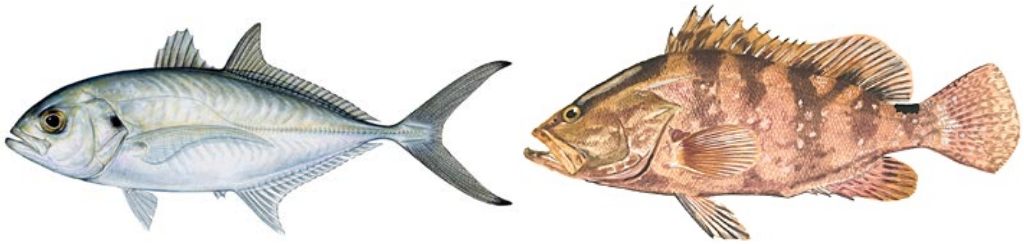
Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region



Environmental Assessment Regulatory Impact Review
Regulatory Flexibility Act Analysis Fishery Impact Statement

FINAL VERSION

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Definitions, Abbreviations, and Acronyms Used in the Document

ABC	acceptable biological catch
ACL	annual catch limits
AM	accountability measures
ACT	annual catch target
B	a measure of stock biomass in either weight or other appropriate unit
$\mathbf{B_{MSY}}$	the stock biomass expected to exist under equilibrium conditions when fishing at F_{MSY}
$\mathbf{B_{OY}}$	the stock biomass expected to exist under equilibrium conditions when fishing at F_{OY}
$\mathbf{B_{CURR}}$	the current stock biomass
CPUE	catch per unit effort
DEIS	draft environmental impact statement
EA	environmental assessment
EEZ	exclusive economic zone
EFH	essential fish habitat
F	a measure of the instantaneous rate of fishing mortality
$\mathbf{F_{30\%SPR}}$	fishing mortality that will produce a static SPR = 30%
$\mathbf{F_{CURR}}$	the current instantaneous rate of fishing mortality
$\mathbf{F_{MSY}}$	the rate of fishing mortality expected to achieve MSY under equilibrium conditions and a corresponding biomass of B_{MSY}
$\mathbf{F_{OY}}$	the rate of fishing mortality expected to achieve OY under equilibrium conditions and a corresponding biomass of B_{OY}
FEIS	final environmental impact statement
FMP	fishery management plan
FMU	fishery management unit
M	natural mortality rate
MARMAP	Marine Resources Monitoring Assessment and Prediction Program
MFMT	maximum fishing mortality threshold
MMPA	Marine Mammal Protection Act
MRFSS	Marine Recreational Fisheries Statistics Survey
MRIP	Marine Recreational Information Program
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSST	minimum stock size threshold
MSY	maximum sustainable yield
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	overfishing limit
OY	optimum yield
RIR	regulatory impact review
SAMFC	South Atlantic Fishery Management Council
SEDAR	Southeast Data, Assessment, and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
SIA	social impact assessment
SPR	spawning potential ratio
SSC	Scientific and Statistical Committee

Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

Documents:	Environmental Assessment Regulatory Flexibility Act Analysis Regulatory Impact Review Fishery Impact Statement
Proposed actions:	To extend management responsibility of Nassau grouper to the South Atlantic Fishery Management Council in Gulf of Mexico waters; to increase the number of allowable crew members on dual-permitted snapper grouper vessels; to address captain and crew bag limit retention of snapper grouper; to modify the snapper grouper framework procedures to allow acceptable biological catch levels, annual catch limits, and annual catch targets to be adjusted via an abbreviated framework process; and to modify management measures for blue runner.
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Summary

What Actions Are Being Proposed?

Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 27) would: Extend the South Atlantic Fishery Management Council's (South Atlantic Council) management authority of Nassau grouper to include federal waters of the Gulf of Mexico; increase the number of crew members allowed on dual-permitted snapper grouper vessels (vessels that have both a federal South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit); address captain and crew retention of bag limit quantities of snapper grouper species; modify Section I of the Framework Procedure for the Snapper Grouper Fishery of the South Atlantic Region (Framework) to allow adjustments of the acceptable biological catch (ABC), the annual catch limit (ACL), and the annual catch target (ACT) via an abbreviated framework process; and modify management measures for blue runner.

Purpose for Action

The *purpose* of Amendment 27 is to: (1) establish the South Atlantic Council as the responsible entity for managing Nassau grouper throughout its range including federal waters of the Gulf of Mexico; (2) modify the crew member limit on vessels with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper (referred to as "dual-permitted" vessels); (3) modify the current restriction on crew retention of bag limit quantities of snapper grouper species; (4) minimize regulatory delay when adjustments to snapper grouper species' ABC, ACLs, and ACTs are needed as a result of new stock assessments; and (5) address harvest of blue runner by commercial fishermen who do not possess a South Atlantic Snapper Grouper Permit.

Need for Action

The *need* for Amendment 27 is to: (1) respond to the Gulf of Mexico Council's request for the South Atlantic Council to assume management of Nassau grouper in the southeast U.S.; (2) address safety-at-sea concerns related to the current limit of three crew members for dual-permitted vessels; (3) make regulations regarding retention of snapper grouper species by crew members consistent for all snapper grouper species; (4) expedite adjustments to ABCs, ACLs, and ACTs for snapper grouper species when a new stock assessment indicates adjustments are warranted; and (5) minimize socio-economic impacts to fishermen without a South Atlantic Snapper Grouper Permit who harvest and sell blue runner to supplement their income.

Why are the South Atlantic Council and NMFS Considering Action?

Nassau Grouper

On December 16, 2011, a notice of agency action was published in the *Federal Register*, designating the South Atlantic Council as the responsible council to manage Nassau grouper in the Gulf of Mexico. The Gulf of Mexico Fishery Management Council (Gulf of Mexico Council) took action to remove Nassau grouper from their reef fish fishery, with the intention that the South Atlantic Council would extend its

area of jurisdiction for management of Nassau grouper to include federal waters of the Gulf of Mexico. Nassau grouper has been under a harvest moratorium since 1992 due to concerns of overexploitation. The current ACL for Nassau grouper in both the South Atlantic and Gulf of Mexico is zero. Removal of the prohibition to harvest Nassau grouper in the Gulf of Mexico has been delayed until the South Atlantic Council addressed the issue of extending its management authority over Nassau grouper to include the Exclusive Economic Zone (EEZ) off the Gulf of Mexico in this amendment. The South Atlantic Council proposes to extend its jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico. Harvest of Nassau grouper in the Gulf of Mexico EEZ and the South Atlantic EEZ would continue to be prohibited.

Crew Member Limit on Dual-Permitted Snapper Grouper Vessels

Currently, there is a crew size limit of 3 for vessels with both a South Atlantic Charter/Headboat Permit for snapper grouper and a South Atlantic Unlimited or 225-Pound Permit for snapper grouper (referred to as "dual-permitted" vessels). This crew size limit prevents a dual-permitted vessel from engaging in a charter/headboat trip while landing fish in excess of the recreational bag limits. However, a safety concern arises under the current crew size regulations when dual-permitted vessels are spearfishing commercially. The maximum crew size of 3 persons prohibits fishermen from diving in pairs using the buddy system while having a standby diver and captain at the surface as recommended by the U.S. Coast Guard diving operations manual. The South Atlantic Council has received requests from dual-permitted vessel operators to allow a crew size of at least 4 persons. The increase in crew size would allow two persons to remain on the vessel while there are two divers in the water, thereby contributing to increased safety at sea. The South Atlantic Council proposes to increase the limit to four crew members for dual-permitted vessels.

Captain and Crew Retention of Bag Limit Quantities of Snapper Grouper

During their December 2012 meeting, the South Atlantic Council discussed the issue of consistency of regulations prohibiting captain and crew on for-hire vessels from retaining bag limit quantities of some snapper grouper species and not others. Therefore, the South Atlantic Council chose to re-evaluate this regulation in this amendment. The South Atlantic Council is proposing removing the restriction or making it applicable to all species in the snapper grouper fishery management unit (FMU); that is, captain and crew on for-hire vessels would not be allowed to retain bag limit quantities of any snapper grouper species. Consistent regulations for all snapper grouper species would alleviate current confusion regarding which species the provision applies to, and would aid in law enforcement efforts. The South Atlantic Council proposes to remove the snapper grouper species retention restrictions for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper.

Snapper Grouper Framework Modifications

Currently, the Framework allows ABCs, ACLs, and ACTs to be modified for snapper grouper species via the regulatory amendment process, which most often requires the development of an amendment and associated National Environmental Policy Act documents in addition to proposed and final rules with public comment periods. This process can be lengthy, and prevents fishery managers from quickly implementing harvest parameters in response to new scientific information when needed. The lag time between when new information becomes available and when catch levels can be adjusted has the

potential to result in adverse impacts on the economic and biological environments. Therefore, the South Atlantic Council is considering an action in Amendment 27 that would allow ABCs, ACLs, and ACTs to be modified through an abbreviated framework procedure that should allow the catch levels to be adjusted more quickly. The South Atlantic Council proposes to modify Section I of the Snapper Grouper Framework Procedure by adding a new Item #9 (and renumber the existing 9 as 10 and 10 as 11).

Blue Runner

Blue Runner, *Caranx crysos*

- Occurs from Nova Scotia to Brazil, including the Gulf of Mexico and Caribbean
- Is thought to form spawning aggregations
- Occurs in water as deep as 100 m but generally stays close to the coast
- Maximum reported size is 27 inches
- Maximum reported age is 11 years

The South Atlantic Council has become aware that for many years, South Atlantic mackerel fishermen who use gillnets have been selling blue runner caught in gillnets as bycatch to supplement their incomes without having a valid South Atlantic Unlimited Snapper Grouper Permit, or a valid South Atlantic 225-Pound Snapper Grouper Permit, which is a requirement under the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP). It is likely mackerel fishery participants were not aware that: Blue runner is included in the snapper grouper FMU; the species is managed with commercial and recreational ACLs; gillnets are not an approved gear in the snapper grouper fishery; and a restriction is in place on the sale of bag limit caught quantities of fish under the Snapper Grouper FMP. Because some mackerel fishery participants derive up to 30% of their income from the sale of blue runner, the South Atlantic Council is proposing action to allow fishermen who capture blue runner as bycatch while using gillnets to fish for South Atlantic mackerel species to be able to legally sell blue runner and thus minimize adverse socio-economic impacts. The South Atlantic Council proposes to remove blue runner from the Snapper Grouper FMP. At the April 2013 Florida Fish and Wildlife Conservation Commission (FWC) meeting, the Commissioners gave staff direction of their desire to assume management of blue runner in federal waters off Florida and to review current state rules for blue runner (letter from Ken Wright, FWC Chair to David Cupka, South Atlantic Council Chair dated April 29, 2013).

Summary of Effects

Action 1. Extend the South Atlantic Council's area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico

Alternative 1 (No Action). Nassau grouper harvest is prohibited in the South Atlantic and Gulf of Mexico. The South Atlantic Council's area of jurisdiction for management of Nassau grouper is limited to federal waters of the South Atlantic.

Alternative 2 (Preferred). The South Atlantic Council would extend its jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico. Harvest of Nassau grouper in the Gulf of Mexico exclusive economic zone EEZ and the South Atlantic EEZ would continue to be prohibited.

Biological Effects

Alternative 1 (No Action) would not allow the South Atlantic Council to manage Nassau grouper in the Gulf of Mexico. However, there is no expiration date associated with the harvest prohibition in the Gulf of Mexico currently in place. Therefore, under **Alterative 1 (No Action)** the current harvest prohibition in the Gulf of Mexico would remain. **Alternative 2 (Preferred)** is an administrative action and no changes in the biological effects would be expected as the alternative would simply allow for the South Atlantic Council to continue the harvest prohibition for Nassau grouper in the Gulf of Mexico.

Socio-economic Effects

If the South Atlantic Council's jurisdiction for Nassau grouper extends to the Gulf of Mexico, it is expected that there would be no economic effects as Nassau grouper are not currently targeted, nor can they be harvested in either the South Atlantic or Gulf of Mexico.

It is noted that Nassau grouper is currently under review for listing under the Endangered Species Act (ESA) and management of the species in federal waters contributes to federal protection of a potentially threatened or endangered fish.

Nassau grouper, *Epinephelus striatus*

- Found from Bermuda, the Bahamas, and Florida to southern Brazil
- Sedentary, reef-associated, usually encountered close to caves
- Aggregates to spawn at specific times and locations each year
- Maximum reported size is 48 inches
- Maximum reported age is 29 years

Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels

Alternative 1 (No Action). The current limit on the number of crew members on any dual-permitted vessel (a vessel associated with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper) is three.

Alternative 2. Eliminate the limit of three crew members for dual-permitted vessels

Alternative 3 (Preferred). Increase the limit to four crew members for dual-permitted vessels.

Biological Effects

Maintaining the current crew limit **(Alternative 1 (No Action))**, would not address the safety-at-sea issues presented when divers are not able to properly utilize the buddy system while commercial diving as recommended in the U.S. Coast Guard diving operations manual. **Alternative 2** would address the safety-at-sea issues but may also increase the risk that dual-permitted vessels could engage in for-hire trips while commercial fishing, which is prohibited. **Alternative 3 (Preferred)** would allow two persons to remain onboard while there are two divers in the water, thereby increasing the safety of commercial divers. Because recreational harvest of snapper grouper species is limited to the recreational ACLs, any change in the rate of harvest or vessel efficiency due to an increase in crew size, would result in neutral biological impacts.

Economic Effects

No economic effects to the overall economy are anticipated from the implementation of either **Alternatives 2** or **3 (Preferred)**. However, the alternatives could have economic effects on individual trip costs. Bringing additional crew members on board would likely increase trip costs because of the additional compensation required. Potential trip profitability would be weighed against safety concerns because of additional crew members onboard in determining the value of additional crew. By allowing for more than four crew members onboard, **Alternative 2** has the potential for greater economic effects on trip costs than **Alternative 3 (Preferred)**.

Social Effects

Alternative 1 (No Action) would be expected to result in the most significant negative social effects on fishermen working on dual-permitted vessels among the three alternatives in this action. The current crew size limit may prohibit fishermen from maximizing efficiency on each trip and taking advantage of both the commercial and charter permits associated with the vessel. Additionally, as mentioned previously, the current crew size limit of three per vessel may hinder safe diving practices by not providing diving partners for each potential commercial diver. **Alternatives 2** and **3 (Preferred)** would be expected to decrease the negative impacts of the current regulations and increase the potential benefits from safe and profitable commercial dive trips on dual-permitted vessels.

Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper

Alternative 1 (No Action). Captain and crew may not retain bag limit quantities of the following species in the snapper grouper FMU: gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish.

Alternative 2 (Preferred). Remove the snapper grouper species retention restrictions for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper.

Alternative 3. Establish a bag limit of zero for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper for *all* species included in the snapper grouper FMU.

Why was this regulation needed in the first place?

- At the time this regulation was implemented, vermilion snapper and gag were undergoing overfishing.
- A certain reduction in harvest was needed to end overfishing of those two species.
- Disallowing captain and crew on for-hire vessels to retain vermilion snapper, gag, tilefishes, and shallow water groupers allowed the South Atlantic Council to reach the appropriate percent reduction in harvest to end overfishing.

Biological Effects

Alternative 1 (No Action) would continue the biological benefits from not allowing retention of bag-limit quantities of snapper grouper species for captain and crew members of for-hire vessels. The current regulations that prohibit captain and crew from retaining only certain snapper grouper species may be confusing for some individuals. **Alternative 1 (No Action)** may result in negative biological impacts for some species that are mistakenly retained by crew, and may result in biological benefits for species that are unnecessarily discarded because they are thought to have a bag limit of zero for crew members. The extent of effects, however, would be expected to be small and directly related to the level of discard mortality for each particular species and the depth at which it was caught.

Alternative 2 (Preferred) proposes to remove the current restriction on retaining bag limit quantities of some snapper grouper species. This alternative would therefore allow the captain and crew on a for-hire vessel to retain the recreational bag limit of gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish. **Alternatives 2 (Preferred)** and **3** would both result in regulatory consistency for crew member retention provisions for all snapper grouper species. However, **Alternative 2 (Preferred)** could result in small negative biological impacts since bag limit retention of *all* snapper grouper species (that have bag limits) would be allowed for crew members of federally-permitted for-hire vessels in the snapper grouper fishery. In addition, bycatch of species with

low recreational ACLs could increase and result in negative biological impacts. Conversely, **Alternative 3** would benefit the biological environment the most by prohibiting crew members of for-hire vessels from retaining *all* snapper grouper species. However, the percentage decrease in harvest associated with **Alternative 3** is small and is not expected to be a significant source of biological protection. Substantial harvest controls have been in place since the implementation of Amendment 16, and ACLs and accountability measures (AMs) now have been implemented for all snapper grouper species included in the FMP. Therefore, the biological effects of **Alternatives 1 (No Action)-3** may be neutral.

Economic Effects

Several key issues surround the evaluation of the economic effects of the various alternatives under this action. Captain and crew of for-hire vessels provide labor services for each recreational trip and may not be strictly considered recreational anglers. If they were allowed to retain bag limits of certain snapper grouper species, the value of the retained fish would depend on their ultimate use. Captain and crew can take the fish home, give fish to other people (such as their angling customers), or sell them. Such actions would yield some form of economic value that cannot be adequately estimated. While the sale of recreationally caught snapper grouper species is illegal, it remains difficult to enforce. If the fish were distributed to the angling customers in one way or another, those fish may assume economic values that are comparable to economic values derived by an angler for keeping the fish. It is also possible for the captain and crew bag limit to be used for marketing purposes. Anglers could be enticed to take fishing trips if they are potentially allowed to keep fish above the bag limit. Those trips could also be assigned economic values in the form of additional revenue to the vessel. If, on the other hand, captain and crew of for-hire vessels were prohibited from retaining bag limits, those potential consumer surplus and net operating revenue values would be forgone.

Relative to **Alternative 1 (No Action)**, **Alternative 2 (Preferred)** would be expected to result in some economic benefits. Based on a bag limit analysis done for this amendment and considering only the period 2008-2011, **Alternative 2 (Preferred)** would result in an additional 51 fish kept on charter trips and 138 additional fish kept on headboat trips. The values of these fish would be $3,887 (2011 dollars) for charter trips and $10,623 (2011 dollars) for headboat trips. In contrast to **Alternative 2 (Preferred)**, **Alternative 3** would be expected to result in reduced economic benefits relative to **Alternative 1 (No Action)**. **Alternative 3** would result in reductions of 275 fish for charter boat trips and 4,291fish for headboat trips. The associated values for these reductions would be $21,131 (2011 dollars) and $330,321 (2011 dollars) for charter boat and headboat trips, respectively. It is not possible, however, to determine the reduction in angler trips under either **Alternative 2 (Preferred)** or **Alternative 3**. It is noted that angler trip reductions would result in revenue reductions of $157.27 (2011 dollars) per charter boat angler trip and $70.25 (2011 dollars) per headboat angler trip.

Social Effects

The existing restrictions on captain and crew bag limit retention under **Alternative 1 (No Action)** cause confusion among for-hire captains and crew since the restriction applies only to some snapper grouper species and not others. This inconsistency may also hinder effective enforcement. The opportunity to retain catch on for-hire trips, as proposed under **Alternative 2 (Preferred)**, would be expected to be beneficial to for-hire captain and crew by providing fish for personal consumption.

However, for species with low recreational ACLs (such as snowy grouper), allowing captain and crew to retain bag limits, as proposed under **Alternative 2 (Preferred)**, may reduce the amount available to private recreational anglers. Additionally, **Alternative 2 (Preferred)** could result in increased incentive to harvest the maximum bag limit for some species on for-hire trips, which could cause conflict among the for-hire fleet.

Alternative 3 would likely result in some negative impacts for crew who routinely take allowed bag limits for personal consumption. For species in the snapper grouper FMU that are not overfished or experiencing overfishing, bag limit restrictions for the for-hire crew members would not be expected to result in any benefits for fishermen and other resource users.

Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure

Alternative 1 (No Action). Section I of the snapper grouper framework procedure, as modified through Amendment 17B (See **Section 2.4** for the current framework).

Alternative 2 (Preferred). Modify Section I of the Snapper Grouper Framework Procedure by adding a new Item #9 (and renumber the existing 9 as 10 and 10 as 11):

9. Adjustments to ABCs, ACLs, and ACTs according to the existing ABC Control Rule(s) and formulas for specifying ACLs and ACTs that have been approved by the Council and that were implemented in a fishery management plan amendment to the FMP. This abbreviated process is authorized as follows:

> a. Following the Scientific and Statistical Committee's (SSC's) review of the stock assessment, the Council will determine if changes are needed to ABC, ACL, and/or ACT and will so advise the RA.
>
> b. The Council will first hold a public hearing during the Council meeting during which they will review the stock assessment and the SSC's recommendations. In addition, the public will be advised prior to the meeting that the Council is considering potential changes to the ABC, ACL, and/or ACT and the Council will provide the public the opportunity to comment on the potential changes prior to and during the Council meeting.
>
> c. If the Council then determines that modifications to the ABC, ACL, and/or ACT are necessary and appropriate, they will notify the RA of their recommendations in a letter with the Council's analysis of the relevant biological, economic, and social information necessary to support the Council's action.
>
> d. The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the Magnuson-Stevens Fishery Conservation and Management Act, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate

notification in the Federal Register, providing appropriate time for additional public comment as necessary.

e. If the Council chooses to deviate from the ABC control rule(s) and formulas for specifying ACLs and ACTs that the Council previously approved and that were implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply, and either the framework procedure would apply with the preparation of a regulatory amendment or a fishery management plan amendment would be prepared. Additionally, the Council may choose to prepare a regulatory amendment or a fishery management plan amendment even if they do not deviate from the previously approved ABC control rule(s) and formulas for specifying ACLs and ACTs.

Biological Effects

This administrative action could have indirect positive biological effects in that adjustments to harvest levels would not be subject to regulatory delays as is currently the case. As such, biological benefits may result due to the ability to quickly implement appropriate levels of harvest in response to the latest scientific information to maintain harvest levels at or below the ACL. When stock assessments indicate large decreases in the ACLs are needed, a quick adjustment to the catch level would likely have positive biological effects. The Southeast Data, Assessment, and Review (SEDAR) process currently only produces one stock assessment for a species every 3 to 5 years. As such, the data utilized in the SEDAR assessment are at least one year old by the time the assessment results become available and can be used for management purposes. It is, therefore, advantageous to make any modifications to the existing management process, as proposed under **Alternative 2 (Preferred)**, to expedite fishing level adjustments for snapper grouper species. However, the abbreviated process would not be able to be used if the South Atlantic Council were to deviate from the ABC control rule or adopt new formulas for specifying ACLs and ACTs.

Economic Effects

Alternative 1 (No Action) could negatively impact the recreational and commercial fishing sectors should new data indicate that a stock had improved but the South Atlantic Council had no means to rapidly increase the ACL, resulting in loss of opportunity, income, and/or recreational angling experiences. However, if an assessment indicated a substantial decrease in the ACL was needed, **Alternative 1 (No Action)** would retain a more deliberative process of ensuring the public was well-informed regarding the needed changes in catch levels. **Alternative 2 (Preferred)** could result in positive or negative economic effects. When stock assessments indicate ACLs can be increased, quick adjustments for ACLs would allow for positive economic effects without negatively affecting the sustainability of the stock. On the other hand, when stock assessments indicate large decreases in the ACLs are needed, there would likely be negative economic effects by moving quickly with a decrease in a catch level. However, the South Atlantic Council could choose to modify the ACL through a regulatory amendment rather than an abbreviated framework process.

Social Effects

The process by which catch limits can be adjusted based on new information, stock assessment updates, and SSC recommendations contributes directly to benefits for the commercial and for-hire fleets, recreational anglers, businesses associated with fishing, and coastal communities. Catch limits and AMs can potentially have significant impacts on fishermen and communities if harvest of an important species is not allowed or closes early in the season. Although the long-term benefits may balance out these short-term negative impacts, in some situations it can be expected that fishing behavior may change permanently; such as when a closure is implemented that limits income from fishing for a certain period of time.

Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner

Alternative 1 (No Action). Blue runner are managed under the Snapper Grouper FMP. A federal South Atlantic Unlimited or 225-Pound Snapper Grouper Permit is required to commercially harvest and sell blue runner. A federal Commercial Dealer Permit is required to purchase blue runner harvested from federal waters. The commercial ACL for blue runner is 188,329 lbs whole weight (ww) and the commercial allocation is 15% of the total ACL. If the commercial ACL is met or is projected to be met, all subsequent purchase and sale is prohibited. If the commercial ACL is exceeded, the Regional Administrator will publish a notice to reduce the ACL in the following season by the amount of the overage, but only if the species is overfished.

The recreational ACL for blue runner is 1,101,612 lbs ww. There is a recreational ACT for blue runner, which equals ACL*(1-percent standard error) or ACL*0.5, whichever is greater. If the annual recreational landings exceed the recreational ACL in a given year, the following year's landings will be monitored in-season for persistence in increased landings. The Regional Administrator will publish a notice to reduce the length of the recreational fishing season as necessary. Sale of recreationally harvested blue runner from federal waters is prohibited (must have a South Atlantic Unlimited or 225-Pound permit to sell blue runner).

Alternative 2 (Preferred). Remove blue runner from the Snapper Grouper FMP.

Alternative 3. Retain blue runner in the Snapper Grouper FMP but allow commercial harvest and sale of blue runner for vessels with a commercial Spanish Mackerel Permit or a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper. Gillnets are an allowable gear for only blue runner in the snapper grouper fishery.

Alternative 4. Retain blue runner in the Snapper Grouper FMP but exempt it from the South Atlantic Unlimited or 225-Pound Snapper Grouper Permit requirement for purchase, harvest, and sale.

Biological Effects

South Atlantic commercial snapper grouper and mackerel fishermen do not commonly target blue runner. Blue runner constituted less than 3% of the total commercial snapper grouper harvest and less than 3.2% of the mackerel harvest in the South Atlantic from 2000 to 2011 (**Table S-1**). However, blue runner is often caught as bycatch in the mackerel fishery, and some mackerel fishermen sell incidentally caught blue runner to supplement their income. Under **Alternative 1 (No Action),** blue runner would continue to be part of the Snapper Grouper FMU. Only fishermen with a valid South Atlantic Unlimited Snapper Grouper Permit or 225-Pound Permit would be legally allowed to commercially harvest blue runner from federal waters and those entities could sell blue runner only to dealers with a valid commercial Snapper Grouper Dealer Permit. It is noted that the sale of recreationally harvested snapper grouper species was prohibited in 2009.

Table S-1. Total annual commercial landings (pounds whole weight) of snapper grouper species, mackerel (king and Spanish), and total commercial landings of blue runner (pounds whole weight) in the South Atlantic from 2000 to 2011.

Year	Total snapper grouper	Total Mackerel	Total blue runner	Percent SG blue runner	Percent Mackerel blue runner
2000	9,314,188	6,092,744	156,832	1.68%	2.57%
2001	8,759,531	6,074,566	158,453	1.81%	2.61%
2002	8,276,934	5,581,737	132,756	1.60%	2.38%
2003	6,421,749	6,563,229	108,412	1.69%	1.65%
2004	9,002,185	6,963,918	149,080	1.66%	2.14%
2005	8,104,573	7,009,838	128,773	1.59%	1.84%
2006	7,433,209	7,912,722	155,450	2.09%	1.96%
2007	7,440,210	7,636,726	130,939	1.76%	1.71%
2008	8,553,781	7,188,949	192,593	2.25%	2.68%
2009	8,959,344	8,549,078	259,387	2.90%	3.03%
2010	8,402,187	8,843,515	223,954	2.67%	2.53%
2011	7,981,696	7,514,259	237,028	2.97%	3.15%

Source: NMFS SEFSC

In the South Atlantic, there is a robust live bait fishery for blue runner. Blue runner are harvested live as baitfish for pelagic and king mackerel recreational fishing; however, the majority of this activity takes place in state waters by non-federally permitted recreational fishermen. Therefore, those landings of blue runner would be captured by the Marine Recreational Information Program (MRIP) and counted against the recreational ACL.

Alternative 2 (Preferred) would remove blue runner from the Snapper Grouper FMP. Blue runner are primarily harvested in state waters of Florida, where there currently are management measures in place. If blue runner was removed from the FMP, it would no longer be under federal management and harvest (commercial and recreational) would not be constrained by federal ACLs. However, the state of Florida has indicated that it would consider extending management measures of blue runner into federal waters. At the April 2013 Florida Fish and Wildlife Conservation Commission (FWC) meeting, the Commissioners gave staff direction of their desire to assume management of blue runner in federal

waters off Florida and to review current state rules for blue runner (letter from Ken Wright, FWC Chair to David Cupka, South Atlantic Council Chair dated April 29, 2013). The biological effects of removing blue runner from the Snapper Grouper FMU may be negative if the species' management is not assumed by another entity, such as the state of Florida. If blue runner was removed from the Snapper Grouper FMP and there were no management measures in place in federal waters for blue runner, there could be a negative impact in the stock. However, this is not the case as Florida regulations will be extended to federal waters.

Neither **Alternatives 3** nor **4** propose changes that would result in direct biological impacts to the blue runner stock in the South Atlantic. Both alternatives propose administrative changes to allow the harvest of bluer runner to continue as it has been taking place for over a decade. Hence, no significant impacts over the status quo would be expected. However, an indirect impact could result from removal of a permit requirement for blue runner, as proposed under **Alternative 4**. The species would still require federal management but there would be no mechanism in place for National Marine Fisheries Service to reliably collect effort data (i.e., logbook program) to support future stock assessments. In addition, if snapper grouper permit holders are allowed to target blue runner with gillnet gear, as would occur under **Alternatives 3** and **4**, they could incidentally capture Spanish mackerel. If those fishermen do not also hold a commercial Spanish mackerel permit, then those mackerel would have to be discarded, potentially causing some mortality of Spanish mackerel that was not occurring prior.

Currently, gillnets are a prohibited gear type in the snapper grouper fishery. If gillnets were added as an allowable gear type for blue runner under the Snapper Grouper FMP, an ESA consultation would need to be reinitiated for the Snapper Grouper FMP to analyze the potential impacts gillnets could have on ESA-listed species. Additionally, use of gillnets to target blue runner could increase bycatch of other snapper grouper species that co-occur with blue runner.

Economic Effects

Alternative 1 (No Action) would have significant negative economic effects to those fishermen currently selling blue runner, but are not in compliance with applicable law. **Alternative 2 (Preferred)** would have positive economic effects compared to **Alternative 1 (No Action)**. **Alternative 3** would allow harvest of blue runner with gillnet gear by fishermen with Snapper Grouper or Spanish Mackerel Permits, and continue to allow Spanish mackerel fishermen and snapper grouper fishermen to harvest and sell blue runner. This would have positive socio-economic impacts in that fishermen who have depended on the extra income from the sale of blue runner would be allowed to continue to do so legally. Negative socio-economic impacts may result from the current requirement that snapper grouper species be sold only to a licensed snapper grouper dealer. However, the South Atlantic and Gulf of Mexico Councils have approved an amendment that, if approved by the Secretary of Commerce, would implement a generic dealer permit for multiple fisheries including snapper grouper and mackerel, thereby alleviating this potential negative socio-economic impact. The economic effects of **Alternatives 2 (Preferred)** and **3** would be similar.

Alternative 4 would allow anyone to harvest and sell blue runner, regardless of whether or not they had a valid South Atlantic Unlimited or 225-Pound Snapper Grouper Permit. However, this option would not remove the gillnet prohibition for harvest of species in the snapper grouper FMP, which could

negatively impact small fishing businesses that depend on the blue runner gillnet landings during part of the year. Additionally, current snapper grouper permit holders may experience indirect economic effects due to lost opportunity. The permit would no longer allow them exclusive rights to harvest blue runner over any other fisherman. In this regard, **Alternative 4** would result in more negative effects than **Alternative 2 (Preferred)**, but would be expected to result in more positive economic effects than **Alternative 1 (No Action)** assuming current applicable law is enforced in the future.

Social Effects

While blue runner has a relatively minimal economic and social value to South Atlantic fishing communities compared to other species, there are some vessels that catch blue runner with gillnets while harvesting Spanish mackerel, particularly around Cape Canaveral, Florida, and the fishermen working on these vessels may be dependent on blue runner catch during the late summer and early fall. It is likely that these are small operations and blue runner landings represent a significant part of their income. **Alternative 1 (No Action)** would have negative impacts on the small vessels that currently only have Spanish mackerel permits by either requiring each fisherman to purchase two South Atlantic Snapper Grouper Unlimited Permits and maintaining permit fees, or by not being allowed to legally land and sell blue runner. Additionally, any dealers who depend on a supply of blue runner during late summer and early fall would also be affected. Removing blue runner from the Snapper Grouper FMP **(Preferred Alternative 2)** would be beneficial to fishermen without South Atlantic Unlimited or 225-Pound Snapper Grouper Permits who harvest blue runner with gillnets because it would not require an additional permit and would allow harvest with gillnet. This would also be expected to have no negative impacts on fishermen with South Atlantic Unlimited or 225-Pound Snapper Grouper Permits who harvest blue runner with hook-and-line. **Alternative 3** may negatively impact fishermen in that the sale of blue runner would be limited to dealers possessing a Snapper Grouper Commercial Dealer Permit. However, as previously mentioned, a generic amendment that would implement a single dealer permit for multiple fisheries is pending Secretarial review/approval. **Alternative 4** would not place the additional burden on gillnet fishermen of acquiring a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit but would also not remove the gillnet prohibition for harvest of blue runner, which could negatively impact small fishing businesses that depend on the blue runner gillnet landings during part of the year.

Chapter 1. Introduction

1.1 What Actions Are Being Proposed? (Purposes)

Amendment 27 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 27) would: (1) extend the South Atlantic Fishery Management Council's (South Atlantic Council) management authority for Nassau grouper to include federal waters of the Gulf of Mexico; (2) increase the number of crew members allowed on dual-permitted snapper grouper vessels (vessels that have both a federal South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit); (3) address captain and crew retention of bag limit quantities of snapper grouper species; (4) modify Section I of the Framework Procedure for the Snapper Grouper Fishery of the South Atlantic Region (Framework) to allow adjustments of the acceptable biological catch (ABC), the annual catch limit (ACL), and the annual catch target (ACT) via an abbreviated framework process; and (5) modify management measures for blue runner.

South Atlantic Fishery Management Council

- Responsible for conservation and management of fish stocks in the South Atlantic region
- 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 National Marine Fisheries Service (NMFS); and 4 non-voting members
- Responsible for developing fishery management plans and amendments under the Magnuson-Stevens Fishery Conservation and Management Act; and recommend 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

Actions Removed from the Document for Future Consideration

Amendment 27 originally included five additional actions that dealt with jurisdictional management issues for yellowtail snapper and mutton snapper. Those actions included:

- Modifying the management jurisdiction for yellowtail snapper in the southeast region;
- Addressing cross-jurisdictional permit issues for harvest of yellowtail snapper;
- Modifying the management jurisdiction for mutton snapper in the southeast region;
- Addressing cross-jurisdictional permits issues for harvest of mutton snapper; and
- Modifying the commercial and recreational sector allocations for yellowtail snapper and mutton snapper to be consistent with the transfer in management authority to the South Atlantic Council.

During their December 2012 meeting, the South Atlantic Council discussed the Gulf of Mexico Fishery Management Council's (Gulf of Mexico Council) request to not transfer management authority of yellowtail snapper and mutton snapper to the South Atlantic Council, and instead form a committee to address jurisdictional management of yellowtail snapper and mutton snapper. In light of this

development, the South Atlantic Council voted to remove the five actions that pertained to yellowtail snapper and mutton snapper from Amendment 27. The South Atlantic Council and the Gulf of Mexico Council recently created a Joint Committee on South Florida Management Issues to formulate recommendations for future management of species that cross jurisdictional boundaries, like yellowtail snapper and mutton snapper.

1.2 Who is Proposing the Actions?

At their September 2012 meeting, the South Atlantic Council requested development of an amendment to the Snapper Grouper FMP to: extend jurisdictional management of Nassau grouper; modify the snapper grouper framework procedures to allow ABCs, ACLs and ACTs to be adjusted via an abbreviated framework process; and address modification to management measures for blue runner. At their December 2012 meeting, the South Atlantic Council requested that actions to increase the number of crew members that are allowed onboard dual-permitted snapper grouper vessels (vessels that have both a federal South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit), and to modify the current restrictions on crew possession of bag limit quantities of snapper grouper species be added to the amendment.

