17%	11%	7%	6%	4%	5%
2022	4%	5%	6%	8%	11%	15%	17%	13%	7%	5%	4%	5%
Avg	4%	5%	7%	7%	9%	16%	18%	12%	6%	6%	4%	5%

Source: NMFS SRHS (January, 2024).

Economic Value

Participation, effort, and harvest are indicators of the value of saltwater recreational fishing. However, a more specific indicator of value is the satisfaction that anglers experience over and above their costs of fishing. The monetary value of this satisfaction is referred to as consumer surplus (CS). The value or benefit derived from the recreational experience is dependent on several quality determinants, which include fish size, catch success rate, and the number of fish kept. These variables help determine the value of a fishing trip and influence total demand for recreational fishing trips.

Direct estimates of the CS for scamp and yellowmouth grouper are not currently available. There are, however, estimates for grouper species in general. Haab et al. (2012) estimated the CS (willingness to pay [WTP] for one additional fish caught and kept) for groupers in the Southeastern U.S. using four separate econometric modeling techniques. The finite mixture model, which takes into account variation in the preferences of fishermen, had the best prediction rates of the four models and, as such, was selected for presentation here. The WTP for an additional grouper was estimated to be $159.79 (2022 dollars). Another study estimated the value of the consumer surplus for catching and keeping a second grouper on an angler trip at approximately $124 (2022 dollars) and lower thereafter (approximately $83 for a third grouper, $61 for a fourth grouper, and $48 for a fifth grouper) (Carter and Liese 2012). For the purposes

of this amendment, the $124 per fish estimate is assumed to be the best value to use for estimating the consumer surplus associated with catching and keeping a scamp or yellowmouth grouper. The higher value provided by Haab et al. (2012) is likely less reasonable for a grouper species that is incidentally harvested.

The foregoing estimates of economic value should not be confused with economic impacts associated with recreational fishing expenditures. Although expenditures for a specific good or service may represent a proxy or lower bound of value (a person would not logically pay more for something than it was worth to them), they do not represent the net value (benefits minus cost), nor the change in value associated with a change in the fishing experience.

Estimates of average annual gross revenue for South Atlantic charter vessels and headboats in 2009 are provided in Holland et al. (2012). In 2022 dollars, the average annual gross revenue for a South Atlantic headboat was approximately $251,000, while the average annual gross revenue for a South Atlantic charter vessel was approximately $142,000. However, a more recent estimate of average annual gross revenue for South Atlantic headboats is available from D. Carter (NMFS, pers. comm., 2018). D. Carter (NMFS, pers. comm., 2018) recently estimated that average annual gross revenue for South Atlantic headboats was approximately $343,016 (2022 dollars) in 2017. This estimate is likely the best current estimate of annual gross revenue for South Atlantic headboats, as it is based on a relatively large sample and is more recent. The difference in the Holland et al. (2012) and D. Carter (NMFS, pers. comm., 2018) estimates for headboats suggests that the estimate for charter vessels based on Holland et al. (2012) is likely an underestimate of current average annual revenue for charter vessels in the South Atlantic. Estimates of annual PS and economic profit for South Atlantic charter vessels and headboats are not available.

With regard to for-hire trips, economic value can be measured by PS per angler trip, which represents the amount of money that a vessel owner earns in excess of the cost of providing the trip. Estimates of revenue, costs, and trip net revenue for trips taken by charter vessels and headboats in 2017 are available from Souza and Liese (2019). They also provide estimates of trip net cash flow per angler trip, which are an approximation of PS per angler trip. According to Table 3.3.2.4, after accounting for transactions fees, supply costs, and labor costs, net revenue per trip was 40% of revenue for South Atlantic charter vessels and 54% of revenue for Southeast headboats or $627 and $2,054 (2022 dollars), respectively. Given the average number of anglers per trip for each fleet, PS per angler trip is estimated to be $133 for South Atlantic charter vessels and $77 for Southeast headboats (Table 3.3.2.4).

Table 3.3.2.4. Trip-level economics for offshore trips by South Atlantic charter vessels and Southeast headboats in 2017 (2022 dollars).

	South Atlantic Charter Vessels	Southeast Headboats*
Revenue	100%	100%
Transaction Fees (% of revenue)	3%	6%
Supply Costs (% of revenue)	29%	19%
Labor Costs (% of revenue)	28%	22%

	South Atlantic Charter Vessels	Southeast Headboats*
Net Revenue per trip including Labor costs (% of revenue)	40%	54%
Net Revenue per Trip	$627	$2,054
Average # of Anglers per Trip	4.7	26.6
Trip Net Cash Flow per Angler Trip	$133	$77

Source: Souza and Liese (2019).
*Although Souza and Liese (2019) break headboats out by sub-region, the South Atlantic sample size is small and thus estimates for Southeast headboats in general (Gulf and South Atlantic combined) are presented here.

Business Activity

The desire for recreational fishing generates economic activity as consumers spend their income on various goods and services needed for recreational fishing. This income spurs economic activity in the region where recreational fishing occurs. It should be clearly noted that, in the absence of the opportunity to fish, the income would presumably be spent on other goods and services and these expenditures would similarly generate economic activity in the region where the expenditure occurs. As such, the analysis below represents a distributional analysis only. Estimates of the business activity (economic impacts) associated with recreational angling for South Atlantic scamp and yellowmouth grouper were calculated using average trip-level impact coefficients derived from the 2020 Fisheries Economics of the U.S. report (NMFS 2023) and underlying data provided by the National Oceanic and Atmospheric Administration (NOAA) Office of Science and Technology. Economic impact estimates in 2020 dollars were adjusted to 2022 dollars using the annual, not seasonally adjusted GDP implicit price deflator provided by the U.S. Bureau of Economic Analysis.

Business activity (economic impacts) for the recreational sector is characterized in the form of value-added impacts (contribution to the GDP in a state or region), output impacts (gross business sales), income impacts (wages, salaries, and self-employed income), and jobs (full- and part-time). Estimates of the average annual economic impacts (2018-2022) resulting from South Atlantic recreational scamp and yellowmouth grouper target trips are provided in Table 3.3.2.5. These estimates only apply at the state-level, as opposed to the regional (or national) level, and may underestimate the actual amount of total business activity, because state-level impact multipliers do not account for interstate and interregional trading. It is important to note, that these economic impacts estimates are based on trip expenditures only and do not account for durable expenditures. Durable expenditures cannot be reasonably apportioned to individual species or species groups. As such, the estimates provided in Tables 3.3.2.5 may be considered a lower bound on the economic activity associated with those trips that targeted scamp and yellowmouth grouper.

Estimates of the business activity associated with headboat effort are not available. Headboat vessels are not covered in MRIP, so, in addition to the absence of estimates of target effort, estimation of the appropriate business activity coefficients for headboat effort has not been conducted.

Table 3.3.2.5. Estimated economic impacts from South Atlantic scamp and yellowmouth grouper recreational target trips in FL,* using state-level multipliers. All monetary estimates are in thousands of 2022 dollars.

	Private/Rental Mode
Target Trips	1,107
Value Added Impacts	$35
Sales Impacts	$52
Income Impacts	$17
Employment (Jobs)	0.4

Source: Effort data from MRIP; economic impact results calculated by NMFS SERO using NMFS (2023) and underlying data provided by the NOAA Office of Science and Technology.
*The average number of target trips presented in this table and used to calculate economic impacts is based on a single year of estimates recorded for the private recreational mode in Florida in 2022. No other target trips for scamp and yellowmouth grouper were recorded during the period.

3.4 Social Environment

This section describes select aspects of the social context associated with recreational and commercial pursuit of scamp and yellowmouth grouper in the South Atlantic. The principal intent here is to provide sufficient descriptive context for regulatory effects analysis in Chapter 4. In keeping with Executive Orders that call for examination of environmental equity and justice (EEJ) in the context of federal regulatory actions, the section also identifies social vulnerabilities among communities where the scamp/yellowmouth grouper resource is of known importance.

3.4.1 Commercial Sector

Overview

As discussed by Bacheler and Ballenger (2018), scamp is an economically significant grouper species associated with rocky pavements, ledges, and outcroppings in mesophotic ecosystems[15] along the inner Continental Shelf from Cape Hatteras south into the Gulf of Mexico and elsewhere in the Western Atlantic. SAFMC (2024) further notes the species' preference for low profile, live bottom areas between 75 and 300 feet in depth. Descriptions of yellowmouth grouper indicate a similar distribution and association with similar habitats around the Southeast (Burton and Potts 2014), though with some indication of preference for relatively shallower areas than exhibited by scamp (Gaspirini and Floeter 2001). Both species are characteristically aggressive predators, readily feeding on various fish, crabs, shrimp, and other species (SAFMC 2024; Sazima 2002).

[15] Mesophotic coral ecosystems, found in relatively shallow subtropical and tropical portions of the world's oceans, are characterized by the presence of corals, sponges, and algae (Olsen and Kellog 2010).

Each of these biophysical factors – distribution, depth, habitat, and feeding behavior – are significant in human-social terms as these bear on the nature of fishing effort among commercial and recreational participants around the South Atlantic. As examples: (a) knowledge of where scamp and yellowmouth grouper tend to be located in terms of latitude, longitude, and depth are fundamentally important forms of knowledge among participants, with many such persons retaining and (sometimes) communicating the pertinent information to others; (b) navigating to the appropriate locations, anchoring or effectively drifting on or above such areas, and effectively deploying fishing gear and appropriate bait require knowledge, cooperation, and skill among those on board, and (c) given the aggressive nature of the species and the fishing challenges associated with preferred habitat, only skilled response to interest in the bait can enable successful retrieval and prevent loss of gear and potential mortality of hooked fish.

A useful source of information regarding commercial pursuit of scamp and yellowmouth grouper in the South Atlantic is available in Buck (2018). The author uses various archival data and information derived from extensive work with commercial fishery participants in the region to describe patterns of snapper-grouper (SG) fishing over time, with emphasis on fishing activity during 2016. The author organizes the description by the following sub-regions: (a) North Carolina, South Carolina, and Georgia, (b) Florida East, and (c) the Florida Keys.

Based on relative extent of landings, and with regard to seasonality of catch and effort (including closure of the fishery during the winter months), the author asserts that scamp (along with certain other SG and non-SG species) is of primary importance to fleets in the North Carolina, South Carolina, and Georgia subset during May through August, and of secondary importance during September through December. Based on the same data, yellowmouth grouper is deemed to be of secondary importance during the spring and summer months in this sub-region. Meanwhile, scamp is classified as secondarily important to fleets active in the Florida East region during the spring and summer months, and of no apparent importance during autumn. Finally, scamp is deemed to be of secondary importance to fleets active in the Florida Keys during May through December, with yellowmouth assuming secondary importance during the spring and summer months in that sub-region.

In sum, based on data compiled during 2016, Buck (2018) indicates that: (a) scamp can be considered a target species only among the North Carolina/South Carolina/Georgia sub-group, and only during May through August, and (b) yellowmouth grouper cannot readily be considered a target species by any of the sub-regional fleets in question. With regard to manner of pursuit by commercial fleets examined in the study, the author asserts that commercial harvest of all SG species in all sub-regions occurred primarily with electric or hydraulic-powered hook-and-line gear, rod and reel, or handline, in that order.

South Atlantic Commercial S-G Permits by State and Community

An unlimited or 225-lb. trip-limited SG permit is required for captains/vessels working to legally harvest scamp and/or yellowmouth grouper on a commercial basis. The community-level distribution of such permits indicates specific areas from which active vessels typically operate. A total of 535 unlimited SG permits were issued during 2020, the latest full year for which valid permit data are presently available. Most unlimited SG permits (67.1%) were issued during 2020 to residents or persons with mailing addresses in Florida, followed by 21.9% in North Carolina,

7.6% in South Carolina, and 1.5% in Georgia. Two or fewer unlimited permits were issued to persons with mailing addresses in New York, New Jersey, Virginia, or Texas during 2020. As indicated in Table 3.4.1.1, a high percentage of both permit types are held by participants in Key West. The combined percentage of permits attributed to persons with mailing addresses in the Carolinas during 2020 was 29.5%.

Table 3.4.1.1. Distribution of unlimited and 225-lb trip-limited SG permits among the top permit-holding communities in the South Atlantic during 2020.

Leading Communities: Unlimited S-G Permits	Permits	Leading Communities: 225-lb Trip-Limited S-G Permits	Permits
Key West, Florida	92	Key West, Florida	11
Key Largo, Florida	22	Marathon, Florida	10
Miami, Florida	21	Miami, Florida	9
Marathon, Florida	19	Jupiter, Florida	6
Murrells Inlet, South Carolina	15	Big Pine Key, Florida	5
Little River, South Carolina	15	Key Largo, Florida	4
Port Canaveral, Florida	14	Sebastian, Florida	4
Jacksonville, Florida	13	Wilmington, North Carolina	4
Southport, North Carolina	13	West Palm Beach, Florida	3
Jupiter, Florida	12	Hatteras, North Carolina	3
Morehead City, North Carolina	11	Fort Pierce, Florida	2
St. Augustine, Florida	11	Middle Torch Key, Florida	2
Sneads Ferry, North Carolina	11	Cudjoe Key, Florida	2
Fort Pierce, Florida	11	Summerland Key, Florida	2
Big Pine Key, Florida	11	Fort Lauderdale, Florida	2
Sebastian, Florida	11	Boca Raton, Florida	2
Sneads Ferry, North Carolina	10	Morehead City, North Carolina	2
Mayport, Florida	10	--	--
Islamorada. Florida	8	--	--
Holden Beach, North Carolina	7	--	--
Wanchese, North Carolina	7	--	--
Port Orange, Florida	7	--	--
Summerland Key, Florida	7	--	--
Hatteras, North Carolina	6	--	--
Wilmington, North Carolina	6	--	--
Atlantic Beach, North Carolina	6	--	--
Carolina Beach, North Carolina	6	--	--

Source: SERO Sustainable Fisheries (SF) Access permits database, accessed January 2023.

Regional & Local Quotients: South Atlantic Scamp/Yellowmouth Grouper Landings

Figure 3.4.2.1 below depicts the community-level distribution of commercial scamp/yellowmouth grouper landings (combined) for the time-series 2018 through 2022. The distribution is expressed here as a regional quotient, or the share of community-specific landings divided by landings accruing to South Atlantic fleets as a whole. The communities are rank-ordered based on landings averaged over the time-series. As discussed elsewhere in this

amendment scamp/yellowmouth grouper landings are not extensive relative to other SG species. Because less than three seafood dealers transacted scamp/yellowmouth grouper during the time-series in any the communities depicted here, actual place names are concealed to ensure anonymity of the businesses involved and to safeguard any related proprietary information.

Notably, the vast majority of scamp/yellowmouth grouper landings collectively occurred in Southeast North Carolina (SE NC) and Northeast South Carolina (NE SC) communities during the time period examined here, with a considerable volume also accruing to a coastal community in Northeast Florida (NE FL). Two communities in east-central South Carolina (EC SC) are also represented in the graphic, as is an inland community located in east-central Florida. A number of additional communities reported transaction of very small volumes of the species between 2018 and 2022—these are summed here and represented as "other communities."

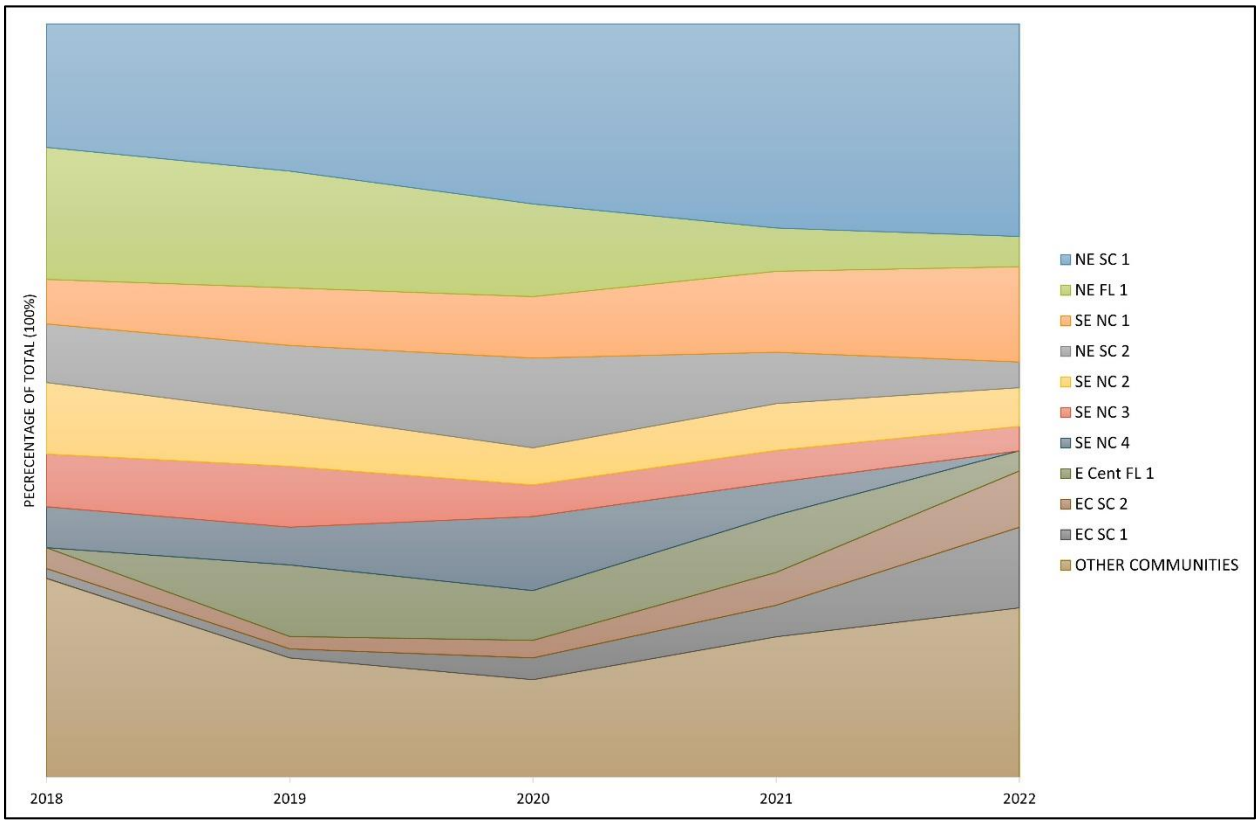

Figure 3.4.1.1. Distribution of regional landings among the top South Atlantic commercial scamp/yellowmouth grouper landings communities: 2018 through 2022. Source: SEFSC, Community ALS Data File, Accessed January 2024.

It is noteworthy in both social and biological terms that the SE NC and NE SC communities accrued the vast majority of scamp/yellowmouth grouper landings between 2018 and 2022. All of these municipalities are situated within an ~80 mile radius along the respective coastlines of Onslow Bay and Long Bay, and all are increasingly connected urban-coastal zones where demand for seafood products is extensive. Two of the SE NC communities are situated north of Cape Fear, with participants tending to fish SG species in habitat-appropriate ocean areas around the southern portions of Onslow Bay (north of Frying Pan Shoals).

Key participants report that while scamp and yellowmouth grouper are not typically targeted, they are often captured during generalized SG trips that involve use of the same basic gear, bait, and overall approach used to pursue various species in the shallow-water SG complex. Gag grouper is especially targeted by many captains here. This reportedly is also the case for participants operating from the remainder of the SE NC communities and the NE SC communities—all of whom tend to operate above suitable S-G habitat in Long Bay (south of Frying Pan Shoals). Some commercial fishing vessels active in this overall region transect Frying Pan Shoals en route to suitable SG grounds north or south, but this is said to be a rarity. Although scamp, yellowmouth grouper, and other valued SG species are occasionally found closer to shore, ideal bottom conditions are said to occur around the 120-foot contour and deeper in this general (Cape Fear) region, requiring trip distances of 35 miles or more, depending on trajectory and point of origin. Conversational interaction with fishery participants and sustained observation make clear that certain captains retain their understanding of ideal fishing locations vis-à-vis past experience and various ecological cues and conditions of the day, while others sometimes share such understanding within social networks of trusted participants. Such captains may communicate with allied captains in real time, thereby bringing additional effort into any given area where and when "the bite" is active. Close attention to current and forecasted weather conditions and sea states is universal among experienced operators, and multi-day S-G trips are not uncommon here. Buck (2018) asserts that SG trips in the SE NC and NE SC region are often longer than those undertaken elsewhere in the South Atlantic, and on average involve more crew members than in other regions.

The Local Quotient (LQ) of scamp/yellowmouth grouper landings for 2022 is also useful for understanding the relative importance of the species to communities in the South Atlantic region. The LQ metric specifies the relative extent of community-specific landings for a given species in relation to all local landings accrued by vessels based in that community during a given year or years. In essence, the LQ speaks to the local importance of a given species in relation to all other species harvested in a given year by a local community-specific fleet. While a graphic is not provided in the interest of saving space in this amendment, analysis reveals that a SE NC coastal community located in close proximity to southern portions of Onslow Bay accrued the highest LQ of all South Atlantic communities during 2022, with 11.5 percent of all local landings consisting of the scamp/yellowmouth grouper resource—most of which was reported as yellowmouth grouper. Notably, the second highest LQ percentage for scamp/yellowmouth grouper landings during 2022 (~10%) can be attributed to a community situated well inland in south-central North Carolina, and the third highest LQ percentage (~6.5%) can be attributed to an inland community located in east-central Florida. The latter figures speak to the importance of social/logistical connections between seafood dealers and harvesters who are based in coastal portions of the South Atlantic, and dealers who are based in non-coastal regions where demand for seafood products can also be considerable and/or where business strategies include transaction and shipment of seafood to other locations around the region, nation, and beyond.

