Modifications to Gulf Reef Fish and South Atlantic Snapper Grouper Fishery Management Plans

Draft Joint Generic Amendment For the Joint Council Committee on South Florida Management Issues

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COVER SHEET

Name of Action

Draft Joint Generic Amendment to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico and to the Fishery Management Plan for the Snapper-Grouper Fishery of the South Atlantic Region

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CHAPTER 1. INTRODUCTION

1.1 Background

The Joint Council Committee on South Florida Management Issues (Joint Council Committee) was formed in response to a South Atlantic Fishery Management Council (South Atlantic Council) motion in June 2011. The group was first convened in January of 2014 to begin discussing management needs of south Florida species, which casually refers to those areas adjacent to the Floridian peninsula and south of 28° North latitude. There were several recommendations from the Joint Council Committee that were considered by the Joint Council Committee in July 2014, where revised recommendations were proffered and are reflected in this document. Prior to the Joint Council Committee meetings, the Florida Fish and Wildlife Commission (FL FWC) held a series of South Florida workshops in August of 2013. The results of these workshops were discussed at the January 2014 Joint Council Committee meeting and the full summaries are in Appendix A.

The Councils are responding to various suggestions for addressing the inconsistencies in management across the three jurisdictions (Gulf Council, South Atlantic Council, and State of Florida) in south Florida.

Separate South Florida Council

Establishing a separate Council for South Florida would be time consuming, expensive, and duplicate already existing management authority. Requirements would include congressional establishment of a new Council, appointment of staff, office space, equipment needs, etc. Also, this would introduce yet a fourth management body with which affected fishermen and the general public would need to work. The Councils concluded this is was an efficient or effective approach.

Separate Management Area for South Florida

The Joint Committee discussed several potential boundaries (e.g., 28° latitude South, Cape Canaveral and Tampa Bay) but recognized that a number of the affected species occur north of these lines in Florida. This approach would require creation of a set of Annual Catch Limits (ACLs) for the new area and would increase the administrative burden on NMFS to track quotas and close areas. The Councils concluded this was not an effective approach.

Secession by Florida from the Gulf and South Atlantic Councils

Similar to creating a separate "South Florida Council", a change such as this approach would require legislation to enact, and would require a significant amount of time and resources. If the State of Florida was successful in this effort, then a commensurate set of regulations would still have to be developed and fishermen would still be operating under three management jurisdictions. The Councils concluded this was not an efficient or effective approach.

Streamlining management measures in South Florida

During the spring of 2014, the South Atlantic Council held port meetings in south Florida as part of their visioning project to develop a long-term vision and strategic plan for the snapper-grouper

fishery. Stakeholder input received at these meetings echoed the sentiment heard during the Joint South Florida Issues workshops held by FL FWC in August 2013. Stakeholder concerns during the port meetings included, but were not limited to: inconsistent regulations between Florida and the two federal jurisdictions (size limits, bag limits, and seasons); spawning season closures; circle hook requirements; and species specific concerns about black grouper, yellowtail snapper, and mutton snapper. Based upon growing stakeholder concern and feedback, the Joint Committee moved forward with development of an amendment that would address the aforementioned concerns.

The Councils concluded the most efficient and effective approach was to create a joint amendment that establishes a commensurate set of management regulations developed by a joint committee comprised of representatives of the Gulf Council, the South Atlantic Council, and the State of Florida. The Councils and Florida are evaluating a large suite of management alternatives to address stakeholder concerns, and to more efficiently respond to necessary regulatory changes as they arise.

During the second meeting, the Joint Committee reviewed a draft document organized by type of action with sub-alternatives for each species involved (management-oriented actions), but found this approach to be unnecessarily complicated. The Joint Committee then changed their approach to the discussions and organized the actions by separate species and addressed each type of action that applied to that species (species-oriented actions). They directed staff to further develop the actions/alternatives using this organizational structure (species-oriented actions). This structure facilitates the development of specific, and yet homogenous, management alternatives for each species throughout the south Florida region.

The organizational structure was again discussed during the third meeting. NOAA General Counsel thought the document would be improved if the actions/alternatives were organized by type of action with sub-alternatives for each species (management-oriented actions). However, the Joint Committee was more comfortable with the current structure organized by species and also thought the public would better understand the proposed alternatives with this structure. The Joint Committee directed staff to maintain the current structure (species-oriented actions).

The Councils have pursued the approaches outlined in this document in an effort to harmonize fisheries regulations, where possible, throughout the south Florida region. Several species occurring in this region do not occur in comparable abundance elsewhere in Gulf or South Atlantic waters. This regional concentration of socially and economically important species creates an opportunity for the Councils to homogenize regulations. Current regulations for yellowtail snapper, mutton snapper, and black grouper, three species being considered in this amendment, are shown in Tables 1 (recreational) and 2 (commercial). This amendment explores management alternatives developed by the Councils to potentially simplify existing fishing regulations.

Table 1. Recreational fishing regulations for yellowtail snapper, mutton snapper, and black grouper in the Gulf of Mexico, South Atlantic, and State of Florida.

Species	State Waters Gulf of Mexico	Federal Waters Gulf of Mexico	State Waters Atlantic Ocean	Federal Waters Atlantic Ocean
Yellowtail Snapper	12" TL; within snapper aggregate	12" TL; within snapper aggregate	12" TL; within snapper aggregate	12" TL; within snapper aggregate
Mutton Snapper	16" TL; within snapper aggregate	16" TL; within snapper aggregate	16" TL; within snapper aggregate	16" TL; within snapper aggregate
Black Grouper	22" TL; within 4 grouper aggregate. Monroe County follows Atlantic rules	22" TL; within 4 grouper aggregate. Closed Feb 1 - Mar 31 seaward of 20 fathoms; "The Edges" closed Jan 1 - Apr 30	24" TL; 1 gag or black combined/person. Closed Jan 1 - Apr 30. Monroe County follows Atlantic rules	24" TL; 1 gag or black combined/person. Closed Jan 1 - Apr 30

Table 2. Commercial fishing regulations for yellowtail snapper, mutton snapper, and black grouper in the Gulf of Mexico, South Atlantic, and State of Florida.

Species	State Waters Florida	Federal Waters Gulf of Mexico	Federal Waters Atlantic Ocean
Yellowtail Snapper	12" TL	12" TL	12" TL
Mutton Snapper	16" TL; May and June: 10/person/day or per trip (whichever is more restrictive)	16" TL	16" TL; May and June: 10/person/day or per trip (whichever is more restrictive)
Black Grouper	Gulf 24" TL; Atlantic and Monroe County closed Jan 1 - Apr 30	24" TL, within Grouper Tilefish IFQ; "The Edges" closed Jan 1 - Apr 30	24" TL; Closed Jan 1 - Apr 30

1.2 Purpose and Goals

The purpose of this document is to minimize differences in regulations for species whose primary distribution is in southern Florida and are managed by different agencies in the Gulf of Mexico, South Atlantic, and State of Florida waters. Currently, some fishing regulations differ between the Gulf and South Atlantic Council waters and in some cases, state and adjacent federal waters. This makes it difficult for fishermen to abide by different regulations in the south Florida area, particularly the Florida Keys, where anglers can fish in multiple jurisdictions on a single trip.

The goal of this document and the Joint Council Committee is to provide guidance in determining the best solutions for fisheries management issues that are unique to south Florida, ultimately leading to similar regulations across the south Florida region. The Joint Council Committee could recommend solutions by species, region, and/or sector based on the current respective Gulf and South Atlantic Council regulations and management programs, or recommend entirely new management alternatives.

CHAPTER 2. DRAFT MANAGEMENT ALTERNATIVES

The following actions pertain exclusively to yellowtail snapper.

Action 1: Partial Delegation of Commercial and/or Recreational Management of Yellowtail Snapper to the State of Florida for Federal Waters Adjacent to the State of Florida

Note: *Under this action, the Councils will remain responsible for setting annual catch limits and determining appropriate accountability measures.*

Alternative 1: No action. Do not delegate management of yellowtail snapper in the Reef Fish Resources and Snapper Grouper Fishery Management Plans for the Gulf and South Atlantic Councils, respectively.

Alternative 2: Determine specific recreational management items for delegation to the State of Florida for yellowtail snapper:

Option 2a: Size limits
Option 2b: Seasons
Option 2c: Bag limits
Option 2d: Minor modifications to existing allowable gear

Alternative 3: Determine specific commercial management items for delegation to the State of Florida for yellowtail snapper:

Option 3a: Size limits
Option 3b: Seasons
Option 3c: Commercial trip limits
Option 3d: Minor modifications to existing allowable gear

IPT Note: *The IPT recommends determining upper and/or lower bounds for management items being considered for delegation to Florida (**Options 2/3 a-c**). Also, further detail will be necessary to define "Minor modifications to existing allowable gear", as analyses are not currently possible without knowing which modifications will be open to consideration by the Councils.*

IPT Note: *The Councils should determine specifically which types of modifications to existing allowable gear will be permitted under this action.*

Discussion

This action considers partial delegation of the management of yellowtail snapper to the State of Florida for the recreational (**Alternative 2**) and/or commercial (**Alternative 3**) fisheries. The harvest of yellowtail snapper is almost entirely from Florida (**Tables 3** and **4**). The Councils

would remain responsible for setting acceptable biological catch (ABC) and annual catch limit (ACL) values, and for establishing accountability measures (AMs). Any existing permit requirements would remain in effect for fishing in the respective jurisdictions. Additionally, prior to implementing any changes in management items delegated herein, the State of Florida will be required to submit a management plan outlining changes for review and approval by the Gulf and South Atlantic Councils.

Under **Alternative 1**, all management of yellowtail snapper would be retained by the Councils. The regulations outlined in **Tables 1** and **2** would remain in effect, along with season opening and closing dates and current permissible gears. Currently, the yellowtail snapper season opens for both Councils on January 1.

Alternative 2 would determine specific recreational management items for delegation to the State of Florida for yellowtail snapper, including: **Option 2a**- size limits; **Option 2b**- seasons; **Option 2c**- bag limits; and **Option 2d**- minor modifications to existing gear. Multiple options may be selected as preferred for this alternative, thereby delegating one or multiple facets of recreational fisheries management to the State of Florida. The Councils would remain responsible for setting ACLs and implementing AMs, as defined in the Magnuson-Stevens Act.

Alternative 3 would determine specific commercial management items for delegation to the State of Florida for yellowtail snapper, including: **Option 3a**- size limits; **Option 3b**- seasons; **Option 3c**- bag limits; and **Option 3d**- minor modifications to existing gear. Multiple options may be selected as preferred for this alternative, thereby delegating one or multiple facets of commercial fisheries management to the State of Florida. The Councils would remain responsible for setting ACLs and implementing AMs, as defined in the Magnuson-Stevens Act.

Table 3. Mean percent of recreational landings (lb ww) by species and state, 2008-2012.

Species	FL	AL	GA	LA	MS	NC	SC	TX
yellowtail snapper	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
mutton snapper	99.9%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%
black grouper	96.8%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%

Table 4. Mean percent of commercial landings (lb ww) by species and state, 2008-2012.

Species	FL	AL	GA	LA	MS	NC	SC	TX
yellowtail snapper	99.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
mutton snapper	97.5%	0.0%	0.1%	0.0%	0.0%	0.6%	1.7%	0.0%
black grouper	93.6%	0.7%	0.0%	0.5%	0.0%	0.2%	2.0%	3.0%

Action 2: Establish and Consolidate ABCs and ACLs for Yellowtail Snapper

Alternative 1. No action. Maintain the current commercial and recreational ACLs for yellowtail snapper based on the South Atlantic Council's Snapper Grouper Fishery Management Plan and maintain the current total ACL for yellowtail snapper in the Gulf based on the Reef Fish FMP.

Alternative 2: Manage yellowtail snapper as a single unit with an overall combined multijurisdictional acceptable biological catch (ABC) and annual catch limit (ACL).

Alternative 3. Use both Councils' agreed upon ABC for yellowtail snapper and allocate the commercial and recreational ACLs for the Gulf and South Atlantic:
Option 3a: Use the following sector allocation formula: divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1993-2008, and 50% on the mean of the landings from 2009-2013.
Option 3b: Base sector allocations on average landings from 2009-2013
Option 3c: Base sector allocations on average landings from 2004-2013

Discussion

This action considers establishing and combining Gulf and South Atlantic ABCs and ACLs for yellowtail snapper into one Southeastern US ABC and ACL. The National Marine Fisheries Service (NMFS) would continue to monitor the landings and notify the Councils when the ACL is met or projected to be met. The respective Scientific and Statistical Committees for each Council would meet jointly to review stock assessment information, and would collectively determine appropriate values for OFL and ABC for yellowtail snapper. Although yellowtail snapper has been managed as two separate stocks for regulatory purposes, the stock assessment considered yellowtail snapper from the Gulf and South Atlantic to be a single biological stock (SEDAR 27 2013). For the purposes of management of yellowtail snapper, the ACL would be equal to the ABC since the stock is not thought to be overfished or undergoing overfishing (SEDAR 27 2013). Currently, only landings data are being used to determine allocations for this amendment. The Councils are considering other criteria in addition to landings data, such as social and economic considerations, for determining allocations in the future.

Currently, each Council determines its own ABC and ACL based on yield projections from the most recent stock assessment (SEDAR 27 2013) using the jurisdictional split (75% South Atlantic, 25% Gulf) established in the Generic (Gulf of Mexico) and Comprehensive (South Atlantic) ACL and AM Amendments (GMFMC 2011; SAFMC 2011) (**Alternative 1**).

Alternative 2 would manage yellowtail snapper as a single unit with an overall combined multijurisdictional ABC and ACL. This method of management would still have within it recreational and commercial fishing allocations; however, neither sector would close in a fishing year so long as the overall ACL had not been met.

Alternative 3 would use both Councils' agreed upon acceptable biological catch (ABC) for yellowtail snapper and allocate the commercial and recreational ACLs for the Gulf and South Atlantic using one of the time period options offered. When determining the resultant sector allocations for **Options 3a – 3c**, sector landings will be capped at their respective sector ACLs (where appropriate), to ensure that overfishing in some years does not result in biased allocation ratios. **Option 3a** would divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1993-2008, and 50% on the mean of the landings from 2009-2013. **Option 3b** would base sector allocations for waters off the State of Florida on average landings from 2009-2013. **Option 3c** would base sector allocations for waters off the State of Florida on average landings from 2004-2013. **Table 5** outlines the resultant allocations for **Options 3a – 3c** of **Alternative 3**, based on the recreational and commercial landings in **Table 6**. Sector allocation options were determined with landings constrained to be no higher than the ACL for each respective sector in each Council's jurisdiction. For yellowtail snapper, the respective ACLs were not exceeded.

Table 5. Sector allocation options for yellowtail snapper for Alternative 3 of Action 2. Percentages were derived from landings in whole weight.

Yellowtail Snapper Sector ACL Options		
Option	Commercial	Recreational
Option 3a	75.89%	24.11%
Option 3b	80.13%	19.87%
Option 3c	73.26%	26.74%

Table 6. Commercial and recreational landings of yellowtail snapper in the Gulf of Mexico and South Atlantic for 1993-2013. Landings are reported in pounds whole weight. Gulf commercial landings data for 1993 are confidential.

Yellowtail Snapper Commercial and Recreational Landings, 1993-2013

Year	Commercial		Recreational	
	Gulf	*South Atlantic*	*Gulf*	*South Atlantic*
1993	Confidential	1311367	51015	1189637
1994	1344942	860543	11762	880763
1995	591074	1265856	3434	660358
1996	485120	973815	2854	554130
1997	218384	1455496	2008	702997
1998	341479	1183074	4965	487063
1999	601027	1245345	39260	288951
2000	388984	1203154	4781	395845
2001	246849	1174008	7045	328458
2002	341823	1069057	7782	407848
2003	463743	948886	11472	510314
2004	478221	1002309	17937	698058

2005	510437	814899	31176	576247
2006	542237	694958	21477	560320
2007	350079	628608	19726	786399
2008	460569	910323	6056	746313
2009	891925	1085281	19250	348536
2010	569275	1126231	8783	434259
2011	769730	1125220	25560	390998
2012	630984	1439586	5087	493409
2013	728387	1305002	6991	666026

Source: SERO ALS Database (commercial landings) and MRIP (recreational landings)

Landings indicate that the yellowtail snapper fishery has historically been dominated by the commercial fishery. It is important to note that during the time periods considered in Alternative 3, neither the commercial nor the recreational sector exceeded their respective ACLs.

The following actions pertain exclusively to mutton snapper.

Action 3: Partial Delegation of Commercial and/or Recreational Management of Mutton Snapper to the State of Florida in Federal Waters Adjacent to the State of Florida

Note: *Under this action, the Councils will remain responsible for setting annual catch limits and determining appropriate accountability measures.*

Alternative 1: No action. Retain management of Mutton Snapper in the Reef Fish Resources and Snapper Grouper Fishery Management Plans for the Gulf and South Atlantic Councils, respectively.

Alternative 2: Determine specific recreational management items for delegation to the State of Florida for Mutton Snapper:

Option 2a: Size limits
Option 2b: Seasons
Option 2c: Bag limits
Option 2d: Minor modifications to existing allowable gear

Alternative 3: Determine specific commercial management items for delegation to the State of Florida for Mutton Snapper:

Option 3a: Size limits
Option 3b: Seasons
Option 3c: Commercial trip limits
Option 3d: Minor modifications to existing allowable gear

IPT Note: *The IPT recommends determining upper and/or lower bounds for management items being considered for delegation to Florida (**Options 2/3 a-c**). Also, further detail will be necessary to define "Minor modifications to existing allowable gear", as analyses are not currently possible without knowing which modifications will be open to consideration by the Councils.*

IPT Note: *Delegating the setting of bag limits under Alternatives 2 and 3, Options 2c and 3c of Action 3 seems to duplicate efforts in Actions 5 and 6. If it is the Councils' desire to delegate the setting and changing of bag limits for mutton snapper to the State of Florida as outlined in Action 3, then the Councils may wish to reconsider the establishment of bag limits for mutton snapper in the manner shown in Actions 5 and 6. It would seem to be contradictory to consider delegating the setting of bag limits to the State of Florida in one action, and then to rationalize appropriate bag limit modifications under a Council management strategy in another action.*

IPT Note: *The Councils should determine specifically which types of modifications to existing allowable gear will be permitted under this action.*

Discussion

This action considers partially delegating the management of mutton snapper to the State of Florida for the recreational (**Alternative 2**) and/or commercial (**Alternative 3**) fisheries. The harvest of mutton snapper is almost entirely from Florida (**Tables 3** and **4**). The Councils would remain responsible for setting acceptable biological catch (ABC) and annual catch limit (ACL) values, and for establishing accountability measures (AMs). Any existing permit requirements would remain in effect for fishing in the respective jurisdictions. Additionally, prior to implementing any changes in management items delegated herein, the State of Florida will be required to submit a management plan outlining changes for review and approval by the Gulf and South Atlantic Councils.