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**). In December 2011, the National Marine Fisheries Service (NMFS), under the authority granted to the Secretary of Commerce, designated the South Atlantic Council as the responsible Council to manage Nassau grouper in the Gulf of Mexico under the Snapper Grouper FMP (76 FR 78245). The Gulf of Mexico Council has been managing Nassau grouper in the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico (GMFMC 1984). Action is needed by the South Atlantic Council to extend management of Nassau grouper into the Gulf of Mexico.

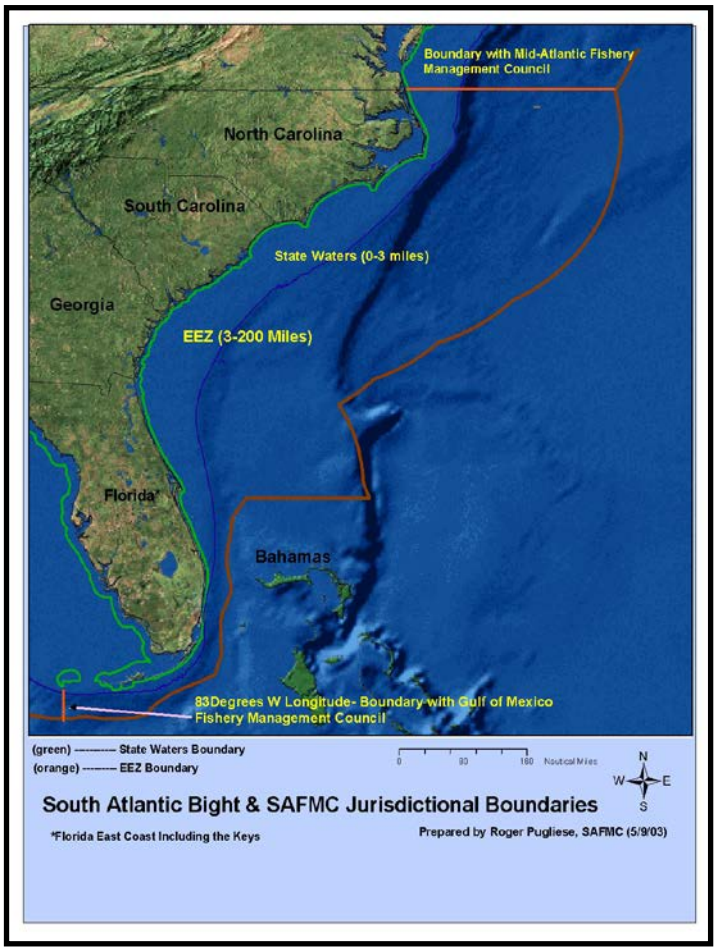

Figure 1.3.1. Jurisdictional boundaries of the South Atlantic Fishery Management Council.

Therefore, if implemented through rulemaking, the action to modify jurisdictional management of Nassau grouper would affect the Gulf of Mexico Council's area of jurisdiction as well as the South Atlantic Council's area of jurisdiction. All other actions in this amendment would affect the snapper grouper fishery operating in the South Atlantic region.

1.4 Why is the South Atlantic Council and NMFS Considering Action? (Needs)

Nassau Grouper

On December 16, 2011, a notice of agency action was published in the *Federal Register* (76 FR 78245), which designated the South Atlantic Council management authority over Nassau grouper in the Gulf of Mexico. The Gulf of Mexico Council chose to remove Nassau grouper from their reef fish fishery management plan with the intention that the South Atlantic Council would extend their area of jurisdiction for management of Nassau grouper to include federal waters of the Gulf of Mexico. The South Atlantic Council is addressing the issue of extending its management authority over Nassau grouper to include the Gulf of Mexico EEZ in Amendment 27.

Crew Member Limit on Dual-Permitted Snapper Grouper Vessels

Currently, there is a crew size limit of 3 for vessels associated with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper (referred to as "dual-permitted" vessels). This crew size limit prevents a dual-permitted vessel from engaging in a charter/headboat trip while landing fish in excess of the recreational bag limits. However, a safety concern may arise under the current crew size regulations when dual-permitted vessels are spearfishing commercially. The maximum crew size of 3 persons prohibits fishermen from fishing in pairs using the buddy system while having a standby diver and captain at the surface as recommended by the U.S. Coast Guard diving operations manual. The South Atlantic Council has received requests from dual-permitted vessel operators to allow a crew size of at least 4 persons. The increase in crew size would allow two persons to remain on the vessel while there are two divers in the water, thereby contributing to increased safety at sea.

Crew Retention of Bag Limit Quantities of Snapper Grouper

During their December 2012 meeting, the South Atlantic Council discussed the issue of consistency of regulations prohibiting retention of bag limit quantities of some snapper grouper species and not others for captain and crew of for-hire vessels. Therefore, the South Atlantic Council determined it is appropriate to address crew retention of snapper grouper species in this amendment and is considering either removal of the retention restrictions that currently exist or making the restriction apply to all species in the snapper grouper fishery management unit (FMU). Consistent regulations for all snapper grouper species would alleviate confusion regarding which species the provision applies to, and would aid in law enforcement efforts.

Snapper Grouper Framework Modifications

Currently, the Snapper Grouper Framework allows ABCs, ACLs, and ACTs to be modified for snapper grouper species via the regulatory amendment process, which most often requires the development of an amendment and associated National Environmental Policy Act documents in addition to proposed and final rules with public comment periods. This process can be lengthy, and prevents fishery managers from quickly implementing harvest parameters in response to new scientific information when needed. The lag time between when new information becomes available and when catch levels can be adjusted has the potential to result in adverse impacts on the economic and biological environments. Therefore, the South Atlantic Council is considering an action in Amendment 27 that would allow ABCs, ACLs, and ACTs to be modified through an abbreviated framework process that should allow catch levels to be adjusted more quickly.

Blue Runner

The South Atlantic Council has become aware that for many years, South Atlantic mackerel gillnet fishery participants have been selling blue runner caught in gillnets as bycatch to supplement their incomes without having a valid South Atlantic Unlimited or 225-Pound Snapper Grouper Permit, which is a requirement under the Snapper Grouper FMP. It is likely that mackerel fishery participants were not aware that: Blue runner is included in the snapper grouper fishery management unit; the species is managed with commercial and recreational ACLs; gillnets are not an approved gear in the snapper grouper fishery; and a restriction is in place on the sale of bag limit caught quantities of fish under the Snapper Grouper FMP. Because some mackerel fishery participants derive up to 30% of their income from the sale of blue runner, the South Atlantic Council is considering taking action to allow fishermen, who capture blue runner as bycatch while using gillnets to fish for South Atlantic mackerel species, to be able to legally sell blue runner and thus minimize adverse socio-economic impacts.

Purpose for Action

The *purpose* of Amendment 27 is to: (1) establish the South Atlantic Council as the responsible entity for managing Nassau grouper throughout its range including federal waters of the Gulf of Mexico; (2) modify the crew member limit on vessels with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper (referred to as "dual-permitted" vessels); (3) modify the current restriction on crew retention of bag limit quantities of snapper grouper species; (4) minimize regulatory delay when adjustments to snapper grouper species' ABC, ACLs, and ACTs are needed as a result of new stock assessments; and (5) address harvest of blue runner by commercial fishermen who do not possess a South Atlantic Snapper Grouper Permit.

Need for Action

The *need* for Amendment 27 is to: (1) respond to the Gulf of Mexico Council's request for the South Atlantic Council to assume management of Nassau grouper in the Southeast U.S.; (2) address safety at sea concerns related to the current limit of three crew members for dual-permitted vessels; (3) make regulations regarding retention of snapper grouper species by crew members consistent for all snapper grouper species; (4) expedite adjustments to ABCs, ACLs, and ACTs for snapper grouper species when a new stock assessment indicates adjustments are warranted; and (5) minimize socio-economic impacts to fishermen without a South Atlantic Snapper Grouper Permit who harvest and sell blue runner to supplement their income.

1.5 What is the History of Management for Blue Runner and Nassau Grouper?

Regulations for snapper grouper species in the South Atlantic were first implemented in 1983. See **Appendix D** for a complete list of management actions affecting Nassau grouper and blue runner.

Chapter 2. Description of Alternatives and Summary of their Effects

2.1 Action 1. Extend the South Atlantic Council's area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico

2.1.1 Alternatives

Alternative 1 (No Action). Nassau grouper harvest is prohibited in the South Atlantic and Gulf of Mexico. The South Atlantic Council's area of jurisdiction for management of Nassau grouper is limited to federal waters of the South Atlantic.

Alternative 2 (Preferred). The South Atlantic Council would extend its jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico. Harvest of Nassau grouper in the Gulf of Mexico exclusive economic zone (EEZ) and the South Atlantic EEZ would continue to be prohibited.

2.1.2 Summary of the Effects of the Alternatives

The National Marine Fisheries Service (NMFS), under the authority granted to it by the Secretary of Commerce, designated the South Atlantic Fishery Management Council (South Atlantic Council) as the responsible Council to manage Nassau grouper in the Gulf of Mexico under the Snapper Grouper FMP (76 FR 78245, December 16, 2011). Prior to this designation, the Gulf of Mexico Fishery Management Council was the responsible council to manage Nassau grouper in the Gulf of Mexico through the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico (Gulf Reef Fish FMP; GMFMC 1984). The notice of agency action indicated that the South Atlantic Council is expected to extend the prohibition on harvest of Nassau grouper into the Gulf of Mexico. The notice of agency action states that any action to remove the current prohibitions in the Gulf of Mexico would have a delayed effective date, so that it would be implemented simultaneously with a subsequent South Atlantic Council action to extend the harvest prohibition. Therefore, action is needed by the South Atlantic Council to extend management of Nassau grouper into the Gulf of Mexico.

Alternative 1 (No Action) would not allow for the South Atlantic Council to manage Nassau grouper as required. However, there is no sunset date associated with the delayed effectiveness outlined in the notice of agency action. Therefore, under **Alternative 1 (No Action)** the current harvest prohibition in the Gulf of Mexico would remain. If the South Atlantic Council were to choose **Alternative 1 (No Action)**, any future adjustments to commercial and recreational harvest levels for Nassau grouper could not be made by the South Atlantic Council in the Gulf of Mexico. Nassau grouper has been under a harvest moratorium since 1992 (SAFMC 1991) due to concerns of overexploitation. The current annual

catch limit (ACL) for Nassau grouper in both the South Atlantic and Gulf of Mexico is zero. **Alternative 2 (Preferred)** is an administrative action and no changes in the biological effects would be expected as the alternative would simply allow for the South Atlantic Council to continue the harvest prohibition for Nassau grouper in the Gulf of Mexico and would give them authority to allow some level of harvest in the Gulf of Mexico in the future if needed.

If the South Atlantic Council's jurisdiction for Nassau grouper extends to the Gulf of Mexico, it is expected there will be no economic effects as Nassau grouper are not currently targeted, nor can they be harvested in either the South Atlantic or Gulf of Mexico.

Currently, the notice of agency action indicates the harvest of Nassau grouper in the Gulf of Mexico remains prohibited, and any action to change this would not be effective until the South Atlantic Council gained management control of the species. Nassau grouper is currently under review for listing under the Endangered Species Act (ESA) and management of the species in federal waters contributes to federal protection of a potentially threatened or endangered fish. Administrative impacts of extending management of Nassau grouper into the Gulf of Mexico would be negligible since the status quo already includes a prohibition on harvest of the species in or from the Gulf of Mexico and the South Atlantic Council would continue that prohibition.

2.2 Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels

2.2.1 Alternatives

Alternative 1 (No Action). The current limit on the number of crew members on any dual-permitted vessel (a vessel with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper) is three.

Alternative 2. Eliminate the limit of three crew members for dual-permitted vessels.

Alternative 3 (Preferred). Increase the limit to four crew members for dual-permitted vessels.

2.2.2 Summary of the Effects of the Alternatives

Maintaining the current crew limit **(Alternative 1 (No Action))**, would not address the safety-at-sea issues presented when divers are not able to properly utilize the buddy system while commercial diving as recommended in the U.S. Coast Guard diving operations manual. **Alternative 2** would address the safety-at-sea issues associated with only having three crew members while commercial diving, but it may also increase the risk that dual-permitted vessels could engage in for-hire trips while commercial fishing, which is prohibited. **Alternative 3 (Preferred)** would allow two persons to remain onboard while there are two divers in the water, thereby increasing the safety of commercial divers consistent with Magnuson-Stevens Fishery Conservation and Management Act National Standard 10. Although an increase in crew size can result in a change in the rate of harvest or vessel efficiency, this would have neutral biological impacts because recreational harvest of snapper grouper species is limited to the recreational ACL.

Economic effects to the overall economy are not anticipated from the implementation of either **Alternative 2** or **3 (Preferred)**. The alternatives, however, could have economic effects on individual trip costs. Bringing on a fourth crew member (**Alternatives 2** and **3 (Preferred)**) or more (**Alternative 2**) would likely increase trip costs as a result of additional compensation for the additional crew member(s). Potential trip profitability would be weighed against safety concerns related to having additional crew members onboard in determining the value of additional crew. By allowing for more than four crew members onboard, **Alternative 2** has the potential for greater economic effects on trip costs than **Alternative 3 (Preferred)**.

Alternative 1 (No Action) would be expected to result in the most significant negative social effects on fishermen working on dual-permitted vessels among the alternatives in this action. The current crew size limit may prohibit fishermen from maximizing efficiency on each trip and taking advantage of both the commercial and charter permits associated with the vessel. Additionally, the current crew size limit of three per vessel may hinder safe diving practices by not providing diving partners for each potential commercial diver. **Alternatives 2** and **3 (Preferred)** would be expected to decrease the negative impacts of the current regulations and increase the potential benefits from safe and profitable commercial dive trips on dual-permitted vessels.

2.3 Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper

2.3.1 Alternatives

Alternative 1 (No Action). Captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper may not retain bag limit quantities of the following species in the snapper grouper fishery management unit (FMU): gag; black grouper; red grouper; scamp; red hind; rock hind; coney; graysby; yellowfin grouper; yellowmouth grouper; yellowedge grouper; snowy grouper; misty grouper; vermilion snapper; sand tilefish; blueline tilefish; and golden tilefish.

Alternative 2 (Preferred). Remove the snapper grouper species retention restrictions for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper.

Alternative 3. Establish a bag limit of zero for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper for *all* species included in the snapper grouper FMU.

2.3.2 Summary of the Effects of the Alternatives

Alternative 1 (No Action) would continue the biological benefits associated with retention restrictions of bag limit quantities of certain snapper grouper species for captain and crew members of for-hire vessels. Amendment 16 to the Snapper Grouper FMP indicated the harvest prohibition for the species identified in **Alternative 1 (No Action)** by captain and crew of federally-permitted charter vessels and headboats would result in a very small reduction in harvest. In addition, the current restrictions on captain

and crew bag limit retention under **Alternative 1 (No Action)** are likely to have different biological impacts depending on the species. For example, restrictions on retaining deepwater species such as snowy grouper or blueline tilefish could result in dead discards because these species are unlikely to survive catch and release. **Alternative 2 (Preferred)** proposes to remove the current restriction on retaining bag limit quantities of vermilion snapper, groupers, and tilefish. This alternative would therefore allow the captains and crew of for-hire vessels to retain the recreational bag limit of gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish. The analyses for **Alternatives 2 (Preferred)** and **3**, accounted for individual and aggregate bag limits for managed stocks. Impacts were only predicted if trip level harvest hit a bag limit. If a trip hit a bag limit, the analysis assumed 2 additional anglers (1 captain, 1 crew) on charter trips reporting to MRFSS and 3 additional anglers (1 captain, 2 crew) on headboat trips reporting to the SEFSC headboat survey. Based on this information, **Alternative 2 (Preferred)** would result in an overall increase in harvest of the most commonly landed snapper grouper species by approximately 0.02% for the headboat sector and 0.35% for the charterboat sector (**Table 2.3.1**). This increase is negligible and would be unlikely to result in negative biological impacts, particularly since ACLs and accountability measures (AMs) are in place to prevent overfishing from occurring. **Alternative 3** would result in a slight decrease in harvest of the most commonly caught snapper grouper species, a 0.86% reduction for the headboat sector and a 4.73% reduction for the charterboat sector (**Table 2.3.2**). Therefore, **Alternative 3** is not expected to result in significant biological benefits for the snapper grouper species.

Table 2.3.1 Percent increase in headboat and charterboat harvest for most commonly landed snapper grouper species under **Preferred Alternative 2** using average landings from 2009-2011.

	Headboat	Charterboat
Harvest increase	0.02%	0.35%

Table 2.3.2 Percent decrease in headboat and charterboat harvest for most commonly landed snapper grouper species under **Alternative 3** using average landings from 2009-2011.

	Headboat	Charterboat
Harvest decrease	-0.86%	-4.73%

Alternative 1 (No Action) would perpetuate confusion among the captain and crew on a for-hire vessel because the restriction does not apply to all snapper grouper species. This inconsistency may also hinder effective enforcement. Both **Alternatives 2 (Preferred)** and **3** would establish a single regulation for retention of bag limit quantities of snapper grouper species by for-hire crew members and captain, which would aid law enforcement efforts. The opportunity to retain bag limit quantities of all snapper grouper species (those under a bag limit) on for-hire trips, as proposed under **Alternative 2 (Preferred)**, would be expected to be beneficial to for-hire captain and crew by providing fish for personal consumption. For species with low recreational ACLs (such as snowy grouper), however, allowing captain and crew to retain bag limits may cause the ACL to be met earlier and reduce the amount of time private recreational anglers have access to certain species. In addition, **Alternative 2 (Preferred)** could result in increased incentive to harvest the maximum bag limit for some species on for-hire trips, which could cause conflict among the for-hire fleet.

Several key issues surround the evaluation of the economic effects of the various alternatives under this action. Captain and crew of for-hire vessels provide labor services for each recreational trip and may not be strictly considered recreational anglers. If they were allowed to retain bag limits of certain snapper grouper species, the valuation of those retained fish would depend on their ultimate use. Captain and crew can take the fish home, give fish to other people (such as their angling customers), or sell them. Such actions would yield some form of economic values that cannot be adequately estimated. While the sale of recreationally-caught snapper grouper species is illegal, it remains difficult to enforce, especially if the actual distribution is done after the trip. If the fish were distributed to the angling customers in one way or another, those fish may assume economic values that are comparable to economic values derived by an angler for keeping the fish. It is also possible for the captain and crew bag limit to be used for marketing purposes. Anglers could be enticed to take fishing trips if they are potentially allowed to keep fish above the bag limit. Those trips could also be assigned economic values in the form of additional revenue to the vessel. If, on the other hand, captain and crew of for-hire vessels were prohibited from retaining bag limits, those potential consumer surplus and net operating revenue values would be forgone.

Prohibition of bag limit retention for captain and crew for all snapper grouper species (**Alternative 3**) would likely result in some negative impacts for crew who routinely take the bag limit of allowed species for personal consumption. For several species in the snapper grouper FMU that are not overfished or experiencing overfishing, bag limit restrictions for the for-hire crew members would not be expected to result in any benefits for the fishermen and other resource users.

Under **Alternatives 1 (No Action)** and **2 (Preferred)** regulations would continue to be inconsistent regarding retention of snapper grouper species by captain and crew of for-hire vessels in the South Atlantic. Therefore, **Alternatives 1 (No Action)** and **Alternative 2 (Preferred)** would have the most negative administrative impacts of the alternatives considered.

2.4 Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure

2.4.1 Alternatives

Alternative 1 (No Action). Section I of the snapper grouper framework procedure, as modified through Amendment 17B, is as follows:

I. Snapper Grouper FMP Framework Procedure for Specification of Annual Catch Limits, Annual Catch Targets, Overfishing Limits, Acceptable Biological Catch, and annual adjustments:

<u>Procedure for Specifications:</u>

1. At times determined by the Southeast Data, Assessment, and Review (SEDAR) Steering Committee, and in consultation with the South Atlantic Council and NMFS Southeast Regional Office (SERO), stock assessments or assessment updates will be conducted under the SEDAR process for stocks or stock complexes managed under the Snapper Grouper FMP. Each SEDAR stock assessment or assessment update will: a) assess to the extent possible the current biomass,

biomass proxy, or SPR levels for each stock; b) estimate fishing mortality (F) in relation to F_{MSY} (MFMT) and F_{OY}; c) determine the overfishing limit (OFL); d) estimate other population parameters deemed appropriate; e) summarize statistics on the fishery for each stock or stock complex; f) specify the geographical variations in stock abundance, mortality recruitment, and age of entry into the fishery for each stock or stock complex; and g) develop estimates of B_{MSY}.

2. The Council will consider SEDAR stock assessments or other documentation the Council deems appropriate to provide the biological analysis and data listed above in paragraph 1. Either the Southeast Fisheries Science Center (SEFSC) or the stock assessment branch of a state agency may serve as the lead in conducting the analysis, as determined by the SEDAR Steering Committee. The Scientific and Statistical Committee (SSC) will prepare a written report to the Council specifying an OFL and may recommend a range of ABCs for each stock complex that is in need of catch reductions for attaining or maintaining OY. The OFL is the annual harvest level corresponding to fishing at MFMT (F_{MSY}). The ABC range is intended to provide guidance to the SSC and is the OFL as reduced due to scientific uncertainty in order to reduce the probability that overfishing will occur in a year. To the extent practicable, the probability that overfishing will occur at various levels of ABC and the annual transitional yields (i.e., catch streams) calculated for each level of fishing mortality within the ABC range should be included with the recommended range.

For overfished stocks, the recommended range of ABCs shall be calculated so as to end overfishing and achieve snapper grouper population levels at or above B_{MSY} within the rebuilding periods specified by the Council and approved by NMFS. The SEDAR report or SSC will recommend rebuilding periods based on the provisions of the National Standard Guidelines, including generation times for the affected stocks. Generation times are to be specified by the stock assessment panel based on the biological characteristics of the individual stocks. The report will recommend to the Council a B_{MSY} level and a MSST from B_{MSY}. The report may also recommend more appropriate estimates of F_{MSY} for any stock. The report may also recommend more appropriate levels for the maximum Sustainable Yield (MSY) proxy, Optimum Yield (OY), the overfishing threshold (MFMT), and overfished threshold (MSST). For stock or stock complexes where data are inadequate to compute an OFL and recommended ABC range, the SSC will use other available information as a guide in providing their best estimate of an OFL corresponding to MFMT and ABC range that should result in not exceeding the MFMT.

3. The SSC will examine SEDAR reports or other new information, the OFL determination, and the recommended range of ABC. In addition, the SSC will examine information provided by the social scientists and economists from the Council staff and from the SERO Fisheries Social Science Branch analyzing social and economic impacts of any specification demanding adjustments of allocations, ACLs, annual catch targets (ACTs), accountability measures (AMs), quotas, bag limits, or other fishing restrictions. The SSC will use the ABC control rule to set their ABC recommendation at or below the OFL, taking in account scientific uncertainty. If the SSC sets their ABC recommendations equal to OFL, the SSC will provide its rational why it believes that level of fishing will not exceed MFMT.

4. The Council may conduct a public hearing on the reports and the SSC's ABC recommendation at, or prior, to the time it is considered by the Council for action. Other public hearings may be

held also. The Council may request a review of the report by its Snapper Grouper Advisory Panel and optionally by its socioeconomic experts and convene these groups before taking action.

5. The Council, in selecting an ACL, ACT, AM, and a stock restoration time period, if necessary, for each stock or stock complex for which an ABC has been identified, will, in addition to taking into consideration the recommendations and information provided for in paragraphs 1, 2, 3, and 4, utilize the following criteria:

> **a.** Set ACL at or below the ABC specified by the SSC or set a series of annual ACLs at or below the projected ABCs in order to account for management uncertainty. If the Council sets ACL equal to ABC, and ABC has been set equal to OFL, the Council will provide its rationale as to why it by it believes that level of fishing will not exceed MFMT.
>
> **b.** May subdivide the ACLs into commercial, for-hire, and private recreational sector ACLs that maximize the net benefits of the fishery to the nation. The Sector ACLs will be based on allocations determined by criteria established by the Council and specified by the Council through a plan amendment. If, for an overfished stock, harvest in any year exceeds the ACL or sector ACL, management measure and catch levels for that sector will be adjusted in accordance with the AMs established for that stock.
>
> **c.** Set ACTs or sector ACTs at or below ACLs and in accordance with the provision of the AM for that stock. The ACT is the management target that accounts for management uncertainty in controlling the actual catch at or below the ACL. If an ACL is exceeded repeatedly, the Council has the option to establish an ACT if one does not already exist for a particular stock and adjust or establish AMs for that stock as well.

6. The Council will provide the SSC specification of OFL; SSC recommendation of ABC; and its recommendations to the NMFS Regional Administrator for ACLs, sector ACLs, ACTs, sector ACTs, AMs, sector AMs, and stock restoration target dates for each stock or stock complex, estimates of B_{MSY} and MSST, estimates of MFMT, and the quotas, bag limits, trip limits, size limits, closed seasons, and gear restrictions necessary to avoid exceeding the ACL or sector ACLS, along with the reports, a regulatory impact review and proper National Environmental Policy Act (NEPA) documentation, and the proposed regulations within a predetermined time as agreed upon by the Council and Regional Administrator. The Council may also recommend new levels or statements for MSY (or proxy) and OY.

7. The Regional Administrator will review the Council's recommendations and supporting information, and, if he concurs that the recommendations are consistent with the objectives of the FMP, the National Standards, and other applicable law, he shall forward for publication notice of proposed rules to the Assistant Administrator (providing appropriate time for additional public comment). The Regional Administrator will take into consideration all public comment and information received and will forward for publication in the *Federal Register* of a final rule within 30 days of the close of the public comment, or such other time as agreed upon by the Council and Regional Administrator.

8. Appropriate regulatory changes that may be implemented by final rule in the *Federal Register* include:

a. ACLs or sector ACLs, or a series of annual ACLs or sector ACLs.
b. ACTs or sector ACTs, or a series of annual ACTs or sector ACTs and establish ACTs for stocks which do not have an ACT.
c. AMs or sector AMs.
d. Bag limits, size limits, vessel trip limits, closed seasons or area, gear restrictions, and quotas designed to achieve OY and keep harvest levels from exceeding the ACL or sector ACL.
e. The time period specified for rebuilding an overfished stock, estimated MSY and MSST for overfished stocks, and MFMT.
f. New levels or statements of MSY (or proxy) and OY for any stock.
g. New levels of total allowable catch (TAC).
h. Adjust fishing seasons/years.

9. The NMFS Regional Administrator is authorized, through notice action, to conduct the following activities.

a. Close the commercial fishery of a snapper grouper species or species group that has a commercial quota or sub-quota at such time as projected to be necessary to prevent the commercial sector form exceeding its sector ACL or ACT for the remainder of the fishing year or sub-quota season.
b. Close the recreational fishery of a snapper grouper species or species group at such time as projected to be necessary to prevent recreational sector ACLs or ACTs from being exceeded.
c. Reopen a commercial or recreational season that had been prematurely closed if needed to assure that a sector ACL or ACT can be reached.

10. If NMFS decides not to publish the proposed rule for the recommended management measures, or to otherwise hold the measures in abeyance, then the Regional Administrator must notify the Council of its intended action and the reasons for NMFS concern along with suggested changes to the proposed management measures that would alleviate the concerns. Such notice shall specify: 1) The applicable law with which the amendment is inconsistent; 2) the nature of such inconsistencies; and 3) recommendation concerning the action that could be taken by the Council to conform the amendment to the requirements of applicable law.

Alternative 2 (Preferred). Modify Section I of the Snapper Grouper Framework Procedure by adding a new Item #9 (and renumber the existing 9 as 10 and 10 as 11):

9. Adjustments to ABCs, ACLs, and ACTs according to the existing ABC Control Rule(s) and formulas for specifying ACLs and ACTs that have been approved by the Council and that were implemented in a fishery management plan amendment to the FMP. This abbreviated process is authorized as follows:

a. Following the Scientific and Statistical Committee's (SSC's) review of the stock assessment, the Council will determine if changes are needed to ABC, ACL, and/or ACT and will so advise the RA.

b. The Council will first hold a public hearing during the Council meeting during which they will review the stock assessment and the SSC's recommendations. In addition, the public will be advised prior to the meeting that the Council is considering potential changes to the ABC, ACL, and/or ACT and the Council will provide the public the opportunity to comment on the potential changes prior to and during the Council meeting.

c. If the Council then determines that modifications to the ABC, ACL, and/or ACT are necessary and appropriate, they will notify the RA of their recommendations in a letter with the Council's analysis of the relevant biological, economic, and social information necessary to support the Council's action.

d. The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the Magnuson-Stevens Fishery Conservation and Management Act, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate notification in the Federal Register, providing appropriate time for additional public comment as necessary.

e. If the Council chooses to deviate from the ABC control rule(s) and formulas for specifying ACLs and ACTs that the Council previously approved and that were implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply, and either the framework procedure would apply with the preparation of a regulatory amendment or a fishery management plan amendment would be prepared. Additionally, the Council may choose to prepare a regulatory amendment or a fishery management plan amendment even if they do not deviate from the previously approved ABC control rule(s) and formulas for specifying ACLs and ACTs.

2.4.2 Summary of the Effects of the Alternatives

This administrative action could have indirect positive biological effects in that adjustments to harvest levels would not be subject to regulatory delays as is currently the case under **Alternative 1 (No Action)**. As such, biological benefits would result in that appropriate levels of harvest could be set quickly in response to the latest scientific information in order to maintain harvest levels at or below the ACL.

Alternative 1 (No Action) could negatively impact the recreational and commercial fishing sectors should new data indicate that a stock had improved but the South Atlantic Council had no means to rapidly increase the ACL, resulting in loss of opportunity, income, and/or recreational angling experiences. However, if an assessment indicated a substantial decrease in the ACL was needed **Alternative 1 (No Action)** would retain a more deliberative process of ensuring the public was well-informed regarding the needed changes in catch levels. **Alternative 2 (Preferred)** would have indirect economic effects on the snapper grouper fishery that could be negative or positive, proportionate to the level of increase or decrease of the ACL being adjusted. **Alternative 2 (Preferred)** would be expected to be beneficial to fishermen and communities by allowing for timeliness in the regulatory process and providing a route for the South Atlantic Council to make faster adjustments to ACLs and thus minimize

negative social and economic impacts. When stock assessments indicate ACLs can be increased with quick adjustments, positive social and economic effects would be expected without negatively impacting the sustainability of the stock. When stock assessments indicate large decreases in the ACLs are needed, a quick adjustment to the catch level would likely have positive biological effects but there would likely be negative social effects with moving quickly with a decrease in a catch level without a great deal of public involvement. However, the South Atlantic Council could choose to modify the ACL through a regulatory amendment rather than an abbreviated framework process. Additionally, changing the process to allow for timely adjustments could reduce uncertainty associated with older data, and may improve public perception of management by allowing the South Atlantic Council to adjust harvest levels quickly after new information becomes available. However, if the South Atlantic Council chooses to deviate from the ABC control rule, or formulas for specifying ACLs and ACTs, this abbreviated process would not apply. **Alternative 2 (Preferred)** would allow ABC, ACLs, AMs, and ACTs to be modified based on new scientific information through publication of the appropriate notification in the Federal Register, providing appropriate time for additional public comment as necessary.. This would benefit the administrative environment by eliminating the lengthier regulatory amendment process.

2.5 Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner

2.5.1 Alternatives

Alternative 1 (No Action). Blue runner are managed under the Snapper Grouper FMP. A federal South Atlantic Unlimited or 225-Pound Snapper Grouper Permit is required to commercially harvest and sell blue runner. A federal Commercial Dealer Permit is required to purchase blue runner caught in federal waters. The commercial ACL for blue runner is 188,329 lbs whole weight (ww) and the commercial allocation is 15% of the total ACL. If the commercial ACL is met or is projected to be met, all subsequent purchase and sale is prohibited. If the commercial ACL is exceeded, the Regional Administrator will publish a notice to reduce the ACL in the following season by the amount of the overage, but only if the species is overfished.

The recreational ACL for blue runner is 1,101,612 lbs ww. There is a recreational ACT for blue runner, which equals ACL*(1-percent standard error) or ACL*0.5, whichever is greater. If the annual recreational landings exceed the recreational ACL in a given year the following year's landings will be monitored in-season for persistence in increased landings. The Regional Administrator will publish a notice to reduce the length of the recreational fishing season as necessary. Sale of recreationally harvested blue runner is prohibited (must have a South Atlantic Unlimited or 225-Pound permit to sell blue runner).

Alternative 2 (Preferred). Remove blue runner from the Snapper Grouper FMP.

Alternative 3. Retain blue runner in the Snapper Grouper FMP but allow commercial harvest and sale of blue runner for vessels associated with a commercial Spanish Mackerel Permit or a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper. Gillnets are an allowable gear for only blue runner in the snapper grouper fishery.

Alternative 4. Retain blue runner in the Snapper Grouper FMP but exempt it from the Snapper Grouper permit requirement for purchase, harvest, and sale.

2.5.2 Summary of the Effects of the Alternatives

South Atlantic commercial snapper grouper and mackerel fishermen do not commonly target blue runner. However, the South Atlantic Council has discovered that blue runner is often caught as bycatch in the mackerel fishery, and fishermen sell incidentally caught blue runner to supplement their income. Under **Alternative 1 (No Action)**, blue runner would continue to be part of the Snapper Grouper FMP. Only fishermen with a valid South Atlantic Unlimited Snapper Grouper Permit or 225-Pound Permit would be legally allowed to commercially harvest them from federal waters and sell blue runner only to dealers with a valid commercial Snapper Grouper Dealer Permit. Sale of recreationally harvested snapper grouper species was prohibited in 2009 when Amendment 15B to the FMP (SAFMC 2008b) was implemented. The majority of blue runner (99%) are harvested from state waters off Florida, with a very small portion of the landings occurring off North Carolina and South Carolina (**Table 3.3.12** and **4.5.4a**). In the South Atlantic, there is a robust baitfish fishery of blue runner for pelagic and king mackerel recreational fishing; however, the majority of this activity takes place in state waters by non-federally permitted fishermen. Therefore, those landings of blue runner would be captured by the Marine Recreational Information Program (MRIP) and counted against the recreational ACL.

Alternative 2 (Preferred) would remove blue runner from the Snapper Grouper FMU, which would remove the requirement to have a South Atlantic Snapper Grouper Unlimited or a 225-Pound Permit in order to commercially harvest blue runner in federal waters. In essence, blue runner would no longer be under federal management and blue runner harvest (commercial and recreational) would no longer be constrained by federal ACLs. Blue runner are primarily landed in state waters of Florida, where there currently are management measures in place. However, the state of Florida has indicated that it would consider extending management measures of blue runner into federal waters. At the April 2013 Florida Fish and Wildlife Conservation Commission (FWC) meeting, the Commissioners gave staff direction of their desire to assume management of blue runner in federal waters off Florida and to review current state rules for blue runner (letter from Ken Wright, FWC Chair to David Cupka, South Atlantic Council Chair dated April 29, 2013). The biological effects of removing blue runner from the Snapper Grouper FMU may be negative if the species' management is not assumed by another entity, such as the state of Florida. If blue runner was removed from the Snapper Grouper FMP and there were no management measures in place for blue runner in federal waters, there could be a negative impact on the stock. However, if this species was removed from the federal FMP then the state of Florida, as stated by their representative on the South Atlantic Council during the March 2013 meeting, would immediately begin review of blue runner rules, consider additional management measures, and extend regulations into federal waters. Regulations that currently apply to blue runner in Florida state waters are in **Section 4.5.1**.

Neither **Alternative 3** nor **Alternative 4** propose changes that would result in biological impacts to the blue runner stock in the South Atlantic. Both alternatives propose administrative changes to allow the harvest of blue runner to continue as it has been taking place for over a decade. Hence, no significant impacts over the status quo would be expected. **Alternative 3** would retain blue runner in the Snapper Grouper FMP, but allow harvest by entities holding a Spanish mackerel permit. This would alleviate the

problem with the current illegal harvest of blue runner by fishermen who do not currently hold a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit. Allowing mackerel fishermen to harvest blue runner, in addition to snapper grouper fishermen, could result in the commercial ACL being met earlier during the fishing year; however, this would not be expected to have negative effects on the stock as ACLs and AMs are in place to prevent overfishing from occurring. However, if commercial snapper grouper permit holders are allowed to target blue runner with gillnet gear, as would occur under **Alternatives 3** and **4**, they could incidentally capture Spanish mackerel. If those fishermen do not also hold a commercial Spanish mackerel permit, then those mackerel would have to be discarded potentially causing some mortality of Spanish mackerel that was not occurring previously. Additionally, use of gillnets to target blue runner could increase bycatch of other snapper grouper species that co-occur with blue runner. However, increased use of gillnets to target blue runner would not be expected.