Community Engagement and Reliance

Figure 3.4.1.2 below provides measures of engagement and reliance among those communities with the greatest average percentage of commercial landings during the 2018 through 2022 time-series. The measure of engagement provided here is a generalizable composite indicator based

on: (a) pounds of fish landed annually by local commercial fleets, (b) associated ex-vessel revenue, and (c) the number of active locally-based commercial fishery participants and seafood dealers. The measure of reliance incorporates the same variables divided by the total local population figure. In addition to the RQ and LQ, the engagement and reliance measures are useful for indicating where any prospective effects of management actions are likely to be experienced. As indicated in the graphic, SE NC 2, another community situated in close proximity to southern portions of Onslow Bay, registers a particularly high score (above two standard deviations) for overall engagement in regional commercial fisheries. The northeast Florida community (labeled here as NE FL 1), along with one of the east-central South Carolina communities (labeled here as EC SC 2) score above the .5 standard deviation level for commercial engagement. Notably, none of the communities exceed the .5 standard deviation threshold for reliance on commercial fisheries, suggesting local economic alternatives to the fishing and seafood industries.

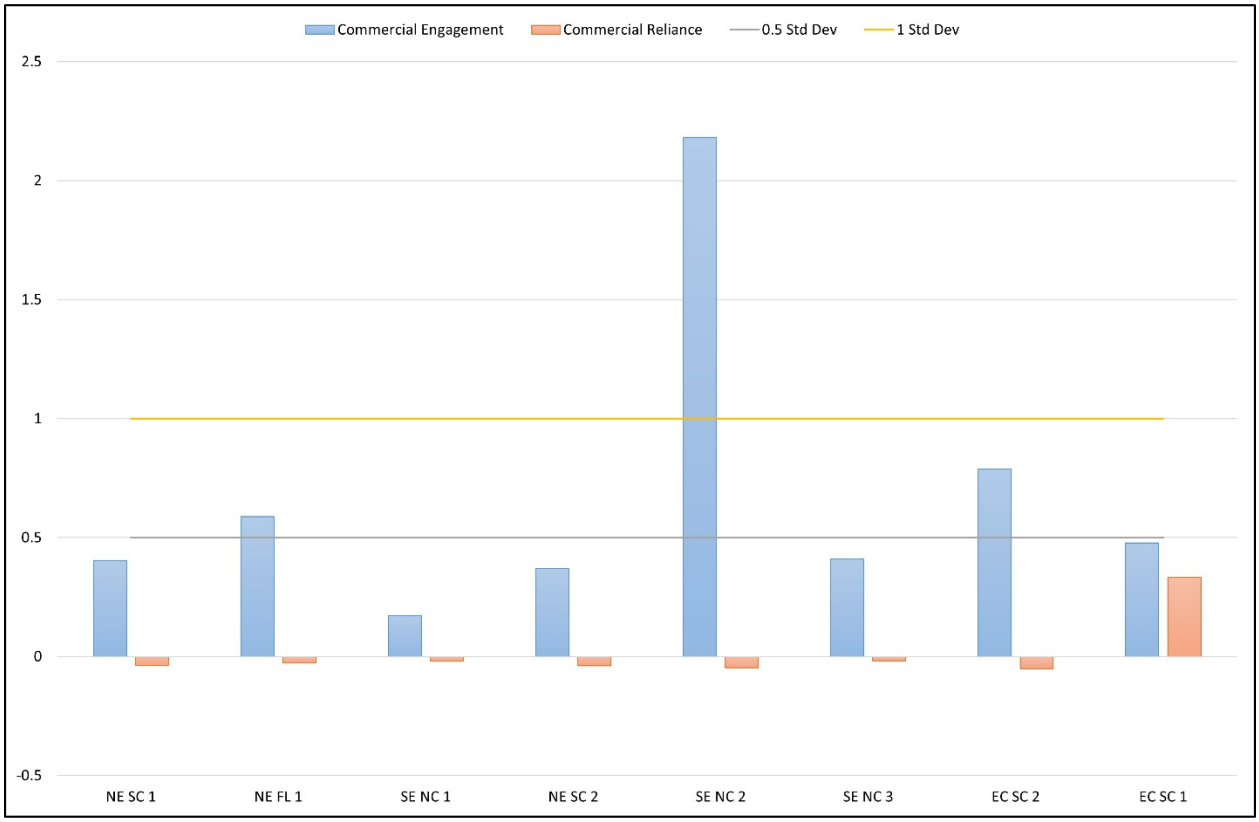

Figure 3.4.1.2. Measures of engagement and reliance among South Atlantic communities with the greatest volume of commercial scamp/yellowmouth grouper landings during the period 2018-2022. Source: SERO, Community Social Vulnerability Indicators Database, Accessed January 2024.

3.4.2 Recreational Sector

Overview

Persons active in recreational bottom fishing around the South Atlantic may capture scamp and/or yellowmouth grouper through directed targeting of the species, or incidentally, while fishing for a different/specific snapper-grouper species and/or for any of the snapper-groupers or other bottomfish available along suitable and accessible portions of the South Atlantic shelf.

Long-time for-hire captains who pursue SG species with their clients in the SE NC and NE SC areas where commercial harvest of scamp and/or yellowmouth grouper is more extensive than elsewhere in the South Atlantic region, report that while these species are captured on occasion, they very typically are not specifically targeted. Such captains also report that while scamp (and other SG species) were consistently found above suitable habitat within ~25 miles from shore in decades past, this is now increasingly rare, and that contemporary pursuit of all SG species now tends to require trips beyond the 100-foot depth contour.[16] Given the latitudinal extent of the shallow water shelf in this region, trips of 35 miles or more are reportedly now more typical, with even greater distances traveled at times—depending on trajectory, point of origin, and desired destination. While trip fees tend to absorb fuel expenditures, captains and crew note that sea states in this zone can challenge certain clients, and that return clients tend to be relatively more adaptable to extensive chop and swell. Many for-hire operators here often complement bottom fishing activity (over the course of the year and/or during a given trip) with pursuit of coastal pelagic species—requiring a shift in gear and focus of attention in the water column. The same patterns hold true for private recreational participants active in the Onslow and Long Bay regions, with many captains of relatively small and medium-sized vessels pursuing a combination of nearshore pelagics and a range of benthic species that include but are not limited to members of the shallow-water SG complex. Captains and crew of larger vessels active in the SE NC and NE SC region may at times engage in distant water deep-drop SG fishing activity (for species such as snowy grouper and tilefish), though many tend to specialize in pursuit of large pelagics and may at times travel well beyond 50 miles offshore to reach suitable grounds in the western reaches of the Gulf Stream.

Distance to suitable SG grounds and the availability of the scamp/yellowmouth grouper resource vary across the South Atlantic coastline. The majority of recreational catch and effort during the past five years appears to have occurred along the east coast of Florida (e.g., see Table 3.3.2.1 in the economic environment section provided above). Readers are also referred to the work of Matter and Nutall (2020), which indicates that the bulk of recreational scamp and yellowmouth grouper landings and discards have been registered in the Florida East region during recent years— albeit with notable shifts in the bulk of recreational landings and discards between North Carolina and the Florida East region over the course of the last four decades.

For-Hire Permits

For-hire captains seeking to harvest scamp and/or yellowmouth grouper in federal waters must possess a South Atlantic snapper grouper charter/headboat permit. A total of 2,136 such permits were issued during 2020, the most recent full year for which permit data are presently available. The vast majority of permits that year were issued to persons with mailing addresses in North Carolina, South Carolina, Georgia, and Florida. The total number of permits increased steadily during the period 2016 through 2019, with 1,867 permits issued in 2016, 1,982 in 2017, 2,126 in 2018, and 2,183 in 2019. Thus, 47 fewer permits were issued during 2020 than during 2019.

[16] Apart from the possibility that scamp populations may, for whatever reason, be shifting farther offshore over time in this specific sub-region, the assertion here appears to be in line with findings from the work of Bacheler and Ballenger (2018) who, based on a 27-year sampling effort, describe diminishing scamp populations along the South Atlantic coastline.

Table 3.4.3.1 below depicts the distribution of South Atlantic snapper grouper charter/headboat permits among the leading permit-holding communities during the 2020 data year. Of note in the table, most Florida permits were issued to residents or persons with postal addresses in Key West, most South Carolina permits were issued in Charleston, and most North Carolina permits were issued in Hatteras. While not depicted in the table, most Georgia permits were issued to resident or persons with mailing addresses in Savannah.

Table 3.4.2.1. Distribution of South Atlantic for-hire/headboat snapper grouper permits among the top 20 permit-holding communities in the region, 2020.

State	Leading Communities	Number of Permits in 2020
Florida	Key West	196
Florida	Islamorada	98
Florida	Marathon	81
Florida	Port Canaveral	77
South Carolina	Charleston	55
Florida	St. Augustine	44
North Carolina	Hatteras	42
Florida	Miami	41
Florida	Ponce Inlet	40
South Carolina	Murrells Inlet	36
Florida	Jacksonville	36
North Carolina	Morehead City	35
Florida	Jupiter	33
Florida	Key Largo	33
South Carolina	Little River	29
North Carolina	Manteo	28
Florida	Naples	27
Florida	Cape Canaveral	26
Florida	Port Orange	25
South Carolina	Fort Lauderdale	22
North Carolina	Carolina Beach	20
Florida	Sebastian	20
North Carolina	Wanchese	20
Florida	Stuart	19
South Carolina	Hilton Head	18

Source: SERO Sustainable Fisheries (SF) Access permits database, accessed January 2024.

Community Engagement & Reliance: South Atlantic Recreational Blueline Tilefish Fishery

The full range of data indicative of engagement in the recreational pursuit and/or capture or release of scamp and yellowmouth grouper is not readily available at the level of the community. As such, it is not possible with available information to identify communities that are specifically engaged in and/or reliant on recreational fishing for these species in particular. Given data limitations, NOAA Fisheries social scientists developed indices of utility for identifying communities where recreational fishing is an important aspect of the local economy in general (e.g., see Jacob et al. 2013; Jepson and Colburn 2013; Hospital and Leong 2021).

Based on available indicators, the communities depicted in Figure 3.4.3 are those in the South Atlantic region where residents are most clearly engaged in the recreational fishing industry in general. Further specificity is enabled in that the communities represented in the figure are those where the greatest number of for-hire S-G permits in the South Atlantic are held. The measure of engagement depicted here derives from the number of for-hire permitted vessels and the extent of recreational fishing infrastructure actively used by residents or persons otherwise connected to a given community. The measure of reliance derives from the same variables divided by the total local population figure. In this case, very high levels of recreational engagement are noted of Jacksonville, Islamorada, and Key West in Florida, and Hatteras Village in North Carolina. Of note, Hatteras Village is the only community that exceeds the .5 standard deviation threshold for *reliance* on the recreational fishing industry, indicating the particular importance of for-hire and private recreational fishing and related services and opportunities in this remote Outer Banks community. Other geographically remote communities approach the same threshold, including Islamorada in the Florida Keys, and the town of Manteo which is situated on Roanoke Island, just west of the Outer Banks.

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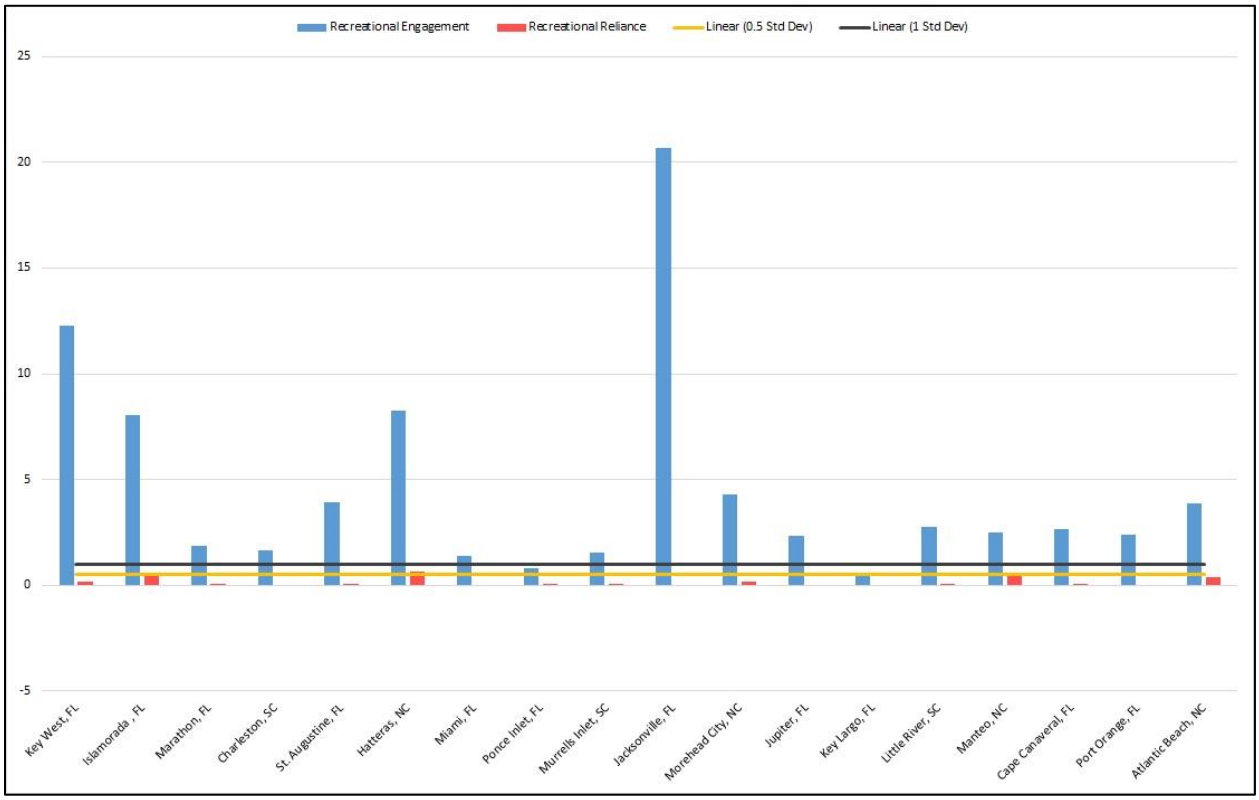

Figure 3.4.4. Measures of community involvement in the South Atlantic recreational fishing industry during 2020. Source: SERO, Community Social Vulnerability Indicators Database.

3.4.3 Environmental Justice

Executive Order (EO) 12898 (Environmental Justice) was established in 1994 to require that federal actions be undertaken in a manner that identifies and avoids adverse human health and/or social and economic effects among low-income and minority groups and populations around the nation and its territories. Federal regulatory decisions must be undertaken in ways that ensure no individuals or populations are excluded, denied the benefits of, or are subjected to discrimination

due to race, color, or nation of origin. Established in 2021, EO 13985 calls for human equity in the context of federal decision-making and policy actions. This EO requires that federal policies and programs are designed and undertaken in a manner that delivers resources and benefits equitably to all citizens, including members of historically underserved communities. Here, the phrase "underserved communities" refers to populations and persons that have been systematically denied full and equitable opportunity to participate in economic, social, and civic aspects of life in the nation. Finally, EO 14008, established in 2021, calls on agencies to make the achievement of environmental equity and justice part of their missions "by developing programs, policies, and activities that address disproportionately high and adverse human health, environmental, climate-related and/or other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts."

Various forms of data are available to indicate environmental justice issues among minority and low-income populations and/or indigenous communities potentially affected by federal regulatory and other actions. With the intent of enhancing capacity to determine whether environmental justice issues may be affecting communities around the U.S. where fishing-related industry is an important aspect of the local economy, NMFS social scientists undertook an extensive series of deliberations and review of pertinent data and literature. The scientists ultimately identified select social, economic, and demographic variables that could function to identify social vulnerabilities at the community level of analysis (see Jacob et al. 2013; Jepson and Colburn 2013). Census data, including community-specific rates of poverty, number of households maintained by single females, number of households with children under the age of five, rates of crime, and rates of unemployment exemplify the kinds of data chosen to aid in community analysis. Pertinent variables were subsequently used to develop composite indices that could be applied to assess vulnerability to environmental, regulatory, and other sources of change among the nation's fishing- and/or seafood-oriented communities.

The following figures use three composite indices, termed here as poverty, population composition, and personal disruption, to indicate relative degrees of socioeconomic vulnerability among communities with the greatest percentages of scamp/yellowmouth grouper landings in the region. Mean standardized scores are provided along the y-axis, with means for the vulnerability measures and threshold standard deviations depicted along the x-axis. Scores exceeding the .5 standard deviation level indicate social vulnerabilities to various sources of change.

As can be discerned from Figure 3.4.5 below, only one of the principal scamp/yellowmouth grouper landings communities—labeled here as SE NC 2—exceeds the designated vulnerability threshold for one or more indices—in this case, for personal disruption and poverty. Highly specific community description is not provided here in order to conceal the actual community and thereby safeguard the anonymity and proprietary data held by the two local seafood dealers who transact scamp and yellowmouth grouper. However, in general terms, the population size and level of diversity of the community is relatively extensive and thus demographic challenges are more likely to be indicated here than other communities in the overall region. The inverse is true of the remaining communities, where resident coastal populations are relatively (and increasingly) affluent and relatively less likely to experience similar challenges.

Finally, Figure 3.4.6 below depicts social vulnerability measures for South Atlantic communities most extensively involved in the regional recreational fishing industry. The data presented here indicate social vulnerability issues especially in the Florida communities of Daytona Beach and Fort Pierce. Both figures derive from data available in the SERO Community Social Vulnerability Indicators (CSVI) Database. Of note, the database is presently being revised to incorporate new variables and indices to better indicate vulnerability to various sources of change.

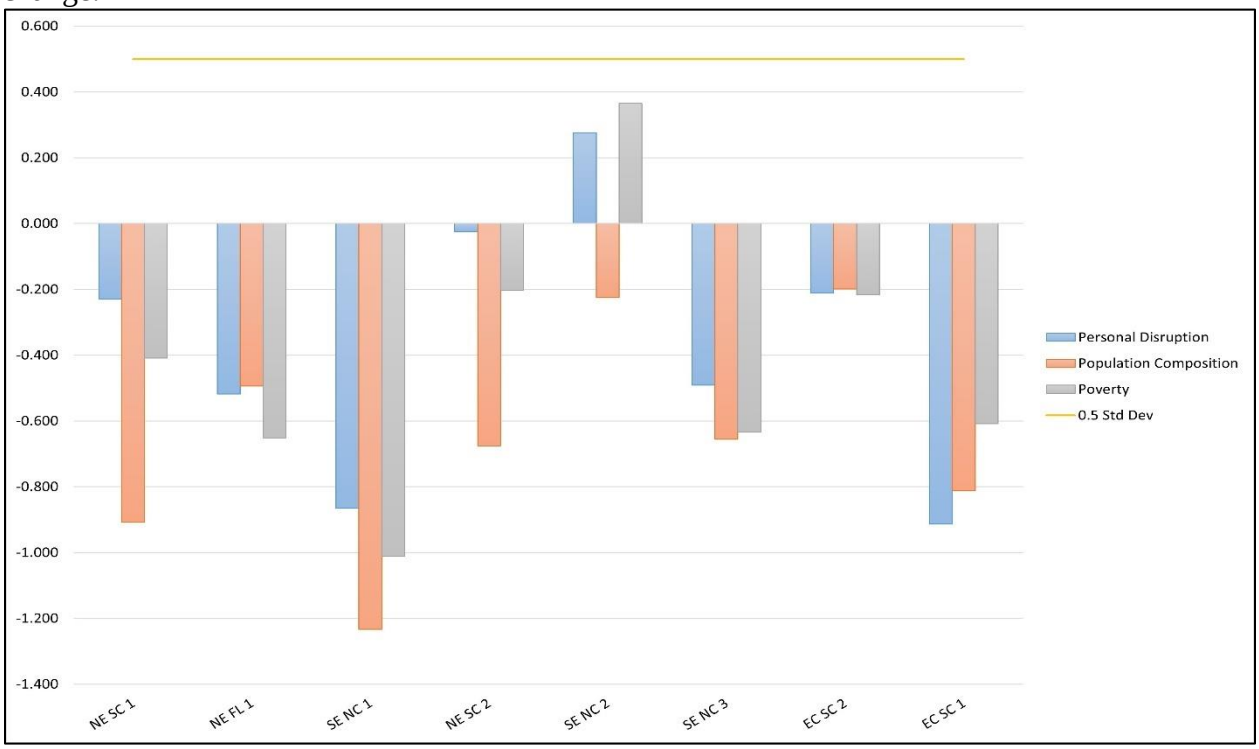

Figure 3.4.5. Socioeconomic vulnerability measures among South Atlantic communities with the greatest percentages of commercial scamp/yellowmouth grouper landings. Source: SERO CSVI Database, accessed January 2024

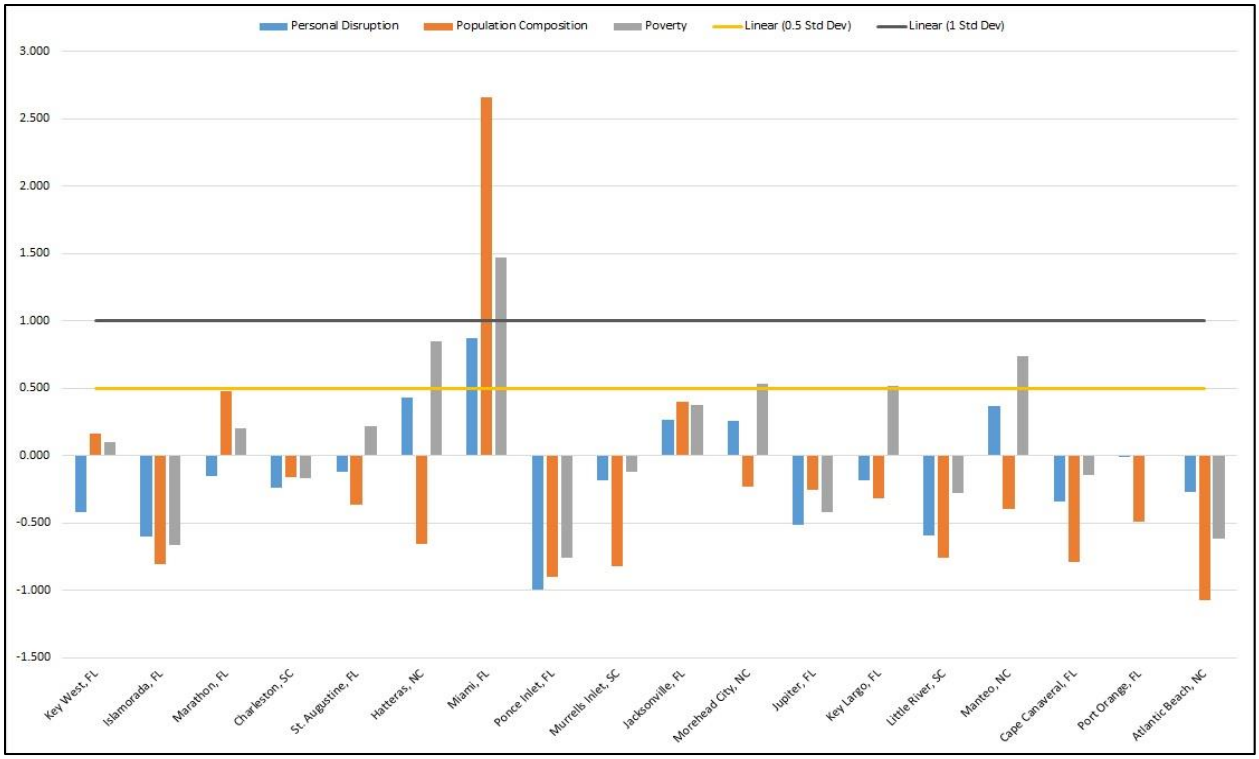

Figure 3.4.6. Socioeconomic vulnerability measures for communities most extensively involved in the South Atlantic recreational snapper grouper fisheries. Source: SERO CSVI Database.

