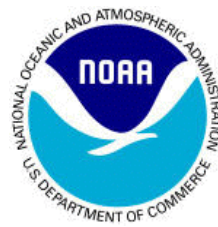


# Regulatory Amendment 14 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region

## DECISION DOCUMENT

Management measures for greater amberjack, gray triggerfish, hogfish, gag, black sea bass, and vermilion snapper; AMs for gag, and vermilion snapper



**JUNE 2013**

# List of Actions

1. Modify the fishing year for greater amberjack
2. Change the measurement method for gray triggerfish
3. Increase the minimum size limit for hogfish
4. Modify the fishing year for the black sea bass recreational sector
5. Modify the fishing year for the black sea bass commercial sector
6. Modify the commercial fishing seasons for vermilion snapper
7. Modify the aggregate grouper bag limit
8. Modify the **trip limits for the commercial sector** for gag
9. Modify the recreational accountability measure (AM) for vermilion snapper

## Purpose and Need

The **purpose** for the actions is to: modify the fishing year for greater amberjack; change the measurement method for gray triggerfish; increase the minimum size limit for hogfish; modify the commercial and recreational fishing years for black sea bass; change the commercial fishing season for vermilion snapper; modify the aggregate grouper bag limit; and revise the AMs for gag and vermilion snapper.

The **need** for actions is to: modify AMs for gag and vermilion snapper for consistency and accuracy; and **modify** management measures for greater amberjack, gray triggerfish, and hogfish to enhance socioeconomic benefits to fishermen and fishing communities that utilize the snapper grouper fishery, **and ensure overfishing of these species does not occur**.

## Recommendations

An IPT member proposes the following modification of the need statement:

Ensure commercial harvest of greater amberjack occurs during March of each year; allow for consistent management of gray triggerfish off South Atlantic states; reduce harvest of hogfish; allow harvest of black sea bass and vermilion snapper to occur during times of the year when harvest of co-occurring species is occurring; allow recreational harvest of gag to increase to achieve optimum yield; and ensure overfishing of gag and vermilion snapper does not occur.

**REQUIRED COMMITTEE ACTION:** Make changes as appropriate and approve purpose and need.

## SSC Statement

The Scientific and Statistical Committee (SSC) noted that not all the proposed changes provide socio-economic benefits. They felt that it was not possible to get a good grasp on the actual socioeconomic benefits to the entire snapper grouper fishery when there are some people for and some opposed to proposed actions. Due to the schedule and amount of analyses required, the SSC requests a

final opportunity to review this amendment after analyses are completed. Specifically, the SSC suggests that the socio-economic panel be given the opportunity to review in more detail by e-mail.

Additionally, the SSC recommends that socio-economic issues of this nature be prioritized in the South Atlantic Fishery Management Council's (South Atlantic Council) research priority plan given the increased need for this type of information and the high degree of uncertainty in socio-economic analysis—due to short timelines with regulatory amendment preparation as well as the relatively large number of changes in the management process.

# Proposed Actions

## Action 1. Modify the fishing year for greater amberjack

**Alternative 1 (No Action).** The current commercial fishing year begins on May 1 and ends on April 30.

**Alternative 2.** Modify the fishing year for greater amberjack to begin on January 1 and end on December 31.

**Alternative 3.** Modify the fishing year for greater amberjack to begin on March 1 and end on February 28.

## Recommendations

- The Snapper Grouper Advisory Panel recommends Alternative 1 (No Action).
- IPT needs clarification regarding whether Action 1 applies to commercial and recreational sectors or just the commercial sector. As the alternatives are written, the fishing year would be changed for both sectors.

## Summary of Effects

### *Commercial Sector*

With a fishing year beginning on May 1 and ending on April 30 (**Alternative 1, No Action**), it is expected that the commercial ACL of 800,163 lbs ww could be met during March if conditions were similar to those during the 2009 and 2010 fishing years (**Table D-1**). **Alternative 2** would begin fishing year in January and a closure of commercial harvest could potentially occur in September. **Alternative 3** would start the fishing year in March and harvest prohibitions could potentially occur in February based on landings from 2009/2010, and in December reflecting fishing year 2010/2011 (**Table D-1**).

Positive biological effects could be expected under **Alternative 3**, since a closure that overlaps with the January-April spawning season would provide more protection to the species. Under **Alternative 2**, the commercial sector would have closed in September, three months before the fishing year for 2010 and 2011 (**Table D-1**). Biological effects could be beneficial under **Alternative 2**, since there would be a total of four months (including the April closure) where harvest is not occurring; however, negative biological effects could occur when greater amberjack reopens in January, with fishers targeting the species heavily when the spawning period begins. As shown in **Table D-1**, there would not be a closure of the commercial sector for greater amberjack under landings that reflect fishing years 2006/2007, 2007/2008, and 2008/2009, under all three alternatives. Given the increased interest in the harvest of this species, biological benefits would be highest for **Alternative 1 (No Action)**, followed by **Alternative 3**, and **Alternative 2**.

**Table D-1.** Predicted closure dates for the commercial sector of greater amberjack under all three alternatives. Predicted closure dates came from the years of data of 2006-2011.

Fishing Year	Alternative 1 (No Action)	Alternative 3	Fishing Year	Alternative 2
	May-Apr	Mar-Feb		Jan-Dec
2006/2007	No Closure	No Closure	2007	No Closure
2007/2008	No Closure	No Closure	2008	No Closure
2008/2009	No Closure	No Closure	2009	No Closure
2009/2010	19-Mar	23-Feb	2010	25-Sep
2010/2011	4-Mar	6-Dec	2011	23-Sep

Note: Predicted closure dates reflect current commercial ACL of 769,388 lbs gw.

From the 2007/2008 season through the 2011/2012 season commercial landings for greater amberjack did not reach the ACL of 1,169,931 lbs gw (769,388 lbs gw for 2012/2013 season). If in the future the ACL is met or projected to be met, the April closure of the commercial season could be disruptive to fishing operations by potentially requiring two closures within the same fishing year if **Alternative 2** or **Alternative 3** is chosen as the preferred alternative for this action. The likelihood of the commercial ACL being met in the future is greater as the ACL was reduced to 800,163 lbs ww for the 2012/2013 season. Even with the more recent, lower ACL, landings in the 2012/2013 season would not have exceeded the current ACL. However, landings from the three previous seasons, 2009/2010 through 2011/2012, would have exceeded the current ACL.

On average, the highest landings for greater amberjack occur during the month of May, which historically has been the first month of the fishing year for greater amberjack (**Alternative 1, No Action**). However, as greater amberjack has not been closed early, there is no reason to think there is a derby occurring in this fishery. Neither **Alternative 2**, nor **Alternative 3** is expected to affect the landings patterns unless fishermen perceive the fishery will reach its ACL earlier and earlier prior to the end of the fishing year. According to **Table D-1**, regardless of the alternative selected, if fishing pressure remains as it was in the 2009/2010 season through the 2011/2012 season, it is expected that the season will close roughly 2 to 3 months prior to the end of the fishing year. Yet since the ACL wouldn't have been exceeded in 2012/2013, it is impossible to know whether it would be exceeded in future years. Therefore, it is not possible to know what the future economic effects of any of the alternatives of this action will be.

**Alternative 1 (No Action)** could have some negative impacts on the Florida communities that are engaged and reliant on greater amberjack. Some economic benefits to the commercial and for-hire fleets are missed due to migration of the fish out of the waters of the south Florida and Keys early in the current season starting May in addition to limited fishing opportunities in the area for private recreational anglers. **Alternative 2** would allow harvest for a longer period of time before a late spring migration and would provide access to the stock during Lent season. Additionally, under **Alternative 2**, greater amberjack would be more likely to be open during the tourism season during the winter in south Florida and the Florida Keys, which would benefit the communities and businesses associated with fishing tourism. **Alternative 3** would also allow harvest before the spring migration of the fish and for harvest during Lent, but could forfeit some social and economic benefits of the season open for winter tourists if the recreational ACL is met before the end of the season.

**Recreational Sector**

**Table D-2** shows predicted dates the ACLs would be met for the greater amberjack recreational sector. Following the same logic in the discussion of the alternatives for the commercial sector, biological benefits would be greatest for **Alternative 1 (No Action)**, followed by **Alternative 3**, and **Alternative 2**.

**Table D-2.** Predicted dates recreational ACL would be met for all three alternatives for the recreational sector of greater amberjack in the South Atlantic using data are from 2006-2011. The recreational landings include both MRFSS and HBS landings.