Alternative 3 would allow harvest of blue runner with gillnet gear by fishermen with Snapper Grouper or Spanish Mackerel Permits, and continue to allow Spanish mackerel fishermen and snapper grouper fishermen to harvest and sell blue runner. This would have positive socio-economic impacts in that fishermen who have depended on the extra income from the sale of blue runner would be allowed to continue to do so legally. Negative socio-economic impacts may result from the current requirement that snapper grouper species be sold only to a licensed snapper grouper dealer. However, this potential negative socio-economic impact may be alleviated because the South Atlantic and Gulf of Mexico Councils have approved an amendment that, if approved by the Secretary of Commerce, would implement a generic dealer permit for multiple fisheries including snapper grouper and mackerel, thereby alleviating this potential negative socio-economic impact. Currently, gillnets are a prohibited gear type in the snapper grouper fishery. If gillnets were added as an allowable gear type for blue runner under the Snapper Grouper FMP an ESA consultation would need to be reinitiated for the Snapper Grouper FMP to analyze the potential impacts gillnets could have on ESA-listed species.

Alternative 4 would allow anyone to harvest and sell blue runner, regardless of whether or not they had a valid South Atlantic Unlimited or 225-Pound Snapper Grouper Permit and thus, would not place the additional burden on gillnet fishermen of acquiring a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit. Removal of the permit requirement for blue runner, as proposed under **Alternative 4**, could, however, result in indirect negative biological impacts. The species would still require federal management but there would be no mechanism in place for NMFS to reliably collect effort data (i.e., logbook program) to support future stock assessments. This alternative would also not remove the gillnet prohibition for harvest of species in the Snapper Grouper FMP, which could negatively impact small fishing businesses that depend on the blue runner gillnet landings during part of the year. Additionally, current snapper grouper permit holders may experience indirect economic effects due to lost opportunity. The permit would no longer provide a fisherman with the exclusive right to harvest blue runner over any other fisherman. In this regard, **Alternative 4** would result in more negative effects than **Alternative 2 (Preferred)**.

Alternative 1 (No Action) would have the greatest negative economic effects should the requirement to possess a South Atlantic Snapper Grouper Permit be enforced. On average $58,139 in annual revenue would be forfeited by fishermen if the existing regulations were enforced, as well as the value of gillnet landings at an average of $185,839 (see **Tables 4.5.8** and **4.5.9**). **Alternatives 4** and **3** would have the next highest negative economic impacts.

Chapter 3. Description of the Affected Environment

This section describes the affected environment in the proposed project area. The affected environment is divided into 5 major components:

Affected Environment

- **Habitat environment (Section 3.1)**

  Examples include coral reefs and sea grass beds

- **Biological end ecological environment (Section 3.2)**

  Examples include populations of snapper grouper species, corals, turtles, and marine mammals

- **Economic environment (Section 3.3)**

  Examples include economic descriptions of the fisheries

- **Social environment (Section 3.4)**

  Examples include descriptions of the affected fishing communities

- **Administrative environment (Section 3.5)**

  Examples include the fishery management process and enforcement activities

3.1 Habitat Environment

Many snapper grouper species utilize both open-water and bottom habitats during several life-history stages; larval stages of these species live in the water column and feed on plankton. Most juveniles and adults are bottom-dwellers and associate with hard structures on the continental shelf that have moderate to high relief (e.g., coral reef systems and artificial reef structures, rocky hard-bottom substrates, ledges and caves, sloping soft-bottom areas, and limestone outcroppings). Juvenile stages of some snapper grouper species also utilize inshore seagrass beds, mangrove estuaries, lagoons, oyster reefs, and embayment systems. In many species, various combinations of these habitats may be utilized during daily feeding migrations or seasonal shifts in cross-shelf distribution.

Predominant snapper grouper offshore fishing areas are located in live-bottom and shelf-edge habitats, where water temperatures range from 11° to 27°C (52° to 81°F) due to the proximity of the Gulf Stream, with lower shelf habitat temperatures varying from 11° to 14°C (52° to 57°F). Water depths range from 16 to 27 meters (54 to 90 feet) or greater for live-bottom habitats, 55 to 110 meters (180 to 360 feet) for the shelf-edge habitat, and from 110 to 183 meters (360 to 600 feet) for lower-shelf habitat areas.

Artificial reef structures are also utilized to attract fish and increase fish harvests; however, research on artificial reefs is limited and opinions differ as to whether or not these structures promote an increase of ecological biomass or merely concentrate fishes by attracting them from nearby, natural unvegetated areas of little or no relief.

The habitat types mentioned above are described in more detail in Volume II of the South Atlantic Fishery Management Council's (South Atlantic Council) Fishery Ecosystem Plan (SAFMC 2009b) available at: http://www.safmc.net/ecosystem/Home/EcosystemHome/tabid/435/Default.aspx

3.1.1 Essential Fish Habitat

Essential fish habitat (EFH) is defined in the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) as "those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S. C. 1802(10)). Areas of EFH in the South Atlantic Bight utilized by federally managed fish and invertebrate species include both estuarine/inshore and marine/offshore areas (**Appendix C**).

EFH utilized by snapper grouper species in the South Atlantic region includes coral reefs, live/hard bottom, submerged aquatic vegetation, artificial reefs and medium to high profile outcroppings on and around the shelf break zone from shore to at least 183 meters [600 feet (but to at least 2,000 feet for wreckfish)] where the annual water temperature range is sufficiently warm to maintain adult populations of members of this largely tropical fish complex. EFH includes the spawning area in the water column above the adult habitat and the additional pelagic environment, including *Sargassum*, required for survival of larvae and growth up to and including settlement. In addition, the Gulf Stream is also EFH because it provides a mechanism to disperse snapper grouper larvae.

For specific life stages of estuarine-dependent and near shore snapper grouper species, EFH includes areas inshore of the 30 meters (100-foot) contour, such as attached microalgae; submerged rooted vascular plants (seagrasses); estuarine emergent vegetated wetlands (saltmarshes, brackish marsh); tidal creeks; estuarine scrub/shrub (mangrove fringe); oyster reefs and shell banks; unconsolidated bottom (soft sediments); artificial reefs; and coral reefs; and live/hard bottom habitats.

3.1.2 Habitat Areas of Particular Concern

Areas which meet the criteria for EFH-habitat areas of particular concern (EFH-HAPCs) for species in the snapper grouper management unit include medium to high profile offshore hard bottoms where spawning normally occurs; localities of known or likely periodic spawning aggregations; near shore hard bottom areas; The Point, The Ten Fathom Ledge, and Big Rock (North Carolina); The Charleston Bump (South Carolina); mangrove habitat; seagrass habitat; oyster/shell habitat; all coastal inlets; all state-designated nursery habitats of particular importance to snapper grouper (e.g., Primary and Secondary Nursery Areas designated in North Carolina); pelagic and benthic *Sargassum*; Hoyt Hills for wreckfish; the Oculina Bank Habitat Area of Particular Concern; all hermatypic coral habitats and reefs; manganese outcroppings on the Blake Plateau; and South Atlantic Council-designated Artificial Reef Special Management Zones (SMZs). Areas that meet the criteria for designating essential fish habitat-habitat areas of particular concern include habitats required during each life stage (including egg, larval, postlarval, juvenile, and adult stages).

See **Appendix C** for EFH-HAPCs for other South Atlantic Council-managed species.

3.2 Biological and Ecological Environment

The reef environment in the South Atlantic management area affected by actions in this environmental assessment is defined by two components (**Figure 3.2.1**). Each component is described in detail in the following sections.

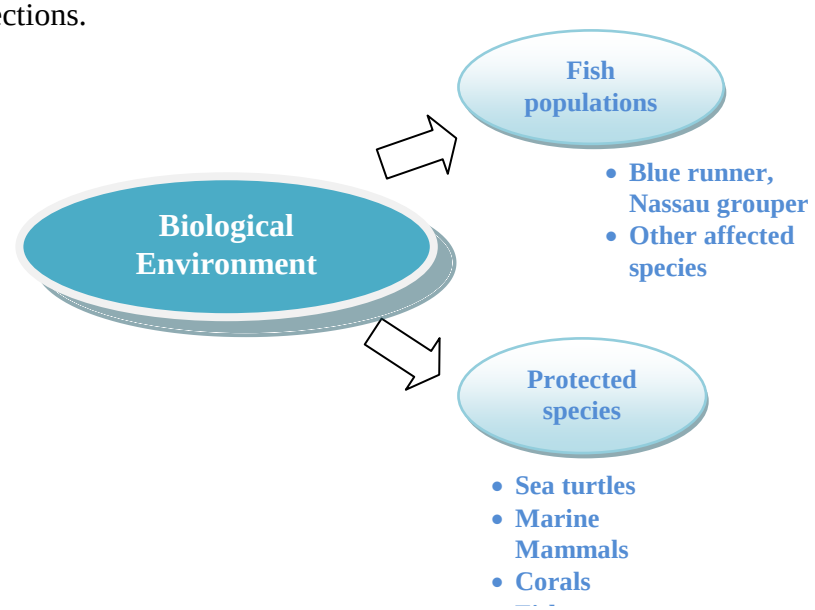

Figure 3.2.1. Two components of the biological environment described in this document.

3.2.1 Fish Populations

The waters off the South Atlantic coast are home to a diverse population of fish. The snapper grouper fishery management unit contains 60 species of fish, many of them neither "snappers" nor "groupers". These species live in depths from a few feet (typically as juveniles) to hundreds of feet. As far as north/south distribution, the more temperate species tend to live in the upper reaches of the South Atlantic management area (e.g., black sea bass, red porgy) while the tropical variety's core residence is in the waters off south Florida, Caribbean Islands, and northern South America (e.g., black grouper, mutton snapper).

These are reef-dwelling species that live amongst each other. These species rely on the reef environment for protection and food. There are several reef tracts that follow the southeastern coast. The fact that these fish populations congregate dictates the nature of the fishery (multi-species) and further forms the type of management regulations proposed in this document.

Snapper grouper species commonly taken with blue runner could be affected by the actions proposed in this amendment. In addition to blue runner and Nassau grouper, snapper grouper species most likely to

be affected by the proposed actions includes many species that occupy the same habitat at the same time (see **Section 3.2.5**).

3.2.2 How are fish populations assessed?

Fish stocks in the South Atlantic Council's area of jurisdiction are assessed through the Southeast Data, Assessment and Review (SEDAR) process. SEDAR is a cooperative Fishery Management Council process initiated to improve the quality and reliability of fishery stock assessments in the South Atlantic, Gulf of Mexico, and U.S. Caribbean. The Caribbean, Gulf of Mexico, and South Atlantic Fishery Management Councils manage SEDAR in coordination with National Marine Fisheries Service (NMFS) and the Atlantic and Gulf States Marine Fisheries Commissions. 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 workshops: (1) the Data Workshop, (2) the Assessment Workshop, and (3) the Review Workshop. The Data Workshop involves the review and compilation of fisheries, monitoring, and life history data. The Assessment Workshop, which may be conducted via a workshop and several webinars, involves the development of assessment models and the use of the information provided by the Data Workshop to estimate population parameters. The Review Workshop involves the independent expert review of input data, assessment methods, and assessment products. The completed assessment, including the reports of all three workshops and all supporting documentation, is then forwarded to the South Atlantic Council's Scientific and Statistical Committee (SSC). The SSC considers whether the assessment represents the best available science and develops fishing level recommendations for Council consideration.

SEDAR workshops are public meetings organized by SEDAR. Workshop participants appointed by the lead Council are drawn from state and federal agencies, non-government organizations, Council members, Council advisors, and the fishing industry with a goal of including a broad range of disciplines and perspectives. All participants are expected to contribute to this scientific process by preparing working papers, contributing data, providing assessment analyses, evaluating and discussing information presented and completing the workshop report.

3.2.3 Nassau Grouper

The Nassau grouper, *Epinephelus striatus*, occurs in the tropical Western Atlantic, ranging from Bermuda, the Bahamas, and Florida to southern Brazil. It has not been found in the Gulf of Mexico, except at the Campeche Bank off the coast of Yucatan, at Tortugas, and off Key West. The Nassau grouper occurs from the shoreline to depths of at least 90 m (295 ft). It is a sedentary, reef-associated species and usually encountered close to caves, although juveniles are common in seagrass beds (Heemstra and Randall 1993). Adults lead solitary lives, except when they aggregate to spawn (Sadovy and Eklund 1999).

Maximum reported size is 122 cm (48.3 in) total length (TL) (male) and 23-27 kg (51.1-29.9 lbs), and maximum reported age is 29 years (Sadovy and Eklund 1999). Natural mortality has been estimated at 0.18 (Ault et al. 1998).

Unlike most other serranids where males are derived from females (protogyny), Sadovy and Colin (1995) indicated that Nassau grouper is primarily a gonochoristic species (separate sexes) with a potential for sex change. Male and female Nassau grouper mature between 40-50 cm (15.8-19.8 in) standard length (SL) and 4-8 years of age. Most individuals attain maturity by 50 cm (19.8 in) SL and 7 years of age.

This species aggregates to spawn at specific times and locations each year (Coleman et al. 2000; Sadovy et al. 1994), reportedly at some of the same sites utilized by the tiger grouper, yellowfin grouper, and black grouper (Sadovy et al. 1994). Concentrated aggregations of from a few dozen to 30,000 Nassau grouper have been reported off the Bahamas, Jamaica, Cayman Islands, Belize, and the Virgin Islands (Heemstra and Randall 1993). Spawning aggregations composed of about 2,000 individuals have been documented north and south of St. Thomas, USVI at depths of 10-40 m, from December through February, around the time of the full moon (Rielinger 1999).

The spawning season is brief and associated with water temperature and the moon phase. At lower latitudes, reproductive activity lasts for about one week per month during December-February. In more northern latitudes (e.g., Bermuda), reproduction occurs between May and August, with a peak in July. Spawning aggregations in the Caribbean occur at depths of 20-40 m on the outer reef shelf edge, in December and January around the time of the full moon in waters 25-26° C (Sadovy and Eklund 1999).

Juveniles feed primarily on crustaceans (Eggleston et al. 1998), while adults forage on fishes, bivalves, lobsters, and gastropods (Sadovy and Eklund 1999).

3.2.3.1 Stock Status of Nassau Grouper

According to the 2011 Status of U.S. Fisheries, Nassau grouper is not undergoing overfishing and its overfished status is undefined. The environmental organization WildEarth Guardians submitted a petition to list Nassau grouper under the Endangered Species Act (ESA) dated August 31, 2010 http://www.nmfs.noaa.gov/pr/pdfs/petitions/grouper.pdf. On October 10, 2012, NMFS published a "Notice of 90 Day Petition Finding, Request For Information" in the *Federal Register* (77 FR 61559). This notice informs the public that the Secretary of Commerce has determined the WildEarth Guardians petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted. Therefore, NMFS has commenced a review of the status of Nassau grouper including comprehensive review of the best available scientific and commercial information. NMFS will conclude the review with a finding as to whether, in fact, the listing petition for Nassau grouper is warranted.

3.2.4 Blue Runner

The blue runner, *Caranx crysos*, occurs in the Eastern and Western Atlantic. In the Western Atlantic, it is found from Nova Scotia, Canada to Brazil, including the Gulf of Mexico and Caribbean. Blue runner is a pelagic species that occurs in water as deep as 100 m (328 ft), but generally stays close to the coast. Juveniles often occur in association with floating *Sargassum*. Maximum reported size is 70 cm (27.7 in) TL (male) and 5.1 kg (11.3 lbs) (Smith-Vaniz et al. 1990). Maximum reported age is 11 years (Smith-Vaniz et al. 1990). This species is believed to form spawning aggregations (Thompson and Munro 1974). Thompson and Munro (1974) indicate that blue runner spawn from February to September. Erdman (1976) indicate that off La Parguera, Puerto Rico, spawning occurs mainly during March through May. Prey items include fishes, shrimps, and other invertebrates (Smith-Vaniz et al. 1990). Blue runner are not commonly harvested for human consumption; however, their recreational harvest is substantial (see **Table 3.3.8**). Most recreational harvest is attributable to the private and shore modes, with the shore mode usually yielding higher landings than the private recreational sector (see **Table 3.3.8**). Most landings, however, are from state waters (**Table 4.5.4**).

3.2.4.1 Stock Status of Blue Runner

According to the 2011 Status of U.S. Fisheries, blue runner in the South Atlantic have an unknown overfished and overfishing status.

3.2.5 Other Fish Species Affected

In addition to blue runner and Nassau grouper, snapper grouper species most likely to be affected by the proposed actions include many species that occupy the same habitat at the same time and/or have similar life histories. Volume II of the Fishery Ecosystem Plan for the South Atlantic Region (SAFMC 2009b), describes their life history characteristics in detail.

3.2.6 Protected Species

There are 40 species protected by federal law that may occur in the exclusive economic zone (EEZ) of the South Atlantic Region and are under the purview of NMFS. Thirty-one of these species are marine mammals protected under the Marine Mammal Protection Act (MMPA). Six of these marine mammal species are also listed as endangered under the ESA (i.e., sperm, sei, fin, blue, humpback, and North Atlantic right whales). In addition to those six marine mammals, five species of sea turtles (green, hawksbill, Kemp's ridley, leatherback, and loggerhead); the smalltooth sawfish; five distinct population segments (DPSs) of Atlantic sturgeon; and two *Acropora* coral species (elkhorn [*Acropora palmata*] and staghorn [*A. cervicornis*]) are also protected under the ESA. Portions of designated critical habitat for North Atlantic right whales and *Acropora* corals also occur within the South Atlantic Council's jurisdiction. Section 3.5 in the Comprehensive Annual Catch Limit (ACL) Amendment (SAFMC 2011c), and section 3.2.2 in Regulatory Amendment 13 to the Snapper Grouper FMP (under review), describe the

life history characteristics in detail for these species. Section 3.5 of the Comprehensive ACL Amendment and 3.2.2 of Regulatory Amendment 13 are hereby incorporated by reference and may be found at: http://www.safmc.net/ecosystem/Home/EcosystemHome/tabid/435/Default.aspx and http://sero.nmfs.noaa.gov/sf/pdfs/Reg13_FINAL_Dec2012.pdf, respectively. The potential impacts from the continued authorization of the South Atlantic snapper grouper fishery on all ESA-listed species have been considered in previous ESA Section 7 consultations. Summaries of those consultations and their determination are in **Appendix E**. Those consultations indicate that of the species listed above, sea turtles and smalltooth sawfish are the most likely to interact with the snapper grouper fishery.

3.3 Economic Environment

3.3.1 Economic Description of the Commercial Sector

Additional information on the commercial snapper grouper sector is contained in previous amendments [Amendment 13C (SAFMC 2006), Amendment 15A (SAFMC 2008a), Amendment 15B (SAFMC 2008b), Amendment 16 (SAFMC 2009a), Regulatory Amendment 9 (SAFMC 2011b), and Comprehensive ACL Amendment for the South Atlantic Region (SAFMC 2011c)] and is incorporated herein by reference. Presented below is selected information on the commercial sector of the snapper grouper fishery, including blue runner.

The major source of data summarized in this description is the Federal Logbook System (FLS), supplemented by average prices calculated from the Accumulated Landings System (ALS) and price indices taken from the Bureau of Labor Statistics. Real (inflation adjusted) prices are reported in 2011 constant dollars. Landings are expressed in gutted weight to match with the method for collecting ex-vessel price information.

3.3.1.1 Annual Landings, Revenues, and Effort

The commercial reef fish fishing fleet in the South Atlantic is composed of vessels using different gear types and catching a variety of species. From 2007 through 2011, an average of 16,409 trips that landed at least one pound of snapper grouper were taken by 928 permitted vessels. These trips landed 6.8 million pounds, gutted weight (gw), of snapper grouper valued at $16.9 million in nominal prices (**Table 3.3.1**). Trips landing snapper grouper also landed other species; total revenues generated by these trips were about $20 million in nominal prices. On average, snapper grouper price per pound was $2.50, or $2.60 when adjusted for inflation.

An average of 3,253 trips landing at least one pound of blue runner was taken by 336 vessels (**Table 3.3.2**). These trips landed an average of 115,000 pounds of blue runner with an ex-vessel value of $111,000 in nominal prices. These trips also landed other species, and total revenues from these trips were $2.1 million, indicating blue runner was not the main source of revenues for most of these trips. The average price for blue runner was $0.96 per pound, or $1.00 when adjusted for inflation.

Table 3.3.1. Selected characteristics for trips landing at least one pound (gutted weight) of snapper grouper, 2007-2011.

Item	2007	2008	2009	2010	2011	Average
Number of trips	17,034	16,748	17,852	15,719	14,691	16,409
Number of boats	942	956	987	916	841	928
Number of days away from port	26,717	26,950	28,631	24,885	23,508	26,138
Pounds of snapper grouper (1,000 gutted)	6,520	6,811	7,101	6,808	6,636	6,775
Revenues from snapper grouper ($1,000)	$16,717	$17,390	$17,065	$16,350	$16,961	$16,897
Revenues from all species ($1,000)	$19,716	$20,527	$20,223	$19,390	$19,609	$19,893
Nominal price of snapper grouper	$2.56	$2.55	$2.40	$2.40	$2.56	$2.50
Real price ($2011) of snapper grouper	$2.78	$2.67	$2.52	$2.48	$2.56	$2.60

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.2. Selected characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011.

Item	2007	2008	2009	2010	2011	Average
Number of trips	2,653	2,883	3,178	3,712	3,837	3,253
Number of boats	285	322	338	387	348	336
Number of days away from port	2,962	3,080	3,467	4,130	4,379	3,604
Pounds of blue runner (1,000 gutted)	90	99	132	122	130	115
Revenues from blue runner ($1,000)	$87	$89	$123	$118	$138	$111
Revenues from all species ($1,000)	$1,508	$1,794	$1,874	$2,460	$2,778	$2,083
Nominal price of blue runner	$0.97	$0.90	$0.93	$0.96	$1.06	$0.96
Real price ($2011) of blue runner	$1.05	$0.94	$0.98	$1.00	$1.06	$1.00

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

3.3.1.2 Monthly Landings, Revenues, and Effort

Landings of snapper grouper were distributed fairly well throughout the year, although May and June may be considered as peak months (**Table 3.3.3**). Although November and December showed relatively low landings of snapper grouper, the lowest landings of snapper grouper species occurred in April. The landings distribution for blue runner was quite different from that of the entire snapper grouper complex (**Table 3.3.4**). Peak landings occurred in September and October, and the lowest landings occurred in February.

Table 3.3.3. Selected monthly characteristics for trips landing at least one pound (gutted weight) of snapper grouper, 2007-2011 average.
Pounds are in thousands gutted weight and revenues are in thousand dollars.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trips	1,229	1,167	1,129	1,245	1,818	1,904	1,686	1,654	1,176	1,104	1,173	1,126
Boats	395	377	360	394	512	501	465	459	381	372	401	392
Days	1,928	1,899	1,764	1,847	2,898	2,911	2,709	2,633	1,997	1,880	1,913	1,761
Lbs.	584	549	551	374	791	671	653	650	586	484	450	433
Nom. Rev.	$1,428	$1,262	$1,069	$1,009	$1,853	$1,659	$1,786	$1,741	$1,538	$1,266	$1,165	$1,120
Real Rev.	$1,478	$1,313	$1,119	$1,060	$1,932	$1,725	$1,849	$1,813	$1,601	$1,321	$1,219	$1,175

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.4. Selected monthly characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011 average.
Pounds are in thousands gutted weight and revenues are in thousand dollars.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trips	223	177	179	229	322	411	373	355	224	225	263	272
Boats	91	74	79	95	113	121	112	110	73	77	95	94
Days	246	191	206	264	350	451	414	383	260	255	290	292
Lbs.	8	5	8	8	8	12	10	7	14	15	12	10
Nom. Rev.	$7	$5	$7	$8	$10	$12	$10	$7	$12	$13	$11	$9
Real Rev.	$7.4	$4.8	$7.3	$8.5	$10.6	$12.7	$10.4	$6.9	$12.9	$13.2	$11.0	$9.5

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

3.3.1.3 Average Landings, Revenues, and Effort by Gear Type

Hook-and-line was the dominant gear in the harvest of snapper grouper species, including blue runner (**Table 3.3.5** and **Table 3.3.6**) for the period 2007-2011. This gear type accounted for about 74% of total snapper grouper landings and 62% of blue runner landings. Significantly more boats used this gear type to harvest snapper grouper. In addition, significantly more trips were associated with the use of hook-and-line and gillnet. The other gear types were not as important in the harvest of blue runner. The relatively high landings of blue runner by traps was due to some landings in 2008, although virtually no trap landings of blue runner occurred in other years.

Table 3.3.5. Selected monthly characteristics for trips landing at least one pound (gutted weight) of snapper grouper, by gear type, 2007-2011 average.

	Hook & Line	Longline	Traps	Diving	Others
Trips	11,618	366	490	550	3,385
Boats	717	32	49	78	361
Days	20,193	744	741	695	3,766
Pounds	5,029,213	542,548	380,234	145,327	677,943
Nom. Rev.	$12,909,305	$1,348,860	$892,879	$590,755	$1,154,956
Real Rev.	$13,459,721	$1,397,524	$933,734	$611,419	$1,202,475

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.6. Selected characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011 average.

	Hook & Line	Longline	Traps	Diving	Others
Trips	2,270	4	2	11	967
Days	2,591	7	4	16	989
Pounds	71,080	112	1,077	161	42,599
Nom. Rev.	$70,501	$112	$416	$367	$39,531
Real Rev.	$72,896	$115	$435	$384	$41,290

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

3.3.1.4 Permits

A commercial permit is required to harvest or possess commercial quantities of snapper grouper from the EEZ. There are two types of commercial snapper grouper permits—unlimited permits and non-transferable trip-limited permits. An unlimited permit is a transferable permit (subject to restrictions) that allows unlimited harvest of snapper grouper species (subject to trip limits or seasonal restrictions). A non-transferable trip-limited permit limits the owner to 225 pounds of snapper grouper harvest per trip. Both permits are limited access permits. The number of commercial snapper grouper permits for 2005-2010 are provided in **Table 3.3.7**. According to the Southeast Regional Office Website, the Constituency Services Branch (Permits) unofficially listed 121 trip-limited snapper grouper permit holders and 551 unlimited snapper grouper permit holders as of January 22, 2013.

Every year from 2005 through 2010, the number of vessels landing at least one pound of snapper grouper was higher than the number of snapper grouper permits (**Table 3.3.1** and **Table 3.3.7**). This is not totally unexpected. While a permit is assigned to a vessel, permits and vessels need not have a one-to-one correspondence as a permit can be used on multiple vessels at different times during a year or across multiple years. On the other hand, the number of vessels landing blue runner was substantially less than the number of snapper grouper permits, indicating the relatively lesser importance of blue runner as a source of revenue for many vessels in the commercial snapper grouper fishery.

Table 3.3.7. Number of commercial snapper grouper permits.

	Unlimited	Limited	Total
2005	748	198	946
2006	722	183	905
2007	695	165	860
2008	665	151	816
2009	640	144	784
2010	624	139	763
Average	682	163	846

Source: NMFS SERO Permits Data Base

3.3.2 Economic Description of the Recreational Sector

Additional information on the recreational sector of the snapper grouper fishery contained in previous or concurrent amendments is incorporated herein by reference [see Amendment 13C (SAFMC 2006), Amendment 15A (SAFMC 2008a), Amendment 15B (SAFMC 2008b), Amendment 16 (SAFMC 2009a), Amendment 17A (SAFMC 2010a), Amendment 17B (SAFMC 2010b), Regulatory Amendment 9 (SAFMC 2011b), Regulatory Amendment 11 (SAFMC 2011a), Comprehensive ACL Amendment for the South Atlantic Region (SAFMC 2011c), and Amendment 24 (SAFMC 2011d)]. These documents contain up-to-date description of recreational economic value as well as the financial operations of headboats and charter boats and so are included here by specific reference.

The recreational sector is comprised of the private sector and for-hire sector. The private sector includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire sector is composed of the charter boat and headboat (also called partyboat) sectors. Charter boats generally carry fewer passengers and charge a fee on an entire vessel basis, whereas headboats carry more passengers and payment is per person.

3.3.2.1 Harvest

The trend of recreational harvest of snapper grouper in the South Atlantic was not uniform across fishing modes (**Table 3.3.8**). Charter boat harvests linearly declined during 2007-2011; headboat harvests also declined over the years but increased in 2009; private/rental mode harvests rose in 2008 before declining in the next three years; and shore mode harvests decreased over the time series. The private/rental mode was the dominant sector in the harvest of snapper grouper.

Harvest trends for blue runner also differed across fishing modes (**Table 3.3.8**). Charter boat harvests almost followed a see-saw pattern, except that they fell in 2010 and 2011; headboat harvests increased through 2010 and then fell in 2011; private/rental mode harvests decreased every year, except in 2011; and shore mode harvests followed a see-saw pattern. The shore mode was the dominant sector in the harvest of blue runner.

Florida dominated all other states in the harvest of snapper grouper, and this is especially true in the harvest of blue runner (**Table 3.3.9**).

Table 3.3.8. Harvest (pounds whole weight) of snapper grouper and blue runner in the South Atlantic, by mode, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Charter	2,409,626	2,178,592	1,883,010	1,610,506	1,061,675	1,828,682
Headboat	2,160,464	1,328,420	1,411,619	1,296,351	1,165,197	1,472,410
Private/Rental	9,988,678	10,271,058	7,550,879	7,369,932	6,379,008	8,311,911
Shore	3,807,023	3,364,388	3,143,910	2,888,938	2,604,346	3,161,721
Blue Runner						
Charter	22,919	19,880	27,655	9,016	4,697	16,833
Headboat	5,490	16,336	21,399	24,744	20,324	17,659
Private/Rental	464,729	339,742	234,791	160,620	178,937	275,764
Shore	408,360	493,098	382,093	189,847	447,978	384,275

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab and MRFSS database, NOAA Fisheries, NMFS, SERO.

Table 3.3.9. Harvest (pounds whole weight) of snapper grouper and blue runner in the South Atlantic, by state, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Florida	10,734,175	9,803,628	8,709,114	7,206,762	6,794,227	8,649,581
Georgia	519,460	764,817	419,964	699,356	602,970	601,313
N Carolina	4,637,039	4,230,966	3,254,743	3,269,735	2,196,122	3,517,721
S Carolina	2,475,118	2,343,047	1,605,598	1,989,873	1,616,907	2,006,109
Blue Runner						
Florida	880,945	865,581	665,561	383,743	650,939	689,354
Georgia		1,094		58	35	396
N Carolina	294	2,174	53	344	666	706
S Carolina	20,259	207	325	82	296	4,234

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab and MRFSS database, NOAA Fisheries, NMFS, SERO.

The seasonal distribution in the harvest of snapper grouper and blue runner is shown in **Table 3.3.10**. For snapper grouper, peak harvest occurred in Wave 3 (May-June) whereas the lowest harvest occurred in Wave 1 (January-February). The harvest peak and trough of blue runner occurred, respectively, in Wave 5 (September-October) and Wave 2 (March-April).

Table 3.3.10. Average harvest (pounds whole weight) of snapper grouper and blue runner in the South Atlantic, by wave, 2007-2011.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Snapper Grouper	1,448,869	1,989,847	3,578,782	3,138,458	2,602,489	2,016,281
Blue Runner	63,594	47,840	82,306	186,748	195,820	114,666

Source: MRFSS database, NOAA Fisheries, NMFS, SERO.

3.3.2.2 Effort

Recreational effort can be characterized in terms of the number of trips as follows:

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

Estimates of catch effort are presented in **Tables 3.3.11** through **3.3.13** while those for target effort are shown in **Tables 3.3.14** through **3.3.16**. Apparent in these tables is the substantial difference between target and catch trips, with target trips being generally less than a third of catch trips. While many angler trips recorded harvest of blue runner, much fewer angler trips recorded this species as a target species.

For snapper grouper as a whole, the private/rental mode dominated all other fishing modes in catch trips, followed by the shore mode and charter boats (**Table 3.3.11**). For blue runner, the shore mode was the dominant sector but followed very closely by the private/rental mode.

The dominance of Florida in terms of catch trips for blue runner merely reflects the location where most of this species were caught (**Table 3.3.12**). Other than Florida, North Carolina reported a relatively consistent presence of catch trips for blue runner.

The seasonal distribution of catch trips closely, but not exactly, mimics that of harvests. Catch trips for snapper grouper peaked in Wave 4 (July-August) and troughed in Wave 1 (January-February). For blue runner, catch trips peaked in Wave 4 (July-August) and troughed in Wave 2 (March-April) (**Table 3.3.13**).

Table 3.3.11. Catch trips for snapper grouper and blue runner in the South Atlantic, by mode, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Shore	1,099,638	1,160,179	990,162	717,126	832,083	959,838
Charter	134,589	112,715	118,286	123,111	88,706	115,481
Private	2,748,584	2,617,229	2,079,541	1,785,123	1,671,727	2,180,441
Blue Runner						
Shore	206,588	285,796	200,345	173,339	186,701	210,554
Charter	23,533	12,027	8,418	14,499	15,327	14,761
Private	248,305	225,023	147,445	173,210	161,421	191,081

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.12. Catch trips for snapper grouper and blue runner in the South Atlantic, by state, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Florida	3,143,441	2,946,266	2,497,913	1,997,370	1,949,529	2,506,904
Georgia	127,847	213,737	105,832	92,688	105,781	129,177
N Carolina	473,836	485,127	379,223	367,856	307,802	402,769
S Carolina	237,686	244,992	205,021	167,447	229,404	216,910
Blue Runner						
Florida	473,500	510,025	355,917	358,096	359,295	411,367
Georgia	0	1,563	0	71	33	333
N Carolina	3,367	8,966	291	2,882	4,121	3,925
S Carolina	1,558	2,293	0	0	0	770

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.13. Average catch trips for snapper grouper and blue runner in the South Atlantic, by wave, 2007-2011.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Snapper Grouper	352,514	413,283	620,400	766,495	608,033	495,034
Blue Runner	46,949	41,623	66,132	100,848	91,359	69,484

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Similar to catch trips, most target trips for snapper grouper came from the private/rental mode, followed by the shore and charter modes (**Table 3.3.14**). There were substantially more target trips for blue runner by shore mode anglers than by anglers in other fishing modes. The charter mode, in fact, did not record any target trips for blue runner.

Target trips by state for snapper grouper and blue runner follows the same pattern as catch trips, with Florida being the dominant state (**Table 3.3.15**). While there are reported catch trips for blue runner in states other than Florida, these states reported few or no target trips for this species. Georgia reported no target trips for blue runner; North Carolina reported few trips, only in 2011; and South Carolina reported target trips in 2009 and 2010.

The peak and trough of target trips for snapper grouper coincided with those of catch trips (**Table 3.3.16** and **Table 3.3.13**). The seasonal distribution of target trips for blue runner slightly differs from

that of catch trips. Blue runner target trips peaked in Wave 5 (August-September) and troughed in Wave 1 (January-February).

Table 3.3.14. Target trips for snapper grouper and blue runner in the South Atlantic, by mode, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Shore	259,194	287,248	228,125	214,268	193,240	236,415
Charter	42,164	38,641	30,636	38,114	22,029	34,317
Private	620,512	747,349	623,703	609,126	575,821	635,302
Blue Runner						
Shore	15,776	33,853	13,282	8,377	8,412	15,940
Charter	0	0	0	0	0	0
Private	1,053	0	17,460	1,884	0	4,079

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.15. Target trips for snapper grouper and blue runner in the South Atlantic, by state, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Florida	669,333	809,451	683,738	623,166	534,471	664,032
Georgia	27,019	40,893	29,665	30,351	40,417	33,669
N Carolina	112,849	88,310	92,499	121,103	88,867	100,726
S Carolina	112,668	134,585	76,561	86,889	127,334	107,607
Blue Runner						
Florida	16,829	33,853	22,605	8,377	8,210	17,975
Georgia	0	0	0	0	0	0
N Carolina	0	0	0	0	202	40
S Carolina	0	0	8,136	1,884	0	2,004

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.16. Average target trips for snapper grouper and blue runner in the South Atlantic, by wave, 2007-2011.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Snapper Grouper	101,671	143,242	182,124	221,560	116,146	141,291
Blue Runner	1,596	1,914	2,868	5,478	5,851	2,312

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Similar analysis of recreational effort is not possible for the headboat sector because headboat data are not collected at the angler level. Estimates of effort in the headboat sector are provided in terms of angler days, or the number of standardized 12-hour fishing days that account for the different half-, three-quarter-, and full-day fishing trips by headboats. **Table 3.3.17** displays the annual angler days and **Tables 3.3.18a&b** displays their average monthly distribution. Confidentiality issues required combining Georgia estimates with those of Northeast Florida.