Under **Alternative 1**, all management of mutton snapper would be retained by the Councils. The regulations outlined in **Tables 1** and **2** would remain in effect, along with season opening and closing dates and current permissible gears. Currently, the mutton snapper season opens for both Councils on January 1.

Alternative 2 would determine specific recreational management items for delegation to the State of Florida for mutton snapper, including: **Option 2a-** size limits; **Option 2b-** seasons; **Option 2c-** bag limits; and **Option 2d-** minor modifications to existing gear. Multiple options may be selected as preferred for this alternative, thereby delegating one or multiple facets of recreational fisheries management to the State of Florida. The Councils would remain responsible for setting ACLs and implementing AMs, as defined in the Magnuson-Stevens Act.

Alternative 3 would determine specific commercial management items for delegation to the State of Florida for mutton snapper, including: **Option 3a-** size limits; **Option 3b-** seasons; **Option 3c-** bag limits; and **Option 3d-** minor modifications to existing gear. Multiple options may be selected as preferred for this alternative, thereby delegating one or multiple facets of commercial fisheries management to the State of Florida. The Councils would remain responsible for setting ACLs and implementing AMs, as defined in the Magnuson-Stevens Act.

Action 4: Establish and Consolidate ABCs and ACLs for Mutton Snapper

Alternative 1. No action. Maintain the current commercial and recreational ACLs for mutton snapper based on the South Atlantic Councils Snapper Grouper Fishery Management Plan and maintain the current total ACL for mutton snapper in the Gulf based on the Reef Fish Resources FMP.

Alternative 2: Manage mutton snapper as a single unit with an overall combined multijurisdictional acceptable biological catch (ABC) and annual catch limit (ACL).

Alternative 3. Use both Councils' agreed upon ABC for mutton snapper and allocate the commercial and recreational ACLs for the Gulf and South Atlantic:

Option 3a: Use the following sector allocation formula: divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1993-2008, and 50% on the mean of the landings from 2009-2013.

Option 3b: Base sector allocations for waters off Florida on average landings from 2009-2013

Option 3c: Base sector allocations for waters off Florida on average landings from 2004-2013

Discussion

This action considers establishing and combining Gulf and South Atlantic ABCs and ACLs for mutton snapper into one Southeastern US ABC and ACL. The National Marine Fisheries Service (NMFS) would continue to monitor the landings and notify the Councils when the ACL is met or projected to be met. The respective Scientific and Statistical Committees for each Council would meet jointly to review stock assessment information, and would collectively determine appropriate values for OFL and ABC for mutton snapper. Although mutton snapper has been managed as two different stocks for regulatory purposes, the stock assessment (SEDAR 15A 2008) considered mutton snapper from the Gulf and South Atlantic to be a single biological stock. For the purposes of management of mutton snapper, the ACL would be equal to the ABC, since mutton snapper are not thought to be overfished or experiencing overfishing (SEDAR 15A 2008). Currently, only landings data are being used to determine allocations for this amendment. The Councils are considering other criteria in addition to landings data, such as social and economic considerations, for determining allocations in the future.

Currently, each Council determines its own ABC and ACL based on yield projections from the most recent stock assessment (SEDAR 15A 2008) using the jurisdictional split (79% South Atlantic; 21% Gulf) established in the Generic (Gulf of Mexico) and Comprehensive (South Atlantic) ACL and AM Amendments (GMFMC 2011; SAFMC 2011) (**Alternative 1**).

Alternative 2 would manage mutton snapper as a single unit with an overall combined multijurisdictional ABC and ACL. This method of management would still have within it

recreational and commercial fishing allocations; however, neither sector would be closed in a fishing year so long as the overall ACL had not been met.

Alternative 3 would use both Councils' agreed upon acceptable biological catch (ABC) for mutton snapper and allocate the commercial and recreational ACLs for the Gulf and South Atlantic using one of the time period options offered. When determining the resultant sector allocations for **Options 3a – 3c**, sector landings will be capped at their respective sector ACLs (where appropriate), to ensure that overfishing in some years does not result in biased allocation ratios. **Option 3a** would divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1993-2008, and 50% on the mean of the landings from 2009-2013. **Option 3b** would base sector allocations for waters off the State of Florida on average landings from 2009-2013. **Option 3c** would base sector allocations for waters off the State of Florida on average landings from 2004-2013. **Table 7** outlines the resultant allocations for **Options 3a – 3c** of **Alternative 3**, based on the recreational and commercial landings in **Table 8**. Sector allocation options were determined with landings constrained to be no higher than the ACL for each respective sector in each Council's jurisdiction. For mutton snapper, the respective ACLs were not exceeded.

Table 7. Sector allocation options for mutton snapper for Alternative 3 of Action 4. Percentages were derived from landings in whole weight.

Mutton Snapper Sector ACL Options		
Option	Commercial	Recreational
Option 3a	32.13%	67.87%
Option 3b	25.07%	74.93%
Option 3c	27.13%	72.87%

Table 8. Commercial and recreational landings of mutton snapper in the Gulf of Mexico and South Atlantic for 1993-2013. Landings are reported in pounds whole weight. Gulf commercial landings data for 1993-1996 are confidential.

Mutton Snapper Commercial and Recreational Landings, 1993-2013

Year	Commercial		Recreational	
	Gulf	*South Atlantic*	*Gulf*	*South Atlantic*
1993	Confidential	169112	4664	540658
1994	Confidential	176022	4946	399568
1995	Confidential	196265	2767	458726
1996	Confidential	207243	20493	314405
1997	69841	221674	2303	339350
1998	73343	282490	10665	312690
1999	84854	168141	3583	266928
2000	80146	124475	1717	340501
2001	99960	133047	4077	302430
2002	101446	132219	2705	422465
2003	124508	144109	9891	555855
2004	201938	145861	13296	396210
2005	140947	96298	2243	466909
2006	214115	74839	1976	631323
2007	133086	88550	34047	748118
2008	81391	76705	20281	822520
2009	43689	78132	5766	436032
2010	54242	74737	1541	569471
2011	94238	66158	1391	281247
2012	88695	77122	7156	477022
2013	107814	73392	4960	481731

Source: SERO ALS Database (commercial landings) and MRIP (recreational landings)

Landings indicate that the mutton snapper fishery has historically been dominated by the recreational fishery. It is important to note that during the time periods considered in **Alternative 3**, neither the commercial nor the recreational sector exceeded their respective ACLs.

Action 5. Modify Mutton Snapper Recreational Bag Limit in Gulf of Mexico and South Atlantic

Alternative 1: No action. Mutton snapper is part of the aggregate 10 snapper bag limit in the Gulf of Mexico, the South Atlantic, and the State of Florida.

Alternative 2: Remove mutton snapper from the recreational aggregate bag limit and change the recreational bag limit for mutton snapper during the regular season (July-April) and during the spawning season (May-June).

Option 2a: 10 fish/person/day in the regular season, 2 fish/person/day during the spawning season

Option 2b: 5 fish/person/day in the regular season, 2 fish/person/day during the spawning season

Option 2c: 4 fish/person/day in the regular season, 2 fish/person/day during the spawning season

Alternative 3: Retain mutton snapper within the aggregate 10 snapper bag limit in the Gulf of Mexico and the South Atlantic, but specify bag limits for mutton snapper within the snapper recreational aggregate bag limit during the regular season (July-April) and during the spawning season (May-June).

Option 3a: Within the aggregate snapper bag limit, no more than 10 fish/person/day in the regular season and no more than 2 fish/person/day during the spawning season may be mutton snapper.

Option 3b: Within the aggregate snapper bag limit, no more than 5 fish/person/day in the regular season and no more than 2 fish/person/day during the spawning season may be mutton snapper.

Option 3c: Within the aggregate snapper bag limit, no more than 4 fish/person/day in the regular season and no more than 2 fish/person/day during the spawning season may be mutton snapper.

***Note**: In the Gulf of Mexico, the 10 snapper-per-person aggregate includes all snapper species in the reef fish management unit except red snapper, vermilion snapper, and lane snapper (**Table 5**). In the South Atlantic, the 10 snapper-per-person aggregate includes all snapper species in the snapper grouper management unit except red snapper and vermilion snapper (**Table 5**). Cubera snapper less than 30" total length (TL) are included in the 10 fish bag limit. The aggregate 10 snapper bag limit includes a maximum of 2 cubera snapper per person (not to exceed 2 per/vessel) for fish 30" TL or larger off Florida.*

***Note**: State of Florida has the same regulations for the recreational sector as both Councils; however, the commercial sector in state waters is managed using regulations identical to the South Atlantic Council's commercial regulations.*

***IPT Note**: Establishing bag limits in Actions 5 and 6 seems to duplicate efforts in Alternatives 2 and 3, Options 2c and 3c of Action 3. If it is the Councils' desire to establish bag limits for*

mutton snapper in the manner shown in Actions 5 and 6, then the Councils may wish to reconsider delegating the setting and changing of bag limits for mutton snapper to the State of Florida as outlined in Action 3. It would seem to be contradictory to consider delegating the setting of bag limits to the State of Florida in one action, and then to rationalize appropriate bag limit modifications under a Council management strategy in another action.

***IPT Note**: The Councils may wish to revisit the inclusion of both Options 2b/c and 3b/c, since they differ by only one fish per person per day. If the Councils wish to include both options, then additional rationale will help frame subsequent analyses.*

Discussion

In 2010, the Snapper Grouper Advisory Panel (SGAP) recommended that the South Atlantic Council consider a spawning area closure or a seasonal closure in May and June of each year. Furthermore, the SGAP recommended that the mutton snapper bag limit be reduced to 3 fish per person per day. There is concern by the public regarding fishing effort on mutton snapper spawning aggregations during the May-June peak spawning season in the Florida Keys despite a healthy status of the mutton snapper stock. According to the most recent stock assessment of mutton snapper in the southeastern United States (SEDAR 15A, 2008), mutton snapper are neither overfished ($SSB_{2006}/SSB_{30\%SPR} = 1.14$) nor experiencing overfishing ($F_{2006}/F_{30\%SPR} = 0.51$). An update stock assessment of mutton snapper is expected to be made available to the Councils by April 2015.

Currently, mutton snapper is part of the 10 snapper aggregate in the Gulf and South Atlantic (**Table 9**). The commercial sector in the Gulf has no bag limit or trip limit restrictions during the mutton snapper peak spawning season. There is no bag or trip limit for the commercial sector in the Gulf or South Atlantic during the July-April regular season. Current regulations for mutton snapper in the Gulf and South Atlantic are shown in **Table 10**.

Table 9. Composition of the 10 snapper aggregate in the Gulf and South Atlantic.

Gulf of Mexico	South Atlantic
Gray snapper	Gray snapper
Mutton snapper	Mutton snapper
Yellowtail snapper	Yellowtail snapper
Cubera snapper	Cubera snapper
Queen snapper	Queen snapper
Blackfin snapper	Blackfin snapper
Silk snapper	Silk snapper
Wenchman	Dog snapper
	Lane snapper
	Mahogany snapper

Table 10. Current fishing regulations in the Gulf of Mexico and the South Atlantic for mutton snapper (June 2014).

Mutton Snapper Management by Region				
Council	**Sector**	**Size Limit**	**Bag Limit**	**Notes**
Gulf	Recreational	16" TL	10 fish/person/day	Included in 10 snapper aggregate bag limit
	Commercial	16" TL	None	No trip limit
South Atlantic	Recreational	16" TL	10 fish/person/day	Included in 10 snapper aggregate bag limit
	Commercial	16" TL	None during July-April each year; 10 fish/person/day or per trip during May-June	During May-June, restricted to 10 fish/person/day or per trip, whichever is more restrictive

The peak of mutton snapper recreational landings occur during the May-June spawning season (Wave 3) in the South Atlantic during 2012 and 2013 (**Table 11**). Impacts of various bag limits for 2011-2013 are shown in **Table 12** for the headboat sector and **Table 13** for the private/charter sector. The main difference between **Alternatives 2** and **3** is that **Alternative 2** removes mutton snapper from the snapper recreational aggregate bag limit, while **Alternative 3** retains mutton snapper within the snapper recreational aggregate bag limit. Both **Alternatives 2** and **3** establish specific bag limits for mutton snapper during the regular and spawning seasons, respectively. For both alternatives, **Option 2/3a** considers maintaining the recreational bag limit of 10 fish/person/day during the July-April regular season, and reducing the recreational bag limit to 2 fish/person/day during the spawning season. **Option 2/3a** would be expected to reduce recreational harvest during the May-June (Wave 3) spawning season by 22% for the headboat sector and 16% for the private/charter sector; however, there would be no reduction in recreational harvest during July-April (**Tables 12** and **13**). **Option 2/3b** would specify a 5 fish/person/day for the recreational sector during July-April, and 2 fish/person/day during the May-June spawning season. **Option 2/3b** would be expected to reduce recreational harvest during the regular season by 6% for the headboat sector, and 1% for the private/charter sectors. **Option 2/3c** would specify a 4 fish/person/day for the recreational sector during July-April, and 2 fish/person/day during the May-June spawning season. **Option 2/3c** would be expected to reduce recreational harvest during the regular season by 10% for the headboat sector, and 6% for the private/charter sectors. A 2 fish/person/day spawning season recreational bag limit would be expected to reduce harvest by 22% and 16% for the headboat and private/charter sectors, respectively during the May-June spawning season (**Tables 14** and **15**). If **Alternative 2** is selected by itself, it could potentially increase the opportunity for the recreational harvest of the snapper species still included as part of the snapper recreational aggregate bag limit.

Additional analyses for Action 5 can be found in Appendix C.

Table 11. South Atlantic recreational (private, charter, headboat) mutton snapper landings by wave. Source: http://sero.nmfs.noaa.gov/sustainable_fisheries/acl_monitoring/index.html.

Year	1	2	3	4	5	6	Total
2012	46,282	102,210	182,880	77,015	27,275	34,366	470,028
2013	50,961	36,208	175,774	91,913	90,689	36,186	481,731

Table 12. Percent of status quo harvest remaining under various bag limits for Gulf and South Atlantic **headboat-harvested** mutton snapper.

Year	Status Quo (10)	1	2	3	4	5	6	7	8	9
2011	100%	64%	77%	86%	91%	95%	97%	99%	99%	100%
2012	100%	57%	69%	78%	85%	91%	94%	96%	98%	98%
2013	100%	67%	79%	87%	92%	95%	97%	98%	98%	99%
Mean 2011-2013	**100%**	**63%**	**75%**	**84%**	**90%**	**93%**	**96%**	**98%**	**98%**	**99%**

Table 13. Percent of status quo harvest remaining under various bag limits for Gulf and South Atlantic **private/charter-harvested** mutton snapper.

Year	Status Quo (10)	1	2	3	4	5	6	7	8	9
2011	100%	76%	90%	93%	94%	95%	95%	96%	97%	97%
2012	100%	78%	88%	91%	94%	95%	96%	97%	98%	99%
2013	100%	78%	88%	91%	94%	95%	96%	97%	98%	99%
Mean 2011-2013	**100%**	**77%**	**89%**	**92%**	**94%**	**95%**	**96%**	**96%**	**97%**	**98%**

Table 14. Percent of status quo harvest remaining under various bag limits for Gulf and South Atlantic **headboat-harvested** mutton snapper for Wave 3 (May-June) during 2011-2013, Waves 1,2,4,5, and 6 combined during 2011-2013, and Waves 1-6 during 2011-2013.

Waves	Status Quo (10)	1	2	3	4	5	6	7	8	9
Wave 3	100%	67%	78%	85%	90%	93%	96%	97%	99%	99%
Waves 1,2,4,5,6	100%	61%	74%	84%	90%	94%	96%	98%	98%	99%
Waves 1-6	100%	63%	75%	84%	90%	93%	96%	98%	98%	99%

Table 15. Percent of status quo harvest remaining under various bag limits for Gulf and South Atlantic **private/charter-harvested** mutton snapper for Wave 3 (May-June) during 2011-2013, Waves 1,2,4,5, and 6 combined, and Waves 1-6 during 2011-2013.

Waves	Status Quo (10)	1	2	3	4	5	6	7	8	9
Wave 3	100%	75%	84%	87%	88%	90%	92%	94%	96%	98%
Waves 1,2,4,5,6	100%	82%	95%	98%	98%	99%	99%	99%	99%	99%
Waves 1-6	100%	77%	89%	92%	94%	95%	96%	96%	97%	98%

The distribution of mutton snapper catch-per-angler (cpa) is shown in **Figure 1** for the headboat sector and **Figure 2** for the private/charter sector. As can be seen, most anglers catch 3 or fewer mutton snapper. Furthermore, most of the mutton snapper landings are from the Southeast (**Figure 3**) data collection area.

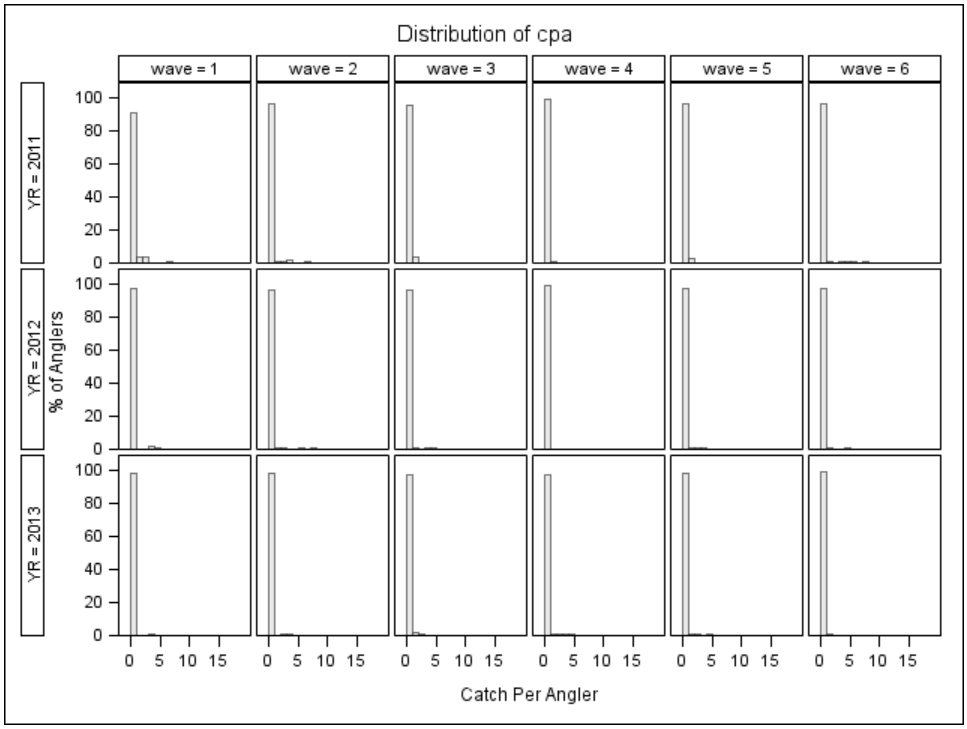

Figure 1. Histogram of the distribution of South Atlantic and Gulf of Mexico mutton snapper **headboat** catch per angler (cpa), by MRIP wave for 2011-2013. Source: SERO.