Fishing Year	Alternative 1	Alternative 3	Fishing Year	Alternative 2
	May-Apr	Mar-Feb		Jan-Dec
2006/2007	Not Met	Not Met	2007	Not Met
2007/2008	Not Met	Not Met	2008	20-Aug
2008/2009	30-Mar	22-Oct	2009	24-Aug
2009/2010	28-Dec	31-Aug	2010	Not Met
2010/2011	Not Met	Not Met	2011	Not Met

Note: Predicted dates reflect current recreational ACL of 1,167,837 lbs ww.

If the recreational ACL is met, then during the following fishing year, recreational landings will be monitored for a persistence in increased landings and, if necessary, the length of the following recreational fishing season will be reduced by the amount necessary to ensure recreational landings do not exceed the recreational ACL in the following fishing year. The relative ranking of alternatives based on their economic effects is possible only under the assumption that each alternative would result in a shortening of the following fishing season. Relative to **Alternative 1 (No Action)**, which would reduce the following recreational fishing for greater amberjack by 1 to 4 months, **Alternative 2** would result in 4 to 5 months reduction in the following fishing season, and **Alternative 3** about 3 months. These values under **Alternatives 2 and 3** are upper bounds, which assume a 1-month reduction in length of the following fishing season under **Alternative 1 (No Action)**, a 4-month reduction under **Alternative 2**, and a 6-month reduction under **Alternative 3**, as can be inferred from **Table D-2**. The general expectation is that a longer season, or shorter season reduction the year following an ACL overage, would be more economically beneficial to the recreational sector as it affords more fishing opportunities for anglers and more trips for the for-hire vessels. In this sense, **Alternative 1 (No Action)** may be ranked first, followed by **Alternative 2**, then **Alternative 3**.

The ranking of alternatives may be pursued further by estimating the relative changes in net operating revenue (NOR) under each alternative. Estimation results are presented in **Table D-3**. It is quite clear that **Alternative 3** would result in NOR reductions relative to **Alternative 1 (No Action)** and higher NOR reductions than **Alternative 2**. It would appear, however, that charter boats may be economically better off under **Alternative 2**.

**Table D-3.** Changes in for-hire angler trips and net operating revenues (NOR) due to Alternative 2 and Alternative 3 relative to Alternative 1 (No Action) for Action 1.

<b>Fishing Mode</b>	<b>Change in Angler Trips</b>	<b>Change in Net Operating Revenue</b>
<b>Alternative 2</b>		
Charter boats	174	\$12,219
Headboats	(709)	(\$111,567)
<b>TOTAL</b>	<b>(535)</b>	<b>(\$99,348)</b>
<b>Alternative 3</b>		
Charter boats	(22)	(\$1,578)
Headboats	(1,014)	(\$159,546)
<b>TOTAL</b>	<b>(1,037)</b>	<b>(\$161,124)</b>

Parentheses indicate negative numbers. Dollar values are in 2011 dollars.

**REQUIRED COMMITTEE ACTION:** Select preferred alternative.

## Action 2. Change the measurement method for gray triggerfish to have consistency between state and federal waters

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

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

**Alternative 3.** Specify a minimum size limit for gray triggerfish of 12 inches FL in federal waters off North Carolina, South Carolina, Georgia, and east Florida.

## Recommendations

- The Snapper Grouper Advisory Panel recommends Alternative 3.
- Alternative 3 also has the specification of a minimum size limit off the rest of the South Atlantic, but this alternative has nothing to do with consistency in measuring methods. IPT recommends that the action name and purpose be reworded.
- Name of action could be changed to “Modify Minimum Size Limit for Gray Triggerfish.”
- After public scoping for CE-BA 3 – which included actions to modify the size limits for both gray triggerfish and hogfish -- and a review of comments during the March 2012 meeting, the Council approved the following:  
MOTION #3: WAIT TO CONSIDER MEASURES FOR HOGFISH AND GRAY TRIGGERFISH UNTIL AFTER 2013 ASSESSMENTS.

## Summary of Effects

### *Commercial Sector*

There would be little difference in when the ACL would be met **Alternatives 1 (No Action)-3**, since the establishment of a minimum size limit would have very little effect on restricting commercial harvest of gray triggerfish (**Table D-4**). A minimum size limit of 12 inch FL for all South Atlantic states under **Alternative 3** could provide spawning opportunities for gray triggerfish. If release mortality is low, minimum sizes encourage the harvest of older, larger fish that have the greatest reproductive potential. Further, reduction in harvest under **Alternative 3**; albeit small, would be greater than **Alternative 2**. Therefore, biological benefits would be greatest for **Alternative 3**, followed by **Alternative 2**, and **Alternative 1 (No Action)** for the commercial sector.



**Table D-4.** Mean percent of commercial gray triggerfish landings less than 12 inches FL in the South Atlantic during 2007-2012.

MONTH	MEAN	SD
1	2%	2%
2	2%	1%
3	2%	1%
4	1%	1%
5	2%	1%
6	3%	1%
7	4%	4%
8	3%	3%
9	2%	1%
10	2%	3%
11	2%	3%
12	4%	1%

Increasing the size limit has the effect of at least temporarily increasing discards. More discards could reduce the profitability of any given trip. However, since the ACL is expected to be landed each season, any economic losses experienced from any given trip could be made up by the fleet through an extension of the season.

**Alternative 1 (No Action)** is not expected to have any economic effect. **Alternatives 2 and 3** are not expected to have an overall negative economic effect because the entire ACL is expected to be harvested each year. However, **Alternative 2** has the possibility of concentrating the individual trip losses in Florida. The expected direct economic effect of trigger fish lost to trips in Florida from **Alternative 2** is estimated to be \$9,369 based on an ACL of 305,262 lbs, a 2012 price per pound of \$1.28, and a reduction of 2.1%. The increased size limit would result in an average direct negative economic effect of \$12.78 per trip in Florida. However, these losses would be made up by vessels in Florida and other South Atlantic states through an extension of the season, making any overall net losses negligible.

**Alternative 1 (No Action)** would likely not result in any social impacts on North Carolina, South Carolina, or Georgia fishermen, but could have some negative impact on fishermen due to differences between state and federal regulations. Consistency in how the minimum size limit for gray triggerfish is measured (**Alternatives 2 and 3**) would be expected to improve compliance and help enforcement.

**Alternative 2** would not be expected to result in impacts to fishermen in North Carolina, South Carolina, or Georgia, but could affect fishermen in Florida. The change from TL to FL would likely improve compliance and enforcement, but also would increase the minimum size limit, which could have some impact on commercial fishermen and private anglers who want to keep the fish. However, many gray triggerfish landed are larger than the current size limit, so the impact in the immediate future could be minimal.

**Alternative 3** would be expected to result in similar impacts to Florida fishermen as **Alternative 2**, but have additional impacts for fishermen in North Carolina, South Carolina, and Georgia. The

expected reductions in landings are not significant, but the increased minimum size limit could have longer-term implications as effort for gray triggerfish continues to increase in North Carolina, South Carolina, and Georgia.

**Recreational Sector**

Under **Alternative 1 (No Action)**, the recreational sector ACL (implemented through the Comprehensive ACL Amendment) could be met as early as the end of August and as late as the beginning of October (**Table D-5**). Using the same years of data and the ACL proposed in Regulatory Amendment 13, the recreational ACL could be met as early as the end of July or not be met at all (**Table D-5**).

**Table D-5.** Predicted dates ACL would be met for all three alternatives for the recreational sector of gray triggerfish in the South Atlantic during 2009-2011. Analysis is based on the current ACL of 367,303 lbs ww using MRFSS data (Comprehensive ACL Amendment), as well as the recreational ACL of 353,638 lbs ww that will be implemented by Regulatory Amendment 13 using MRIP data.

Year	MRFSS + Headboat ACL = 367,303 lbs ww			MRIP + Headboat ACL = 353,638 lbs ww		
	Alt. 1 (No Action)	Alt. 2	Alt. 3	Alt. 1 (No Action)	Alt. 2	Alt. 3
	Date ACL is Met	Date ACL is Met	Date ACL is Met	Date ACL is Met	Date ACL is Met	Date ACL is Met
2009	24-Aug	26-Aug	1-Sep	27-Jul	28-Jul	30-Jul
2010	13-Sep	15-Sep	20-Sep	12-Sep	15-Sep	23-Sep
2011	1-Oct	3-Oct	10-Oct	23-Dec	Not Met	Not Met

**Alternative 2** would change the minimum size limit in federal waters of the east coast of Florida from 12 inches TL to 12 inches FL. This would translate to an increase of 1.54 inches in size, from 10.46 inches FL to 12 inches FL. The majority of harvested gray triggerfish are 12 inches FL and larger in both state and federal waters off Florida (see Figure 4.2.2. in draft document).