Headboat angler days varied from year to year but generally declined since 2007 (**Table 3.3.17**). Southeast Florida registered the highest number of angler trips, followed by Georgia/Northeast Florida, South Carolina, and North Carolina. Clearly, Florida dominated all other states in terms of headboat angler days.

On average, overall angler days peaked in July and troughed in December (**Tables 3.3.18a&b**). North Carolina and South Carolina had similar peaks and troughs as the overall average. Angler days in Georgia/Northeast Florida peaked in June and troughed in November while those in Southeast Florida peaked in April and troughed in September.

Table 3.3.17. South Atlantic headboat angler days, by state, 2005-2011.

	NC	SC	GA/NEFL	SEFL	TOTAL
2005	40,916	52,036	74,663	82,870	250,485
2006	25,736	56,074	48,908	126,614	257,332
2007	29,002	60,729	53,762	103,388	246,881
2008	16,982	47,287	52,521	71,598	188,388
2009	19,468	40,919	66,447	69,973	196,807
2010	21,071	44,951	53,676	69,986	189,684
2011	18,457	44,645	46,256	77,785	78,546
Average	24,519	49,520	56,605	86,031	201,160

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab.

Table 3.3.18a. Average monthly distribution of headboat angler days in the South Atlantic, by state, 2005-2010.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
NC	220	194	813	1,647	2,740	4,640	5,118	4,440	2,309	2,273	1,062	75
SC	153	272	1,828	3,791	5,201	9,772	12,245	8,949	3,603	3,031	1,337	153
GA/NEFL	2,668	3,423	5,672	6,380	6,056	8,402	8,229	5,688	3,175	3,173	2,637	2,826
SEFL	7,432	8,517	9,647	9,764	7,962	8,635	9,609	7,006	4,112	4,135	4,829	5,758
Total	10,473	12,405	17,960	21,582	21,958	31,449	35,202	26,082	13,199	12,612	9,864	8,811

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab.

Table 3.3.18b. Average monthly distribution of headboat angler days in the South Atlantic, by state, 2007-2011.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
NC	50	45	352	1,287	2,445	4,266	4,661	3,807	1,828	1,833	398	23
SC	67	200	1,295	3,463	4,376	10,023	12,617	8,879	3,190	2,597	836	163
GA/NEFL	2,165	2,959	4,936	5,918	5,458	8,497	8,470	5,551	2,797	2,627	2,179	2,976
SEFL	6,105	8,453	8,779	8,330	6,715	8,090	8,910	5,618	3,728	2,655	4,167	6,235
TOTAL	8,387	11,657	15,363	18,997	18,993	30,876	34,658	23,854	11,542	9,713	7,579	9,398

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab.

3.3.2.3 Permits

For-hire vessels are required to have a for-hire snapper grouper permit to fish for or possess snapper grouper species in the South Atlantic EEZ. The number of vessels with for-hire snapper grouper permits for the period 2005-2010 is provided in **Table 3.3.19**. This sector operates as an open access fishery and not all permitted vessels are necessarily active in the fishery. Some vessel owners may have obtained open access permits as insurance for uncertainties in the fisheries in which they currently operate.

The number of for-hire permits issued for the South Atlantic snapper grouper fishery decreased from 1,805 permits in 2008 to 1,781 permits in 2011. The majority of snapper grouper for-hire permitted vessels were home-ported in Florida; a relatively high proportion of these permitted vessels were also home-ported in North Carolina and South Carolina. Many vessels with South Atlantic for-hire snapper grouper permits were home-ported in states outside of the SAFMC's area of jurisdiction, particularly in the Gulf of Mexico states of Alabama through Texas. The number of vessels with South Atlantic for-hire snapper grouper permits home-ported in states outside of the South Atlantic Council's area of jurisdiction account for approximately 10% of the total number of permits.

Table 3.3.19. Number of South Atlantic for-hire snapper-grouper vessel permits, 2008-2011.

Home Port State	2008	2009	2010	2011	Avg.
North Carolina	338	349	331	330	337
South Carolina	139	146	145	132	141
Georgia	26	30	27	26	27
Florida	1,121	1,131	1,109	1,099	1,115
Gulf States (AL-TX)	76	83	86	91	84
Other States	105	113	114	103	109
Total	1,805	1,852	1,812	1,781	1,813

Source: NMFS SERO Permits Data Base.

For-hire permits do not distinguish charter boats from headboats. Based on a 1997 survey, Holland et al. (1999) estimated that a total of 1,080 charter vessels and 96 headboats supplied for-hire services in all South Atlantic fisheries during 1997. By 2010, the estimated number of headboats supplying for-hire services in all South Atlantic fisheries had fallen to 85, indicating a decrease in fleet size of approximately 11% between 1997 and 2010 (K. Brennan, Beaufort Laboratory, Southeast Fisheries Science Center, personal communication, Feb. 2011).

According to the Southeast Regional Office Website, the Constituency Services Branch (Permits) unofficially listed 1,462 current holders of South Atlantic for-hire snapper grouper permits as of January 22, 2013. There are no specific permitting requirements for recreational anglers to harvest snapper grouper. 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.

3.4 Social Environment

A detailed description of the South Atlantic snapper grouper fishery and the communities involved in the fishery is included in the Comprehensive ACL Amendment (SAMFC 2011c) and incorporated herein by reference. Additional descriptions of the snapper grouper fishery are included in Amendment 13C (SAFMC 2006), Amendment 15A (SAFMC 2008a), Amendment 15B (SAFMC 2008b), Amendment 16 (SAFMC 2009a), and Regulatory Amendment 9 (SAFMC 2011a) and are incorporated herein by reference.

This section includes a brief discussion of Nassau grouper and a description of the recreational and commercial portions of the blue runner component of the South Atlantic snapper grouper fishery. The

blue runner description is based on the geographical distribution of commercial landings and the relative importance of the species for communities. In addition, dual-permitted vessels and charter/headboat permits for snapper grouper are described at the state and community level. Top communities based on the number of dual-permitted vessels or charter/headboat permits are presented. A spatial approach enables the consideration of fishing communities and consideration of the importance of fishery resources to those communities, as required by National Standard 8.

Social Importance of Fishing

Socio-cultural values are qualitative in nature making it difficult to measure social valuation of marine resources and fishing activity. The following description includes multiple approaches to examining fishing importance. These spatial approaches focus on the community level (based on the address of dealers or permit holders) and identify importance by "community", defined according to geo-political boundaries (cities). A single county may thus have several communities identified as reliant on fishing and the boundaries of these communities are not discrete in terms of residence, vessel homeport, and dealer address. For example, a fisherman may reside in one community, homeport his vessel in another, and land his catch in yet another.

One approach to identify communities with the greatest engagement utilizes measures called the regional quotient (rq) to identify commercial reliance. The rq is a way to measure the relative importance of a given species across all communities in the region and represents the proportional distribution of commercial landings of a particular species. This proportional measure does not provide the number of pounds or the value of the catch, data which might be confidential at the community level for many places. The rq is calculated by dividing the total pounds (or value) of a species landed in a given community, by the total pounds (or value) for that species for all communities in the region.

Another approach analyzes relevant fishing permits at the state and community level to examine the areas where actions which may impact permit holders and their crew might be experienced. Communities above the mean are presented because the number of communities with permits is so numerous.

These measures are an attempt to quantify the importance of the components of the included fisheries to communities around the South Atlantic coast and suggest where impacts from management actions are more likely to be experienced.

Nassau Grouper

Nassau grouper is currently managed separately for the South Atlantic and the Gulf of Mexico and harvest is prohibited in both the South Atlantic and Gulf of Mexico. Therefore, no information is available at the community level for Nassau grouper.

Blue Runner

Blue runner is landed commercially in Florida and North Carolina although commercial landings are greatest along the central and lower east coast of Florida and in the Florida Keys. Blue runner is caught recreationally in all states in the South Atlantic; however nearly all of the recreational landings occur in Florida. Blue runner is managed under the Snapper Grouper Fishery Management Plan. An Unlimited Snapper Grouper Permit or 225-Pound Snapper Grouper Permit is required for the commercial harvest of blue runner in the South Atlantic EEZ. In spite of this requirement, blue runner is currently landed with

other permits. Two types of gear are primarily used to harvest blue runner, hook-and-line (vertical lines) and gillnets. A larger number of fishermen harvesting with gillnets land blue runner under a Spanish mackerel permit (approximately 95% of blue runner trips held Spanish mackerel permits, 51% held king mackerel permits, and about 10% held other snapper grouper permits, see **Section 4.5.1**); whereas fishermen harvesting with vertical lines tend to land blue runner under various permits (approximately 32% of vertical line trips held Spanish mackerel permits, 41% held king mackerel, and 48% held other snapper grouper in 2011, see **Section 4.5.1**). These totals do not add up to 100% because multiple permits can be held by one vessel. The current commercial sector allocation for South Atlantic blue runner is 15% (commercial ACL is 188,329 pounds ww). The current recreational ACL for blue runner is 1,101,612 pounds whole weight.

Blue Runner Recreational Fishing

The majority of blue runner recreational fishing occurs in Florida (over 99% of landings in 2011, **Table 3.4.1**). All other states in the South Atlantic are involved to a much small degree in recreational fishing for blue runner (**Table 3.4.1**). Landings for the recreational sector are not available by species at the community level; therefore, it is difficult to identify communities as dependent on recreational fishing for any complexes or individual species. Recreational fishing communities in the South Atlantic are listed in **Table 3.4.2**. These communities were selected by their ranking on a number of criteria including number of charter permits per thousand population and recreational fishing infrastructure identified within each community as listed within the MRIP site survey.

Table 3.4.1. Recreational landings of blue runner by state, 2011.

Pounds Landed (whole weight)				
FL	**GA**	**NC**	**SC**	**Total**
650,939	35	666	296	651,936

Source: SEFSC ACL Data, February 2013.

Blue Runner Commercial Fishing

Figure 3.4.1 shows the spatial distribution of commercial blue runner landings around the South Atlantic. **Figure 3.4.2** identifies the communities with the most commercial landings of blue runner. The figures represent two ways of examining where blue runner landings are greatest without revealing confidential data. However, the figure and tables are based on the dealer's address which may not correspond to the actual landing site. The pattern of commercial landings is evident in the figures with a large portion of the dealer reported landings located along the central and lower east coast of Florida and the Florida Keys. As explained in the social effects section, hook-and-line landings are primarily based in South Florida; whereas blue runner landings with gillnet are primarily reported in the central east coast of Florida.

Table 3.4.2. South Atlantic recreational fishing communities.

Community	State	Community	State
Jekyll Island	GA	Cape Carteret	NC
Hatteras	NC	Kill Devil Hill	NC
Manns Harbor	NC	Murrells Inlet	SC
Manteo	NC	Little River	SC
Atlantic Beach	NC	Georgetown	SC
Wanchese	NC	Islamorada	FL
Salter Path	NC	Cudjoe Key	FL
Holden Beach	NC	Key West	FL
Ocean Isle	NC	Tavernier	FL
Southport	NC	Little Torch Key	FL
Wrightsville Beach	NC	Ponce Inlet	FL
Marshallberg	NC	Marathon	FL
Carolina Beach	NC	Sugarloaf Key	FL
Oriental	NC	Palm Beach Shores	FL
Community	**State**	**Community**	**State**
Topsail Beach	NC	Big Pine Key	FL
Swansboro	NC	Saint Augustine	FL
Nags Head	NC	Key Largo	FL
Harkers Island	NC	Summerland Key	FL
Calabash	NC	Sebastian	FL
Morehead City	NC	Cape Canaveral	FL

Source: SERO permit office 2008, MRIP site survey 2010.

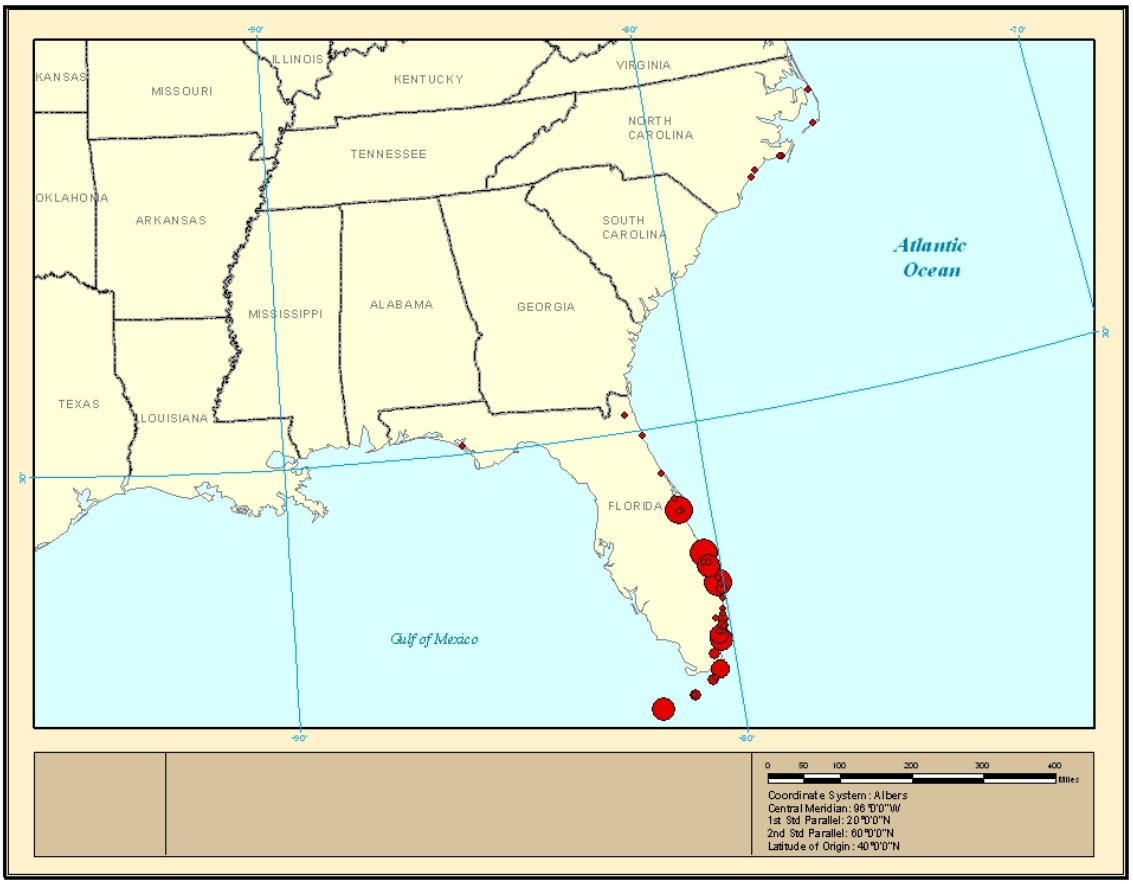

Figure 3.4.1. Distribution of commercial blue runner landings with the size of the point proportional to landings, based on dealer reports.
Source: ALS dealer reports 2011.

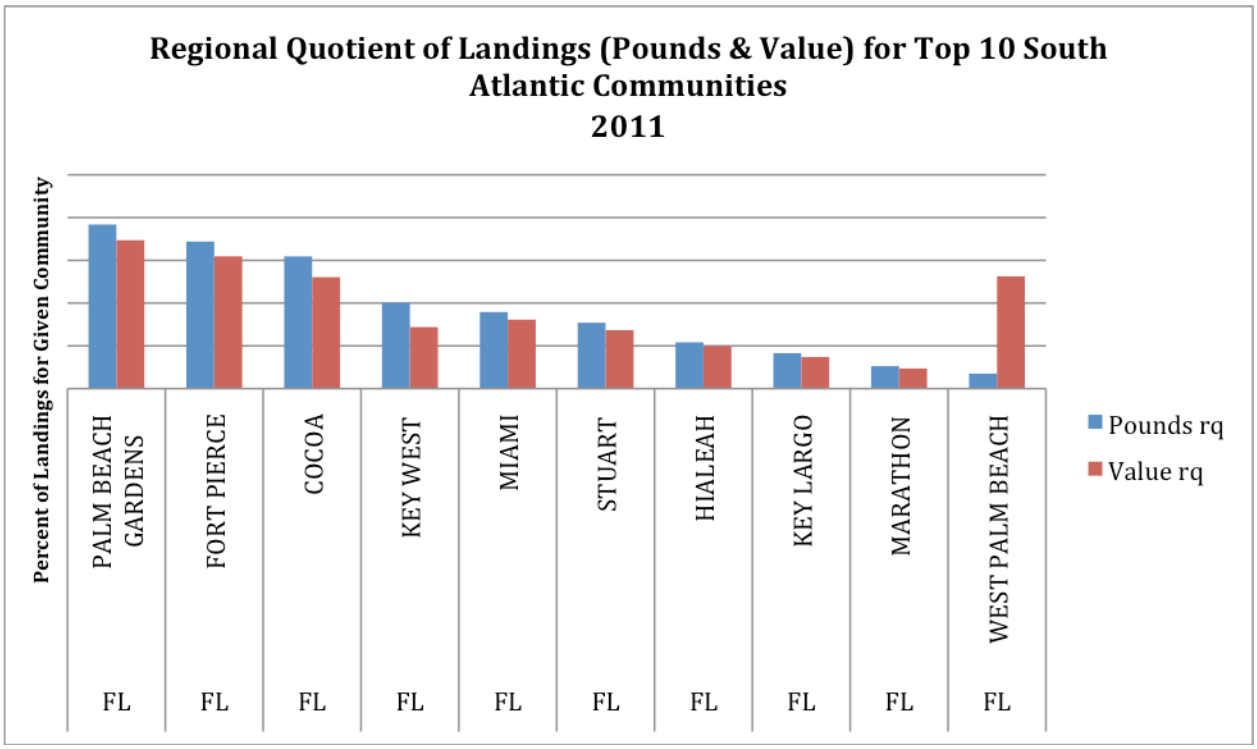

Figure 3.4.2. Proportion (rq) of blue runner commercial landings (pounds and value) for top 10 South Atlantic communities out of total landings and value of blue runner.
Values have been omitted because of confidentiality issues.
Source: ALS dealer reports 2011.

Importance of Blue Runner Commercial Fishing to Communities

Figure 3.4.1 and **Figure 3.4.2** identified where commercial blue runner landings are most abundant. Commercial landings are greatest along the central and lower east coast of Florida and in the Florida Keys (**Figure 3.4.1**). The top three communities (Palm Beach Gardens, Fort Pierce, and Cocoa, Florida) alone comprised about 52% of the total pounds of commercial landings for blue runner (**Figure 3.4.2**). Top communities in the Florida Keys (Key West, Key Largo, and Marathon) comprised about 17% of the total commercial pounds of blue runner. The remaining top communities of Miami, Stuart, Hialeah, and West Palm Beach made-up about 24% of the commercial blue runner landings (**Figure 3.4.2**).

The following descriptions employ the rq analysis described above to examine the relative importance of commercial blue runner landings in each community. The top five communities included in **Figure 3.4.2** are included in the following description.

<u>Palm Beach Gardens</u>

Palm Beach Gardens, Florida, ranked first in terms of pounds of commercial blue runner landings in 2011 (**Figure 3.4.2**). Of the commercially landed species, blue runner made up about 1.7% of all commercial landings. In the year 2010, those registered in Palm Beach Gardens held 5 King Mackerel Permits, 6 Spanish Mackerel Permits, a confidential number of Snapper Grouper Unlimited Permits, and a confidential number of Snapper Grouper 225-Pound Permits.

Fort Pierce

Fort Pierce, Florida, ranked second in terms of pounds of commercial blue runner landings in 2011 (**Figure 3.4.2**). Of the commercially landed species, blue runner made up about 1.6% of all commercial landings. In the year 2010, those registered in Fort Pierce held 62 King Mackerel Permits, 81 Spanish Mackerel Permits, 7 Snapper Grouper Unlimited Permits, and 5 Snapper Grouper 225-Pound Permits.

Cocoa

Cocoa, Florida, ranked third in terms of pounds of commercial blue runner landings in 2011 (**Figure 3.4.2**). Of the commercially landed species, blue runner made up about 1.1% of all commercial landings. In the year 2010, those registered in Cocoa held a confidential number of Spanish Mackerel Permits and a confidential number of Snapper Grouper Unlimited Permits.

Key West

Key West, Florida, ranked fourth in terms of pounds of commercial blue runner landings in 2011 (**Figure 3.4.2**). Of the commercially landed species, blue runner made up less than 1% of landings. In the year 2010 those registered in Key West held 148 King Mackerel Permits, 147 Spanish Mackerel Permits, 109 Snapper Grouper Unlimited Permits, and 21 Snapper Grouper 225-Pound Permits.

Miami

Miami, Florida, ranked fifth in terms of pounds of commercial blue runner landings in 2011 (**Figure 3.4.2**). Of the commercially landed species, blue runner made up less than 1% of landings. In the year 2010 those registered in Miami held 77 King mackerel Permits, 117 Spanish Mackerel Permits, 50 Snapper Grouper Unlimited Permits, and 8 Snapper Grouper 225-Pound Permits.

Dual-Permitted Vessels

Dual-permitted vessels are vessels associated with both a South Atlantic Charter/Headboat permit for snapper grouper and a South Atlantic Unlimited or 225-Pound permit for snapper grouper. Dual-permitted vessels are located in all states in the South Atlantic as well as in a few other states (New Jersey, New York, and Texas, **Table 3.4.3**). The majority of dual-permitted vessels are located in Florida (approximately 64%); however, North Carolina also has a sizable number of dual-permitted vessels (about 22%, **Table 3.4.3**).

Table 3.4.3. Dual-permitted vessels by state.

State	Number of Dual-Permitted Vessels
FL	95
GA	1
NC	32
SC	16
Other States	4
Total	148

Source: Compiled from SERO FOIA, permit list as of February 7, 2013

Figure 3.4.3 presents the top communities based on the number of dual-permitted vessels by community. There were 72 communities with dual-permitted vessels, but the 15 communities included in **Figure 3.4.3** were those with three or more dual-permitted vessels (communities above the mean were included). Therefore, because so many communities have dual-permitted vessels, many have a low number of dual-permitted vessels and are not included in the figure. Top communities with dual-permitted vessels are located in Florida in Monroe County (in the Florida Keys), Duval, St. Johns, Palm Beach, and Brevard Counties; in South Carolina in Georgetown and Horry Counties; and in North Carolina in New Hanover and Carteret Counties. The top community of Key West, Florida included about 13% of the dual-permitted vessels (19 vessels). The next top communities of Jacksonville, Florida, and Merritt Island, Florida, each included about 5% of the dual-permitted vessels (7 vessels in each community).

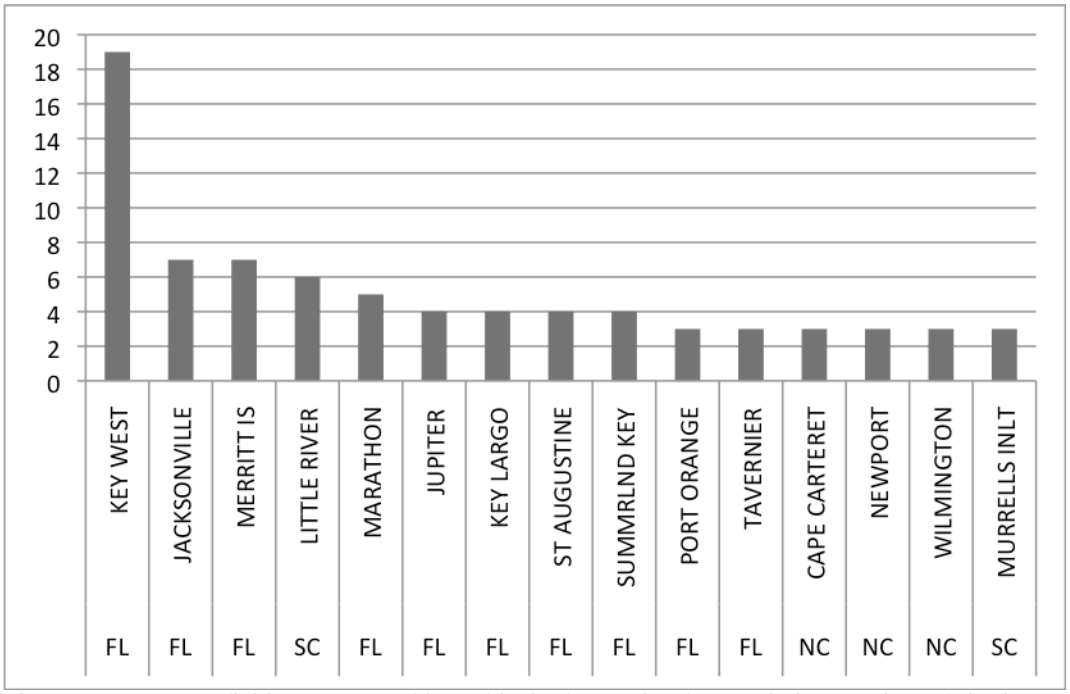

Figure 3.4.3. Top fishing communities with dual-permitted vessels by number of dual-permitted vessels.
Source: Compiled from SERO FOIA, permit list as of February 7, 2013.

Charter/Headboat Permits

Captain and crew of vessels with a South Atlantic charter/headboat permit for snapper grouper may not retain bag limit quantities of gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish. This amendment may change the retention restrictions for the captains and crew on vessels with a South Atlantic Charter/Headboat permit for snapper grouper.

Charter/Headboat permits for snapper grouper are held by residents of all South Atlantic states as well as by residents of many other states (Alabama, Delaware, Illinois, Indiana, Massachusetts, Maryland, Maine, Michigan, Mississippi, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Tennessee, Texas, Virginia, and West Virginia). The majority of charter/headboat permits for

snapper grouper are held by those in Florida (about 62%); however, a sizable number are also held by North Carolina residents (16.6%, **Table 3.4.4**).

Table 3.4.4. Charter/headboat permits by state.

State	Number of Permits
FL	899
GA	31
NC	239
SC	104
Other States	171
Total	1444

Source: SERO FOIA, permit list as of February 7, 2013

Figure 3.4.4 presents the top communities based on the number of charter/headboat permits for snapper grouper. There were 409 communities with charter/headboat permits for snapper grouper, but the 33 communities included in **Figure 3.4.4** were those with 10 or more permits (communities above the mean were included). Therefore, because so many communities have charter/headboat snapper grouper permits, many have a low number of permits and are not included in the figure. Top communities with charter/headboat permits for snapper grouper are located in Florida, North Carolina, South Carolina, Virginia, and Alabama. The top community of Key West, Florida, included about 8% of charter/headboat permits for snapper grouper (116 permits). The next top community of Marathon, Florida, included about 4% of the permits (57 permits).

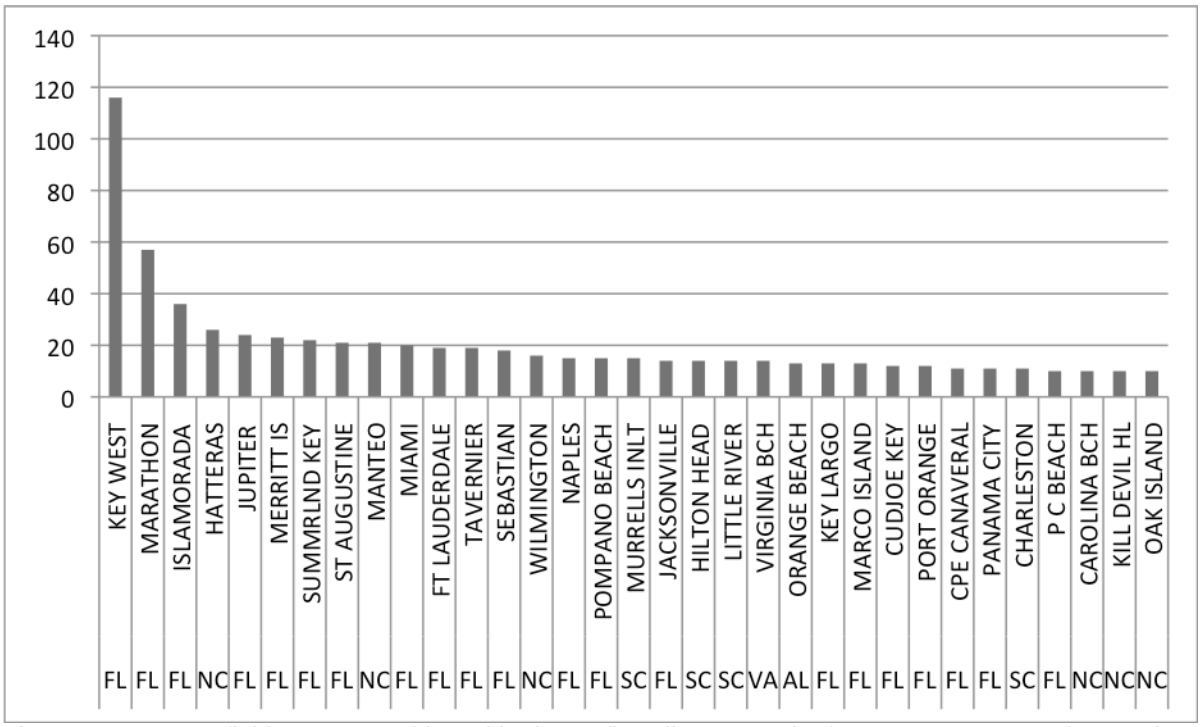

Figure 3.4.4. Top fishing communities with charter/headboat permits for snapper grouper by number of permits.
Source: SERO FOIA, permit list as of February 7, 2013

3.4.1 Environmental Justice Considerations

Executive Order 12898 requires federal agencies conduct their programs, policies, and activities in a manner to ensure individuals or populations are not excluded from participation in, or denied the benefits of, or subjected to discrimination because of their race, color, or national origin. In addition, and specifically with respect to subsistence consumption of fish and wildlife, federal agencies are required to collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. The main focus of Executive Order 12898 is to consider "the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories…" This executive order is generally referred to as environmental justice (EJ).

Commercial fishermen, recreational for-hire fishermen, recreational anglers, businesses associated with fishing, and coastal communities would be expected to be impacted by these proposed actions in the South Atlantic. However, information on the race and income status for these individuals is not available. Because these proposed actions could be expected to affect numerous communities in the South Atlantic, census data (available at the county level, only) have been assessed to examine whether any coastal counties have poverty or minority rates that exceed thresholds for raising EJ concerns.

The threshold for comparison used was 1.2 times the state average for the proportion of minorities and population living in poverty (EPA 1999). If the value for the county was greater than or equal to 1.2 times this average, then the county was considered an area of potential EJ concern. Census data for the year 2010 were used.

For Florida, the estimate of the minority (interpreted as non-white, including Hispanic) population was 39.5%, while 13.2% of the total population was estimated to be below the poverty line. These values translate in EJ thresholds of approximately 47.4% and 15.8%, respectively (**Table 3.4.5**).

In Florida, Broward (4.6%) and Miami-Dade (34.5%) counties exceed the minority threshold by the percentage noted. In regard to poverty, no South Atlantic coastal counties in Florida exceeded the threshold. No potential EJ concern is evident for the remaining counties which have values less than the poverty and minority thresholds. The same method was applied to the remaining South Atlantic states.

Table 3.4.5. Average proportion of minorities and population living in poverty by state, and the corresponding threshold used to consider an area of potential EJ concern.

	Minorities		Poverty	
State	**% Population**	**EJ Threshold**	**% Population**	**EJ Threshold**
FL	39.5	47.4	13.2	15.8
GA	41.7	50	15	18
NC	32.6	39.1	15.1	18.1
SC	34.9	41.9	15.8	19

Source: U.S. Census Bureau 2010

In North Carolina, the counties of Chowan (0.1%), Tyrrell (4.2%), Pasquotank (4.3%), Washington (15.6%), and Bertie (25.5%) exceed the minority threshold for potential EJ concern. The North Carolina counties of Chowan (0.5%), Perquimans (0.5%), Tyrrell (1.8%), Bertie (4.4%), and Washington (7.7%) exceed the poverty threshold. Chowan, Tyrrell, and Washington counties exceed both the minority and poverty thresholds and are the North Carolina communities identified as most likely to be vulnerable to EJ concerns.

In South Carolina, the counties of Colleton (2.5%) and Jasper (19.9%) exceed the minority threshold by the percentage noted. The South Carolina counties of Georgetown (0.3%), Jasper (0.9%), and Colleton (2.4%) exceed the poverty threshold. Colleton and Jasper counties exceed both the minority and poverty thresholds and are the South Carolina communities identified as most likely to be vulnerable to EJ concerns.

In Georgia, Liberty was the only coastal county to exceed the minority threshold (by 3.2%). None of Georgia's coastal counties exceeded the poverty threshold for potential EJ concern.

While some communities expected to be affected by this proposed amendment may have minority or economic profiles that exceed the EJ thresholds and, therefore, may constitute areas of concern, significant EJ issues are not expected to arise as a result of this proposed amendment.

Finally, the general participatory process used in the development of fishery management measures (e.g., scoping meetings, public hearings, and open South Atlantic Council meetings) is expected to provide sufficient opportunity for meaningful involvement by potentially affected individuals to participate in the development process of this amendment and have their concerns factored into the decision process. Public input from individuals who participate in the fishery has been considered and incorporated into management decisions throughout development of the amendment.

Chapter 4. Impacts on the Affected Environment and Comparison of Alternatives

4.1 Action 1. Extend the South Atlantic Council's area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico

Alternative 1 (No Action). Nassau grouper harvest is prohibited in the South Atlantic and Gulf of Mexico. The South Atlantic Council's area of jurisdiction for management of Nassau grouper is limited to federal waters of the South Atlantic.

Alternative 2 (Preferred). The South Atlantic Council would extend its jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico. Harvest of Nassau grouper in the Gulf of Mexico exclusive economic zone (EEZ) and the South Atlantic EEZ would continue to be prohibited.

4.1.1 Biological Effects

In a letter dated April 22, 2010, the Gulf of Mexico Fishery Management Council (Gulf of Mexico Council) requested that the South Atlantic Fishery Management Council (South Atlantic Council) consider managing certain reef fish species, including Nassau grouper, throughout their range. The Gulf of Mexico Council indicated that the geographical distribution of Nassau grouper was on the fringe of its jurisdiction. Based on genetic studies using mtDNA and microsatellite data, there is no evidence of distinct subpopulations of Nassau grouper sampled from a number of sites in Florida, Cuba, Belize and the Bahamas (Stevenson et al. 1998). Therefore, the stock is not managed as two separate Gulf of Mexico and South Atlantic populations, and the South Atlantic Council expressed their willingness to take over management of Nassau grouper throughout their range but has not yet taken action to extend its management authority into Gulf of Mexico federal waters. The Gulf of Mexico Council took action to remove Nassau grouper from its Reef Fish FMP through its Generic Annual Catch Limit (ACL) Amendment (GMFMC 2011). The National Marine Fisheries Service (NMFS), under the authority granted by the Secretary of Commerce, designated the South Atlantic Council as the responsible Council to manage Nassau grouper in the Gulf of Mexico under the Snapper Grouper FMP (76 FR 78245, December 16, 2011). The notice of agency action states that any action to remove the current prohibitions for Nassau grouper in the Gulf of Mexico would have a delayed effective date until the South Atlantic Council action to extend the harvest prohibition into the Gulf of Mexico is implemented. Therefore, action is needed by the South Atlantic Council to extend management of Nassau grouper into the Gulf of Mexico.

Alternative 1 (No Action) would not allow for the South Atlantic Council to manage Nassau grouper as required. However, there is no sunset date associated with the delayed effectiveness outlined in the notice of agency action. Therefore, under **Alternative 1 (No Action)** the current harvest prohibition in the Gulf of Mexico would remain. If the South Atlantic Council were to choose **Alternative 1 (No Action)**, and the harvest moratorium on Nassau grouper were to be lifted, future adjustments to commercial and recreational harvest levels for Nassau grouper could not be made in the Gulf of Mexico.

Alternative 2 (Preferred) would be necessary to allow for the South Atlantic Council to manage Nassau grouper in Gulf of Mexico federal waters. Nassau grouper has been under a harvest moratorium since 1992 (SAFMC 1991) due to concerns of overexploitation. The current ACL for Nassau grouper in both the South Atlantic and Gulf of Mexico is zero. **Alternative 2 (Preferred)** is an administrative action and no changes to the biological environment would be expected as the alternative would simply allow for the South Atlantic Council to continue the harvest prohibition for Nassau grouper in the Gulf of Mexico under the Snapper Grouper FMP, and would give the South Atlantic Council authority to allow some level of harvest in the Gulf of Mexico in the future if needed.

