Regulatory Amendment 15 to the Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

DECISION DOCUMENT

Yellowtail Snapper and Shallow Water Groupers

Environmental Assessment Regulatory Impact Review Fishery Impact Statement

NOVEMBER 2012

Definitions, Abbreviations, and Acronyms

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

B_{MSY} the stock biomass expected to exist under equilibrium conditions when fishing at F_{MSY}

B_{OY} the stock biomass expected to exist under equilibrium conditions when fishing at F_{OY}

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

$F_{30\%SPR}$ fishing mortality that will produce a static SPR = 30%

F_{CURR} the current instantaneous rate of fishing mortality

F_{MSY} the rate of fishing mortality expected to achieve MSY under equilibrium conditions and a corresponding biomass of B_{MSY}

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

What Actions Are Being Proposed?

This amendment proposes actions to:

(1) modify the Optimum Yield (OY) and Annual Catch Limit (ACL) for yellowtail snapper in the South Atlantic,

(2) consider changes to the commercial and recreational yellowtail snapper fishing years and a spawning season closure for the commercial sector, and

(3) modify the gag annual catch limit and/or modify or remove the accountability measure (AM) that requires a closure of shallow water groupers (red grouper, black grouper, scamp, yellowmouth grouper, yellowfin grouper, red hind, rock hind, graysby, and coney) when the commercial ACL for gag is met or projected to be met.

Why are the Council and NOAA Fisheries Considering Action?

The South Atlantic Council and NOAA Fisheries are considering taking action to adjust the Optimum Yield (OY) and Annual Catch Limit (ACL) for yellowtail snapper in response to the new stock assessment. The yellowtail snapper stock was assessed in 2012 with data through 2011.

A change to the yellowtail snapper commercial fishing year is being considered to diminish the possibility of a commercial closure and lengthen the commercial fishing season. Changes to the recreational fishing year would be made to be consistent with any changes to the commercial fishing year and avert administrative issues. A spawning season closure would be considered to provide protection to yellowtail snapper during a vulnerable time when spawning aggregations tend to occur.

Action to modify the existing gag annual catch limit (ACL) and modify/or remove the accountability measure that requires a closure of all shallow water groupers when the gag ACL is met or projected to be met is being considered to minimize socioeconomic impacts to those who utilize this portion of the snapper grouper fishery in the South Atlantic region.

Purpose for Actions

The purpose of the actions is to: Modify the existing specification of optimum yield and annual catch limit for yellowtail snapper in the South Atlantic; modify existing regulations for yellowtail snapper in the South Atlantic; and modify the existing gag annual catch limit and/or accountability measure for gag that requires a closure of all other shallow water groupers (black grouper, red grouper, scamp, red hind, rock hind, graysby, coney, yellowmouth grouper, and yellowfin grouper) in the South Atlantic when the gag annual catch limit is met or projected to be met.

Need for Actions

The need for actions is to: Ensure yellowtail snapper ACLs are based upon the best available science on stock status of this species in the southeast U.S; provide protection for the yellowtail snapper population during spawning periods; enhance socioeconomic benefits to fishermen and fishing communities that utilize the yellowtail portion of the snapper grouper fishery; and reduce adverse socioeconomic effects to fishermen and fishing communities that utilize the shallow water grouper portion of the snapper grouper fishery.

COMMITTEE ACTION: Approve Purpose and Need

Action 1. Revise Annual Catch Limit (ACL) and Optimum Yield (OY) for Yellowtail Snapper

Alternative 1 (No Action). For yellowtail snapper, retain ACL = OY = ABC based on results from SEDAR 3 (2003).

Commercial ACL = 1,142,657
Recreational ACL = 1,031,218
Recreational ACT = 897,160
(all values pounds whole weight and landings only)

Note: These values are based upon the results of SEDAR 3 (2003); an ABC per the SSC recommendation and ABC Control Rule of 2,898,500 pounds whole weight; jurisdictional allocations of South Atlantic = 75% of ABC and Gulf of Mexico = 25% of ABC [South Atlantic ABC = 2,173,875 pounds whole weight (GOM = 724,625 pounds whole weight)]; sector allocations of commercial = 52.56% and recreational = 47.44%; and a recreational sector ACT definition of ACL*(1-PSE) or ACL*0.5, whichever is greater, whereas the average percent standard error for MRFSS for yellowtail snapper during 2005-2009 is 13%.

Effective November 7, 2012, a temporary rule through emergency action increased the yellowtail snapper commercial ACL from 1,142,589 pounds whole weight to 1,596,510 pounds whole weight. The rule is effective for 180 days, and can be extended for an additional 186 days.

Alternative 2. For yellowtail snapper, set ACL = OY = ABC based on results from new stock assessment (FWRI 2012).

Commercial ACL = 1,596,510
Recreational ACL = 1,440,990
Recreational ACT = 1,253,661
(all values pounds whole weight and landings only)

Alternative 3. For yellowtail snapper, set ACL = OY = 90% of the ABC based on results from new stock assessment (FWRI 2012).