3.5 Administrative Environment

3.5.1 Federal Fishery Management

For current (as of January 2024) Federal Fishery Management information for species managed under the Snapper Grouper FMP, the reader is hereby referred to Snapper Grouper Amendment 53 Chapter 3.5.1 (SAFMC 2023d).

3.5.2 State Fishery Management

For current (as of January 2024) state fishery management for species managed under the Snapper Grouper FMP, the reader is hereby referred to Snapper Grouper Amendment 53 Chapter 3.5.2 (SAFMC 2023d).

3.5.3 Enforcement

For current (as of January 2024) enforcement information for species managed under the Snapper Grouper FMP, the reader is hereby referred to Snapper Grouper Amendment 53 Chapter 3.5.3 (SAFMC 2023d).

Chapter 4. Environmental Effects and Comparison of Alternatives

4.1 Action 1. Reorganize the Other South Atlantic Shallow Water Grouper complex and establish a new South Atlantic Scamp and Yellowmouth Grouper complex

4.1.1 Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.1.2 Economic Effects

TO BE COMPLETED

4.1.3 Social Effects

TO BE COMPLETED

4.1.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). There is no Scamp and Yellowmouth Grouper complex.

2. Remove yellowmouth grouper from the OSASWG complex and establish the new Scamp and Yellowmouth Grouper complex.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.2 Action 2. Establish maximum sustainable yield, maximum fishing mortality threshold, minimum stock size threshold, and optimum yield for the Scamp and Yellowmouth Grouper complex

4.2.1 Action 2a. Establish the maximum sustainable yield for the Scamp and Yellowmouth Grouper complex

4.2.1.1 Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

Alternatives*

1. (No Action). There is no MSY for the Scamp and Yellowmouth Grouper complex.

2. MSY is equal to $F_{30\%SPR}$

3. MSY is equal to $F_{40\%SPR}$

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.2.1.2 Economic Effects

TO BE COMPLETED

4.2.1.3 Social Effects

TO BE COMPLETED

4.2.1.4 Administrative Effects

TO BE COMPLETED

4.2.2 Action 2b. Establish the maximum fishing mortality threshold for the Scamp and Yellowmouth Grouper complex

4.2.2.1 Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.2.2.2 Economic Effects

TO BE COMPLETED

4.2.2.3 Social Effects

TO BE COMPLETED

4.2.2.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). There is no MFMT for the Scamp and Yellowmouth Grouper complex.

2. MFMT is equal to the MSY proxy of $F_{30\%SPR}$.

3. MFMT is equal to the MSY proxy of $F_{40\%SPR}$.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.2.3 Action 2c. Establish the minimum stock size threshold for the Scamp and Yellowmouth Grouper complex

4.2.3.1 Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.2.3.2 Economic Effects

TO BE COMPLETED

4.2.3.3 Social Effects

TO BE COMPLETED

4.2.3.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). There is no MSST for the Scamp and Yellowmouth Grouper complex.

2. MSST is equal to $SSB_{MSY}(1-M)$ or 0.5 whichever is greater.

3. MSST is equal to 75% of SSB_{MSY}.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.2.4 Action 2d. Establish the optimum yield for the Scamp and Yellowmouth Grouper complex

4.2.4.1 Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

Alternatives*

1. (No Action). There is no OY for the Scamp and Yellowmouth Grouper complex.

2. The OY is equal to 75% of the MSY.

3. The OY is equal to 90% of the MSY.

4. The OY is equal to 95% of the MSY.

5. The OY is equal to $F_{45\%SPR}$

6. The OY is equal to $F_{50\%SPR}$

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.2.4.2 Economic Effects

TO BE COMPLETED

4.2.4.3 Social Effects

TO BE COMPLETED

4.2.4.4 Administrative Effects

TO BE COMPLETED

4.3 Action 3. Establish a rebuilding timeline for the Scamp and Yellowmouth Grouper complex

4.3.1. Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.3.2 Economic Effects

TO BE COMPLETED

4.3.3 Social Effects

TO BE COMPLETED

4.3.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). There is no rebuilding timeframe for the Scamp and Yellowmouth Grouper complex.

2. Establish a rebuilding timeframe equal to T_{min} (5 years).

3. Establish a rebuilding timeframe equal to T_{max} (10 years).

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.4 Action 4. Establish the acceptable biological catch and total annual catch limit for the Scamp and Yellowmouth Grouper complex

4.4.1. Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.4.2 Economic Effects

TO BE COMPLETED

4.4.3 Social Effects

TO BE COMPLETED

4.4.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). There is no ABC or ACL for the Scamp and Yellowmouth Grouper complex.

2. Establish the ABC recommendation from the SSC, set the ACL=ABC.

3. Establish the ABC recommendation from the SSC, set the ACL=95% of the ABC.

4. Establish the ABC recommendation from the SSC, set the ACL=90% of the ABC.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.5 Action 5. Establish sector allocations and sector annual catch limits for the Scamp and Yellowmouth Grouper complex

4.5.1. Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.5.2 Economic Effects

TO BE COMPLETED

4.5.3 Social Effects

TO BE COMPLETED

4.5.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). There are no sector allocations for the Scamp and Yellowmouth Grouper complex.

2. Commercial and recreational allocations would change each year from 2025-2029, based on the total average commercial and recreational landings of scamp and yellowmouth grouper from 2018 through 2022.

3. Commercial and recreational allocations would change each year from 2025-2029, based on the total average commercial and recreational landings of scamp and yellowmouth grouper from 2013 through 2022.

4. Allocate 63.40% to the commercial sector and 36.60% to the recreational sector.

5. Allocate 64.90% of the total annual catch limit of Scamp and Yellowmouth Grouper complex to the commercial sector and 35.10% to the recreational sector.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.6 Action 6. Reduce the commercial and recreational fishing season for scamp and yellowmouth grouper

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.9.2 Economic Effects

TO BE COMPLETED

4.9.3 Social Effects

TO BE COMPLETED

4.9.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). The commercial and recreational season is May 1 – December 31.

2. The commercial and recreational season is May 1 – July 31

3. The commercial and recreational season is May 1 – August 31.

4. The commercial and recreational season is May 1 – September 31.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.7 Action 7. Modify the recreational retention limit for scamp and yellowmouth grouper

4.7.1 Action 7a. Modify the recreational bag limit

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.7.1.1. Economic Effects

TO BE COMPLETED

4.7.1.2 Social Effects

TO BE COMPLETED

4.7.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). The recreational bag limit is 3 scamp or 3 yellowmouth grouper per person per day within the 3-grouper aggregate.

2. Establish an aggregate complex bag limit of 2 fish (either scamp and yellowmouth grouper)per person per day within the 3-grouper aggregate.

3. Establish an aggregate complex bag limit of 1 fish (either scamp or yellowmouth grouper) per person per day within the 3-grouper aggregate.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.7.1 Action 7b. Establish a recreational vessel limit

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.7.1.1. Economic Effects

TO BE COMPLETED

4.7.1.2 Social Effects

TO BE COMPLETED

4.7.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). There is no vessel limit for scamp and yellowmouth grouper.

4. Establish an aggregate vessel limit for the private recreational component of:
   - 4a. 2 fish/vessel/day
   - 4b. 4 fish/vessel/day

5. Establish an aggregate vessel limit for the for-hire component of:
   - 4a. 2 fish/vessel/trip
   - 4b. 4 fish/vessel/trip

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.8 Action 8. Establish an aggregate commercial trip limit for scamp and yellowmouth grouper

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

Alternatives*

1. (No Action). There is no trip limit.

2. Establish an aggregate trip limit of 200 lbs ww.

3. Establish an aggregate trip limit of 300 lbs ww.

4. Establish an aggregate trip limit of 400 lbs ww.

5. Establish an aggregate trip limit of 500 lbs ww.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.8.2 Economic Effects

TO BE COMPLETED

4.8.3 Social Effects

TO BE COMPLETED

4.8.4 Administrative Effects

TO BE COMPLETED

4.9 Action 9. Establish commercial accountability measures for the Scamp and Yellowmouth Grouper complex

4.9.1. Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.9.2 Economic Effects

TO BE COMPLETED

4.9.3 Social Effects

TO BE COMPLETED

4.9.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). There are no commercial accountability measures for the Scamp and Yellowmouth Grouper Complex

2. If commercial landings for the Scamp and Yellowmouth Grouper complex reach the commercial ACL the commercial sector will close.

If commercial landings for the Scamp and Yellowmouth Grouper complex exceed the commercia ACL, the total ACL is exceeded, and the Scamp and Yellowmouth Grouper complex is overfished, the commercial ACL for the following fishing year will be reduced.

3. If commercial landings for the Scamp and Yellowmouth Grouper complex reach or the commercial ACL, the commercial sector will close.

If commercial landings for the Scamp and Yellowmouth Grouper complex exceed the commercial ACL, the total ACL is exceeded, and the Scamp and Yellowmouth Grouper complex is overfished, the commercial ACL for the following fishing year will be reduced.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.10 Action 10. Establish recreational accountability measures for the Scamp and Yellowmouth Grouper complex

4.10.1. Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

4.10.2 Economic Effects

TO BE COMPLETED

4.10.3 Social Effects

TO BE COMPLETED

4.10.4 Administrative Effects

TO BE COMPLETED

Alternatives*

1. (No Action). There are no recreational accountability measures for the Scamp and Yellowmouth Grouper Complex.

2. If recreational landings reach the recreational ACL, the recreational sector will close.

If recreational landings exceed the recreational ACL, the total ACL is exceeded, and the Scamp and Yellowmouth Grouper complex is overfished, the season is reduced in the following year.

3. If recreational landings reach the recreational ACL, the recreational sector will close.

If recreational landings exceed the recreational ACL, the length of the following fishing season is reduced, regardless of the total ACL and stock status.

4. If recreational landings reach the recreational ACL, the recreational sector will close.

If recreational landings exceed the recreational ACL, the length of the following year's fishing season will be reduced by the amount necessary to prevent the recreational annual catch limit from being exceeded in the following year, regardless of stock status and if the total annual catch limit is exceeded.

3. If recreational landings reach the recreational ACL, the length of the following year's fishing season will be reduced by the amount necessary to prevent the recreational ACL from being exceeded in the following year, regardless of stock status and if the total annual catch limit is exceeded.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.11 Action 11. Revise the total annual catch limit, and sector annual catch limits for the Other South Atlantic Shallow Water Grouper complex

4.11.1. Biological Effects

Expected effects to scamp, yellowmouth grouper, and co-occurring species, and essential fish habitat

TO BE COMPLETED

Alternatives*

1. (No Action). The OSASWG ABC = 104,190 lbs ww. The ACL =ABC. The commercial ACL is 55,542 lbs ww and the recreational ACL is 48,648 lbs ww.

2. The OSASWG ABC = 104,190 lbs ww. The ACL = 100,151 lbs ww. The commercial ACL is 53,380 lbs ww and the recreational ACL is 46,771 lbs ww.

*See Chapter 2 for detailed language of alternatives. Preferred indicated in bold.

4.11.2 Economic Effects

TO BE COMPLETED

4.11.3 Social Effects

TO BE COMPLETED

4.11.4 Administrative Effects

TO BE COMPLETED

Chapter 5. Council's Rationale for the Preferred Alternatives

5.1 Action 1. Reorganize the Other South Atlantic Shallow Water Grouper complex and establish a new South Atlantic Scamp and Yellowmouth Grouper complex

5.1.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.1.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.1.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.1.4 Public Comments and Recommendations

TO BE COMPLETED

5.1.5 Council's Conclusion

TO BE COMPLETED

5.1.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.2 Action 2. Establish maximum sustainable yield, maximum fishing mortality threshold, minimum stock size threshold, and equilibrium optimum yield for the Scamp and Yellowmouth Grouper complex

5.2.1 Action 2a. Establish the maximum sustainable yield for the Scamp and Yellowmouth Grouper complex

5.2.1.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.2.1.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.2.1.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.2.1.4 Public Comments and Recommendations

TO BE COMPLETED

5.2.1.5 Council's Conclusion

TO BE COMPLETED

5.2.1.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.2.2 Action 2b. Establish the maximum fishing mortality threshold for the Scamp and Yellowmouth Grouper complex

5.2.2.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.2.2.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.2.2.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.2.2.4 Public Comments and Recommendations
TO BE COMPLETED

5.2.2.5 Council's Conclusion
TO BE COMPLETED

5.2.2.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?
TO BE COMPLETED

5.2.3 Action 2c. Establish the minimum stock size threshold for the Scamp and Yellowmouth Grouper complex

5.2.3.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations
TO BE COMPLETED

5.2.3.2 Law Enforcement AP Comments and Recommendations
TO BE COMPLETED

5.2.3.3 Scientific and Statistical Committee (SSC) Comments and Recommendations
TO BE COMPLETED

5.2.3.4 Public Comments and Recommendations
TO BE COMPLETED

5.2.3.5 Council's Conclusion
TO BE COMPLETED

5.2.3.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?
TO BE COMPLETED

5.2.4 Action 2d. Establish the equilibrium optimum yield for the Scamp and Yellowmouth Grouper complex

5.2.4.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations
TO BE COMPLETED

5.2.4.2 Law Enforcement AP Comments and Recommendations
TO BE COMPLETED

5.2.4.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.2.4.4 Public Comments and Recommendations

TO BE COMPLETED

5.2.4.5 Council's Conclusion

TO BE COMPLETED

5.2.4.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.3 Action 3. Establish a rebuilding timeline for the Scamp and Yellowmouth Grouper complex

5.3.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.3.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.3.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.2.4 Public Comments and Recommendations

TO BE COMPLETED

5.3.5 Council's Conclusion

TO BE COMPLETED

5.3.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.4 Action 4. Establish the acceptable biological catch and total annual catch limit for the Scamp and Yellowmouth Grouper complex

5.4.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.4.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.4.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.4.4 Public Comments and Recommendations

TO BE COMPLETED

5.4.5 Council's Conclusion

TO BE COMPLETED

5.4.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.5 Action 5. Establish sector allocations and sector annual catch limits for the Scamp and Yellowmouth Grouper complex

5.5.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.5.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.5.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.5.4 Public Comments and Recommendations

TO BE COMPLETED

5.5.5 Council's Conclusion

TO BE COMPLETED

5.5.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.6 Action 6. Modify the commercial and recreational fishing season for scamp and yellowmouth grouper

5.6.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.6.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.6.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.6.4 Public Comments and Recommendations

TO BE COMPLETED

5.6.5 Council's Conclusion

TO BE COMPLETED

5.6.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.7 Action 7. Modify the recreational retention limit for scamp and yellowmouth grouper

5.7.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.7.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.7.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.7.4 Public Comments and Recommendations

TO BE COMPLETED

5.7.5 Council's Conclusion

TO BE COMPLETED

5.7.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.8 Action 8. Establish an aggregate commercial trip limit for scamp and yellowmouth grouper

5.8.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.8.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.8.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.8.4 Public Comments and Recommendations

TO BE COMPLETED

5.8.5 Council's Conclusion

TO BE COMPLETED

5.8.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.9 Action 9. Establish commercial accountability measures for the Scamp and Yellowmouth Grouper complex

5.9.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.9.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.9.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.9.4 Public Comments and Recommendations

TO BE COMPLETED

5.9.5 Council's Conclusion

TO BE COMPLETED

5.9.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.10 Action 10. Establish recreational accountability measures for the Scamp and Yellowmouth Grouper complex

5.10.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.10.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.10.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.10.4 Public Comments and Recommendations

TO BE COMPLETED

5.10.5 Council's Conclusion

TO BE COMPLETED

5.10.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

5.11 Action 11. Revise the total annual catch limit, annual optimum yield, and sector annual catch limits for the Other South Atlantic Shallow Water Grouper complex

5.11.1 Snapper Grouper Advisory Panel (AP) Comments and Recommendations

TO BE COMPLETED

5.11.2 Law Enforcement AP Comments and Recommendations

TO BE COMPLETED

5.11.3 Scientific and Statistical Committee (SSC) Comments and Recommendations

TO BE COMPLETED

5.11.4 Public Comments and Recommendations

TO BE COMPLETED

5.11.5 Council's Conclusion

TO BE COMPLETED

5.11.6 How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?

TO BE COMPLETED

Chapter 6. Cumulative Effects

6.1 Affected Area

The immediate impact area would be the federal 200-mile limit of the Atlantic off the coasts of North Carolina, South Carolina, Georgia, and east Florida to Key West, which is also the South Atlantic Fishery Management Council's (Council) area of jurisdiction. In light of the available information, the extent of the boundaries would depend upon the degree of fish immigration/emigration and larval transport, whichever has the greatest geographical range. The ranges of affected species are described in Volume II of the Fishery Ecosystem Plan.[17] For the proposed actions found in Amendment 55 to the Fishery Management Plan (FMP) for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP), the cumulative effects analysis includes an analysis of data from 2017 through the present.

6.2 Past, Present, and Reasonably Foreseeable Actions Impacting the Affected Area

Fishery managers implemented the first significant regulations pertaining to snapper grouper species in 1983 through the Snapper Grouper FMP (SAFMC 1983). Listed below are other past, present, and reasonably foreseeable actions occurring in the South Atlantic region. These actions, when added to the proposed management measures, may result in cumulative effects on the biophysical and socio-economic environment. The complete history of management of the snapper grouper fishery can be found: https://safmc.net/fishery-management-plans/snapper-grouper/.

Past Actions
TO BE COMPLETED

Present Actions
TO BE COMPLETED

6.3 Consideration of Climate Change and Other Non-Fishery Related Issues

Climate Change
Global climate changes could have significant effects on Atlantic fisheries, though the extent of these effects on the snapper grouper, fishery is not known at this time. The Environmental Protection Agency's climate change webpage (https://www.epa.gov/climate-indicators/marine-species-distribution), and NOAA's Office of Science and Technology climate webpage (https://www.fisheries.noaa.gov/topic/climate), provides background information on climate

[17] http://safmc.net/ecosystem-management/fishery-ecosystem-plan/

change, including indicators which measure or anticipate effects on oceans, weather and climate, ecosystems, health and society, and greenhouse gases. The United Nations Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report (February 28, 2022), U.S. Global Change Research Program (USGCRP)'s Fourth Climate Assessment (2018), and the Ecosystem Status Report for the U.S. South Atlantic Region (Craig et al. 2021) also provide a compilation of scientific information on climate change. Those findings are summarized below.