Furthermore, NMFS recently announced its intent to conduct a review to determine whether Nassau grouper should be listed under the Endangered Species Act (ESA) as threatened or endangered (77 FR 61559, October 10, 2012). NMFS concluded that "there is substantial information indicating that the petitioned action may be warranted, based on the threats of overutilization for commercial, recreational, scientific or education purposes, and inadequacy of existing regulatory mechanisms." Thus, it is of critical biological importance that the moratorium on commercial and recreational harvest of Nassau grouper be continued throughout the species' range in the southeast U.S. The review is anticipated to be completed in 2013.

Extending the South Atlantic Council's jurisdictional management of Nassau grouper to include Gulf of Mexico waters would not modify the way in which the snapper grouper fishery in the southeast is prosecuted; nor would this action increase fishing or change fishing methods for species targeted within the Snapper Grouper FMP. Therefore, no adverse effects to the protected species most likely to interact with snapper grouper hook-and-line gear (e.g., sea turtles and smalltooth sawfish) are likely to result under either alternative considered as part of this action. Additionally, no negative effects on essential fish habitats (EFH), habitat areas of particular concern (HAPCs), or coral HAPCs are expected as a result of this action.

4.1.2 Economic Effects

The current ACL for Nassau grouper in both the South Atlantic and Gulf of Mexico is zero. If the South Atlantic Council's jurisdiction for Nassau grouper extends to Gulf of Mexico, it is expected that there will be no additional economic effects as Nassau grouper are not currently targeted, nor can they be harvested in either the South Atlantic or Gulf of Mexico.

4.1.3 Social Effects

Because of the moratorium on harvest of Nassau grouper in both the Gulf of Mexico and South Atlantic regions, there is no difference in expected impacts on fishermen or fishing communities when considering separate management (**Alternative 1 (No Action)**) or management by the South Atlantic Council (**Preferred Alternative 2**).

Currently Nassau grouper is not included in the Gulf Reef Fish FMP; however, the notice of agency action indicates that harvest of Nassau grouper remains prohibited, and any action to change this would not be effective until the South Atlantic Council gained control of management of the species. Because Nassau grouper is currently under review for listing under the ESA, management of the species in federal waters would contribute to federal protection of a potentially threatened or endangered fish.

4.1.4 Administrative Effects

If the South Atlantic Council's jurisdiction for management of Nassau grouper extends to the Gulf of Mexico, it is expected that there would be no short-term administrative effects as Nassau grouper are not currently targeted, nor can they be harvested in either the South Atlantic or Gulf of Mexico. In terms of enforcement effort related to Nassau grouper management, **Alternative 2 (Preferred)** would neither be beneficial nor adverse. **Alternative 2 (Preferred)** would simply require the same enforcement of the prohibition on harvest of Nassau grouper in the Gulf of Mexico to continue.

4.2 Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels

Alternative 1 (No Action). The current limit on the number of crew members on any dual-permitted vessel (a vessel with both a South Atlantic Charter/Headboat Permit for Snapper Grouper and a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper) is three.

Alternative 2. Eliminate the limit of three crew members for dual-permitted vessels

Alternative 3 (Preferred). Increase the limit to four crew members for dual-permitted vessels.

4.2.1 Biological Effects

Maintaining the current crew size limit **(Alternative 1 (No Action))**, would result in positive biological impacts as it would continue to prevent dual-permitted vessels from engaging in charter/headboat trips while landing fish in excess of the bag limits. **Alternative 2** would address the safety at sea issues associated with only having three crew members while commercial diving, but it may also increase the risk that dual-permitted vessels would engage in for-hire fishing while landing commercial quantities of fish, which is prohibited. Historically, one possible reason for limiting the crew

size on a dual-permitted vessel when fishing commercially may have been to prevent double-dipping, where a vessel might take out a number of passengers under the pretense of making a charter trip, but subsequently sell the catch. Therefore, **Alternative 2** would be the most likely of all the alternatives considered to result in negative biological impacts to snapper grouper species in the form of increased harvest by an unrestrained number of crew members on commercial trips. However, as ACLs are in place for snapper grouper species, the biological effects of **Alternatives 2** and **3 (Preferred)** are likely to be neutral. **Alternatives 2** and **3 (Preferred)** could both increase the efficiency by which fish are harvested, which may decrease the amount of time it may take for a vessel to reach species-specific trip limits.

Unlike **Alternative 2**, **Alternative 3 (Preferred)** would maintain a limit on the number of crew members onboard dual-permitted vessels but would allow the maximum number to increase by one. It is unlikely that allowing four crew members instead of three would significantly increase the probability that vessels would engage in for-hire trips while landing fish in excess of the bag limits.

Alternative 1 (No Action) and **Alternative 3 (Preferred)** would not modify the way in which the snapper grouper fishery in the southeast is prosecuted; nor would this action significantly increase fishing or change fishing methods for species targeted within the Snapper Grouper FMP. Therefore, no adverse effects to the protected species most likely to interact with snapper grouper hook-and-line gear (e.g., sea turtles and smalltooth sawfish) are likely to result under either alternative. Additionally, no negative effects on EFH, HAPCs, or coral HAPCs are expected as a result of these alternatives. **Alternative 2** would allow an unlimited number of crew members onboard for-hire vessels. Theoretically, the potential for an increase in fishing effort per vessel would exist under **Alternative 2**, and thus could increase the amount of gear in the water at any one time. Under these circumstances, **Alternative 2** would have the fewest biological benefits for sea turtles and smalltooth sawfish relative to the other alternatives. Otherwise, removing the limit on the number of crew members allowed onboard for-hire vessels is not expected to negatively affect any designated EFH, HAPCs, or coral HAPCs.

4.2.2 Economic Effects

Alternative 1 (No Action), which would maintain the maximum crew size at three for dual-permitted vessels, is not anticipated to result in economic effects. **Alternative 2** and **Alternative 3 (Preferred)** are not anticipated to affect the harvest or other customary uses of snapper grouper species. Therefore, economic effects to the overall economy are not anticipated from the implementation of either alternative. **Alternatives 2** and **3 (Preferred)** could have economic effects on individual trip costs, however. Bringing on a fourth crew member (**Alternatives 2 and 3 (Preferred)**) or more (**Alternative 2**) would likely increase trip costs as a result of additional compensation for the additional crew member(s). Potential trip profitability would be weighed against safety concerns related to having additional crew members onboard in determining the value of additional crew. By allowing more than four crew members onboard, **Alternative 2** has the potential for greater economic effects on trip costs than **Alternative 3 (Preferred)**. While economic effects to the overall economy are not expected from **Alternative 2** or **Preferred Alternative 3**, a precautionary approach would suggest that, to preempt future changes in effort and fishing behavior, increasing the crew size to four (**Preferred Alternative 3**) may be preferable to eliminating the crew size requirement (**Alternative 2**).

4.2.3 Social Effects

These alternatives would have direct and indirect impacts on 148 vessels that hold both a federal commercial snapper grouper permit (Unlimited or 225-Pound) and a federal charter snapper grouper permit (**Table 3.4.3**). Of these, 50 vessels are from the Florida East Coast; 43 from the Florida Keys; 1 from Georgia; 16 from South Carolina; and 32 from North Carolina. Specifically, dual-permitted vessels that take commercial dive trips would be expected to experience the most significant and apparent effects.

Alternative 1 (No Action) would be expected to result in the most significant negative effects on fishermen working on dual-permitted vessels among the three alternatives in this action. The current crew size limit may prohibit fishermen from maximizing efficiency on each trip and taking advantage of both the commercial and charter permits associated with the vessel. Additionally, the current crew size limit of three per vessel may hinder safe diving practices by not providing diving partners for each potential commercial diver. **Alternatives 2** and **3 (Preferred)** would be expected to decrease the negative impacts of the current regulations and increase the potential benefits from safe and profitable commercial dive trips on dual-permitted vessels.

4.2.4 Administrative Effects

In the Gulf of Mexico, Amendment 18A to the Reef Fish FMP (GMFMC 2006) modified the crew size rule to add the Coast Guard certificate of inspection (COI) provision that allowed vessels with a COI to carry the minimum crew size specified by the COI if it was greater than three. Based on the Coast Guard Diving Policies and Procedures Manual (USCG 2009), "A minimum of four personnel consisting of a diving supervisor, diver, diver tender and a standby diver are required to conduct SCUBA operations." While this is not a regulation applicable to commercial spearfishing vessels, it provides guidance to increase the safety of the diving personnel. This action was intended to resolve a conflict between the South Atlantic Council's maximum crew size rule and the Coast Guard's minimum crew size requirements for vessels with a COI, which was at least four. In addition, Amendment 34 to the Reef Fish FMP (GMFMC 2012) increased the crew size limit on dual-permitted vessels operating in the Gulf of Mexico to four, with the final rule published on October 19, 2012, (77 FR 64237). Therefore, if the South Atlantic Council chooses to allow four crew members onboard dual-permitted vessels, those regulations would become consistent with those implemented previously by the Gulf of Mexico Council, which would benefit the fishermen and the administrative environment by simplifying enforcement of the crew member size limit rule, especially in the vicinity of the South Atlantic Council's jurisdictional boundaries off southern Florida.

Additionally, the Occupational Safety and Health Administration (OSHA) regulations for SCUBA diving operations (29 CFR 1910.424 (c)) require that: 1) "a standby diver is available while the SCUBA diver is in the water" and 2) "the SCUBA diver must be either line-tended or accompanied by another diver with continuous visual contact." The OSHA regulations aim to establish safe operating procedures for conducting commercial SCUBA diving; however, the three-person crew limit for dual-permitted vessels impairs the crew's ability to comply with OSHA and decreases safety at sea. Based on the OSHA regulations, if two divers are underwater spearfishing, the third crew member at the surface would need to handle the vessel and be the standby diver. If it is necessary to have two crew members at the surface,

only one diver could be underwater and would need to be line-tended. Spearfishing while being line-tended could cause additional safety issues. Compliance with OSHA regulations reduces the risk of being required to address OSHA violations in the future, which is a positive impact on the administrative environment.

Overall, the administrative effects of any of the alternatives under consideration for this action would be negligible. Allowing an unlimited number of crew members to work onboard dual-permitted vessels may increase the risk that those vessels may engage in for-hire trips while landing fish in excess of the bag limits, causing additional complications for enforcement. Increasing the crew size limit by one would not result in any increase to the burden on law enforcement officers since the three-person crew size limit is already being enforced. **Alternative 3 (Preferred)** would increase safety at sea and allow dual-permitted vessels to operate within the prescribed OSHA commercial diving regulations and follow the U.S. Coast Guard Diving Operation Guidelines (2009) while engaged in spearfishing. The only administrative burden that may result from either **Alternative 2** or **3 (Preferred)** is preparation of outreach materials to notify fishery participants of the change in the crew member limit for dual-permitted vessels.

4.3 Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper

Alternative 1 (No Action). Captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper may not retain bag limit quantities of the following species in the snapper grouper fishery management unit (FMU): gag, black grouper; red grouper; scamp; red hind; rock hind; coney; graysby; yellowfin grouper; yellowmouth grouper; yellowedge grouper; snowy grouper; misty grouper; vermilion snapper; sand tilefish; blueline tilefish; and golden tilefish.

Alternative 2 (Preferred). Remove the snapper grouper species retention restrictions for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper.

Alternative 3. Establish a bag limit of zero for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper for *all* species included in the snapper grouper FMU.

4.3.1 Biological Effects

The final rule for Amendment 16 to the Snapper Grouper FMP (SAFMC 2009a) prohibited the captain and crew from retaining gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish to help end overfishing of gag and vermilion snapper. The analysis contained within Amendment 16 stated that "excluding the captain and crew from possessing the bag limit would provide a slight reduction in harvest." **Alternative 1 (No Action)** would continue the biological benefits associated with retention restrictions of snapper grouper species for crew

members of for-hire vessels, but this alternative would not establish consistency in bag limit retention provisions for for-hire crew members across the entire snapper grouper FMU. Under **Alternative 1 (No Action)**, current confusion about which species can be retained by crew members would persist. Therefore, some species that that are thought to be allowed to be retained, but are actually prohibited, may be harvested and kept illegally; while species that are allowed to be retained by crew members may unnecessarily be discarded if they are thought to be prohibited. This situation could result in small negative biological impacts for some species. The extent of biological benefits, however, would be somewhat related to the level of discard mortality for each particular species and the depth at which it was caught.

Alternative 2 (Preferred) proposes to remove the current restriction on retaining bag limit quantities of gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish. **Alternatives 2 (Preferred)** and **3** would both result in regulatory consistency for crew member retention provisions for all snapper grouper species in the South Atlantic. However, **Alternative 2 (Preferred)** could result in small negative biological impacts (**Tables 4.3.1** and **4.3.2**). In addition, bycatch of species with low recreational ACLs could increase as the ACLs would be met faster possibly resulting in small negative biological impacts for those species. Marine Recreational Information Program (MRIP) samples sizes for species such as gag, black grouper, and golden tilefish for both sectors are very low, which results in imprecise estimates of catch (**Table 4.3.1**). These species with small sample size, have a large influence on the estimates of average increases or decreases in harvest under **Alternatives 2 (Preferred)** and **3**. In the headboat sector, no harvest of golden tilefish is recorded during the years of 2004 and 2011 because headboats do not typically target golden tilefish. Therefore, projections of increased golden tilefish harvest based on an allowance for captain and crew retention are highly unreliable. Furthermore, the projection analysis accounted for individual and aggregate bag limits for managed stocks. Impacts were only predicted if trip level harvest hit a bag limit. If a trip hit a bag limit, the analysis assumed 2 additional anglers (1 captain, 1 crew) on charter trips reporting to MRFSS and 3 additional anglers (1 captain, 2 crew) on headboat trips reporting to the SEFSC headboat survey. With consideration of these factors, **Table 4.3.2** presents the estimated increased harvest of the most commonly landed snapper grouper species under **Alternative 2 (Preferred)** with the most recent MRIP data available. Overall, the average increase in harvest of the most commonly landed snapper grouper species would be negligible at 0.02% for the headboat sector and 0.35% for the charterboat sector. These slight increases are unlikely to result in substantial negative biological impacts on snapper grouper species.

Table 4.3.1 Percent increase in headboat and charterboat harvest for most commonly landed snapper grouper species under **Preferred Alternative 2** using average landings from 2009-2011.

Species	Headboat	Charterboat
Gag*	0.14%	0.00%
Black Grouper*	0.00%	24.44%
Golden Tilefish*	0.00%	16.67%
Shallow water Grouper	0.32%	2.17%
Vermilion snapper	0.04%	0.98%
Black Sea Bass	0.00%	0.00%
Snappers	0.00%	0.00%
Greater Amberjack	0.00%	0.00%
Red Porgy	0.00%	0.00%

*MRIP sample sizes for gag, black grouper, and golden tilefish in the charterboat sector are extremely small; therefore, the percentage of increase for these species in the charterboat sector is heavily influenced by the landings data of very few intercepted fishermen. Headboats do not typically target golden tilefish; therefore, no landings golden tilefish are recorded for the headboat sector from 2009-2011.

Table 4.3.2 Percent increase in headboat and charterboat harvest for most commonly landed snapper grouper species under **Preferred Alternative 2** using average landings from 2009-2011.

	Headboat	Charterboat
Harvest increase	0.02%	0.35%

Conversely, **Alternative 3** would benefit the biological environment by prohibiting crew members of for-hire vessels from retaining *all* snapper grouper species. However, the magnitude of snapper grouper species retained by captain and crew of for-hire vessels is very small compared to the amount retained by other recreational anglers (**Tables 4.3.3** and **4.3.4**). Overall, under **Alternative 3**, harvest of the most commonly landed snapper grouper species would decrease by 0.86% for the headboat sector and 4.73% for the charterboat sector. The percentage decrease in harvest is slightly greater than the percentage increase in harvest under **Alternative 2 (Preferred)**; therefore, **Alternative 3** could result in somewhat greater biological benefits, than the negative biological impacts that could be realized under **Alternative 2 (Preferred)**. However, the percentage decrease in harvest is quite small and is not expected to be a significant source of harvest protection. Substantial harvest controls have been promulgated since the implementation of Amendment 16 (SAFMC 2009a). ACLs and accountability measures (AMs) have been implemented for all snapper grouper species included in the Snapper Grouper FMP. If a recreational ACL is met or projected to be met, AMs are triggered to ensure overfishing does not occur for each species. Therefore, the biological effects of **Alternatives 1 (No Action)-3** may be neutral. **Alternatives 1 (No Action)-3** may simply affect the rate at which an ACL is met and an AM is enacted.

Table 4.3.3 Percent decrease in headboat and charterboat harvest for most commonly landed snapper grouper species under **Alternative 3** using average landings from 2009-2011.

Species	Headboat	Charterboat
Gag*	0.00%	0.00%
Black Grouper*	0.00%	0.00%
Golden Tilefish*	0.00%	0.00%
Shallow water Grouper	0.00%	0.00%
Vermilion snapper	0.00%	0.00%
Black Sea Bass	2.01%	5.41%
Snappers	0.32%	5.68%
Greater Amberjack	0.89%	11.41%
Red Porgy	0.00%	0.00%

*MRIP sample sizes for gag, black grouper, and golden tilefish in the charterboat sector are extremely small; therefore, the percentage of increase for these species in the charterboat sector is heavily influenced by the landings data of very few intercepted fishermen. Recreational fishermen do not typically target golden tilefish on headboat trips; therefore, no landings golden tilefish are recorded for the headboat sector from 2009-2011.

Table 4.3.4 Percent decrease in headboat and charterboat harvest for most commonly landed snapper grouper species under **Alternative 3** using average landings from 2009-2011.

	Headboat	Charterboat
Harvest decrease	-0.86%	-4.73%

The relative biological impact of each alternative on the protected species most likely to interact with snapper grouper hook-and-line gear (e.g., sea turtles and smalltooth sawfish) is expected to be slight. **Alternative 3** is likely to have the greatest biological benefit relative to other alternatives because it would not allow the captain and crew to retain any snapper grouper species that have a bag limit. This may potentially reduce fishing effort and decrease the potential for interaction with sea turtles and smalltooth sawfish. Conversely, **Alternative 2 (Preferred)** may lead to increased fishing effort and would likely have the least biological benefit to sea turtles and smalltooth sawfish. The biological benefits of **Alternative 1 (No Action)** would likely be between the other two alternatives. However, the percentages of increased and decreased harvest under **Alternatives 2 (Preferred)** and **3** are very small, and thus are unlikely to result in significant changes in fishing effort or fishing methodology. For these reasons, any adverse impacts to sea turtles or smalltooth sawfish are expected to be negligible, and no negative impacts on designated EFH, HAPCs, or coral HAPCs are expected as a consequence of this action.

4.3.2 Economic Effects

The procedure for calculating the economic effects of the alternatives for the captain and crew bag limit retention involves estimating the expected changes in consumer surplus (CS) to anglers and net operating revenues (NOR) to for-hire vessels. Consumer surplus is the amount of money that an angler

would be willing-to-pay for a fishing trip over and above the cost of the trip. Net operating revenue is total revenue less operating costs, such as fuel, ice, bait, and other supplies. Although this is the same approach used in evaluating the economic effects of regulatory actions on the recreational sector as in previous amendments (see for example, Amendment 17A and Regulatory Amendment 18), certain issues regarding the valuation of the captain and crew bag limit are noted below.

The captain and crew of for-hire vessels provide labor services for each recreational trip, and as such they may not be strictly considered as recreational anglers. These individuals are paid for the trip and so would not generally derive the kind of economic benefits that anglers derive from a fishing experience. Neither may they be considered commercial fishermen, unless they are on a dual-permitted vessel which is taking a commercial fishing trip. If, on a recreational fishing trip, they are allowed to retain bag limits of certain snapper grouper species, the valuation of those retained fish would mainly depend on their ultimate use. Captains and crew can bring the fish home and consume, give to other people, or sell them. Such action would yield some form of economic values that cannot be adequately estimated. Selling recreationally caught fish is noted to be illegal, but if they are able to do so, they generate some income somewhat comparable to that of a commercial fisherman. They could also distribute the fish to their angling customers. In general, it would be illegal to distribute the fish for purposes of circumventing the bag limit rule. However, this is very difficult to enforce, especially if the actual distribution is done after the trip. If the fish were distributed to the angling customers in one way or another, those fish would assume economic values that are somewhat comparable to economic values derived by an angler for keeping the fish, particularly if those fish were caught by the anglers themselves. In this case, consumer surplus values may be assigned to the fish. It is also possible for the captain and crew bag limit to be used for marketing purposes. Anglers could be enticed to take fishing trips if they are potentially allowed to keep fish above the bag limit. Those trips could also be assigned economic values in the form of additional net operating revenues to the vessel. It is also possible that the captain and crew bag limit may be considered as part of compensation to the crew, either as incentive to the crew or as actual part of the crew's (non-monetary) compensation. In this way, the bag limit could be assigned an economic value in a manner, which is comparable to the wage received by the crew.

These issues highlight the varied ways of assigning economic values to the captain and crew bag limit, although none of which may be considered better than the others. Given certain assumptions, it is possible to monetize some of these economic values. With respect to the economic value of the fish themselves, they could be monetized using ex-vessel prices. This valuation would assume some form of sales occurred, or the fish was used as part of compensation to the crew. The bag limit could also be monetized using consumer surplus values. This valuation would assume that the captain and crew distributed their bag limit to their angling customers in one form or another, because as noted earlier the captain and crew of for-hire vessels are not strictly recreational anglers. If no such distribution occurred but the anglers themselves caught the fish, anglers could also have derived some benefits comparable to that derived from catching and releasing the fish. If no such distribution occurred and anglers did not catch the fish, assigning consumer surplus values to the captain and crew bag limit would essentially place an upper bound on the value of the fish because no angler costs were expended to catch the fish. Beyond the value of the fish themselves, additional economic value may be derived from allowing the captain and crew to retain their bag limit. As noted earlier, if for-hire vessels were effective in using the captain and crew bag limit to entice additional angling trips, these trips could be considered to generate additional net operating revenues to for-hire vessels.

Cognizant of the various issues discussed above, an attempt is made here to estimate the CS and NOR effects of the various alternatives for the captain and crew bag limit retention. For the current purpose, the CS value used is $76.98 (2011 dollars) per harvested fish (Carter and Liese 2012), and the NOR values used are $157.27 (2011 dollars) per angler trip for charter boats and $70.25 (2011 dollars) per angler trip for headboats (David Carter, NMFS SEFSC, personal communication, 2009). Carter and Liese (2012) estimated the economic value (willingness-to-pay) of catching and keeping or releasing saltwater sport fish in the southeast. Their estimate was $62.97 (2003 dollars) for keeping the second red snapper. The NOR values provided by Carter (2009) were, in 2009 dollars, $63 for headboats and $128 for charter boats.

This procedure in estimating the economic effects relies on several assumptions, in addition to the ones already pointed out above. The CS used, based on the Carter and Liese (2012) study, pertains to the net benefit an angler derives from the second red snapper kept on a fishing trip. There is a good possibility that, on average, red snapper is valued higher than many other species. In the same vein, red snapper may be valued lower than other snapper grouper species. Using this CS value would then tend to overestimate or underestimate the economic effects of this amendment. In addition, this CS value is assumed to be uniform across all fishing sectors, areas, and harvest levels. This may not necessarily be the case. Headboat anglers may value a species differently, on average, than private and charterboat anglers. The direction and magnitude of such difference are unknown, though the higher cost of fishing to charterboat anglers suggests the CS to headboat anglers would be less than that to charterboat anglers. It is also possible that CS values vary across geographic areas. No adjustments for these possibilities are introduced in the current analysis. It should also be noted that using an average recreational value per fish would not take into account diminishing returns exhibited in most recreational activities when the volume of the activity increases. This could very well lead to overestimation of CS effects. The NOR values used in the current analysis are based on a study of the study of the North Carolina recreational fishery (Dumas et al. 2009). Although North Carolina is a major participant in the recreational harvest of many snapper grouper species, the other states particularly Florida are major participants in the recreational sector of the snapper grouper fishery. It is also possible that NOR values could vary by state, but no adjustments are made here in the absence of relevant information. One other assumption is that the captain and crew bag limit does not affect their monetary or non-monetary compensation.

Relative to **Alternative 1** (no action alternative), **Alternative 2 (Preferred)** would be expected to result in some CS and possibly NOR increases. Based on a bag limit analysis done for this amendment by SERO-LAPP (Farmer, pers. comm., 2013) and considering only the period 2008-2011, **Alternative 2 (Preferred)** would result in additional 51 fish kept on charter trips and 138 additional fish kept on headboat trips. If the captain and crew were assumed to have a value equivalent to the recreational fishermen, then the CS values of these fish would be $3,926 (2011 dollars) for charter trips and $10,623 (2011 dollars) for headboat trips. It is not possible to determine the change in trips and NOR arising from these increases in harvest without making much stronger assumptions than those for estimating the CS effects. It may only be noted that each additional angler trip would generate NOR values of $157.27 (2011 dollars) for charter boats and $70.25 (2011 dollars) for headboats.

In contrast to **Alternative 2 (Preferred)**, **Alternative 3** would be expected to result in CS and possibly NOR reductions relative to **Alternative 1** (no action alternative). Based on the same information as above, **Alternative 3** would result in reductions of 275 fish for charter boat trips and 4,291fish for headboat trips. The associated CS values for these reductions would be $21,170 (2011 dollars) and

$330,321 (2011 dollars) for charter boat and headboat trips, respectively. As with **Alternative 2 (Preferred)**, it is not possible to determine the reduction in angler trips under **Alternative 3**. It is only noted that angler trip reductions would result in NOR reductions of $157.27 (2011 dollars) per charter boat angler trip and $70.25 (2011 dollars) per headboat angler trip.

4.3.3 Social Effects

The existing restrictions on captain and crew bag limit retention under **Alternative 1 (No Action)** would continue to cause confusion among for-hire captain and crew since the restriction applies only to some snapper grouper species and not others. This inconsistency may also hinder effective enforcement. The opportunity to retain catch on for-hire trips (**Alternative 2 (Preferred)**) would be expected to be beneficial to for-hire captain and crew by providing fish for personal consumption. However, for species with low recreational ACLs (such as snowy grouper), allowing captain and crew to retain bag limits, as proposed under **Alternative 2 (Preferred)**, may reduce the amount available to private recreational anglers. Additionally, **Alternative 2 (Preferred)** could result in increased incentive to harvest the maximum bag limit for some species on for-hire trips, which could cause conflict among the for-hire fleet.

Prohibition of bag limit retention for captain and crew for all snapper grouper species (**Alternative 3**) would likely result in some negative impacts for crew who routinely take the bag limit of allowed species for personal consumption. For several species in the snapper grouper FMU that are not overfished or experiencing overfishing, bag limit restrictions for the for-hire crew members would not be expected to result in any benefits for the fishermen and other resource users.

4.3.4 Administrative Effects

In the South Atlantic, the captain and crew on for-hire vessels cannot retain the bag limit for gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish, and in the Gulf of Mexico the captain and crew on for-hire vessels can retain the majority of reef fish species. The existing restrictions on captain and crew bag limit retention in the South Atlantic under **Alternative 1 (No Action)** are confusing among for-hire captain and crew, since the restriction applies only to some snapper grouper species and not others. Inconsistent regulations in southern Florida for species that occur on both sides of the jurisdictional boundary as well as within the South Atlantic create a confusing regulatory environment and make enforcement efforts less efficient. Therefore, **Alternative 1 (No Action)** would have the most negative administrative impacts of the alternatives considered.

Alternative 2 (Preferred) would create consistent regulations for retention of snapper grouper species by crew members in the South Atlantic, which would eliminate some confusion, and could help streamline enforcement efforts within the fishery. **Alternative 3** is the most administratively beneficial alternative since it would aid law enforcement and prevent confusion regarding the species that are allowed to be retained and those that are not.

4.4 Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure

Alternative 1 (No Action). Section I of the snapper grouper framework procedure, as modified through Amendment 17B to the Snapper Grouper FMP, is as follows:

I. Snapper Grouper FMP Framework Procedure for Specification of Annual Catch Limits, Annual Catch Targets, Overfishing Limits, Acceptable Biological Catch, and annual adjustments:

Procedure for Specifications:

1. At times determined by the Southeast Data, Assessment, and Review (SEDAR) Steering Committee, and in consultation with the Council and NMFS Southeast Regional Office (SERO), stock assessments or assessment updates will be conducted under the SEDAR process for stocks or stock complexes managed under the Snapper Grouper FMP. Each SEDAR stock assessment or assessment update will: a) assess to the extent possible the current biomass, biomass proxy, or SPR levels for each stock; b) estimate fishing mortality (F) in relation to F_{MSY} (MFMT) and F_{OY}; c) determine the overfishing limit (OFL); d) estimate other population parameters deemed appropriate; e) summarize statistics on the fishery for each stock or stock complex; f) specify the geographical variations in stock abundance, mortality recruitment, and age of entry into the fishery for each stock or stock complex; and g) develop estimates of B_{MSY}.

2. The Council will consider SEDAR stock assessments or other documentation the Council deems appropriate to provide the biological analysis and data listed above in paragraph 1. Either the SEFSC or the stock assessment branch of a state agency may serve as the lead in conducting the analysis, as determined by the SEDAR Steering Committee. The Scientific and Statistical Committee (SSC) will prepare a written report to the Council specifying an OFL and may recommend a range of ABCs for each stock complex that is in need of catch reductions for attaining or maintaining OY. The OFL is the annual harvest level corresponding to fishing at MFMT (F_{MSY}). The ABC range is intended to provide guidance to the SSC and is the OFL as reduced due to scientific uncertainty in order to reduce the probability that overfishing will occur in a year. To the extent practicable, the probability that overfishing will occur at various levels of ABC and the annual transitional yields (i.e., catch streams) calculated for each level of fishing mortality within the ABC range should be included with the recommended range.

For overfished stocks, the recommended range of ABCs shall be calculated so as to end overfishing and achieve snapper grouper population levels at or above B_{MSY} within the rebuilding periods specified by the Council and approved by NMFS. The SEDAR report or SSC will recommend rebuilding periods based on the provisions of the National Standard Guidelines, including generation times for the affected stocks. Generation times are to be specified by the stock assessment panel based on the biological characteristics of the individual stocks. The report will recommend to the Council a B_{MSY} level and a MSST from B_{MSY}. The report may also recommend more appropriate estimates of F_{MSY} for any stock. The report may also recommend more appropriate levels for the MSY proxy, OY, the overfishing threshold (MFMT), and overfished threshold (MSST). For stock or stock complexes where data are inadequate to compute an OFL and recommended ABC range, the SSC will use other available information as a guide in

providing their best estimate of an OFL corresponding to MFMT and ABC range that should result in not exceeding the MFMT.

3. The SSC will examine SEDAR reports or other new information, the OFL determination, and the recommended range of ABC. In addition, the SSC will examine information provided by the social scientists and economists from the Council staff and from the SERO Fisheries Social Science Branch analyzing social and economic impacts of any specification demanding adjustments of allocations, ACLs, ACTs, AMs, quotas, bag limits, or other fishing restrictions. The SSC will use the ABC control rule to set their ABC recommendation at or below the OFL, taking in account scientific uncertainty. If the SSC sets their ABC recommendations equal to OFL, the SSC will provide its rational why it believes that level of fishing will not exceed MFMT.

4. The Council may conduct a public hearing on the reports and the SSC's ABC recommendation at, or prior, to the time it is considered by the Council for action. Other public hearings may be held also. The Council may request a review of the report by its Snapper Grouper Advisory Panel and optionally by its socioeconomic experts and convene these groups before taking action.

5. The Council, in selecting an ACL, ACT, AM, and a stock restoration time period, if necessary, for each stock or stock complex for which an ABC has been identified, will, in addition to taking into consideration the recommendations and information provided for in paragraphs 1, 2, 3, and 4, utilize the following criteria:

> **a.** Set ACL at or below the ABC specified by the SSC or set a series of annual ACLs at or below the projected ABCs in order to account for management uncertainty. If the Council sets ACL equal to ABC, and ABC has been set equal to OFL, the Council will provide its rationale as to why it by it believes that level of fishing will not exceed MFMT.
>
> **b.** May subdivide the ACLs into commercial, for-hire, and private recreational sector ACLs that maximize the net benefits of the fishery to the nation. The Sector ACLs will be based on allocations determined by criteria established by the Council and specified by the Council through a plan amendment. If, for an overfished stock, harvest in any year exceeds the ACL or sector ACL, management measure and catch levels for that sector will be adjusted in accordance with the AMs established for that stock.
>
> **c.** Set ACTs or sector ACTs at or below ACLs and in accordance with the provision of the AM for that stock. The ACT is the management target that accounts for management uncertainty in controlling the actual catch at or below the ACL. If an ACL is exceeded repeatedly, the Council has the option to establish an ACT if one does not already exist for a particular stock and adjust or establish AMs for that stock as well.

6. The Council will provide the SSC specification of OFL; SSC recommendation of ABC; and its recommendations to the NMFS Regional Administrator for ACLs, sector ACLs, ACTs, sector ACTs, AMs, sector AMs, and stock restoration target dates for each stock or stock complex, estimates of B_{MSY} and MSST, estimates of MFMT, and the quotas, bag limits, trip limits, size limits, closed seasons, and gear restrictions necessary to avoid exceeding the ACL or sector ACLS, along with the reports, a regulatory impact review and proper National Environmental

Policy Act (NEPA) documentation, and the proposed regulations within a predetermined time as agreed upon by the Council and Regional Administrator. The Council may also recommend new levels or statements for MSY (or proxy) and OY.

7. The Regional Administrator will review the Council's recommendations and supporting information, and, if he concurs that the recommendations are consistent with the objectives of the FMP, the National Standards, and other applicable law, he shall forward for publication notice of proposed rules to the Assistant Administrator (providing appropriate time for additional public comment). The Regional Administrator will take into consideration all public comment and information received and will forward for publication in the *Federal Register* of a final rule within 30 days of the close of the public comment, or such other time as agreed upon by the Council and Regional Administrator.

8. Appropriate regulatory changes that may be implemented by final rule in the *Federal Register* include:

a. ACLs or sector ACLs, or a series of annual ACLs or sector ACLs.
b. ACTs or sector ACTs, or a series of annual ACTs or sector ACTs and establish ACTs for stocks which do not have an ACT.
c. AMs or sector AMs.
d. Bag limits, size limits, vessel trip limits, closed seasons or area, gear restrictions, and quotas designed to achieve OY and keep harvest levels from exceeding the ACL or sector ACL.
e. The time period specified for rebuilding an overfished stock, estimated MSY and MSST for overfished stocks, and MFMT.
f. New levels or statements of MSY (or proxy) and OY for any stock.
g. New levels of total allowable catch (TAC).
h. Adjust fishing seasons/years.

9. The NMFS Regional Administrator is authorized, through notice action, to conduct the following activities.

a. Close the commercial fishery of a snapper grouper species or species group that has a commercial quota or sub-quota at such time as projected to be necessary to prevent the commercial sector form exceeding its sector ACL or ACT for the remainder of the fishing year or sub-quota season.
b. Close the recreational fishery of a snapper grouper species or species group at such time as projected to be necessary to prevent recreational sector ACLs or ACTs from being exceeded.
c. Reopen a commercial or recreational season that had been prematurely closed if needed to assure that a sector ACL or ACT can be reached.

10. If NMFS decides not to publish the proposed rule for the recommended management measures, or to otherwise hold the measures in abeyance, then the Regional Administrator must notify the Council of its intended action and the reasons for NMFS concern along with suggested changes to the proposed management measures that would alleviate the concerns. Such notice shall specify: 1) The applicable law with which the amendment is inconsistent; 2) the nature of

such inconsistencies; and 3) recommendation concerning the action that could be taken by the Council to conform the amendment to the requirements of applicable law.

Alternative 2 (Preferred). Modify Section I of the Snapper Grouper Framework Procedure by adding a new Item #9 (and renumber the existing 9 as 10 and 10 as 11):

9. Adjustments to ABCs, ACLs, and ACTs according to the existing ABC Control Rule(s) and formulas for specifying ACLs and ACTs that have been approved by the Council and that were implemented in a fishery management plan amendment to the FMP. This abbreviated process is authorized as follows:

a. Following the Scientific and Statistical Committee's (SSC's) review of the stock assessment, the Council will determine if changes are needed to ABC, ACL, and/or ACT and will so advise the RA.

b. The Council will first hold a public hearing during the Council meeting during which they will review the stock assessment and the SSC's recommendations. In addition, the public will be advised prior to the meeting that the Council is considering potential changes to the ABC, ACL, and/or ACT and the Council will provide the public the opportunity to comment on the potential changes prior to and during the Council meeting.

c. If the Council then determines that modifications to the ABC, ACL, and/or ACT are necessary and appropriate, they will notify the RA of their recommendations in a letter with the Council's analysis of the relevant biological, economic, and social information necessary to support the Council's action.

d. The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the Magnuson-Stevens Fishery Conservation and Management Act, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate notification in the Federal Register, providing appropriate time for additional public comment as necessary.

e. If the Council chooses to deviate from the ABC control rule(s) and formulas for specifying ACLs and ACTs that the Council previously approved and that were implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply, and either the framework procedure would apply with the preparation of a regulatory amendment or a fishery management plan amendment would be prepared. Additionally, the Council may choose to prepare a regulatory amendment or a fishery management plan amendment even if they do not deviate from the previously approved ABC control rule(s) and formulas for specifying ACLs and ACTs.