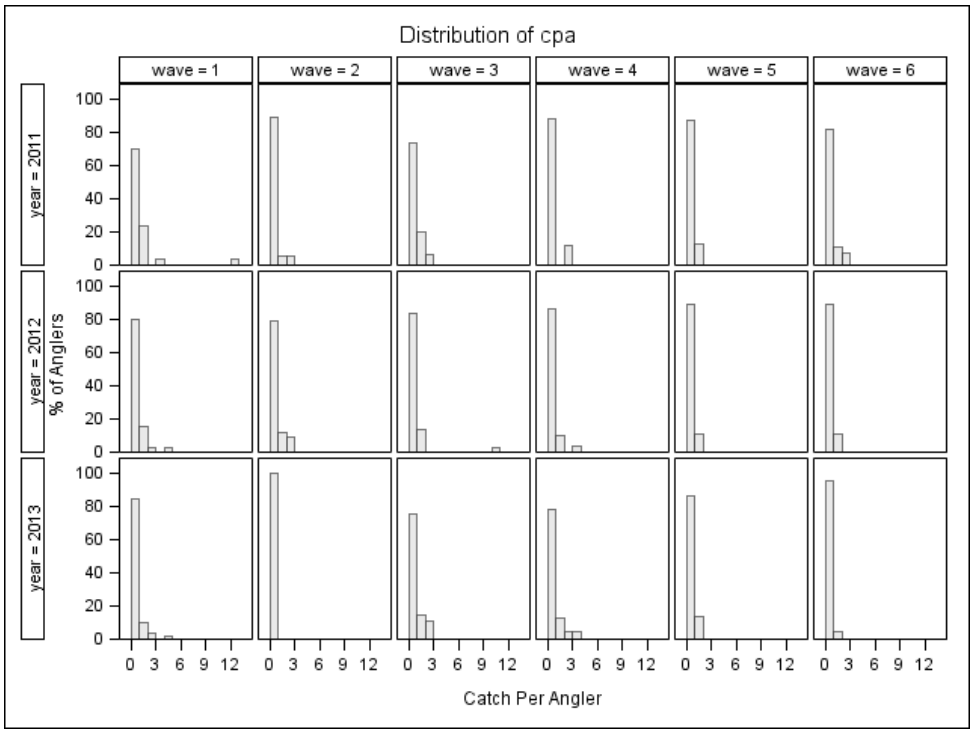

Figure 2. Histogram of the distribution of South Atlantic and Gulf of Mexico mutton snapper catch per angler (cpa), by **MRIP** wave from 2011-2013. Source: SERO.

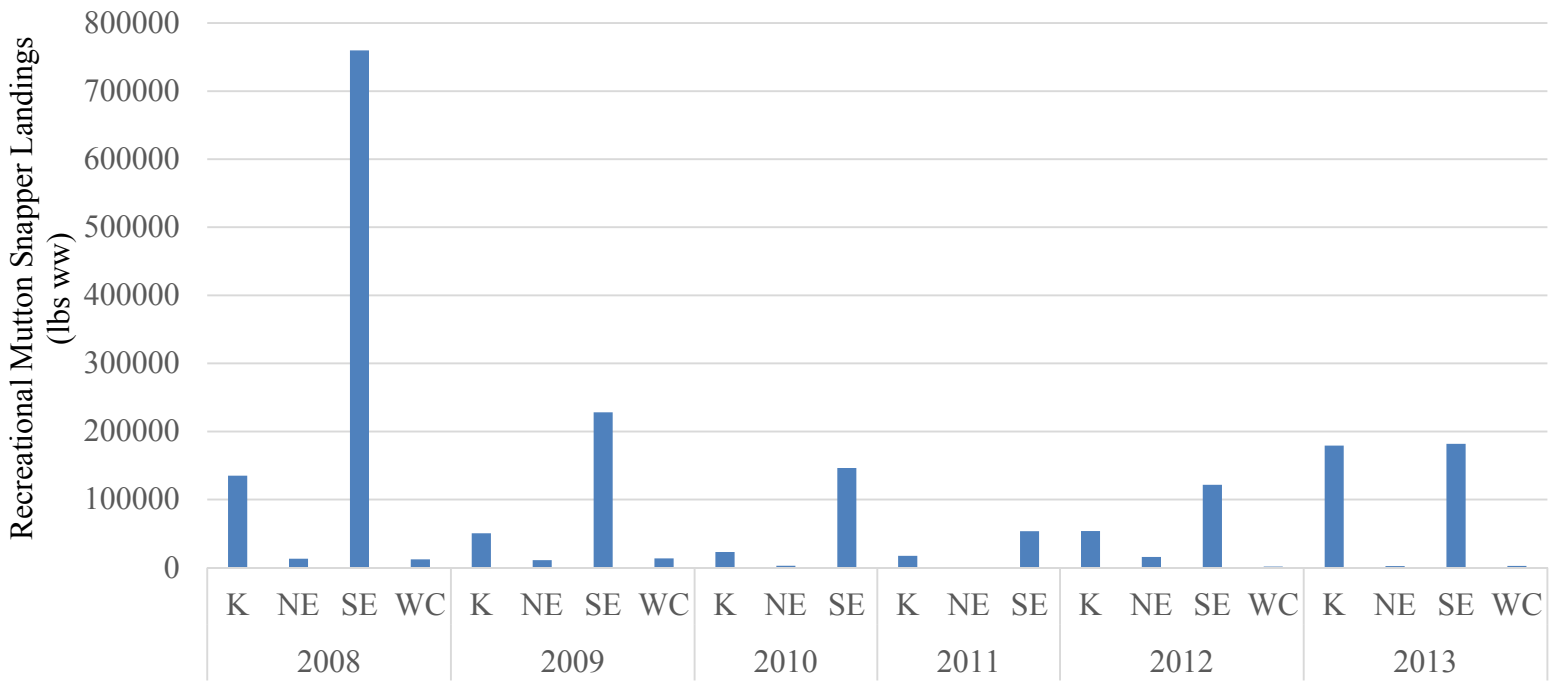

Figure 3. Total recreational landings (lbs ww) of mutton snapper from Florida waters from 2008-2013 by reporting region: K = Keys (Monroe County), NE = Northeast (Nassau County to Brevard County), SE = Southeast (Indian River County to Dade County), WC = West Central (Collier County to Citrus County). The Panhandle of Florida (otherwise denoted as "P"; Levy County to Escambia County) is not represented here due to the absence of mutton snapper landings in the Panhandle region.

Action 6. Modify Mutton Snapper Commercial Trip Limit in the Gulf of Mexico and South Atlantic

Alternative 1: No action. During May-June, the commercial sector in the South Atlantic is restricted to 10 mutton snapper per day or 10 mutton snapper per trip, whichever is more restrictive. There is no bag or trip limit for the commercial sector in the Gulf or South Atlantic from July through April.

Alternative 2: Establish a commercial trip limit for mutton snapper during the regular season (July through April) in the Gulf of Mexico and the South Atlantic.

Option 2a: 10 fish/person/day

Option 2b: Some higher bag or trip limit.

Alternative 3: Specify a commercial trip limit for mutton snapper during the spawning season (May and June) in the Gulf of Mexico and the South Atlantic.

Option 3a: 2 fish/person/day

Option 3b: 5 fish/person/day

Option 3c: 10 fish/person/day

Option 3d: No bag or trip limit

Alternative 4: Specify a commercial trip limit for mutton snapper that is identical to the recreational bag limit during the spawning season (May and June) in the Gulf of Mexico and the South Atlantic.

Alternative 5: Specify a commercial trip limit for mutton snapper for the handline sector during the spawning season (May and June) in the Gulf of Mexico and the South Atlantic.

Option 5a: 2 fish/person/day

Option 5b: 5 fish/person/day

Option 5c: 10 fish/person/day

Option 5d: Some other trip limit

Alternative 6: Specify a commercial trip limit for mutton snapper for the longline sector during the spawning season (May and June) in the Gulf of Mexico and the South Atlantic.

Option 6a: 500 pounds whole weight trip limit

Option 6b: Some other trip limit

Added by the South Atlantic Council

***IPT Note**: Establishing bag limits in Actions 5 and 6 seems to duplicate efforts in Alternatives 2 and 3, Options 2c and 3c of Action 3. If it is the Councils' desire to establish bag limits for mutton snapper in the manner shown in Actions 5 and 6, then the Councils may wish to reconsider delegating the setting and changing of bag limits for mutton snapper to the State of Florida as outlined in Action 3. It would seem to be contradictory to consider delegating the*

setting of bag limits to the State of Florida in one action, and then to rationalize appropriate bag limit modifications under a Council management strategy in another action.

IPT Note: *The Councils may wish to consider vessel limits for commercial mutton snapper fishing. The biological effects of bag limits could vary depending on the number of crew aboard a commercial fishing vessel, making biological effects more difficult to determine. For example, the biological effects of four crew members retaining the per-person trip limit in Alternative 5 would be greater than the same for only two crew members. Analysis of Alternative 5 may prove difficult, since there is no way to know how many crew could be on board a commercial fishing vessel on any given day.*

Discussion

This action considers alternatives for mutton snapper commercial trip limits in the Gulf of Mexico and the South Atlantic. During May and June, the commercial sector in the South Atlantic is restricted to 10 mutton snapper per day or 10 mutton snapper per trip, whichever is more restrictive. There is no commercial trip limit in the Gulf. Current commercial fishing regulations for mutton snapper are detailed in **Table 2** (**Alternative 1**).

Alternative 2, Option 2a would establish a commercial trip limit for mutton snapper during the regular season (July-April) of 10 fish/person/day. Currently, there are no commercial bag or trip limits in effect for commercial harvest of mutton snapper during the regular season. Assuming the average weight of a landed mutton snapper is 5 pounds whole weight (lbs ww), a 10 fish/person/day bag limit would correspond to a 50 lbs ww trip limit. About 17% of the commercial trips landed more than 50 lbs ww per trip but these trips represented about 60% of the landings (**Table 17**). **Option 2b** would establish a commercial bag or trip limit in excess of 10 fish per person per day and several potential trips limits are included in Table 13.

Alternative 3, Options 3a through **3c** would specify a commercial trip limit for mutton snapper during the spawning season (May-June) of 2, 5, or 10 fish/person/day. **Option 3d** would not specify a commercial bag limit or trip limit for mutton snapper during the spawning season. A two fish/person/day commercial bag limit would be expected to reduce harvest by over 78% during the May-June spawning season; a 5 fish/person/day commercial bag limit would be expected to reduce harvest by 75% during the May-June spawning season; and a 10 fish/person/day would be expected to reduce commercial harvest of mutton snapper during the spawning season by 63% during the May-June spawning season (**Table 18**).

Alternative 4 would specify a commercial trip limit for mutton snapper that is identical to the recreational bag limit during the spawning season (May and June) in the Gulf of Mexico and the South Atlantic. This alternative would constrain commercial mutton snapper landings during the time period when those landings are the highest in terms of the average weight of fish landed. Also, if the recreational bag limit specified for the mutton snapper spawning season changes, so too would the commercial trip limit.

Alternatives 5 and **6** would specify a commercial trip limit for mutton snapper for the handline and longline fleets, respectively, during the spawning season (May and June) in the Gulf of Mexico and the South Atlantic. **Option 5a** would set a handline trip limit of 2 fish/person/day; Option 5b, 5 fish/person/day; Option 5c, 10 fish/person/day; and Option 5d, some other trip limit. **Option 6a** would set a longline trip limit of 500 pounds whole weight, and **Option 6b** would set some other trip limit.

The commercial landings of mutton snapper for all Florida counties are highest during the May-June period of peak spawning (**Figure 4**). Overall Florida landings of mutton snapper were highest in 2008 and decreased through 2011. Landings increased in 2012 and 2013 (**Figure 5**). An examination of the monthly distribution of mutton snapper landings from commercial logbook and dealer reports shows similar trends (**Tables 16a** and **16b**). In addition, commercial landings of mutton snapper in the South Atlantic are highest during the May-June spawning season despite the 10 fish/person/day bag limit that is currently in place.

Table 16a. Monthly distribution of mutton snapper landings for commercial logbook in the Gulf and South Atlantic during 2009-2013

Month	Total	SA	Gulf
1	5.81%	5.51%	6.09%
2	9.01%	6.50%	11.30%
3	6.38%	5.59%	7.11%
4	7.24%	6.15%	8.24%
5	16.89%	22.67%	11.60%
6	10.42%	14.05%	7.10%
7	11.82%	9.78%	13.68%
8	7.45%	8.29%	6.67%
9	6.14%	5.46%	6.76%
10	6.89%	5.40%	8.26%
11	5.61%	5.55%	5.68%
12	6.34%	5.06%	7.51%

Table 16b. Monthly distribution of mutton snapper landings from dealer reported landings (Accumulative Landings System) in the Gulf and South Atlantic during 2009-2013.

Month	Total	SA	Gulf
1	5.53%	5.68%	5.38%
2	8.63%	6.84%	10.32%
3	6.52%	5.46%	7.52%
4	7.05%	6.49%	7.57%
5	16.28%	20.86%	11.92%
6	10.94%	14.66%	7.40%

7	11.49%	9.00%	13.85%
8	7.35%	8.27%	6.47%
9	6.00%	5.27%	6.69%
10	7.42%	5.50%	9.24%
11	5.90%	6.07%	5.74%
12	6.91%	5.91%	7.87%

Table 17. Reduction in harvest provided by a trip or bag limit during July-April based on commercial mutton snapper landings from 2008-2012 for the Gulf and South Atlantic.

		2008-2012		
Trip Limit (lbs ww)	**Trip Limit (#fish)**	**# Trips**	**% Trips**	**Harvest Reduction**
0	0	7,030	100.00%	100.00%
20	4	3,000	42.67%	77.12%
25	5	2,568	36.53%	73.88%
40	8	1,739	24.74%	66.45%
50	10	1,419	20.18%	62.79%
60	12	1,202	17.10%	59.74%
80	16	929	13.21%	54.79%
100	20	747	10.63%	50.88%
115	23	648	9.22%	48.46%
150	30	466	6.63%	44.00%
175	35	404	5.75%	41.50%
200	40	337	4.79%	39.38%
250	50	260	3.70%	35.97%
300	60	220	3.13%	33.18%
400	80	171	2.43%	28.76%
500	100	130	1.85%	25.22%
600	120	108	1.54%	22.48%
700	140	90	1.28%	20.14%
800	160	80	1.14%	18.19%
900	180	69	0.98%	16.47%
1,000	200	59	0.84%	15.02%
1,100	220	51	0.73%	13.76%
1,200	240	48	0.68%	12.61%
1,300	260	38	0.54%	11.59%
1,400	280	35	0.50%	10.73%
1,500	300	32	0.46%	9.96%
1,600	320	27	0.38%	9.27%
1,700	340	25	0.36%	8.67%

1,800	360	24	0.34%	8.12%
1,900	380	23	0.33%	7.58%
2,000	400	22	0.31%	7.06%
2,250	450	19	0.27%	5.82%
2,500	500	15	0.21%	4.89%
2,750	550	12	0.17%	4.14%
3,000	600	10	0.14%	3.50%

Table 18. Reduction in harvest provided by a trip limit during May-June based on commercial mutton snapper landings from 2008-2012 for the Gulf and South Atlantic.