Ocean acidification, or a decrease in surface ocean pH due to absorption of anthropogenic carbon dioxide emissions, affects the chemistry and temperature of the water. Increased thermal stratification alters ocean circulation patterns, and causes a loss of sea ice, sea level rise, increased wave height and frequency, reduced upwelling, and changes in precipitation and wind patterns. Changes in coastal and marine ecosystems can influence organism metabolism and alter ecological processes such as productivity, species interactions, migration, range and distribution, larval and juvenile survival, prey availability, and susceptibility to predators. The "center of biomass," a geographical representation of each species' weight distribution, is being used to identify the shifting of fish populations. Warming sea temperature trends in the southeast have been documented, and animals must migrate to cooler waters, if possible, if water temperatures exceed survivable ranges (Needham et al. 2012). Rising water temperatures, ocean acidification, retreating arctic sea ice, sea level rise, high-tide flooding, coastal erosion, higher storm surge, and heavier precipitation events are projected to continue, putting ocean and marine species at risk, decreasing the productivity of certain fisheries, and threatening communities that rely on marine ecosystems for livelihoods and recreation (USGCRP 2018). Harvesting and habitat changes also cause geographic population shifts. Changes in water temperatures may also affect the distribution of native and exotic species, allowing invasive species to establish communities in areas they may not have been able to survive previously. The numerous changes to the marine ecosystem may cause an increased risk of disease in marine biota. An increase in the occurrence and intensity of toxic algae blooms will negatively influence the productivity of keystone animals, such as corals, and critical coastal ecosystems such as wetlands, estuaries, and coral reefs (Kennedy et al. 2002; IPCC 2022). Free et al. (2019) investigated the impacts of historical warming on marine fisheries production and found that climate change is altering habitats for marine fishes and invertebrates, but the net effect of these changes on potential food production is unknown.

Climate driven movement of fish stocks is causing commercial, small-scale, artisanal, and recreational fishing activities to shift poleward and diversify harvests (IPCC 2022). In the South Atlantic Region, species richness and abundance of offshore hard bottom reef fishes have generally declined over time while richness and abundance of demersal fishes in soft sediment habitats on the nearshore shelf have increased. Potential explanations for these patterns include changes in harvest (directed and bycatch), trophic interactions, and environment effects on recruitment (Craig et al. 2021). Climate change may impact snapper grouper species in the future, but the level of impacts cannot be quantified at this time, nor is the time frame known in which these impacts will occur.

Patterns from stock assessments in the South Atlantic Region indicate biomass of most assessed species generally show declines from the 1970s through the 1990s with some species showing signs of recovery beginning in the early to mid-2000s. Recruitment of a number of snapper

grouper species has declined since the early 2010s whereas recruitment of red snapper and some pelagic species has increased in recent years (Craig et al. 2021). In the near term, it is unlikely that the actions in Amendment 55 would compound or exacerbate the ongoing effects of climate change on snapper grouper species.

Weather Variables

Hurricane season is from June 1 to November 30, and accounts for 97% of all tropical activity affecting the Atlantic basin. These storms, although unpredictable in their annual occurrence, can devastate areas when they occur. Although these effects may be temporary, those fishing-related businesses whose profitability is marginal may go out of business if a hurricane strikes.

6.4 Overall Impacts Expected from Past, Present, and Future Actions

The proposed management actions are summarized in Chapter 2 of this document. Detailed discussions of the magnitude and significance of the impacts of the alternatives on the human environment appear in Chapter 4 of this document. None of the impacts of the actions in this amendment, in combination with past, present, and future actions have been determined to be significant. Although several other management actions, in addition to this amendment, are expected to affect snapper grouper species, any additive effects, beneficial and adverse, are not expected to result in a significant level of cumulative impacts.

The proposed actions would not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places as these are not in the South Atlantic EEZ. These actions are not likely to result in direct, indirect, or cumulative effects to unique areas, such as significant scientific, cultural, or historical resources, park land, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas as the proposed action is not expected to substantially increase fishing effort or the spatial and/or temporal distribution of current fishing effort within the South Atlantic region. The U.S.S. Monitor, Gray's Reef, and Florida Keys National Marine Sanctuaries are within the boundaries of the South Atlantic EEZ. The proposed actions are not likely to cause loss or destruction of these national marine sanctuaries because the actions are not expected to result in appreciable changes to current fishing practices. Additionally, the proposed actions are not likely to change the way in which the snapper grouper fishery is prosecuted; therefore, the actions are not expected to result in adverse impacts on health or human safety beyond the status quo.

6.5 Monitoring and Mitigation

Fishery-independent and fishery-dependent data comprise a significant portion of information used in stock assessments. Fishery-independent data are being collected through the Southeast Fishery Information Survey and the Marine Resources Monitoring Assessment and Prediction Program. The effects of the proposed actions are, and would continue to be, monitored through collection of recreational landings data by all the four states in the South Atlantic Region (Florida, Georgia, South Carolina, and North Carolina). The National Marine Fisheries Service would continue to monitor and collect information on snapper grouper species for stock assessments and stock assessment updates, life history studies, economic and social analyses, and other scientific observations. The proposed actions relate to the harvest of indigenous

species in the Atlantic, and the activities/regulations being altered do not introduce non-indigenous species, and are not reasonably expected to facilitate the spread of such species through depressing the populations of native species. Additionally, these alternatives do not propose any activity, such as increased ballast water discharge from foreign vessels, which is associated with the introduction or spread on non-indigenous species.

Chapter 7. List of Interdisciplinary Plan Team (IPT) Members

Name	Agency/Division	Title
Allie Iberle	SAFMC	Fishery Scientist/IPT Lead
Nikhil Mehta	SERO/SF	Fishery Scientist/IPT Lead
Kyle Shertzer	NMFS/SEFSC	Fishery Biologist
Scott Crosson	SERO/SF	Economist
Chip Collier	SAFMC	Deputy Director for Science
Rick DeVictor	SERO/SF	South Atlantic Branch Chief
Ed Glazier	SERO/SF	Social Scientist
Dominique Lazarre	SERO/SF	Data Analyst
John Hadley	SAFMC	Economist
Myra Brouwer	SAFMC	Deputy Director for Management
Jennifer Lee	SERO/PR	Fishery Biologist
Roger Pugliese	SAFMC	Senior Fishery Biologist
David Records	SERO/SF	Economist
Scott Sandorf	SERO/SF	Technical Writer & Editor
Mike Schmidtke	SAFMC	Fishery Biologist
Shepherd Grimes	NOAA GC	General Counsel
Sarah Stephenson	SERO/SF	Fishery Biologist
Mike Travis	SERO/SF	Social Science Branch Chief
Matthew Walia	SERO/OLE	Compliance Liaison Analyst
Christina Wiegand	SAFMC	Social Scientist
Manny Antonaras	SERO/OLE	Criminal Investigator
David Dale	SERO/HC	EFH Specialist
Jashira Torres-Pabon	SERO/PR	Natural Resource Specialist
Kyle Shertzer	SERO/SF	Data Analyst
Kathleen Howington	SAFMC	Fishery Scientist

NOAA=National Oceanic and Atmospheric Administration, NMFS = National Marine Fisheries Service, SERO = Southeast Regional Office, SF = Sustainable Fisheries Division, PR = Protected Resources Division, HC = Habitat Conservation Division, SEFSC=Southeast Fisheries Science Center, GC = General Counsel, SAFMC = South Atlantic Fishery Management Council Staff, OLE = Office of Law Enforcement.

Chapter 8. Agencies and Persons Consulted

Responsible Agencies
South Atlantic Fishery Management Council (Administrative Lead)
4055 Faber Place Drive, Suite 201
N. Charleston, South Carolina 29405
843-571-4366/ 866-SAFMC-10 (TEL)
843-769-4520 (FAX)
www.safmc.net

NMFS, Southeast Region
263 13th Avenue South
St. Petersburg, Florida 33701
727- 824-5301 (TEL)
727-824-5320 (FAX)

List of Agencies, Organizations, and Persons Consulted
SAFMC Law Enforcement Advisory Panel
SAFMC Snapper Grouper Advisory Panel
SAFMC Scientific and Statistical Committee
North Carolina Coastal Zone Management Program
South Carolina Coastal Zone Management Program
Georgia Coastal Zone Management Program
Florida Coastal Zone Management Program
Florida Fish and Wildlife Conservation Commission
Georgia Department of Natural Resources
South Carolina Department of Natural Resources
North Carolina Division of Marine Fisheries
North Carolina Sea Grant
South Carolina Sea Grant
Georgia Sea Grant
Florida Sea Grant
Atlantic States Marine Fisheries Commission
National Marine Fisheries Service
- Washington Office
- Office of Ecology and Conservation
- Southeast Regional Office
- Southeast Fisheries Science Center

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Appendix A. Other Applicable Laws

TO BE COMPLETED

1.1 Administrative Procedure Act (APA)

All federal rulemaking is governed under the provisions of the APA (5 U.S.C. Subchapter II), which establishes a "notice and comment" procedure to enable public participation in the rulemaking process. Among other things under the APA, the National Marine Fisheries Service (NMFS) is required to publish notification of proposed rules in the *Federal Register* and to solicit, consider and respond to public comment on those rules before they are finalized. The APA also establishes a 30-day wait period from the time a final rule is published until it takes effect, with some exceptions. Amendment 55 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 55) complies with the provisions of the APA through the South Atlantic Fishery Management Council's (Council) extensive use of public meetings, requests for comments and consideration of comments. The proposed rule associated with this plan amendment will have a request for public comments, which complies with the APA, and upon publication of the final rule, unless the rule falls within an APA exception, there will be a 30-day wait period before the regulations are effective.

1.2 Information Quality Act (IQA)

The IQA (Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Public Law 106-443)) which took effect October 1, 2002, directed the Office of Management and Budget (OMB) to issue government-wide guidelines that "provide policy and procedural guidelines to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies." OMB directed each federal agency to issue its own guidelines, establish administrative mechanisms allowing affected persons to seek and obtain correction of information that does not comply with OMB guidelines, and report periodically to OMB on the number and nature of complaints. The NOAA Section 515 Information Quality Guidelines require a series of actions for each new information product subject to the IQA. Amendment 55 uses the best available information and made a broad presentation thereof. The information contained in this document was developed using best available scientific information. Therefore, this document is in compliance with the IQA.

1.3 Coastal Zone Management Act (CZMA)

Section 307(c)(1) of the federal CZMA of 1972 requires that all federal activities that directly affect the coastal zone be consistent with approved state coastal zone management programs to the maximum extent practicable. While it is the goal of the Council to have management measures that complement those of the states, federal and state administrative procedures vary and regulatory changes are unlikely to be fully instituted at the same time. The Council believes the actions in this plan amendment are consistent to the maximum extent practicable with the Coastal Zone Management Plans of Florida, Georgia, South Carolina, and North Carolina. Pursuant to Section 307 of the CZMA, this determination will be submitted to the responsible

state agencies who administer the approved Coastal Zone Management Programs in the States of Florida, South Carolina, Georgia, and North Carolina.

1.4 Executive Order 12612: Federalism

Executive Order (E.O.) 12612 requires agencies to be guided by the fundamental federalism principles when formulating and implementing policies that have federalism implications. The purpose of the Order is to guarantee the division of governmental responsibilities between the federal government and the states, as intended by the framers of the Constitution. No federalism issues have been identified relative to the actions proposed in this document and associated regulations. Therefore, preparation of a Federalism assessment under E.O. 12612 is not necessary.

1.5 Executive Order 12962: Recreational Fisheries

E.O. 12962 requires federal agencies, in cooperation with states and tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities through a variety of methods. Additionally, the Order establishes a seven-member National Recreational Fisheries Coordination Council responsible for, among other things, ensuring that social and economic values of healthy aquatic systems that support recreational fisheries are considered by federal agencies in the course of their actions, sharing the latest resource information and management technologies, and reducing duplicative and cost-inefficient programs among federal agencies involved in conserving or managing recreational fisheries. The National Recreational Fisheries Coordination Council also is responsible for developing, in cooperation with federal agencies, states and tribes, a Recreational Fishery Resource Conservation Plan to include a five-year agenda. Finally, the Order requires NMFS and the U.S. Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

The alternatives considered in this document are consistent with the directives of E.O. 12962.

1.6 Executive Order 13089: Coral Reef Protection

E.O. 13089, signed by President William Clinton on June 11, 1998, recognizes the ecological, social, and economic values provided by the Nation's coral reefs and ensures that federal agencies are protecting these ecosystems. More specifically, the Order requires federal agencies to identify actions that may harm U.S. coral reef ecosystems, to utilize their program and authorities to protect and enhance the conditions of such ecosystems, and to ensure that their actions do not degrade the condition of the coral reef ecosystem.

The alternatives considered in this document are consistent with the directives of E.O. 13089.

1.7 Executive Order 13158: Marine Protected Areas (MPAs)

E.O. 13158 was signed on May 26, 2000, to strengthen the protection of U.S. ocean and coastal resources through the use of MPAs. The E.O. defined MPAs as "any area of the marine environment that has been reserved by federal, state, territorial, tribal, or local laws or

regulations to provide lasting protection for part or all of the natural and cultural resources therein." It directs federal agencies to work closely with state, local and non-governmental partners to create a comprehensive network of MPAs "representing diverse U.S. marine ecosystems, and the Nation's natural and cultural resources."

The alternatives considered in this document are consistent with the directives of E.O. 13158.

1.8 National Marine Sanctuaries Act (NMSA)

Under the NMSA (also known as Title III of the Marine Protection, Research and Sanctuaries Act of 1972), as amended, the U.S. Secretary of Commerce is authorized to designate National Marine Sanctuaries to protect distinctive natural and cultural resources whose protection and beneficial use requires comprehensive planning and management. The National Marine Sanctuary Program is administered by the Sanctuaries and Reserves Division of NOAA. The NMSA provides authority for comprehensive and coordinated conservation and management of these marine areas. The National Marine Sanctuary Program currently comprises 13 sanctuaries around the country, including sites in American Samoa and Hawaii. These sites include significant coral reef and kelp forest habitats, and breeding and feeding grounds of whales, sea lions, sharks, and sea turtles. The three sanctuaries in the South Atlantic exclusive economic zone are the USS Monitor, Gray's Reef, and Florida Keys National Marine Sanctuaries.

The alternatives considered in this document are not expected to have any adverse impacts on the resources managed by the National Marine Sanctuaries.

1.9 Paperwork Reduction Act (PRA)

The purpose of the PRA is to minimize the burden on the public. The PRA is intended to ensure that the information collected under the proposed action is needed and is collected in an efficient manner (44 U.S.C. 3501 (1)). The authority to manage information collection and record keeping requirements is vested with the Director of the Office of Management and Budget (OMB). This authority encompasses establishment of guidelines and policies, approval of information collection requests, and reduction of paperwork burdens and duplications. The PRA requires NMFS to obtain approval from the OMB before requesting most types of fishery information from the public. Actions in this document are not expected to affect PRA.

1.10 Small Business Act (SBA)

Enacted in 1953, the SBA requires that agencies assist and protect small-business interests to the extent possible to preserve free competitive enterprise. The objectives of the SBA are to foster business ownership by individuals who are both socially and economically disadvantaged; and to promote the competitive viability of such firms by providing business development assistance including, but not limited to, management and technical assistance, access to capital and other forms of financial assistance, business training, and counseling, and access to sole source and limited competition federal contract opportunities, to help firms achieve competitive viability. Because most businesses associated with fishing are considered small businesses, NMFS, in

implementing regulations, must make an assessment of how those regulations would affect small businesses.

1.11 Public Law 99-659: Vessel Safety

Public Law 99-659 amended the Magnuson-Stevens Fishery Conservation and Management Act to require that a FMP or FMP amendment must consider, and may provide for, temporary adjustments (after consultation with the U.S. Coast Guard and persons utilizing the fishery) regarding access to a fishery for vessels that would be otherwise prevented from participating in the fishery because of safety concerns related to weather or to other ocean conditions. No vessel would be forced to participate in South Atlantic fisheries under adverse weather or ocean conditions as a result of the imposition of management regulations proposed in this amendment. No concerns have been raised by South Atlantic fishermen or by the U.S. Coast Guard that the proposed management measures directly or indirectly pose a hazard to crew or vessel safety under adverse weather or ocean conditions.

Appendix B. Initial Regulatory Impact Review

TO BE COMPLETED

Appendix C. Initial Regulatory Flexibility Analysis

TO BE COMPLETED

Appendix D. Data Analyses

TO BE COMPLETED

1.1 Scamp/yellowmouth Grouper Removals: Proportion landings versus dead discards

Prepared by Kyle Shertzer
18 September 2023

Introduction

The SouthEast Data, Assessment, and Review (SEDAR) 68 operational assessment (OA) of scamp/yellowmouth grouper modeled total removals (landings plus dead discards) from the recreational and commercial fleets. In most South Atlantic assessments, landings and discards are modeled as separate fleets. But scamp and yellowmouth grouper were combined based on recommendations from the SEDAR 68 OA (2022) CIE review panel. Should landings and dead discards need to be split for management purposes, this document describes computation of the proportion landings in total removals.

Methods and Results

For the SEDAR 68 OA (2022), data providers supplied estimates of total discards (live and dead); for use here and in the assessment, I applied a commercial discard mortality proportion (rate) of 0.39 and a recreational proportion of 0.26. Any other treatments of data, such as smoothing of recreational discard estimates and imputation of missing values, are described in the SEDAR68 OA (2022) report.

The assessment fit removals in their native units, with recreational removals in numbers and commercial removals in weight. Given the different units, combining the two for computing overall proportion landings is not straightforward. Nonetheless, two approaches were explored.

The first approach computes the proportion landings (of total removals) for each fleet in their native units, and then combines those proportions as a weighted average, with weights equal to the assessment-estimated proportions of total F from each fleet (recreational weight is 0.305 and commercial weight is 0.695). This weighting is consistent with how selectivities of each fleet were combined for projections. The second approach utilizes commercial landings and dead discards in numbers, which were supplied by the data providers, but not used in the assessment. This second approach sums the landings and dead discards from both fleets, both in numbers, and then computes the proportion of total removals that are landings. The first approach might be considered more compatible with the assessment, while the second approach is simpler and perhaps easier to explain.

In both approaches, values are based on geometric means from the terminal three assessment years, 2019-2021. In addition, I computed the standard deviation of the proportion landings using data from the last ten years (2012-2021) to indicate the level of variability in the proportions.

In the first approach, the proportion of total removals allocated to landings was 0.955 (**Table D.1.1**). In the second approach, the proportion of total removals allocated to landings was 0.954.

Thus, it seems justified to split total removals into 95% landings and 5% dead discards. These proportions appear relatively stable through time, with a standard deviation from the recreational fleet of 0.05, and a standard deviation from the commercial fleet of 0.003 (whether computed in weight or numbers).

Discussion

We recommend using the 0.95 proportion for computing a total coastwide ABC of landed catch and then the remainder would represent ABC for discards. The ABC recommended by the SAFMC's SSC is conditional on the ratio between commercial and recreational remaining close to the value from the last three years of the stock assessment. Should management choose to deviate from the commercial:recreational allocation used by the SSC and the stock assessment, then the fleet-specific proportions in Table 1 could be used to compute fleet-specific ABCs for landed and discarded catch.

Table D.1.1.1. Two methods to compute proportion of total scamp/yellowmouth grouper removals that are attributable to landings. The remainder are attributable to dead discards.

	Recreational (1000 fish)				Commercial (1000 fish)				Commercial (1000 lb)								
	Landings	Dead discards	Total	Prop L	Landings	Dead discards	Total	Prop L	Landings	Dead discards	Total	Prop L					
2012	9.0730	3.0895	12.1625	0.7460	27.5632	0.4672	28.0304	0.9833	161.3060	2.3747	163.6807	0.9855					
2013	10.5840	2.4157	12.9997	0.8142	23.9022	0.3852	24.2874	0.9841	141.1472	1.9576	143.1048	0.9863					
2014	9.0185	1.9577	10.9762	0.8216	24.2617	0.3627	24.6244	0.9853	164.5343	1.8434	166.3777	0.9889					
2015	7.4530	1.5628	9.0158	0.8267	20.5089	0.3142	20.8230	0.9849	128.1261	1.5968	129.7230	0.9877					
2016	8.5900	1.1773	9.7673	0.8795	18.8592	0.3809	19.2401	0.9802	110.9988	1.9358	112.9346	0.9829					
2017	6.3290	0.8604	7.1894	0.8803	18.7723	0.2883	19.0606	0.9849	110.3512	1.4654	111.8165	0.9869		Sum fleets (1000 fish)			
2018	4.0680	0.6870	4.7550	0.8555	14.3921	0.2489	14.6409	0.9830	96.8788	1.2649	98.1437	0.9871		Landings	Dead discards	Total	Prop L
2019	5.5790	0.6317	6.2107	0.8983	20.1060	0.2431	20.3491	0.9881	120.3583	1.2354	121.5937	0.9898		25.6850	0.8748	26.5598	0.9671
2020	4.1840	0.5826	4.7666	0.8778	10.4878	0.2035	10.6913	0.9810	62.9700	1.0342	64.0041	0.9838		14.6718	0.7861	15.4579	0.9491
2021	4.8815	0.5949	5.4764	0.8914	9.0856	0.2233	9.3089	0.9760	50.5702	1.1348	51.7050	0.9781		13.9671	0.8182	14.7853	0.9447
Gomean 2019-2021				0.8891				0.9817				0.9839			Approach 2 (in numbers)		0.9536
SD (2012-2021)				0.0472				0.0033				0.0034					
Assessment F prop				0.3050								0.6950			Approach 1 (F-wgted prop L)		0.9550

1.2 Analysis of Allocation Percentages and Catch Limits for the Proposed Scamp and Yellowmouth Grouper Complex in the South Atlantic

LAPP/DM Branch
NOAA Fisheries Service
Southeast Regional Office
February 2024

The South Atlantic stock of scamp was assessed through the Southeast Data, Assessment, and Review (SEDAR) 68 research track assessment in 2021. In the initial stages of the assessment process a Stock ID Workshop was conducted and concluded that scamp and yellowmouth grouper are difficult to distinguish from each other, therefore recommending that the two species be aggregated and considered as a single complex in the subsequent stock assessment. The results of the research track assessment indicated that scamp and yellowmouth grouper were overfished, but not experiencing overfishing. The South Atlantic Fishery Management Council (Council) has initiated Amendment 55 to remove yellowmouth grouper from the Other South Atlantic Shallow Water Grouper Complex (OSAWG) and create a new complex for both scamp and yellowmouth grouper. Additionally, this amendment will require the establishment of a rebuilding plan, specify catch levels, designate sector allocations, and define accountability measures based on the results of the SEDAR 68 operational assessment (2022). This analysis focuses on defining a historical time series that can be used to calculate allocation percentages and to provide seasonal projections for the catch levels provided by the Council's Scientific and Statistical Committee (SSC).

