Amendment 29 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

SG Advisory Panel Discussion Document

Update to the ABC Control Rule, ABC Adjustments to Unassessed Species, and Management Measures for Gray Triggerfish

Environmental Assessment Regulatory Impact Review Regulatory Flexibility Act Analysis

MARCH 27, 2014

Introduction

1.1 What Actions Are Being Proposed?

Amendment 29 proposes actions to: (1) update the South Atlantic Fishery Management Council's (South Atlantic Council) acceptable biological catch (ABC) control rule to incorporate methodology for determining the ABC of "Only Reliable Catch Species" (ORCS); (2) adjust ABCs for the affected unassessed species; and (3) establish management measures for gray triggerfish in federal waters of the South Atlantic region.

1.2 Who is Proposing the Actions?

The South Atlantic Council is proposing the actions. The South Atlantic Council recommends management measures to the National Marine Fisheries Service (NMFS) who ultimately approves, disapproves, or partially approves, and implements the actions through the development of regulations on behalf of the Secretary of Commerce. NMFS is an agency in the National Oceanic and Atmospheric Administration within the Department of Commerce.

South Atlantic Fishery Management Council

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

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 is conducted under the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP, SAFMC 1983) (**Figure 1.3.1**).

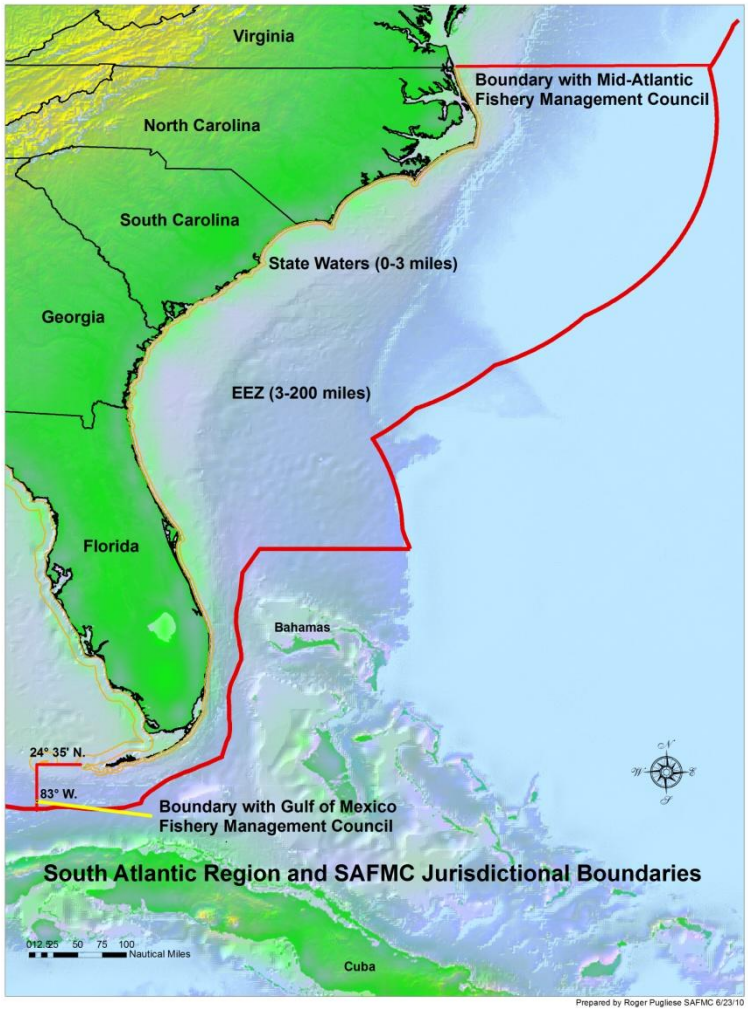

Figure 1.3.1. Jurisdictional boundaries of the South Atlantic Fishery Management Council.

1.4 Purpose and Need

The purpose of the actions is to: update the South Atlantic Fishery Management Council's (South Atlantic Council) acceptable biological catch (ABC) control rule to incorporate methodology for determining the ABC of "Only Reliable Catch Species" (ORCS); adjust ABCs for the affected species; and establish management measures for gray triggerfish in federal waters of the South Atlantic region.

The need for action is to: specify ABCs for snapper grouper species based on the best available scientific information, lengthen the commercial season for gray triggerfish to diminish and/or prevent derby conditions, and ensure that overfishing does not occur pending a new assessment of the gray triggerfish stock in the South Atlantic region.

1.5 What is the History of Management for the species considered in this amendment?

Snapper grouper regulations in the South Atlantic where first implemented in 1983. See **Appendix D** of the amendment document for a detailed history of management for the snapper grouper fishery.

1.6 What is the ORCS Approach?

Based on methodology in *Calculating Acceptable Biological Catch for Stocks That Have Reliable Catch Data Only (Only Reliable Catch Stocks – ORCS)* (Berkson et al. 2011), the South Atlantic Council's SSC recommended an approach to compute the ABC for unassessed stocks with only reliable catch data. The approach involved selection of a "catch statistic", a scalar to denote the risk of overexploitation for the stock, and a scalar to denote the management risk level. The SSC provided the first two criteria for each stock, but the South Atlantic Council must specify their risk tolerance level for each stock.

Catch Statistic: The median was considered inadequate to represent the high fluctuation in landings—i.e., to appropriately capture the range of occasional high landings—and the maximum catch over the period 1999-2007 was chosen instead. The time period was chosen to (1) be consistent with the period of landings used in the Council's Comprehensive ACL Amendment, and (2) to minimize the impact of recent regulations and the economic down turn on the landings time series.

Risk of Overexploitation: Based on SSC consensus and expert judgment each stock is assigned to a final risk of exploitation category. See **Appendix H** of the amendment document for a detailed description of the attributes used to assess the level of risk.

A scalar scheme consistent with the Risk of Overexploitation categories is assigned to stocks as follows:

Risk of Overexploitation	Scalar Value
Low	2
Moderate Low	1.75
Moderate	1.5
Moderate High	1.25

Important Note: Given characteristics specific to South Atlantic stocks, the group agreed that the "catch statistic × scalar" metric developed in this stage of the process may not represent a reliable proxy for the overfishing limit (OFL) and, therefore, would not be called OFL or used as such.

Risk Tolerance Level: The next step in the process involves multiplying the "catch statistic X scalar" metric by a range of scalar values that reflects the South Atlantic Council's risk tolerance level. For instance, the South Atlantic Council may choose to be more risk-averse in computing the ABC for a stock that exhibits a moderately high risk of overexploitation. As such, the South Atlantic Council may use a scalar of 0.50 for such stocks to arrive at more conservative ABC. On the other hand, stocks with low risk of overexploitation and thus able to tolerate a higher level of management risk, may be assigned a less conservative scalar, such as 0.90.

Proposed Actions and Alternatives

2.1 Action 1. Update the South Atlantic Council's Acceptable Biological Catch (ABC) Control Rule

Alternative 1 (No Action). Utilize the South Atlantic Council's ABC control rule as adopted in the Comprehensive Annual Catch Limit (ACL) Amendment to specify ABCs for snapper grouper species.

Table 2.1.1. ABC control rule currently in place. Parenthetical values indicate (1) the maximum adjustment value for a dimension; and (2) the adjustment values for each tier within a dimension.

Level 1 – Assessed Stocks	
Tier	**Tier Classification and Methodology to Compute ABC**
1. Assessment Information (10%)	1. Quantitative assessment provides estimates of exploitation and biomass; includes MSY-derived benchmarks. (0%) 2. Reliable measures of exploitation or biomass; no MSY benchmarks, proxy reference points. (2.5%) 3. Relative measures of exploitation or biomass, absolute measures of status unavailable. Proxy reference points. (5%) 4. Reliable catch history. (7.5%) 5. Scarce or unreliable catch records. (10%)
2. Uncertainty Characterization (10%)	1. Complete. Key Determinant – uncertainty in both assessment inputs and environmental conditions are included. (0%) 2. High. Key Determinant – reflects more than just uncertainty in future recruitment. (2.5%) 3. Medium. Uncertainties are addressed via statistical techniques and sensitivities, but full uncertainty is not carried forward in projections. (5%) 4. Low. Distributions of F_{MSY} and MSY are lacking. (7.5%) 5. None. Only single point estimates; no sensitivities or uncertainty evaluations. (10%)
3. Stock Status (10%)	1. Neither overfished nor overfishing. Stock is at high biomass and low exploitation relative to benchmark values. (0%) 2. Neither overfished nor overfishing. Stock may be in close proximity to benchmark values. (2.5%) 3. Stock is either overfished or overfishing. (5%) 4. Stock is both overfished and overfishing. (7.5%) 5. Either status criterion is unknown. (10%)
4. Productivity and Susceptibility	1. Low risk. High productivity, low vulnerability, low susceptibility. (0%)

– Risk Analysis (10%)	2. Medium risk. Moderate productivity, moderate vulnerability, moderate susceptibility. (5%) 3. High risk. Low productivity, high vulnerability, high susceptibility. (10%)
Level 2 - Unassessed Stocks. Reliable landings and life history information available	
	OFL derived from "Depletion-Based Stock Reduction Analysis" (DBSRA). ABC derived from applying the assessed stocks rule to determine adjustment factor if possible, or from expert judgment if not possible.
Level 3 - Unassessed Stocks. Inadequate data to support DBSRA	
	ABC derived directly, from "Depletion-Corrected Average Catch" (DCAC). Done when only a limited number of years of catch data for a fishery are available. Requires a higher level of "informed expert judgment" than Level 2.
Level 4 - Unassessed Stocks. Inadequate data to support DCAC or DBSRA	
	OFL and ABC derived on a case-by-case basis. ORCS ad hoc group is currentworking on what to do when not enough data exist to perform DCAC. 1. Will catch affect stock? NO: Ecosystem Species (Council largely done this already, ACL amend) YES: GO to 2 2. Will increase (beyond current range of variability) in catch lead to decline or stock concerns? NO: ABC = 3rd highest point in the 1999-2008 time series. YES: Go to 3 3. Is stock part of directed fishery or is it primarily bycatch for other species? Directed: ABC = Median 1999-2008 Bycatch/Incidental: If yes. Go to 4. 4. Bycatch. Must judge the circumstance: If bycatch in other fishery: what are trends in that fishery? what are the regulations? what is the effort outlook? If the directed fishery is increasing and bycatch of stock of concern is also increasing, the Council may need to find a means to reduce interactions or mortality. If that is not feasible, will need to impact the directed fishery. The SSC's intention is to evaluate the situation and provide guidance to the Council on possible catch levels, risk, and actions to consider for bycatch and directed components.