South Atlantic ACL following 10% buffer = 2,733,750
Commercial ACL = 1,436,859
Recreational ACL = 1,296,891
Recreational ACT = 1,128,295
(all values pounds whole weight and landings only)

Alternative 4. For yellowtail snapper, set ACL = OY = 80% of the ABC based on results from new stock assessment (FWRI 2012).

South Atlantic ACL following 20% buffer = 2,430,000
Commercial ACL = 1,277,208
Recreational ACL = 1,152,792
Recreational ACT = 1,002,929
(all values pounds whole weight and landings only)

Note: The values under **Alternatives 2-4** are based upon the results of the 2012 Stock Assessment Report for Yellowtail Snapper in the South Atlantic and Gulf of Mexico (FWRI 2012); an ABC per the SSC

recommendation and ABC Control Rule of 4,050,000 pounds whole weight; jurisdictional allocations of South Atlantic = 75% of ABC and Gulf of Mexico = 25% of ABC (South Atlantic ABC = 3,037,500 pounds whole weight and Gulf of Mexico ABC = 1,012,500 pounds whole weight); sector allocations of commercial = 52.56% and recreational = 47.44%; and a recreational sector ACT definition of ACL*(1-PSE) or ACL*0.5, whichever is greater, whereas the average percent standard error for MRFSS for yellowtail snapper during 2005-2009 is 13%.

The intent is for the ACLs specified in this amendment to become effective during the 2013 fishing year and remain in effect each year until modified.

Summary of Effects for Action 1

Biological

Alternative 1 (No Action), in the absence of an adjustment to the commercial ACL, would result in the greatest biological benefit to the yellowtail snapper stock in the South Atlantic. However, harvest levels would be below the level that the latest stock assessment (FWRI 2012) indicates can be harvested sustainably. Hence **Alternative 1 (No Action)** would not achieve OY and therefore be contrary to the mandates of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). **Alternatives 3** and **4** would have a greater positive biological effect than **Alternative 2** because they would create a buffer between the ACL/OY and the acceptable biological catch (ABC), with **Alternative 4** setting the most conservative ACL at 80% of the ABC. Creating a buffer between the ACL/OY and ABC would provide greater assurance that overfishing is prevented, and the long-term average biomass is near or above B_{MSY}. The South Atlantic Fishery Management Council's (South Atlantic Council) and Gulf of Mexico Fishery Management Council's Scientific and Statistical Committees recommended an ABC based on a 40% probability of overfishing (P*=0.4) for yellowtail snapper; therefore, a buffer has been established between the overfishing limit and the ABC, which accounts for scientific uncertainty.

The Comprehensive ACL Amendment set OY equal to the ACL for yellowtail snapper. The long-term objective is to achieve OY through annual achievement of an ACL or ACT. OY would remain equal to the ACL under **Alternatives 3** and **4**.

Economic

Alternative 2 would be expected to generate the greatest economic benefits relative to **Alternative 1 (No Action)**, followed by **Alternative 3** and **Alternative 4**, in terms of potential increases in gross revenue and consumer surplus to the commercial and recreational sectors, respectively **(Table 1)**. **Alternative 2** would establish the same ACLs implemented under the current temporary rule.

Table 1. Changes in Gross Revenue and Consumer Surplus under the Alternatives for **Action 1**.

Alternative	Commercial ACL (lbs gw)	Yellowtail Snapper Gross Revenue	Recreational ACL (lbs ww)	Yellowtail Snapper Consumer Surplus
1	1,029,421	$3,263,265	1,031,218	$11,776,510
2	1,438,297	$4,559,401	1,440,990	$16,456,106
3	1,294,468	$4,103,464	1,296,891	$14,810,495
4	1,150,638	$3,647,523	1,152,792	$13,164,885

Social

The overall social effects of increased harvest, as proposed under **Alternatives 2**, **3** and **4** should be positive, with **Alternative 2** resulting in the most beneficial social impacts among the alternatives. Allowing for continued harvest would provide revenues without changing fishing behaviors or patterns that should translate into positive social effects, in contrast to early closure, as could occur under **Alternative 1 (No Action)**, that could impose unnecessary hardships to individuals, businesses, and their communities. Those negative social effects would likely affect communities where social vulnerabilities are the highest; however, the negative social effects would also be tied to a particular community's dependency on commercial fishing and yellowtail snapper.

Recommendations

Snapper Grouper Advisory Panel
MOTION: THE AP RECOMMENDS THE COUNCIL CHOOSE ALTERNATIVE 2 AS PREFERRED
APPROVED
(4 OPPOSED, 1 ABSTENTION)

COMMITTEE ACTION: Choose preferred alternative for Action 1.