4.4.1 Biological Effects

This administrative action would have indirect positive biological effects in that adjustments to harvest levels would not be subject to regulatory delays as is currently the case under **Alternative 1 (No**

Action). As such, biological benefits may result due to the ability to implement appropriate levels of harvest quickly in response to the latest scientific information to maintain harvest levels at or below the ACL. When stock assessments indicate large decreases in the ACLs are needed, a quick adjustment to the catch level would likely have positive biological effects. The SEDAR process currently only produces one stock assessment for a species every three to five years. As such, the data utilized in the assessment are at least one year old by the time the assessment results become available and can be used for management purposes. It is, therefore, advantageous to make any modifications to the existing management process, as proposed under **Alternative 2 (Preferred)**, to expedite fishing level adjustments for snapper grouper species. However, the abbreviated process would not be able to be used if the South Atlantic Council were to deviate from the ABC control rule or adopt new formulas for specifying ACLs and ACTs.

This action is administrative in nature and would not significantly alter the way in which the snapper grouper fishery is prosecuted in the South Atlantic Region. Therefore, no impacts on ESA-listed marine species, EFH, HAPCs, or coral HAPCs are expected as a result of updating the Snapper Grouper Framework Procedure.

4.4.2 Economic Effects

Alternative 1 (No Action) could negatively impact the recreational and commercial fishing sectors should new data indicate that a stock had improved but the South Atlantic Council had no means to rapidly increase the ACL, resulting in loss of opportunity, income, and/or recreational angling experiences. However, if an assessment indicated a substantial decrease in the ACL was needed **Alternative 1 (No Action)** would retain a more deliberative process of ensuring the public was well informed regarding the needed changes in catch levels. **Alternative 2 (Preferred)** could result in positive or negative economic effects. When stock assessments indicate ACLs can be increased, quick adjustments for ACLs would allow for positive economic effects without negatively affecting the sustainability of the stock. On the other hand, when stock assessments indicate large decreases in the ACLs are needed, it is likely that negative economic effects would result from moving quickly with a decrease in a catch level. However, depending on the timing of the implementation of the ACLs, the positive or negative economic effect would be short lived as the overall net economic effect to the economy is likely to remain unchanged by this action. Furthermore, the South Atlantic Council would have the discretion to either adjust the ACL more quickly through the process specified in **Alternative 2 (Preferred)**, or take a more deliberate approach by means of a regulatory amendment.

4.4.3 Social Effects

The process by which catch limits can be adjusted based on new information, stock assessment updates, and SSC recommendations contributes directly to benefits for the commercial and for-hire fleets, recreational anglers, businesses associated with fishing, and coastal communities. Catch limits and AMs can potentially have significant impacts on fishermen and communities if harvest of an important species is not allowed or closes early in the season. Although the long-term benefits may balance out these short-term negative impacts, in some situations it can be expected that fishing behavior may change

permanently, such as when a closure is implemented that limits income from fishing for a certain period of time.

When stock assessments indicate ACLs can be increased, quick adjustments for ACLs, as proposed under **Alternative 2 (Preferred)**, would allow for positive social effects without negatively impacting the sustainability of the stock. When stock assessments indicate large decreases in the ACLs are needed, a quick adjustment to the catch level would likely result in negative social effects in that quickly reducing catch levels would occur with less public involvement. However, the South Atlantic Council could choose to modify the ACL through a regulatory amendment rather than an abbreviated framework process.

4.4.4 Administrative Effects

Alternative 1 (No Action) would incur no administrative impact beyond the status quo process for implementing changes to ABC, ACLs, AMs, and ACTs via the regulatory amendment process. The regulatory amendment process, though typically faster than the FMP amendment process, requires much more time than sometimes desired to quickly implement modifications to important harvest parameters when needed. The regulatory amendment process under **Alternative 1 (No Action)** would require the South Atlantic Council to meet and develop a suite of actions and alternatives that would be analyzed via an appropriate National Environmental Policy Act (NEPA) document, and reviewed by the South Atlantic Council at a subsequent meeting to approve the action for implementation. After the regulatory amendment is submitted to NMFS by the South Atlantic Council a series of public comment periods would commence, and the proposed and final rules would be published in the *Federal Register*, if implemented by the Secretary of Commerce.

Alternative 2 (Preferred) would allow ABC, ACLs, AMs, and ACTs to be modified via a modified framework procedure intended to shorten the length of time it takes to implement routine changes in harvest limits while still complying with all applicable laws. It is anticipated that this streamlined approach would eliminate the lengthy regulatory amendment process, and would minimize administrative impacts. It is important to note that changes to harvest parameters through the abbreviated framework process would still be considered framework/regulatory amendments; however, the process by which they are developed and the end product would be somewhat modified compared to standard regulatory amendments.

The process under **Alternative 2 (Preferred)** would entail a review of new scientific information (SEDAR or other stock assessment documents) by the South Atlantic Council's SSC, and a recommendation from the South Atlantic Council to the Regional Administrator for any changes to harvest levels the council determines need to be made. The recommendation from the South Atlantic Council would be accompanied by biological, economic, and social impacts information supported by the best available scientific information. The South Atlantic Council request would need to contain adequate information for NMFS to conduct a Regulatory Impact Review, a Regulatory Flexibility Analysis, a Bycatch Practicability Analysis, a Social Impact Assessment, and to complete the appropriate supporting documentation to fulfill requirements of the NEPA.

If the Regional Administrator agrees to the South Atlantic Council's recommendations, NMFS would prepare supporting documentation required under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), NEPA, and any other applicable law to initiate development of a proposed rule for the action. NMFS would publish the changes in a proposed rule and take comment on the rule for no less than 15 days. If after reviewing public comment, NMFS determines that a final rule to implement the proposed changes should be published, NMFS would publish a final rule in the *Federal Register*, with a 30-day wait period for the regulation to be effective unless the wait period is waived. During the proposed and final rule stages, outreach materials such as fishery bulletins, and frequently asked questions would be developed and disseminated to fishery participants to notify them of any change.

Public comments on actions implemented through the abbreviated framework procedure could be taken several times during the process. The public would be notified in advance of the South Atlantic Council meeting during which the action is planned to be proposed. During the meeting, at which such changes are discussed by the South Atlantic Council, the public would be given the opportunity to provide comments on the action. If public hearings happen to coincide with the timing of development of an abbreviated framework action, the public may again have the opportunity to provide written and verbal comments on the proposed changes. Under the Administrative Procedure Act, opportunity for public comment on the proposed action would be provided during the proposed rule stage of the rulemaking process for no less than 15 days. Additionally, if the action to be taken under the abbreviated framework process requires the development of an environmental impact statement, or an environmental assessment, comments would be taken as required under NEPA.

4.5 Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner

Alternative 1 (No Action). Blue runner are managed under the Snapper Grouper FMP. A federal South Atlantic Unlimited or 225-Pound Snapper Grouper Permit is required to commercially harvest and sell blue runner. A federal Commercial Dealer Permit is required to purchase blue runner. The commercial ACL for blue runner is 188,329 pounds whole weight (lbs ww) and the commercial allocation is 15% of the total ACL. If the commercial ACL is met or is projected to be met, all subsequent purchase and sale is prohibited. If the commercial ACL is exceeded, the Regional Administrator will publish a notice to reduce the ACL in the following season by the amount of the overage, but only if the species is overfished.

The recreational ACL for blue runner is 1,101,612 lbs ww. There is a recreational ACT for blue runner, which equals ACL*(1-percent standard error) or ACL*0.5, whichever is greater. If the annual recreational landings exceed the recreational ACL in a given year the following year's landings will be monitored in-season for persistence in increased landings. The Regional Administrator will publish a notice to reduce the length of the recreational fishing season as necessary. Sale of recreationally harvested blue runner is prohibited (must have a South Atlantic Unlimited or 225-Pound Permit to sell blue runner).

Alternative 2 (Preferred). Remove blue runner from the Snapper Grouper FMP.

Alternative 3. Retain blue runner in the Snapper Grouper FMP but allow commercial harvest and sale of blue runner for vessels associated with a commercial Spanish Mackerel Permit or a South Atlantic Unlimited or 225-Pound Permit for Snapper Grouper. Gillnets are an allowable gear for only blue runner in the snapper grouper fishery.

Alternative 4. Retain blue runner in the Snapper Grouper FMP but exempt it from the Snapper Grouper permit requirement for purchase, harvest, and sale.

4.5.1 Biological Effects

Blue runner has not been assessed in the South Atlantic and the current ABC, as recommended by the South Atlantic SSC, is set at the third highest average landings between 1999 and 2008 based on the South Atlantic Council's ABC control rule. The ABC for this species is 1,289,941 lbs ww, 15% of which is allocated to the commercial sector and 85% to the recreational sector. The ACL is set equal to the ABC. The commercial sector was closed on December 10, 2012, because it was projected that the commercial ACL would be met by that date. Combined commercial and recreational landings in 2012 (804,619 lbs ww) were well below the total ACL of 1,289,941 lbs ww (http://sero.nmfs.noaa.gov/sustainable_fisheries/acl_monitoring/index.html). There are no recreational bag limits, commercial or recreational size limits, or commercial trip limits in place in federal waters.

Table 4.5.1 shows total annual commercial landings of blue runner from two sources: the Southeast Fisheries Science Center's Coastal Fisheries Logbook Program (CFLP) and the Accumulated Landings System (ALS). These two programs are the main source of commercial landings statistics in the southeast region. A comparison of the landings reveals that only an average of 60% of total annual commercial blue runner landings were captured in the CFLP over the past 12 years. The remaining 40% of landings that are reported via trip tickets can be attributed to non-federally permitted fishermen presumably fishing in state waters. Total commercial landings of blue runner in the South Atlantic, as indicated by trip ticket (ALS) data (**Table 4.5.1)**, have been above the current commercial ACL of 188,329 lbs ww since 2008 but no ACL was in place until 2012. However, the Comprehensive ACL Amendment (SAFMC 2011c), implemented in April 2012, put in place in-season and post-season AMs to ensure that harvest does not exceed the ACL specified for this species. In 2012, the commercial ACL for this species was projected to be met and commercial harvest was closed on December 10th.

Neither commercial snapper grouper fishermen nor mackerel fishermen commonly target blue runner. Blue runner made up less than 3.2% of the total Spanish mackerel and king mackerel landings for the South Atlantic (**Table 4.5.2**). An examination of commercial logbook landings shows most blue runner are taken with hook-and-line gear; however, a large component are taken with gillnets (**Figure 4.5.1**). Gillnets are not included in the allowable gear to harvest snapper grouper species in the South Atlantic. Out of all the commercial trips with hook-and-line gear that landed at least one pound of blue runner from 2007 through 2011, 51% and 49% also landed other snapper grouper species and king mackerel, respectively. Spanish mackerel were landed on 28% of the trips (**Figure 4.5.2**). A larger number of fishermen harvesting with gillnets land blue runner under a Spanish mackerel permit (approximately 95% of blue runner trips held Spanish mackerel permits, 51% held king mackerel permits, and about 10% held

other snapper grouper permits); whereas fishermen harvesting with vertical lines tend to land blue runner under various permits (approximately 32% of vertical line trips held Spanish mackerel permits, 41% held king mackerel, and 48% held other snapper grouper in 2011). These totals do not add up to 100% because multiple permits can be held by one vessel.

Table 4.5.1. Total annual landings of blue runner (pounds whole weight) as reported through the Coastal Fisheries Logbook Program (CFLP) and the ALS (trip ticket data) from 2000 to 2011.

Year	Logbook Landings	Trip Ticket Landings	% of total reported to Logbook Program
2000	82,582	156,832	52.7%
2001	105,355	158,453	66.5%
2002	85,614	132,756	64.5%
2003	75,544	108,412	69.7%
2004	108,024	149,080	72.5%
2005	80,685	128,773	62.7%
2006	91,250	155,450	58.7%
2007	89,161	130,939	68.1%
2008	99,042	192,593	51.4%
2009	132,082	259,387	50.9%
2010	122,221	223,954	54.6%
2011	131,451	237,028	55.5%

Source: NMFS SEFSC

Table 4.5.2. Total annual landings (pounds whole weight) of snapper grouper species, mackerel (king and Spanish), and total landings of blue runner (pounds whole weight) in the South Atlantic from 2000 to 2011.

Year	Total snapper grouper	Total Mackerel	Total blue runner	Percent SG blue runner	Percent Mackerel blue runner
2000	9,314,188	6,092,744	156,832	1.68%	2.57%
2001	8,759,531	6,074,566	158,453	1.81%	2.61%
2002	8,276,934	5,581,737	132,756	1.60%	2.38%
2003	6,421,749	6,563,229	108,412	1.69%	1.65%
2004	9,002,185	6,963,918	149,080	1.66%	2.14%
2005	8,104,573	7,009,838	128,773	1.59%	1.84%
2006	7,433,209	7,912,722	155,450	2.09%	1.96%
2007	7,440,210	7,636,726	130,939	1.76%	1.71%
2008	8,553,781	7,188,949	192,593	2.25%	2.68%
2009	8,959,344	8,549,078	259,387	2.90%	3.03%
2010	8,402,187	8,843,515	223,954	2.67%	2.53%
2011	7,981,696	7,514,259	237,028	2.97%	3.15%

Source: NMFS SEFSC

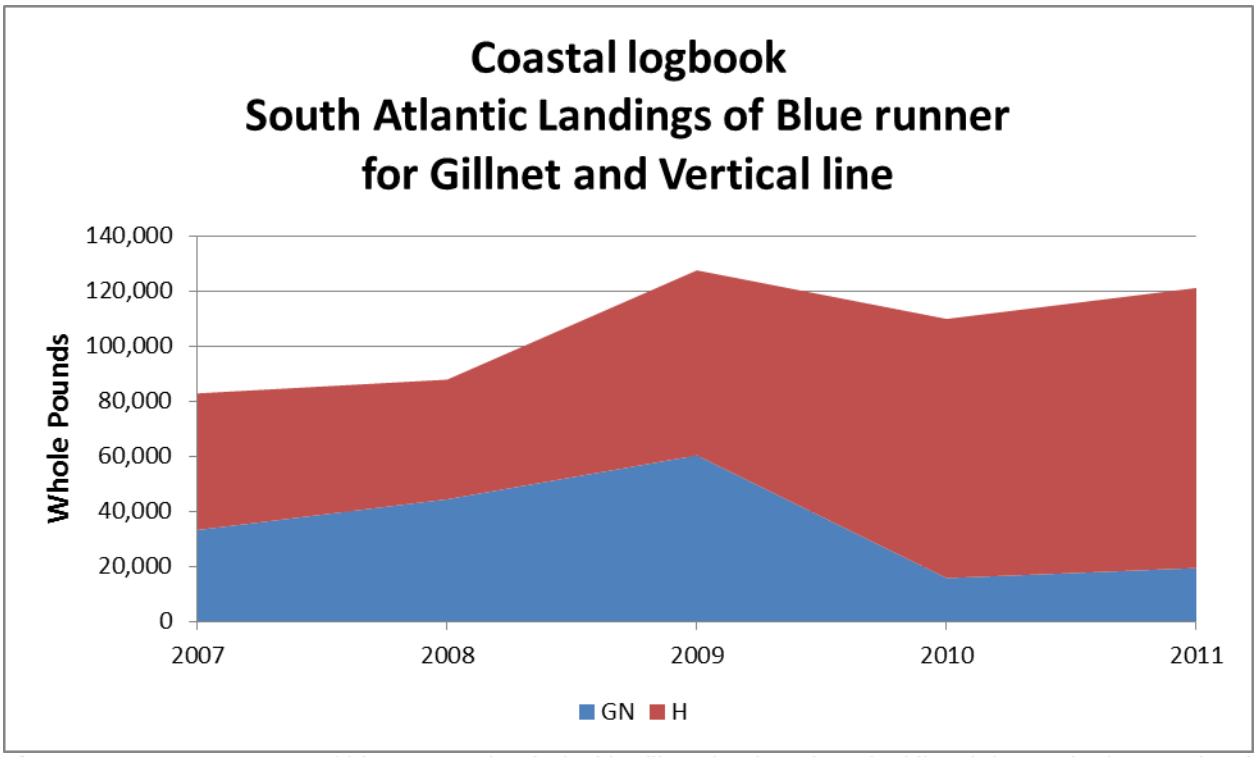

Figure 4.5.1. Percentage of blue runner landed with gillnet (GN) and vertical line (H) gear in the South Atlantic, 2007-2011.
Source: NMFS SEFSC

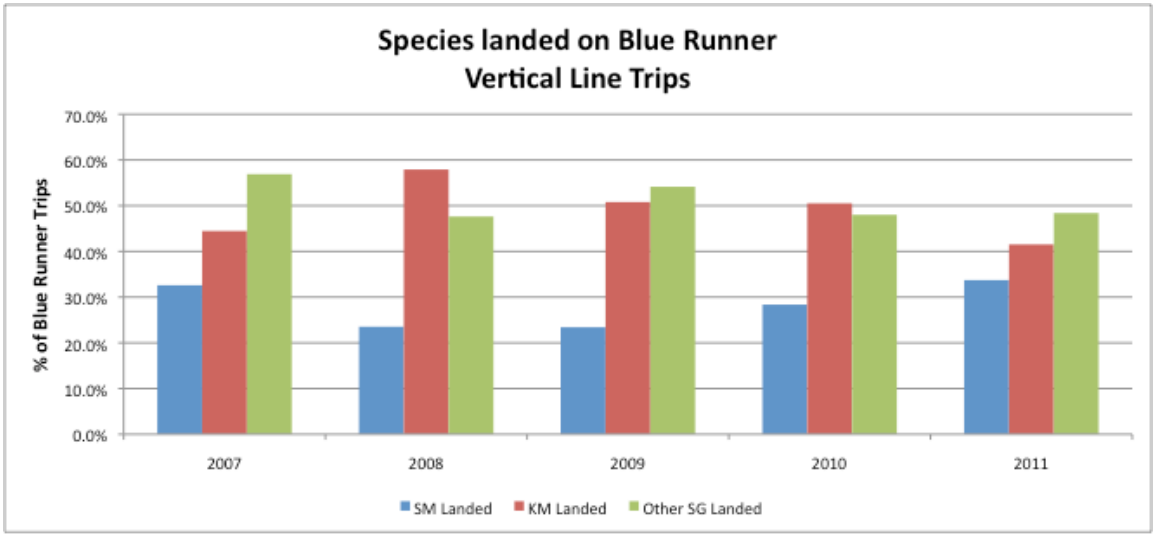

Figure 4.5.2. Percentage of mackerel and other snapper grouper species landed with hook-and-line on trips that caught at least one pound of blue runner in the South Atlantic, 2007-2011.
Source: NMFS SEFSC

On the other hand, out of all the commercial trips with gillnet gear that landed at least one pound of blue runner from 2007 through 2011, 90% or greater also landed Spanish mackerel (**Figure 4.5.3**).

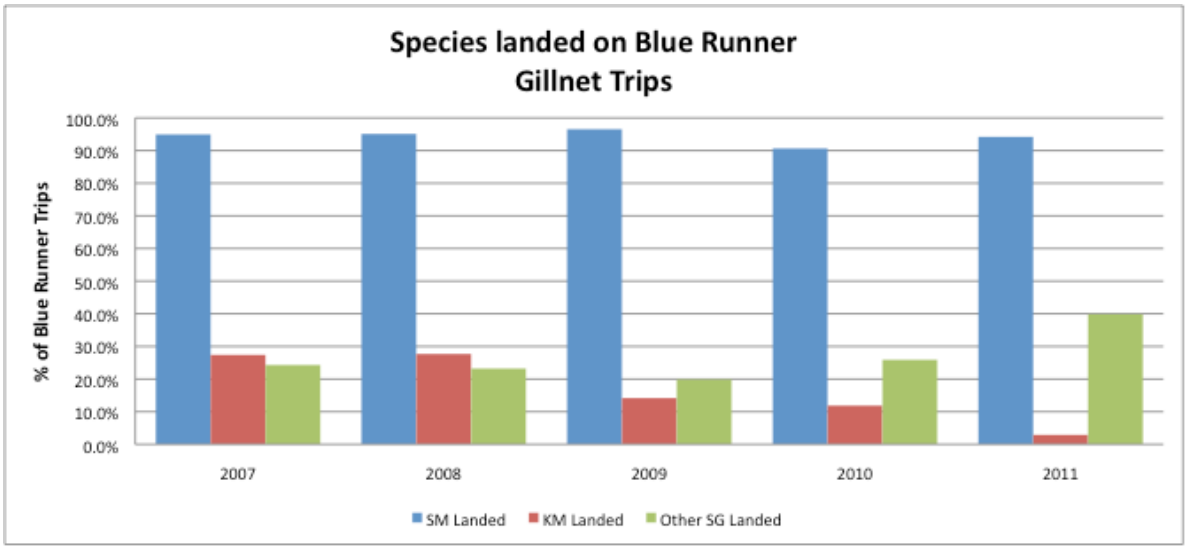

Figure 4.5.3. Percentage of mackerel and other snapper grouper species landed with gillnet gear on trips that caught at least one pound of blue runner in the South Atlantic, 2007-2011.
Source: NMFS SEFSC

Recreational landings of blue runner have been substantial, exceeding 2 million pounds four times during 1986-2011 (**Table 4.5.3**). Further, the majority of the landings from 1986 through 2011 can be attributed to the private and shore modes fishing within three miles off the coast of Florida (**Figure 4.5.4**). In addition, in December 2012 the South Atlantic Council received anecdotal information indicating that a substantial blue runner live bait fishery exists in the South Atlantic, whereby some recreational fishermen harvest blue runner for the purpose of selling them as live bait directly to other recreational pelagic and king mackerel fishermen (SAFMC, December 2012 Snapper Grouper Committee Meeting Minutes). The amount of blue runner harvested by federally-permitted fishermen and sold live to recreational fishermen rather than federally-permitted dealers, however, is unknown.

Table 4.5.3. Number of blue runner by MRIP Catch Type, including harvest (fish that are observed at the dock by an MRIP sampler plus fish that are reported dead but are not observed by the sampler) and total catch (harvest plus blue runner reported to be discarded alive).

Year	Fish Observed at the Dock by an MRIP Sampler (A)	Fish Reported Dead not Observed by an MFIP Sampler (B1)	Fish Released Alive (B2)	Harvest (A + B1)	Catch (A + B1 + B2)
1986	364,404	482,432	1,217,881	846,836	2,064,717
1987	95,987	101,085	330,752	197,072	527,824
1988	238,762	297,345	235,187	536,107	771,294
1989	160,009	278,600	551,193	438,609	989,802
1990	169,922	228,023	367,042	397,945	764,987
1991	220,384	362,421	646,881	582,805	1,229,686
1992	45,812	292,779	472,110	338,591	810,701
1993	137,646	252,833	447,223	390,479	837,702
1994	83,743	339,946	588,330	423,689	1,012,019
1995	399,695	412,028	322,807	811,723	1,134,530
1996	239,584	267,087	344,588	506,671	851,259
1997	309,305	504,867	860,535	814,172	1,674,707
1998	167,342	534,652	584,961	701,994	1,286,955
1999	167,183	375,847	507,370	543,030	1,050,400
2000	221,323	500,639	871,664	721,962	1,593,626
2001	361,168	620,616	1,292,460	981,784	2,274,244
2002	326,843	344,943	526,999	671,786	1,198,785
2003	371,711	981,464	1,079,500	1,353,175	2,432,675
2004	161,983	464,538	846,133	626,521	1,472,654
2005	85,422	431,267	661,888	516,689	1,178,577
2006	274,460	944,689	822,370	1,219,149	2,041,519
2007	125,674	583,249	1,159,991	708,923	1,868,914
2008	331,198	615,679	796,058	946,877	1,742,935
2009	200,717	516,912	705,910	717,629	1,423,539
2010	101,262	168,006	499,651	269,268	768,919
2011	182,835	479,305	963,501	662,140	1,625,641

Source: Data are from the Southeast Fisheries Science Center (2013)

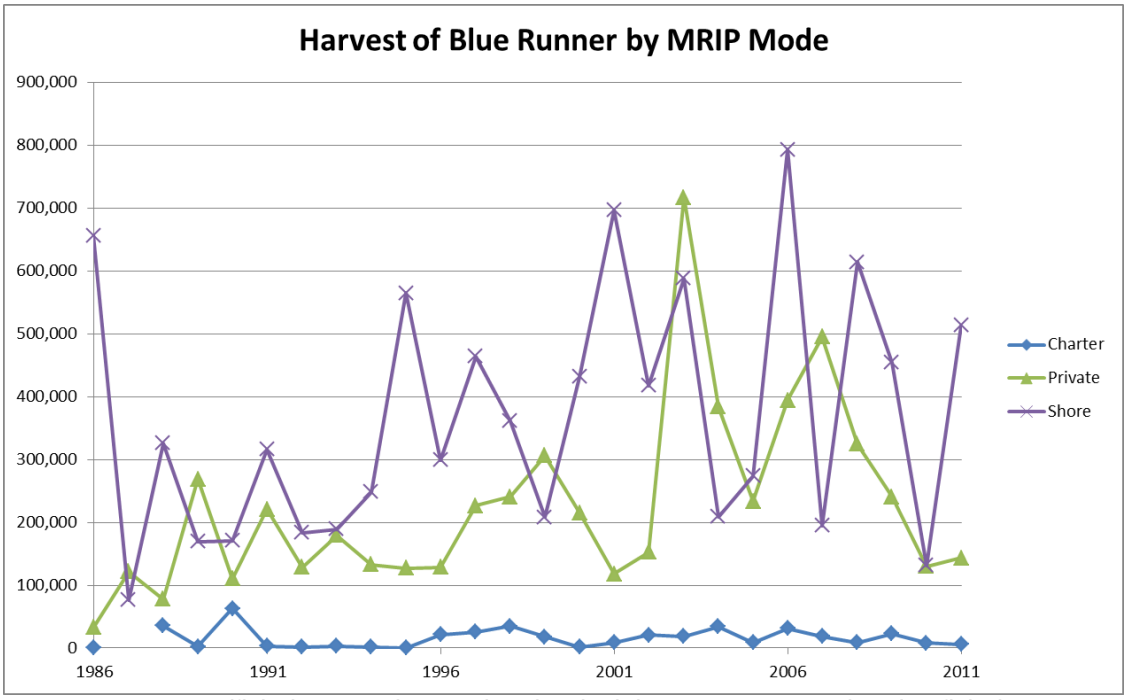

Figure 4.5.4. Harvest (fish that are observed at the dock by an MRIP sampler plus fish that are reported dead but are not observed by the sampler) of blue runner by MRIP Mode in numbers of fish from 1986-2011. Source: Southeast Fisheries Science Center.

According to analyses conducted during development of the Comprehensive ACL Amendment (SAFMC 2011c), blue runner landings in federal waters constituted 20% or less of total average annual landings of blue runner from 2005 through 2009. Evaluation of the landings data from those years, however, did not comprise a breakdown of the recreational catch by mode since that was not needed to support the actions proposed in the amendment. Since the majority of blue runner are harvested in state waters by non-federally-permitted recreational fishermen, those landings are captured by MRIP and are applied towards the recreational ACL.

Because blue runner is caught fairly close to shore in shallow water, and jacks are known to be resilient, it is unlikely that a large portion of the catch is being discarded dead and thus, bycatch mortality with hook-and-line gear is low; however, fish that are reported as being discarded dead but not observed by MRIP samplers make up 68% of total harvest (**Table 4.5.3**). The high numbers of blue runner caught and reported as dead comprise fish that are likely used as bait in the recreational sector.

Blue runner discarded alive almost equal the total harvest (fish observed at the dock by an MRIP sampler plus the blue runner reported as dead but not observed by an MRIP sampler) (**Figure 4.5.5**). This level of live discards may be perceived as being high; however, when compared to similar species caught inshore, such as crevalle jack and red drum, the amount of live discards of blue runner is relatively low.

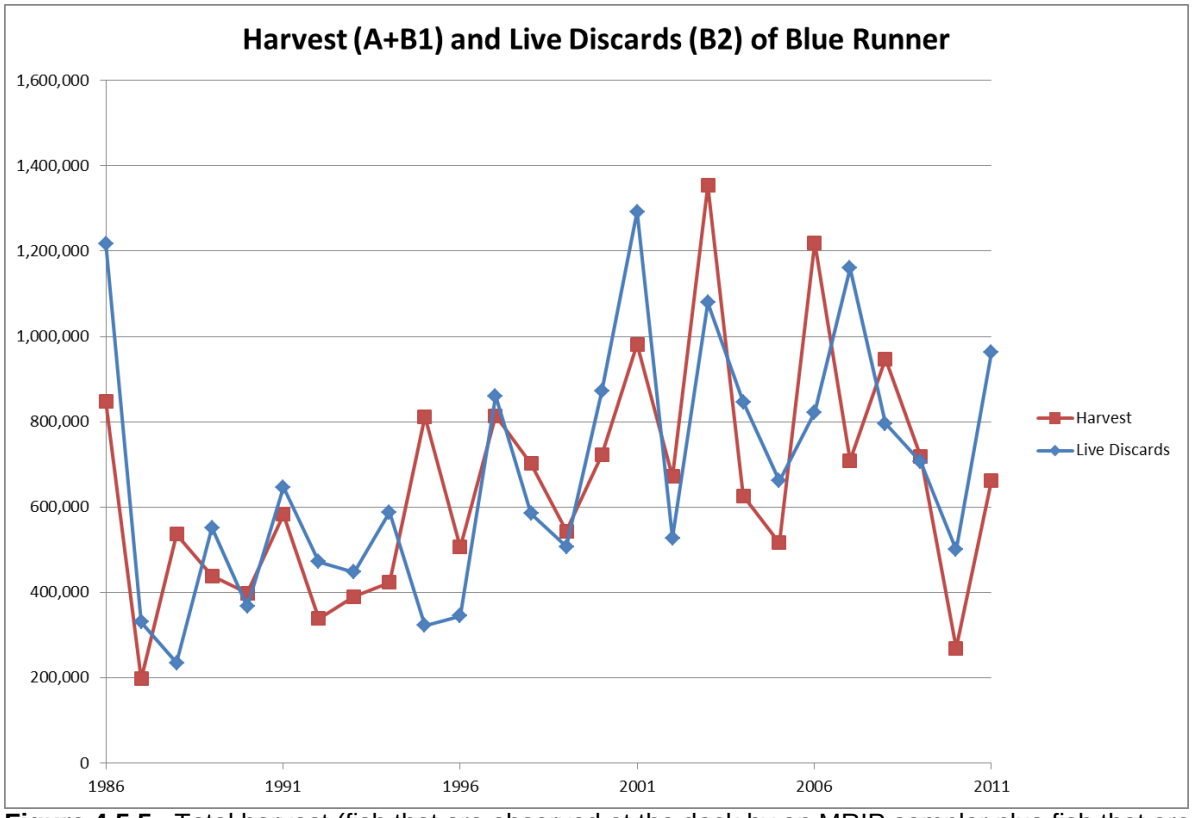

Figure 4.5.5. Total harvest (fish that are observed at the dock by an MRIP sampler plus fish that are reported dead but are not observed by the sampler) and live discards of blue runner in numbers of fish from 1986-2011. Source: Southeast Fisheries Science Center

Under **Alternative 1 (No Action)**, blue runner would continue to be part of the Snapper Grouper FMP. Only fishermen with a valid South Atlantic Unlimited Snapper Grouper Permit or 225-Pound Permit would be legally allowed to harvest them commercially and only dealers with a valid commercial Snapper Grouper Dealer Permit would be allowed to purchase and sell blue runner. Fishermen who do not have a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit would not be able to retain or sell blue runner, and blue runner incidentally caught with gillnets would have to be discarded. **Figure 4.5.1** shows that about 20,000 to 30,000 lbs ww of blue runner landings have been harvested with gillnet, which is not an allowable gear type under **Alternative 1 (No Action)**. If **Alternative 1 (No Action)** is retained, and regulations are enforced, there is a greater chance the commercial ACL would not be met because blue runner would no longer be retained by Spanish mackerel fishermen.

Alternative 2 (Preferred) would remove blue runner from the Snapper Grouper FMP, and hence the Snapper Grouper FMU. NMFS guidelines to define FMUs specify that they may be organized around biological, geographic, economic, technical, social, or ecological goals (50 CFR §600.320(d)(1)). NMFS guidelines for determining whether to include species in an FMU for purposes of federal conservation and management direct the Councils to consider the following seven factors (50 CFR §600.340(b)(2)):

1. the importance of the fishery to the Nation and the regional economy;
2. whether an FMP can improve the condition of the stock;
3. the extent to which the fishery could be or already is adequately managed by states;
4. whether an FMP can further the resolution of competing interests and conflicts;

5. whether an FMP can produce more efficient utilization of the fishery;
6. whether an FMP can foster orderly growth of a developing fishery; and
7. costs of the FMP balanced against benefits.

Blue runner was originally included in the Snapper Grouper FMP because it was thought to co-occur with other, more economically desirable species. Blue runner are caught with other snapper grouper species like yellowtail snapper. Placement of species in distinct management units does not necessarily have to be done according to how closely-related species are within a FMU. Management units, such as snapper grouper, can also be designed around ecological attributes. According to mackerel fishermen, blue runner are usually harvested during the spring months, when they are mixed in with schools of Spanish mackerel. As the season progresses, however, blue runner apparently move elsewhere and fishermen report a very "clean" harvest of Spanish mackerel thereafter. Evidently, there is some ecological association, albeit temporary, between blue runners and Spanish mackerel. This could support placing blue runner in the same Fishery Management Plan (FMP) as Spanish mackerel. However, not enough scientific information is currently available to support this association.

The Magnuson-Stevens Act requires Councils to prepare FMPs only for overfished species and for other species where regulation would serve some useful purpose, and where the present or future benefits of regulation would justify the costs. The overall objective of this action is to identify potential management efficiencies that could be achieved without compromising federal conservation and management objectives. NMFS' National Standard guidelines state that the principle implicit in National Standard 7 (NS7) is that not every species needs federal management. The Comprehensive ACL Amendment (SAFMC 2011c) considered factors 1-7 above in evaluating whether all species (including blue runner) originally included in the Snapper Grouper FMP in 1983 were in need of federal conservation and management. The Comprehensive ACL Amendment examined 2005-2009 landings and found that more than half (43) of the 73 species included in the Snapper Grouper FMP at that time, were harvested primarily (>50%) in state waters. From 2005 through 2009, 100% of the harvest of 3 species occurred in state waters, greater than 95% of the harvest of 10 species occurred in state waters, and greater than 80% of the harvest of 15 species occurred in state waters. Hence, the Comprehensive ACL Amendment removed 13 species from the Snapper Grouper FMP (excluding blue runner).

Regarding blue runner, data used in the Comprehensive ACL Amendment indicated the majority of blue runner in 2005-2009 were harvested in state waters; however, the species was retained in the Snapper Grouper FMP because the level of harvest in state waters for the commercial and recreational sectors did not meet the threshold criterion developed for the Comprehensive ACL Amendment for removal of the species from the Snapper Grouper FMP. The threshold criterion in the Comprehensive ACL Amendment used to determine which species could be removed from the Snapper Grouper FMP was if 95% (or greater) of landings were from state waters. Further, the Comprehensive ACL Amendment determined blue runner did not meet the criteria specified by the National Standard 1 guidelines for designating it as an ecosystem component species (found at 50 CFR § 600.310 (d) (5) (i)) as they are targeted by some fishermen, and sold or retained for personal use. Therefore, the South Atlantic Council decided to retain blue runner within the Snapper Grouper FMP and, at the time the Comprehensive ACL Amendment was developed, there was little justification to support its removal.

Amendment 27 reevaluates whether blue runner is in need of federal management based on new and updated information. From 2005 through 2011, 76% of blue runner landings came from state waters

(**Table 4.5.4**), and a large portion of the recreational landings are attributed to the shore mode. Data used for the Comprehensive ACL Amendment, as presented to the Council at the time, did not include harvest from the shore mode. Most recreational (99%; **Table 3.3.9**) and commercial (99%; **Table 4.5.4a**) blue runner harvest is from Florida waters. Furthermore, the species is not commonly retained for human consumption (Section 3.2.4), is primarily used as bait, is now known to be valuable as live bait in pelagic fisheries, and is subject to management in Florida state waters. These factors were not considered for blue runner when the South Atlantic Council determined that some species should be removed from the Snapper Grouper FMP in the Comprehensive ACL Amendment.