Preferred Alternative 2. Adopt the SSC's recommended approach to determine ABC values for Only Reliable Catch Stocks (ORCS). This approach will become Level 4 of the ABC control rule and the existing Level 4 will be renumbered as Level 5.

Table 2.1.2. ABC control rule proposed under Preferred Alternative 2. Parenthetical values indicate (1) the maximum adjustment value for a dimension; and (2) the adjustment values for each tier within a dimension.

Level 1 – Assessed Stocks	
Tier	**Tier Classification and Methodology to Compute ABC**
1. Assessment Information (10%)	1. Quantitative assessment provides estimates of exploitation and biomass; includes MSY-derived benchmarks. (0%) 2. Reliable measures of exploitation or biomass, no MSY benchmarks, proxy reference points. (2.5%) 3. Relative measures of exploitation or biomass, absolute measures of status unavailable. Proxy reference points. (5%) 4. Reliable catch history. (7.5%) 5. Scarce or unreliable catch records. (10%)
2. Uncertainty Characterization (10%)	1. Complete. Key determinant – uncertainty in both assessment inputs and environmental conditions are included. (0%) 2. High. Key determinant – reflects more than just uncertainty in future recruitment. (2.5%) 3. Medium. Uncertainties are addressed via statistical techniques and sensitivities, but full uncertainty is not carried forward in projections. (5%) 4. Low. Distributions of F_{MSY} and MSY are lacking. (7.5%) 5. None. Only single point estimates; no sensitivities or uncertainty evaluations. (10%)
3. Stock Status (10%)	1. Neither overfished nor overfishing. Stock is at high biomass and low exploitation relative to benchmark values. (0%) 2. Neither overfished nor overfishing. Stock may be in close proximity to benchmark values. (2.5%) 3. Stock is either overfished or overfishing. (5%) 4. Stock is both overfished and overfishing. (7.5%) 5. Either status criterion is unknown. (10%)
4. Productivity and Susceptibility Analysis (10%)	1. Low risk. High productivity, low vulnerability, low susceptibility. (0%) 2. Medium risk. Moderate productivity, moderate vulnerability, moderate susceptibility. (5%) 3. High risk. Low productivity, high vulnerability, high susceptibility. (10%)
Level 2 – Unassessed Stocks. Reliable landings and life history information available	
OFL derived from "Depletion-Based Stock Reduction Analysis" (DBSRA). ABC derived from applying the assessed stocks rule to determine the adjustment factor if possible, or from expert judgment if not possible.	
Level 3 – Unassessed Stocks. Inadequate data to support DBSRA	
ABC derived directly from "Depletion-Corrected Average Catch" (DCAC). Done when only a limited number of years of catch data for a fishery are available. Requires a higher level of "informed expert judgment" than Level 2.	
Level 4 – Unassessed Stocks. Only Reliable Catch Stocks.	
OFL and ABC derived on a case-by-case basis. Apply ORCS approach using a catch statistic, a scalar derived from the risk of overexploitation, and the Council's risk tolerance level.	
Level 5 – Unassessed Stocks. No reliable catch.	

OFL and ABC derived on a case-by-case basis. Stocks with very low landings that show very high variability in catch estimates (mostly caused by the high degree of uncertainty in recreational landings estimates), or stocks that have species identification issues that may cause unreliable landings estimates. Use "decision tree":

1. Will catch affect stock?
   NO: Ecosystem Species (Council done this already, ACL Amend)
   YES: Go to 2

2. Will increase (beyond current range of variability) in catch lead to decline or stock concerns?
   NO: ABC = 3rd highest point in the 1999-2008 time series
   YES: Go to 3

3. Is stock part of directed fishery or is it primarily bycatch for other species?
   Directed: ABC = Median 1999-2008
   Bycatch/Incidental: If yes, go to 4.

4. Bycatch. Must judge the circumstance:
   If bycatch in other fishery: what are trends in that fishery? What are the regulations? What is the effort outlook?

   If the directed fishery is increasing and bycatch of stock of concern is also increasing, the Council may need to find a means to reduce interactions or mortality. If that is not feasible, will need to impact the directed fishery. The SSC's intention is to evaluate the situation and provide guidance to the Council on possible catch levels, risk, and actions to consider for bycatch and directed components.

Two Alternatives Considered

The National Marine Fisheries Service (NMFS) acknowledges there are two alternatives for this action. Section 1502.14(a) of the National Environmental Policy Act (NEPA) states that "agencies shall: rigorously explore and objectively evaluate all reasonable alternatives…" Two reasonable alternatives for this action, including the no action alternative, have been identified by NMFS and the South Atlantic Fishery Management Council (South Atlantic Council). Section 600.305 of the Magnuson-Stevens Fishery Conservation and Management Act states that for stocks and stock complexes required to have an ABC, each Council must establish an ABC control rule based on scientific advice from its Scientific and Statistical Committee (SSC). The ABC control identified in **Alternative 1 (No Action)** was developed by the South Atlantic Council's SSC and implemented through the Comprehensive ACL Amendment (SAFMC 2011c). **Preferred Alternative 2** represents updates to the ABC control rule developed by the South Atlantic Council's SSC. The SSC has provided no other options or modifications to an ABC control rule for South Atlantic Council consideration. Therefore, the South Atlantic Council and NMFS determined it is not reasonable to include additional alternatives for modifications to the ABC control rule.

2.1.1 A Summary of the Effects of the Alternatives

Updating the ABC control rule, as proposed in **Preferred Alternative 2**, would not have any direct biological effects. This change would; however, indirectly benefit the biological environment since an approved scientific methodology would be adopted to establish ABCs for snapper grouper species that have not been assessed but for which there are reliable catch statistics. **Alternative 1 (No Action)** and **Preferred Alternative 2** would have no added beneficial or adverse economic impacts because **Action 1** is an administrative action; however, **Preferred Alternative 2** allows for subsequent action (Action 2) as a result of the selected ABC and associated ACLs that could have beneficial and/or adverse economic impacts beyond the status quo. Because the ACLs for the species that have been designated as "Only Reliable Catch Stocks" (ORCS) would not be adjusted to reflect the new SSC method to specify the ABC for these stocks, including information from fishermen and scientific experts, **Alternative 1 (No Action)** would not result in any social benefits. On the other hand, the proposed ABC control rule under **Preferred Alternative 2** could help to increase some ABCs and associated ACLs, which would be more beneficial to the commercial and for-hire fleets, recreational fishermen, fishing businesses and communities than maintaining the current ABC control rule under **Alternative 1 (No Action)**.

2.2 Action 2. Apply the Revised ABC control rule to select unassessed snapper grouper species

Alternative 1 (No Action). ABCs for select unassessed snapper grouper species are based on the current ABC Control Rule.

Preferred Alternative 2. Assign a risk tolerance scalar to stocks deemed by the SSC to be under low risk of overexploitation (scalar = 2):

Sub-alternative 2a. Apply a risk tolerance scalar of 0.75

Stock	Catch Statistic (Highest landings 1999-2007)	Risk of Overexploitation Scalar	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)	Difference in ABC
Bar Jack	34,583	2	0.75	51,875	24,780	+27,095

Preferred Sub-alternative 2b. Apply a risk tolerance scalar of 0.90

Stock	Catch Statistic (Highest landings 1999-2007)	Risk of Overexploitation Scalar	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)	Difference in ABC
Bar Jack	34,583	2	0.90	62,249	24,780	+37,469

Preferred Alternative 3. Assign a risk tolerance scalar to stocks deemed by the SSC to be under moderate risk of overexploitation (scalar = 1.5):

Sub-alternative 3a. Apply a risk tolerance scalar of 0.75

Stock	Catch Statistic (Highest landings 1999-2007)	Risk of Overexploitation Scalar	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)	Difference in ABC
Margate	63,993	1.5	0.75	71,992	29,889	+42,103
Red Hind	27,570	1.5	0.75	31,016	24,867	+6,149
Cubera Snapper	52,721	1.5	0.75	59,311	24,680	+34,631
Yellowedge Grouper	46,330	1.5	0.75	52,121	30,221	+21,900
Silk Snapper	75,269	1.5	0.75	84,678	25,104	+59,574
Atlantic Spadefish	677,065	1.5	0.75	761,698	189,460	+572,238
Gray Snapper	1,039,277	1.5	0.75	1,169,187	795,743	+373,444
Lane Snapper	169,572	1.5	0.75	190,769	119,984	+70,785

Preferred Sub-alternative 3b. Apply a risk tolerance scalar of 0.80

Stock	Catch Statistic (Highest landings 1999-2007)	Risk of Overexploitation Scalar	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)	Difference in ABC
Margate	63,993	1.5	0.80	76,792	29,889	+46,903
Red Hind	27,570	1.5	0.80	33,084	24,867	+8,217
Cubera Snapper	52,721	1.5	0.80	63,265	24,680	+38,585
Yellowedge Grouper	46,330	1.5	0.80	55,596	30,221	+25,375
Silk Snapper	75,269	1.5	0.80	90,323	25,104	+65,219
Atlantic Spadefish	677,065	1.5	0.80	812,478	189,460	+623,018
Gray Snapper	1,039,277	1.5	0.80	1,247,132	795,743	+451,389
Lane Snapper	169,572	1.5	0.80	203,486	119,984	+83,502