Trip Limit (lbs ww)	Trip Limit (#fish)	2008-2012		
		# Trips	% Trips	Harvest Reduction
0	0	2,728	100.00%	100.00%
20	4	1,330	48.75%	78.44%
25	5	1,166	42.74%	75.05%
40	8	857	31.41%	66.95%
50	10	742	27.20%	62.65%
60	12	645	23.64%	58.93%
80	16	501	18.37%	52.80%
100	20	398	14.59%	48.00%
115	23	357	13.09%	44.96%
150	30	259	9.49%	39.13%
175	35	225	8.25%	35.90%
200	40	188	6.89%	33.11%
250	50	140	5.13%	28.77%
300	60	107	3.92%	25.49%
400	80	67	2.46%	20.98%
500	100	55	2.02%	17.79%
600	120	41	1.50%	15.28%
700	140	31	1.14%	13.42%
800	160	26	0.95%	11.91%
900	180	23	0.84%	10.63%
1,000	200	19	0.70%	9.49%
1,100	220	15	0.55%	8.58%
1,200	240	13	0.48%	7.83%
1,300	260	11	0.40%	7.19%
1,400	280	11	0.40%	6.60%
1,500	300	10	0.37%	6.05%
1,600	320	8	0.29%	5.58%
1,700	340	8	0.29%	5.15%
1,800	360	8	0.29%	4.72%
1,900	380	8	0.29%	4.29%
2,000	400	8	0.29%	3.86%
2,250	450	7	0.26%	2.80%
2,500	500	4	0.15%	2.21%
2,750	550	2	0.07%	1.72%
3,000	600	1	0.04%	1.48%

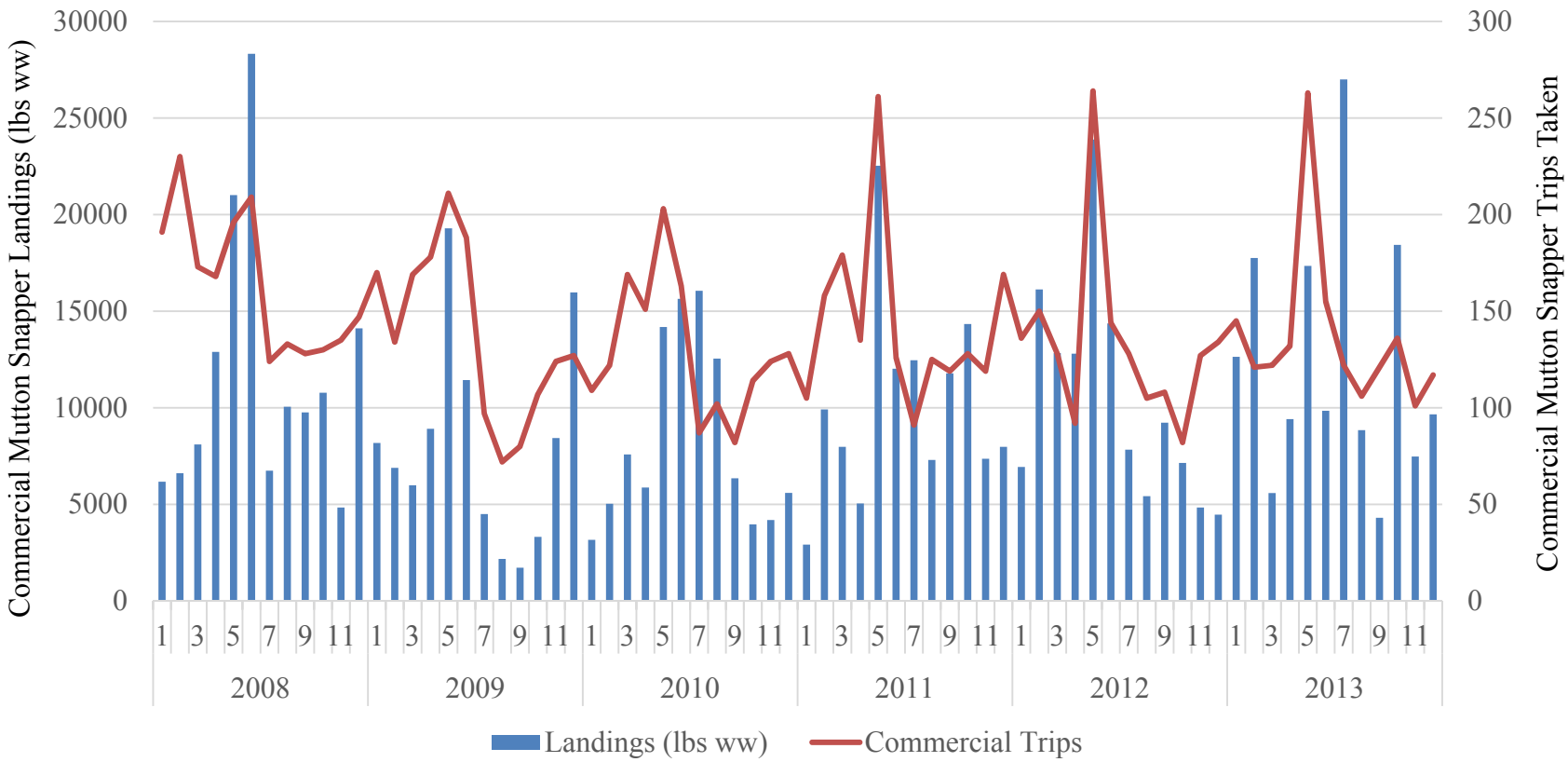

Figure 4. Commercial mutton snapper landings and trips by month from 2008 to 2013. Left y-axis (blue bars) is total commercial mutton snapper landings (lbs ww) for all Florida counties. Right y-axis (red line) is total commercial mutton snapper trips taken.

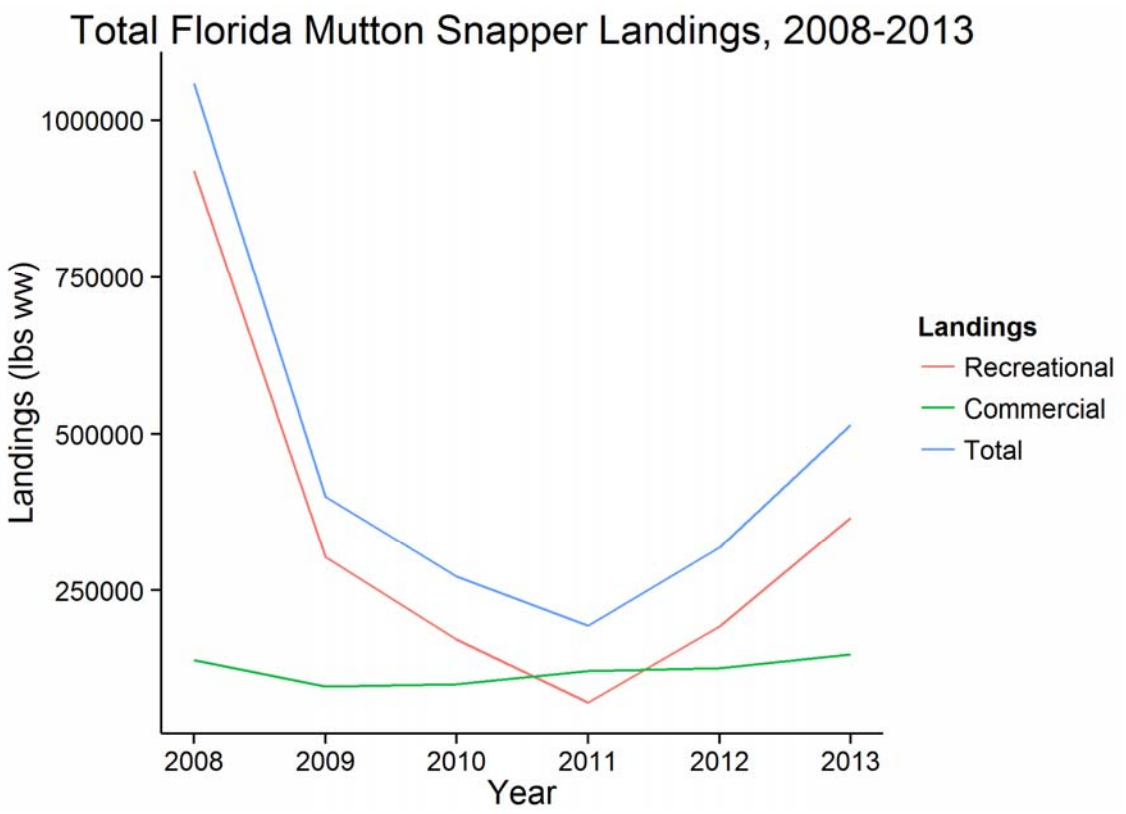

Figure 5. Total landings of mutton snapper in Florida (lbs ww). Data are from the Florida Fish and Wildlife Conservation Commission recreational landings and commercial trip ticket programs.

The following actions pertain exclusively to black grouper.

Action 7: Partial Delegation of Recreational Management of Black Grouper to the State of Florida in Federal Waters Adjacent to the State of Florida

Note: *Under this action, the Councils will remain responsible for setting annual catch limits and determining appropriate accountability measures.*

Alternative 1: No action. Retain recreational management of black grouper in the Reef Fish Resources and Snapper Grouper Fishery Management Plans for the Gulf and South Atlantic Councils, respectively.

Alternative 2: Determine specific recreational management items for delegation to the State of Florida for black grouper:

Option 2a: Size limits
Option 2b: Seasons
Option 2c: Bag limits
Option 2d: Minor modifications to existing allowable gear

IPT Note: *The IPT recommends determining upper and/or lower bounds for management items being considered for delegation to Florida (**Options 2a-c**). Also, further detail will be necessary to define "Minor modifications to existing allowable gear", as analyses are not currently possible without knowing which modifications will be open to consideration by the Councils.*

IPT Note: *Delegating the setting of bag limits under Alternative 2, Option 2c of Action 7 seems to duplicate efforts in Alternative 8 of Action 11. If it is the Councils' desire to delegate the setting and changing of bag limits for black grouper to the State of Florida as outlined in Action 7, then the Councils may wish to reconsider the establishment of bag limits for black grouper in the manner shown in Action 11. It would seem to be contradictory to consider delegating the setting of bag limits to the State of Florida in one action, and then to rationalize appropriate bag limit modifications under a Council management strategy in another action.*

IPT Note: *The Councils should determine specifically which types of modifications to existing allowable gear will be permitted under this action.*

Discussion

This action considers alternatives that would partially delegate the management of black grouper to the State of Florida for the recreational (**Alternative 2**) sector. **Tables 3** and **4** reveal that harvest of black grouper is almost entirely from Florida. Delegation of the management of the commercial black grouper sector is not being considered here, as it is currently part of the Shallow-water Grouper Individual Fishing Quota program in the Gulf of Mexico. The Councils

would remain responsible for setting acceptable biological catch (ABC) and annual catch limit (ACL) values, and for establishing accountability measures (AMs). Any existing permit requirements would remain in effect for fishing in the respective jurisdictions. Additionally, prior to implementing any changes in management items delegated herein, the State of Florida will be required to submit a management plan outlining changes for review and approval by the Gulf and South Atlantic Councils.

Under **Alternative 1**, all management of black grouper would be retained by the Councils. The regulations outlined in **Tables 1** and **2** would remain in effect, along with season opening and closing dates and current permissible gears. Currently, the black grouper season is open from May 1 through December 31 in the South Atlantic, and is open year-round in the Gulf (but closed seaward of 20 fathoms from February 1 through March 31).

Alternative 2 would determine specific recreational management items for delegation to the State of Florida for black grouper, including: **Option 2a-** size limits; **Option 2b-** seasons; **Option 2c-** bag limits; and **Option 2d-** minor modifications to existing gear. Multiple options may be selected as preferred for this alternative, thereby delegating one or multiple facets of recreational fisheries management to the State of Florida. The Councils would remain responsible for setting ACLs and implementing AMs, as defined in the Magnuson-Stevens Act.

Action 8: Establish and Consolidate ABCs and ACLs for Black Grouper

Alternative 1. No action. Maintain the current recreational ACLs based on the Reef Fish Resources and Snapper Grouper Fishery Management Plans for the Gulf and South Atlantic Councils, respectively.

Alternative 2: Manage black grouper as a single unit with an overall combined multijurisdictional acceptable biological catch (ABC) and annual catch limit (ACL).

Alternative 3. Use both Councils' agreed upon ABC for black grouper and allocate the recreational ACLs for the Gulf and South Atlantic:

Option 3a: Combine the current recreational allocations (i.e., 63.12% of the ACL for the South Atlantic and 27% of the ACL for the Gulf) for black grouper into a single recreational allocation.

Option 3b: Use the following sector allocation formula: divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1993-2008, and 50% on the mean of the landings from 2009-2013.

Option 3c: Base sector allocations on average landings from 2009-2013

Option 3d: Base sector allocations on average landings from 2004-2013

Discussion

This action considers establishing and combining the Gulf and South Atlantic ABCs and ACLs for black grouper in the Southeastern US. The National Marine Fisheries Service (NMFS) would continue to monitor the landings and notify the Councils when the ACL is met or projected to be met. The respective Scientific and Statistical Committees for each Council would meet jointly to review stock assessment information, and would collectively determine appropriate values for OFL and ABC for black grouper. Although black grouper has been managed as two different stocks for regulatory purposes, the stock assessment (SEDAR 19 2010) considered black grouper from the Gulf and South Atlantic to be a single biological stock. For the purposes of management of black grouper, the ACL would be equal to the ABC, since black grouper are not thought to be overfished or undergoing overfishing (SEDAR 19 2010). Currently, only landings data are being used to determine allocations for this amendment. The Councils are considering other criteria in addition to landings data, such as social and economic considerations, for determining allocations in the future.

Currently, each Council determines its own ABC and ACL based on yield projections from the most recent stock assessment (SEDAR 19 2010) using the jurisdictional split (47% South Atlantic; 53% Gulf) established in the Generic (Gulf of Mexico) and Comprehensive (South Atlantic) ACL and AM Amendments (GMFMC 2011; SAFMC 2011) (**Alternative 1**).

Alternative 2 would manage black grouper as a single unit with an overall combined multijurisdictional ABC and ACL. This method of management would still have within it

recreational and commercial fishing allocations; however, neither sector would be closed in a fishing year so long as the overall ACL had not been met.

Alternative 3 would use both Councils' agreed upon acceptable biological catch (ABC) for black grouper and allocate the commercial and recreational ACLs for the Gulf and South Atlantic using one of the time period options offered. When determining the resultant sector allocations for **Options 3b – 3d**, sector landings will be capped at their respective sector ACLs (where appropriate), to ensure that overfishing in some years does not result in biased allocation ratios. **Option 3a** would combine the current recreational allocations (i.e., 63% of the ACL for the South Atlantic and 27% of the ACL for the Gulf) for black grouper into a single recreational allocation. The respective commercial allocations for each Council would continue to be managed directly by the responsible Council. This option may be inherently problematic, as the recreational portion of the black grouper ACL in the shallow water grouper complex in the Gulf is undefined. Commercial shallow-water grouper are in the individual fishing quota system (IFQ). The ACL for the shallow-water groupers is determined using black grouper as the indicator species for the complex. The recreational ACL and ACT are undefined because there is no defined allocation of recreational harvest. This means that the Gulf recreational allocation for black grouper is undefined and would need to be revisited. **Option 3b** would divide the sector allocations based on the ratio of landings, with 50% of the weighting given to the mean of the landings from 1993-2008, and 50% on the mean of the landings from 2009-2013. **Option 3c** would base sector allocations for waters off the State of Florida on average landings from 2009-2013. **Option 3d** would base sector allocations for waters off the State of Florida on average landings from 2004-2013. **Table 19** outlines the resultant allocations for **Options 3a – 3c** of **Alternative 3**, based on the recreational and commercial landings in **Table 20**. Sector allocation options were determined with landings constrained to be no higher than the ACL for each respective sector in each Council's jurisdiction. For black grouper, the respective ACLs were not exceeded.

Table 19. Sector allocation options for black grouper for Alternative 3 of Action 8. Percentages were derived from landings in whole weight.

Black Grouper Sector ACL Options		
Option	Commercial	Recreational
Option 3a	*Would vary annually based on yield projections*	
Option 3b	61.63%	38.37%
Option 3c	48.02%	51.98%
Option 3d	57.79%	42.21%

Table 20. Commercial and recreational landings of black grouper in the Gulf of Mexico and South Atlantic for 1993-2013. Landings are reported in pounds whole weight.

Black Grouper Commercial and Recreational Landings, 1993-2013

Year	Commercial		Recreational	
	Gulf	*South Atlantic*	*Gulf*	*South Atlantic*
1993	515679	146214	13903	169438
1994	431911	131164	26451	217951
1995	309725	201737	63266	177669
1996	306206	190494	29489	372712
1997	185267	169530	54740	465053
1998	254355	174739	138058	272127
1999	362967	128968	43216	66471
2000	416218	122650	14505	107069
2001	389736	136082	30654	154036
2002	334195	149681	16054	130980
2003	389081	151382	18404	234406
2004	372206	147167	8352	189348
2005	217295	115345	45363	164478
2006	225776	81753	1555	124960
2007	137965	95501	20413	193300
2008	67007	52722	4583	179112
2009	38649	46726	23154	137771
2010	27537	44057	391	36186
2011	50526	62407	667	51898
2012	54165	50813	30718	149353
2013	63400	54075	3815	99096

Source: SERO ALS Database (commercial landings) and MRIP (recreational landings)

Landings indicate that the black grouper fishery has historically been dominated by the commercial fishery. However, recreational landings have increased in the more recent time series (2009-2013), resulting in the ratio of landings between the sectors to slightly favor the recreational sector. It is important to note that during the time periods considered in **Alternative 3**, neither the commercial nor the recreational sector exceeded their respective ACLs.

The following action pertains exclusively to accountability measures. Accountability measures are used by the Councils to compensate for overages in a given fishing year, to decrease the probability that deleterious impacts to fisheries will persist for long time periods.

Action 9: Specify Accountability Measures for South Florida Species

Note: Under some circumstances more than one alternative could be selected as preferred.

Alternative 1: No action. Maintain the current recreational and commercial accountability measures (AMs) for yellowtail snapper, mutton snapper, and black grouper based on the Reef Fish Resources and Snapper Grouper Fishery Management Plans for the Gulf and South Atlantic Councils, respectively.

South Atlantic: Commercial AM – In-season closure when the ACL is expected to be met and ACL reduced in following fishing season if species is overfished and ACL is exceeded. Recreational AM – if ACL is exceeded, monitor landings in following season for persistence in landings and reduce the length of the following fishing season, if necessary.

Gulf: For Yellowtail Snapper and Mutton Snapper, if the combined commercial and recreational landings exceed the stock ACL, in–season AMs are in effect for the following year. If the combined landings reach or are projected to reach the stock ACL, both sectors will be closed for the remainder of that fishing year. For black grouper, this AM applies to the ACL for the other shallow-water grouper aggregate (black grouper, scamp, yellowmouth grouper, and yellowfin grouper).

Alternative 2: If the sum of the commercial and recreational landings exceeds the stock ACL, then during the following fishing year, if the sum of commercial and recreational landings reaches or is projected to reach the stock ACL, then the commercial and recreational sectors will be closed for the remainder of that fishing year. On and after the effective date of a closure, all sales, purchases harvest or possession of this species in or from the EEZ will be prohibited.

Option 2a: For yellowtail snapper
Option 2b: For mutton snapper
Option 2c: For black grouper

Alternative 3: If commercial landings reach or are projected to reach the commercial ACL, NMFS would close the commercial sector for the remainder of the fishing year. On and after the effective date of such a notification, all sale or purchase is prohibited and harvest or possession of this species in or from the EEZ would be limited to the recreational bag and possession limit. Additionally, if the commercial ACL is exceeded, NMFS would reduce the commercial ACL in the following fishing year by the amount of the commercial overage, only if the species is overfished **and** the total ACL (commercial ACL and recreational ACL) is exceeded.

Option 3a: For yellowtail snapper
Option 3b: For mutton snapper
Option 3c: For black grouper

Alternative 4: If recreational landings exceed the recreational ACL, then during the following fishing year, recreational landings will be monitored for a persistence in increased landings. If necessary, NMFS would reduce the length of fishing season and the recreational ACL in the following fishing year by the amount of the recreational overage, only if the species is overfished **and** the total ACL (commercial ACL and recreational ACL) is exceeded. The length of the recreational season and recreational ACL will not be reduced if NMFS determines, using the best scientific information available, that a reduction is unnecessary.

Option 4a: For yellowtail snapper
Option 4b: For mutton snapper
Option 4c: For black grouper

Alternative 5: If recreational landings reach or are projected to reach the recreational ACL, NMFS would close the recreational sector for the remainder of the fishing year, unless, using the best scientific information available, NMFS determines that a closure is unnecessary.