Action 2. Yellowtail Snapper: Commercial and Recreational Fishing Year and Commercial Spawning Season Closure

Alternative 1 (No Action). Retain the calendar year as the commercial and recreational fishing year for yellowtail snapper. Do not establish a spawning season closure for the commercial sector for yellowtail snapper.

Alternative 2. Modify the commercial fishing year for yellowtail snapper.

Sub-alternative 2a. Commercial fishing year begins on June 1 and ends on May 31.
Sub-alternative 2b. Commercial fishing year begins on July 1 and ends on June 30.
Sub-alternative 2c. Commercial fishing year begins on August 1 and ends on July 31.
Sub-alternative 2d. Commercial fishing year begins on September 1 and ends on August 31.

Alternative 3. Modify the recreational fishing year for yellowtail snapper.

Sub-alternative 3a. Recreational fishing year begins on June 1 and ends on May 31.
Sub-alternative 3b. Recreational fishing year begins on July 1 and ends on June 30.
Sub-alternative 3c. Recreational fishing year begins on August 1 and ends on July 31.
Sub-alternative 3d. Recreational fishing year begins on September 1 and ends on August 31.

Alternative 4. Establish a yellowtail snapper spawning season closure for the commercial sector.

Sub-alternative 4a. Prohibit commercial harvest of yellowtail snapper annually from April 1 to June 30.
Sub-alternative 4b. Prohibit commercial harvest of yellowtail snapper annually from June 1 to August 31.
Sub-alternative 4c. Prohibit commercial harvest of yellowtail snapper annually from April 1 to May 31.
Sub-alternative 4d. Prohibit commercial harvest of yellowtail snapper annually from June 1 to July 31.

Summary of Effects for Action 2

Biological

Assuming implementation of the new commercial ACL as proposed under **Action 1**, it is likely that harvest of yellowtail snapper would not close during the fishing year and there would be no biological effects from a change in the fishing year. If, on the other hand, a closure is implemented during the fishing year due to the ACL being met, then the start of the fishing year could be adjusted to increase the probability that the closed months would occur during the spawning period. Under the latter scenario, a fishing year start of August 1, as **Sub-alternatives 2c** and **3c** propose, would be biologically advantageous because the closed months are more likely to coincide with the yellowtail snapper spawning season (April to August). Similarly, **Sub-alternatives 2d** and **3d**, which would change the start date of

the fishing year to September 1, could be biologically beneficial but the biological effects would be greater for **Sub-alternatives 2d** and **3d**. **Sub-alternatives 2a**, **2b, 3a,** and **3b** could result in positive biological impacts if closures occurred during the beginning of peak spawning for yellowtail snapper; however, biological benefits for other sub-alternatives would likely be greater. An indirect biological benefit would result from **Alternative 1 (No Action)** in that future stock assessments for the species would be consistent with previous ones.

Of the four sub-alternatives that consider a spawning season closure for the commercial sector, **Sub-alternatives 4a** and **4b** would provide a longer hiatus in fishing activity and therefore result in greater biological benefits than **Sub-alternatives 4c** and **4d**.

Economic

Relative to **Alternative 1 (No Action)**, **Sub-alternative 4a** would produce the greatest reduction in gross revenue under either of the scenarios, followed by **Sub-alternative 4b**, **Sub-alternative 4c**, and **Sub-alternative 4d (Table 2)**. The reduction in gross revenue of concurrently harvested non-yellowtail snapper species is the inverse order, with the greatest reduction occurring under **Sub-alternative 4d**, followed by **Sub-alternative 4c**, **Sub-alternative 4b**, and **Sub-alternative 4a**. Most importantly, the reduction in total gross revenue would be greatest under **Sub-alternative 4a**, followed by **Sub-alternative 4b**, **Sub-alternative 4c**, and **Sub-alternative 4d** under either of the scenarios.

Table 2. Economic Effects of sub-alternatives under **Alternative 4** for **Action 2**.

	Sub-alt. 4a	**Sub-alt. 4b**	**Sub-alt. 4c**	**Sub-alt. 4d**
Percentage of 2007-2011 yellowtail landings	38%	32%	24%	23%
Percentage of 2007-2011 other species landings	23%	30%	28%	32%
Reductions assuming 2007-2011 average landings				
Reduction in yellowtail gross revenue	$1,075,303	$897,966	$687,027	$641,746
Reduction in non-yellowtail gross revenue	$211,953	$275,382	$251,953	$291,846
Reduction in total gross revenue	$1,287,256	$1,173,348	$938,980	$933,592
Reductions assuming ACL is fully harvested				
Reduction in yellowtail gross revenue	$1,917,825	$1,601,540	$1,225,326	$1,144,567

Social

Sub-alternatives 4a and **4b** would close the commercial sector over the longest period of time and occur during the time of the year when peak commercial harvest has occurred. These sub-alternatives would likely have the largest negative social effects and change fishing patterns the most. **Sub-alternatives 4c** or **4d** would also result in closing of the commercial sector during peak commercial harvesting but for a lesser period of time and, therefore, would have fewer negative social impacts than **Sub-alternatives 4a** and **4b**. Furthermore, since yellowtail snapper are harvested in the Gulf of Mexico and South Atlantic, changing the fishing year could create confusion for fishermen in south Florida and possibly have negative social effects if one side of the Florida Keys is open to harvest of yellowtail snapper and the other is closed.