Preferred Alternative 4. Assign a risk tolerance scalar to stocks deemed by the SSC to be under moderately high risk of overexploitation (scalar = 1.25):

Preferred Sub-alternative 4a. Apply a risk tolerance scalar of 0.70

Stock	Catch Statistic (Highest landings 1999-2007)	Risk of Overexploitation Scalar	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)	Difference in ABC
Rock Hind	42,849	1.25	0.70	37,493	37,953	-460
Tomtate	105,909	1.25	0.70	92,670	80,056	+12,614
White Grunt	735,873	1.25	0.70	643,889	674,033	-30,144
Scamp	596,879	1.25	0.70	522,269	509,788	+12,481
Gray Triggerfish	819,428	1.25	0.70	717,000	626,518	+90,482

Sub-alternative 4b. Apply a risk tolerance scalar of 0.75

Stock	Catch Statistic (Highest landings 1999-2007)	Risk of Overexploitation Scalar	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)	Difference of ABC
Rock Hind	42,849	1.25	0.75	40,171	37,953	+2,218
Tomtate	105,909	1.25	0.75	99,290	80,056	+19,234
White Grunt	735,873	1.25	0.75	689,881	674,033	+15,848
Scamp	596,879	1.25	0.75	559,574	509,788	+49,786
Gray Triggerfish	819,428	1.25	0.75	768,214	626,518	+141,696

Sub-alternative 4c. Apply a risk tolerance scalar of 0.50

Stock	Catch Statistic (Highest landings 1999-2007)	Risk of Overexploitation Scalar	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)	Difference in ABC
Rock Hind	42,849	1.25	0.50	26,781	37,953	-11,172
Tomtate	105,909	1.25	0.50	66,193	80,056	-13,863
White Grunt	735,873	1.25	0.50	459,921	674,033	-214,112
Scamp	596,879	1.25	0.50	373,049	509,788	-136,739
Gray Triggerfish	819,428	1.25	0.50	512,143	626,518	-114,375

2.2.1 A Summary of the Effects of the Alternatives

An increase in harvest can have a negative biological impact on a species if harvest is not maintained at sustainable levels. However, all of the acceptable biological catch (ABC) sub-alternatives under this action were developed by the South Atlantic Council's SSC's ORCS approach and would not be expected to cause overfishing and result in negative biological impacts. There is uncertainty involved in the selection of the risk of overexploitation scalar (determined by the SSC) and the selection of the risk tolerance scalar (which would be selected by the South Atlantic Council under this action). If the South Atlantic Council selects the risk tolerance scalar to achieve the most conservative values of ABC, biological impacts would be minimized. However, while conservative ABCs may provide the greatest biological benefit to the species, higher ABCs would not be expected to negatively impact the stock as long as harvest is maintained at sustainable levels and overfishing does not occur. Furthermore, harvest for most species listed under the sub-alternatives is currently not constrained by the ACLs. If harvest continues to be less than the ACLs resulting from the proposed ABCs for sub-alternatives, biological effects would be expected to be minimal.

The proposed changes would not result in any economic impacts to either the commercial or recreational sectors for the majority of the target species. Economic benefits could potentially be realized for the recreational sector due to the proposed increase in the ACL of Atlantic spadefish and the Deepwater Complex (due to increases in the ACLs for yellowedge grouper and silk snapper). The commercial sector could potentially see economic benefits from increases in the ACLs for the Deepwater Complex. However, the South Atlantic Council is developing an amendment, which could change the composition of the Deepwater Complex through the removal of blueline tilefish, which comprises most of the landings in the complex. Because the ACLs (commercial or recreational) for most of the species have not recently been met or exceeded, the increases in the ABC under **Sub-alternatives 2a, Preferred 2b, 3a, Preferred 3b, 3c, Preferred 4a,** and **4b** are not expected to affect commercial and recreational fishermen harvesting these species. The lower ABCs expected under **Sub-alternative 4c** could impact some fisheries if harvest increases in the future. ABC alternatives that result in higher ACLs for species could slightly reduce administrative burdens because they likelihood of triggering AMs would be reduced. Conversely, alternatives that result in a decreased ACL could increase the administrative burden because it would be more likely that AMs would be triggered and action would be needed to ensure overfishing did not occur. Administrative burdens also may result from revising the values under **Alternatives 2**, **3**, and **4**, and associated sub-alternatives would take the form of development and dissemination of outreach and education materials for fishery participants and law enforcement. ACLs and recreational annual catch targets (ACTs) resulting from proposed changes in ABCs under **Alternatives 2-4** are provided in Action 3. Some species in Action 2 are contained within a complex and do not have sector ACLs or recreational ACTs at the species level.

2.3 Action 3. Establish ACLs for select unassessed snapper grouper species

Alternative 1 (No Action). ACL=OY=Current ABC
Alternative 2. ACL=OY=Proposed ABC
Alternative 3. ACL=OY=0.95*Proposed ABC
Alternative 4. ACL=OY=0.90*Proposed ABC
Alternative 5. ACL=OY=0.80*Proposed ABC

NOTE: Highlighted language above suggested by the IPT for clarification purposes. Council needs to approve in June 2014.

This amendment would change the ABC for 14 species but the ACLs would only be changed for 4 species complexes and 4 species (8 ACLs total). 10 of the species being considered in the amendment do not have individual ACLs and are contained in species complexes.

Table 2.3.1. Current commercial and recreational ACLs and recreational ACT for unassessed species in the Snapper Grouper FMU.

Species or Complex	Comm ACL	Rec ACL	Rec ACT
Deepwater Complex(a)	376,469	334,556	197,100
Snappers Complex(b)	215,662	728,577	624,197
Grunts Complex (c)	218,539	588,113	442,970
SWG Complex (d)	49,776	46,656	23,595
Bar Jack	5,265	19,515	9,758
Atlantic Spadefish	35,108	154,352	96,470
Scamp	333,100	176,688	94,316
Gray Triggerfish	272,880	353,638	284,325

(a) Deepwater Complex: **Yellowedge grouper**, blueline tilefish, **silk snapper**, misty grouper, queen snapper, sand tilefish, black snapper, blackfin snapper
(b) Snappers: **Gray snapper, lane snapper, cubera snapper**, dog, mahogany
(c) Grunts: **White grunt, margate**, sailor's choice, **tomtate**
(d) Shallow Water Grouper: **Red hind, rock hind**, coney, graysby, yellowfin grouper, yellowmouth grouper

Table 2.3.2. Proposed commercial and recreational ACLs and recreational ACT for unassessed snapper grouper species based on preferred alternatives in Action 2 and **Alternative 2 (ACL=OY=Proposed ABC)** under this action. Cells highlighted in orange represent changes in ACLs based on preferred alternative in Action 2. Cells highlighted in yellow represent changes in ACLs based on alternatives in Action 2 that were not selected as preferred.

Species or Complex	**Action 2, All Preferred Alts Preferred Sub-Alt 2b, 3b, 4a**			Action 2, Sub-Alt 2a			**Action 2, Sub-Alt 2b (Preferred)**			Action 2, Sub-Alt 3a			**Action 2, Sub-Alt 3b (Preferred)**		
	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT
Deepwater Complex (a)	447,733	353,886	200,576	376,469	334,556	197,100	376,469	334,556	197,100	440,404	352,095	200,068	447,733	353,886	200,576
Snappers Complex (b)	344,884	1,172,832	984,898	215,662	728,577	624,197	215,662	728,577	624,197	323,348	1,099,752	923,453	344,884	1,172,832	984,898
Grunts Complex (c)	217,903	618,122	455,962	218,539	588,113	442,970	218,539	588,113	442,970	275,112	727,468	461,474	276,019	731,362	463,584
SWG Complex (d)	55,542	48,648	20,542	49,776	46,656	23,595	49,776	46,656	23,595	54,301	48,281	22,170	55,823	48,826	22,294
Bar Jack	13,228	49,021	11,912	11,023	40,852	9,927	13,228	49,021	11,912	5,265	19,515	9,758	5,265	19,515	9,758
Atlantic Spadefish	150,552	661,926	413,704	35,108	154,352	96,470	35,108	154,352	96,470	141,143	620,555	387,847	150,552	661,926	413,704
Scamp	341,251	181,018	103,530	333,100	176,688	94,316	333,100	176,688	94,316	333,100	176,688	94,316	333,100	176,688	94,316
Gray Triggerfish	312,325	404,675	325,359	272,880	353,638	284,325	272,880	353,638	284,325	272,880	353,638	284,325	272,880	353,638	284,325

(a) Deepwater Complex: **Yellowedge grouper**, blueline tilefish, **silk snapper**, misty grouper, queen snapper, sand tilefish, black snapper, blackfin snapper
(b) Snappers: **Gray snapper, lane snapper, cubera snapper**, dog, mahogany
(c) Grunts: **White grunt, margate**, sailor's choice, **tomtate**
(d) Shallow Water Grouper: **Red hind, rock hind**, coney, graysby, yellowfin grouper, yellowmouth grouper

Table 2.3.2. Continued.