Option 5a: If the species is overfished
Sub-option 5a(1): For yellowtail snapper
Sub-option 5a(2): For mutton snapper
Sub-option 5a(3): For black grouper
Option 5b: Regardless of stock status
Sub-option 5b(1): For yellowtail snapper
Sub-option 5b(2): For mutton snapper
Sub-option 5b(3): For black grouper

Alternative 6: The Councils would jointly set the ACL for the recreational and commercial sector. If the combined recreational ACL and commercial ACL is met or expected to be met, NMFS would close both sectors for the remainder of the fishing year.

Option 6a: yellowtail snapper
Option 6b: mutton snapper
Option 6c: black grouper

Modified by the South Atlantic Council to insert sub-options for each species under the two main options for the alternative

***Note:** The South Atlantic Council is considering changes to their accountability measures in Snapper-Grouper Amendment 34, which could change the no-action and action alternatives in Action 9. These changes have been transmitted to the Secretary of Commerce by the South Atlantic Council, and are currently in the NMFS review and rule-making process.*

The South Atlantic Council would like for the language in Alternatives 3 and 4 to mirror similar language found in the South Atlantic Council's Generic Accountability Measures Amendment. The language proposed herein has been provided by the Southeast Regional Office to be more similar to language NMFS is using or recommending in multiple other documents.

Discussion

Alternative 2 follows the AMs that are in place for Gulf species; whereas, **Alternatives 3-5** follow AMs that are being considered for snapper-grouper species in the Comprehensive AM and Dolphin Allocation Amendment. **Alternative 6** would close the areas covered by a joint ABC and ACL to fishing for the species selected in the associated options only when the overall ACL is met. **Alternative 6** would require each Council to establish recreational and commercial ACLs for the preferred options.

Compared to **Alternative 1 (No Action)**, **Alternatives 2-6** would benefit the biological environment to varying degrees based on the sub-alternatives chosen under each alternative. For the recreational sector, the most biologically beneficial option is likely **Alternatives 5**. For the commercial sector, the most biologically beneficial option compared to **Alternative 1 (No Action)** is likely to be **Alternative 3**. None of the alternatives considered under this action would significantly alter the way in which the fisheries are prosecuted in the South Atlantic EEZ. No adverse impacts on endangered or threatened species are anticipated because of this action; nor are any adverse impacts on essential fish habitats or habitat areas of particular concern including corals, sea grasses, or other habitat types.

For the commercial sector, the alternatives may be ranked from lowest to highest probability of paybacks and short-term adverse economic effects as follows: **Alternative 1 (No Action)**, **Alternatives 2**, **Alternatives 6**, and **Alternative 3**. The likelihood that a species would be affected by this action is based primarily on the probability that its total ACL would be reached, and whether or not the species is overfished.

For the recreational sector, **Alternative 4** would be less likely to cause short-term direct economic effects compared to **Alternatives 5** and **6** because any closure would not occur until the second year of overages. However, **Alternatives 5** and **6** would be more likely to prevent long term, direct economic effects compared to **Alternative 4.**

For the commercial sector, maintaining the current AMs under **Alternative 1 (No Action)** would not be expected to result in additional negative effects on the commercial fleets of these fisheries, but could also negate benefits to the commercial sectors by not allowing flexibility in the payback provisions, such as those in **Alternatives 3** and **6. Alternative 3** would provide the most flexibility for triggering the payback AM, in that the most critical conditions must be met before the payback is triggered, and would be expected to be most beneficial to commercial fishermen in that it would be less likely that a payback is required for an overage. Additionally, **Alternative 3** would be more consistent with AMs for other species such as king mackerel and Spanish mackerel in the South Atlantic.

For the recreational sector, maintaining the current AMs under **Alternative 1 (No Action)** would not be expected to result in additional negative effects on recreational fishermen and for-hire businesses, other than inconsistency in AMs among all species. For many of these species, establishment of a payback provision without a post-season AM under **Alternative 4** would create an increased likelihood that an overage of the recreational ACL could reduce fishing opportunities in the following year. However, **Alternatives 4** provides some flexibility in how a post-season payback would be triggered. The in-season closure AM for the recreational sector in

Alternatives 5 and **6** could have negative effects on recreational fishing opportunities and for-hire businesses for the stocks that do not have a recreational in-season AM in place. However, **Alternative 6** would reduce the likelihood of a recreational in-season closure.

Alternatives 2-6 may be associated with slight changes to the administrative environment based on the frequency with which each of the AM options for the commercial sector would be triggered. The payback provision under **Alternatives 3** and **4** would be triggered less frequently given that the species must be overfished and the total ACL exceeded, resulting in the lowest direct effects on the administrative environment. The administrative impacts associated with **Alternative 2** are largely the same as those under **Alternative 4**, with the addition of continued monitoring for persistence of increased landings when a species' recreational ACL has been exceeded. **Alternatives 3** and **4** are the least likely to be triggered. Overall, the administrative impacts of all the alternatives considered under this action, compared to **Alternative 1 (No Action)**, are expected to be minimal.

The following actions pertain to seasonal closures in the shallow-water grouper fisheries of the Gulf of Mexico and the South Atlantic. Seasonal closures are time-based closures to fishing effort to conserve or protect fish stocks from harvest during periods of increased vulnerability, such as during spawning seasons.

Action 10. Modify Shallow-water Grouper Species Compositions and Seasonal Closures in the Gulf and South Atlantic

Alternative 1: No action. Retain the existing respective shallow-water grouper species compositions and seasonal closures in the Gulf and South Atlantic Councils.

Alternative 2: Remove the shallow-water grouper closure for all affected grouper species in the Gulf of Mexico and the South Atlantic:

Option 2a: from the Dade/Monroe County line on the east coast of Florida to Shark Point on the west coast of Monroe County, Florida.

Option 2b: Throughout each Council's jurisdiction.

Alternative 3: Establish identical regulations for shallow-water grouper species compositions for the Gulf and South Atlantic from the Dade/Monroe County line on the east coast of Florida to Shark Point on the west coast of Monroe County, Florida:

Option 3a: Adopt the Gulf shallow-water grouper species composition for the Gulf and South Atlantic.

Option 3b: Adopt the South Atlantic shallow-water grouper species composition for the Gulf and South Atlantic.

Option 3c: Specify a new and identical shallow-water species complex for the Gulf and South Atlantic.

Alternative 4: Establish identical regulations for the shallow-water grouper seasonal closures in the Gulf and South Atlantic from the Dade/Monroe County line on the east coast of Florida to Shark Point on the west coast of Monroe County, Florida:

Option 4a: Adopt the Gulf shallow-water grouper seasonal closures for the Gulf and South Atlantic.

Option 4b: Adopt the South Atlantic shallow-water grouper seasonal closures for the Gulf and South Atlantic.

Option 4c: Establish new and identical regulations for shallow-water grouper seasonal closures in the Gulf of Mexico and the South Atlantic.

Alternative 5: Establish identical regulations for the shallow-water grouper seasonal closures throughout the Gulf and South Atlantic:

Option 5a: Adopt the Gulf shallow-water grouper seasonal closures for the Gulf and South Atlantic.

Option 5b: Adopt the South Atlantic shallow-water grouper seasonal closures for the Gulf and South Atlantic.

Option 5c: Establish new and identical regulations for shallow-water grouper seasonal closures in the Gulf of Mexico and the South Atlantic.

Alternative 6: Modify the shallow-water grouper seasonal closure off Monroe County, Florida to allow harvest of other shallow-water grouper species and only close harvest of gag.

Discussion:
The immediate effects of fishing pressure on the reproductive characteristics of shallow-water grouper (SWG) are most often seen in the average size of fish landed, and in changes in sex ratios over time (Coleman et al. 1996; Koenig et al. 2000). Long-term effects include decreases in fecundity, population abundance, and concomitantly, catch limits. Commercially and recreationally important SWG species which would be subject to additional exploitation, such as red grouper (*Epinephelus morio*), black grouper (*Mycteroperca bonaci*), gag (*M. microlepis*), yellowfin grouper (*M. venenosa*), yellowmouth grouper (*M. interstitialis*), and scamp (*M. phenax*), all of which are protogynous species (Shapiro 1987, Böhlke and Chaplin 1993) attracted to high-relief sites. Gag, scamp, and black grouper form predictable, localized, and seasonal spawning aggregations, increasing their vulnerability to exploitation (Gilmore and Jones 1992; Coleman et al. 1996; Coleman et al. 2000; Brule et al. 2003). Yellowfin and yellowmouth groupers may be similarly vulnerable; however, substantially less empirical life history information is available for these two species (**Table 21**).

Table 21. Gulf of Mexico shallow-water grouper spawning information and recreational season closures. The shallow-water grouper complex applies to both the recreational and commercial sector in the Gulf of Mexico; however, the commercial sector is managed with an individual fishing quota system so the season closures listed below only apply to the recreational sector.

Gulf of Mexico Shallow-Water Grouper Complex					
Species	**Current Recreational Closure**	**Spawning Season**	**Spawning Depth**	**Northernmost Distribution**	**Data Source(s)**
Gag	1/1-6/30 and 12/4-12/31	January-May	50-120 m	Northern Florida Panhandle	SEDAR 33
Black Grouper	2/1- 3/31 > 20-fath	February-April	≥ 30 m	Middle Grounds/Big Bend	SEDAR 19
Red Grouper	2/1- 3/31 > 20-fath	March-May	25-120 m	Northern Florida Panhandle	SEDAR 12, 2009 SEDAR 12 Update
Scamp	2/1- 3/31 > 20-fath	January-May	30-100 m	Gulf-wide	Heemstra and Randall 1993, Coleman et al. 2011
Yellowfin Grouper	2/1- 3/31 > 20-fath	February-April	30-40 m	Gulf-wide	Nemeth et al. 2006
Yellowmouth Grouper	2/1- 3/31 > 20-fath	March-May	≤ 150 m	Gulf-wide	Heemstra and Randall 1993; Bullock and Murphy 1994

In the Gulf of Mexico, a separate recreational gag season was developed as part of the gag rebuilding plan. Because other SWG stocks are considered healthy, the utility of the SWG closure was questioned. In addition, much of the dominant gag spawning grounds are now protected by time-area closures. In response to this, the Gulf Council submitted a framework action that among other things, eliminated the February 1 through March 31 SWG closure shoreward of 20 fathoms in the Gulf of Mexico (GMFMC 2012). These new regulations were adopted and implemented in 2013. The SWG closure is still enforced in the exclusive economic zone in the Gulf for waters seaward of 20 fathoms (~36.5 m, or 120 feet). It should be noted that the SEDAR 33 stock assessment, in combination with additional analyses as requested by the Gulf Council's Scientific and Statistical Committee, determined that the Gulf of Mexico gag population was rebuilt at their June 2014 meeting.

The January-April commercial and recreational spawning season closure for South Atlantic SWG was put into place through the final rule for Amendment 16 to the Snapper Grouper FMP (SAFMC 2008). Off the southeastern United States, gag spawn from December through May, with a peak in March and April (McGovern et al. 1998). There is some evidence that spawning may occur earlier off Florida compared to other more northern areas. Gag may make annual late-winter migrations to specific locations to form spawning aggregations, and fishermen know many of these locations. McGovern et al. (2005) found gag were capable of extensive movement and suggested some large scale movement may be related to spawning. Gilmore and Jones (1992) indicated male gag may be selectively removed from spawning aggregations because they are the largest and most aggressive individuals and subsequently, the first to be taken by fishing gear. In 1998, the South Atlantic Council took action to reduce fishing mortality and protect spawning aggregations of gag and black grouper. Actions included a March-April spawning season closure for the commercial sector. While a March-April commercial closure may offer some protection to spawning aggregations including the selective removal of males, the January-April spawning season closure provided greater protection. Although gag spawn from December through May, aggregations are in place before and after spawning activity (Gilmore and Jones 1992). Therefore, males can be removed from spawning aggregations early in the spawning season, and this could affect the reproductive output of the aggregation if there were not enough males present in an aggregation for successful fertilization of eggs. Amendment 16 (SAFMC 2008) also established a provision to close other SWG including black grouper, red grouper, scamp, red hind, rock hind, yellowmouth grouper, yellowfin grouper, graysby, and coney, which are also known to spawn during January-April. Further protection for gag and SWG were provided through the establishment of ACLs and AMs in Amendment 17B to the Snapper Grouper FMP (SAFMC 2010b) and the Comprehensive ACL Amendment (SAFMC 2011), respectively. Thus, the seasonal closure provides protection to SWG during their spawning season when SWG species may be exceptionally vulnerable to fishing pressure, and ACLs and AMs are in place to help ensure overfishing does not occur. Information on SWG in the South Atlantic is provided in **Table 22**.

Table 22. South Atlantic shallow-water grouper complex spawning information. The shallow-water complex applies to both the commercial and recreational sectors in the South Atlantic.

Species	Current Rec & Comm Closure	Peak Spawning Season	General Spawning Depth	Data Source(s)
Gag	January-April	January-May	24-117 m	McGovern et al. 1998; SEDAR 10
Black Grouper	January-April	January-March	≥ 30 m	Crabtree and Bullock 1998; SEDAR 19
Red Grouper	January-April	February-April	30-90 m	Williams and Carmichael 2009; SEDAR 19
Scamp	January-April	March-May	33-93 m	Williams and Carmichael 2009; Harris et al. 2002
Yellowfin Grouper	January-April	March in FL Keys		Taylor and McMichael 1983
Yellowmouth Grouper	January-April	March-May in Gulf		Bullock and Murphy 1994
Red Hind	January-April	December-February in Caribbean		Thompson and Munro 1978
Rock Hind	January-April	January through March off Cuba		García-Cagide et al. 1994; Rielinger 1999
Graysby	January-April	March, May-July in Caribbean		Erdman 1976
Coney	January-April	November to March off Puerto Rico		Figuerola et al. 1997

Alternative 1 would retain the existing respective shallow-water grouper species compositions and seasonal closures in the Gulf and South Atlantic Councils. **Alternative 2** would remove the shallow-water grouper closure for all affected grouper species in the Gulf of Mexico and the South Atlantic either from the Dade/Monroe County line on the east coast of Florida to Shark Point on the west coast of Monroe County, Florida (**Option 2a**) or throughout each Council's jurisdiction (**Option 2b**). Law enforcement personnel have commented that the geographic boundaries proposed in **Alternative 2**, **Option 2a** may be easier to abide by and enforce. The Dade/Monroe County line in the east is a well-known and acknowledged boundary, and the waters west of Shark Point on the west coast of Monroe County do not constitute heavily used fishing grounds. **Alternative 3** would establish identical regulations for shallow-water grouper species compositions for the Gulf and South Atlantic from the Dade/Monroe County line on the east coast of Florida to Shark Point on the west coast of Monroe County, Florida by adopting either the Gulf shallow-water grouper species composition (**Option 3a**) or the South Atlantic shallow-water grouper species composition (**Option 3b**) for the Gulf and South Atlantic, or by specifying a new and identical shallow-water species complex for the Gulf and South Atlantic (**Option 3c**). Developing identical regulations for shallow-water grouper species compositions

in both Councils' jurisdictions would simplify management for fishermen, especially those who may fish in both Councils' jurisdictions on a single trip. **Alternative 4** would establish identical regulations for the shallow-water grouper seasonal closures in the Gulf and South Atlantic from the Dade/Monroe County line on the east coast of Florida to Shark Point on the west coast of Monroe County, Florida by adopting the Gulf shallow-water grouper seasonal closures (**Option 4a**) or the South Atlantic shallow-water grouper seasonal closures (**Option 4b**) for the Gulf and South Atlantic, or by establishing new and identical regulations for shallow-water grouper seasonal closures in both Councils' jurisdictions (**Option 4c**). **Alternative 5** would establish identical regulations for the shallow-water grouper seasonal closures in the same manner and with the same options as **Alternative 4**, except that the resultant regulations would be applicable throughout the Gulf and South Atlantic. **Alternative 6** would modify the shallow-water grouper seasonal closure off Monroe County, Florida to allow harvest of other species and only close harvest of gag. **Alternative 6** would allow fishermen to pursue shallow-water grouper species determined in **Alternative 3** (if **Alternative 3** is selected as preferred), while protecting the recovery of gag in the South Atlantic.

Action 11. Modify Black Grouper Fishery Closures and Bag Limits in the Gulf of Mexico and the South Atlantic.

Alternative 1: No Action – Do not modify black grouper recreational closures in the Gulf of Mexico or recreational and commercial closures in the South Atlantic. Maintain currently established seasonal bag limits in both the Gulf of Mexico and the South Atlantic, with black grouper included as a component of the shallow-water grouper and reef fish aggregate bag limits.

Alternative 2: Remove black grouper from the shallow-water grouper closures of the recreational season in the Gulf and of the recreational and commercial seasons in the South Atlantic.

Alternative 3: Establish a recreational seasonal closure for black grouper. *(Multiple options may be chosen)*

Option 3a: January
Option 3b: February
Option 3c: March

Alternative 4: Remove black grouper from the shallow-water grouper closures of the recreational season in the Gulf of Mexico and the recreational and commercial seasons in the South Atlantic in federal waters off Florida.

Alternative 5: Remove black grouper from the shallow-water grouper closures of the recreational season in the Gulf of Mexico and the recreational and commercial seasons in the South Atlantic in federal waters off Monroe County, Florida.

Alternative 6: Remove black grouper from recreational aggregate bag limits in the Gulf of Mexico.

Alternative 7: Remove black grouper from recreational aggregate bag limits in the South Atlantic.

Alternative 8: Establish a recreational bag limit for black grouper.

Option 8a: One fish/person/day
Option 8b: Two fish/person/day
Option 8c: Three fish/person/day
Option 8d: Four fish/person/day
Option 8e: Apply this bag limit only to the following area(s):
Sub-option 8a: Off Monroe County
Sub-option 8b: In federal waters off Florida
Sub-option 8c: In federal waters of the Gulf and the South Atlantic

Alternative 9: Modify the commercial seasonal closure for black grouper in the Gulf of Mexico and the South Atlantic.

Option 3a: January
Option 3b: February

Option 3c: March

Added by the South Atlantic Council

IPT Note: *Establishing bag limits under Alternative 8 of Action 11 seems to duplicate efforts in Alternative 2, Option 2c of Action 7. If it is the Councils' desire to establish bag limits for black grouper in the manner shown in Action 11, then the Councils may wish to reconsider delegating the setting and changing of bag limits for black grouper to the State of Florida as outlined in Action 7.*

The South Atlantic Council wants to include discussion and a new alternative considering changes to commercial black grouper management, including seasonal closures and trip limits. These changes would affect the Gulf shallow-water grouper IFQ program.