Table 4.5.4. Blue runner commercial and recreational harvest in pounds whole weight in state and federal waters from 2005-2011.

	EEZ	State
2005	93,736	313,723
2006	198,842	689,537
2007	342,683	441,461
2008	132,749	830,470
2009	48,101	588,595
2010	28,733	250,052
2011	34,745	319,044
Total	**879,589**	**3,432,882**

Source: MRIP Web site accessed 1-10-13.

Table 4.5.4a. Percentage of blue runner commercial harvest by state from 2005-2011.

	Pounds Landed (whole weight)			
Year	**FL (east)**	**GA**	**NC**	**SC**
2005	99.5%	0.0%	0.5%	0.0%
2006	99.8%	0.0%	0.1%	0.0%
2007	97.9%	0.0%	0.1%	2.0%
2008	99.5%	0.1%	0.3%	0.0%
2009	99.8%	0.0%	0.2%	0.0%
2010	99.8%	0.0%	0.2%	0.0%
2011	99.8%	0.0%	0.1%	0.0%

When a species is removed from an FMP, as would be the case under **Alternative 2 (Preferred)**, that species is no longer subject to federal management unless the species is moved from one FMP to another or some other entity assumes management authority. If another FMP, such as the FMP for the Coastal Migratory Pelagics Resources in the Gulf of Mexico and Atlantic Region (CMP FMP) was amended to include blue runner, and management measures that currently exist for the species under the Snapper Grouper FMP were maintained through the CMP FMP, the biological impacts would be neutral, and the South Atlantic Council would have full control over how the blue runner stock would be managed under a different FMP. Alternatively, if another entity were to take over management of blue runner, such as the state of Florida, the South Atlantic Council and NMFS would have no regulatory authority to manage harvest of the species in federal waters. However, in some cases federal management may not be needed if other entities can or are already managing a resource.

From 2005 through 2011, greater than 99% of the commercial and recreational landings were from Florida (**Tables 3.3.9** and **4.5.4a**), and 76% of the landings were from state waters where there currently are some management measures for blue runner. Because Florida does not consider blue runner to be a reef fish species, Florida does not require a federal commercial South Atlantic Unlimited or 225-Pound Snapper Grouper Permit to harvest blue runner in state waters. As blue runner is less frequently taken off states other than Florida, federal management of blue runner is likely not needed in North Carolina, South Carolina, or Georgia. Florida assumed management responsibility for some snapper grouper species previously removed from the Snapper Grouper FMP through the Comprehensive ACL Amendment (SAFMC 2011c). Removal of blue runner from the Snapper Grouper FMP with no plan for future management, however, could lead to uncontrolled harvest of the species in federal waters where approximately 25% of the harvest occurs, which could result in negative biological impacts on the stock. However, if this species was removed from the federal Snapper Grouper FMP then the state of Florida, as stated by their representative on the South Atlantic Council during the March 2013 meeting, would immediately begin review of blue runner rules, consider additional management measures, and extend regulations into federal waters off Florida. Further, any necessary changes to the management of blue runner could be taken to the Florida Fish and Wildlife Conservation Commission and voted on relatively rapidly. At the April 2013 Florida Fish and Wildlife Conservation Commission (FWC) meeting, the Commissioners gave staff direction of their desire to assume management of blue runner in federal waters off Florida and to review current state rules for blue runner (letter from Ken Wright, FWC Chair to David Cupka, South Atlantic Council Chair dated April 29, 2013).

Current regulations that apply to blue runner in Florida waters are:

- Commercial and recreational gear prohibitions – no gill nets, purse seines, fish traps, spearfishing in many areas of state waters, longlines, bangsticks, firearms or explosives, possession of a re-breather and finfish, use of chemicals without a Special Activity License.
- A commercial saltwater products license (SPL) is required to harvest quantities greater than 100 pounds per day of blue runner and the product must be sold to a state licensed wholesale dealer. A federal South Atlantic Unlimited or 225-Pound Permit is not needed to commercially harvest blue runner is state waters.
- Bycatch of blue runner caught in blue crab, stone crab, lobster and sea bass traps and other legal harvesting gear for other fisheries may be sold with a commercial SPL.
- Penalties for unlicensed sale include criminal and civil fines, permanent revocation of license privileges, and imprisonment in addition to penalties levied by the court.
- The first time the commercial product changes hands (usually sold to a wholesale dealer) a trip ticket must be completed
- Recreational license/bag limit – a recreational fishing license for harvest up to 100 pounds or 2 fish per harvester per day (whichever is greater).

Local laws (gear restrictions, area closures, etc.) apply to blue runner in waters off certain Florida counties. As blue runner is less frequently taken off states other than Florida, it is predominantly taken in state waters of Florida where regulations for blue runner are in place, and the state of Florida has indicated that it would extend regulations into federal waters, the species may not be in need of federal management and could be removed from the Snapper Grouper FMP without having a negative biological impact on the stock.

Under **Alternative 3**, Spanish mackerel and South Atlantic Unlimited and 225-Pound Permit holders, respectively, would able to legally harvest blue runner since the Spanish Mackerel Permit would become a valid permit for the commercial harvest of blue runner and current gear restrictions for the Snapper Grouper FMP would be modified to include gillnets as an allowable gear type to harvest blue runner. Fishermen with commercial South Atlantic Snapper Grouper Unlimited and 225-Pound Permits who do not have a Spanish mackerel permit, would not be able retain Spanish mackerel when fishing for blue runner with gillnets. Allowing harvest of blue runner with gillnets by permitted commercial snapper grouper fishermen, however, could increase bycatch and thus result in negative biological effects.

Under **Alternative 4**, no federal permit would be required to harvest blue runner. However, unlike **Alternative 3**, **Alternative 4** would not allow fishermen to harvest blue runner with gillnet gear. Allowing blue runner to be legally harvested by fishery participants who may not have targeted them in the past may cause the commercial ACL to be met earlier, and could increase the chance the commercial ACL could be exceeded. However, if the quota monitoring system is functioning properly, this would not be expected to have negative effects on the stock as ACLs and AMs are in place to prevent overfishing from occurring. Removal of the permit requirement for blue runner, as proposed under **Alternative 4**, could, however, result in indirect negative biological impacts. The species would still require federal management because it would remain in the Snapper Grouper FMP, but there would be no mechanism in place for NMFS to reliably collect effort data (i.e., logbook program) to support future stock assessments. Also, if snapper grouper permit holders are allowed to target blue runner with gillnet gear, as could occur under **Alternatives 3** and **4**, they could incidentally capture Spanish mackerel. If those fishermen do not also hold a commercial Spanish mackerel permit, then those mackerel would have to be discarded potentially causing some mortality of Spanish mackerel that was not previously occurring. Additionally, use of gillnets to target blue runner could increase bycatch of other snapper grouper species that co-occur with blue runner. However, increased use of gillnets to target blue runner would not be expected. The intent of **Alternatives 3** and **4** is simply to allow fishermen to retain incidentally caught blue runner when they target Spanish mackerel with gillnets.

Alternatives 1 (No Action), **Alternative 2 (Preferred)**, and **Alternative 4** are not expected to result in negative impacts on ESA-listed species such as sea turtles, large whales, sawfish, and sturgeon; nor would these alternatives likely affect designated HAPCs, coral HAPCs, or other areas of EFH within the management area. In general, these alternatives are not likely to modify the way in which the blue runner segment of the snapper grouper fishery is prosecuted in terms of fishing methodology or intensity. **Alternative 3**, however, would allow a currently prohibited gear type to be used for directed harvest of a snapper grouper species. Gillnets are known to capture both sea turtles and smalltooth sawfish. **Alternative 3** would likely have the fewest biological benefits to these species because it would increase the likelihood of interactions between the fishery and listed species.

Under the Marine Mammal Protection Act, gillnet fisheries in the South Atlantic are considered Category II in the 2012 List of Fisheries (76 FR 73912, November 29, 2011), which categorizes each federally-managed fishery in the United States according to incidents of marine mammal interactions. A Category II designation is given to fisheries with occasional serious injuries and mortalities of marine mammals. Currently there is only one gear type used in the snapper grouper fishery that is considered a Category II fishery, the black sea bass pot. Additionally, the ESA requires re-initiation of formal ESA Section 7 consultation if a proposed action is modified in a manner that causes an effect to listed species or critical habitat that was not considered in a previous consultation. Because gillnets are currently

prohibited in the snapper grouper fishery, the most recent formal Section 7 consultation --"The Continued Authorization of Snapper-Grouper Fishing in the U.S. South Atlantic Exclusive Economic zone as Managed under the Snapper-Grouper Fishery Management Plan of the South Atlantic Region" (NMFS 2006) -- considered only hook-and-line, longline, pot, and powerhead fishing gears. Hence, the addition of gillnets as an allowed gear type would trigger reinitiation of consultation under the ESA.

Gillnets were prohibited for use in the snapper grouper fishery in Amendment 4 to the Snapper Grouper FMP (SAFMC 1991). Prohibiting gillnets in federal waters of the South Atlantic was consistent with gillnet gear prohibitions that already existed in the Gulf of Mexico and in Florida state waters. According to Section J of Amendment 4 (SAFMC 1991), the South Atlantic Council specifically prohibited the use of entanglement nets in the snapper grouper fishery to "address the problem of intense competition among users, and to prevent habitat degradation from nets becoming entangled in reef and live bottom material." The South Atlantic region continues to include live bottom habitat including highly sensitive reef species such as *Acropora* sp, which could be negatively impacted should a gillnet come into contact with the bottom and become entangled. Additionally, ESA-listed large whale species such as the North Atlantic right whale could co-occur in areas where gillnets may be used to capture blue runner. Should the South Atlantic Council choose **Alternative 3** as the preferred alternative, ESA-listed species could experience a higher risk of entanglement.

4.5.2 Economic Effects

Blue runner represent a relatively small part of the overall catch for the majority of commercial fishermen who land the species. Nearly every trip that landed blue runner typically landed other species, most notably Spanish mackerel, king mackerel, or other species in the snapper grouper complex.

The economic effects of this action rely on data from the Coastal Fisheries Logbook Program (CFLP) data as this is the only dataset that includes economic information. However, this dataset only represents those landings from federally-permitted fishermen and therefore may not include all landings of the species, as the ALS dataset does (**Table 4.5.1**). As ALS data come from dealer reported trip tickets, they include additional landings not included in logbooks such as those from state waters made by non-federally permitted fishermen. Unfortunately, ALS data do not include economic information. Consequently, when comparing logbook data with ALS data there will be some variability in the landings. Additionally, it has been reported that there is sale of blue runner directly by commercial and recreational fishermen to the recreational bait market. Sale of live fish to the recreational bait market can reach $16 per fish (pers. comm., R. Cardin, 3/13/2013). These transactions are not recorded in federal logbooks and the extent to which this practice occurs is unknown. It is impossible to estimate economic effects of the alternatives on fishing activities that are not contained in logbooks.

Table 4.5.5 shows the overall commercial logbook landings of blue runner for the years 2007 through 2011. The majority of trips landing blue runner each year were in the hook-and-line sector. The price per pound of blue runner depends on market conditions as well as gear type. However, there seems to be no significant trend as all prices hovered around $1 per pound with a low of $0.85 for blue runner from gillnets in 2009 to a high of $1.31 per pound for blue runner caught with other gear (not a gillnet or with hook-and-line).

Table 4.5.5. Commercial landings, nominal (not inflated) value, and average price per pound of blue runner (BR) by gear type in the South Atlantic, 2007-2011.
GN=gillnet, HL=hook-and-line.

Year	Gear	Trips	Lbs BR	Value BR	$/lb-BR
2007	GN	610	33,127	$31,851	$0.98
	HL	1,704	50,063	$48,913	$0.99
	Other	339	6,330	$6,101	$0.98
2008	GN	447	44,258	$40,493	$0.94
	HL	1,888	43,067	$38,068	$0.91
	Other	548	11,717	$10,391	$0.89
2009	GN	579	60,276	$50,270	$0.85
	HL	2,204	67,029	$68,347	$0.97
	Other	395	4,814	$4,512	$0.94
2010	GN	270	15,717	$15,767	$1.02
	HL	2,630	93,913	$88,840	$1.01
	Other	812	12,591	$13,328	$1.07
2011	GN	257	18,482	$16,666	$1.14
	HL	2,923	101,326	$108,336	$1.19
	Other	657	10,329	$12,666	$1.31

Source: NMFS SEFSC Coastal Fisheries Logbook Program (2012)

As was noted above, commercially, blue runner are primarily landed in the Spanish mackerel, king mackerel and snapper grouper fisheries. **Tables 4.5.6**, **4.5.7**, and **4.5.8** show trips in which at least one pound of blue runner and Spanish mackerel, king mackerel, or other snapper grouper species were landed by gear, landings, value, and the average percent of the landings comprised by blue runner. On some trips where blue runner were caught, multiple species were landed. For example, many trips landed both king mackerel and snapper grouper species along with blue runner.

Blue runner are not caught on all Spanish mackerel gillnet trips, however (**Table 4.5.6)**. They tend to be caught primarily in the fall and occasionally in the spring. In 2010 and 2011, more pounds of blue runner were caught on trips with Spanish mackerel where hook-and-line was the primary gear. Blue runner never comprised more than about 10% of the total pounds and value on trips where both blue runner and Spanish mackerel were caught. On trips where gear other than gillnet or hook-and-line were used, blue runner tended to occur in a smaller portion of the trips.

Table 4.5.6. Commercial landings, nominal (not inflated) value, price per pound of blue runner (BR) and Spanish mackerel (SM) for those trips where at least 1 lb of blue runner and 1 lb of Spanish mackerel (SM) were landed, 2007-2011.
GN=gillnet, HL=hook-and-line.

Year	Gear	Trips	Lbs BR	Value BR	Lbs SM	Value SM	Trip lbs	Trip Value	% lbs BR	% Value BR
2007	GN	582	32,533	$31,285	482,800	$393,350	1,228,698	$950,438	5%	5%
	HL	544	15,849	$15,274	184,107	$160,342	441,740	$431,852	7%	6%
	Other	110	3,610	$3,580	47,534	$38,259	123,119	$112,711	5%	5%
2008	GN	425	43,304	$39,700	299,790	$289,430	842,881	$739,085	7%	7%
	HL	443	12,527	$11,277	142,964	$127,558	356,590	$361,932	6%	5%
	Other	196	3,995	$3,639	103,667	$101,451	236,399	$236,594	5%	5%
2009	GN	559	59,097	$49,333	304,646	$302,536	920,479	$787,380	10%	10%
	HL	505	15,176	$13,799	133,900	$116,909	389,550	$420,969	7%	6%
	Other	107	1,691	$1,556	55,366	$45,099	123,690	$106,465	3%	3%
2010	GN	245	15,040	$15,012	129,584	$125,688	384,120	$328,223	7%	8%
	HL	745	27,902	$26,138	247,712	$196,740	742,328	$773,438	5%	5%
	Other	264	5,827	$5,680	187,492	$143,230	429,627	$356,527	4%	4%
2011	GN	241	14,775	$14,628	79,011	$102,966	311,401	$310,610	6%	6%
	HL	989	34,775	$34,680	363,090	$325,236	946,566	$995,599	6%	5%
	Other	218	3,296	$3,342	93,081	$80,645	215,359	$200,443	3%	3%

Source: NMFS SEFSC Coastal Fisheries Logbook Program (2012)

From 2007 through 2011, more pounds of blue runner were caught along with Spanish mackerel than with king mackerel (**Table 4.5.6** and **Table 4.5.7**). In 2009-2011, however, more than 30,000 lbs of blue runner were caught on trips where at least 1 pound of king mackerel was caught (**Table 4.5.7**). On trips where both blue runner and king mackerel were caught, the percent of the landings comprised by blue runner ranged from an average of 2% to 8%. The value of blue runner on those trips averaged from 2% to 7% of the entire trip value.

Table 4.5.7. Commercial landings, nominal (not inflated) value, price per pound of blue runner (BR) and king mackerel (KM) for those trips where at least 1 lb of blue runner and 1 lb of king mackerel were landed, 2007-2011. GN=gillnet, HL=hook-and-line.

Year	Gear	Trips	Lbs BR	Value BR	Lbs KM	Value KM	Trip lbs	Trip Value	% lbs BR	% Value BR
2007	GN	166	8,199	$7,936	10,689	$19,652	407,695	$347,075	4%	5%
	HL	744	16,790	$17,219	105,032	$203,658	416,557	$767,151	8%	6%
	Other	228	2,537	$2,267	42,978	$88,889	113,680	$200,662	4%	2%
2008	GN	124	14,946	$13,064	11,090	$22,425	302,373	$290,790	6%	6%
	HL	1,085	18,249	$15,887	266,224	$482,421	713,093	$1,248,999	5%	3%
	Other	343	5,016	$4,217	96,819	$179,511	250,650	$411,494	3%	2%
2009	GN	82	7,907	$6,391	1,798	$3,708	152,224	$135,870	7%	7%
	HL	1,105	21,550	$20,778	288,253	$428,152	778,711	$1,151,398	4%	2%
	Other	273	2,377	$2,166	69,202	$105,894	159,501	$231,295	3%	2%
2010	GN	33	3,281	$3,403	1,202	$2,107	63,236	$55,525	6%	7%
	HL	1,325	25,124	$26,888	361,961	$632,706	998,488	$1,613,448	4%	3%
	Other	545	5,072	$5,709	180,801	$332,315	423,931	$713,671	2%	2%
2011	GN	*	*	*	*	*	*	*	*	*
	HL	1,213	29,135	$35,922	229,147	$516,774	827,955	$1,599,991	5%	4%
	Other	419	4,876	$6,692	94,011	$210,115	248,581	$463,981	3%	3%

Source: NMFS SEFSC Coastal Fisheries Logbook Program (2012)
* Indicates the data are confidential.

The number of trips in which blue runner were landed on the same trip as snapper grouper species was similar to that of the number of trips in which they were landed with king mackerel (**Table 4.5.8**). However, more pounds of blue runner tend to be landed with snapper grouper species than with either of the mackerel species. The value of blue runner landed on trips where at least 1 pound of blue runner was landed as well as at least 1 pound of snapper grouper species was landed ranged from 3% to 10%. The value of the blue runner on those trips ranged from an average of 3% to 8% of the total trip value.

Table 4.5.8. Commercial landings, value, price per pound of blue runner (BR) and snapper grouper species (SG) for those trips where at least 1 lb of blue runner and 1 lb of snapper grouper were landed, 2007-2011. GN=gillnet, HL=hook-and-line.

Year	Gear	Trips	Lbs BR	Value BR	Lbs SG	Value SG	Trip lbs	Trip Value	% lbs BR	% Value BR
2007	GN	145	7,739	$7,378	3,608	$2,480	316,719	$253,348	3%	4%
	HL	918	28,362	$27,538	245,265	$672,049	543,348	$1,073,844	10%	7%
	Other	81	2,597	$2,538	7,286	$15,518	52,051	$67,508	6%	4%
2008	GN	101	16,153	$14,271	4,570	$3,018	234,547	$202,677	8%	8%
	HL	823	21,313	$18,837	254,341	$666,134	535,891	$1,067,309	8%	5%
	Other	150	5,922	$5,533	20,717	$55,603	138,151	$227,834	5%	4%
2009	GN	113	9,366	$8,232	3,815	$3,014	201,759	$158,180	5%	5%
	HL	1,162	38,089	$42,315	476,903	$1,177,706	855,777	$1,653,932	8%	3%
	Other	101	1,750	$1,739	12,162	$31,526	60,324	$95,962	5%	5%
2010	GN	68	5,492	$5,484	3,108	$2,332	130,721	$110,071	6%	6%
	HL	1,223	64,326	$58,356	519,954	$1,327,667	1,121,945	$2,032,080	7%	5%
	Other	188	3,840	$3,835	23,587	$53,155	182,295	$252,513	4%	4%
2011	GN	106	7,439	$7,819	7,537	$4,706	168,503	$163,210	5%	5%
	HL	1,394	66,434	$68,088	803,527	$2,301,105	1,337,440	$2,979,027	8%	5%
	Other	159	3,026	$3,361	12,738	$28,728	120,763	$168,865	4%	4%

Source: NMFS SEFSC Coastal Fisheries Logbook Program (2012)

Blue runner have been landed in the past on trips where no snapper grouper species were present, however. Some of the fishermen who had trips that landed blue runner but no snapper grouper species may in fact have a South Atlantic Snapper Grouper Permit. **Table 4.5.9** gives an indication that there were roughly 1,500 to 2,200 trips per year from 2007 through 2011 in which no snapper grouper species were landed with blue runner. These trips landed between 48,563 and 82,914 pounds annually with a value of $51,846 to $74,279 in 2011 dollars.

Table 4.5.9. Commercial landings and value of blue runner landed on trips where there were no snapper grouper complex species landed, 2007-2011.

Year	Trips	Pounds	Nominal Value	Inflated Value (2011)
2007	1,509	50,822	$49,412	$53,605
2008	1,809	55,654	$50,312	$52,563
2009	1,802	82,914	$70,844	$74,279
2010	2,233	48,563	$50,260	$51,846
2011	2,178	53,238	$58,400	$58,400

Source: NMFS SEFSC Coastal Fisheries Logbook (2012)

Alternative 1 (No Action) would have the greatest negative economic effects should the requirement to possess a South Atlantic Snapper Grouper Permit be enforced. According to **Tables 4.5.8** and **4.5.9**, on average $58,139 in annual revenue would be forfeited by fishermen if the existing regulations were enforced, as well as the value of gillnet landings at an average of $185,839.

Alternative 4 would not place the additional burden on gillnet fishermen of acquiring a South Atlantic Unlimited or 225-Pound Snapper Grouper Permit but would also not remove the gillnet prohibition for harvest of species in the Snapper Grouper FMP, which could negatively impact small fishing businesses that depend on the blue runner gillnet landings during part of the year. **Alternative 4** would have the second highest negative economic effect as it would exempt the species from the Snapper Grouper permit requirement, but would not exempt it from being caught using a gillnet. According to **Table 4.5.5**, on average fishermen would lose $32,499 (inflation adjusted to the value of a dollar in 2011).

Alternative 3 would have the next highest negative economic effects as those fishermen who do not already possess a Spanish Mackerel Permit would be required to buy one. Nearly all of the fishermen who land blue runner also landed Spanish mackerel, king mackerel, or snapper grouper species, therefore, most of them already have at least one federal permit. Spanish Mackerel Permits, however, are open access. Those that do not already have a Spanish mackerel permit, would need to pay an additional $12.50 annually to purchase one. It is not known at this time how many fishermen who have been landing blue runner do not possess a snapper grouper, king mackerel, or Spanish Mackerel Permit and would be required to buy a Spanish Mackerel Permit to continue to participate in the fishery.

Alternative 2 (Preferred) would not have any negative economic effects on fishermen in the short term as they would be able to conduct their fishing operations as usual. If they decided to make changes to their fishing practices to target more blue runner, they would be making that decision naturally with profitability in mind. The long-term effects of this alternative would depend on whether the harvest of blue runner would be sustainable in the absence of federal management of the species. Should blue runner become overfished, commercial and for-hire vessel profits would tend to decline over time because their catch and revenues would decline or their cost would increase if they decided to maintain about the same level of revenues. However, it should be noted that, with blue runner removed from the snapper grouper FMP and the fact that most blue runner are caught off of Florida waters, fishing regulations in Florida could be extended to the EEZ. This would allow continued sustainable management of the species. In addition, the South Atlantic Council expressed its intention to continue monitoring trends and landings of the species for possible future management actions affecting the species.

None of the alternatives in this action are likely to have additional positive or negative economic effects for the recreational sector that lands blue runner for recreational purposes.

4.5.3 Social Effects

There are two groups of commercial fishermen who may be directly impacted by changes in blue runner management, specifically in regards to permit and gear requirements: fishermen who harvest blue runner with hook-and-line; and fishermen who harvest blue runner with Spanish mackerel gillnets. Hook-and-line landings are primarily based in South Florida, with most landings in Monroe County, Miami-Dade County, and Palm Beach County. Blue runner landings with gillnet are primarily reported in the central east coast of Florida, with most landings in Brevard County (around Cape Canaveral) and some landings in Martin County, Indian River County, and St Lucie County. In general, blue runner landings are low relative to other species and in most years, landings are confidential at the county level.

Although the south Florida counties represent the highest landings of blue runner with hook-and-line, and the counties on the central east coast of Florida have the most landings of blue runner with gillnet, blue runner is not an economically significant species in the snapper grouper commercial fishery or to the fishing communities (see **Table 4.5.1** in **Section 4.5.1**). However, there are pockets of vessels that catch blue runner with gillnets while harvesting Spanish mackerel, particularly around Cape Canaveral, Florida, and the fishermen working on these vessels may be dependent on blue runner catch during the late summer and early fall. It is likely that these are small operations and blue runner catch in the Spanish mackerel gillnet sector makes up a significant part of their income.

Under **Alternative 1 (No Action)** any continued landings and sales of blue runner from the Spanish mackerel gillnet sector would be illegal unless the fishermen held a South Atlantic Snapper Grouper Unlimited Permit or South Atlantic Snapper Grouper 225-Pound Permit. Unlimited permits are available (225-Pound Permits are non-transferable) but the two-for-one transfer requirement would require additional capital to buy into a limited entry fishery. Additionally, the South Atlantic Snapper Grouper Unlimited Permit requires fees for renewal each year in order to maintain a valid permit. The Spanish mackerel commercial permit, under which some of the smaller operations that are harvesting blue runner in the Spanish mackerel gillnet sector operate, is open access and does not require renewal, only an annual purchase. This permit allows flexibility for fishermen, particularly small businesses, in that an individual can purchase a Spanish mackerel permit and participate in the Spanish mackerel gillnet sector in one year, but choose to not participate in the next year without spending money on the permit. Not making changes to blue runner management (**Alternative 1 (No Action)**) would have the most impact on the small vessels that currently only have Spanish mackerel permits by either requiring each fisherman to purchase two South Atlantic Snapper Grouper Unlimited Permits and maintaining permit fees, or by no longer being allowed to legally land and sell blue runner. Additionally, any dealers who depend on supply of blue runner during late summer and early fall would be affected if fishermen cannot or will not obtain a South Atlantic Snapper Grouper Unlimited Permit.

It should also be noted that the harvest of blue runner with gillnet, a prohibited gear in the snapper grouper fishery, in addition to sale of blue runner without a Snapper Grouper Unlimited Permit or South Atlantic Snapper Grouper 225-Pound Permit is illegal under the current regulations. However, no violations have been reported in over fifteen years and many fishermen participating in this small portion of the blue runner component of the snapper grouper fishery were likely unaware of the requirements. Most importantly, it is possible that blue runner landings may have helped some of these fishermen try to qualify for a snapper grouper limited access permit during initial issuance of those permits in Amendment 8.

Removing blue runner from the Snapper Grouper FMU **(Alternative 2 (Preferred))** would be beneficial to fishermen without a South Atlantic Unlimited Snapper Grouper Permit or 225-Pound Permit who harvest blue runner with gillnet because it would not require an additional permit and would allow harvest with gillnet. This would also be expected to have no negative impacts on fishermen with a South Atlantic Unlimited Permit or a 225-Pound Snapper Grouper Permit who harvest blue runner with hook-and-line.

Alternative 3 may negatively impact fishermen in that the sale of blue runner would be limited to dealers possessing a Snapper Grouper Commercial Dealer Permit. However, the South Atlantic and Gulf of Mexico Councils have approved a generic amendment, which if approved by the Secretary of Commerce, would implement a single dealer permit for multiple fisheries including snapper grouper and coastal migratory pelagics. It is currently only possible to speculate that an average of 40% of blue runner commercial landings are by non-federally permitted vessels (**Table 4.5.1**). **Alternative 4** would not place the additional burden on gillnet fishermen of acquiring a South Atlantic Unlimited Snapper Grouper Permit but would also not remove the gillnet prohibition for harvest of blue runner, which could negatively impact small fishing businesses that depend on the blue runner gillnet landings during part of the year.

4.5.4 Administrative Effects

Under **Alternative 1 (No Action)**, the administrative impacts would not be likely to significantly increase or decrease. As increased attention has been placed on landings of blue runner without a South Atlantic Unlimited Snapper Grouper Permit or 225-Pound Permit, there is a chance landings of blue runner could decrease and the ACL would not be met. **Alternative 2 (Preferred)** would have no negative administrative impacts. Under this alternative, NMFS would no longer manage or monitor landings of the species taken from federal waters, and there would be no federal regulations for blue runner. **Alternative 3** would allow commercial harvest of blue runner with gillnet gear by vessels with a Spanish Mackerel Permit or either of the snapper grouper permits. If **Alternative 3** were chosen, it is likely an ESA Section 7 consultation would have been re-initiated, which would be a lengthy process and would require the development of a new Biological Opinion for the snapper grouper fishery. **Alternative 4** would result in a similar level of administrative impacts as **Alternative 2 (Preferred)** since the Snapper Grouper FMP would need to be amended to exempt blue runner from the snapper grouper permit requirements for purchase, harvest, and sale. Regulations would simply be modified to eliminate the requirement, hence, **Alternative 4** would require only the development of constituent outreach materials informing them of the change to the regulations, and publication of a proposed and final rule, if the action is approved for implementation by the Secretary of Commerce. **Alternatives 3** and **4** have the potential to increase the rate at which the ACL is met and AMs are implemented, which would represent an enhanced administrative burden relative to the status quo.

Chapter 5. Reasoning for Council's Choice of Preferred Alternatives

5.1 Action 1. Extend the South Atlantic Council's area of jurisdiction for management of Nassau grouper to include the Gulf of Mexico

5.1.1 Snapper Grouper Advisory Panel Comments and Recommendations

The Snapper Grouper Advisory Panel (AP) recommended that the South Atlantic Fishery Management Council (South Atlantic Council) request the National Marine Fisheries Service (NMFS) thoroughly research the historical distribution of Nassau grouper and known spawning aggregations in the South Atlantic. No AP members are aware of many historical landings or any spawning areas for Nassau grouper in the South Atlantic. The AP is concerned that a listing of Nassau grouper under the Endangered Species Act (ESA) could lead to restrictions on future fishing activity. Furthermore, fishermen are concerned that efforts to protect Nassau grouper in the South Atlantic would be ineffective yet they would carry the potential to impact them in a negative manner.

5.1.2 Law Enforcement Advisory Panel Comments and Recommendations

The Law Enforcement Advisory Panel (LEAP) reviewed Amendment 27 at their February 2013 meeting in Charleston, South Carolina. The LEAP did not have any recommendations for this action.

5.1.3 Scientific and Statistical Committee Comments and Recommendations

The Scientific and Statistical Committee (SSC) reviewed Amendment 27 at their October 2012 meeting. The SSC had no recommendations for this action.

5.1.4 South Atlantic Council Choice for Preferred Alternative

Preferred Alternative 2. The South Atlantic Council would extend its jurisdictional authority for management of Nassau grouper to include federal waters of the Gulf of Mexico. Harvest of Nassau grouper in the Gulf of Mexico exclusive economic zone (EEZ) and the South Atlantic EEZ would continue to be prohibited.

The Gulf of Mexico Fishery Management Council (Gulf Council) took action to remove Nassau grouper from the Reef Fish Fishery Management Unit in 2011, with the expectation that the South Atlantic Council would manage Nassau grouper in the Gulf of Mexico. NMFS subsequently published a notice of agency action designating the South Atlantic Council as the responsible agency to manage Nassau grouper in the southeast U.S., stating that any action to remove the current prohibitions on the possession of Nassau grouper in the Gulf of Mexico would have a delayed effective date until the South Atlantic Council took action to extend its authority into the Gulf of Mexico.. Since 2011, however, the South Atlantic Council has been addressing other pressing management issues often with statutory deadlines.

During discussions at their December 2012 meeting, a South Atlantic Council member related his experience landing Nassau grouper prior to any regulations being placed on its harvest. He indicated that a number of Florida vessels regularly visited Bahamian waters to harvest Nassau grouper. The catch was landed in the U.S., however, and no information was provided on harvest area at that time. The individual requested that NMFS take this information into consideration while conducting the ESA review for this species.

The South Atlantic Council concluded **Preferred Alternative 2** best meets the purpose of assuming management of Nassau grouper throughout its range in the Southeast U.S. and extending needed regulations to protect it. **Preferred Alternative 2** also best meets the objectives of the Snapper Grouper FMP, as amended, while complying with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and other applicable law.

5.2 Action 2. Modify the crew size restriction for dual-permitted snapper grouper vessels

5.2.1 Snapper Grouper Advisory Panel Comments and Recommendations

The Snapper Grouper AP did not provide recommendations for this action. The AP met in November 2012 and the South Atlantic Council added this action to Amendment 27 at their December 2012 meeting.

5.2.2 Law Enforcement Advisory Panel Comments and Recommendations

At their meeting in February 2013, the LEAP recommended that the South Atlantic Council choose the alternative that would result in consistent regulations between the South Atlantic and the Gulf of Mexico. Amendment 34 to the Gulf of Mexico Council's Reef Fish FMP increased the maximum number of crew members on dual-permitted vessels to four. Hence, the LEAP expressed their preference for **Alternative 3**.

5.2.3 Scientific and Statistical Committee Comments and Recommendations

The SSC did not provide a recommendation for this action. The SSC met in October 2012 and the South Atlantic Council added this action to Amendment 27 at their December 2012 meeting.

5.2.4 South Atlantic Council Choice for Preferred Alternative

Preferred Alternative 3. Increase the limit to four crew members for dual-permitted vessels.

The South Atlantic Council concluded **Preferred Alternative 3** best meets the purposes of increasing safety-at-sea and issuing consistent regulations between the Gulf of Mexico and South Atlantic regions. **Preferred Alternative 3** also best meets the objectives of the Snapper Grouper FMP, as amended, while complying with the requirements of the Magnuson-Stevens Act and other applicable law.

5.3 Action 3. Modify bag limit restriction on snapper grouper species for captains and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper

5.3.1 Snapper Grouper Advisory Panel Comments and Recommendations

The Snapper Grouper AP did not provide recommendations for this action. The AP met in November 2012 and the South Atlantic Council added this action to Amendment 27 at their December 2012 meeting.

5.3.2 Law Enforcement Advisory Panel Comments and Recommendations

The LEAP confirmed that the existing regulation presents a challenge for enforcement and recommended aiming for consistency. Since retention of bag limit quantities of most reef fish by captain and crew of for-hire vessels is currently prohibited in the Gulf of Mexico, the LEAP supported **Alternative 3**. However, as **Preferred Alternative 2** allows for consistent regulations in the South Atlantic, it had greater support from LEAP than did **Alternative 1 (No Action)**.

5.3.3 Scientific and Statistical Committee Comments and Recommendations

The SSC did not provide a recommendation for this action. The SSC met in October 2012 and the South Atlantic Council added this action to Amendment 27 at their December 2012 meeting.

5.3.4 South Atlantic Council Choice for Preferred Alternative

Preferred Alternative 2. Remove the snapper grouper species retention restrictions for captain and crew of vessels with a South Atlantic Charter/Headboat Permit for Snapper Grouper.

South Atlantic Council members expressed concern that to not allow captain and crew of for-hire vessels to retain bag limit quantities of snapper grouper species eliminates access to a public resource without providing a significant conservation benefit. There was strong support from the general public to do away with the captain and crew bag limit restriction. Captain and crew from for-hire vessels indicated the fish they are allowed to retain for personal consumption helps them keep their food budgets down and provides a good source of protein for their families. In selecting their preferred alternative, the South Atlantic Council emphasized that retained fish should not sold, and that the resource can handle the additional harvest due to existing management. Sale of recreationally caught snapper grouper species is prohibited in the South Atlantic. Amendment 16 established multiple measures to end overfishing of gag and vermilion snapper through quotas, reduced bag limits, and shallow water grouper spawning closure. The current bag limit restriction on for-hire captain and crew, which was also implemented through Amendment 16, was expected to result in some negative socio-economic impacts. Nonetheless, the South Atlantic Council felt the measure would help end overfishing of gag and vermilion snapper. An update to the vermilion snapper stock assessment, completed in 2012 (SEDAR 17 2012), indicated the stock is neither overfished nor undergoing overfishing. Gag was last assessed in 2006 (SEDAR 10 2006), prior to the implementation of Amendment 16. At that time, the assessment results indicated gag was undergoing overfishing and was approaching an overfished condition.