Species or Complex	**Action 2, Sub-Alt 4a (Preferred)**			Action 2, Sub-Alt 4b			Action 2, Sub-Alt 4c		
	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT
Deepwater Complex (a)	376,469	334,556	197,100	376,469	334,556	197,100	376,469	334,556	197,100
Snappers Complex (b)	215,662	728,577	624,197	215,662	728,577	624,197	215,662	728,577	624,197
Grunts Complex (c)	209,047	580,074	435,348	223,576	618,158	464,674	150,932	427,745	318,049
SWG Complex (d)	49,495	46,477	21,843	51,126	47,525	22,248	42,971	47,525	20,224
Bar Jack	5,265	19,515	9,758	5,265	19,515	9,758	5,265	19,515	9,758
Atlantic Spadefish	35,108	154,352	96,470	35,108	154,352	96,470	35,108	154,352	96,470
Scamp	341,251	181,018	96,628	365,626	193,948	103,530	243,750	129,299	69,020
GrayTriggerfish	312,325	404,675	435,348	334,634	433,580	464,674	223,089	289,054	232,399

(a) Deepwater Complex: **Yellowedge grouper**, blueline tilefish, **silk snapper**, misty grouper, queen snapper, sand tilefish, black snapper, blackfin snapper
(b) Snappers: **Gray snapper, lane snapper, cubera snapper**, dog, mahogany
(c) Grunts: **White grunt, margate**, sailor's choice, **tomtate**
(d) Shallow Water Grouper: **Red hind, rock hind**, coney, graysby, yellowfin grouper, yellowmouth grouper

Table 2.3.3. Proposed commercial and recreational ACLs and recreational ACT for unassessed snapper grouper species based on **Alternative 3 (ACL=OY=0.95*Proposed ABC)**. Cells highlighted in orange represent changes in ACLs based on preferred alternative in Action 2. Cells highlighted in yellow represent changes in ACLs based on alternatives in Action 2 that were not selected as preferred.

Species or Complex	**Action 2, All Preferred Alts Preferred Sub-Alt 2b, 3b, 4a**			Action 2, Sub-Alt 2a			**Action 2, Sub-Alt 2b (Preferred)**			Action 2, Sub-Alt 3a			**Action 2, Sub-Alt 3b (Preferred)**		
	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT
Deepwater Complex (a)	441,870	352,453	200,169	376,469	334,556	197,100	376,469	334,556	197,100	434,908	350,751	199,686	441,870	352,453	200,169
Snappers Complex (b)	327,655	1,114,367	935,742	215,662	728,577	624,197	215,662	728,577	624,197	307,196	1,044,941	877,369	327,655	1,114,367	935,742
Grunts Complex (c)	207,008	588,350	433,747	218,539	588,113	442,970	218,539	588,113	442,970	274,433	724,548	109,746	275,294	728,247	461,896
SWG Complex (d)	53,183	47,478	20,160	49,776	46,656	23,595	49,776	46,656	23,595	53,159	47,871	22,077	54,605	48,390	22,195
Bar Jack	12,567	46,570	11,912	10,472	38,809	9,431	12,567	46,570	11,912	5,265	19,515	9,758	5,265	19,515	9,758
Atlantic Spadefish	143,025	628,830	393,018	35,108	154,352	96,470	35,108	154,352	96,470	134,086	589,528	368,455	143,025	628,830	393,018
Scamp	324,188	171,968	91,796	333,100	176,688	94,316	333,100	176,688	94,316	333,100	176,688	94,316	333,100	176,688	94,316
Gray Triggerfish	296,709	384,441	309,091	272,880	353,638	284,325	272,880	353,638	284,325	272,880	353,638	284,325	272,880	353,638	284,325

(a) Deepwater Complex: **Yellowedge grouper**, blueline tilefish, **silk snapper**, misty grouper, queen snapper, sand tilefish, black snapper, blackfin snapper
(b) Snappers: **Gray snapper, lane snapper, cubera snapper**, dog, mahogany
(c) Grunts: **White grunt, margate**, sailor's choice, **tomtate**
(d) Shallow Water Grouper: **Red hind, rock hind**, coney, graysby, yellowfin grouper, yellowmouth grouper

Table 2.3.3. Continued.

Species or Complex	**Action 2, Sub-Alt 4a (Preferred)**			Action 2, Sub-Alt 4b			Action 2, Sub-Alt 4c		
	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT
Deepwater Complex (a)	376,469	334,556	197,100	376,469	334,556	197,100	376,469	334,556	197,100
Snappers Complex (b)	215,662	728,577	624,197	215,662	728,577	624,197	215,662	728,577	624,197
Grunts Complex (c)	198,877	553,417	414,821	212,680	589,596	442,680	143,667	408,704	303,387
SWG Complex (d)	48,353	45,745	21,560	49,902	46,739	21,945	42,156	41,766	20,022
Bar Jack	5,265	19,515	9,758	5,265	19,515	9,758	5,265	19,515	9,758
Atlantic Spadefish	35,108	154,352	96,470	35,108	154,352	96,470	35,108	154,352	96,470
Scamp	324,188	171,968	91,796	347,344	184,251	98,353	231,563	122,834	220,779
Gray Triggerfish	296,709	384,441	309,091	317,902	411,901	331,168	211,935	274,601	303,387

(a) Deepwater Complex: **Yellowedge grouper**, blueline tilefish, **silk snapper**, misty grouper, queen snapper, sand tilefish, black snapper, blackfin snapper
(b) Snappers: **Gray snapper, lane snapper, cubera snapper**, dog, mahogany
(c) Grunts: **White grunt, margate**, sailor's choice, **tomtate**
(d) Shallow Water Grouper: **Red hind, rock hind**, coney, graysby, yellowfin grouper, yellowmouth grouper

Table 2.3.4. Proposed commercial and recreational ACLs and recreational ACT for unassessed snapper grouper species based on **Alternative 4 (ACL=OY=0.90*Proposed ABC)**. Cells highlighted in orange represent changes in ACLs based on preferred alternative in Action 2. Cells highlighted in yellow represent changes in ACLs based on alternatives in Action 2 that were not selected as preferred.

Species or Complex	**Action 2, All Preferred Alts Preferred Sub-Alt 2b, 3b, 4a**			Action 2, Sub-Alt 2a			**Action 2, Sub-Alt 2b (Preferred)**			Action 2, Sub-Alt 3a			**Action 2, Sub-Alt 3b (Preferred)**		
	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT
Deepwater Complex (a)	436,007	351,020	199,762	376,469	334,556	197,100	376,469	334,556	197,100	429,411	349,408	199,304	436,007	351,020	199,762
Snappers Complex (b)	310,426	1,055,902	199,762	215,662	728,577	624,197	215,662	728,577	624,197	291,044	990,129	831,284	310,426	1,055,902	885,131
Grunts Complex (c)	196,113	558,577	411,532	218,539	588,113	442,970	218,539	588,113	442,970	273,753	721,628	108,164	274,569	725,132	460,209
SWG Complex (d)	50,823	46,309	19,778	49,776	46,656	23,595	49,776	46,656	23,595	52,018	47,462	21,984	53,388	47,953	22,096
Bar Jack	11,905	44,119	11,317	9,921	36,766	8,934	11,905	44,119	10,721	5,265	19,515	9,758	5,265	19,515	9,758
Atlantic Spadefish	135,497	595,733	372,333	35,108	154,352	96,470	35,108	154,352	96,470	127,028	558,500	349,062	135,497	595,733	372,333
Scamp	329,063	174,554	93,177	333,100	176,688	94,316	333,100	176,688	94,316	333,100	176,688	94,316	333,100	176,688	94,316
Gray Triggerfish	281,093	364,207	292,823	272,880	353,638	284,325	272,880	353,638	284,325	272,880	353,638	284,325	272,880	353,638	284,325

(a) Deepwater Complex: **Yellowedge grouper**, blueline tilefish, **silk snapper**, misty grouper, queen snapper, sand tilefish, black snapper, blackfin snapper
(b) Snappers: **Gray snapper, lane snapper, cubera snapper**, dog, mahogany
(c) Grunts: **White grunt, margate**, sailor's choice, **tomtate**
(d) Shallow Water Grouper: **Red hind, rock hind**, coney, graysby, yellowfin grouper, yellowmouth grouper

Table 2.3.4. Continued.

Species or Complex	**Action 2, Sub-Alt 4a (Preferred)**			Action 2, Sub-Alt 4b			Action 2, Sub-Alt 4c		
	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT
Deepwater Complex (a)	376,469	334,556	197,100	376,469	334,556	197,100	376,469	334,556	197,100
Snappers Complex (b)	215,662	728,577	624,197	215,662	728,577	624,197	215,662	728,577	624,197
Grunts Complex (c)	188,707	526,759	394,293	201,783	561,034	62,118	136,403	389,662	288,724
SWG Complex (d)	47,211	45,012	21,277	48,679	45,954	209,159	41,340	41,242	19,819
Bar Jack	5,265	19,515	9,758	5,265	19,515	9,758	5,265	19,515	9,758
Atlantic Spadefish	35,108	154,352	96,470	35,108	154,352	96,470	35,108	154,352	96,470
Scamp	307,126	162,917	86,965	329,063	174,554	62,118	219,375	116,369	209,159
Gray Triggerfish	281,093	364,207	292,823	301,171	390,222	209,159	200,781	260,148	288,724

(a) Deepwater Complex: **Yellowedge grouper**, blueline tilefish, **silk snapper**, misty grouper, queen snapper, sand tilefish, black snapper, blackfin snapper
(b) Snappers: **Gray snapper, lane snapper, cubera snapper**, dog, mahogany
(c) Grunts: **White grunt, margate**, sailor's choice, **tomtate**
(d) Shallow Water Grouper: **Red hind, rock hind**, coney, graysby, yellowfin grouper, yellowmouth grouper

Table 2.3.5. Proposed commercial and recreational ACLs and recreational ACT for unassessed snapper grouper species based on **Alternative 5 (ACL=OY=0.80*Proposed ABC)**. Cells highlighted in orange represent changes in ACLs based on preferred alternative in Action 2. Cells highlighted in yellow represent changes in ACLs based on alternatives in Action 2 that were not selected as preferred.