Defining Landings Time Series

The Marine Recreational Information Program (MRIP) uses the Access Point Angler Intercept Survey (APAIS) to collect dockside catch data from anglers fishing from shore, private boats and for-hire vessels in North Carolina, South Carolina, Georgia, and the east coast of Florida. The Fishing Effort Survey (FES) is used to collect trip information from shore and private boat recreational anglers from a mail survey. The combination of dockside APAIS data and mail survey FES effort data are used to generate catch estimates for species caught by recreational private anglers. The For-Hire Survey (FHS) is used to collect effort information from the for-hire component of the recreational sector. The combination of the dockside APAIS data and FHS effort data are used to generate catch estimates for species caught by the for-hire component of the recreational sector. The Southeast Fisheries Science Center combines the MRIP data from private and charter vessels with the Southeast Regional Headboat Survey (SRHS) to create a complete recreational landings data set (FES ACL Monitoring Dataset – August 23, 2023) for federally managed fish species. Commercial landings come from dealer reports and are provided by the Southeast Fisheries Science Center (SEFSC, Provided September 18, 2023). These data sets were both filtered to include only records from landings identified as scamp or yellowmouth grouper from the South Atlantic region, from 1986 to 2022. This time frame was selected to correspond with the years associated with the various allocation alternatives that are being assessed through Amendment 55 (**Table D.1.2.1**).

Table D.1.2.1. Description of the allocation alternatives proposed for evaluation.

Allocation Alternative	Method Explanation
Alternative 1 (No Action)	Scamp: Comp ACL Formula (allocation = (0.5*1986-2008) + (0.5*2006-2008)
Alternative 2	Split Reduction Method using average landings from 2018-2022
Alternative 3	Split Reduction Method using average landings from 2013-2022
Alternative 4	Distribution of landings from 2013-2022
Alternative 5	Distribution of landings from 2018-2022

The process of removing yellowmouth grouper from the OSAWG complex to the new scamp / yellowmouth grouper complex provides an opportunity for yellowmouth grouper landings to be easily calculated when comparing landings time series for the old and new complexes. The low magnitude of annual yellowmouth grouper landings provided concern that confidentiality might be violated, if the number of dealers or vessels contributing those landings was low. The number of contributors was assessed for annual landings values for each species, by fishing sector. No confidentiality concerns were found when reviewing the number of contributors for scamp landings, but several years of yellowmouth grouper landings are considered confidential for both fishing sectors (Recreational – 2014-2022, Commercial 1986-2022). Various methods were investigated to generate a non-confidential landings history to replace confidential annual yellowmouth grouper landings. The first method considered was to calculate a ratio value of yellowmouth grouper (YM) to scamp landings that would be multiplied by the unchanged scamp landings to generate a new non-confidential landings value for yellowmouth grouper.

$$Ratio = \frac{Landings_{YM}}{Landings_{Scamp}}$$

$$Non - Confidential\ YM\ Landings = Ratio \times Landings_{Scamp}$$

Two ratio options were investigated, an average of the annual yellowmouth grouper to scamp ratio values over the entire confidential time period (e.g. 2014-2022 for the recreational sector) or an average of ratios grouped in 3 year bins (e.g. 2014-2016, 2017-2019, 2020-2022 for the recreational sector). The second method was to average the yellowmouth grouper landings. Landings were either averaged over the entire confidential time period or averaged over 3 year bins. The difference between the original landings and calculated non-confidential landings values were minimized for both fishing sectors by using a 3-year average of yellowmouth grouper landings. The annual estimates for scamp and the updated non-confidential yellowmouth grouper landings were then summed by sector to create annual estimates for the scamp and yellowmouth grouper complex for each year in the time series (**Figure D.1.2.1**).

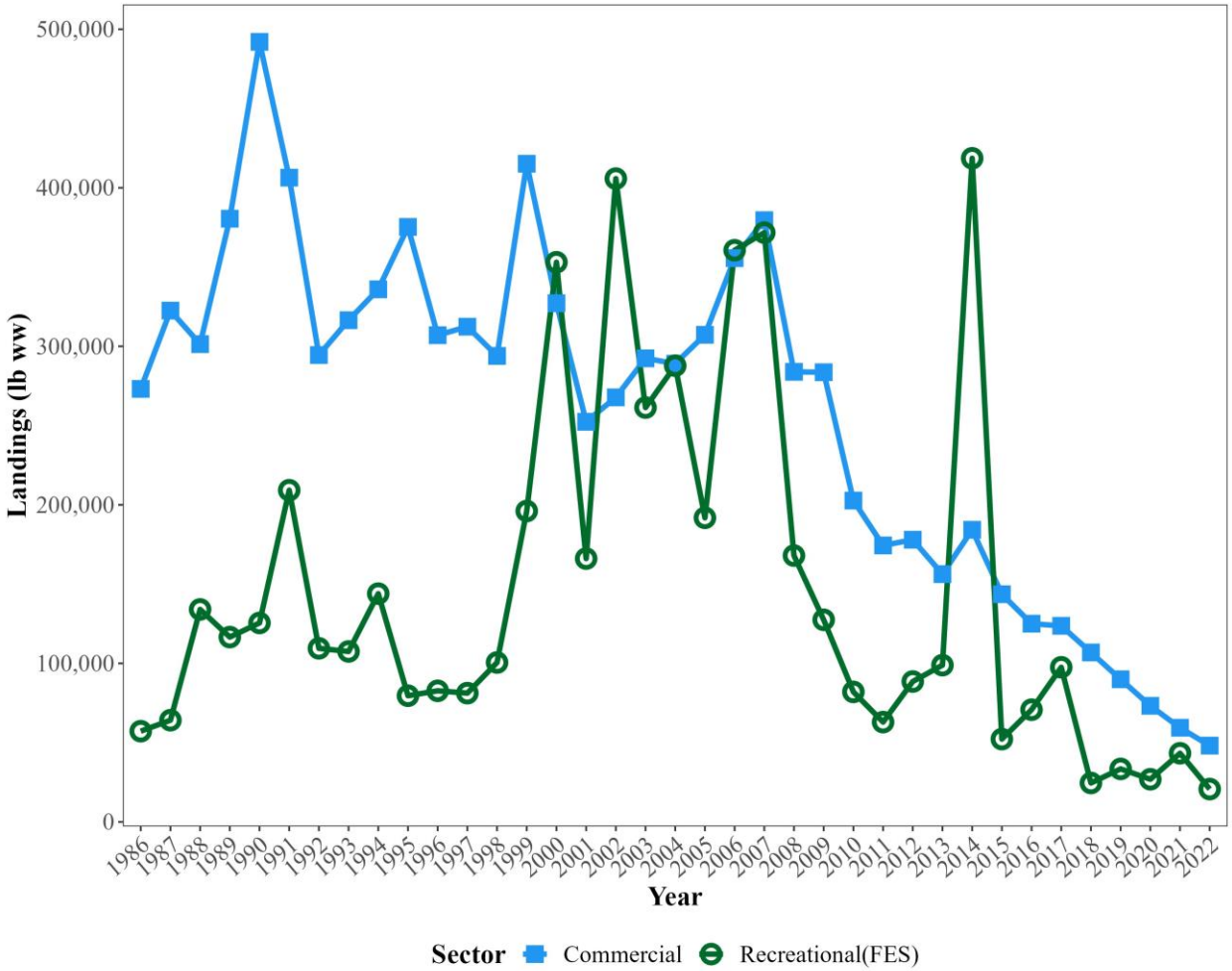

Figure D.1.2.1. Aggregated annual estimates of scamp and yellowmouth grouper landings from 1986 to 2022, by fishing sector.

In addition to assessing confidentiality, uncertainty around the recreational landings estimates was investigated. In SEDAR 68, analysts replaced landings estimates with associated uncertainty values greater than 50% with the average of the nearest two years (SEDAR 2022). In an effort to be consistent with the methodology used in the stock assessment, the percent standard error (PSE) around recreational estimates from the NOAA Query Website were reviewed (Retrieved October 24, 2023). Several years had PSE values higher than 50%: 1986, 1988, 1992, 1995-1998, 2005-2006, 2011, 2014-2015, 2018, 2022 (**Figure D.1.2.2**). While high PSE values are found throughout the time series, only recreational landings estimates with high PSE values after 2012 were adjusted with the method described above. The No Action allocation alternative relies on un-modified scamp landings, while the remaining alternatives rely on more recent landings from 2013-2022. The time series of landings are only adjusted to mask confidentiality through 2012 and are adjusted for both confidentiality and recreational uncertainty after 2012 (**Figure D.1.2.3**). Commercial landings are assumed to represent a census, and are only modified to mask confidentiality.

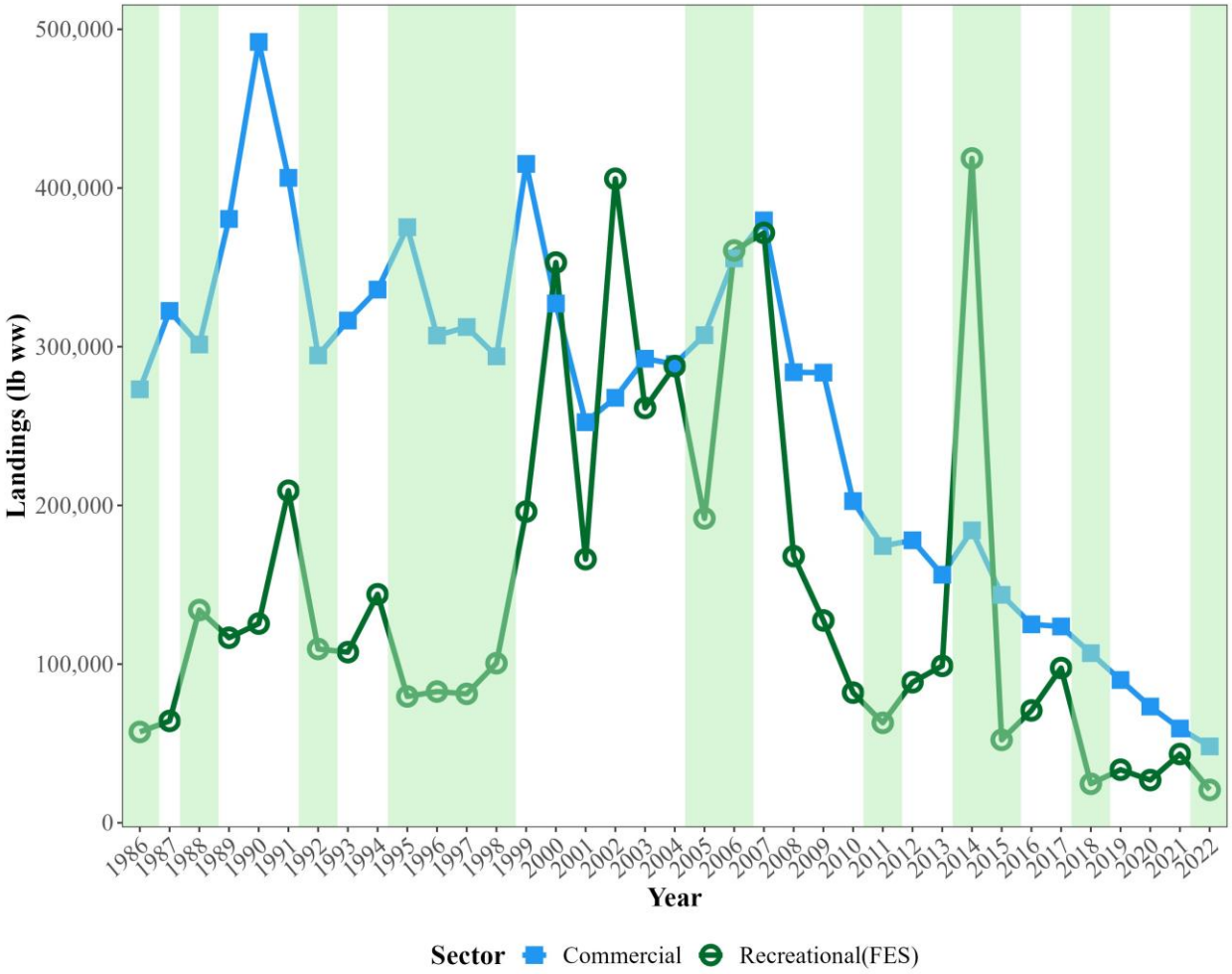

Figure D.1.2.2. Aggregated annual estimates of scamp and yellowmouth grouper landings from 1986 to 2022, by fishing sector. Light green shading indicates years with PSE values > 50% for recreational landings estimates.

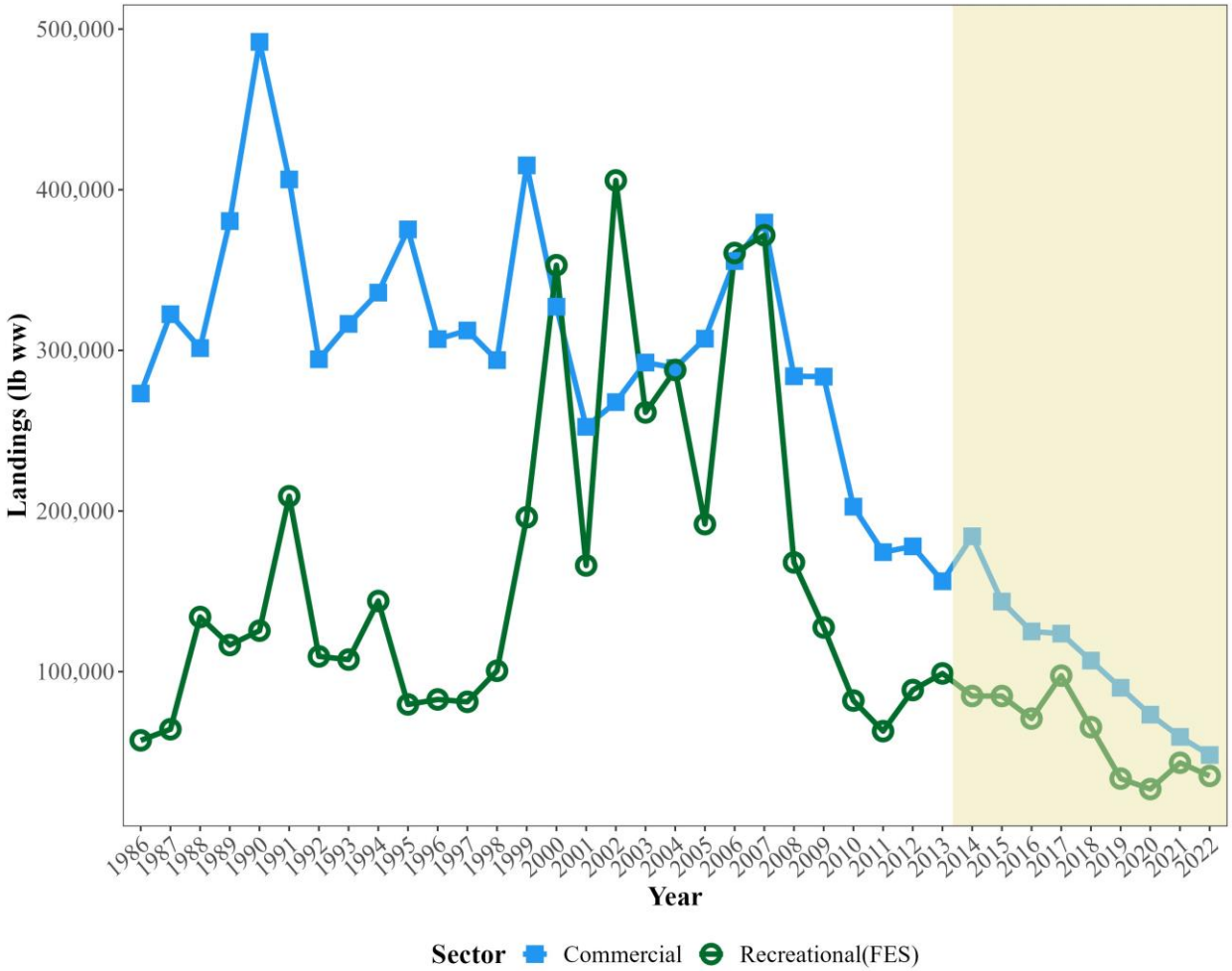

Figure D.1.2.3. Aggregated annual estimates of scamp and yellowmouth grouper landings from 1986-2022, by sector. Yellow shading indicates years where smoothed landings values were used to replace recreational estimates with PSE values >50%.

Generation of Allocation Alternative Percentages

The final landings histories developed for the recreational and commercial sectors were used to calculate the percentages for each proposed allocation alternatives 2-4 listed in **Table D.1.2.1**. The No Action alternative relies on the current allocation percentages associated with scamp. Alternatives 2 and 3 require the use of the split reduction method to generate allocation percentages for each fleet. This method uses an average landings estimate for each sector as a starting point. The percent reduction from that the total scamp / yellowmouth grouper landings to reach the ACL value proposed for the first year in the rebuilding plan is calculated and applied evenly to the average landings for each sector. The percentage of total landings for each sector is then calculated. In each subsequent year of the rebuilding plan, the difference between the total landings of scamp / yellowmouth grouper and the next ACL is split equally between the two sectors and the percentage of landings for each sector is re-calculated. The average landings values used at the start of the split reduction method in Alternative 2 corresponds with a 5-year average of scamp / yellowmouth grouper landings (2018-2022) and a 10-year average for Alternative 3 (2013-2022). Alternatives 3 and 4 set allocation percentages as the proportion of

total landings associated with each fishing sector, based on the distribution of landings from 2013-2022 (5-year average) and 2018-2022 (10-year average). Allocation percentages were calculated for each of the ACL alternatives suggested by the Science and Statistical Committee (**Table D.1.2.2**).

Table D.1.2.2. Allocation percentages calculated for each ACL alternative proposed.

Catch Level Alternative 2 (ACL = ABC)						
Allocation Alternatives	*Fishing Sector*	*2025*	*2026*	*2027*	*2028*	*2029*
Alternative 1 (No Action)	Commercial	NA	NA	NA	NA	NA
Alternative 1 (No Action)	Recreational	NA	NA	NA	NA	NA
Alternative 2	Commercial	64.90%	63.92%	63.39%	62.90%	62.59%
Alternative 2	Recreational	35.10%	36.08%	36.61%	37.10%	37.41%
Alternative 3	Commercial	63.40%	62.51%	62.04%	61.60%	61.32%
Alternative 3	Recreational	36.60%	37.49%	37.96%	38.40%	38.68%
Alternative 4	Commercial	63.40%	63.40%	63.40%	63.40%	63.40%
Alternative 4	Recreational	36.60%	36.60%	36.60%	36.60%	36.60%
Alternative 5	Commercial	64.90%	64.90%	64.90%	64.90%	64.90%
Alternative 5	Recreational	35.10%	35.10%	35.10%	35.10%	35.10%
Catch Level Alternative 3 (95% of ABC)						
Allocation Alternatives	*Fishing Sector*	*2025*	*2026*	*2027*	*2028*	*2029*
Alternative 1 (No Action)	Commercial	NA	NA	NA	NA	NA
Alternative 1 (No Action)	Recreational	NA	NA	NA	NA	NA
Alternative 2	Commercial	64.90%	63.92%	63.39%	62.90%	62.59%
Alternative 2	Recreational	35.10%	36.08%	36.61%	37.10%	37.41%
Alternative 3	Commercial	63.40%	62.51%	62.04%	61.60%	61.32%
Alternative 3	Recreational	36.60%	37.49%	37.96%	38.40%	38.68%
Alternative 4	Commercial	63.40%	63.40%	63.40%	63.40%	63.40%
Alternative 4	Recreational	36.60%	36.60%	36.60%	36.60%	36.60%
Alternative 5	Commercial	64.90%	64.90%	64.90%	64.90%	64.90%
Alternative 5	Recreational	35.10%	35.10%	35.10%	35.10%	35.10%
Catch Level Alternative 4 (90% of ABC)						
Allocation Alternatives	*Fishing Sector*	*2025*	*2026*	*2027*	*2028*	*2029*
Alternative 1 (No Action)	Commercial	NA	NA	NA	NA	NA
Alternative 1 (No Action)	Recreational	NA	NA	NA	NA	NA
Alternative 2	Commercial	64.90%	63.92%	63.39%	62.90%	62.59%
Alternative 2	Recreational	35.10%	36.08%	36.61%	37.10%	37.41%
Alternative 3	Commercial	63.40%	62.51%	62.04%	61.60%	61.32%
Alternative 3	Recreational	36.60%	37.49%	37.96%	38.40%	38.68%
Alternative 4	Commercial	63.40%	63.40%	63.40%	63.40%	63.40%
Alternative 4	Recreational	36.60%	36.60%	36.60%	36.60%	36.60%
Alternative 5	Commercial	64.90%	64.90%	64.90%	64.90%	64.90%
Alternative 5	Recreational	35.10%	35.10%	35.10%	35.10%	35.10%

Catch Limit Analysis

The catch level recommendations provided by the SSC during their April 2023 meeting, in response to the results of the SEDAR 68 Operational Assessment, were used to conduct a catch limit analysis. The SSC recommended acceptable biological catch (ABC) values in total removals, which represents the sum of landings and dead discards for scamp and yellowmouth grouper. However, the annual catch limit (ACL) alternatives were reduced by 5% to account for dead discards, allowing the ACL to be monitored in landings only. Three catch limit alternatives were proposed for the 5-year rebuilding period (**Table D.1.2.3**). The sector ACL for each alternative and year of the rebuilding period is show in **Table D.1.2.4.**

This analysis investigates whether the scamp / yellowmouth grouper complex ACL can be reached or exceeded using recent landings data to project future landings. The last five years of landings data, 2018 to 2022, were investigated for anomalies in landing patterns. The recreational and commercial landings were plotted by wave and month, respectively, but no major deviations in landings were observed (**Figures D.1.2.4** and **D.1.2.5**). After confirming that the three most recent years of landings data are most representative of current fishing behaviors, these data were averaged to generate wave / month level projected landings estimates, by sector (**Figures D.1.2.6** and **D.1.2.7**). The projected landings were used to calculate daily recreational and commercial landings estimates. These estimates were summed cumulatively by sector and compared against the catch limit values for the rebuilding period to project when the ACLs might be met. This process was repeated for each allocation and catch limit alternative, with the allocation percentages used to specify the sector level catch limits for each year (**Tables D.1.2.4** and **D1.2.5**). The process of smoothing landings to limit the reliance high PSE landings values reduced the difference between percentages for each allocation alternative. In both fishing sectors, the projections for all allocation and catch limit scenarios follow similar timelines for when the ACLs may be met. For the recreational sector, landings are projected to meet the ACL in Wave 4 for most alternatives investigated. For the commercial sector, all scenarios were projected to meet the ACL before the end of the calendar year, generally in August or September. This result should be expected because the stock landings (recreational and commercial landings combined) in the last three years exceed the proposed ACLs for every catch limit alternative, using smoothed landings (**Figure D.1.2.8**). The current landing behavior shows the highest rates of harvest in the summer months immediately after the season begins, which will likely lead to the ACL being met much sooner with the reduced catch levels proposed in Action 4.