**Alternative 2** would have negligible effects on recreational harvest since the largest percent reductions in recreational landings in 2009-2011 would range from 1.25% (current ACL implemented by the Comprehensive ACL Amendment) to 3.52% (ACL proposed in Regulatory Amendment 13) (**Table D-6**). As a result the expected dates that the recreational ACL would be met during 2009-2011 under **Alternative 2** would be almost identical to **Alternative 1 (No Action)** (**Table D-5**). The biological benefit of **Alternative 2** would be slightly greater than **Alternative 1 (No Action)** since it would result in a slightly larger increase in the minimum size limit off Florida. If release mortality is low, minimum sizes encourage the harvest of older, larger fish that have the greatest reproductive potential.

**Table D-6.** Percent reductions in gray triggerfish landings for the recreational sector in the South Atlantic from changing the minimum size in Florida waters from 12 inches TL (10.46 inches FL) to 12 inches FL under Alternatives 2 and 3.

Year	MRFSS + Headboat		MRIP + Headboat	
	ACL = 367,303 lbs ww		ACL = 353,638 lbs ww	
	Alt. 2	Alt. 3	Alt. 2	Alt. 3
	% Reduction	% Reduction	% Reduction	% Reduction

2009	0.72	0.67	2.96	2.83
2010	1.10	1.11	3.52	3.99
2011	1.08	1.25	3.51	4.10

The reduction in harvest under **Alternative 3** would be greater than **Alternative 2**, with a maximum of 1.25% under the current ACL implemented by the Comprehensive ACL Amendment), and 4.10% under the ACL proposed in Regulatory Amendment 13 (**Table D-6**).

There would be little difference in when the ACL would be met under **Alternatives 1 (No Action) - 3** since the establishment of a minimum size limit would have very little effect on restricting harvest. A minimum size limit of 12 inch FL under **Alternative 3** could provide spawning opportunities for gray triggerfish. Therefore, biological benefits, although small, would be greatest for **Alternative 3**, followed by **Alternative 2**, and **Alternative 1 (No Action)**.

Although **Alternatives 2 and 3** are estimated to result in harvest reductions, the possibility that the recreational sector could harvest its entire ACL might result in AMs being triggered where the following fishing season is shortened. Therefore, **Alternatives 2 and 3** would be expected to maintain the same level of landings as **Alternative 1 (No Action)** such that total consumer surplus (CS) would remain unchanged. The dates that the ACL is expected to be met for **Alternative 1 (No Action)** and the other alternatives are very similar. Therefore, the change in net operating revenue (NOR) may be expected to be minimal. The very low target trips for gray triggerfish by anglers in charter boats preclude the estimation of NOR changes due to **Alternative 2** or **Alternative 3**.

**REQUIRED COMMITTEE ACTION:** Select preferred alternative.

## Action 3. Increase the minimum size limit for hogfish

**Alternative 1 (No Action).** Currently, the minimum size limit for hogfish is 12 FL in federal waters of the South Atlantic Region, and state waters of South Carolina, North Carolina, and Florida. There is no minimum size limit for hogfish in state waters of Georgia.

**Alternative 2.** Increase the minimum size limit for hogfish in federal waters to 13 inches FL.

**Alternative 3.** Increase the minimum size limit for hogfish in federal waters to 14 inches FL.

## Recommendations

- The Snapper Grouper Advisory Panel recommends Alternative 3.
- IPT recommends clarification that this action applies to both the commercial and recreational sectors.
- After public scoping for CE-BA 3 – which included actions to modify the size limits for both gray triggerfish and hogfish -- and a review of comments during the March 2012 meeting, the Council approved the following:

MOTION #3: WAIT TO CONSIDER MEASURES FOR HOGFISH AND GRAY TRIGGERFISH UNTIL AFTER 2013 ASSESSMENTS.

## Summary of Effects

### *Commercial Sector*

**Alternative 1 (No Action)** is providing the opportunity for some hogfish females to spawn, since they reach sexual maturity below the 12 inch FL minimum size limit. If discard mortality is low, however, a larger minimum size limit could enhance the reproductive potential of female hogfish. Male hogfish are larger than females, and because a single male controls a large harem of up to 15 females, increasing the minimum size limit would be expected to provide more protection to males, and could enhance reproductive output of the population.

Percent reductions in harvest would be higher under **Alternative 3** when compared with **Alternative 2** (**Table D-7**), and therefore, greater biological benefits would be expected under **Alternative 3**. **Alternative 1 (No Action)** would retain the minimum size limit at 12 inches FL, and with increased harvest of this species would provide the least biological benefit of the alternatives considered.

**Table D-7.** Percent reductions in South Atlantic commercial sector hogfish landings. The reductions were from increasing the minimum size limit and were calculated with TIP data from 2009-2011. The reductions were calculated in terms of hogfish weight (lbs ww).

Size Limit	Reduction
Alternative 2; 13 inches FL	1.1
Alternative 3; 14 inches FL	1.6

The current commercial ACLs would not have been met for hogfish under all three alternatives 2007-2009 (**Table D-8**). The proposed commercial ACL in from Regulatory Amendment 13, which incorporates MRIP data (49,469 lbs ww) would also have been met in 2010 and 2011 under the current

12-inch FL size limit (**Alternative 1, No Action**). However, it would have taken longer for the recreational ACL to be met at a 14-inch FL minimum size limit, as proposed under **Alternative 3 (Table D-8)**. The commercial ACL was not met in 2012.

**Table D-8.** Predicted closure dates for all three Alternatives of Action 3 of the Regulatory Amendment 14 for the South Atlantic hogfish commercial sector. Predicted closure dates came from the years of data of 2007-2011, and are based on the commercial ACLs of 48,772 lbs ww from the Comprehensive ACL Amendment and 49,469 lbs ww from Regulatory Amendment 13.

Year	ACL = 48,772 lbs ww			ACL = 49,469 lbs ww		
	Alt 1	Alt 2	Alt 3	Alt 1	Alt 2	Alt 3
	Closure Date	Closure Date	Closure Date	Closure Date	Closure Date	Closure Date
2007	No Closure	No Closure	No Closure	No Closure	No Closure	No Closure
2008	No Closure	No Closure	No Closure	No Closure	No Closure	No Closure
2009	No Closure	No Closure	No Closure	No Closure	No Closure	No Closure
2010	29-Nov	5-Dec	6-Dec	5-Dec	11-Dec	12-Dec
2011	2-Oct	3-Oct	4-Oct	4-Oct	5-Oct	6-Oct

**Recreational Sector**

As female hogfish reach sexual maturity below the current minimum size limit, **Alternative 1 (No Action)** is providing the opportunity for some hogfish females to spawn. If discard mortality is low, however, a larger minimum size limit could enhance the reproductive potential of hogfish. Male hogfish are larger than females, and because a single male controls a large harem of up to 15 females, increasing the minimum size limit would be expected to provide more protection to males, and could enhance reproductive output of the population.

Percent reductions in harvest would be higher under **Alternative 3** when compared with **Alternative 2 (Table D-9)**, and therefore, greater biological benefits would be expected under **Alternative 3**. **Alternative 1 (No Action)** would retain the minimum size limit at 12 inches FL, and with increased harvest of this species would provide the least biological benefit of the alternatives considered.

**Table D-9.** Percent reductions in hogfish landings for the recreational sector by increasing the minimum size limit.

Harvest reductions were calculated in terms of hogfish weight (lbs ww) in federal waters.

Mode	Recreational Survey	Headboat
<b>Alternative 2, 13 inches FL</b>	13.6%	9.6%
<b>Alternative 3, 14 inches FL</b>	28.2%	12.9%

The current (based on MRFSS) and proposed (based on MRIP) recreational ACLs would not have been met for hogfish under all three alternatives in the last five years, except for 2007 when landings were highest (**Table D-10**). The proposed recreational ACL based on MRIP data (85,335 lbs ww) would also have been met in 2009 under the current 12-inch FL size limit (**Alternative 1, No Action**). However, it would have taken longer for the recreational ACL to be met at a 14-inch FL minimum size limit, as proposed under **Alternative 3**, in 2007 compared to **Alternative 2** and **Alternative 1 (No Action)**, under both MRFSS and MRIP ACLs (**Table D-10**).

**Table D-10.** Predicted dates the recreational ACLs would have been met for all three alternatives in Action 3 for the hogfish in the South Atlantic.

Predicted dates reflect data during 2007-2011, and are based on the recreational MRFSS ACL of 98,866 lbs ww and MRIP ACL of 85,335 lbs ww. The recreational landings include both recreational survey data (MRFSS and MRIP) and headboat landings.