Recommendations

Scientific and Statistical Committee

The SSC discussed the proposed modification in yellowtail snapper fishing year and noted that changing the fishing year makes assessment work much more complicated (i.e., added uncertainties). The ACL has been increased, which likely solves the problem of having early closures and negates the need for an adjustment of the fishing year.

The Committee recommends that the Council wait and don't take action on changing the fishing year for yellowtail snapper until the effect of the new ACL can be further evaluated.

Snapper Grouper Advisory Panel

MOTION: THE AP RECOMMENDS ALTERNATIVE1 (NO ACTION) FOR CHANGING THE FISHING YEAR AND ALTERNATIVE 1 (NO ACTION) ON A COMMERCIAL SPAWNING SEASON CLOSURE
APPROVED (1 OPPOSED)

MOTION: IF THECOUNCIL CONSIDERS IMPLEMENTING SPAWNING SEASON CLOSURES, THEY SHOULD APPLY TO BOTH SECTORS
APPROVED

COMMITTEE ACTION: Choose preferred alternative(s) for Action 2.

Action 3. Gag and Shallow Water Groupers: Commercial Annual Catch Limit and Accountability Measures

Alternative 1 (No Action). Retain the gag ACL and the following three commercial AMs:
(1) If gag commercial landings, as estimated by the SRD, reach or are projected to reach the quota, the AA will file a notification with the Office of the Federal Register to close the commercial fishery for gag and all other South Atlantic shallow water grouper (SASWG) for the remainder of the fishing year. SASWG includes gag, black grouper, red grouper, scamp, red hind, rock hind, yellowmouth grouper, yellowfin grouper, graysby, and coney

(2) Individual ACLs and AMs are in place for black grouper, red grouper, and scamp. If the ACLs are projected to be met, the species are closed in-season. For red grouper, reduce the ACL by overages the following year. For black grouper and scamp, reduce the ACL by overages the following year if overfished.

(3) If commercial landings for other SASWG (including red hind, rock hind, yellowmouth grouper, yellowfin grouper, coney, and graysby), as estimated by the SRD, reach or are projected to reach the commercial ACL of 49,488 lb (22,447 kg), round weight, the AA will file a notification with the Office of the Federal Register to close the commercial sector for this complex for the remainder of the fishing year. On and after the effective date of such a notification, all sale or purchase of other SASWG is prohibited, and harvest or possession of these species in or from the South Atlantic EEZ is limited to the bag and possession limit. This bag and possession limit applies in the South Atlantic on board a vessel for which a valid Federal charter vessel/headboat permit for South Atlantic snapper-grouper has been issued, without regard to where such species were harvested, i.e., in state or Federal waters. If commercial landings exceed the ACL, and at least one of the species in the other SASWG complex is overfished, based on the most recent status of U.S. Fisheries Report to Congress, the AA will file a notification with the Office of the Federal Register, at or near the beginning of the following fishing year to reduce the ACL for that following year by the amount of the overage in the prior fishing year.

The gag commercial ACL is 352,940 pounds gutted weight.

Alternative 2. Change the (1) AM as listed under the **Alternative 1 (No Action)** to the following:
If gag commercial landings, as estimated by the SRD, reach or are projected to reach the ACL, the AA will file a notification with the Office of the Federal Register to close the commercial fishery for gag for the remainder of the fishing year. Retain (2) and (3) of the commercial AMs as stated under **Alternative 1 (No Action)**.

Alternative 3. Change the (1) AM as listed under the **Alternative 1 (No Action)** to the following:
If gag commercial landings, as estimated by the SRD, reach or are projected to reach the ACL, the AA will file a notification with the Office of the Federal Register to close the commercial fishery for gag for the remainder of the fishing year. Retain (2) and (3) of the commercial AMs as stated under the **Alternative 1 (No Action)**. Reduce the unadjusted gag commercial ACL from 353,940 pounds gutted

weight to 326,722 pounds gutted weight to account for projected gag discard mortality from commercial trips that target co-occurring species (i.e., red grouper and scamp) following a projected gag closure.

NOTE: The current gag ACL was adjusted for post-quota bycatch mortality in accordance with analyses in Amendment 16 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Amendment 16). The unadjusted commercial gag ACL is 353,940 pounds gutted weight.