Table D.1.2.3. Proposed catch limit values in pounds whole weight for scamp and yellowmouth grouper in the South Atlantic region (Action 4).

Alternative	2025	2026	2027	2028	2029
Alternative 1 (No Action, no ABC)	n/a				
Alternative 2 (ACL = ABC)	67,450	72,200	75,050	77,900	79,800
Alternative 3 (95% of ABC)	64,078	68,590	71,298	74,005	75,810
Alternative 4 (90% of ABC)	60,705	64,980	67,545	70,110	71,820

Table D.1.2.4. Alternatives for allocation percentages under Action 5.

ACL Alternatives	Allocation Alternatives									
	Alternative 1 (No Action)		*Alternative 2 Split Reduction (2018-2022)*		*Alternative 3 Split Reduction (2013-2022)*		*Alternative 4 Distribution of Landings (2018-2022)*		*Alternative 5 Distribution of Landings (2013-2022)*	
Action 4, Alternative 2 (ACL = ABC)	Commercial	Recreational	Commercial %, (lbs ww)	Recreational %, (lbs ww)	Commercial %, (lbs ww)	Recreational %, (lbs ww)	Commercial %, (lbs ww)	Recreational %, (lbs ww)	Commercial %, (lbs ww)	Recreational %, (lbs ww)
67,450 (2025)	none	none	64.90% (43,775)	35.10% (23,675)	63.40% (42,763)	36.60% (24,687)	63.40% (42,763)	36.60% (24,687)	64.90% (43,775)	35.10% (23,675)
72,200 (2026)	none	none	63.92% (46,150)	36.08% (26,050)	62.51% (45,132)	37.49% (27,068)	63.40% (45,775)	36.60% (26,425)	64.90% (46,858)	35.10% (25,342)
75,050 (2027)	none	none	63.39% (47,574)	36.61% (27,476)	62.04% (46,561)	37.96% (28,489)	63.40% (47,582)	36.60% (27,468)	64.90% (48,707)	35.10% (26,343)
77,900 (2028)	none	none	62.90% (48,999)	37.10% (28,901)	61.6% (47,986)	38.40% (29,914)	63.40% (49,389)	36.60% (28,511)	64.90% (50,557)	35.10% (27,343)
79,800 (2029)	none	none	62.59% (49,947)	37.41% (29,853)	61.32% (48,933)	38.68% (30,867)	63.40% (50,593)	36.60% (29,207)	64.90% (51,790)	35.10% (28,010)
Action 4, Alternative 3 (95% of ABC)	Commercial	Recreational	Commercial %, (lbs ww)	Recreational %, (lbs ww)	Commercial %, (lbs ww)	Recreational %, (lbs ww)	Commercial %, (lbs ww)	Recreational %, (lbs ww)	Commercial %, (lbs ww)	Recreational %, (lbs ww)
64,078 (2025)	none	none	64.90% (41,587)	35.10% (22,491)	63.40% (40,625)	36.60% (23,453)	63.40% (40,625)	36.60% (23,453)	64.90% (41,587)	35.10% (22,491)
68,590 (2026)	none	none	63.92% (43,843)	36.08% (24,747)	62.51% (42,876)	37.49% (25,714)	63.40% (43,486)	36.60% (25,104)	64.90% (44,515)	35.10% (24,075)
71,298 (2028)	none	none	63.39% (45,196)	36.61% (26,102)	62.04% (44,233)	37.96% (27,065)	63.40% (45,203)	36.60% (26,095)	64.90% (46,272)	35.10% (25,026)
74,005 (2029)	none	none	62.90% (46,549)	37.10% (27,456)	61.60% (45,587)	38.40% (28,418)	63.40% (46,919)	36.60% (27,086)	64.90% (48,029)	35.10% (25,976)
75,810 (2029)	none	none	62.59% (47,449)	37.41% (28,361)	61.32% (46,487)	38.68% (29,323)	63.40% (48,064)	36.60% (27,746)	64.90% (49,201)	35.10% (26,609)
Action 4, Alternative 4 (90% of ABC)	Commercial	Recreational	Commercial %, (lbs ww)	Recreational %, (lbs ww)	Commercial %, (lbs ww)	Recreational %, (lbs ww)	Commercial %, (lbs ww)	Recreational %, (lbs ww)	Commercial %, (lbs ww)	Recreational %, (lbs ww)
60,705 (2025)	none	none	64.90% (39,398)	35.10% (21,307)	63.40% (38,487)	36.60% (22,218)	63.40% (38,487)	36.60% (22,218)	64.90% (39,398)	35.10% (21,307)
64,980 (2026)	none	none	63.92% (41,535)	36.08% (23,445)	62.51% (40,619)	37.49% (24,361)	63.40% (41,197)	36.60% (23,783)	64.90% (42,172)	35.10% (22,808)
67,545 (2027)	none	none	63.39% (42,817)	36.61% (24,728)	62.04% (41,905)	37.96% (25,640)	63.40% (42,824)	36.60% (24,721)	64.90% (43,837)	35.10% (23,708)
70,110 (2028)	none	none	62.90% (44,099)	37.10% (26,011)	61.60% (43,188)	38.40% (26,922)	63.40% (44,450)	36.60% (25,660)	64.90% (45,501)	35.10% (24,609)
71,820 (2029)	none	none	62.59% (44,952)	37.41% (26,868)	61.32% (44,040)	38.68% (27,780)	63.40% (45,534)	36.60% (26,286)	64.90% (46,611)	35.10% (25,209)

Table D.1.2.5. Predictions for when scamp / yellowmouth grouper ACLs would be met under each allocation and catch level alternative for the recreational sector. Dashes in cell represent a scenario when the ACL is not anticipated to be met. The year 1 (2025) starting recreational ACL (in lbs ww) for the rebuilding period is indicated by a *.

Allocation Alternatives (Action 5)	**Alternative 1: No Action**		**Alternative 2: 35.10%-37.41%** *(ACL - 23,675*)*		**Alternative 3: 36.60%-38.68%** *(ACL - 24,687)*		**Alternative 4: 36.60%** *(ACL - 24,687*)*		**Alternative 5: 35.10%** *(ACL - 23,675*)*	
Catch Level Alternative 2 (ACL = ABC)										
Action 4, Alternative 2 (ACL = Total ABC)	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
67,450 (2025)	NA	NA	Wave 4	104	Wave 4	108	Wave 4	108	Wave 4	104
72,200 (2026)	NA	NA	Wave 4	114	Wave 4	118	Wave 4	116	Wave 4	111
75,050 (2027)	NA	NA	Wave 4	120	Wave 5	138	Wave 4	120	Wave 4	115
77,900 (2028)	NA	NA	Wave 5	154	Wave 6	212	Wave 5	139	Wave 4	119
79,800 (2029)	NA	NA	Wave 6	203	-	245	Wave 5	165	Wave 4	122
Catch Level Alternative 3 (95% of ABC)										
Action 4, Alternative 3 (95% of Total ABC)	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
64,078 (2025)	NA	NA	Wave 4	99	Wave 4	103	Wave 4	103	Wave 4	99
68,590 (2026)	NA	NA	Wave 4	109	Wave 4	113	Wave 4	110	Wave 4	106
71,298 (2028)	NA	NA	Wave 4	114	Wave 4	118	Wave 4	114	Wave 4	110
74,005 (2029)	NA	NA	Wave 4	120	Wave 5	136	Wave 4	118	Wave 4	114
75,810 (2029)	NA	NA	Wave 5	134	Wave 5	169	Wave 4	121	Wave 4	116
Catch Level Alternative 4 (90% of ABC)										
Action 4, Alternative 4 (90% of Total ABC)	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
60,705 (2025)	NA	NA	Wave 4	94	Wave 4	98	Wave 4	98	Wave 4	94
64,980 (2026)	NA	NA	Wave 4	103	Wave 4	107	Wave 4	105	Wave 4	100
67,545 (2027)	NA	NA	Wave 4	109	Wave 4	112	Wave 4	109	Wave 4	104
70,110 (2028)	NA	NA	Wave 4	114	Wave 4	118	Wave 4	112	Wave 4	108
71,820 (2029)	NA	NA	Wave 4	118	Wave 4	121	Wave 4	115	Wave 4	111

Table D.1.2.6. Predictions for when scamp / yellowmouth grouper ACLs would be met under each allocation and catch level alternative for the commercial sector. The year 1 (2025) starting commercial ACL (in lbs ww) for the rebuilding period is indicated by a *.

Allocation Alternative (Action 5)	**Alternative 1: No Action**		**Alternative 2: 64.90%-62.59%** *(ACL - 43,775*)*		**Alternative 3: 63.40%-61.32%** *(ACL - 42,763*)*		**Alternative 4: 63.40%** *(ACL - 42,763*)*		**Alternative 5: 64.90%** *(ACL - 43,775*)*	
Catch Level Alternative 2 (ACL = ABC)										
Action 4, Alternative 2 (ACL = Total ABC)	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
67,450 (2025)	NA	NA	21-Aug	112	18-Aug	109	18-Aug	109	21-Aug	112
72,200 (2026)	NA	NA	29-Aug	120	26-Aug	117	28-Aug	119	31-Aug	122
75,050 (2027)	NA	NA	3-Sep	125	30-Aug	121	3-Sep	125	9-Sep	131
77,900 (2028)	NA	NA	10-Sep	132	5-Sep	127	12-Sep	134	18-Sep	140
79,800 (2029)	NA	NA	15-Sep	137	10-Sep	132	18-Sep	140	24-Sep	146
Catch Level Alternative 3 (95% of ABC)										
Action 4, Alternative 3 (95% of Total ABC)	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
64,078 (2025)	NA	NA	15-Aug	106	12-Aug	103	12-Aug	103	15-Aug	106
68,590 (2026)	NA	NA	22-Aug	113	19-Aug	110	20-Aug	111	24-Aug	115
71,298 (2028)	NA	NA	26-Aug	117	23-Aug	114	26-Aug	117	29-Aug	120
74,005 (2029)	NA	NA	30-Aug	121	27-Aug	118	31-Aug	122	5-Sep	127
75,810 (2029)	NA	NA	2-Sep	124	30-Aug	121	6-Sep	128	11-Sep	133
Catch Level Alternative 4 (90% of ABC)										
Action 4, Alternative 4 (90% of Total ABC)	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
60,705 (2025)	NA	NA	8-Aug	99	5-Aug	96	5-Aug	96	8-Aug	99
64,980 (2026)	NA	NA	14-Aug	105	12-Aug	103	13-Aug	104	16-Aug	107
67,545 (2027)	NA	NA	18-Aug	109	16-Aug	107	18-Aug	109	22-Aug	113
70,110 (2028)	NA	NA	22-Aug	113	19-Aug	110	23-Aug	114	27-Aug	118
71,820 (2029)	NA	NA	25-Aug	116	22-Aug	113	27-Aug	118	30-Aug	121

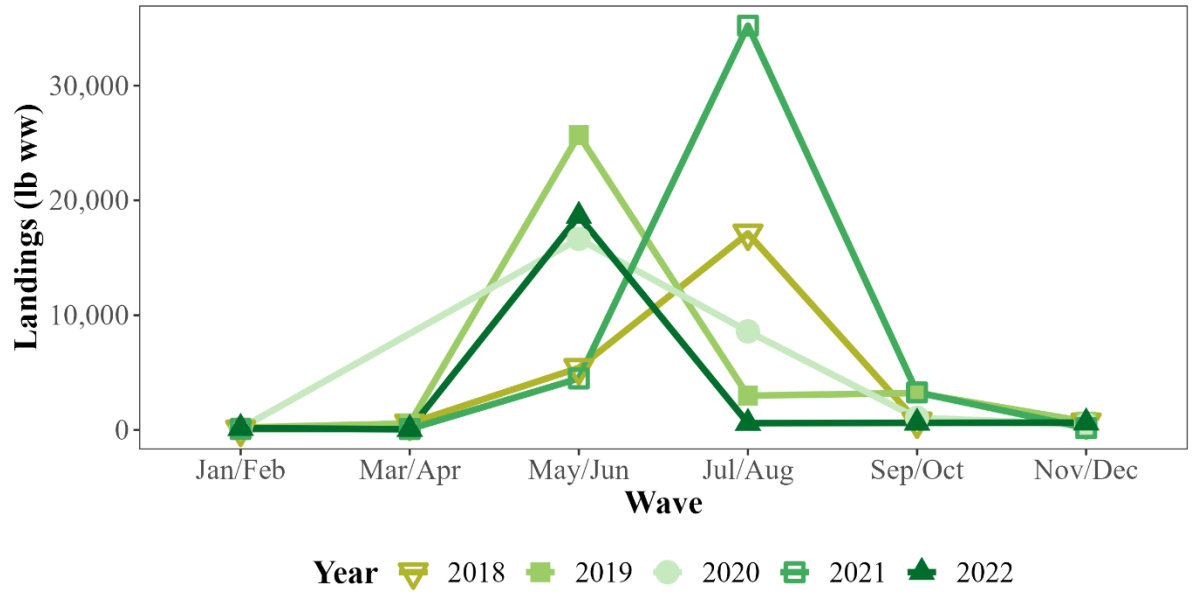

Figure D.1.2.4. Observed recreational landing by wave, including MRIP-FES recreational landings from shore and private boat fishing modes, FHS landings for charter vessels, and SRHS landings for headboat vessels (Source: MRIP-FES Recreational data – August 2023).

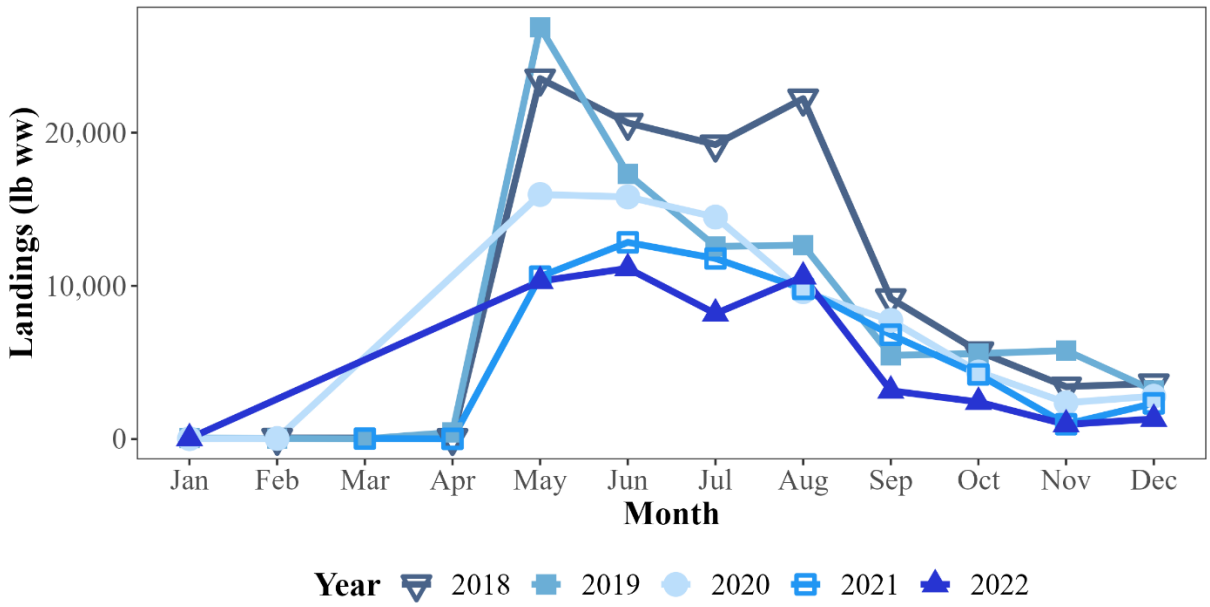

Figure D.1.2.5. Observed commercial landings from 2018-2022 (Source: SEFSC Commercial ACL Data – September 2023).

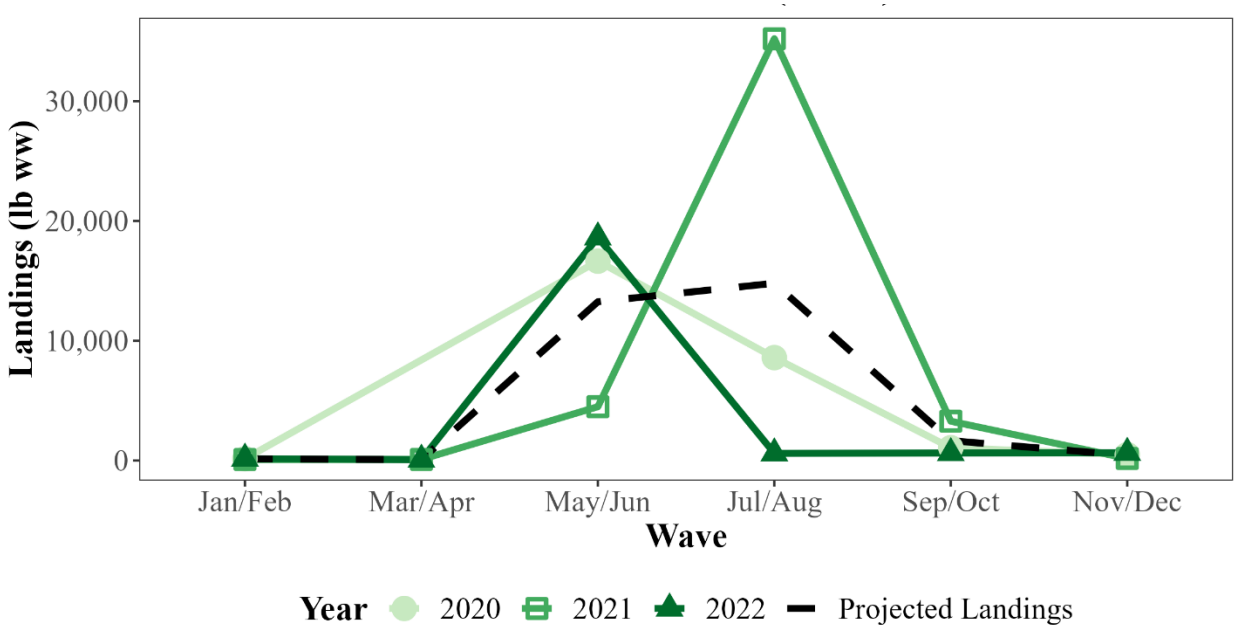

Figure D.1.2.6. Observed and projected recreational landing by wave, including MRIP-FES recreational landings from shore and private boat fishing modes, FHS landings for charter vessels, and SRHS landings for headboat vessels (Source: MRIP-FES Recreational data – August 2023).