Species or Complex	**Action 2, All Preferred Alts Preferred Sub-Alt 2b, 3b, 4a**			Action 2, Sub-Alt 2a			**Action 2, Sub-Alt 2b (Preferred)**			Action 2, Sub-Alt 3a			**Action 2, Sub-Alt 3b (Preferred)**		
	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT
Deepwater Complex (a)	424,281	348,154	198,948	376,469	334,556	197,100	376,469	334,556	197,100	418,418	346,721	198,541	424,281	348,154	198,948
Snappers Complex (b)	275,969	938,971	938,971	215,662	728,577	624,197	215,662	728,577	624,197	258,740	880,507	739,115	275,969	938,971	788,271
Grunts Complex (c)	174,322	499,032	367,102	218,539	588,113	442,970	218,539	588,113	442,970	272,394	715,788	455,146	273,119	718,903	456,834
SWG Complex (d)	46,105	43,969	19,013	49,776	46,656	23,595	49,776	46,656	23,595	49,735	46,643	21,799	50,953	47,080	21,898
Bar Jack	10,582	39,217	9,530	8,819	32,681	7,942	10,582	39,217	9,530	5,265	19,515	9,758	5,265	19,515	9,758
Atlantic Spadefish	120,442	529,541	330,963	35,108	154,352	96,470	35,108	154,352	96,470	112,914	496,444	310,278	120,442	529,541	330,963
Scamp	292,501	155,159	82,824	333,100	176,688	94,316	333,100	176,688	94,316	333,100	176,688	94,316	333,100	176,688	94,316
Gray Triggerfish	249,860	323,740	260,287	272,880	353,638	284,325	272,880	353,638	284,325	272,880	353,638	284,325	272,880	353,638	284,325

(a) Deepwater Complex: **Yellowedge grouper**, blueline tilefish, **silk snapper**, misty grouper, queen snapper, sand tilefish, black snapper, blackfin snapper
(b) Snappers: **Gray snapper, lane snapper, cubera snapper**, dog, mahogany
(c) Grunts: **White grunt, margate**, sailor's choice, **tomtate**
(d) Shallow Water Grouper: **Red hind, rock hind**, coney, graysby, yellowfin grouper, yellowmouth grouper

Table 2.3.5. Continued.

Species or Complex	**Action 2, Sub-Alt 4a (Preferred)**			Action 2, Sub-Alt 4b			Action 2, Sub-Alt 4c		
	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT	Comm ACL	Rec ACL	Rec ACT
Deepwater Complex (a)	376,469	334,556	197,100	376,469	334,556	197,100	376,469	334,556	197,100
Snappers Complex (b)	215,662	728,577	624,197	215,662	728,577	624,197	215,662	728,577	624,197
Grunts Complex (c)	168,366	473,444	353,239	179,990	503,910	376,699	121,874	351,580	259,399
SWG Complex (d)	189,385	458,341	344,615	46,233	44,383	21,034	39,709	40,195	19,415
Bar Jack	5,265	19,515	9,758	5,265	19,515	9,758	5,265	19,515	9,758
Atlantic Spadefish	35,108	154,352	96,470	35,108	154,352	96,470	35,108	154,352	96,470
Scamp	273,000	144,815	77,302	292,501	155,159	82,824	195,000	103,439	55,216
Gray Triggerfish	249,860	323,740	260,287	267,707	346,864	278,879	178,472	231,243	185,919

(a) Deepwater Complex: **Yellowedge grouper**, blueline tilefish, **silk snapper**, misty grouper, queen snapper, sand tilefish, black snapper, blackfin snapper
(b) Snappers: **Gray snapper, lane snapper, cubera snapper**, dog, mahogany
(c) Grunts: **White grunt, margate**, sailor's choice, **tomtate**
(d) Shallow Water Grouper: **Red hind, rock hind**, coney, graysby, yellowfin grouper, yellowmouth grouper

Table 2.3.6. Existing commercial and recreational allocations for species with proposed changes in ABC. Average percent standard error (PSE) from MRIP for 2005-2009.

Species	**Allocations**		**PSE**
	Comm	**Rec**	
Yellowedge grouper	90.77%	9.23%	85.67
Silk Snapper	73.95%	26.05%	68.52
Gray snapper	24.23%	75.77%	11.36
Lane snapper	14.75%	85.25%	23.66
Cubera snapper	19.57%	80.43%	74.25
White grunt	31.59%	68.41%	21.22
Tomtate	0.00%	100.00%	31.44
Margate	18.88%	81.12%	45.82
Red hind	73.60%	26.40%	77.32
Rock hind	60.90%	39.10%	61.34

Table 2.3.7. Stock or stock complex commercial and recreational ACLs for alternatives in Action 3 based on preferred alternatives in Action 2. Highlighted cells indicate stock complex or stock that has proposed ACL change.

STOCK OR STOCK COMPLEX NAME	Alt 1 (No Action)		Alt 2 ACL=OY=ABC		Alt 3 ACL=OY=95%ABC		Alt 4 ACL=OY=90%ABC		Alt 5 ACL=OY=80%ABC	
	Comm	Rec	Comm	Rec	Comm	Rec	Comm	Rec	Com	Rec
DEEPWATER	376,469	334,556	447,733	353,886	441,870	352,453	436,007	351,020	424,281	348,154
Yellowedge grouper	27,431	2,790	50,464	5,132	47,941	4,875	45,418	4,618	40,372	4,105
Blueline tilefish	316,098	315,243	316,098	315,243	316,098	315,243	316,098	315,243	316,098	315,243
Silk Snapper	18,564	6,541	66,794	23,529	63,454	22,353	60,114	21,176	53,435	18,823
Misty grouper	2,388	475	2,388	475	2,388	475	2,388	475	2,388	475
Sand tilefish	1,770	6,213	1,770	6,213	1,770	6,213	1,770	6,213	1,770	6,213
Queen snapper	8,756	710	8,756	710	8,756	710	8,756	710	8,756	710
Black snapper	366	16	366	16	366	16	366	16	366	16
Blackfin snapper	1,096	2,569	1,096	2,569	1,096	2,569	1,096	2,569	1,096	2,569
SNAPPERS	215,662	728,577	344,884	1,172,832	327,655	1,114,367	310,426	1,055,902	275,969	938,971
Gray snapper	192,830	602,913	302,180	944,952	287,071	897,704	271,962	850,457	241,744	755,962
Lane snapper	17,695	102,289	30,014	173,472	28,513	164,798	27,013	156,125	24,011	138,777
Cubera snapper	4,829	19,851	12,381	50,884	11,762	48,340	11,143	45,796	9,905	40,707
Dog snapper	273	3,012	273	3,012	273	3,012	273	3,012	273	3,012
Mahogany snapper	36	512	36	512	36	512	36	512	36	512
GRUNTS	218,539	588,113	217,903	618,122	207,008	588,350	196,113	558,577	174,322	499,032
White grunt	212,896	461,136	203,405	440,484	193,234	418,460	183,064	396,436	162,724	352,388
Sailors choice	0	22,674	0	22,674	0	22,674	0	22,674	0	22,674
Tomtate	0	80,056	0	92,670	0	88,037	0	83,403	0	74,136
Margate	5,643	24,246	14,498	62,294	13,773	59,179	13,048	56,064	11,599	49,835
SHALLOW WATER GROUPERS	49,776	46,656	55,542	48,648	53,183	47,478	50,823	46,309	46,105	43,969

STOCK OR STOCK COMPLEX NAME	Alt 1 (No Action)		Alt 2 ACL=OY=ABC		Alt 3 ACL=OY=95%ABC		Alt 4 ACL=OY=90%ABC		Alt 5 ACL=OY=80%ABC	
	Comm	Rec	Comm	Rec	Comm	Rec	Comm	Rec	Com	Rec
Red hind	18,303	6,564	24,350	8,734	23,132	8,297	21,915	7,861	19,480	6,987
Rock hind	23,115	14,838	22,833	14,660	21,692	13,927	20,550	13,194	18,267	11,728
Yellowmouth grouper	44	3,995	44	3,995	44	3,995	44	3,995	44	3,995
Yellowfin grouper	4,879	4,379	4,879	4,379	4,879	4,379	4,879	4,379	4,879	4,379
Coney	665	2,053	665	2,053	665	2,053	665	2,053	665	2,053
Graysby	2,771	14,827	2,771	14,827	2,771	14,827	2,771	14,827	2,771	14,827
INDIVIDUAL STOCKS										
Atlantic spadefish	35,108	154,352	150,552	661,926	143,025	628,830	135,497	595,733	120,442	529,541
Bar jack	5,265	19,515	11,023	40,852	12,567	46,570	11,905	44,119	10,582	39,217
Gray triggerfish	272,880	353,638	312,325	404,675	296,709	384,441	281,093	364,207	249,860	323,740
Scamp	333,100	176,688	341,251	181,018	324,188	171,968	307,126	162,917	273,000	144,815

Table 2.3.8. Stock or stock complex differences in commercial and recreational for ACLs for alternatives in Action 3 based on preferred alternatives in Action 2. Highlighted cells indicate stock complex or stock that has proposed ACL change.