Year	MRFSS & Headboat ACL = 98,866 lbs ww			MRIP & Headboat ACL = 85,355 lbs ww		
	Alternative 1 (No Action); 12 in FL Date ACL is Met	Alternative 2; 13 in FL Date ACL is Met	Alternative 3; 14 in FL Date ACL is Met	Alternative 1 (No Action); 12 in FL Date ACL is Met	Alternative 2; 13 in FL Date ACL is Met	Alternative 3; 14 in FL Date ACL is Met
2007	11-Aug	26-Aug	12-Oct	8-Aug	23-Aug	2-Nov
2008	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
2009	Not Met	Not Met	Not Met	12-Dec	Not Met	Not Met
2010	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met
2011	Not Met	Not Met	Not Met	Not Met	Not Met	Not Met

The reduction in landings presented in **Table D-10** above would directly result in consumer surplus (CS) reductions for recreational anglers, with reductions being larger under **Alternative 3** than under **Alternative 2**. It cannot be ascertained whether the landings reduction would, in turn, result in angler trip cancellations particularly in for-hire vessels, so net operating revenue (NOR) may or may not change under **Alternative 2** or **Alternative 3**.

According to **Table D-10**, the recreational fishing season for hogfish would be about the same for all three alternatives, therefore, it is very likely the number of for-hire angler trips for hogfish would be the same for all alternatives. Thus, no NOR effects may be expected from **Alternative 2** or **Alternative 3**.

The CS effects of raising the minimum size limit for hogfish are presented in **Table D-11**. The estimated reductions in CS are solely due to reductions in landings attributable to increasing the minimum size limit for hogfish. The length of the fishing season does not matter for purposes of estimating the CS changes.

**Table D-11.** Changes in number of fish and consumer surplus (CS) due to Alternative 2 and Alternative 3 relative to Alternative 1 (No Action) for Action 3.

	Change in Number of Fish	Change in Consumer Surplus
<b>Alternative 2</b>		
Headboats	(26)	(\$847)
Others (Charter, Private, Shore)	(4,815)	(\$154,086)
TOTAL	(4,842)	(\$154,932)
<b>Alternative 3</b>		
Headboats	(36)	(\$1,137)
Others (Charter, Private, Shore)	(9,984)	(\$319,501)
TOTAL	(10,020)	(\$320,639)

Parentheses indicate negative numbers. CS are in 2011 dollars.

**Alternative 1 (No Action)** would not be expected to result in any immediate social impacts to recreational fishermen, for-hire fleets, and communities, although it could have some impact in the future if fishing pressure negatively impacts the hogfish stock. **Alternatives 2 and 3** would be expected

to have some negative impact on the recreational sector because the increased minimum size limit would reduce landings, particular in the private recreational sector (**Table D-11**).

The increased minimum size limits under **Alternatives 2** and **3** could also have local impacts on hogfish in south Florida and the Florida Keys. Hogfish is an important part of local cuisine and a popular recreational species, although some fishermen report that larger hogfish are not as available in south Florida as in other parts of the South Atlantic. An increased minimum size limit could have negative social impacts on this region.

**REQUIRED COMMITTEE ACTION:** Select preferred alternative.

## Action 4. Modify the fishing year for the black sea bass recreational sector

**Alternative 1 (No Action).** The recreational fishing year for black sea bass begins on June 1 and ends on May 31.

**Alternative 2.** Modify the recreational fishing year for black sea bass to begin on January 1 and end on December 31.

**Alternative 3.** Modify the recreational fishing year for black sea bass to begin on April 1 and end on March 31.

**Alternative 4.** Modify the recreational fishing year for black sea bass to begin on October 1 and end on September 30.

**Alternative 5.** Modify the recreational fishing year for black seas bass to begin on May 1 and end on April 30.

## Recommendations

The Snapper Grouper Advisory Panel recommends Alternative 3.

## Summary of Effects

Because currently the start of the fishing year is after peak spawning of black sea bass, and the recreational ACL proposed in Regulatory Amendment 19 Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP; SAFMC 2013b) is likely to be met at the beginning of the spawning season, **Alternative 1 (No Action)** is the most likely alternative to protect black sea bass when they are in spawning condition (**Table D-12**). However, black sea bass do not form temporary spawning aggregations like grouper species, and are not considered to be vulnerable to overfishing during the spawning season like shallow water grouper species. With the exception of vermilion snapper, shallow water grouper species are closed to harvest during January-April. Regulatory Amendment 18 to the Snapper Grouper FMP (SAFMC 2013a), which has been approved by the South Atlantic Council, would remove the November-March recreational closure for vermilion snapper. Therefore, fishermen are likely to catch and discard black sea bass during January-May when targeting vermilion snapper. However, survival of released vermilion snapper is expected to be high since the release mortality is estimated to be only 7%.

**Alternative 2** would allow fishing to begin on black sea bass when the spawning season begins, and the recreational ACL would not be expected to be met until well after the spawning season had ended (**Table D-12**). Further, fishing would occur when co-occurring shallow water groupers. However, recreational catch of black sea bass is most likely to occur when fishermen target vermilion snapper. Therefore, allowing the fishing year to begin on January 1 would allow fishermen to target black sea bass and vermilion snapper on the same trips, which would be expected to reduce bycatch of black sea bass during January-May when compared to **Alternative 1 (No Action)**. The black sea bass recreational fishing season is not expected to last all year; whereas, Regulatory Amendment 18 (SAFMC 2013a) projects that the recreational vermilion snapper ACL will not be met. Therefore, regardless of when the recreational fishing year starts for black sea bass, it is expected that there will be



a period of time when vermilion snapper will be open and black sea bass will be closed. However, survival of incidentally caught black sea bass when fishermen target vermilion snapper is expected to be very good.

**Table D-12.** Projected closure dates and season length (days) for Action 4 recreational fishing season alternatives under three different projection model runs, with 95% confidence intervals. Note these projections use the 2014 ACL from Regulatory Amendment 19 of 1,033,980 lbs ww.

ACTION 4 Alternative	SARIMA			2012 (Jun-Aug), SARIMA (Sept-May)			GLM (Seasonal)		
	Mean	L95%	U95%	Mean	L95%	U95%	Mean	L95%	U95%
Alternative 1 (No Action): June 1-May 31	20-Sep 111	28-Oct 149	29-Aug 89	23-Dec 205	27-Feb 271	25-Nov 177	14-Nov 166	27-Mar 299	7-Sep 98
Alternative 2: January 1-December 31	2-May 121	6-Jun 156	7-Apr 96	18-Jun 168	10-Sep 252	15-May 134	14-Jul 194	28-Sep 270	3-Jun 153
Alternative 3: April 1-March 31	17-Jul 107	18-Aug 139	27-Jun 87	8-Oct 190	8-Dec 251	10-Sep 162	21-Aug 142	24-Nov 237	6-Jul 96
Alternative 4: October 1-September 30	31-Jan 122	16-Mar 166	4-Jan 95	9-Apr 190	17-Jun 259	21-Feb 143	20-May 231	18-Jul 290	2-Apr 183
Alternative 5: May 1-April 30	15-Aug 106	17-Sep 139	27-Jul 87	11-Nov 194	10-Jan 254	15-Oct 167	24-Sep 146	4-Jan 248	31-Jul 91

**Alternative 3** would provide greater protection to black sea bass in spawning condition than **Alternative 2** since the spawning season begins in January 1; however, it would allow fishing for black sea bass to occur during the peak spawning months of April and May. Under **Alternative 3**, harvest of black sea bass would be prohibited during most of the January-April spawning season closure for shallow water grouper species. However, some bycatch of black sea bass would be expected to occur during January-March when recreational fishermen target vermilion snapper. As mentioned previously survival of released black sea bass is estimated to be 93%.

Under **Alternative 4**, the recreational fishing year would begin on October 1. Similar to **Alternative 2**, this alternative could allow for fishing activity to continue during months of peak spawning for black sea bass and would have fewer biological effects than **Alternatives 1 (No Action)** and **3 (Table D-12)**. Like **Alternative 2**, harvest for black sea bass would occur when fishermen are targeting vermilion snapper.

**Alternative 5** would modify the recreational fishing year to begin on May 1. Depending on the rate of daily catch and fishing effort, the season could close in August or last until November (**Table D-12**). Similar to **Alternative 3**, this alternative would result in black sea bass being closed during part of the peak spawning months and thus would impart a similar level of biological benefit to the black sea bass stock. The opening of black sea bass would occur when shallow water grouper species open, but there would be some incidental catch of black sea bass when recreational fishermen target vermilion snapper during January-April.