Discussion

Modifying the current black grouper closures in the Gulf of Mexico and the South Atlantic could provide or remove protections to spawning aggregations, especially during peak spawning activity in January through March. The protection of spawning aggregations has shown to be beneficial to other heavily-targeted protogynous groupers (see Gulf of Mexico gag, SEDAR 33). Also, modifying the inclusion of black grouper in recreational bag limits in the Gulf of Mexico and the South Atlantic could provide additional harvest capacity for the recreational sector in the south Florida region, and may increase removals of other shallow-water groupers which may be under rebuilding plans. Removal of black grouper from the shallow-water grouper aggregate bag limit could permit the additional harvest of other shallow-water grouper species still included in bag limit. The same can be said about the potential additional harvest of other reef fish species included in the reef fish aggregate bag limit.

Alternative 1 would retain the current black grouper recreational closure in the Gulf of Mexico, and the recreational and commercial closures in the South Atlantic. Currently established seasonal bag limits in both the Gulf of Mexico and the South Atlantic would also remain the same, with black grouper included as a component of the shallow-water grouper and reef fish aggregate bag limits.

Alternative 2 would remove black grouper from the shallow-water grouper closure of the recreational season in the Gulf and of the recreational and commercial seasons in the South Atlantic, thus allowing harvest throughout the South Florida region year-round. Alternatively,

Alternative 3 would establish a recreational seasonal closure for black grouper during January only (**Option 3a**), during February only (**Option 3b**), or during March only (**Option 3c**). Multiple months can be selected for **Alternative 3** if a closure is determined necessary for multiple months.

Alternative 4 would remove black grouper from the shallow-water grouper closures of the recreational season in the Gulf of Mexico and the recreational and commercial seasons in the

South Atlantic in federal waters off Florida. This would open black grouper up to recreational fishing effort beyond 20 fathoms in Gulf waters off Florida during February and March, and to recreational and commercial fishing effort in Atlantic waters off Florida from January through April.

Alternative 5 would have the same effects as **Alternative 4**, except that **Alternative 5** would only apply to those waters off Monroe County, Florida.

Alternative 6 would remove black grouper from recreational aggregate bag limits in the Gulf of Mexico, and **Alternative 7** would do the same in the South Atlantic. **Alternatives 6** and **7** have the potential to result in increased harvest capacity for those species remaining in the shallow-water grouper aggregate bag limits, as black grouper would no longer account for some portion of those bag limits. Such a removal would permit the harvest of additional fish still included within those respective aggregate bag limits.

Alternative 8 would establish a recreational bag limit for black grouper, with one of the following options: **Option 8a**: One fish/person/day; **Option 8b**: Two fish/person/day; **Option 8c**: Three fish/person/day; and **Option 8d**: Four fish/person/day. **Option 8e** of **Alternative 8** would apply the bag limit option selected from **Options 8a-8d** only to the following area(s): **Sub-option 8a**: Off Monroe County; **Sub-option 8b**: In federal waters off Florida; or **Sub-option 8c**: In federal waters of the Gulf and the South Atlantic. Due to a paucity of data, it is not possible to conduct a thorough analysis of this alternative for Gulf waters. An analysis of Alternative 8 for South Atlantic waters is provided in Appendix B.

The following actions pertain to modifications of landing and effort controls. Such regulations include size limits, bag limits, and permissible gear types. By modifying how these regulations influence fishing practices, the Councils can control the size and quantity of fish landed, and help to influence other factors including discard mortality.

Action 12: Harmonize bag and size limits for species in shallow-water grouper complex seasonal closures in Federal Waters Adjacent to Monroe County, Florida.

Alternative 1: No action – Retain the current bag and size limits for species in shallow-water grouper complex seasonal closures in federal waters adjacent to Monroe County, Florida.

Alternative 2: Harmonize the bag limits for species included in the shallow-water grouper seasonal closures in the exclusive economic zone of the Gulf of Mexico and the South Atlantic.

Alternative 3: Harmonize the size limits for species included in the shallow-water grouper seasonal closures in the exclusive economic zone of the Gulf of Mexico and the South Atlantic.

Added by the South Atlantic Council

IPT Note*: *The IPT recommends the removal of Action 12, as it is outside of the scope of this amendment. Action 12 would require the addition (in the Gulf) or removal (in the South Atlantic) of species in the respective shallow-water grouper complexes (Action 10). Also, Action 12 would have implications for the Gulf and South Atlantic regions to a much greater extent than that outlined in the purpose of this amendment. Further, Alternative 3 of Action 10 already achieves the goal of Action 12, with respect to the South Florida region. If Action 12 remains necessary, it may be worthwhile to consider a separate amendment for this action, as it will encompass several additional species with multiple actions for each species.

Action 13. Changes to Circle Hook Requirement in Gulf and South Atlantic Jurisdictional Waters

Alternative 1: No action – Retain the current hook requirements in the exclusive economic zone of the Gulf of Mexico and the South Atlantic.

Alternative 2: Remove the requirement to use circle hooks when fishing with natural bait for yellowtail snapper in the exclusive economic zone of the Gulf of Mexico.

Option 2a: For the recreational fishing sector

Option 2b: For the commercial fishing sector

Alternative 3: Remove the requirement to use circle hooks when fishing with natural bait for yellowtail snapper south of 28° North latitude in the exclusive economic zone of the Gulf of Mexico.

Option 3a: For the recreational fishing sector

Option 3b: For the commercial fishing sector

Alternative 4: Require the use of circle hooks when fishing with natural bait for all snapper-grouper species south of 28° North latitude in the exclusive economic zone of the South Atlantic.

Option 4a: For the recreational fishing sector

Option 4b: For the commercial fishing sector

Alternative 5. Remove the requirement to use circle hooks when fishing with natural bait for all species in the snapper grouper complex north of 28° North latitude in the exclusive economic zone of the South Atlantic.

Option 5a: For the recreational fishing sector

Option 5b: For the commercial fishing sector

Alternative 6. Remove the requirement to use circle hooks when fishing with natural bait for yellowtail snapper in federal waters from the Dade/Monroe County line on the east coast of Florida to Shark Point on the west coast of Monroe County, Florida

Option 6a: For the recreational fishing sector

Option 6b: For the commercial fishing sector

IPT Note*: *The IPT recommends the removal of Alternative 5, as it is outside of the scope of this amendment. The area being referenced in Alternative 5 includes areas north of the State of Florida.

The South Atlantic Council would like to retain Alternative 5, as it would allow them to address other aspects of Snapper-Grouper management in one document.

***IPT Note**: The Committee may wish to consider establishing safeguards to ensure that a vessel fishing for yellowtail snapper with hooks other than circle hooks is not also actively fishing for other reef fish species for which circle hooks are still required.*

Discussion:

In 2008, the Gulf Council adopted a preferred management alternative in Amendment 27 to the Reef Fish Fishery Management Plan, which required recreational anglers fishing in federal waters to use non–stainless steel circle hooks when catching reef fishes with natural bait (50 CFR 622.41). Circle hooks are defined by regulation as "a fishing hook designed and manufactured so that the point is turned perpendicularly back to the shank to form a generally circular, or oval, shape." Florida matched federal regulations, with the added specification that a circle hook must have zero degrees of offset (Florida Administrative Code §68B-14.005).

In 2010, the South Atlantic Council approved Amendment 17A to the snapper grouper Fishery Management Plan (SAFMC 2010a), which required recreational and commercial anglers fishing in federal waters to use non-stainless steel circle hooks (offset or non-offset) when fishing for all species in the snapper grouper complex when using hook-and-line-gear with natural baits in waters North of 28 degrees North latitude. This requirement was effective March 3, 2011.

Multiple reef fish species managed by the Gulf Council occur in waters south of 28°N latitude. A recent stock assessment on red snapper recognized and incorporated reduced discard mortality as a result of the requirement to use circle hooks when fishing with natural bait (SEDAR 31 2013). Sauls and Ayala (2012) observed red snapper caught with circle hooks and J hooks within the recreational sector and reported a 63.5% reduction in potentially lethal hooking injuries for red snapper caught with circle hooks (6.3% potentially lethal injuries, versus 17.1% with J hooks) (SEDAR 31 2013). SEDAR 33 (2014a, b) examined the effects of hook type on gag and greater amberjack and determined that the generally low level of recreational discard mortality for both species (both prior to and after the 2008 circle hook requirement) negated the realization of benefits from using circle hooks (Sauls and Ayala 2012; Sauls and Cermak 2013; Murie and Parkyn 2013).

Alternative 1 would retain the current circle hook requirements in Gulf of Mexico jurisdictional waters, requiring recreational anglers fishing in federal waters to use non–stainless steel circle hooks when catching reef fish with natural bait. Biological impacts from this alternative are not expected to change from present conditions. Any biological benefit(s) to the current circle hook requirement would be expected to persist.

Alternative 2 would remove the requirement to use circle hooks when fishing with natural bait for yellowtail snapper in the Gulf of Mexico. **Option 2a** would remove the requirement for the recreational fishing sector, and **Option 2b** would remove the requirement for the commercial fishing sector. Anglers have informed resource managers of an increased propensity for gut-hooking yellowtail snapper when fishing with circle hooks due to the small size of hook needed to successfully hook yellowtail snapper. Anglers indicate that the smaller circle hooks are swallowed completely into the stomach, increasing the likelihood of the hook snagging somewhere in the fish's digestive tract. If J-hooks are permitted for use, anglers argue, they will be able to hook yellowtail snapper in the mouth more frequently due to the morphology of the fish's mouth.

In the absence of scientific literature to characterize differences in lethal hooking injuries from different hook types for yellowtail snapper, the biological effects of removing the circle hook requirement are largely unknown. However, requiring the use of one hook type for multiple cohabitating species and not for another may result in a management measure which is difficult to enforce. Anglers fishing for yellowtail snapper with hooks other than circle hooks would not be likely to keep from landing any of the other reef fish species for which circle hooks are required. Incidental catch of fish other than yellowtail snapper under **Alternative 2 Option 2a** may have deleterious biological effects on bycatch, including those species which are currently under rebuilding plans (red snapper and gray triggerfish). These effects could be influential elsewhere in the Gulf, as yellowtail snapper are increasingly found off Texas. A potential exception to these possible impacts applies to the commercial fishing sector (**Option 2b**), where the fishing practices used almost exclusively target yellowtail snapper. Commercial fishermen indicate that they use chum bags on the surface to encourage yellowtail snapper to school near the transom of the fishing vessel, and then use natural bait on small hooks to catch and land the fish. The commercial fishermen also indicate that their release tools allow them to release yellowtail snapper which have been caught with J-hooks more easily than those caught with circle hooks, resulting in decreased handling times for fish which are to be discarded.

Alternative 3 would remove the requirement to use circle hooks when fishing with natural bait for yellowtail snapper south of 28°N latitude in the EEZ in the Gulf. **Option 3a** would remove the requirement for the recreational fishing sector, and **Option 3b** would remove the requirement for the commercial fishing sector. **Alternative 3** would be expected to have similar negative biological consequences as **Alternatives 2**, albeit to a lesser degree than both. Under **Alternative 3**, all yellowtail snapper which occur in the Gulf south of 28°N latitude would be vulnerable to fishing pressure from hook types other than circle hooks. Permitting the use of any hook type may have negative effects on the rebuilding plans of other reef-associated species (such as red snapper), and may result in increased discard mortality in multiple fisheries.

Alternative 4 would require the use of circle hooks when fishing with natural bait for all snapper-grouper species south of 28° North latitude in the exclusive economic zone of the South Atlantic for the recreational fishing sector (**Option 4a**) and/or the commercial sector (**Option 4b**). Such a requirement would make the snapper-grouper regulations in the South Atlantic commensurate with the reef fish regulations for the Gulf of Mexico. Additionally, benefits to the biological environment may be realized for those species with documented decreases in post-release mortality when caught with circle hooks as opposed to other hook types.

Alternative 5 would remove the requirement to use circle hooks when fishing with natural bait for all species in the snapper grouper complex north of 28° North latitude in the exclusive economic zone of the South Atlantic for the recreational fishing sector (**Option 5a**) and/or the commercial sector (**Option 5b**). This alternative would create consistent fishing regulations for the selected sector(s) throughout the South Atlantic Council's jurisdiction. Any socio-economic benefits currently realized south of 28° North latitude would be realized north of that line, as would any biological impacts.

Alternative 6 would remove the requirement to use circle hooks when fishing for yellowtail snapper in federal waters from the Dade/Monroe County line on the east coast of Florida to

Shark Point on the west coast of Monroe County, Florida for the recreational fishing sector (**Option 6a**) and/or the commercial sector (**Option 6b**). Circle hooks are currently not required when fishing for yellowtail snapper south of 28˚ N latitude in the exclusive economic zone of the South Atlantic. The primary harvest areas for both the recreational and commercial sectors exist south of ~26˚ N latitude (Monroe and Dade counties, >70% recreational and >97% commercial). When commercial fishing for yellowtail snapper, fishermen use chum to bring the fish to the surface. Small hooks are baited with natural bait and fish are typically hooked at the surface within five meters of the fishing vessel. This practice has been shown to limit bycatch of non-yellowtail snapper species, since fishermen can actively monitor which fish are pursuing a bait. Additionally, commercial fishermen believe that the combination of hook size and historical fishing practices can serve as safeguards against bycatch of undersized yellowtail snapper and non-yellowtail snapper species.

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APPENDIX A. CONSIDERED BUT REJECTED ACTIONS AND ALTERNATIVES

Action 1: Modifications to the Fishery Management Plans of the Gulf and South Atlantic Fishery Management Councils

Alternative 1: No action. Do not modify the Reef Fish and Snapper Grouper Fishery Management Plans for the Gulf and South Atlantic Councils, respectively.

Alternative 2: Delegate management of any of the species listed below to the State of Florida.

Option 2a: yellowtail snapper
Option 2b: mutton snapper
Option 2c: black grouper recreational fishery only

Note: Alternative 2 would delegate all management including ABC, ACLs, management measures, etc.

Alternative 3: Manage each stock as a single unit with an overall combined multijurisdictional annual catch limits (ACLs).

Suggested wording from FWC Staff from minutes pages 125-127: The Gulf and South Atlantic Councils will agree to manage any of the species listed below with an overall ABC and an overall ACL. Each Council would agree to a recreational and commercial split. Both Councils will close their jurisdictions when the overall ACL is met.

Option 3a: yellowtail snapper
Option 3b: mutton snapper
Option 3c: black grouper

Alternative 4: Remove any of the species listed below from the Reef Fish and Snapper Grouper Fishery Management Plans for the Gulf and South Atlantic Councils, respectively.

Option 4a: yellowtail snapper
Option 4b: mutton snapper
Option 4c: black grouper

Alternative 5: Remove any of the species listed below from the Reef Fish Fishery Management Plan of the Gulf Council and request the Secretary of Commerce designate the South Atlantic Council as the responsible Council.

Option 5a: yellowtail snapper
Option 5b: mutton snapper

Alternative 6: Remove any of the species listed below from the Snapper Grouper Fishery Management Plan of the South Atlantic Council and request the Secretary of Commerce designate the Gulf Council as the responsible Council.

Option 6a: yellowtail snapper
Option 6b: mutton snapper

Rationale: Action 1 was removed by the Committee, and the alternatives therein were merged within other remaining Actions in the document.

Action 3: Allocate Yellowtail Snapper Sector Annual Catch Limits to the State of Florida and Create a Landings Allowance for other Gulf and South Atlantic States

Alternative 2. Use both Councils' agreed upon ABC for yellowtail snapper and allocate the commercial and recreational ACLs for the Gulf and South Atlantic:

Option 2a: Use the South Atlantic Council's current sector allocation formula (bowtie approach): divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1986-2008, and 50% on the mean of the landings from 2006-2008.

Alternative 3. Use both Councils' agreed upon ABC for yellowtail snapper and create Gulf commercial and recreational sector ACLs from the current ABC jurisdictional split: 75% of the ABC for South Atlantic Council jurisdictional waters, and 25% for Gulf Council jurisdictional waters. Gulf sector allocations would be derived from one of the options below, and the subsequent Gulf and South Atlantic sector allocations would be combined to create sector allocations off Florida:

Option 3a: Use the South Atlantic Council's current sector allocation formula: divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1986-2008, and 50% on the mean of the landings from 2006-2008.

Option 3b: Use the following sector allocation formula: divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1993-2008, and 50% on the mean of the landings from 2009-2013.

Option 3c: Base sector allocations for waters off Florida on average landings from 2008-2012

Option 3d: Base sector allocations for waters off Florida on average landings from 200x-20xx

Option 3e: Employ some other allocation formula

Alternative 4. Create a landings allowance for yellowtail snapper in the other Gulf (TX, LA, MS, AL) and other South Atlantic States (GA, SC, NC).

Option 4a: Adjust ABC by 1% to address landings in the other Gulf and South Atlantic States.

Option 4b: Adjust ABC by 2% to address landings in the other Gulf and South Atlantic States.

Rationale: Alternative 2a was removed after a mathematical bias was identified with the proposed "bowtie" approach. Alternative 3 was removed in favor of Alternative 2, and because changes in the current jurisdictional split would require revisiting sector allocations in the future. Alternative 4 was removed because it was not deemed necessary to accomplish stated management goals.

Action 4: Delegate Commercial and Recreational Management of Mutton Snapper to the State of Florida

Alternative 2: Determine specific recreational management items for delegation to the State of Florida for Mutton Snapper:

Option 2a: Size limits
Option 2b: Seasons
Option 2c: Bag limits
Option 2d: Minor modifications to existing allowable gear
Option 2e: Fishing year

Alternative 3: Determine specific commercial management items for delegation to the State of Florida for Mutton Snapper:

Option 3a: Size limits
Option 3b: Seasons
Option 3c: Commercial trip limits
Option 3d: Minor modifications to existing allowable gear
Option 3e: Fishing year

Rationale: Alternatives 2e and 3e were removed after the Committee determined that setting the fishing year should remain a Council responsibility, in conjunction with determining ABCs, ACLs, and AMs.

Action 5: Allocate Mutton Snapper Sector Annual Catch Limits to the State of Florida and Create a Bycatch Allowance for other Gulf and South Atlantic States

Alternative 2. Use both Councils' agreed upon ABC for mutton snapper and allocate the commercial and recreational ACLs for the Gulf and South Atlantic:

Option 2a: Use the South Atlantic Council's current sector allocation formula (bowtie approach): divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1986-2008, and 50% on the mean of the landings from 2006-2008.