Since the implementation of Amendment 16, there have been numerous changes in fisheries management to ensure that vermilion snapper and gag overfishing does not occur. All species in the

snapper grouper fishery, like other managed fisheries in the South Atlantic, are subject to annual catch limits (ACLs) and accountability measures (AMs) to prevent overfishing. Therefore, given all the measures implemented through Amendment 16, along with the subsequent requirements for ACLs and AMs, the South Atlantic Council determined that eliminating the retention restriction for captain and crew of for-hire vessels would not result in overfishing of gag. Additionally, gag, vermilion snapper, and many of the snapper grouper species that the for-hire sector targets, are being harvested well below their ACLs. An update to the gag stock assessment is tentatively scheduled for 2014.

The South Atlantic Council concluded **Preferred Alternative 2** best meets the purpose of minimizing socio-economic impacts to fishermen and fishing communities that utilize the snapper grouper fishery. **Preferred Alternative 2** would allow for some consistency in snapper grouper regulations within the South Atlantic. The South Atlantic Council's choice of the preferred alternative reflects the willingness to first work to minimize negative socio-economic effects before considering other issues that may be desirable but not necessarily reasonable. The prohibition on retention of the bag limit of vermilion snapper, groupers, and tilefishes provides for a very small reduction in harvest. Since effective management measures are in place to ensure overfishing of gag and vermilion snapper and tilefishes does not occur, the South Atlantic Council concluded the bag limit harvest prohibition by captain and crew was not needed. Furthermore, the South Atlantic Council concluded the preferred alternative would ease law enforcement concerns as it would reduce confusion about which snapper grouper species could be retained by captain and crew in the South Atlantic. **Preferred Alternative 2** also best meets the objectives of the Snapper Grouper FMP, as amended, while complying with the requirements of the Magnuson-Stevens Act and other applicable law.

5.4 Action 4. Modify Section I of the Snapper Grouper FMP Framework procedure

5.4.1 Snapper Grouper Advisory Panel Comments and Recommendations

The Snapper Grouper AP supported the Council's choice of **Alternative 2** as a preferred.

5.4.2 Law Enforcement Advisory Panel Comments and Recommendations

The LEAP did not provide a recommendation or comments on this action.

5.4.3 Scientific and Statistical Committee Comments and Recommendations

The SSC did not provide a recommendation or comments on this action.

5.4.4 South Atlantic Council Choice for Preferred Alternative

Preferred Alternative 2. Modify Section I of the Snapper Grouper Framework Procedure by adding a new Item #9 (and renumber the existing 9 as 10 and 10 as 11):

9. Adjustments to ABCs, ACLs, and ACTs according to the existing ABC Control Rule(s) and formulas for specifying ACLs and ACTs that have been approved by the Council and that were implemented in a fishery management plan amendment to the FMP. This abbreviated process is authorized as follows:

a. Following the Scientific and Statistical Committee's (SSC's) review of the stock assessment, the Council will determine if changes are needed to ABC, ACL, and/or ACT and will so advise the RA.

b. The Council will first hold a public hearing during the Council meeting during which they will review the stock assessment and the SSC's recommendations. In addition, the public will be advised prior to the meeting that the Council is considering potential changes to the ABC, ACL, and/or ACT and the Council will provide the public the opportunity to comment on the potential changes prior to and during the Council meeting.

c. If the Council then determines that modifications to the ABC, ACL, and/or ACT are necessary and appropriate, they will notify the RA of their recommendations in a letter with the Council's analysis of the relevant biological, economic, and social information necessary to support the Council's action.

d. The RA will review the Council's recommendations and supporting information. If the RA concurs that the Council's recommendations are consistent with the objectives of the FMP, the Magnuson-Stevens Fishery Conservation and Management Act, and all other applicable law, the RA is authorized to implement the Council's proposed action through publication of appropriate notification in the Federal Register, providing appropriate time for additional public comment as necessary.

e. If the Council chooses to deviate from the ABC control rule(s) and formulas for specifying ACLs and ACTs that the Council previously approved and that were implemented in a fishery management plan amendment to the FMP, this abbreviated process would not apply, and either the framework procedure would apply with the preparation of a regulatory amendment or a fishery management plan amendment would be prepared. Additionally, the Council may choose to prepare a regulatory amendment or a fishery management plan amendment even if they do not deviate from the previously approved ABC control rule(s) and formulas for specifying ACLs and ACTs.

The South Atlantic Council's intent behind Action 4 is to shorten the time it normally takes to make adjustments to ACLs when a stock assessment indicates adjustments are needed. The Framework process currently in place under the Snapper Grouper FMP does allow the South Atlantic Council to make changes to certain management measures, including ACLs, in less time than through an amendment to the Fishery Management Plan. The process, however, takes several months, during which time, socio-economic or biological benefits are not always being realized. The South Atlantic Council had initially proposed amending the Snapper Grouper Framework to allow for adjustments to ACLs via publication of a notice in the *Federal Register*. However, at the March 2013 meeting, NOAA General Counsel (GC) advised the South Atlantic Council that such a process would not meet current legal requirements and NMFS would likely disapprove it. NOAA GC explained the shortcomings of the proposed alternative and suggested modifications that would render the proposed changes more likely to be approved. **Preferred Alternative 2**, therefore, was modified to authorize the RA to implement the Council's proposed action through publication of appropriate notification in the *Federal Register*, and providing appropriate time for additional public comment as necessary.

The Council discussed the need to provide adequate public input and concluded that the following opportunities provide sufficient opportunity:

1. Analyses will be included in the briefing book prior to the council meeting.
2. Informal staff presentation – Webinar Question & Answer session prior to council meeting.
3. Written public comments will be accepted prior to the council meeting.
4. Public hearing during the council meeting where the results were being discussed

In addition, the NMFS Regional Administrator will publish a notice in the Federal Register and will provide an appropriate time for additional public comment as necessary.

The South Atlantic Council concluded **Preferred Alternative 2** best meets the purpose of maximizing socio-economic and biological benefits resulting from an adjustment to acceptable biological catch (ABC), ACLs, and annual catch targets. The South Atlantic Council stated that modification of the Framework process to expedite adjustments was critical to be able to maximize these benefits. The South Atlantic Council understands the need to increase decision-making flexibility when it is justified and properly supported by science. **Preferred Alternative 2** also best meets the objectives of the Snapper Grouper FMP, as amended, while complying with the requirements of the Magnuson-Stevens Act and other applicable law.

5.5 Action 5. Modify placement of blue runner in a fishery management unit and/or modify management measures for blue runner

5.5.1 Snapper Grouper Advisory Panel Comments and Recommendations

At their meeting in November 2012, the AP made a motion to support the removal of blue runner from the Snapper Grouper FMP (**Preferred Alternative 2**). The motion was approved with 1 opposed.

5.5.2 Law Enforcement Advisory Panel Comments and Recommendations

At their meeting in February 2013, the LEAP supported **Preferred Alternative 2**, removal of blue runner from the Snapper Grouper FMP.

5.5.3 Scientific and Statistical Committee Comments and Recommendations

At their meeting in October 2012, the SSC expressed concern that landings of blue runner were low relative to the rest of the snapper grouper complex yet the ABC is set at over a million pounds. The SSC discussed that perhaps its placement in the Snapper Grouper FMU should be not be judged relative the percentage contribution of blue runner landings to those of the snapper grouper fishery overall since the South Atlantic Council has chosen to retain many species in the management unit whose landings contribute a much lower percentage than that of blue runner. The SSC requested to see the amendment again at their April 2013 meeting with more analyses and in a more finalized format. The amendment was provided to the SSC via e-mail as their scheduled meeting in 2013 took place after the South Atlantic Council took action to approve the amendment for formal review. However, no comments were received from the SSC.

5.5.4 South Atlantic Council Choice for Preferred Alternative

Preferred Alternative 2. Remove blue runner from the Snapper Grouper FMP.

The majority of public comments on this action were in favor of removing blue runner from the Snapper Grouper FMP (**Preferred Alternative 2**). The South Atlantic Council discussed at length the rationale for their choice of **Preferred Alternative 2** at their March 2013 meeting. During development of the Comprehensive ACL Amendment, whereby 13 species were removed from the Snapper Grouper FMU, the South Atlantic Council did not possess as much in-depth information on the landings of blue runner, percentage of the catch from the shore mode (gear that is most often used to harvest blue runner), and its importance in the live bait industry. Data used for the Comprehensive ACL Amendment, as presented to the Council at the time, did not include harvest from the shore mode. The South Atlantic Council reevaluated whether blue runner is in need of federal management based on updated and new information.

The South Atlantic Council cited the following reasons for proposing to remove the species from the Snapper Grouper FMU:

- Blue runner is in the Jacks family and there was some discussion of creating a separate Fishery Management Plan for jack species in the future.
- The vast majority of landings of blue runner (99%) are in waters off of Florida. Of that, 75% are in state waters and 56% are landed in the shore mode.
- Blue runner is not commonly retained for human consumption.
- Management is in place for blue runner in Florida state waters.
- If blue runner were no longer under federal management, Florida would act to extend existing regulations into federal waters and put in place any other management measures the state deems appropriate for the sustainable management of the species. At the April 2013 Florida Fish and Wildlife Conservation Commission (FWC) meeting, the Commissioners gave staff direction of their desire to assume management of blue runner in federal waters off Florida and to review current state rules for blue runner (letter from Ken Wright, FWC Chair to David Cupka, South Atlantic Council Chair dated April 29, 2013).

These factors were not considered for blue runner when the South Atlantic Council determined that some species should be removed from the Snapper Grouper FMP in the Comprehensive ACL Amendment. Furthermore, the South Atlantic Council does not consider the criteria that were used for removing species from the Snapper Grouper FMP through the Comprehensive ACL Amendment to be a static set of guidelines against which all species considered for removal will be evaluated. Rather, the South Atlantic Council prefers to be adaptive and consider as much new information as possible in order to determine whether a species is in need of conservation and management. Moreover, in June 2011, when the Comprehensive ACL Amendment was being developed, the South Atlantic Council approved a motion to request that staff provide an update on landings and trends every three years for species removed from the Snapper Grouper FMP through that amendment. Thus, the South Atlantic Council intends to continue to monitor landings and trends to ensure a species in need of conservation and management would not be excluded and to examine additional species that should be removed (e.g., blue runner).

The South Atlantic Council concluded **Preferred Alternative 2** best meets the purpose of allowing fishermen who derive substantial benefits from the harvest of blue runner to continue to utilize the resource while ensuring that appropriate management is in place. **Preferred Alternative 2** also best meets the objectives of the Snapper Grouper FMP, as amended, while complying with the requirements of the Magnuson-Stevens Act and other applicable law.

Chapter 6. Cumulative Effects

As directed by the Council on Environmental Quality (CEQ) regulations, federal agencies are mandated to assess not only the indirect and direct impacts, but the cumulative impacts of proposed actions as well. The CEQ regulations define a cumulative impact as "*…the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time"* (40 C.F.R. §1508.7). Cumulative effects can either be additive or synergistic. A synergistic effect is when the combined effects are greater than the sum of the individual effects.

Various approaches for assessing cumulative effects have been identified, including checklists, matrices, indices, and detailed models (MacDonald 2000). The Council on Environmental Quality (CEQ) offers guidance on conducting a Cumulative Effects Analysis (CEA) in a report titled "Considering Cumulative Effects under the National Environmental Policy Act" (CEQ 1997). The report outlines 11 items for consideration in drafting a CEA for a proposed action.

1. Identify the significant cumulative effects issues associated with the proposed action and define the assessment goals.
2. Establish the geographic scope of the analysis.
3. Establish the timeframe for the analysis.
4. Identify the other actions affecting the resources, ecosystems, and human communities of concern.
5. Characterize the resources, ecosystems, and human communities identified in scoping in terms of their response to change and capacity to withstand stress.
6. Characterize the stresses affecting these resources, ecosystems, and human communities and their relation to regulatory thresholds.
7. Define a baseline condition for the resources, ecosystems, and human communities.
8. Identify the important cause-and-effect relationships between human activities and resources, ecosystems, and human communities.
9. Determine the magnitude and significance of cumulative effects.
10. Modify or add alternatives to avoid, minimize, or mitigate significant cumulative effects.
11. Monitor the cumulative effects of the selected alternative and adapt management.

This CEA for the biophysical environment will follow a modified version of the 11 steps. Cumulative effects for the socio-economic environment will be analyzed separately.

6.1 Biological

1. Identify the significant cumulative effects issues associated with the proposed action and define the assessment goals.

The Council on Environmental Quality (CEQ) cumulative effects guidance states that this step is done through three activities. The three activities and the location in the document are as follows:

I. The direct and indirect effects of the proposed actions **(Chapter 4)**;
II. Which resources, ecosystems, and human communities are affected **(Chapter 3)**; and
III. Which effects are important from a cumulative effects perspective **(information revealed in this Cumulative Effects Analysis (CEA)**

2. Establish the geographic scope of the analysis.

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 (South Atlantic 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 **Section 3.2**. **Section 3.1.1** describes the essential fish habitat designation and requirements for species affected by this amendment.

3. Establish the timeframe for the analysis.

Establishing a timeframe for the CEA is important when the past, present, and reasonably foreseeable future actions are discussed. It would be advantageous to go back to a time when there was a natural, or somewhat modified (but ecologically sustainable) condition. However, data collection for many fisheries began when species were already fully exploited. Therefore, the timeframe for analyses should be initiated when data collection began for the various fisheries. In determining how far into the future to analyze cumulative effects, the length of the effects will depend on the species and the alternatives chosen. Long-term evaluation is needed to determine if management measures have the intended effect of improving stock status.

4. Identify the other actions affecting the resources, ecosystems, and human communities of concern (the cumulative effects to the human communities are discussed in Section 4).

Listed 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 environment.

I. Fishery-related actions affecting the species addressed in this amendment

A. Past

Amendment 16 (SAFMC 2009a) prohibited the captain and crew of federally permitted for-hire vessels from retaining gag, black grouper, red grouper, scamp, red hind, rock hind, coney, graysby, yellowfin grouper, yellowmouth grouper, yellowedge grouper, snowy grouper, misty grouper, vermilion snapper, sand tilefish, blueline tilefish, and golden tilefish to help end overfishing of gag and vermilion snapper.

The Comprehensive Annual Catch Limit (ACL) Amendment (SAFMC 2011c) includes ACLs and accountability measures (AMs) for federally managed species not undergoing overfishing in four fishery management plans (FMPs) (Snapper Grouper, Dolphin Wahoo, Golden Crab, and *Sargassum*). Actions contained within the Comprehensive ACL Amendment include: (1) Removal of species from the snapper grouper fishery management unit; (2) designation of ecosystem component species; (3) allocations; (4) management measures to limit recreational and commercial sectors to their ACLs; (5) AMs; and (6) any necessary modifications to the range of regulations. The South Atlantic Council approved the Comprehensive ACL Amendment in September 2011. The final rule published in the *Federal Register* on March 16, 2012, and became effective on April 16, 2012.

B. Present

The Joint Generic Dealer Reporting Amendment will require that all dealers report landings information electronically on a weekly basis to improve the timeliness and accuracy of landings data. This amendment will apply to all FMPs with the exception of the Gulf of Mexico and South Atlantic Shrimp FMPs.

The South Atlantic Headboat Reporting Amendment is under development and would require that all federally-permitted headboats on the South Atlantic report their landings information electronically, and on a weekly basis in order to improve the timeliness and accuracy of harvest data.

C. Reasonably Foreseeable Future

At their September 2012 meeting, the South Atlantic Council requested development of a new regulatory amendment to allow for adjustment of allocations and ACLs based on the new landings information from the Marine Recreational Information Program. Regulatory Amendment 13 was developed to accomplish this. The amendment was approved for submission to the Secretary of Commerce by the South Atlantic Council at their December 2012 meeting, and the proposed rule to implement the amendment was published on March 21, 2013 (78 FR17336).

Regulatory Amendment 17 is currently under development and this amendment would modify existing or establish new marine protected areas to enhance protection for speckled hind and warsaw grouper as well as other snapper grouper species such as Nassau grouper.

II. Non-Council and other non-fishery related actions, including natural events affecting the species addressed in this amendment.

A. Past
B. Present
C. Reasonably foreseeable future

In terms of natural disturbances, it is difficult to determine the effect of non-Council and non-fishery related actions on stocks of snapper grouper species. Annual variability in natural conditions such as water temperature, currents, food availability, predator abundance, etc. can affect the abundance of young fish, which survive the egg and larval stages each year to become juveniles (i.e., recruitment). This natural variability in year class strength is difficult to predict as it is a function of many interactive and synergistic factors that cannot all be measured (Rothschild 1986). Furthermore, natural factors such as storms, red tide, cold water upwelling, etc. can affect the survival of juvenile and adult fishes; however, it is very difficult to quantify the magnitude of mortality these factors may have on a stock. Alteration of preferred habitats for snapper grouper species could affect survival of fish at any stage in their life cycles. However, estimates of the abundance of fish, which utilize any number of preferred habitats, as well as, determining the impact habitat alteration may have on snapper grouper species, is problematic.

Species such as Nassau grouper, which are known to form spawning aggregations can be especially vulnerable to targeted fishing pressure. Such natural behaviors are discussed in further detail in **Chapter 3** of this document, which is hereby incorporated by reference.

How global climate changes will affect the snapper grouper fishery is unclear. Climate change can impact marine ecosystems through ocean warming by increased thermal stratification, reduced upwelling, sea level rise, increases in wave height and frequency, loss of sea ice, and increased risk of diseases in marine biota. Decreases in surface ocean pH due to absorption of anthropogenic CO_2 emissions may impact a wide range of organisms and ecosystems, particularly organism that absorb calcium from surface waters, such as corals and crustaceans (IPCC 2007, and references therein).

The BP/Deepwater Horizon oil spill event, which occurred in the Gulf of Mexico on April 20, 2010, did not impact fisheries operating the South Atlantic. Oil from the spill site was not been detected in the South Atlantic region, and did not likely pose a threat to the South Atlantic snapper grouper species addressed in this amendment.

5. Characterize the resources, ecosystems, and human communities identified in scoping in terms of their response to change and capacity to withstand stress.

In terms of the biophysical environment, the resources/ecosystems identified in earlier steps of the CEA are the fish populations directly or indirectly affected by the regulations. This step should identify the trends, existing conditions, and the ability to withstand stresses of the environmental components.

The species most likely to be impacted by alternatives considered in this amendment are Nassau grouper and blue runner. Trends in the condition of these species are determined through the Southeast

Data, Assessment and Review (SEDAR) process. Stock status information for the species affected by this amendment is found in **Section 3.2** of this document.

6. Characterize the stresses affecting these resources, ecosystems, and human communities and their relation to regulatory thresholds.

This step is important in outlining the current and probable stress factors on snapper grouper species identified in the previous steps. The goal is to determine whether these species are approaching conditions where additional stresses could have an important cumulative effect beyond any current plan, regulatory, or sustainability threshold (CEQ 1997). Sustainability thresholds can be identified for some resources, which are levels of impact beyond which the resources cannot be sustained in a stable state. Other thresholds are established through numerical standards, qualitative standards, or management goals. The CEA should address whether thresholds could be exceeded because of the contribution of the proposed action to other cumulative activities affecting resources.

Fish populations

A complete discussion of fish populations including stock status may be found in **Section 3.2** of this document. Definitions of overfishing and overfished for snapper-grouper species affected by this amendment can be found in the most recent stock assessment sources, which may be found at http://www.sefsc.noaa.gov/sedar/.

Stock assessments take into account the past and current regulatory environment and establish sustainability thresholds based on how stocks respond to those management measures as well as biological and environmental factors affecting each species. Stock assessments and stock assessment updates are completed periodically dependent upon the amount and type of information available for the species and their commercial importance. Detailed discussions of the science and processes used to determine the stock status of assessed snapper grouper species is contained in the SEDAR stock assessment and assessment updates completed for snapper grouper species and are hereby incorporated by reference.

Climate change

Global climate changes could have significant effects on South Atlantic fisheries. However, the extent of these effects is not known at this time. Possible impacts include temperature changes in coastal and marine ecosystems that can influence organism metabolism and alter ecological processes such as productivity and species interactions; changes in precipitation patterns and a rise in sea level which could change the water balance of coastal ecosystems; altering patterns of wind and water circulation in the ocean environment; and influencing the productivity of critical coastal ecosystems such as wetlands, estuaries, and coral reefs (IPCC 2007; Kennedy et al. 2002).

It is unclear how climate change would affect snapper grouper species in the South Atlantic. Climate change can affect factors such as migration, range, larval and juvenile survival, prey availability, and susceptibility to predators. In addition, the distribution of native and exotic species may change with increased water temperature, as may the prevalence of disease in keystone animals such as corals and the

occurrence and intensity of toxic algae blooms. Climate change may or may not significantly impact snapper grouper species in the future, but the level of impacts cannot be quantified at this time.

7. Define a baseline condition for the resources, ecosystems, and human communities.

The purpose of defining a baseline condition for the resource and ecosystems in the area of the proposed action is to establish a point of reference for evaluating the extent and significance of expected cumulative effects. The SEDAR assessments show trends in biomass, fishing mortality, fish weight, and fish length going back to the earliest periods of data collection. For some species such as snowy grouper, assessments reflect initial periods when the stock was above B_{MSY} and fishing mortality was fairly low. However, some species were heavily exploited or possibly overfished when data were first collected. As a result, the assessment must make an assumption of the biomass at the start of the assessment period thus modeling the baseline reference points for the species.

For a detailed discussion of the baseline conditions of Nassau grouper and blue runner, the reader is referred to **Section 3.2** of this amendment.

8. Identify the important cause-and-effect relationships between human activities and resources, ecosystems, and human communities.

Table 6.1.1. The cause and effect relationship of fishing and regulatory actions within the time period of the Cumulative Effects Analysis (CEA).

Time period/dates	Cause	Observed and/or Expected Effects
Pre-January 12, 1989	Habitat destruction, growth overfishing of vermilion snapper.	Damage to snapper grouper habitat, decreased yield per recruit of vermilion snapper.
January 1989	Trawl prohibition to harvest fish (SAFMC 1988).	Increase yield per recruit of vermilion snapper; eliminate trawl damage to live bottom habitat.
Pre-January 1, 1992	Overfishing of many snapper grouper species.	Spawning stock ratio of these species is estimated to be less than 30% indicating that they are overfished.
January 1992	Prohibited gear: fish traps south of Cape Canaveral, FL; entanglement nets; longline gear inside of 50 fathoms; powerheads and bangsticks in designated SMZs off SC. Size/Bag limits: 10” TL vermilion snapper (recreational only); 12” TL vermilion snapper (commercial only); 10 vermilion snapper/person/day; aggregate grouper bag limit of 5/person/day; and 20” TL gag, red, black, scamp, yellowfin, and yellowmouth grouper size limit (SAFMC 1991).	Reduce mortality of snapper grouper species.
Pre-June 27, 1994	Damage to *Oculina* habitat.	Noticeable decrease in numbers and species diversity in areas of *Oculina* off

Time period/dates	Cause	Observed and/or Expected Effects
		FL
July 1994	Prohibition of fishing for and retention of snapper grouper species (HAPC renamed OECA; SAFMC 1993)	Initiated the recovery of snapper grouper species in OECA.
1992-1999	Declining trends in biomass and overfishing continue for a number of snapper grouper species including golden tilefish.	Spawning potential ratio for golden tilefish is less than 30% indicating that they are overfished.
July 1994	Commercial quota for golden tilefish; commercial trip limits for golden tilefish; include golden tilefish in grouper recreational aggregate bag limits.	
February 24, 1999	All S-G without a bag limit: aggregate recreational bag limit 20 fish/person/day, excluding tomtate and blue runners. Vessels with longline gear aboard may only possess snowy, Warsaw, yellowedge, and misty grouper, and golden, blueline and sand tilefish.	
Effective October 23, 2006	Snapper grouper FMP Amendment 13C (SAFMC 2006)	Commercial vermilion snapper quota set at 1.1 million lbs gw; recreational vermilion snapper size limit increased to 12" TL to prevent vermilion snapper overfishing.
Effective February 12, 2009	Snapper grouper FMP Amendment 14 (SAFMC 2007)	Use marine protected areas (MPAs) as a management tool to promote the optimum size, age, and genetic structure of slow growing, long-lived deepwater snapper grouper species (e.g., speckled hind, snowy grouper, warsaw grouper, yellowedge grouper, misty grouper, golden tilefish, blueline tilefish, and sand tilefish). Gag and vermilion snapper occur in some of these areas.
Effective March 20, 2008	Snapper grouper FMP Amendment 15A (SAFMC 2008a)	Establish rebuilding plans and SFA parameters for snowy grouper, black sea bass, and red porgy.
Effective Dec 16, 2009 to Feb 16, 2010.	Snapper grouper FMP Amendment 15B (SAFMC 2008b)	End double counting in the commercial and recreational reporting systems by prohibiting the sale of bag-limit caught snapper grouper, and minimize impacts on sea turtles and smalltooth sawfish.
Effective July 29, 2009	Snapper grouper FMP Amendment 16 (SAFMC 2009a)	Protect spawning aggregations and snapper grouper in spawning condition by increasing the length of the spawning season closure, decrease discard mortality by requiring the use of dehooking tools, reduce overall

Time period/dates	Cause	Observed and/or Expected Effects
		harvest of gag and vermilion snapper to end overfishing.
Effective January 4, 2010	Red Snapper Interim Rule	Prohibit commercial and recreational harvest of red snapper from January 4, 2010, to June 2, 2010 with a possible 186-day extension. Reduce overfishing of red snapper while long-term measures to end overfishing are addressed in Amendment 17A.
Effective June 3, 2010, to Dec 5, 2010	Extension of Red Snapper Interim Rule	Extended the prohibition of red snapper to reduce overfishing of red snapper while long-term measures to end overfishing are addressed in Amendment 17A.
Effective December 4, 2010	Snapper Grouper FMP Amendment 17A (SAFMC 2010a).	Specified SFA parameters for red snapper; ACLs and ACTs; management measures to limit recreational and commercial sectors to their ACTs; accountability measures. Establish rebuilding plan for red snapper. Large snapper grouper area closure inn EEZ of NE Florida. Emergency rule delayed the effective date of the snapper grouper closure.
Effective January 31, 2011	Snapper Grouper Amendment 17B (SAFMC 2010b)	Specified ACLs and ACTs; management measures to limit recreational and commercial sectors to their ACTs; AMs, for species undergoing overfishing. Established a harvest prohibition of six snapper grouper species in depths greater than 240 feet.
Effective June 1, 2011	Regulatory Amendment 10 (SAFMC 2010c)	Removed snapper grouper area closure approved in Amendment 17A.
Effective July 15, 2011	Regulatory Amendment 9 (SAFMC 2011a)	Harvest management measures for black sea bass; commercial trip limits for gag, vermilion and greater amberjack
Effective May 10, 2012	Regulatory Amendment 11 (SAFMC 2011b)	Removed the harvest prohibition of six deepwater snapper grouper species implemented in Amendment 17B.
Effective April 16, 2012	Comprehensive ACL Amendment (SAFMC 2011c)	ACLs ACTs, and AMs for species not experiencing overfishing; accountability measures; an action to remove species from the fishery management unit as appropriate; and management measures to limit recreational and commercial sectors to their ACTs.

Time period/dates	Cause	Observed and/or Expected Effects
Effective July 11, 2012	Amendment 24 (Red Grouper) (SAFMC 2011d)	Established a rebuilding plan for red grouper, specified ABC, and established ACL, ACT and revised AMs for the commercial and recreational sectors.
Effective July 1, 2012	Amendment 18A (SAFMC 2012a)	Established an endorsement program for black sea bass commercial fishery; established a trip limit; specified requirements for deployment and retrieval of pots; made improvements to data reporting for commercial and for-hire sectors
Effective January 7, 2013	Amendment 18A Transferability Amendment	Reconsidered action to allow for transfer of black sea bass pot endorsements that was disapproved in Amendment 18A.
Effective October 26, 2012	Amendment 20A (Wreckfish) (SAFMC 2012b)	Redistributed inactive wreckfish shares.
Effective October 9, 2012	Regulatory Amendment 12 (SAFMC 2012c)	Adjusted the golden tilefish ACL based on the results of a new stock assessment and modified the recreational golden tilefish AM.
Effective May 23, 2013	Snapper Grouper Amendment 18B (under review)	Establish a commercial longline endorsement program for golden tilefish; establish an appeals process; allocate the commercial ACL by gear; establish trip limit for the hook and line sector.
Target 2013	Snapper Grouper Amendment 22 (under development)	Develop a recreational tag program for red snapper and deepwater species (snowy grouper, golden tilefish and wreckfish) in the South Atlantic.
Target 2013	Regulatory Amendment 14 (under development)	Modify management measures for greater amberjack, gray triggerfish, hogfish, black sea bass, grouper, and vermilion snapper.
Target 2013	Regulatory Amendment 13 (under review)	Adjust ACLs and allocations for unassessed snapper grouper species with MRIP recreational estimates.
Target 2013	Regulatory Amendment 15 (approved by South Atlantic Council)	Specify adjusted ABC, ACLs, ACTs for yellowtail snapper based on the latest assessment; consider changes in the yellowtail fishing years (comm. and rec.); modify the gag AM that closes shallow water grouper when the gag ACL is met.
Target 2013	Regulatory Amendment 16 (approved by the South Atlantic Council)	Establish new management measures for golden tilefish.

Time period/dates	Cause	Observed and/or Expected Effects
Target 2014	Regulatory Amendment 17 (under development)	Modify existing or establish new marine protected areas to enhance protection for speckled hind and warsaw grouper as well as other snapper grouper species.
Target 2013	Regulatory Amendment 18 (under review)	Adjust ACLs for vermilion snapper and red porgy based on results from updated assessments.
Target 2013	Snapper Grouper Amendment 27 (under development)	Establish the SAFMC as the managing entity Nassau grouper in the Southeast U.S., modify the snapper grouper framework; modify management measures for blue runner.
Target 2013	Snapper Grouper Amendment 28 (under review)	Modify red snapper management measures, including the establishment of a process to determine future annual catch limits and fishing seasons.
Target 2013	Generic For-Hire Amendment (under review)	Require electronic reporting for headboats, and increase reporting frequency.

9. Determine the magnitude and significance of cumulative effects.

The actions contained in Amendment 27 in combination with actions that have been implemented in the past, or will be implemented in the future, are not expected to result in any significant cumulative impacts. Extending the management jurisdiction of Nassau grouper for the South Atlantic Council into Gulf of Mexico waters is an administrative action that will not change the current prohibition on harvest of Nassau grouper. Modifying regulations that prohibit crew members of for-hire vessels from retaining bag limit quantities of some snapper grouper species, and allowing an additional crew member onboard dual-permitted vessels are necessary provisions that would improve regulatory consistency across Council jurisdictions without accruing significant positive or adverse 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 Exclusive Economic Zone (EEZ). This action is 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. 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.

10. Modify or add alternatives to avoid, minimize, or mitigate significant cumulative effects.

The cumulative effects on the biophysical environment are expected to be negligible. Avoidance, minimization, and mitigation are not applicable.

11. Monitor the cumulative effects of the selected alternative and adopt management.

The effects of the proposed action are, and will continue to be, monitored through collection of data by NMFS, states, stock assessments and stock assessment updates, life history studies, and other scientific observations.

6.2 Socioeconomic Cumulative Impacts

A description of the human environment, including a description of commercial and recreational fisheries for Nassau grouper and blue runner, and associated key fishing communities, is contained in **Chapter 3**. A description of the history of management of the snapper grouper fishery is contained in **Appendix D**.

Participation in and the economic performance of the fisheries addressed in this amendment have been affected by a combination of regulatory, biological, social, and external economic factors. Regulatory measures have obviously affected the quantity and composition of harvests of species addressed in this document, through the various size limits, seasonal restrictions, trip or bag limits, and quotas. For the snapper grouper fishery, gear restrictions, notably fish trap and longline restrictions, have also affected harvests and economic performance. The limited access program implemented in 1998/1999 substantially affected the number of participants in the snapper grouper fishery. Entry into the snapper grouper commercial fishery requires access to additional capital and two available permits to purchase (due to the passive reduction that requires two permits eliminated for each new permit), which may limit opportunities for new entrants.

Biological forces that either motivate certain regulations or simply influence the natural variability in fish stocks have likely played a role in determining the changing composition of the sectors addressed by this amendment. Additional factors, such as changing career or lifestyle preferences, stagnant to declining prices due to imports, increased operating costs (gas, ice, insurance, dockage fees, etc.), and increased waterfront/coastal value leading to development pressure for other than fishery uses have impacted both the commercial and recreational fishing sectors.

In general, the regulatory environment for all fisheries has become progressively more complex and burdensome, increasing, in tandem with other adverse influences, the pressure on economic losses, business failure, occupational changes, and associated adverse pressures on associated families, communities, and industries. Some reverse of this trend is possible and expected through management. However, certain pressures would remain, such as total effort and total harvest considerations, increasing input costs, import induced price pressure, and competition for coastal access.

A description of the human environment, including a description of the snapper grouper fishery, as well as associated key fishing communities is contained in Section 3 and incorporated herein by reference. A description of the history of management of the fisheries addressed in this document is contained in **Appendix D** and is incorporated herein by reference. A detailed description of the expected social and economic impacts of the actions in this document is contained elsewhere in Section 4 and is incorporated herein by reference.

The proposed actions in this amendment are part of the larger management program for snapper grouper, with primary management working through annual catch limits (ACLs) and accountability measures (AMs). The actions in the Comprehensive ACL Amendment (SAFMC 2011c) established ACLs and AMs for species that are not experiencing overfishing. Actions in the Comprehensive ACL Amendment, however, are expected to have different effects in different areas. At any rate, the actions contained in the Comprehensive ACL Amendment are expected to prevent overfishing from occurring and to support the achievement of OY in the respective fisheries over time, resulting in social and economic gains. In addition to the species included in the Comprehensive ACL Amendment, ACLs, AMs, and management measures for additional species have been developed in Snapper Grouper Amendments 17A and 17B (SAFMC 2010a; SAFMC 2010b).

Additional actions have been implemented or are in the process of being implemented for snapper grouper species in Amendment 24 (red grouper rebuilding plan) (SAFMC 2011d) and Regulatory Amendment 9 (lower bag limit from 5 to 10 black sea bass per day) (SAFMC 2011a) that could contribute to the cumulative impact on the for-hire captain and crew, customers, and associated businesses and communities. Additionally, several potential new snapper grouper amendments are being considered that will have some effects on the for-hire sector, including Regulatory Amendment 14 (changes to management measures for gray triggerfish, hogfish, black sea bass, greater amberjack, and vermilion snapper) and Regulatory Amendment 17 (MPAs to protect warsaw grouper and speckled hind). Other amendments are under development but those listed above are expected to have some impact on the commercial and for-hire fleet of the snapper grouper fishery.

The cumulative social and economic effects of past, present, and future amendments may be described as limiting fishing opportunities in the short-term. However, these amendments are expected to improve prospects for sustained participation in the respective sectors over time and the proposed actions in this amendment are expected to result in minimal negative impact along with some important benefits to the commercial and for-hire fishing fleets, fishing communities and associated businesses, and private recreational anglers. Specifically, the social and economic benefits expected under the following actions would likely contribute to sustainable harvest and participation: the proposed increase in allowable crew size to four individuals, which will allow safe and profitable commercial dive trips on the 148 vessels that hold both a federal commercial snapper grouper permit (Unlimited or 225-Pound) and a federal charter snapper grouper permit (dual-permitted vessels); the opportunity for captain and crew to retain catch on for-hire trips is expected to be beneficial to for-hire captain and crew by providing fish for personal consumption and reduce waste on for-hire trips; and the proposed removal of blue runner from the Snapper Grouper FMU, which is expected to benefit fishermen without Snapper Grouper permits who harvest blue runner with gillnets because it would not require an additional permit and would allow harvest with gillnet.

Chapter 7. List of Preparers

Table 7.1.1 List of preparers of the document.

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NMFS = National Marine Fisheries Service, SAFMC = South Atlantic Fishery Management Council, SF = Sustainable Fisheries Division, PR = Protected Resources Division, SERO = Southeast Regional Office, HC = Habitat Conservation Division, GC = General Counsel, Eco=Economics

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NMFS = National Marine Fisheries Service, SAFMC = South Atlantic Fishery Management Council, SF = Sustainable Fisheries Division, PR = Protected Resources Division, SERO = Southeast Regional Office, HC = Habitat Conservation Division, GC = General Counsel, Eco=Economics

Chapter 8. Agencies and Persons Consulted

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List of Agencies, Organizations, and Persons Consulted
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SAFMC Snapper Grouper Advisory Panel
SAFMC Scientific and Statistical Committee
SAFMC Information and Education Advisory Panel
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
Gulf and South Atlantic Fisheries Development Foundation
Gulf of Mexico Fishery Management Council
National Marine Fisheries Service
- Washington Office
- Office of Ecology and Conservation
- Southeast Regional Office
- Southeast Fisheries Science Center

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