The major economic effect of changing the fishing year would be in the form of altering the distribution of consumer surplus (CS) among anglers across fishing modes and states. Generally, the distribution of CS would favor those anglers in fishing modes and states that would have first access to the black sea bass resource through a fishing year change.

It is likely that the length of the fishing season for black sea bass would differ among the various alternatives. This would create differing opportunities for trips taken by for-hire vessels. In general, a longer season would allow for more for-hire vessel trips, thus allowing these vessels to generate higher net operating revenue (NOR).

There could be some localized social impacts due to a change in the start date. For example, the start date of January 1 under **Alternative 2** would likely be the least beneficial for North Carolina and South Carolina if the recreational ACL is met before weather allows for fishing in the northern states. However, **Alternative 2** could be beneficial to fishermen in Florida due to no contribution from the other states to the black sea bass ACL. An opening in October under **Alternative 4** could impact recreational fishing opportunities due to hurricane season, holidays, school schedules, etc. **Alternatives 3** and **5** would likely not have specific impacts on areas, but most likely have impacts across the region based on season length.

**REQUIRED COMMITTEE ACTION:** Select preferred alternative.

## Action 5. Modify the fishing year for the black sea bass commercial sector

**Alternative 1 (No Action).** The commercial fishing year for black sea bass begins on June 1 and ends on May 31.

**Alternative 2.** Modify the commercial fishing year for black sea bass to begin on July 1 and end on June 30.

**Alternative 3.** Open the black sea bass commercial season only to the hook and line sector on January 1, with a trip limit of 50 pounds. The trip limit ends with the opening of the black sea bass pot season.

**Alternative 4.** Open the black sea bass commercial season only to the hook and line sector on May 1, with a trip limit of 50 pounds. The trip limit ends with the opening of the black sea bass pot season.

**Alternative 5.** Consider a closed season for the black sea bass pot fishery from November 15 through April 15.

**Alternative 6.** Modify the commercial fishing year for black sea bass to begin on May 1 and end on April 30.

## Recommendations

- The Snapper Grouper Advisory Panel recommends that the South Atlantic Council choose Alternative 3 as the preferred but change the trip limit to 100 pounds.
- Alternatives 3 and 4: What is the fishing year?

Under Alternative 3, the hook and line sector would open on January 1. If the season is still June 1-May 30, then it wouldn't need to specially "open" on January 1, because it would already be open. However, if the ACL had been reached it would be closed and unable to open.

Under Alternative 3, the hook and line sector would open on May 1, but again, if the season were June 1-May 30 and the ACL were not yet reached, the hook and line sector would already be open on May 1. These alternatives only make sense if the fishing season is either January 1-December 31 for Alternative 3 or May 1-April 30 for Alternative 4, with the pot season opening on June 1. Is that the intent? If so, these alternatives should be reworked.

- Alternatives 3 and 4: The Advisory Panel recommended a trip limit of 100 lbs. Need to clarify if the hook and line trip limit would be in whole weight or gutted weight. The current trip limit is 1,000 lbs gw.
- What is the 'No Action' alternative?

If Regulatory Amendment 19 is implemented prior to Regulatory Amendment 14 (and there is a reasonable belief that this will be true), then the No Action alternative would be: “The commercial fishing year for black sea bass begins on June 1 and ends on May 31, with a closed season for black sea bass pots from November 1 to April 30”.

- Alternative 5 should be reworded:
  - “Consider” should be changed to “Implement”.
  - Per Reg 19, the closed season should be November 1 to April 30.
  - If the South Atlantic Council picks any of the other season alternatives, this alternative no longer makes sense. Thus, it should probably be a sub-alternative under the various season alternatives. The same is also true for Alternatives 3 & 4.
  - Alternative 5 could be removed as it is essentially the same as the no action alternative, assuming Regulatory Amendment 19 is implemented.

**Proposed Revision #1 (with proposed closure in Reg 19):**

**Action 5. Modify the fishing year for the black sea bass commercial sector**

**Alternative 1 (No Action).** The commercial fishing year for black sea bass begins on June 1 and ends on May 31, with a closed season for black sea bass pots from November 1 to April 30.

**Alternative 2.** Modify the commercial fishing year for black sea bass to begin on July 1 and end on June 30, with a closed season for black sea bass pots from November 1 to April 30.

**Alternative 3.** Modify the commercial fishing year for black sea bass to begin on January 1 and end on December 31, with closed seasons for black sea bass pots from January 1-June 1 and November 1 to December 31.

**Sub-alternative 3a.** Implement a 50 lb gw trip limit for the hook and line sector from January 1 - June 1.

**Sub-alternative 3b.** Implement a 100 lb gw trip limit for the hook and line sector from January 1 - June 1.

**Alternative 4.** Modify the commercial fishing year for black sea bass to begin on May 1 and end on April 30, with closed seasons for black sea bass pots from May1-June 1 and November 1 to April 30.

**Sub-alternative 4a.** Implement a 50 lb gw trip limit for the hook and line sector from May 1 - June 1.

**Sub-alternative 4b.** Implement a 100 lb gw trip limit for the hook and line sector from May 1 - June 1.

If the South Atlantic Council only wants to consider a 100-lb gw trip limit, we could either incorporate that into the alternatives or eliminate one sub-alternative under both Alternatives 3 and 4.

**Proposed Revision #2 (considers removal of pot closure):**

**Alternative 2.** Modify the commercial fishing year for black sea bass to begin on July 1 and end on June 30.

**Sub-alternative 2a (No Action).** Maintain the closed season for black sea bass pots from November 1 to April 30.

**Sub-alternative 2b.** Remove the closed season for black sea bass pots from November 1 to April 30.

**Alternative 3.** Modify the commercial fishing year for black sea bass to begin on January 1 and end on December 31.

**Sub-alternative 3a.** Implement a 50 lb gw trip limit for the hook and line sector from January 1 - June 1.

**Sub-alternative 3b.** Implement a 100 lb gw trip limit for the hook and line sector from January 1 - June 1.

**Sub-alternative 3c (No Action).** Maintain closed seasons for black sea bass pots from January 1-April 30 and November 1 to December 31.

**Sub-alternative 3d.** Implement closed seasons for black sea bass pots from January 1-June 1 and November 1 to December 31. Maintain the June 1 fishing year start date.

**Sub-alternative 3e.** Remove closed seasons for black sea bass pots from January 1-April 30 and November 1 to December 31.

**Alternative 4.** Modify the commercial fishing year for black sea bass to begin on May 1 and end on April 30, with closed seasons for black sea bass pots from May1-June 1 and November 1 to April 30.

**Sub-alternative 4a.** Implement a 50 lb gw trip limit for the hook and line sector from May 1 - June 1.

**Sub-alternative 4b.** Implement a 100 lb gw trip limit for the hook and line sector from May 1 - June 1.

**Sub-alternative 4c (No Action).** Maintain the closed season for black sea bass pots from November 1 to April 30.

**Sub-alternative 4d.** Implement closed seasons for black sea bass pots from May 1-June 1 and November 1 to April 30. Maintain the June 1 fishing year start date.

**Sub-alternative 4e.** Remove the closed season for black sea bass pots from November 1 to April 30.

## Summary of Effects

**Alternative 1 (No Action)** could result in the commercial June-May black sea bass season lasting all, or closing in May (**Table D-13**). If Regulatory Amendment 19, which has been approved by the South Atlantic Council, implements a closure for pot gear from November 1 to April 30, then **Alternative 1 (No Action)** would result in the commercial season remaining open for pots until the end of October, but fishing with vertical line gear could extend into May, with a reopening of pot gear in May through the end of the season.

**Alternative 2** would change the start date of the commercial fishing year to July 1, the ACL might be met by May, but no closure was possible under some scenarios (**Table D-13**). Since pot gear would be prohibited as of November 1, then commercial fishing for black sea bass using vertical lines could continue for during the 6 months pots are closed. **Alternative 2** would allow fishing to begin when the second fishing season for vermilion snapper begins. Allowing both black sea bass and vermilion snapper to start on the same date could reduce incidental catch of vermilion snapper in June, and could extend both fishing seasons. **Alternative 2** would allow the fishing year to start after the spawning

season for black sea bass had ended, and would allow for some black sea bass to be caught in the beginning of the spawning season. The biological effects of **Alternative 2** would be expected to be very similar to **Alternative 1 (No Action)** on black sea bass when spawning season begins, and the recreational ACL would not be expected to be met until well after the spawning season had ended. Further, fishing would occur when co-occurring shallow water groupers.