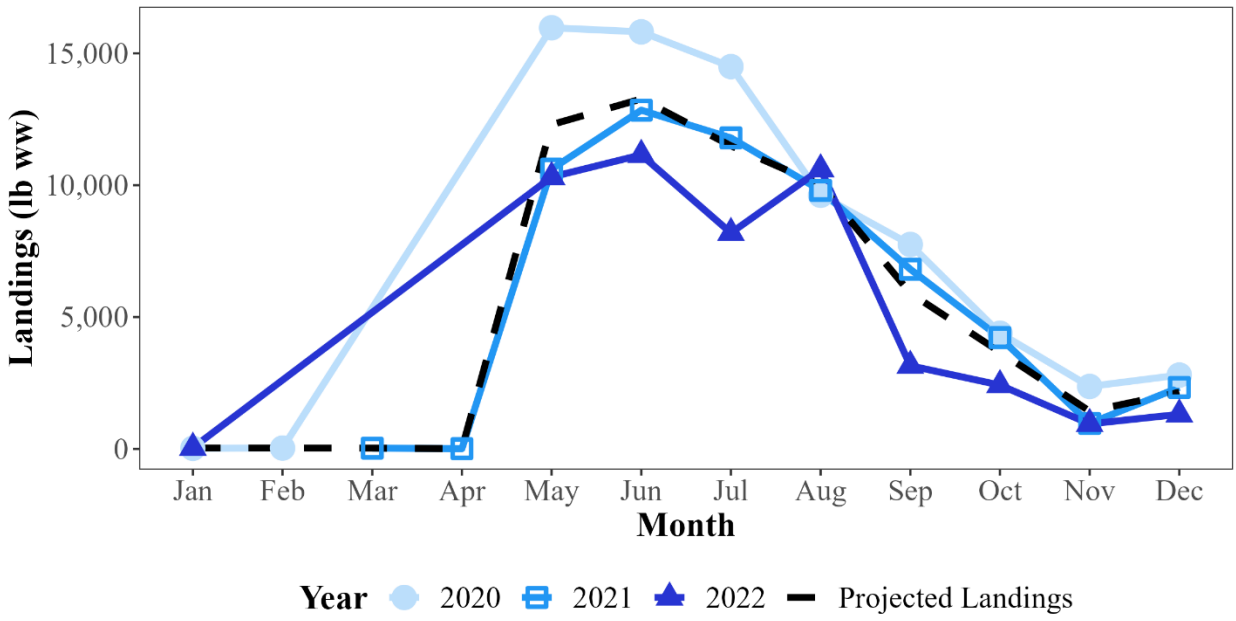

Figure D.1.2.7. Observed and projected commercial landings from 2020-2022 (Source: SEFSC Commercial ACL data – September 2023).

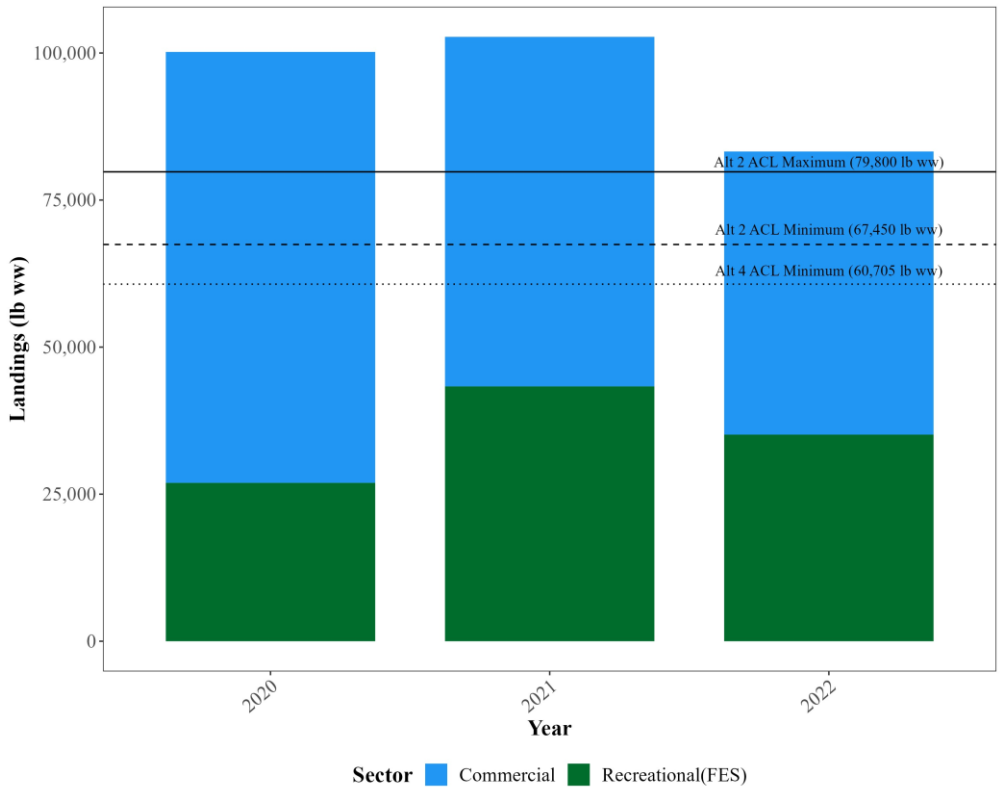

Figure D.1.2.8. Total stock landings of scamp and yellowmouth grouper by sector for the last 3 years, using the smoothed recreational landings that replace values with high PSEs. Reference lines show the highest and lowest catch limit values for Action 4: Alternative 2 (ACL=ABC) and the minimum value for catch limit Action 4: Alternative 4 (90% of ABC).

Management Measure Analyses - Data Sources

During the December 2023 South Atlantic Council Meeting, additional catch limit analyses were requested to investigate how various management measures would influence the catch limit analysis described above. These measures included evaluating the impact of various seasonal closure alternatives for both fishing sectors, a trip limit analysis to explore reduced harvest per trip alternatives for the commercial sector, and a bag / vessel limit analysis to explore reduced harvest for the recreational sector. These additional analyses required the continued use of the ACL Monitoring datasets provided by the SEFSC (SEFSC Commercial ACL Monitoring data – September 2023, SEFSC Recreational – FES ACL Monitoring data – August 2023) to project daily landings rates for each sector, SEFSC Commercial logbook data (March 2023), SRHS logbook data (August 2023), and publicly accessible MRIP dockside trip and catch data (https://www.fisheries.noaa.gov/recreational-fishing-data). Additional data filtering will be described for each analysis described below.

Seasonal Closure Analysis

Seasonal closure alternatives were investigated for both fishing sectors (**Table D.1.2.7**). The catch limit analysis was updated by removing daily landings in months associated with the additional closure period proposed for each alternative. The projected landings estimates used in the original catch limit analysis were otherwise unadjusted. These daily landings estimates were summed cumulatively by sector and compared against the catch limit values for the rebuilding

period associated with each sector. This process was repeated for each allocation alternative in Action 5, but only used catch limit values associated with the preferred catch limit values for Action 4: Alternative 2 (ABC=ACL). The only seasonal closure alternative that resulted in no projected closure in any year of the rebuilding period was associated with the most restrictive season length, Alternative 2 – Fishing Season May1 through July 31 (**Tables D.1.2.8** and **D.1.2.9**). While no closure is projected for either sector with Alternative 2, the season would only last 92 days. The highest harvest rates for scamp and yellowmouth grouper occur in the early months of the fishing season, between May and August. The seasonal closures will not slow the rate of harvest projected, but would only confine landing to a specific shortened time frame. The implementation of a restrictive seasonal closure may prevent the ACL from being exceeded in some years in the rebuilding plan for Alternative 3, but the ACLs are likely to be met in August or September for most years and allocation scenarios.

Table D.1.2.7. Seasonal closure alternatives. Months when the fishery is closed are indicated in red, and months when the fishery is open are indicated in gray (for both the commercial and recreational sectors).

Alternatives	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alternative 1: Season Closed January 1 to April 30												
Alternative 2: Season Closed January 1 to April 30 and August 1 through December 31												
Alternative 3: Season Closed January 1 to April 30 and September 1 to December 31												
Alternative 4: Season Closed January 1 to April 30 and October 1 to December 31												

Table D.1.2.8. Predictions for when scamp / yellowmouth grouper ACLs would be met under each allocation alternative (Action 5), the preferred catch level alternative (Action 4: Alternative 2 – ABC=ACL), and each seasonal closure alternative (Action 6) for the recreational sector. Dashes in cell represent a scenario when the ACL is not anticipated to be met. The year 1 (2025) starting recreational ACL (in lbs ww) for the rebuilding period is indicated by a *.

Allocation Alternatives (Action 5)	**Alternative 1: No Action**		**Alternative 2: 35.10%-37.41%** *(ACL - 23,675*)*		**Alternative 3: 36.60%-38.68%** *(ACL - 24,687)*		**Alternative 4: 36.60%** *(ACL - 24,687*)*		**Alternative 5: 35.10%** *(ACL - 23,675*)*	
Action 6: Alternative 1 – No Action (Fishing Season: May 1 through December 31)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	104	Wave 4	108	Wave 4	108	Wave 4	104
2026	NA	NA	Wave 4	114	Wave 4	118	Wave 4	116	Wave 4	111
2027	NA	NA	Wave 4	120	Wave 5	138	Wave 4	120	Wave 4	115
2028	NA	NA	Wave 5	154	Wave 6	212	Wave 5	139	Wave 4	119
2029	NA	NA	Wave 6	203	-	245	Wave 5	165	Wave 4	122
Action 6: Alternative 2 (Fishing Season May 1 through July 31)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	-	92	-	92	-	92	-	92
2026	NA	NA	-	92	-	92	-	92	-	92
2027	NA	NA	-	92	-	92	-	92	-	92
2028	NA	NA	-	92	-	92	-	92	-	92
2029	NA	NA	-	92	-	92	-	92	-	92
Action 6: Alternative 3 (Fishing Season May 1 through August 31)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	104	Wave 4	108	Wave 4	108	Wave 4	104
2026	NA	NA	Wave 4	114	Wave 4	118	Wave 4	116	Wave 4	111
2027	NA	NA	Wave 4	120	-	123	Wave 4	120	Wave 4	115
2028	NA	NA	-	123	-	123	-	123	Wave 4	119
2029	NA	NA	-	123	-	123	-	123	Wave 4	122
Action 6: Alternative 4 (Fishing Season May 1 through September 30)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	104	Wave 4	108	Wave 4	108	Wave 4	104
2026	NA	NA	Wave 4	114	Wave 4	118	Wave 4	116	Wave 4	111
2027	NA	NA	Wave 4	120	Wave 5	138	Wave 4	120	Wave 4	115
2028	NA	NA	-	153	-	153	Wave 5	139	Wave 4	119
2029	NA	NA	-	153	-	153	-	153	Wave 4	122

Table D.1.2.9. Predictions for when scamp / yellowmouth grouper ACLs would be met under each allocation alternative (Action 5 the preferred catch level alternative (Action 4: Alternative 2 – ABC=ACL), and each seasonal closure alternative (Action 6) for the commercial sector. Dashes in cell represent a scenario when the ACL is not anticipated to be met. The year 1 (2025) starting commercial ACL (in lbs ww) for the rebuilding period is indicated by a *.

Allocation Alternative (Action 5)	**Alternative 1: 65.44%**		**Alternative 2: 64.90%-62.59%** *(ACL - 43,775*)*		**Alternative 3: 63.40%-61.32%** *(ACL - 42,763*)*		**Alternative 4: 63.40%** *(ACL - 42,763*)*		**Alternative 5: 64.90%** *(ACL - 43,775*)*	
Action 6: Alternative 1 – No Action (Fishing Season: May 1 through December 31)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	21-Aug	112	18-Aug	109	18-Aug	109	21-Aug	112
2026	NA	NA	29-Aug	120	26-Aug	117	28-Aug	119	31-Aug	122
2027	NA	NA	3-Sep	125	30-Aug	121	3-Sep	125	9-Sep	131
2028	NA	NA	10-Sep	132	5-Sep	127	12-Sep	134	18-Sep	140
2029	NA	NA	15-Sep	137	10-Sep	132	18-Sep	140	24-Sep	146
Action 6: Alternative 2 (Fishing Season May 1 through July 31)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	-	92	-	92	-	92	-	92
2026	NA	NA	-	92	-	92	-	92	-	92
2027	NA	NA	-	92	-	92	-	92	-	92
2028	NA	NA	-	92	-	92	-	92	-	92
2029	NA	NA	-	92	-	92	-	92	-	92
Action 6: Alternative 3 (Fishing Season May 1 through August 31)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	21-Aug	112	18-Aug	109	18-Aug	109	21-Aug	112
2026	NA	NA	29-Aug	120	26-Aug	117	28-Aug	119	31-Aug	122
2027	NA	NA	-	123	30-Aug	121	-	123	-	123
2028	NA	NA	-	123	-	123	-	123	-	123
2029	NA	NA	-	123	-	123	-	123	-	123
Action 6: Alternative 4 (Fishing Season May 1 through September 30)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	21-Aug	112	18-Aug	109	18-Aug	109	21-Aug	112
2026	NA	NA	29-Aug	120	26-Aug	117	28-Aug	119	31-Aug	122
2027	NA	NA	3-Sep	125	30-Aug	121	3-Sep	125	9-Sep	131
2028	NA	NA	10-Sep	132	5-Sep	127	12-Sep	134	18-Sep	140
2029	NA	NA	15-Sep	137	10-Sep	132	18-Sep	140	24-Sep	146

Recreational Bag / Vessel Limit Analysis

Various alternatives for investigating the impacts of bag and vessel limits on the catch limit analysis for the recreational sector were proposed. To evaluate each alternative, the percent reduction in catch associated with each alternative was calculated. Publicly available MRIP trip and catch files for 2018 to 2022 were used to evaluate the expected percent reduction in catch associated with each alternative associated with the private boat and charter fleet. Only 47 records, for both private boats and charter vessels, indicated that scamp or yellowmouth grouper were harvested. Instead of adding additional years of less recent data to increase sample size, the percent reduction for the private boat and charter fleets were calculated together. This is based on the assumption that the two fleets fish in similar ways. The SRHS logbook data was restricted to the same time period, 2018 to 2022, resulting in 932 trip reports. The bag or vessel distribution was calculated for each fleet, to better understand the distribution of scamp / yellowmouth grouper catches (**Figures D.1.2.9** and **D.1.2.10**). The majority of angler trips harvested less than 3 scamp or yellowmouth grouper, whereas total catch for vessels showed a more broad distribution of scamp and yellowmouth harvest by vessel.

To investigate each bag and vessel limit alternative, a percent reduction in catch was calculated by determining the proportion of catch associated with each alternative. If an angler bag or vessel catch value was higher than the proposed alternative, that value was changed to match the maximum value allowed by the proposed alternative. For example, if an angler trip record indicated that 2 scamp and 2 yellowmouth grouper were harvested, for Action 7a – Alternative 3, the bag value was changed to 1 instead of 4 to match the maximum allowable catch. The final percent reduction was calculated by dividing the harvest from each alternative by the harvest from the No Action alternative (**Table D.1.2.10)**. These reductions were applied to the daily landing rate for each recreational fleet for the various bag / vessel limit alternatives, with each allocation alternative (Action 5) and the preferred catch limit alternative (Action 4: Alternative 2 – ABC=ACL). The daily landings rates for each fleet reflect the average landings for each fleet between 2018 and 2022, instead of the average of the sector wide landings for recreational anglers. The fleet averages were then aggregated to generate a sector level daily landing rate and were then summed cumulatively and compared to the available ACL. Closures were projected for almost every alternatives, but more restrictive bag and vessel limits allowed for longer seasons (**Tables D.1.2.11** and **D.1.2.12**). Vessel limits restricted season length more than bag limits, as harvest would be limited more for vessel trips with more anglers. While the season might be extended to allow fishing through more of Wave 4 if a bag or vessel limit was implemented, the ACL was always projected to be met before the end of Wave 4 in almost every scenario.

Table D.1.2.10. Proposed recreational bag and vessel limit alternatives (Action 7a and b).

Action	Alternative	Description	Private / Charter	Headboat
Action 7a	Alternative 1 (No Action)	The recreational bag limit is 3 scamp or 3 yellowmouth grouper per person per day within the 3-grouper aggregate.	0.0%	0.0%
	Alternative 2	Establish an aggregate complex bag limit of 2 fish (either scamp or yellowmouth grouper) per person per day within the 3-grouper aggregate.	-36.5%	-0.7%
	Alternative 3	Establish an aggregate complex bag limit of 1 fish (either scamp or yellowmouth grouper) per person per day within the 3-grouper aggregate.	-52.1%	-6.1%
Action 7b	Alternative 1 (No Action)	There is no vessel limit for scamp and yellowmouth grouper.	0.0%	0.0%
	Alternative 2a	Establish a private recreational aggregate vessel limit for scamp and yellowmouth grouper of: 2 fish (either scamp or yellowmouth grouper) per vessel per trip, not to exceed the daily bag limit, whichever is more restrictive.	-41.0%	0.0%
	Alternative 2b	Establish a private recreational aggregate vessel limit for scamp and yellowmouth grouper of: 4 fish (either scamp or yellowmouth grouper) per vessel per trip, not to exceed the daily bag limit, whichever is more restrictive.	-22.6%	0.0%
	Alternative 3a	Establish a for-hire (charter vessel / headboat) recreational aggregate vessel limit for scamp and yellowmouth grouper of: 4 fish (either scamp or yellowmouth grouper) per vessel per trip, not to exceed the daily bag limit, whichever is more restrictive.	0.0%	-47.1%
	Alternative 3b	Establish a for-hire (charter vessel / headboat) recreational aggregate vessel limit for scamp and yellowmouth grouper of: 2 fish (either scamp or yellowmouth grouper) per vessel per trip, not to exceed the daily bag limit, whichever is more restrictive.	0.0%	-21.5%

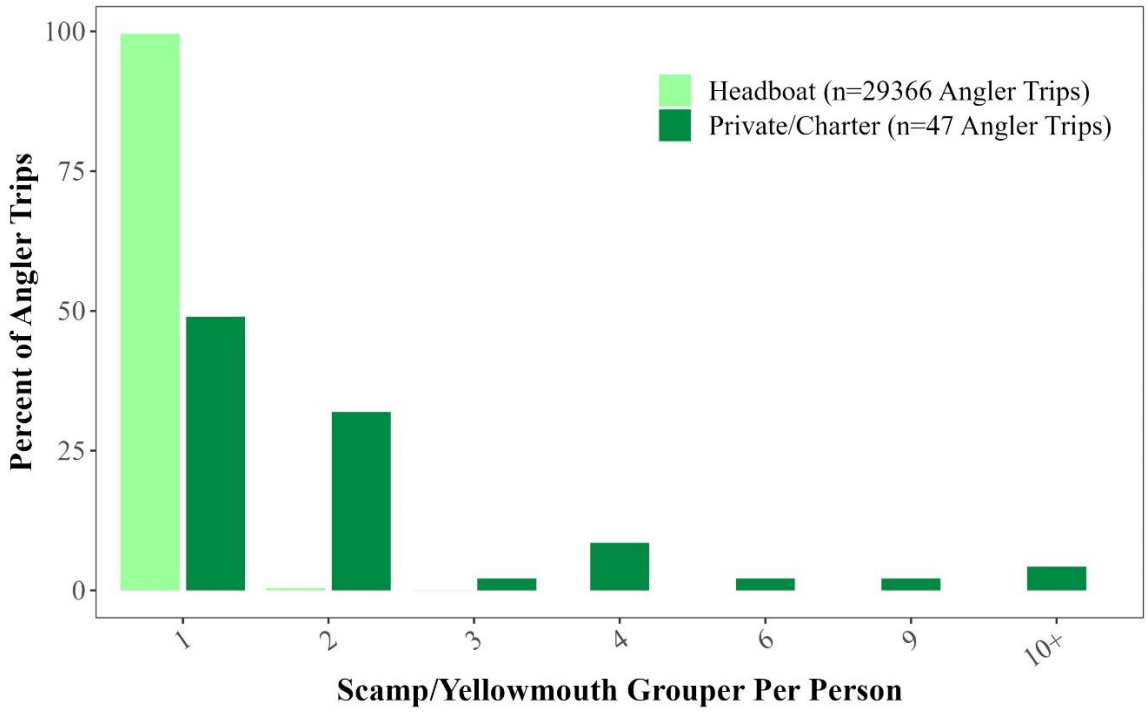

Figure D.1.2.9. Distribution of scamp and yellowmouth grouper angler harvest from dockside intercept and headboat logbook data from 2018-2022, by recreational fleet.

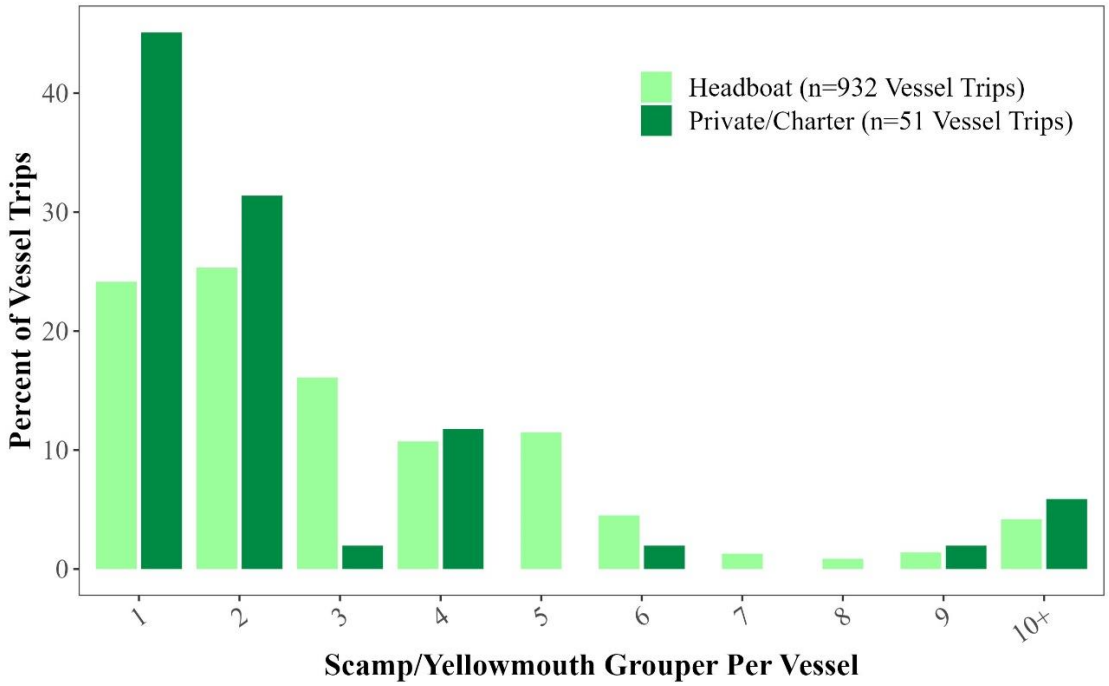

Figure D.1.2.10. Distribution of scamp and yellowmouth grouper vessel harvest from dockside intercept and headboat logbook data from 2018-2022, by recreational fleet.