Summary of Effects for Action 3

Biological

A stock assessment completed in 2006 indicated gag was experiencing overfishing and was approaching an overfished condition (SEDAR 10 2006). Amendment 16 to the Fishery Management Plan for the Snapper Grouper Fishery established management measures to end overfishing of gag. These measures included a four-month (January-April) spawning season closure of the recreational and commercial harvest of shallow water grouper species including gag, black grouper, red grouper, scamp, rock hind, red hind, coney, graysby, yellowfin grouper, yellowmouth grouper, and tiger grouper (removed from the FMP in 2011); a directed commercial quota for gag; and a reduction in the recreational bag limits for shallow water grouper species. Also included was a provision to close all shallow water grouper species when the gag ACL was met or projected to be met. The intent of this action was to reduce incidental catch of gag. Prior to 2012, the gag ACL had never been met since it was implemented in 2009 and shallow water groupers had never been closed as a result.

Regulations implemented through the requirements of the Reauthorized Magnuson-Stevens Fishery Management and Conservation (Magnuson-Stevens) Act have placed restrictions on species that co-occur with gag that have likely been more effective in reducing incidental catch of gag than the provision to close shallow water grouper species when the gag quota is met. Additional protection to gag has been provided in the form of annual catch limits and accountability measures. Amendment 17B established ACLs and AMs for eight species in the South Atlantic snapper grouper fishery undergoing overfishing in 2009, including gag. Amendment 17B also established commercial and recreational ACLs and AMs for an aggregate of gag, red grouper, and black grouper. The Comprehensive ACL Amendment established ACLs for snapper grouper species not undergoing overfishing including scamp as well as an aggregate of the remaining shallow water grouper species (rock hind, red hind, coney, graysby, yellowfin grouper, and yellowmouth grouper; **Table 3**).

Amendment 24 implemented individual ACLs and AMs (commercial and recreational) for red grouper and removed ACLs and AMs for the commercial and recreational gag-red grouper-black grouper aggregate. Amendment 24 also put in place a rebuilding plan for red grouper as an assessment completed in 2009 determined the stock was experiencing overfishing and was overfished. However, Amendment 24 indicated the four-month spawning season closure implemented through Amendment 16 was more than sufficient to end overfishing of red grouper. Furthermore, Amendment 17A established a commercial and recreational ACL of 0 (landings only) for red snapper.

Currently, among the shallow water grouper species, there are individual commercial and recreational ACLs and AMs for gag, red grouper, black grouper, and scamp. There is a commercial and recreational aggregate ACL for the remaining shallow water grouper species (rock hind, red hind, coney, graysby,

yellowfin grouper, and yellowmouth grouper; **Table 3**). The commercial AM for these species is to prohibit harvest of the species when the ACL is met or expected to be met.

Table 3. Commercial and recreational ACLs for snapper grouper species.

Deep-Water	Comm.	Rec.	Shallow water Groupers	Comm.	Rec.
Yellowedge grouper	343,869 lbs ww	332,039 lbs ww	Red hind	49,488 lbs ww	48,329 lbs ww
Blueline tilefish			Rock hind		
Silk snapper			Coney		
Misty grouper			Graysby		
Queen snapper			Yellowfin grouper		
Sand tilefish			Yellowmouth grouper		
Black snapper			**Individual ACLs**	**Comm.**	**Rec.**
Blackfin snapper			Atlantic Spadefish	36,476 lbs ww	246,365 lbs ww
Jacks	**Comm.**	**Rec.**	Bar Jack	6,686 lbs ww	13,834 lbs ww
Almaco jack	193,999 lbs ww	261,490 lbs ww	Black grouper	90,575 lbs ww	155,020 lbs ww
Banded rudderfish			Blue Runner	188,329 lbs ww	1,101,612 lbs ww
Lesser amberjack			Goliath Grouper	0 lbs ww	0 lbs ww
Snappers	**Comm.**	**Rec.**	Gray Triggerfish	305,262 lbs ww	367,303 lbs ww
Cubera snapper	204,552 lbs ww	882,388 lbs ww	Greater Amberjack	800,163 lbs ww	1,167,837 lbs ww
Gray snapper			Hogfish	48,772 lbs ww	98,866 lbs ww
Lane snapper			Mutton Snapper	157,743 lbs ww	768,857 lbs ww
Dog snapper			Nassau Grouper	0 lbs ww	0 lbs ww
Mahogany snapper			Red porgy	197,652 lbs ww	197,652 lbs ww
Porgies	**Comm.**	**Rec.**	Scamp	341,636 lbs ww	150,936 lbs ww
Jolthead porgy	35,129 lbs ww	112,485 lbs ww	Wreckfish	237,500 lbs ww	12,500 lbs ww
Knobbed porgy			Yellowtail Snapper	1,142,657 lbs ww	1,031,218 lbs ww
Saucereye porgy			Red Grouper	284,680 lbs ww	362,320 lbs ww
Whitebone porgy			Snowy Grouper	82,900 lbs gw	523 fish
Scup			Warsaw Grouper	0 lbs ww	0 lbs ww
Grunts	**Comm.**	**Rec.**	Black Sea Bass	309,000 lbs gw	409,000 lbs gw
White grunt*	214,624 lbs ww	562,151 lbs ww	Speckled Hind	0 lbs ww	0 lbs ww
Margate			Golden Tilefish	541,295 lbs gw	3,019 fish
Sailor's choice			Black Grouper	90,575 lbs ww	155,020 lbs ww
Tomtate			Gag	352,940 lbs gw	340,060 lbs gw
			Red Snapper	0 lbs gw	0 lbs gw
			Vermilion Snapper	315,523 lbs gw 302,523 lbs gw	307,315 lbs gw