STOCK OR STOCK COMPLEX NAME	Alt 1 (No Action)		Alt 2 ACL=OY=ABC		Alt 3 ACL=OY=95%ABC		Alt 4 ACL=OY=90%ABC		Alt 5 ACL=OY=80%ABC	
	Comm	Rec	Diff Comm	Diff Rec	Diff Comm	Diff Rec	Diff Comm	Diff Rec	Diff Comm	Diff Rec
DEEPWATER	376,469	334,556	71,264	19,330	65,401	17,897	59,538	16,464	47,812	13,598
Yellowedge grouper	27,431	2,790	23,034	2,342	20,511	2,085	17,987	1,829	12,941	1,315
Blueline tilefish	316,098	315,243	0	0	0	0	0	0	0	0
Silk Snapper	18,564	6,541	48,230	16,988	44,891	15,812	41,551	14,635	34,871	12,282
Misty grouper	2,388	475	0	0	0	0	0	0	0	0
Sand tilefish	1,770	6,213	0	0	0	0	0	0	0	0
Queen snapper	8,756	710	0	0	0	0	0	0	0	0
Black snapper	366	16	0	0	0	0	0	0	0	0
Blackfin snapper	1,096	2,569	0	0	0	0	0	0	0	0
SNAPPERS	215,662	728,577	129,221	444,255	111,993	385,790	94,764	327,324	60,306	210,394
Gray snapper	192,830	602,913	109,350	342,039	94,241	294,791	79,132	247,543	48,914	153,048
Lane snapper	17,695	102,289	12,319	71,183	10,819	62,509	9,318	53,836	6,316	36,489
Cubera snapper	4,829	19,851	7,552	31,034	6,933	28,489	6,314	25,945	5,076	20,857
Dog snapper	273	3,012	0	0	0	0	0	0	0	0
Mahogany snapper	36	512	0	0	0	0	0	0	0	0
GRUNTS	218,539	588,113	-636	30,009	-11,531	237	-22,426	-29,535	-44,217	-89,080
White grunt	212,896	461,136	-9,492	-20,652	-19,662	-42,676	-29,832	-64,700	-50,173	-108,749
Sailors choice	0	22,674	0	0	0	0	0	0	0	0
Tomtate	0	80,056	0	12,614	0	7,980	0	3,347	0	-5,920
Margate	5,643	24,246	8,856	38,048	8,131	34,933	7,406	31,818	5,956	25,589
SHALLOW WATER GROUPERS	49,776	46,656	5,766	1,992	3,407	822	1,047	-347	-3,671	-2,687

STOCK OR STOCK COMPLEX NAME	Alt 1 (No Action)		Alt 2 ACL=OY=ABC		Alt 3 ACL=OY=95%ABC		Alt 4 ACL=OY=90%ABC		Alt 5 ACL=OY=80%ABC	
	Comm	Rec	Diff Comm	Diff Rec	Diff Comm	Diff Rec	Diff Comm	Diff Rec	Diff Comm	Diff Rec
Red hind	18,303	6,564	6,047	2,171	4,829	1,734	3,612	1,297	1,177	424
Rock hind	23,115	14,838	-281	-178	-1,423	-911	-2,565	-1,644	-4,848	-3,110
Yellowmouth grouper	44	3,995	0	0	0	0	0	0	0	0
Yellowfin grouper	4,879	4,379	0	0	0	0	0	0	0	0
Coney	665	2,053	0	0	0	0	0	0	0	0
Graysby	2,771	14,827	0	0	0	0	0	0	0	0
INDIVIDUAL STOCKS									0	0
Atlantic spadefish	35,108	154,352	115,444	507,574	107,917	474,478	100,389	441,381	85,334	375,189
Bar jack	5,265	19,515	5,759	21,336	7,302	27,055	6,640	24,604	5,318	19,701
Gray triggerfish	272,880	353,638	39,445	51,037	23,829	30,803	8,212	10,569	-23,020	-29,898
Scamp	333,100	176,688	8,151	4,330	-8,912	-4,721	-25,974	-13,772	-60,099	-31,874

2.3.1 A Summary of the Effects of the Alternatives

Alternatives 3-5 would have a greater positive biological effect than **Alternative 2** because they would create a buffer between the ACL/OY and ABC, with **Alternative 5** setting the most conservative ACL at 80% of the ABC (**Tables 2.3.1-2.3.9**). Creating a buffer between the ACL/OY and ABC would provide greater assurance that overfishing is prevented, and the long-term average biomass is near or above SSB_{MSY}. However, the South Atlantic Council's SSC ABC control rule takes into account scientific uncertainty. The National Standard 1 guidelines indicate ACL may typically be set very close to the ABC. Setting a buffer between the ACL and ABC would be appropriate in situations where there is uncertainty in whether or not management measures are constraining fishing mortality to target levels. ACTs, which are not required, can also be set below the ACLs to account for management uncertainty and provide greater assurance overfishing does not occur.

Alternatives under Action 3 would increase the ACL for some species or species complexes or decrease the ACL for species or species complexes. For most species and species complexes, the ACLs are currently not being met. If harvest is less than the proposed ACLs, biological and economic effects would be expected to be minimal. Economic benefits could potentially be realized for the recreational sector due to the proposed increase in the ACL of Atlantic spadefish and the Deepwater Complex (due to increases in the ACLs for yellowedge grouper and silk snapper). The commercial sector could potentially see economic benefits from increases in the ACLs for the Deepwater Complex. However, the South Atlantic Council is developing an amendment that could change the composition of the Deepwater Complex through the removal of blueline tilefish, which comprises most of the landings in the complex. Alternatives that result in higher ACLs for species or species complexes could slightly reduce administrative burdens because they likelihood of triggering AMs would be reduced. Conversely, alternatives that decrease ACLs could increase the administrative burden because it would be more likely that AMs would be triggered and action would be needed to ensure overfishing did not occur. Administrative burdens also may result from revising the values under the alternatives in the form of development and dissemination of outreach and education materials for fishery participants and law enforcement.

2.4 Action 4. Modify the minimum size limit for gray triggerfish

Alternative 1 (No Action). Currently, the minimum size limit for gray triggerfish is specified in inches total length (TL) in federal waters off east Florida only. In Florida state waters, the minimum size for gray triggerfish is specified in inches fork length (FL). The minimum size limit is 12 inches TL in federal waters off east Florida and 12 inches FL in east Florida state waters.

Alternative 2. Specify a minimum size limit for gray triggerfish of 12 inches fork length (FL) in federal waters off east Florida.

Sub-alternative 2a. The minimum size limit applies to the commercial sector.

Sub-alternative 2b. The minimum size limit applies to the recreational sector.

Preferred Alternative 3. Specify a minimum size limit for gray triggerfish of 12 inches fork length (FL) in federal waters off North Carolina, South Carolina, and Georgia.

Sub-alternative 3a. The minimum size limit applies to the commercial sector.

Sub-alternative 3b. The minimum size limit applies to the recreational sector.

Alternative 4. Specify a minimum size limit for gray triggerfish of 14 inches fork length (FL) in federal waters off North Carolina, South Carolina, Georgia, and east Florida.

Sub-alternative 4a. The minimum size limit applies to the commercial sector.

Sub-alternative 4b. The minimum size limit applies to the recreational sector.

Preferred Alternative 5. Specify a minimum size limit for gray triggerfish of 14 inches fork length (FL) in federal waters off east Florida.

Sub-alternative 5a. The minimum size limit applies to the commercial sector.

Sub-alternative 5b. The minimum size limit applies to the recreational sector.

Commercial

Table 2.4.1. Annual commercial landings for gray triggerfish in the South Atlantic (2007-2012) compared with the current commercial ACL and the proposed commercial ACLs from Action 3. Source: SEFSC ACL Data (November 2013).

Year	Landings (lb ww)	Act 3 Alt 1	% of Alt 1	Act 3 Alt 2	% of Alt 2	Act 3 Alt 3	% of Alt 3	Act 3 Alt 4	% of Alt 4	Action 3 Alt 5	% of Alt 5
2007	338,441	272,880	124%	312,325	108%	296,709	114%	281,093	120%	249,860	135%
2008	335,450	272,880	123%	312,325	107%	296,709	113%	281,093	119%	249,860	134%
2009	374,110	272,880	137%	312,325	120%	296,709	126%	281,093	133%	249,860	150%
2010	471,774	272,880	173%	312,325	151%	296,709	159%	281,093	168%	249,860	189%
2011	507,416	272,880	186%	312,325	162%	296,709	171%	281,093	181%	249,860	203%
2012	312,617	272,880	115%	312,325	100%	296,709	105%	281,093	111%	249,860	125%

*Note. An ACL was not established for gray triggerfish until 2012.

Table 2.4.2. Projected quota closure dates for the 2014 fishing season for the commercial sector of gray triggerfish under Alternatives 2-5 and Preferred Alternatives 3 and 5 combined.

ACL (lbs ww)	Alternative	Alt 1	Alt 2	Pref Alt 3	Alt 4	Pref Alt 5	Pref Alts 3 and 5
272,880	Current ACL	26-Jul	26-Jul	**30-Jul**	31-Aug	**2-Aug**	**5-Aug**
312,325	Action 3, Alt 2	18-Aug	19-Aug	**21-Aug**	20-Sep	**25-Aug**	**29-Aug**
296,709	Action 3, Alt 3	9-Aug	9-Aug	**11-Aug**	11-Sep	**15-Aug**	**18-Aug**
281,093	Action 3, Alt 4	1-Aug	2-Aug	**4-Aug**	4-Sep	**7-Aug**	**10-Aug**
249,860	Action 3, Alt 5	8-Jul	8-Jul	**11-Jul**	14-Aug	**13-Jul**	**17-Jul**

Recreational

Table 2.4.3. Annual recreational landings for gray triggerfish in the South Atlantic (2007-2012) compared with the current recreational ACL and the proposed commercial ACLs from Action 3. Source: SEFSC ACL Data (November 2013).

Year	Landings (lb ww)	Act 3 Alt 1	% of Alt 1	Act 3 Alt 1	% of Alt 1	Act 3 Alt 1	% of Alt 1	Act 3 Alt 1	% of Alt 1	Act 3 Alt 1	% of Alt 1
2007	490,370	353,638	139%	404,675	121%	384,441	128%	364,207	135%	323,740	151%
2008	587,697	353,639	166%	404,676	145%	384,442	153%	364,208	161%	323,741	182%
2009	537,773	353,640	152%	404,677	133%	384,443	140%	364,209	148%	323,742	166%
2010	462,836	353,641	131%	404,678	114%	384,444	120%	364,210	127%	323,743	143%
2011	355,817	353,642	101%	404,679	88%	384,445	93%	364,211	98%	323,744	110%
2012	351,030	353,643	99%	404,680	87%	384,446	91%	364,212	96%	323,745	108%

*Note. An ACL was not established for gray triggerfish until 2012.

Table 2.4.4. Percent reduction in annual South Atlantic recreational sector gray triggerfish landings from implementing size limits under Alternatives 2-5 and Preferred Alternatives 3 and 5 combined.

Year	Alt 2	Pref Alt 3	Alt 4	Pref Alt 5	Pref Alts 3 and 5
2010	0.8	**2.7**	22.3	**4.9**	**7.5**
2011	1.1	**3.7**	21.9	**6.0**	**8.7**
2012	1.1	**3.7**	28.0	**6.0**	**9.7**

Note: MRIP and headboat landings included.