**Alternative 3** would open the black sea bass commercial season to only the hook and line sector beginning on January 1, with a trip limit of 50 lbs gw. The hook and line trip limit would end with the opening of the black sea bass pot season. **Alternative 3** would allow black sea bass to be caught with hook and line gear during their spawning season; however, the magnitude of black sea bass harvest with hook and line gear has, historically, been pretty small. In past years, the black sea bass pot sector has harvested about 90% of the black sea bass landings. This alternative could reduce bycatch of black sea bass. However, survival of released black sea bass is estimated to be very good (93%); therefore, the biological benefits of **Alternative 3** would not be very large.

**Alternative 4** is similar to **Alternative 3**, with the exception that it would open the black sea bass commercial season to only the hook and line sector on May 1, with a trip limit of 50 lbs gw. The trip limit would end with the opening of the black sea bass pot season. This alternative would open harvest of black sea bass with hook and line gear when harvest for shallow water grouper begins following the January-April spawning season closure. However, unlike **Alternative 3**, harvest of black sea bass with hook and line gear would not occur when commercial harvest for vermilion snapper would occur as Regulatory Amendment 18 (SAFMC 2013) estimates the commercial ACL would be met in March with a 1,000 lb gw trip limit. As black sea bass are more commonly taken as incidental catch with fishermen targeting vermilion snapper than when targeting shallow water grouper species, **Alternative 4** would be less effective at reducing bycatch of black sea bass than **Alternative 3**.

**Alternative 5**, is identical to **Alternative 1 (No Action)** with the exception that that the pot closure would from November 15 through April 15 instead of November 1 through April 1. **Alternative 6** would open commercial fishing for black sea bass on May 1, which could result in the ACL being met as early as September or as late as no closure. In general, the shorter the fishing season, the higher the biological benefit for black sea bass. Therefore, the most simplistic interpretation of the analyses would translate into **Alternative 1 (No Action)** being the most biologically beneficial among the alternatives proposed. However, there could be increased biological benefits from **Alternatives 3 and 4**, which would allow fishermen to retain incidentally caught black sea bass when using hook and line gear.

**Table D-13.** Projected closure dates and season length (days) for Action 5 commercial fishing season alternatives under four different projection model runs. Note these model runs assume a commercial ACL of 780,020 lbs ww (661,034 lbs gw) (Regulatory Amendment 19 Preferred Alternative).

ACTION 5 Alternative	SARIMA Projection					
	Using 2012 Catch	Using 2011* Catch	Using In-Season Projection	L95%	MEAN	U95%
1 (No Action): June 1-May 30	No Closure 365	No Closure 365	2-May 335	24-May 357	1-May 334	10-Oct 131
2: July 1-June 30	No Closure 365	9-Jun 343	2-May 305	24-May 327	5-May 308	24-Jan 207
3: Hook and Line (Jan 1-June 1, Trip Limit = 50 lbs)						
4: Hook and Line (May 1-June 1, Trip Limit = 50 lbs)						
5: Pot Closure (Nov 15-Apr 15)	19-May 352	21-Mar 293	2-Nov 154	13-Feb 257	1-Nov 153	10-Oct 131
6: May 1-Apr 30	No Closure 365	28-Dec 241	2-Oct 154	21-Oct 173	18-Sep 140	20-Aug 111

\*uses 2012 catch rates for gear other than pot gear.

Actions 3 and 4 need clarification regarding fishing season.

Action 5 is inconsistent with Regulatory Amendment 19 and Large Whale period of vulnerability (Nov 1-Apr 30).

In terms of economic impacts, **Alternative 2** has the potential for the greatest positive direct economic effect for commercial black sea bass fishermen. **Alternatives 3** and **4** also have the potential for positive direct economic effects for hook and line fishermen, with **Alternative 3** having a greater potential positive economic benefit than **Alternative 4** because it would allow for the bycatch provision earlier in the year. **Alternative 1 (No Action)** is not expected to have additional positive or negative economic effects. **Alternative 6** has the potential for a negative direct economic effect when compared to **Alternative 2**, because of the potential for reduced ex-vessel value for black sea bass during the month of May when the black sea bass fishery north of Cape Hatteras is open. **Alternative 5** has potential for negative direct economic effects to the black sea bass pot sector of the commercial snapper grouper fishery. The potential size of the effect would increase the later in the year the black sea bass pot sector would open.

The possible social impacts on the black sea bass pot sector of the snapper grouper fishery will primarily be associated with a closure due to right whale calving season. In recent years the commercial sector has closed before the right whales are in the South Atlantic region starting in November, but the proposed increased ACL could delay a closure into calving season. The proposed pot sector closure from November 1- April 30 in Regulatory Amendment 19 (SAFMC 2013b), which is under review, could negatively impact the pot sector if the commercial ACL is not met before November 1. Therefore, any proposed alternatives that could contribute to allowing the pot fishermen to land as much of the ACL before the right whale calving season would be the most beneficial. Under this scenario, **Alternative 1 (No Action)** would be more beneficial to the pot fishermen than **Alternative 6** or **Alternative 2**. **Alternative 5** would likely have minimal additional effects as the closure in Regulatory Amendment 19.

For the hook and line sector, there may be some benefit in removing pot effort through the right whale closure under **Alternatives 3 and 4**. However, the rate of harvest would be limited through the low trip limits, which could also affect efficiency of the trips.

**REQUIRED COMMITTEE ACTION:** Select preferred alternative.



## Action 6. Modify the commercial fishing seasons for vermilion snapper

**Alternative 1 (No Action).** The commercial fishing year for vermilion snapper is split into two seasons of equal duration, each with its own ACL. The first season begins on January 1 and ends on June 30 (6 months). The second season begins on July 1 and ends on December 31 (6 months). The commercial ACL is split equally between the two seasons.

**Table D-14.** ABC/ACLs and commercial split season ACLs using the current fishing season for 2013-2016 based on the recent SEDAR assessment and the South Atlantic Council/SSC-approved ABC control rule. New ABCs and ACLs are specified in Regulatory Amendment 18 (SAFMC 2013), which is under review.

Year	ABC ww	Total ACL ww	Comm ACL ww	Comm ACL Jan-June ww	Comm ACL July-Dec ww
2013	1,372,000	1,372,000	932,960	466,480	466,480
2014	1,312,000	1,312,000	892,160	446,080	446,080
2015	1,289,000	1,289,000	876,520	438,260	438,260
2016	1,269,000	1,269,000	862,920	431,460	431,460

**Alternative 2.** The commercial fishing year for vermilion snapper is split into two seasons, each with its own ACL. 100% of the new ACL implemented through Regulatory Amendment 18 is applied to the second season.

**Sub-alternative 2a.** Second season start date remains at July 1.

**Sub-alternative 2b.** Second season start date begins on June 1.

**Sub-alternative 2c.** Second season start date begins on May 1.

**Table D-15.** ABC/ACLs and commercial split season ACLs using the current fishing season for 2013-2016 based on the recent SEDAR assessment and the South Atlantic Council/SSC-approved ABC control rule. 100% of increased ACL applied to second season. Previous total ACL was 653,045 lbs ww. New ABCs and ACLs are specified in Regulatory Amendment 18 (SAFMC 2013), which is under review

Year	ABC ww	Total ACL ww	Comm ACL ww	Season 1	Season2
2013	1,372,000	1,372,000	932,960	326,527	606,433
2014	1,312,000	1,312,000	892,160	326,527	565,633
2015	1,289,000	1,289,000	876,520	326,527	549,993
2016	1,269,000	1,269,000	862,920	326,527	536,393

**Alternative 3.** The commercial fishing year for vermilion snapper is split into two seasons, each with its own ACL. 25% of the new ACL implemented through Regulatory Amendment 18 is applied to the first season and 75% of the new ACL implemented through Regulatory Amendment 18 is applied to the second season.

**Sub-alternative 3a.** Second season start date remains at July 1.

**Sub-alternative 3b.** Second season start date begins on June 1.

**Sub-alternative 3c.** Second season start date begins on May 1.

**Table D-16.** ABC/ACLs and commercial split season ACLs using the current fishing season for 2013-2016 based on the recent SEDAR assessment and the South Atlantic Council/SSC-approved ABC control rule. 25% of increased ACL applied to first season and 75% to second season. Previous total ACL was 653,045 lbs ww. New ABCs and ACLs are specified in Regulatory Amendment 18 (SAFMC 2013), which is under review

Year	ABC ww	Total ACL ww	Comm ACL ww	Season 1	Season 2
2013	1,372,000	1,372,000	932,960	396,504	536,457
2014	1,312,000	1,312,000	892,160	386,304	505,857
2015	1,289,000	1,289,000	876,520	382,394	494,127
2016	1,269,000	1,269,000	862,920	378,994	483,927

## Recommendations

- The Snapper Grouper Advisory Panel recommends Alternative 1 (No Action).