Source: Comprehensive ACL Amendment (SAFMC 2011c)

Data from the Southeast Fisheries Science Center logbook program (accessed 6 May 2010) were analyzed to identify species that are commonly caught together, including those caught with gag. Based on the evaluation of 136,005 commercial vertical line logbook records from 2005-2009, gag are most

commonly taken with red porgy, red snapper, vermilion snapper, gray triggerfish, red grouper, scamp, and almaco jack and are not commonly taken with many shallow water grouper species (black grouper, rock hind, red hind, coney, graysby, yellowfin grouper, and yellowmouth grouper).

Existing regulations that impact species that are most commonly harvested with gag are, therefore, also having an effect on the commercial take of gag. For instance, harvest of four co-occurring species (gag, red grouper, scamp, and red porgy (commercial only)) is prohibited during January-April of each year. As mentioned previously, Amendment 16 implemented the four-month spawning season closure for the shallow water grouper species, which includes gag, red grouper, and scamp, and Amendment 12 established the four-month commercial spawning season closure for red porgy and restricted recreational harvest to 1 fish per day. Furthermore, as a result of the implementation of ACLs for all managed species, closures have occurred for many of the main species that co-occur with gag including red snapper, vermilion snapper, gray triggerfish, and almaco jack. In response to an assessment, which indicated red snapper were experiencing overfishing and are overfished, a harvest and possession prohibition of red snapper was implemented on January 4, 2010. Through Amendment 17A, the harvest prohibition of red snapper was continued with the specification of an ACL = 0 (landed catch only). A small commercial (7 days) and recreational (6 days) fishing season occurred in 2012 to allow for a very small amount of red snapper harvest (13,067 fish). A January-June and July-December split-season ACL has been in place for vermilion snapper since 2009. Closures of vermilion snapper have occurred 6 times since 2009. More recently, commercial ACLs were established for gray triggerfish and almaco jack on April 16, 2012. Gray triggerfish closed on September 11, 2012, and the Jacks Complex, which includes almaco jack, lesser amberjack, and banded rudderfish, closed on July 2, 2012.

The spawning season and in-season closures of species that co-occur with gag may be responsible for the low rate of commercial discards of gag. According to discard logbook data, the rate (# of fish per hook hour) of discarded gag was very low in 2007-2010, and decreased in 2011 (**Figure 1**). As commercial harvest of gag had not been closed in-season due to meeting the ACL until 2012, the decline in discards is not due to closing shallow water species when the gag quota is met, and is likely a result of other management measures that have reduced fishing effort on gag and co-occurring species.