Alternative 3. Use both Councils' agreed upon ABC for mutton snapper and create Gulf commercial and recreational sector ACLs from the current ABC jurisdictional split: 82% of the ABC for South Atlantic Council jurisdictional waters, and 18% for Gulf Council jurisdictional waters. Gulf sector allocations would be derived from one of the options below, and the subsequent Gulf and South Atlantic sector allocations would be combined to create sector allocations off Florida:

Option 3a: Use the South Atlantic Council's current sector allocation formula: divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1986-2008, and 50% on the mean of the landings from 2006-2008.

Option 3b: Use the following sector allocation formula: divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1993-2008, and 50% on the mean of the landings from 2009-2013.
Option 3c: Base sector allocations for waters off Florida on average landings from 2008-2012
Option 3d: Base sector allocations for waters off Florida on average landings from 200x-20xx
Option 3e: Employ some other allocation formula

Alternative 4. Create a landings allowance for mutton snapper in the other Gulf (TX, LA, MS, AL) and other South Atlantic States (GA, SC, NC).

Option 4a: Adjust ABC by 1% to address landings in the other Gulf and South Atlantic States.
Option 4b: Adjust ABC by 2% to address landings in the other Gulf and South Atlantic States.

Rationale: Alternative 2a was removed after a mathematical bias was identified with the proposed "bowtie" approach. Alternative 3 was removed in favor of Alternative 2, and because changes in the current jurisdictional split would require revisiting sector allocations in the future. Alternative 4 was removed because it was not deemed necessary to accomplish stated management goals.

Action 8: Delegate Recreational Management of Black Grouper to the State of Florida

Alternative 2: Determine specific recreational management items for delegation to the State of Florida for black grouper:

Option 2a: Size limits
Option 2b: Seasons
Option 2c: Bag limits
Option 2d: Minor modifications to existing allowable gear
Option 2e: Fishing year

Rationale: Alternative 2e was removed after the Committee determined that setting the fishing year should remain a Council responsibility, in conjunction with determining ABCs, ACLs, and AMs.

Action 9: Allocate Black Grouper Recreational Annual Catch Limits to the State of Florida and Create a Recreational Bycatch Allowance for other Gulf and South Atlantic States

Alternative 2. Use both Councils' agreed upon ABC for black grouper and allocate the recreational ACLs for the Gulf and South Atlantic:

Option 2b: Use the South Atlantic Council's current sector allocation formula (Bowtie approach): divide the sector allocations based on the ratio of landings with 50% of the

weighting given to the mean of the landings from 1991-2008, and 50% on the mean of the landings from 2006-2008.

Alternative 3. Use both Councils' agreed upon ABC for black grouper and create Gulf commercial and recreational sector ACLs from the current ABC jurisdictional split: 47% of the ABC for South Atlantic Council jurisdictional waters, and 53% for Gulf Council jurisdictional waters. Gulf sector allocations would be derived from one of the options below, and the subsequent Gulf and South Atlantic sector allocations would be combined to create sector allocations off Florida:

Option 3a: Use the South Atlantic Council's current sector allocation formula: divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1991-2008, and 50% on the mean of the landings from 2006-2008.

Option 3b: Use the following sector allocation formula: divide the sector allocations based on the ratio of landings with 50% of the weighting given to the mean of the landings from 1993-2008, and 50% on the mean of the landings from 2009-2013.

Option 3c: Base sector allocations for waters off Florida on average landings from 2008-2012

Option 3d: Base sector allocations for waters off Florida on average landings from 200x-20xx

Option 3e: Employ some other allocation formula

Alternative 4. Create a recreational landings allowance for black grouper in the other Gulf (TX, LA, MS, AL) and other South Atlantic States (GA, SC, NC).

Option 4a: Adjust ABC by 1% to address landings in the other Gulf and South Atlantic States.

Option 4b: Adjust ABC by 2% to address landings in the other Gulf and South Atlantic States.

Option 4c: Adjust ABC by 3% to address landings in the other Gulf and South Atlantic States.

Option 4d: Adjust ABC by 4% to address landings in the other Gulf and South Atlantic States.

Rationale: Alternative 2b was removed after a mathematical bias was identified with the proposed "bowtie" approach. Alternative 3 was removed in favor of Alternative 2, and because changes in the current jurisdictional split would require revisiting sector allocations in the future. Alternative 4 was removed because it was not deemed necessary to accomplish stated management goals.

Action 10: Specify Accountability Measures for South Florida Species

Alternative 3: If commercial landings as estimated by the Science and Research Director reach or are projected to reach the commercial ACL, the Regional Administrator shall publish a notice to close the commercial sector for the remainder of the fishing year. On and after the effective date of such a notification, all sale or purchase is prohibited and harvest or possession of this species in or from the EEZ is limited to the bag and possession limit. Additionally,

Option 3a: If the commercial ACL is exceeded, the Regional Administrator shall publish a notice to reduce the commercial ACL in the following fishing year by the amount of the commercial overage, only if the species is overfished.

Option 3b: If the commercial ACL is exceeded, the Regional Administrator shall publish a notice to reduce the commercial ACL in the following fishing year by the amount of the commercial overage, only if the total ACL (commercial ACL and recreational ACL) is exceeded.

Option 3c: If the commercial ACL is exceeded, the Regional Administrator shall publish a notice to reduce the commercial ACL in the following fishing year by the amount of the commercial overage, only if the species is overfished **and** the total ACL (commercial ACL and recreational ACL) is exceeded.

Alternative 4: If recreational landings, as estimated by the Science and Research Director, exceed the recreational ACL, then during the following fishing year, recreational landings will be monitored for a persistence in increased landings.

Option 4a: If necessary, the Regional Administrator shall publish a notice to reduce the length of fishing season and the recreational ACL in the following fishing year by the amount of the recreational overage, only if the species is overfished. The length of the recreational season and recreational ACL will not be reduced if the Regional Administrator determines, using the best scientific information available, that a reduction is unnecessary.

Option 4b: If necessary, the Regional Administrator shall publish a notice to reduce the length of fishing season and the recreational ACL in the following fishing year by the amount of the recreational overage, only if the total ACL (commercial ACL and recreational ACL) is exceeded. The length of the recreational season and recreational ACL will not be reduced if the Regional Administrator determines, using the best scientific information available, that a reduction is unnecessary.

Option 4c: If necessary, the Regional Administrator shall publish a notice to reduce the length of fishing season and the recreational ACL in the following fishing year by the amount of the recreational overage, only if the species is overfished **and** the total ACL (commercial ACL and recreational ACL) is exceeded. The length of the recreational season and recreational ACL will not be reduced if the Regional Administrator determines, using the best scientific information available, that a reduction is unnecessary.

Rationale: Alternatives 3a, 3b, 4a, and 4b were removed after a recommendation from the South Atlantic Council, which recently passed updated accountability measures in Snapper Grouper Amendment 34. Amendment 34 is currently undergoing regulatory review.

Action 13. Changes to Circle Hook Requirement in Gulf and South Atlantic Jurisdictional Waters

Alternative 3: Remove the requirement to use circle hooks when fishing with natural bait for all reef fish south of 28° North latitude in the exclusive economic zone of the Gulf of Mexico.

Option 3a: For the recreational fishing sector

Option 3b: For the commercial fishing sector

Rationale: Alternative 3 was because of the documented positive biological effects identified for red snapper, which have shown decreased hooking mortality when caught with circle hooks. Because red snapper are undergoing rebuilding in the Gulf, the Committee elected to remove this alternative, so as to not jeopardize the rebuilding timeline for red snapper by potentially introducing additional discard mortality.

APPENDIX B. BLACK GROUPER ANALYSIS

Black Grouper Recreational Closure and Bag Limit Analysis for Action 11 of the Draft Joint Generic Amendment on South Florida Management Issues

This analysis focused on the South Atlantic region. This is because the Gulf of Mexico region had a low number of trips that sampled black grouper in the recreational surveys. From 2011 to 2013 there were only 56 trips (3 MRIP and 53 Headboat trips) in the Gulf of Mexico region. Therefore, there are not enough samples to do a meaningful analysis.

Additionally, the recreational black grouper landings in the Gulf of Mexico have been relatively low. Black grouper are included in the shallow water grouper complex in the Gulf of Mexico which has had landings below the ACL in the past three years (2012, 2013, and 2014). This complex consists of black, scamp, yellowmouth, and yellowfin grouper. From 2011 to 2013 black grouper contributed to only about 7% of the total shallow water grouper landings.

In June of 2009, South Atlantic Snapper-Grouper Amendment 16 established a *recreational closed season for South Atlantic black grouper from January 1st to April 30th.* Action 11 of the Draft Joint Generic Amendment on South Florida Management Issues proposes to eliminate or modify this closure and modify the bag limit. Predictions of closure dates are required to determine if landings will exceed the black grouper ACL if the closed season and bag limit are modified.

Estimating Future Landings

Data from the most recent years of complete landings (2012 and 2013) and preliminary 2014 landings were used as a proxy for future recreational landings for waves 3 through 6 (May to December). Landings from all three years of 2012 to 2014 were used, instead of just using the most recent year of landings, because landings were quite different in each of these years (Figure 1). Using all three years of data provides a range of different predictions for future landings. At the present time 2014 Headboat landings and MRIP landings for wave 6 (November to December) of 2014 are not available. Headboat landings from 2013 were used as a proxy for 2014 Headboat landings, and 2013 wave 6 MRIP landings were used as a proxy for 2014 wave 6 MRIP landings.

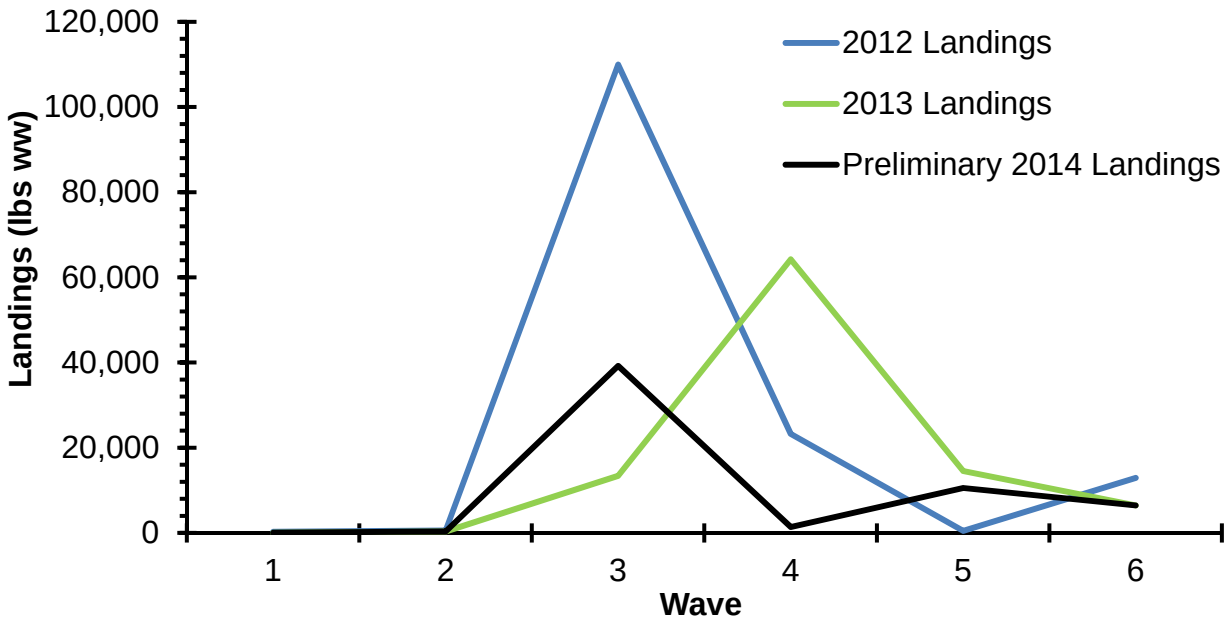

Figure 1. South Atlantic black grouper recreational landings by wave for 2012 and 2013, and preliminary landings for 2014.

Alternative 2: Remove the January to April Closure in the South Atlantic

Action 11 proposes to eliminate (Alternative 2) or modify (Alternatives 3 and 4) the current closure from January to April. Estimates of future recreational landings during the January to April closure were necessary to make predictions of closure dates. Two different scenarios were conducted to predict future landings for January through April (waves 1 and 2). Both scenarios determined wave 1 and 2 landings from the historical proportional relationship with wave 3 landings. Scenario 1 determined the proportional relationships using only Headboat landings because Headboat landings were estimated by a logbook program which is less vulnerable to sampling variability during low-effort fishing months. The second scenario determined the proportional relationship using both Headboat and MRIP landings. The closure was implemented in 2009; therefore, landings from 2007 and 2008 were used to determine the historical proportional relationship. Figure 2 displays the 2007 and 2008 recreational landings for waves 1 to 3. A 2-year average of the proportion was used to smooth the variability of black grouper landings from the two years. The average of the 2007 and 2008 Headboat landings proportion between waves determined the relationship between waves 1 and 3 was 1.2 (Standard Deviation = 0.98), and the relationship for waves 2 and 3 was 0.88 (Standard Deviation = 0.96). The average of the 2007 and 2008 Headboat and MRIP landings proportion determined the relationship between waves 1 and 3 was 2.96 (Standard Deviation = 1.82), and the relationship for waves 2 and 3 was 0.89 (Standard Deviation = 0.30). Since applying the proportion to wave 3 landings has the potential to overinflate wave 1 and 2 landings there was a landings cap placed on waves 1 and 2. The cap for wave 1 was 123,695 pounds whole weight (lbs ww) and 46,053 lbs ww for wave 2. These landings caps were the maximum landings for these two waves over the past ten years. Figure 3 provides a visual representation of the landings for the two scenarios.

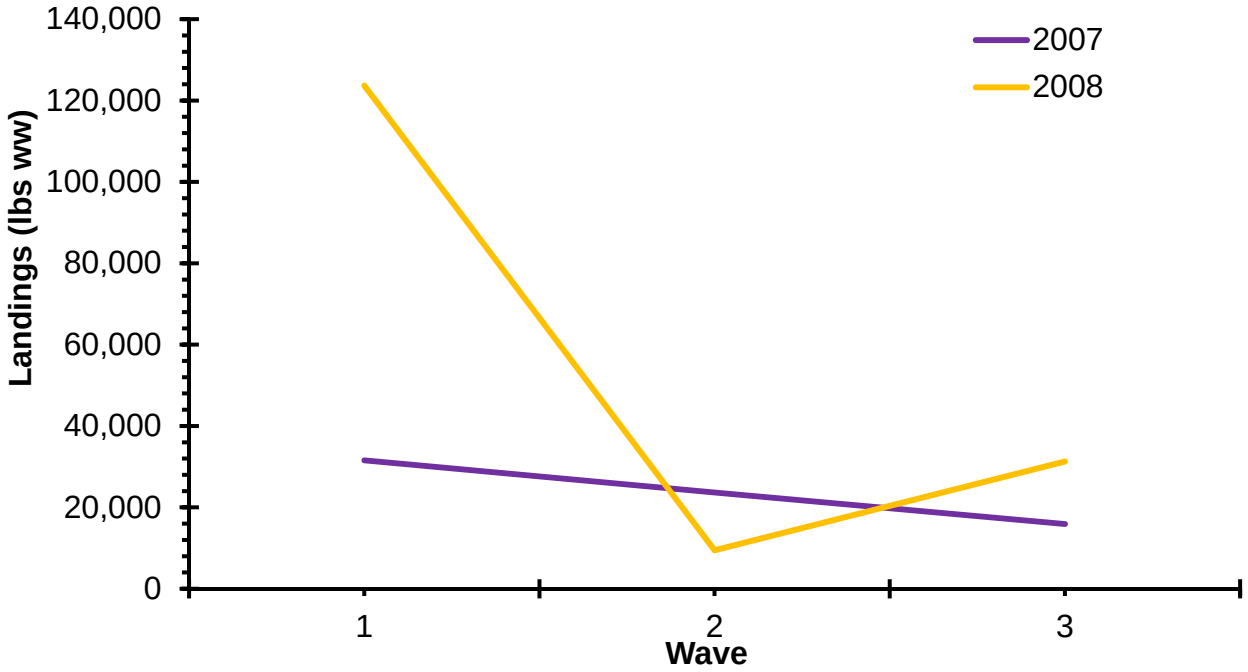

Figure 2. South Atlantic black grouper recreational landings by wave for 2007 and 2008.

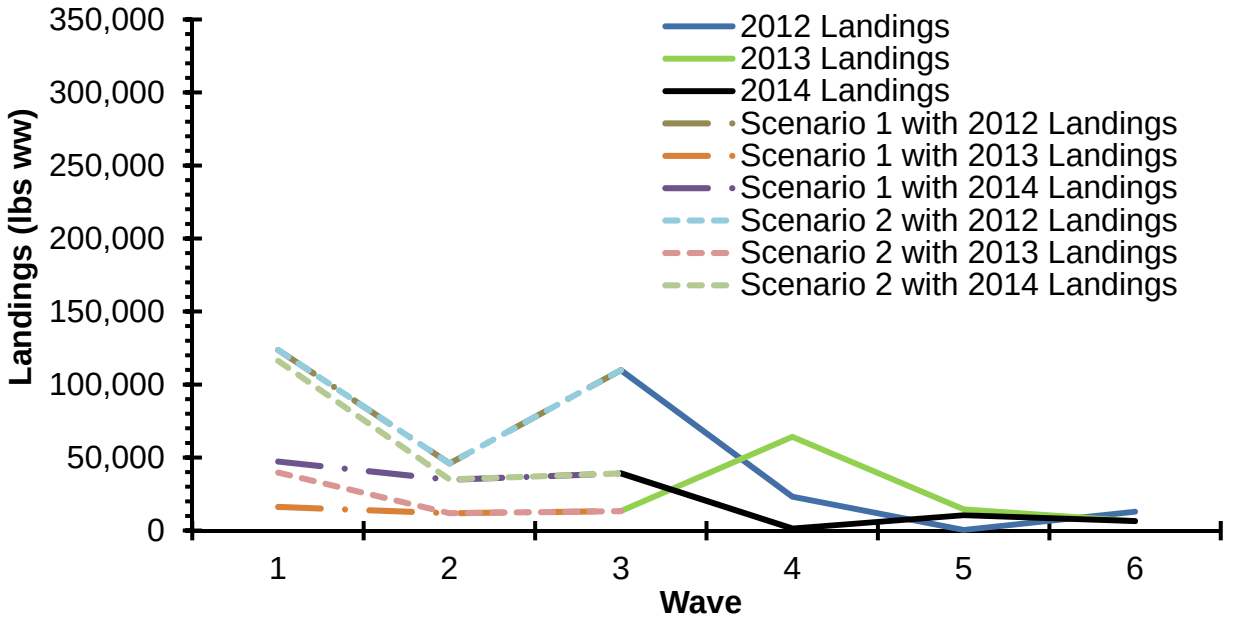

Figure 3. South Atlantic black grouper recreational landings by wave. Two scenarios were used to predict landings in waves 1 and 2. Scenario 1 used historical proportional relationships of Headboat landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Scenario 2 used historical proportional relationships of Headboat and MRIP landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Landings for waves 3 to 6 came from 2012, 2013, or 2014 landings.