## Summary of Effects

The biological consequences for changing split season commercial ACLs, and modifying the start of the two fishing seasons of vermilion snapper under **Alternatives 2** and **3** (and their related sub-alternatives) are likely to be neutral since overall harvest would be limited to the sector ACL and split-season ACLs, and AMs would be triggered if the ACLs were exceeded. If the second season for vermilion snapper were to start in June (**Sub-Alternatives 2b** and **3b**), vermilion snapper discards would be expected during May when fishing began for shallow water groupers. However, reduced discards of vermilion snapper could be expected in discards if the fishing year start for black sea bass were to remain at June 1. If the second fishing season were to begin in May, then discards of vermilion snapper would be expected after the quota for the species is met, while shallow water grouper and black sea bass remained open.

Quota-monitoring efforts have improved over the past year, which would reduce the risk that the commercial ACL would be exceeded. Relative to **Sub-Alternatives 2b** and **3b**, bycatch of black sea bass would be greater under **Sub-Alternatives 2c** and **3c** since black sea bass could be closed during May and would be incidentally caught when fishermen are targeting vermilion snapper. However, as the release mortality of black sea bass is low, negative biological effects for black sea bass would be expected to be small

In terms of economic effects, Action 6 is largely a management decision as to when the fish are to be caught. Since the commercial ACL has been caught each year, and assuming there are no significant seasonal price per pound fluctuations for vermilion snapper, there are no differences in the economic effects for when the seasons begin, or what percentage of the overall ACL goes to either season. It should be noted that the commercial vermilion snapper sector has not been effectively constrained by its ACL. Even with the increase in ACL, should the commercial sector be kept within its ACL in the future, commercial fishermen cannot expect the seasons to be extended in the future.

Currently the commercial sector of the vermilion fishery exists under derby conditions, in which the split quota is met and sometimes exceeded in just a few weeks. In addition to concerns about safety at sea that arise from the race to fish, the derby periods result in a large amount of vermilion snapper on

the market in a very short period of time. This may cause reduced market value and lower product quality, and the bust-and-boom nature of the commercial vermilion snapper sector may hinder business stability and steady job opportunities for captain and crew.

**REQUIRED COMMITTEE ACTION:** Select preferred alternative.

## Action 7. Modify the aggregate grouper bag limit

**Alternative 1 (No Action).** The current aggregate grouper bag limit is 3 fish per person per day. Within this limit, only one fish can be a gag or black grouper.

**Alternative 2.** Modify the aggregate grouper bag limit.

**Sub-alternative 2a.** Increase the aggregate grouper bag limit from 3 to 4 fish. Within this limit, two fish can be gag. The bag limit for black grouper will remain at one fish.

**Sub-alternative 2b.** Increase the aggregate grouper bag limit from 3 to 4 fish. Within this limit, 1 fish can be a gag. The bag limit for black grouper will remain at one fish.

**Alternative 3.** Do not increase the aggregate grouper bag limit, but allow for retention of 2 gag. Maintain black grouper at 1 fish within that aggregate.

**Alternative 4.** Do not increase the aggregate grouper bag limit, but allow for retention of 2 gag. Maintain black grouper at 1 fish within that aggregate. If at the end of any season, it is determined that the recreational sector has exceeded its gag ACL, the bag limit will be reduced to 1 fish.

## Recommendations

The Snapper Grouper Advisory Panel recommends Alternative 1 (No Action).

## Summary of Effects

During 2010-2011, most trips harvesting the one fish gag/black grouper bag limit harvested gag. Therefore, if a bag limit of one gag is established there would be very little change in harvest (**Alternative 1, No Action** and **Sub-alternative 2b**). However, establishing a bag limit of two gag could allow 42% more gag to be caught (**Sub-alternative 2a, Alternative 3, and Alternative 4**). A stock assessment of gag was conducted in 2006, using data through 2004 (SEDAR 10 2006) indicated that the gag stock was undergoing overfishing as of 2004 (last year of data in the stock assessment) but was not overfished. Therefore, theoretically, biological benefits would be higher under alternatives that do not increase the bag limit of gag. However, as shown in **Table D-17**, over 45% of the recreational ACL has not been met in the past three years.

**Table D-17.** Gag recreational landings (lbs gw), ACL, and percent (%) ACL harvested during 2010-2012.

Year	Landings (lbs gw)	ACL (lbs gw)	ACL (%)
2010	171,841	340,060	50.5 %
2011	169,854	340,060	49.9 %
2012	177,097	340,060	52.1%

Source: NMFS SERO.

Black grouper were assessed, along with red grouper, through SEDAR 19 (2010), utilizing data through 2008. The assessment determined the black grouper stock is not undergoing overfishing and is not overfished. Due to very low sample sizes, the change in black grouper harvest due to the different alternatives are difficult to discern. Since the intent of the alternatives is to maintain the bag limit of

black grouper at one fish, biological effects of the alternatives for black grouper would be identical for **Alternatives 2** (and its sub-alternatives), **3**, and **4**.

The estimated change in landings for **Sub-alternative 2b** (8%) is less than **Sub-alternative 2a**, **Alternatives 3** and **4** because the bag limit for gag would be one fish instead of two (**Table D-18**). While **Alternatives 3** and **4** would have an identical change in harvest for gag, black grouper and aggregate grouper (**Table D-18**), **Alternative 4** would be expected to yield higher biological benefits due to the payback provision that would reduce the bag limit for gag down to one fish if its recreational ACL was exceeded.

**Table D-18.** Percent increase in harvest of gag, black grouper, and the grouper aggregate as a result of all the alternatives under Action 7 during 2010-2011.

Note: Changes in black grouper harvest are highly uncertain due to very small sample sizes from MRIP.

Alternative	Gag	Black Grouper	Aggregate Grouper
Alternative 1 (No Action)	0%	0%	0%
Sub-alternative 2a	42%	9%	19%
Sub-alternative 2b	1%	9%	8%
Alternative 3	42%	9%	11%
Alternative 4	42%	9%	11%

Regardless of whether the shallow-water grouper aggregate bag limit were raised or not, a 1-fish increase in the gag bag limit within the shallow-water aggregate bag limit would increase the harvest of gag by 42%. Maintaining the 1-fish gag bag limit within the aggregate shallow-water grouper bag limit would only raise the harvest of gag by 1% even if the shallow-water aggregate bag limit were raised from 3 to 4 fish. All alternatives would tend to increase black grouper harvest by 9%. These results imply that each alternative to the no action alternative would tend to increase consumer surplus (CS). However, it is not possible to ascertain whether the projected increase in the harvest of gag, black grouper, or shallow-water groupers would result from higher catch per trip or from an increase in trips. As a result, the effects on net operating revenue (NOR) cannot be determined.

**Table D-19** presents the estimates of the CS effects due to the various alternatives for changing the level and composition of the aggregate shallow-water bag limit. Only the CS effects due to changes in the catch of gag and black grouper can be reasonably calculated.

**Table D-19.** Changes in the number of fish landed and CS (2011 dollars) due to each alternative relative to Alternative 1 (No Action).

	Gag		Black Grouper	
	Fish	CS	Fish	CS
<b>Sub-Alternative 2a</b>	12,994	\$415,822	330	\$10,565
<b>Sub-Alternative 2b</b>	309	\$9,901	330	\$10,565
<b>Alternative 3</b>	12,994	\$415,822	330	\$10,565
<b>Alternative 4</b>	12,994	\$415,822	330	\$10,565

**REQUIRED COMMITTEE ACTION:** Select preferred alternative.

## Action 8. Modify the **trip limits** for the commercial sector for gag

**Alternative 1 (No Action).** If gag commercial landings 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.

**Alternative 2.** Modify the commercial AM for gag. Reduce the trip limit to 300 lbs when 75% of the gag commercial ACL is landed.

**Alternative 3.** Conduct the necessary analysis to arrive at an appropriate date to trigger the trip limit step down. Consider a range of trip limit options.

Note: A trip limit analysis is being conducted to determine date when 75% of the commercial ACL is expected to be met, and the trip limit that would allow gag to remain open for the rest of the year.

### Recommendations

- The Snapper Grouper Advisory Panel recommends Alternative 2.
- Modify Alternative 2 as suggested below and remove Alternative 3.