Table D.1.2.11. Predictions for when scamp / yellowmouth grouper ACLs would be met under each allocation alternative (Action 5), the preferred catch level alternative (Action 4: Alternative 2 – ABC=ACL), and each bag limit alternative (Action 7a) for the recreational sector. It is assumed that the fishing season is from May 1 to December 31. Dashes in cell represent a scenario when the ACL is not anticipated to be met. The year 1 (2025) starting recreational ACL (in lbs ww) for the rebuilding period is indicated by a *.

Allocation Alternative (Action 5)	**Alternative 1: 34.66%**		**Alternative 2: 35.10%-37.41%** *(ACL - 23,675*)*		**Alternative 3: 36.60%-38.68%** *(ACL - 24,687)*		**Alternative 4: 36.60%** *(ACL - 24,687*)*		**Alternative 5: 35.10%** *(ACL - 23,675*)*	
Action 7a: Alternative 1 (No Action - No Recreational Bag Limit)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	71	Wave 4	73	Wave 4	73	Wave 4	71
2026	NA	NA	Wave 4	75	Wave 4	77	Wave 4	76	Wave 4	74
2027	NA	NA	Wave 4	77	Wave 4	79	Wave 4	77	Wave 4	75
2028	NA	NA	Wave 4	80	Wave 4	81	Wave 4	79	Wave 4	77
2029	NA	NA	Wave 4	81	Wave 4	83	Wave 4	80	Wave 4	78
Action 7a: Alternative 2 (2 fish aggregate complex bag limit)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	91	Wave 4	93	Wave 4	93	Wave 4	91
2026	NA	NA	Wave 4	97	Wave 4	99	Wave 4	98	Wave 4	95
2027	NA	NA	Wave 4	100	Wave 4	103	Wave 4	100	Wave 4	97
2028	NA	NA	Wave 4	104	Wave 4	106	Wave 4	103	Wave 4	100
2029	NA	NA	Wave 4	106	Wave 4	109	Wave 4	105	Wave 4	102
Action 7a: Alternative 3 (1 fish aggregate complex bag limit)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	108	Wave 4	112	Wave 4	112	Wave 4	108
2026	NA	NA	Wave 4	116	Wave 4	119	Wave 4	117	Wave 4	114
2027	NA	NA	Wave 4	121	Wave 5	136	Wave 4	121	Wave 4	117
2028	NA	NA	Wave 5	148	Wave 5	178	Wave 5	137	Wave 4	120
2029	NA	NA	Wave 5	177	-	245	Wave 5	157	Wave 4	122

Table D.1.2.12. Predictions for when scamp/yellowmouth grouper ACLs would be met under each allocation alternative (Action 5), the preferred catch level alternative (Action 4: Alternative 2–ABC=ACL), and each vessel limit alternative (Action 7b) for the recreational sector. It is assumed that the fishing season is from May 1 to December 31. Dashes in cell represent when the ACL is not anticipated to be met. The year 1 (2025) recreational starting ACL (in lbs ww) for the rebuilding period is indicated by a *.

Allocation Alternative (Action 5)	**Alternative 1: 34.66%**		**Alternative 2: 35.10%-37.41%** *(ACL - 23,675*)*		**Alternative 3: 36.60%-38.68%** *(ACL - 24,687)*		**Alternative 4: 36.60%** *(ACL - 24,687*)*		**Alternative 5: 35.10%** *(ACL - 23,675*)*	
Action 7b Alternative 1 (No Action - No Recreational Vessel Limit)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	71	Wave 4	73	Wave 4	73	Wave 4	71
2026	NA	NA	Wave 4	75	Wave 4	77	Wave 4	76	Wave 4	74
2027	NA	NA	Wave 4	77	Wave 4	79	Wave 4	77	Wave 4	75
2028	NA	NA	Wave 4	80	Wave 4	81	Wave 4	79	Wave 4	77
2029	NA	NA	Wave 4	81	Wave 4	83	Wave 4	80	Wave 4	78
Action 7b: Alternative 2a (2 fish per vessel per day - Private Boats)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	89	Wave 4	91	Wave 4	91	Wave 4	89
2026	NA	NA	Wave 4	95	Wave 4	97	Wave 4	96	Wave 4	93
2027	NA	NA	Wave 4	98	Wave 4	101	Wave 4	98	Wave 4	96
2028	NA	NA	Wave 4	102	Wave 4	105	Wave 4	101	Wave 4	98
2029	NA	NA	Wave 4	104	Wave 4	107	Wave 4	103	Wave 4	100
Action 7b: Alternative 2b (4fish per vessel per day - Private Boats)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	79	Wave 4	81	Wave 4	81	Wave 4	79
2026	NA	NA	Wave 4	84	Wave 4	86	Wave 4	84	Wave 4	82
2027	NA	NA	Wave 4	87	Wave 4	89	Wave 4	87	Wave 4	84
2028	NA	NA	Wave 4	89	Wave 4	91	Wave 4	89	Wave 4	86
2029	NA	NA	Wave 4	91	Wave 4	93	Wave 4	90	Wave 4	88
Action 7b: Alternative 3a (2 fish per vessel per day - For Hire Vessels)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	76	Wave 4	78	Wave 4	78	Wave 4	76
2026	NA	NA	Wave 4	80	Wave 4	82	Wave 4	80	Wave 4	79
2027	NA	NA	Wave 4	82	Wave 4	84	Wave 4	82	Wave 4	80
2028	NA	NA	Wave 4	85	Wave 4	86	Wave 4	84	Wave 4	82
2029	NA	NA	Wave 4	86	Wave 4	88	Wave 4	85	Wave 4	83
Action 7b: Alternative 3b (4 fish per vessel per day - For Hire Vessels)										

Allocation Alternative (Action 5)	Alternative 1: 34.66%		Alternative 2: 35.10%-37.41% *(ACL - 23,675*)*		Alternative 3: 36.60%-38.68% *(ACL - 24,687)*		Alternative 4: 36.60% *(ACL - 24,687*)*		Alternative 5: 35.10% *(ACL - 23,675*)*	
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	Wave 4	74	Wave 4	75	Wave 4	75	Wave 4	74
2026	NA	NA	Wave 4	77	Wave 4	79	Wave 4	78	Wave 4	76
2027	NA	NA	Wave 4	80	Wave 4	81	Wave 4	80	Wave 4	78
2028	NA	NA	Wave 4	82	Wave 4	84	Wave 4	81	Wave 4	80
2029	NA	NA	Wave 4	84	Wave 4	85	Wave 4	83	Wave 4	81

Commercial Trip Limit Analysis

Several commercial trip limit alternatives were proposed to investigate their impact on the original catch limit analysis. Commercial logbook data was obtained from the SEFSC to conduct a trip limit analysis of commercial scamp and yellowmouth harvest. South Atlantic logbook records were filtered to include only records from 2018 to 2022. The distribution of harvest (lbs ww) per trip was investigated to understand the quantity of scamp and yellowmouth grouper harvested per trip over the last 5 years to determine if landings behavior has changed over time (**Figure D.1.2.11**). Overall, the distributions were similar over the last 5 years, but the proportion of trips harvesting 50 lbs of scamp or yellowmouth grouper increased in more recent years. As a result, only the 3 most recent years of data were used to generate a percent reduction associated with each trip limit scenario (**Figure D.1.2.12**).

To investigate the trip limit alternatives, a percent reduction in catch was calculated by determining the proportion of harvest associated with each alternative. If a commercial trip harvested more scamp and yellowmouth grouper than the proposed alternative that value was changed to match the maximum value allowed by the proposed alternative. For example, if a commercial trip record indicated that 375 lbs of scamp and yellowmouth grouper were harvested, for Action 8 – Alternative 3, the trip harvest value was changed to 300 lbs ww instead of 375 lbs ww to match the maximum allowable catch. The final percent reduction was calculated by dividing the harvest from each alternative by the harvest from the No Action alternative (**Table D.1.2.13)**. These reductions were applied to the daily landing rate for each of the commercial trip limit alternatives, with each allocation alternative (Action 5) and the preferred catch limit alternative (Action 4: Alternative 2 – ABC=ACL). The daily landings values were summed cumulatively for the commercial sector and compared to the available ACL. Closures were predicted for most trip limit alternatives proposed, but the most restrictive trip limit alternative (200 lbs ww per trip) allowed for the longest fishing season (**Table D.1.2.14**). Trip limits would potentially reduce harvest levels during the portion of the fishing season when the largest proportion of stock landings occur.

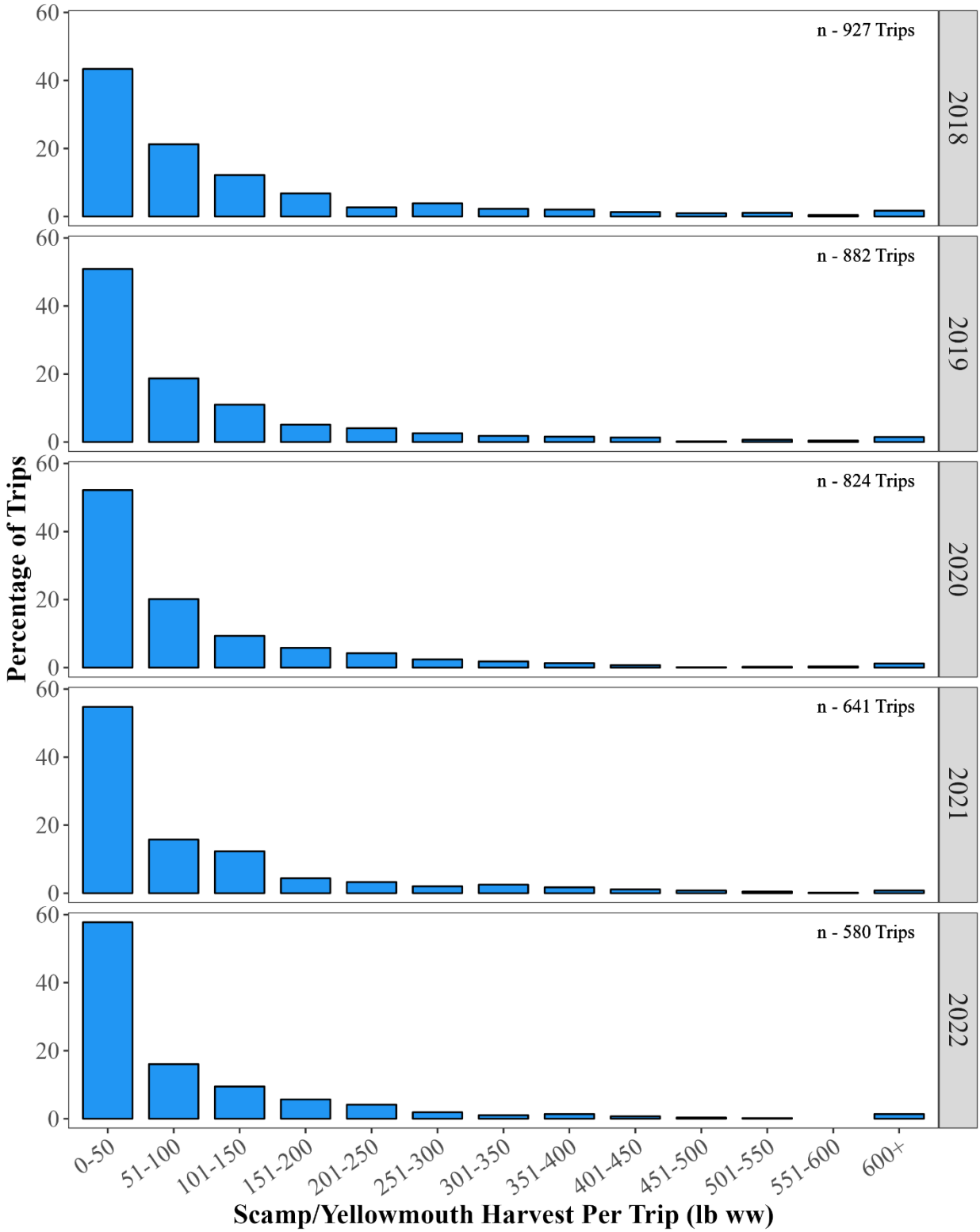

Figure D.1.2.11. Distribution of scamp and yellowmouth grouper trip harvest between 2018 and 2022, in 50 lbs ww bins.

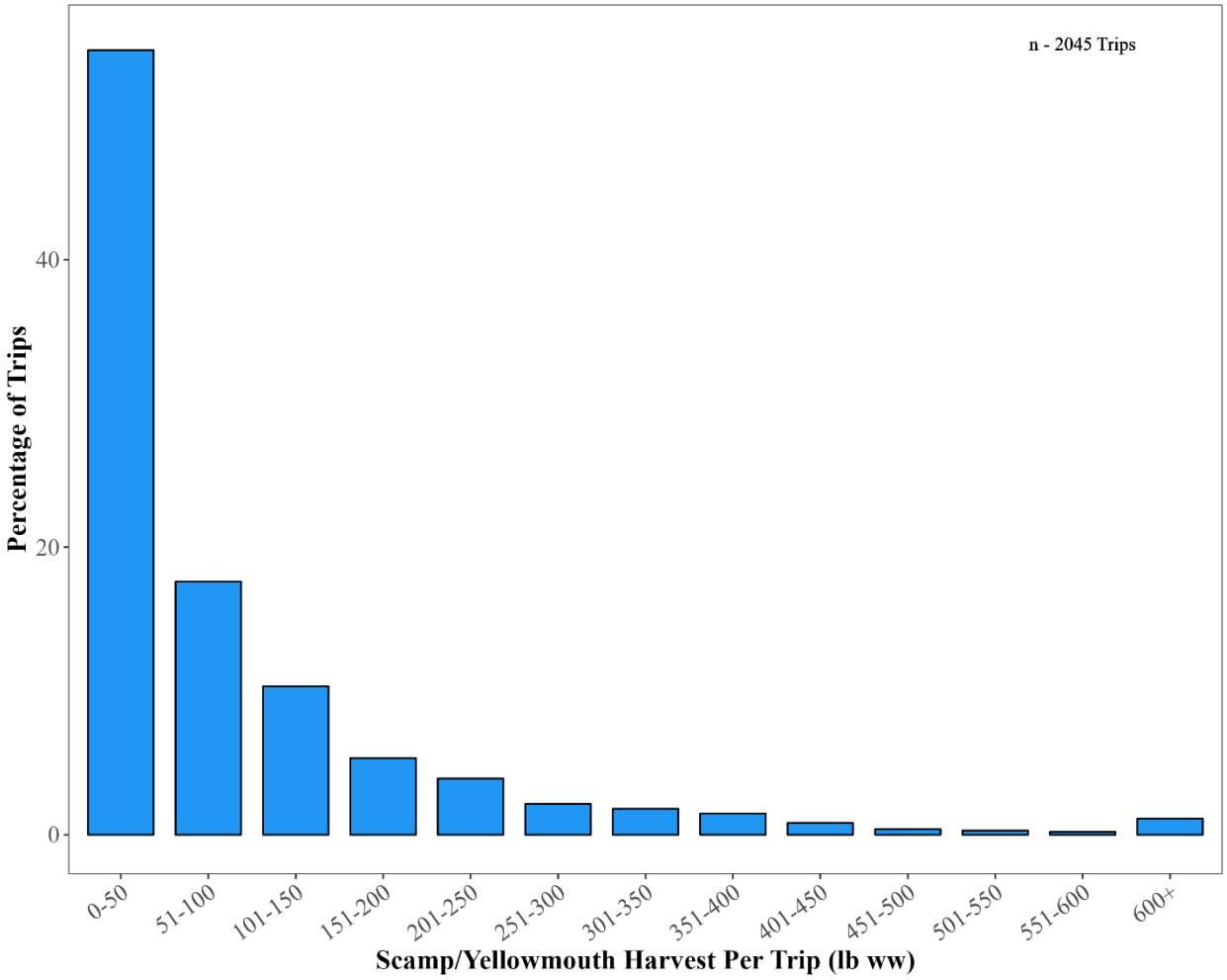

Figure D.1.2.12. Distribution of scamp and yellowmouth grouper trip harvest between 2020 and 2022, all years combined, in 50 lbs ww bins.

Table D.1.2.13. Percent reduction associated with each trip limit alternative associated with the commercial sector.

Alternative	% Reduction
Alternative 1: (No Action)	0.00%
Alternative 2: Establish a 200 lbs ww (169 lbs gw) trip limit	-20.80%
Alternative 3: Establish a 300 lbs ww (254 lbs gw) trip limit	-11.09%
Alternative 4: Establish a 400 lbs ww (340 lbs gw) trip limit	-6.16%
Alternative 5: Establish a 500 lbs ww (424 lbs gw) trip limit	-3.82%

Table D.1.2.14. Predictions for when scamp / yellowmouth grouper ACLs would be met under each allocation alternative (Action 5), the preferred catch level alternative (Action 4: Alternative 2 – ABC=ACL), and each trip limit alternative (Action 8) for the commercial sector. It is assumed that the fishing season is from May 1 to December 31. Dashes in cell represent when the ACL is not anticipated to be met. The year 1 (2025) starting commercial ,ACL (in lbs ww) for the rebuilding period is indicated by a *.

Allocation Alternative (Action 5)	**Alternative 1: No Action**		**Alternative 2: 64.90%-62.59%** *(ACL - 43,775*)*		**Alternative 3: 63.40%-61.32%** *(ACL - 42,763*)*		**Alternative 4: 63.40%** *(ACL - 42,763*)*		**Alternative 5: 64.90%** *(ACL - 43,775*)*	
Action 8: Alternative 1 (No Action - No Commercial Trip Limit)										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	21-Aug	112	18-Aug	109	18-Aug	109	21-Aug	112
2026	NA	NA	29-Aug	120	26-Aug	117	28-Aug	119	31-Aug	122
2027	NA	NA	3-Sep	125	30-Aug	121	3-Sep	125	9-Sep	131
2028	NA	NA	10-Sep	132	5-Sep	127	12-Sep	134	18-Sep	140
2029	NA	NA	15-Sep	137	10-Sep	132	18-Sep	140	24-Sep	146
Action 8: Alternative 2 (Commercial Trip Limit - 200 lbs ww [169 lbs gw])										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	20-Oct	172	9-Oct	161	9-Oct	161	20-Oct	172
2026	NA	NA	3-Dec	216	8-Nov	191	25-Nov	208	16-Dec	229
2027	NA	NA	29-Dec	242	11-Dec	224	29-Dec	242	-	245
2028	NA	NA	-	245	-	245	-	245	-	245
2029	NA	NA	-	245	-	245	-	245	-	245
Action 8: Alternative 3 (Commercial Trip Limit - 300 lbs ww [254 lbs gw])										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	11-Sep	133	6-Sep	128	6-Sep	128	12-Sep	134
2026	NA	NA	25-Sep	147	19-Sep	141	23-Sep	145	29-Sep	151
2027	NA	NA	5-Oct	157	27-Sep	149	5-Oct	157	16-Oct	168
2028	NA	NA	19-Oct	171	9-Oct	161	22-Oct	174	5-Nov	188
2029	NA	NA	28-Oct	180	18-Oct	170	6-Nov	189	3-Dec	216
Action 8: Alternative 4 (Commercial Trip Limit - 400 lbs ww [340 lbs gw])										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	30-Aug	121	27-Aug	118	27-Aug	118	30-Aug	121
2026	NA	NA	11-Sep	133	6-Sep	128	9-Sep	131	15-Sep	137
2027	NA	NA	19-Sep	141	13-Sep	135	19-Sep	141	25-Sep	147
2028	NA	NA	27-Sep	149	21-Sep	143	29-Sep	151	8-Oct	160
2029	NA	NA	3-Oct	155	26-Sep	148	8-Oct	160	19-Oct	171

Allocation Alternative (Action 5)	Alternative 1: No Action		Alternative 2: 64.90%-62.59% *(ACL - 43,775*)*		Alternative 3: 63.40%-61.32% *(ACL - 42,763*)*		Alternative 4: 63.40% *(ACL - 42,763*)*		Alternative 5: 64.90% *(ACL - 43,775*)*	
Action 8: Alternative 5 (Commercial Trip Limit - 500 lb ww [424 lb gw])										
Year	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Approx. Days**	**ACL Met**	**Days**	**ACL Met**	**Approx. Days**
2025	NA	NA	27-Aug	118	23-Aug	114	23-Aug	114	27-Aug	118
2026	NA	NA	5-Sep	127	31-Aug	122	3-Sep	125	9-Sep	131
2027	NA	NA	13-Sep	135	7-Sep	129	13-Sep	135	19-Sep	141
2028	NA	NA	20-Sep	142	15-Sep	137	22-Sep	144	28-Sep	150
2029	NA	NA	25-Sep	147	20-Sep	142	29-Sep	151	8-Oct	160

Literature Cited

SEDAR. 2022. SEDAR 68 South Atlantic Scamp Stock Assessment Report. SEDAR, North Charleston SC. 162 pp. available online at: https://sedarweb.org/assessments/sedar-68/

Appendix E. ~~Allocations Review Trigger Policy~~Essential Fish Habitat and Ecosystem Based Fishery Management

TO BE COMPLETED