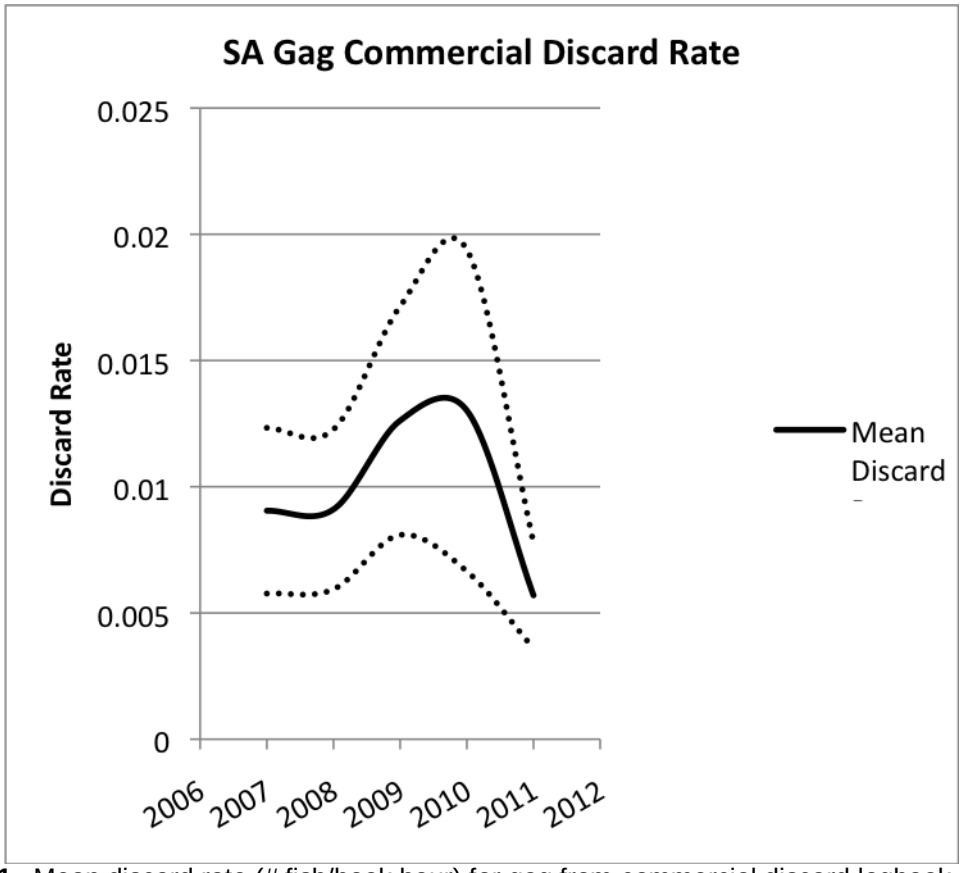

Figure 1. Mean discard rate (# fish/hook hour) for gag from commercial discard logbook data.
Source: NMFS SERO

Alternative 1 (No Action), closing all shallow water grouper species when the gag quota is met, is not having the intended effect of reducing incidental catch of gag. The gag quota had never been met prior to 2012 and, as mentioned previously, most of the shallow water grouper species are not taken on the same trip as gag. The gag quota was projected to be met on October 20, 2012 and resulted in a closure of all the shallow water grouper species. While any closure would be expected to have positive biological effects on gag and other snapper grouper species, measures implemented since Amendment 16 appear to be reducing incidental catch of gag. Therefore, retention of the **Alternative 1 (No Action)** provision to close all shallow water grouper species when the gag quota is met is not likely needed to ensure that overfishing of gag does not occur.

In general, the biological benefits of **Alternative 2** could be less than those of **Alternative 1 (No Action)**, but harvest of all species would continue to be dictated by the established ACLs, thus ensuring that overfishing does not occur. In terms of gag bycatch, **Alternative 2** would result in low biological impacts. As mentioned previously, recent studies suggest that gag are not as closely associated in the landings with the rest of the shallow water grouper species as was previously thought. Red grouper, which were shown in the past to co-occur with gag based on trip-level data, can in fact be targeted effectively to avoid encounters with gag.

Alternative 3 is similar to **Alternative 2** in that the prohibition on harvest of all shallow water groupers when the gag ACL is met or projected to be met would be removed. However, **Alternative 3** would allow for an adjustment to the current commercial gag ACL to account for discard mortality after the closure. The current commercial ACL for gag was specified originally in Amendment 16. The latter included a "post-quota bycatch mortality" analysis for gag. The analysis indicated that the commercial

ACL should be reduced by 1,000 pounds gutted weight to account for mortality associated with discarding gag during a closure. Hence the ACL (previously referred to as Total Allowable Catch or TAC) was decreased by that amount and constitutes the current commercial ACL of 352,940 pounds gutted weight. **Alternative 3** proposes to further reduce the gag commercial ACL for gag to account for any discard mortality that would result from targeting other shallow water groupers after commercial harvest of gag is prohibited.

An analysis was conducted to determine the pounds of gag lost from discard mortality if eliminated target trips still occurred but instead of targeting gag they fished for the other shallow water groupers. This required the average pounds of gag caught per trip to be calculated for non-target gag trips. The pounds of gag per trip displayed a log-normal distribution. Therefore, the geometric average was calculated instead of the commonly used arithmetic average because the geometric average is a better measure of central tendency with log-normally distributed data. The geometric average of the pounds of gag per trip was multiplied against the number of gag target trips to provide the pounds of gag that could be landed if gag target trips switched to fishing for other shallow water groupers. The discard mortality rate of 40% was applied to the pounds of gag caught to estimate dead discards in pounds. Additionally, during development of Amendment 16, Snapper Grouper AP and other fishermen reported that their trips would be reduced by 20% after a gag quota closure. To get an additional estimate of dead discards, target trips were decreased by 20% to estimate pounds of gag lost to discard mortality. Total dead discards in pounds were calculated by combining the pounds of gag lost to discard mortality from non-target trips with the pounds of gag lost to discard mortality from target trips switching to target other shallow water grouper. **Table 4** provides a summary of the calculations.

Table 4. South Atlantic gag landings and estimated dead discards from October 21 to December 31, 2011, with gag target trips removed.
Gag target trips were defined as trips where >90%, >75%, >50%, and >25% of the shallow water grouper landings came from gag. All pounds are in gutted weight. Release mortality rate is 40%.