2.4.1 A Summary of the Effects of the Alternatives

There would be little difference in the biological benefits of **Alternatives 1 (No Action)**, **Alternative 2**, and **Preferred Alternative 3** since the establishment of a 12-inch fork length (FL) minimum size limit under **Alternative 2** and **Preferred Alternative 3** would do little to restrict commercial or recreational harvest of gray triggerfish in the South Atlantic (**Tables 2.4.1-2.4.4**). A minimum size limit of 12 inches FL for North Carolina, South Carolina, and Georgia under **Preferred Alternative 3** would provide slightly greater spawning opportunities for gray triggerfish, relative to no action (**Alternative 1**). A minimum size limit of 14 inches FL under **Alternative 4** (North Carolina, South Carolina, Georgia, and east Florida), and **Preferred Alternative**

5 (east Florida only) would provide the greatest spawning opportunities among the alternatives considered. Therefore, biological benefits would be greatest for **Alternative 4**, followed by **Preferred Alternative 5**, **Preferred Alternative 3**, **Alternative 2**, and **Alternative 1** (**No Action**) for the commercial and recreational sectors.

For the commercial sector, the season length would be greatest under **Alternative 4** followed by **Preferred Alternative 5**, and **Preferred Alternative 3**. There would be little difference in the season length under **Alternative 2** and **Alternative 1** (**No Action**). **Alternatives 2-5** could result in a negative economic effect associated with loss of annual commercial landings. It is possible that fishermen may attempt to reduce the impacts by increasing the length of a trip to harvest the same number of pounds; however, an increase in the length of a trip would increase trip-related costs, such as fuel, bait, and risk.

Changing the minimum size limit to 12 inches FL under **Preferred Alternative 3** to be consistent with the east Florida minimum size limit requirements in state waters would be beneficial to commercial and recreational fishermen by removing inconsistency between the state and federal requirements that would continue under **Alternative 1 (No Action)**. A 14-inch FL minimum size limit specified in **Alternative 4** and **Preferred Alternative 5** would allow for consistent regulations in the Gulf of Mexico and South Atlantic, which is particularly troublesome for fishermen and law enforcement in the Florida Keys. However, **Preferred Alternative 3** and **Alternative 4** could have some negative effects on recreational and commercial fishermen harvesting gray triggerfish in the EEZ off states that currently do not have size limits by limiting the number of fish that can be kept.

Beneficial administrative effects would be expected from **Alternative 2**, **Preferred Alternative 3**, and **Alternative 4**, and **Preferred Alternative 5** when compared with **Alternative 1** (**No Action**). Consistency between state and federal waters in how gray triggerfish are measured throughout the South Atlantic Council's jurisdiction would help the public avoid confusion with regulations and aid law enforcement. **Alternative 4** and **Preferred Alternative 5** would further avoid confusion with regulations and aid law enforcement by specifying the same minimum size limit (14 inches TL) in federal waters of the Gulf of Mexico and in state waters of west Florida. Administrative impacts on the agency associated with the action alternatives would be incurred by rule making, outreach, education and enforcement.

2.5 Action 5. Establish a commercial split season for gray triggerfish

Alternative 1 (No Action). The commercial fishing year for gray triggerfish is the calendar year. The commercial ACL is allocated for the entire year.

Preferred Alternative 2. Allocate the directed commercial gray triggerfish ACL into two quotas: 50% to the period January 1 through June 30 and 50% to the period July 1 through December 31. Any remaining quota from season 1 would transfer to season 2. Any remaining quota from season 2 would not be carried forward.

Alternative 3. Allocate the directed commercial gray triggerfish ACL into two quotas; 40% to the period January 1 through June 30 and 60% to the period July 1 through December 31. Any remaining quota from season 1 would transfer to season 2. Any remaining quota from season 2 would not be carried forward.

Table 2.5.1. Expected dates the gray triggerfish ACL of 272,880 lb ww, 312,325 lbs ww, 296,709 lbs ww, 281,093 lbs ww, and 249,860 lbs ww is expected to be met under **Alternative 1 (No Action)** Action 5, assuming a 12 inch FL minimum size limit is put into place for North Carolina, South Carolina, and Georgia, and a 14 inch FL minimum size limit is put into place for east Florida under Action 4.

ACL (lbs ww)	Alternative	Mean	L95%	U95%
272,880	Current ACL	5-Aug	No Closure	27-Apr
312,325	Action 3, Alt 2	29-Aug	No Closure	19-May
296,709	Action 3, Alt 3	18-Aug	No Closure	9-May
281,093	Action 3, Alt 4	10-Aug	No Closure	2-May
249,860	Action 3, Alt 5	17-Jul	No Closure	13-Apr

Table 2.5.2. Expected dates the gray triggerfish semi-annual quotas would have been met for January-June and July-December split seasons under **Preferred Alternative 2**, as proposed under Alternatives 2 and 3 of Action 4, assuming a 12 inch FL minimum size limit is put into place for North Carolina, South Carolina, and Georgia, and a 14 inch FL minimum size limit is put into place for east Florida. These are the preferred Alternatives under Action 3.

ACL (lbs ww)	January-June			
	ACL Alternative	**Mean**	**L95%**	**U95%**
136,440	Current ACL	20-Mar	No Closure	18-Feb
156,163	Action 3, Alt 2	9-Apr	No Closure	25-Feb
148,355	Action 3, Alt 3	31-Mar	No Closure	22-Feb
140,547	Action 3, Alt 4	24-Mar	No Closure	19-Feb
124,930	Action 3, Alt 5	9-Mar	No Closure	14-Feb

ACL (lbs ww)	July-December			
	ACL Alternative	**Mean**	**L95%**	**U95%**
136,440	Current ACL	21-Sep	27-Nov	30-Aug
156,163	Action 3, Alt 2	30-Sep	No Closure	5-Sep
148,355	Action 3, Alt 3	26-Sep	21-Dec	3-Sep
140,547	Action 3, Alt 4	23-Sep	3-Dec	1-Sep
124,930	Action 3, Alt 5	17-Sep	15-Nov	25-Aug

Table 2.5.3. Expected dates the gray triggerfish semi-annual quotas would have been met for January-June and July-December split seasons under **Alternative 3**, as proposed under Alternatives 2 and 3 of Action 4, assuming a 12 inch FL minimum size limit is put into place for North Carolina, South Carolina, and Georgia, and a 14 inch FL minimum size limit is put into place for east Florida. These are the preferred Alternatives under Action 3.

ACL (lbs ww)	January-June			
	ACL Alternative	**Mean**	**L95%**	**U95%**
109,152	Current ACL	25-Feb	No Closure	8-Feb
124,930	Action 3, Alt 2	9-Mar	No Closure	14-Feb
118,684	Action 3, Alt 3	4-Mar	No Closure	12-Feb
112,437	Action 3, Alt 4	27-Feb	No Closure	9-Feb
99,944	Action 3, Alt 5	21-Feb	No Closure	5-Feb

ACL (lbs ww)	July-December			
	ACL Alternative	**Mean**	**L95%**	**U95%**
163,728	Current ACL	3-Oct	No Closure	7-Sep
187,395	Action 3, Alt 2	15-Oct	No Closure	15-Sep
178,025	Action 3, Alt 3	10-Oct	No Closure	12-Sep
168,656	Action 3, Alt 4	5-Oct	No Closure	9-Sep
149,916	Action 3, Alt 5	27-Sep	25-Dec	3-Sep

2.5.1 A Summary of the Effects of the Alternatives

The biological impacts of a split season for gray triggerfish under **Alternatives 2 (Preferred)** or **3** are likely to be neutral since overall harvest would be limited to the sector ACL and split-season quotas, and AMs would be triggered if the ACL or quotas were exceeded. Dividing the ACL into two time periods could result in fishing for gray triggerfish being open for a short period of time, and possibly encourage derby conditions to a greater extent than **Alternative 1 (No Action)** (**Tables 2.5.1-2.5.3**). Derby conditions would be expected to be more pronounced in season 2 under **Preferred Alternative 2**, and in season 1 under **Alternative 3**. Discards of gray triggerfish would be expected after quotas are met under **Alternatives 2 (Preferred)** and **3** due to fishermen targeting co-occurring species. However, the magnitude of discards would be expected to be similar under the two alternatives. Furthermore, survival of discarded gray triggerfish is estimated to be very high (~88%). Thus, the stock would not be expected to be negatively impacted by alternatives that might result in an increase in regulatory discards. **Preferred Alternative 2** and **Alternative 3** would establish fishing seasons that have opening and closing dates similar to vermilion snapper. Since gray triggerfish and vermilion snapper are co-occurring species that are caught together, **Alternatives 2 (Preferred)** and **3** could reduce bycatch of both species. Split season quotas would allow fishermen in different regions to target gray triggerfish when the weather is favorable in their area. Therefore, alternatives that divide the ACL into two time period quotas would allow for a greater opportunity among all areas to catch gray triggerfish. Furthermore, dividing the ACL into two seasons would allow fishermen to target gray triggerfish in summer when historical catches have been the best.

The economic impacts of **Alternatives 2 (Preferred)** and **3** may be dependent on which ACL alternative under Action 3 is selected. In 2014, the Christian season of Lent runs from March 5 to April 17. Under **Alternatives 2 (Preferred)** and **3**, gray triggerfish could close before Lent ends depending on which alternative is selected. Market demand is typically higher during that season and a closure before the Lenten season ends would cut into higher priced revenues. A split season under **Preferred Alternative 2** or **Alternative 3** would likely be beneficial to commercial fishermen harvesting gray triggerfish in North Carolina and South Carolina. Because the current fishing year starts on January 1 (**Alternative 1, No Action**), fishermen in North Carolina and South Carolina sometimes have limited or no access to gray triggerfish in the early months of the season due to weather, or could risk unsafe conditions to fish. A split season under **Preferred Alternative 2** or **Alternative 3** would likely increase access to the commercial ACL for North Carolina and South Carolina.