**Alternative 2.** Modify the commercial AM for gag. Reduce the trip limit when 75% of the gag commercial ACL is landed.

**Sub-alternative 2a.** Reduce the trip limit to 50 lbs gw

**Sub-alternative 2b.** Reduce the trip limit to 100 lbs gw

**Sub-alternative 2c.** Reduce the trip limit to 200 lbs gw

**Sub-alternative 2d.** Reduce the trip limit to 300 lbs gw

**Sub-alternative 2e.** Reduce the trip limit to 400 lbs gw

**Sub-alternative 2f.** Reduce the trip limit to 500 lbs gw

- IPT recommends rewording this action to say gag commercial trip limits. Policy branch says that is where it would be codified most likely and would be consistent in the regulations.

### Summary of Effects

The biological effects of the **Alternatives 1 (No Action)** through **3** would be expected to be neutral because ACLs and AMs are in place to ensure overfishing does not occur. **Alternative 1 (No Action)** could present a greater biological risk than **Alternative 2**, since no step-down trip limit would in place to slow down the rate in harvest and help ensure the ACL is not exceeded. However, improvements have been made to the quota monitoring system, and the South Atlantic Council has approved a Dealer Reporting Amendment, which should enhance data reporting. Furthermore, AMs are in place to ensure overfishing does not occur if the ACLs are exceeded. Trip limits specified under **Alternative 2** could provide biological benefits to the South Atlantic gag stock since the harvest would be reduced when

landings were close to reaching the commercial ACL. This provision could help ensure that overages do not occur and could result in biological benefits. However, any biological benefits associated with **Alternative 2** would be expected to be small. The ACL of 326,722 lbs gw proposed in Regulatory Amendment 15, would not be met with trip limit of 50 lbs gw (**Table D-20, Sub-alternative 2a**), that would be implemented when 75% of the commercial ACL is met. The ACL would be expected to be met in December with a trip limit 100 lbs gw that would be implemented when 75% of the ACL was met (**Sub-alternative 2b**). Larger trip limits would result in the ACL being met earlier in the year. Trip limits greater than 300 lbs gw (**Sub-alternative 2d**) would have a similar effect to the status quo **Alternative 1 (No Action)**.

**Table D-20.** Predicted closure dates for the South Atlantic gag fishery with the trip limits implemented after 75% of the ACL was reached. Closure dates were predicted for the current ACL (352,940 lbs gw) and the proposed ACL in Regulatory Amendment 15 (326,722 lbs gw).

Trip Limit	ACL = 352,940 lbs gw		ACL = 326,722 lbs gw	
	2011 Data	2012 Data	2011 Data	2012 Data
	Closure Date	Closure Date	Closure Date	Closure Date
2a. 50	No Closure	No Closure	No Closure	No Closure
2b. 100	23-Dec	No Closure	2-Dec	11-Dec
2c. 200	27-Oct	20-Nov	16-Oct	1-Nov
2d. 300	16-Oct	6-Nov	27-Sep	19-Oct
2e. 400	4-Oct	1-Nov	23-Sep	13-Oct
2f. 500	29-Sep	29-Oct	17-Sep	10-Oct

Assuming the commercial sector ACL constrains the catch, there would be no direct economic effects arising from any sub-alternative under **Alternative 2** compared to **Alternative 1 (No Action)**. Artificially lengthening seasons through the use of trip limits can have direct economic effects by increasing trip costs. Allowing fishermen to catch more fish on a given trip tends to reduce overall trip costs per pound of fish. Having a too restrictive trip limit might have the effect of cancelling trips because the fishermen determine that such a trip is not profitable or not profitable enough to be worth the effort. That said, in general, the less restrictive the trip limit, the less the likelihood of there being direct negative socio-economic effects. Social benefits would likely be maximized as a result of some trade-off between season length and economic changes.

Data are not currently available to analyze at which trip limit would trips that land gag no longer be profitable. Lengthening the season through instituting trip limits is not likely to increase the ex-vessel price per pound received by fishermen unless the gag season can be extended into a period where no other similar snapper grouper species are available to buyers. Therefore, while **Alternative 1 (No Action)** is not expected to change the length of the commercial fishing season, it is expected to have the least direct negative economic effect on commercial snapper grouper fishermen. **Sub-alternatives 2a** through **2f**, in that order, would be expected to have the most to the least direct negative economic effect.

**REQUIRED COMMITTEE ACTION:** Select preferred alternative.

## Action 9. Modify the recreational accountability measure for vermilion snapper

**Alternative 1 (No Action).** If recreational landings, as estimated by the Science and Research Director (SRD), reach or are projected to reach the recreational ACL, and vermilion snapper are overfished, the Assistant Administrator (AA) will file a notification to close the recreational sector for the remainder of the fishing year. Without regard to overfished status, if vermilion snapper recreational landings exceed the ACL, the AA will file a notification at or near the beginning of the next fishing year, to reduce the ACL for that fishing year by the amount of the overage.

**Alternative 2.** If recreational landings, as estimated by the SRD, reach or are projected to reach the recreational ACL the AA will file a notification to close the recreational fishery for the remainder of the fishing year. If vermilion snapper recreational landings exceed the ACL, the AA will file a notification at or near the beginning of the next fishing year, to reduce the ACL for that fishing year by the amount of the overage.

**Alternative 3.** If recreational landings, as estimated by the SRD, reach or are projected to reach the recreational ACL the AA will file a notification to close the recreational sector for the remainder of the fishing year.

**Alternative 4.** If recreational landings, as estimated by the SRD, reach or are projected to reach the recreational ACL, the AA will file a notification to close the recreational sector for the remainder of the fishing year. Payback of a recreational overage would only take place if vermilion snapper are overfished and the total ACL is exceeded.

### Recommendations

- The Snapper Grouper Advisory Panel recommends Alternative 4.
- Do the South Atlantic Council want to have language similar to other recreational AMs, that action to reduce the fishing season in a year following an overage only occurs if there is a persistence in high landings?

### Summary of Effects

**Alternative 1 (No Action)** would be expected to yield the least biological benefit since it would not provide any in-season or post-season protection against overfishing. Vermilion snapper are not overfished (SEDAR 17 Update 2012) and the in-season closure would only be in effect if the stock was overfished. Although **Alternative 1 (No Action)** would reduce the ACL the following fishing year by the amount of the overage, regardless of the overfished status, there is no mechanism in place to reduce harvest when the adjusted ACL is met.

**Alternative 2** is the most conservative of the alternatives since it includes both an in-season closure and a payback provision, and hence would yield the highest biological benefit. **Alternative 3** would provide an in-season closure, but there would be no payback provision in the following fishing year if



the ACL was exceeded. An in-season closure acts as a deterrent to exceeding the ACL, whereas payback provisions are enacted after the damage is already done. Therefore, **Alternative 3**, with its in-season closure would be expected to yield a higher biological benefit when compared with **Alternative 1 (No Action)**, but would have less biological benefits than **Alternative 2**. **Alternative 4** provides an in-season closure, but payback provisions would only go in effect only if the species is overfished and both the commercial and recreational ACLs are exceeded.

Current predictions on the recreational harvest of vermilion snapper show that the recreational ACL would likely not be reached in the near future. Thus, each AM alternative to the no action alternative would have no effects on consumer surplus (CS) and net operating revenue (NOR) in the short term. There is always the possibility, however, that the recreational ACL for vermilion snapper would be exceeded in the mid-term. If recreational landings reach or are projected to reach the recreational ACL, and in addition the recreational ACL is exceeded, the severity of effects on CS and NOR will depend on the restrictiveness of the alternatives. In this sense, **Alternative 3** would have the least adverse effects on CS and NOR and **Alternative 2** the worst adverse effects on CS and NOR. Over the long-term, the severity of the effects on CS and NOR would also depend on the sustainability of the vermilion snapper stock to support recreational fishing opportunities. In general, a more restrictive AM would have a higher probability of protecting the stock over the long term, so in this sense the recreational sector would be better off in the long term with **Alternative 2**, followed by **Alternative 4**, and then by **Alternative 3**.

Recreational AMs can have significant direct and indirect social effects because, when triggered, can restrict harvest in the current season or subsequent seasons. While the negative effects are usually short-term, they may at times induce other indirect effects through changes in fishing behavior or business operations that could have long-term social effects. Some of those effects are similar to other thresholds being met and may involve switching to other species or discontinuing fishing altogether. Those restrictions usually translate into reduced opportunity for harvest, which in turn can change fishing behaviors through species switching if the opportunity exists. That behavior can increase pressure on other stocks or amplify conflict. If there are no opportunities to switch species then losses of income or fishing opportunities may occur which can act like any downturn in an economy for fishing communities affected. If there is a substantial downturn then increased unemployment and other disruptions to the social fabric may occur. While these negative effects are usually short term, they may at times induce other indirect effects through the loss of fishing infrastructure that can have a lasting effect on a community.

**REQUIRED COMMITTEE ACTION:** Select preferred alternative.