Gag Target Trip Criteria	Trips Switching to Targeting SASWG*	Non-Target Trips Taken*	Pounds of Gag Caught from Switching Gag Target trips to the other shallow water groupers	Pounds of Gag caught from Non-Target Gag Trips	Total Pounds of Gag Lost to Discard Mortality
>90%	198	203	30,286	58,647	35,573
>75%	**232**	**160**	**29,260**	**38,785**	**27,218**
>50%	297	79	19,983	9,746	11,892
>25%	334	32	12,774	1,900	5,870

Source: NMFS SERO
*73 trips catching 18,936 pounds gutted weight of gag using spear were removed

If the definition of a gag "target" trip is maintained at the level used in Amendment 16, then the average discard mortality of gag under **Alternative 1 (No Action)** would be 27,218 pounds gutted weight. Therefore, the adjusted gag ACL that accounts for PQBM when fishermen target other SASWG species would be 353,940 – 27,217 = 326,722 pounds gutted weight. As **Alternative 3** proposes to further reduce the commercial ACL for gag to account for any discard mortality of gag that would result from targeting other shallow water groupers after gag quota is met, this alternative would be expected to have a greater biological benefit for gag than **Alternative 2** or **Alternative 1 (No Action)**. **Alternatives 2** and **3** would

have a decreased biological effect for other shallow water grouper species since harvest could continue after the gag quota had been met. However, ACLs are in place for the other shallow water grouper species, which would ensure overfishing of these species did not occur and harvest was maintained at sustainable levels.

Economic

The total loss in gross revenue under **Alternative 1 (No Action)** is estimated to be $1,239,950. This estimate is based on the total gross revenue from commercial trips targeting species in the SWG complex between October 20 and December 31 (since the 2012 closure was implemented on October 20), and that from landings of gag from trips targeting species other than SWG. The loss in gross revenue under **Alternative 2** is estimated to be $976,107 in absolute terms. However, relative to **Alternative 1 (No Action)**, **Alternative 2** would result in a gain of $263,843 in gross revenue. Under **Alternative 3**, the AM would be the same as under **Alternative 2**; however, the reduction in the ACL would partially offset that gain. Due to the unavailability of 2012 data, combined with the fact that the commercial ACL was exceeded in December of 2011, it is not possible to accurately predict how much earlier a closure would occur. Since the difference between the current and proposed ACL is 27,218 lbs (gw) and the average price per pound of gag in 2011 was $5.42, the loss in gross revenue due to the reduced ACL is estimated to be $147,522. The loss in gross revenue would be greater if the lower ACL causes the cancelation of trips targeting gag and the loss of all gross revenue from species harvested on those trips. Since the ACL would not be reduced under **Alternative 2**, the gain in gross revenue under **Alternative 2** would be $147,522 greater than under **Alternative 3** (i.e., the full $263,843). Thus, economic benefits are greatest under **Alternative 2**, followed by **Alternative 3**, and least under **Alternative 1 (No Action).**

Social

In terms of social impacts, **Alternatives 2** and **3** modifies the AM to allow harvest of shallow water grouper when gag closes and should have social benefits, as the continued harvest of these species would provide important revenues and prevent changes in fishing patterns. The reduction in the gag commercial ACL as a result of anticipated discards coming from continued harvest of shallow water grouper, as proposed in **Alternative 3,** may have negative social effects on gag fishermen, but should provide more protection for the stock and therefore be positive in the long-term. **Alternative 3** would best minimize negative biological effects for gag while having positive social effects for those individuals who would want to target other shallow water grouper species after the gag quota is met.

Recommendations

Scientific and Statistical Committee

The SSC noted that several lines of evidence indicate that red grouper can be targeted without overly impacting gag. Therefore, the SSC has no concerns with the Council moving forward with the grouper actions proposed in this amendment.

Snapper Grouper Advisory Panel

MOTION: AP SUPPORTS ALTERNATIVE 3 AS THE PREFERRED
APPROVED (1 OPPOSED AND 1 ABSTENTION)

MOTION: REQUEST THAT THE COUNCIL ASK NMFS FOR EMERGENCY ACTION TO RE-OPEN GAG AND SHALLOW-WATER GROUPER FISHING WITH A 50-POUND BYCATCH ALLOWANCE OF GAG
APPROVED (1 OPPOSED)

MOTION: CONSIDER AN ACCOUNTABILITY MEASURE THAT THE TRIP LIMIT BE REDUCED TO 300 POUNDS WHEN 75% OF THE GAG COMMERCIAL QUOTA IS LANDED.
APPROVED (1 OPPOSED)
Note: If the Council wants to consider a trip limit for gag, an alternative can be added and analyzed and the amendment would need to be approved in March. According to NMFS, regulations would still likely be in place in early fall, before ACLs would be expected to be met for gag and yellowtail snapper.

COMMITTEE ACTION: Choose preferred alternative for Action 3.

COMMITTEE ACTION: Approve Regulatory Amendment 15 for submission to the Secretary of Commerce.

COMMITTEE ACTION: Approve the codified text as necessary and appropriate.

COMMITTEE ACTION: Give staff and the Council chairman editorial license to make changes to the document as necessary prior to submission.