2.6 Action 6. Establish a commercial trip limit for gray triggerfish

Alternative 1 (No Action). There is no commercial trip limit for gray triggerfish in the South Atlantic region.

Preferred Alternative 2. Establish a commercial trip limit for gray triggerfish in the South Atlantic region.

Sub-alternative 2a. 500 pounds whole weight (lb ww)

Preferred Sub-alternative 2b. 1,000 lb ww

Sub-alternative 2c. 1,500 lb ww

Alternative 3. When 75% of the gray triggerfish commercial seasonal quota is met or is projected to be met, the trip limit is reduced to:

Sub-alternative 3a. 200 lb ww

Sub-alternative 3b. 500 lb ww

Sub-alternative 3c. 750 lb ww

Table 2.6.1. Commercial gray triggerfish projected mean closure dates for the preferred split season alternative in Action 5, with 95% confidence limits, under a variety of trip limit scenarios for the current commercial ACL of **272,880 lbs ww** (Action 3). Analysis assumes a 12 inch FL minimum size limit is put into place for North Carolina, South Carolina, and Georgia, and a 14 inch FL minimum size limit is put into place for east Florida (preferred alternatives in Action 4).

Proposed ACL		**Act 3, Alt 1**		**Act 3, Alt 2**		**Act 3, Alt 3**		**Act 3, Alt 4**		**Act 3, Alt 5**	
		272,880		**312,325**		**296,709**		**281,093**		**249,860**	
Alt	**Trip Limit**	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec
		136,440	136,440	156,163	156,163	148,355	148,355	140,547	140,547	124,930	124,930
1	No trip limit	17-Mar	18-Sep	4-Apr	26-Sep	27-Mar	23-Sep	20-Mar	20-Sep	6-Mar	14-Sep
2c	1500-lb	18-Mar	18-Sep	8-Apr	26-Sep	30-Mar	23-Sep	22-Mar	20-Sep	7-Mar	14-Sep
2b (Preferred)	**1000-lb**	**25-Mar**	**19-Sep**	**20-Apr**	**27-Sep**	**9-Apr**	**24-Sep**	**29-Mar**	**20-Sep**	**13-Mar**	**14-Sep**
	750-lb	7-Apr	20-Sep	6-May	28-Sep	26-Apr	25-Sep	14-Apr	21-Sep	22-Mar	15-Sep
2a	500-lb	11-May	22-Sep	4-Jun	2-Oct	26-May	28-Sep	16-May	24-Sep	24-Apr	17-Sep
	300-lb	27-Jun	29-Sep	No Closure	16-Oct	No Closure	9-Oct	No Closure	2-Oct	11-Jun	23-Sep

	200-lb	No Closure	14-Oct	No Closure	3-Nov	No Closure	27-Oct	No Closure	19-Oct	No Closure	2-Oct
	100-lb	No Closure	17-Nov	No Closure	12-Dec	No Closure	27-Nov	No Closure	20-Nov	No Closure	7-Nov
3a	200-lb @ 75% ACL	13-May	24-Sep	1-Jun	4-Oct	24-May	29-Sep	16-May	25-Sep	29-Apr	19-Sep
3b	500-lb @ 75% ACL	1-Apr	20-Sep	2-May	28-Sep	20-Apr	25-Sep	7-Apr	21-Sep	18-Mar	15-Sep
3c	750-lb @ 75% ACL	24-Mar	19-Sep	19-Apr	27-Sep	8-Apr	24-Sep	28-Mar	20-Sep	11-Mar	14-Sep

Table 2.6.2. Trip limit, number of trips, percentage of trips greater than trip limit, and harvest reduction provided by trip limit for 2012.
Source: Coastal logbook data from June 2013.

Trip Limit (lbs ww)	2012		
	# Trips	% Trips	Harvest Reduction
0	1,702	100.00%	100.00%
100	652	38.31%	65.24%
112	616	36.19%	62.53%
150	505	29.67%	55.02%
175	441	25.91%	50.81%
200	394	23.15%	47.09%
224	364	21.39%	43.84%
250	323	18.98%	40.66%
300	268	15.75%	35.40%
337	239	14.04%	32.10%
500	143	8.40%	21.31%
600	111	6.52%	16.74%
700	80	4.70%	13.24%
800	66	3.88%	10.67%
900	48	2.82%	8.69%
1,000	39	2.29%	7.16%
1,100	28	1.65%	5.98%
1,200	22	1.29%	5.08%
1,300	18	1.06%	4.36%
1,400	15	0.88%	3.76%
1,500	14	0.82%	3.24%
1,600	9	0.53%	2.89%
1,700	8	0.47%	2.58%
1,800	6	0.35%	2.32%
1,900	4	0.24%	2.13%
2,000	3	0.18%	2.00%
2,250	2	0.12%	1.79%
2,500	2	0.12%	1.61%
2,750	2	0.12%	1.44%
3,000	2	0.12%	1.26%
3,250	2	0.12%	1.08%
3,500	2	0.12%	0.90%
3,750	2	0.12%	0.73%
4,000	1	0.06%	0.59%
4,250	1	0.06%	0.50%
4,500	1	0.06%	0.41%
4,750	1	0.06%	0.32%
5,000	1	0.06%	0.23%
5,250	1	0.06%	0.14%
5,500	1	0.06%	0.05%
5,750	0	0.00%	0.00%

2.6.1 A Summary of the Effects of the Alternatives

The biological effects of **Alternative 1 (No Action)**, **Preferred Alternative 2** (and associated sub-alternatives), and **Alternative 3** (and associated sub-alternatives) would be expected to be neutral because ACLs and accountability measures are in place to cap harvest, and take action if ACLs are exceeded. **Alternative 1 (No Action)** could present a greater biological risk to gray triggerfish in terms of exceeding the ACL than **Alternatives 2 (Preferred)** and **3** since no trip limit would be in place to slow down the rate of harvest and help ensure the ACL is not exceeded. However, improvements have been made to the quota monitoring system, and the South Atlantic Council has approved a Dealer Reporting Amendment, which should enhance data reporting. Therefore, any biological benefits associated with trip limits would be expected to be small. Larger trip limits would not constrain catch and would result in the ACL being met earlier in the year. Early closures of gray triggerfish could result in increased bycatch of gray triggerfish when fishermen target co-occur species such as vermilion snapper and black sea bass. However, release mortality of gray triggerfish is considered to be very low. Thus, commercial closures associated with meeting the ACL are not expected to negatively affect the gray triggerfish stock due to bycatch.

Commercial trip limits in general, are not economically efficient. Although lower trip limits can lengthen an open fishing season, trip limits can also economically disadvantage larger vessels and vessels that have to travel further to reach their fishing grounds. Depending on vessel characteristics and the distance required to travel to fish, a trip limit that is too low could result in targeted trips that are cancelled altogether, if the vessel cannot target other species on the same trip. From 2009 through 2013, very few commercial trips that landed gray triggerfish landed more than 500 lb ww per trip. Consequently, **Alternative 1 (No Action)** and **Sub-alternatives 2a**, **2b (Preferred)** and **2c** are expected to have minimal impact on landings of gray triggerfish. It is reasonable to expect that larger vessels that make longer trips could have landings greater than 500, 1,000 or 1,500 lb ww. If so, **Sub-alternative 2a** would have the largest adverse economic impact on commercial fishermen with historically larger landings per trip, followed in turn by **Preferred Sub-alternative 2b** and **Sub-alternative 2c**. **Alternative 1 (No Action)** would have no adverse economic impact beyond that baseline. Because none of the sub-alternatives of **Alternative 3** are expected to have significant impact on extending the length of the fishing season, the sub-alternatives are expected to have minimal economic effects when compared to **Alternative 1 (No Action)**. A trip limit of 750 lb ww after 75% of the ACL has been taken as in **Sub-alternative 3c** would provide the greatest direct positive economic effect, followed by **Sub-alternatives 3b** (500 lb ww) and **3a** (200 lb ww), respectively.

Communities in the South Atlantic Region would be expected to experience positive or negative effects if a commercial trip limit is established. In general, a commercial trip limit may help slow the rate of harvest, lengthen a season, and prevent the ACL from being exceeded, but trip limits that are too low may make fishing trips inefficient and too

costly if fishing grounds are too far away. Relative to **Alternative 1 (No Action)**, **Alternatives 2 (Preferred)** and **3** could reduce the risk of derby conditions and associated negative impacts that can occur due to an in-season closure or payback provision if the ACL is exceeded. A more restrictive trip limit is more likely to slow the rate of harvest and lengthen the season than a less restrictive trip limit, unless vessels do not currently harvest over a proposed limit. The 500-lb ww limit proposed under **Sub-alternative 2a** is the most restrictive under **Preferred Alternative 2**, but a low percentage of trips exceed 500 lbs ww of gray triggerfish at this time (**Table 2.6.2**). Very few trips exceed the 1,000 lbs ww (**Preferred Sub-alternative 2b**) and less than 1% exceed 1,500 lb ww (**Sub-alternative 2c**) (**Table 2.6.2**). The step-down trip limit when 75% of the commercial ACL is met under **Alternative 3** would allow commercial trips to continue fishing for other species, but with a sort of bycatch allowance for any gray triggerfish caught on the trips. **Sub-alternatives 3a-3c** would help to reduce discards of gray triggerfish and could help extend the season. Overall, the social benefits to the commercial fleet, associated businesses, and communities would likely be maximized as a result of some trade-off between season length and economic changes. **Alternative 1 (No Action)** would have less administrative impacts than **Preferred Alternative 2** and **Alternative 3**. Administrative impacts associated with these alternatives would involve rulemaking, outreach, education, monitoring and enforcement. NMFS has implemented trip limits in other fisheries and the impacts associated with **Preferred Alternative 2** and **Alternative 3** are expected to be minor.