Once the landings for each wave were established for each scenario then it was assumed that each month (Headboat) or wave (MRIP) had uniform distributions of landings by day. The landings by day were cumulatively summed and compared to the ACL to predict closure dates. The current South Atlantic recreational ACL is 165,750 lbs ww.

Whether the stock exceeds the ACL or not is dependent on how representative 2012, 2013, or 2014 landings are to future landings (Table 1). If the future landings are similar to the 2012 landings then the recreational sector will be closed in season. However, if future landings are similar to 2013 landings then the recreational sector will be open for the entire year. The landings in 2014 were low which results in no closure for scenario 1, but there was a closure in scenario 2 due to the relatively higher 2014 wave 3 landings.

Table 1. Alternative 2 predicted annual recreational landings and closure dates for black grouper under two landings scenarios. Alternative 2 proposes to remove the January to April closure in the entire South Atlantic region, and the ACL is 165,750 lbs ww. Scenario 1 used historical proportional relationships of Headboat landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Scenario 2 used historical proportional relationships of Headboat and MRIP landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Landings for waves 3 to 6 came from 2012, 2013, and 2014 landings.

	Scenario 1		Scenario 2	
	Predicted Annual Landings (lbs ww)	Closure Date	Predicted Annual Landings (lbs ww)	Closure Date
2012 Landings	316,382	25-Apr	316,382	25-Apr
2013 Landings	126,841	None	150,495	None
2014 Landings	139,868	None	208,985	23-May

Alternative 3 and 4: Modify the Recreational Seasonal Closure

Alternatives 3 and 4 of Action 11 propose to modify the seasonal closure. An analysis of Alternatives 3 and 4 was conducted using the same estimates of future landings and scenarios that were used to analyze Alternative 2. The different options for Alternatives 3 and 4 were analyzed by assuming there were no landings during the month or months of a closure. This assumption is supported by the fact that landings during the closure months are typically 200 pounds or less.

Table 2 summarizes the analysis of landings and closure dates for the different options of Alternatives 3 and 4. Again, predictions of whether the stock exceeds the ACL or not are dependent on how 2012, 2013, or 2014 landings are representative of future landings. If the future landings are similar to the 2012 landings then the recreational sector will be closed in season. However, if future landings are similar to 2013 or 2014 landings then the recreational sector will be open for the entire year.

Table 2. Alternatives 3 and 4 predicted annual recreational landings and closure dates for black grouper under two landings scenarios. The South Atlantic recreational ACL is 165,750 lbs ww. Scenario 1 used historical proportional relationships of Headboat landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Scenario 2 used historical proportional relationships of Headboat and MRIP landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Landings for waves 3 to 6 came from 2012, 2013, or 2014 landings.

	Scenario 1		Scenario 2	
	Predicted Annual Landings (lbs ww)	Closure Date	Predicted Annual Landings (lbs ww)	Closure Date
January to March Closure				
2012 Landings	194,739	21-Jul	194,961	20-Jul
2013 Landings	104,580	None	104,607	None
2014 Landings	76,501	None	76,580	None
January Closure				
2012 Landings	307,405	31-May	399,610	7-Mar
2013 Landings	118,332	None	129,587	None
2014 Landings	116,685	None	149,570	None
February Closure				
2012 Landings	314,151	29-Apr	416,186	30-Jan
2013 Landings	119,156	None	131,611	None
2014 Landings	119,090	None	155,482	None
March Closure				
2012 Landings	327,400	21-Apr	520,959	30-Jan
2013 Landings	120,773	None	144,399	None
2014 Landings	123,816	None	191,174	20-Jun

Results for Alternatives 2, 3 and 4

Action 11 proposes to eliminate (Alternative 2) or modify (Alternatives 3 and 4) the current closure from January to April. Table 3 summarizes the results of the analysis of landings and closure dates for both Alternative 2 and Alternative 3.

Table 3. Predicted annual recreational landings and closure dates for black grouper under two landings scenarios for Alternatives 2, 3, and 4. The South Atlantic recreational ACL is 165,750 lbs ww. Scenario 1 used historical proportional relationships of Headboat landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Scenario 2 used historical proportional relationships of Headboat and MRIP landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Landings for waves 3 to 6 came from 2012, 2013, or 2014 landings.

	Scenario 1		Scenario 2	
	Predicted Annual Landings (lbs ww)	Closure Date	Predicted Annual Landings (lbs ww)	Closure Date
Alternative 2: No Seasonal Closure				
2012 Landings	377,109	21-Mar	570,897	30-Jan
2013 Landings	126,841	None	150,495	None
2014 Landings	139,868	None	208,985	23-May
Alternatives 3 and 4 Option a: January to March Closure				
2012 Landings	194,739	21-Jul	194,961	20-Jul
2013 Landings	104,580	None	104,607	None
2014 Landings	76,501	None	76,580	None
Alternatives 3 and 4 Option b: January Closure				
2012 Landings	307,405	31-May	399,610	7-Mar
2013 Landings	118,332	None	129,587	None
2014 Landings	116,685	None	149,570	None
Alternatives 3 and 4 Option c: February Closure				
2012 Landings	314,151	29-Apr	416,186	30-Jan
2013 Landings	119,156	None	131,611	None
2014 Landings	119,090	None	155,482	None
Alternatives 3 and 4 Option d: March Closure				
2012 Landings	327,400	21-Apr	520,959	30-Jan
2013 Landings	120,773	None	144,399	None
2014 Landings	123,816	None	191,174	20-Jun

There has been a decline in total annual recreational black grouper landing from 2012 to 2014 (Figure 1). The lowest total landings for all three years took place in 2014. If black grouper landings continue to decrease then the probability of exceeded the ACL will be decreased.

Alternative 5: Remove black grouper from the shallow-water grouper closure of the recreational season in the South Atlantic in Federal waters off Monroe County, Florida.

Alternative 5 was analyzed by applying the same method used for the analysis for Alternatives 2, 3, and 4 but only the Federal waters of Monroe County, Florida did not have the January to April

closure. Therefore, the analysis only allowed January to April landings to occur in Federal waters of Monroe County. The landings were assumed to be zero from January to April for the rest of the South Atlantic region. Table 4 provides predicted landings and closure dates for Alternative 5.

Table 4. Alternative 5 predicted annual recreational landings and closure dates for black grouper under two landings scenarios. Alternative 5 proposes to remove the January to April closure only in Monroe County, Florida. The South Atlantic recreational ACL is 165,750 lbs ww. Scenario 1 used historical proportional relationships of Headboat landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Scenario 2 used historical proportional relationships of Headboat and MRIP landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Landings for waves 3 to 6 came from 2012, 2013, or 2014 landings.

	Scenario 1		Scenario 2	
	Predicted Annual Landings (lbs ww)	Closure Date	Predicted Annual Landings (lbs ww)	Closure Date
2012 Landings	238,902	11-Jun	238,902	11-Jun
2013 Landings	105,299	None	110,842	None
2014 Landings	132,089	None	194,665	14-Jun

Alternative 6: Remove black grouper from the recreational aggregate bag limit in the Gulf of Mexico

Black grouper are included in the Gulf of Mexico aggregate bag limit which is set at 4 grouper per angler. The aggregate bag limit contains black, gag, red, yellowfin, scamp, and yellowmouth grouper. Alternative 6 of Action 11 proposes to remove black grouper from the Gulf of Mexico aggregate bag limit. An examination of the 2011-2013 catch records for all grouper in the aggregate is shown in Figure 4. Less than 1% (n=255 trips) of the trips reached or exceeded the bag limit of 4 grouper per angler. Also, trips that harvested black grouper from 2011-2013 (n=56 trips) accounted for less than 1% of the total Gulf of Mexico trips sampled that harvested any of the aggregate grouper species (n=28,700 trips). Therefore, the other grouper species should not be impacted by removing black grouper from the aggregate group as the 4 grouper per angler aggregate is not currently constraining angler harvest.

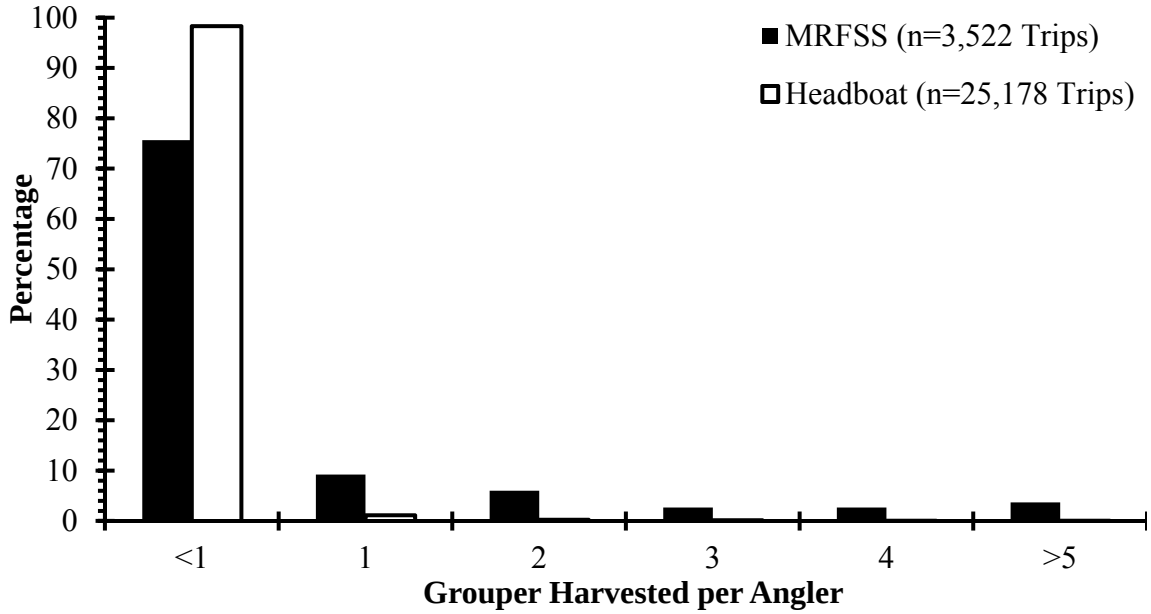

Figure 4. Distribution of Gulf of Mexico grouper harvested per angler included in the grouper aggregate bag limit from the two recreational datasets (MRIP and Headboat) from 2011 to 2013. This aggregate includes the species of black, gag, red, yellowfin, scamp, and yellowmouth grouper.

Alternative 7: Remove black grouper from the recreational aggregate bag limit in the South Atlantic

Black grouper are included in the South Atlantic grouper aggregate bag limit which is set at 3 grouper per angler, however only one grouper can be a black or gag grouper. The aggregate bag limit contains black, gag, red, red hind, rock hind, coney, graysby, yellowfin, scamp, and yellowmouth grouper. Alternative 7 of Action 11 proposes to remove black grouper from the South Atlantic aggregate bag limit. An examination of the 2011-2013 catch records for all grouper in the aggregate is shown in Figure 5. Less than 1% (n=15 trips) of the trips sampled reached or exceeded the bag limit of 3 grouper per angler. Therefore, the other grouper species should not be impacted by removing black grouper from the aggregate group as the 3 grouper aggregate is not currently constraining angler harvest.

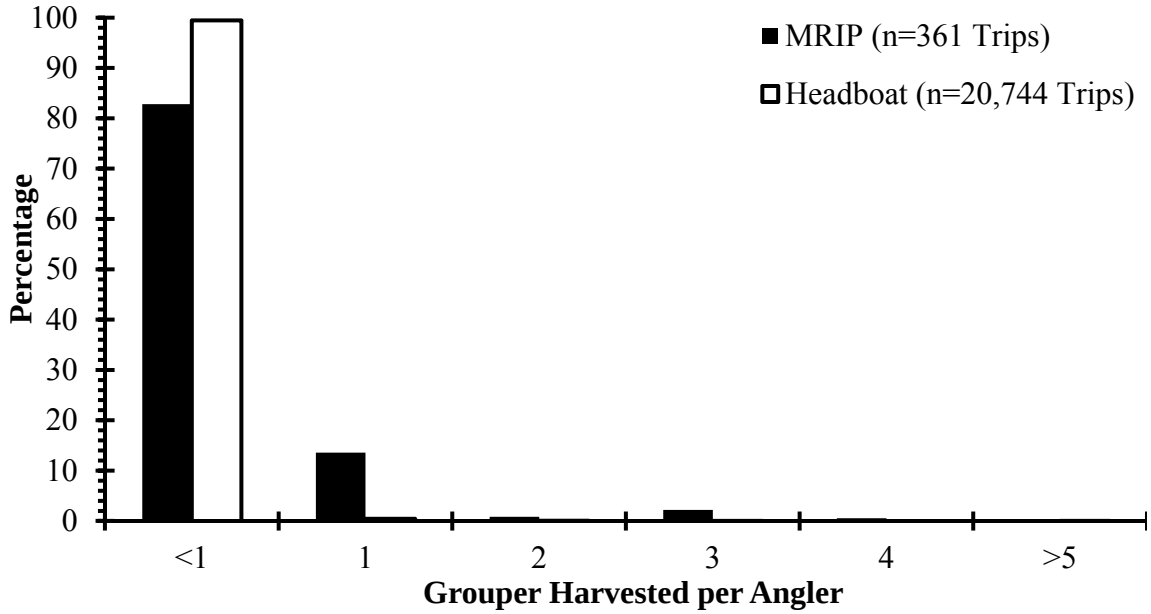

Figure 5. Distribution of South Atlantic grouper harvested per angler included in the grouper aggregate bag limit from the two recreational datasets (MRIP and Headboat) from 2011 to 2013. This aggregate includes the species of black, gag, red, red hind, rock kind, coney, graysby, tiger, scamp, yellowfin, and yellowmouth grouper.

Alternative 8: Modify the recreational bag limit for black grouper in the South Atlantic

Alternative 8 proposes to increase the bag limit to two, three, or four black grouper per angler. The South Atlantic catch and effort files for the last 3 years of complete data (2011-2013) were explored. The South Atlantic region had 2,451 trips (41 MRIP and 2,410 Headboat trips) that reported black grouper in the South Atlantic. This region currently has a one fish bag limit for black grouper. This is reflected in the catch and effort files with 99% of the South Atlantic trips harvesting one black grouper or less per angler (Figure 6).

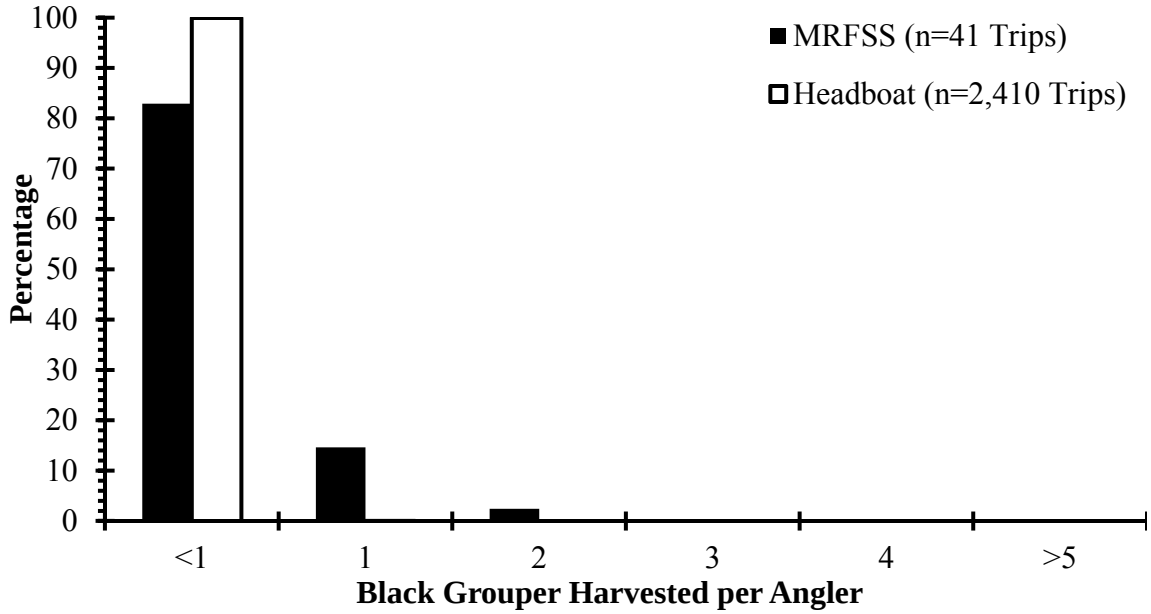

Figure 6. Distribution of South Atlantic black grouper harvested per angler from the two recreational datasets (MRIP and Headboat) from 2011 to 2013.

In February of 1999 South Atlantic Snapper-Grouper Amendment 9 changed the black grouper bag limit from five to two fish. Then in June of 2009 South Atlantic Snapper-Grouper Amendment 16 changed the black grouper bag limit from two to one fish. Landings data from 1996 to 1998 were reviewed to determine catch rates of black grouper per person during a time when anglers had the option of keeping up to five black grouper. Figure 7 provides the black grouper harvested per person from 1996 to 1998. Also, the stock was not overfished from 1996 to 1998 according to the latest black grouper assessment (SEDAR 19). The options to increase the bag limit were analyzed by first calculating the proportion of trips that caught two, three, and four black grouper relative to the number of trips that caught one black grouper. The proportions were calculated to be 6% for two fish, 3% for three fish, and 1% for four fish relative to the trips that harvested one black grouper. Percent increases in landings from increasing the bag limit were calculated by applying the proportions to the trips that harvested one black grouper from 2011 to 2013. Table 5 provides the percent increase in landings by dataset (MRIP and Headboat). Percent increases in landings by mode or by month were not possible because of small sample sizes (n<30).

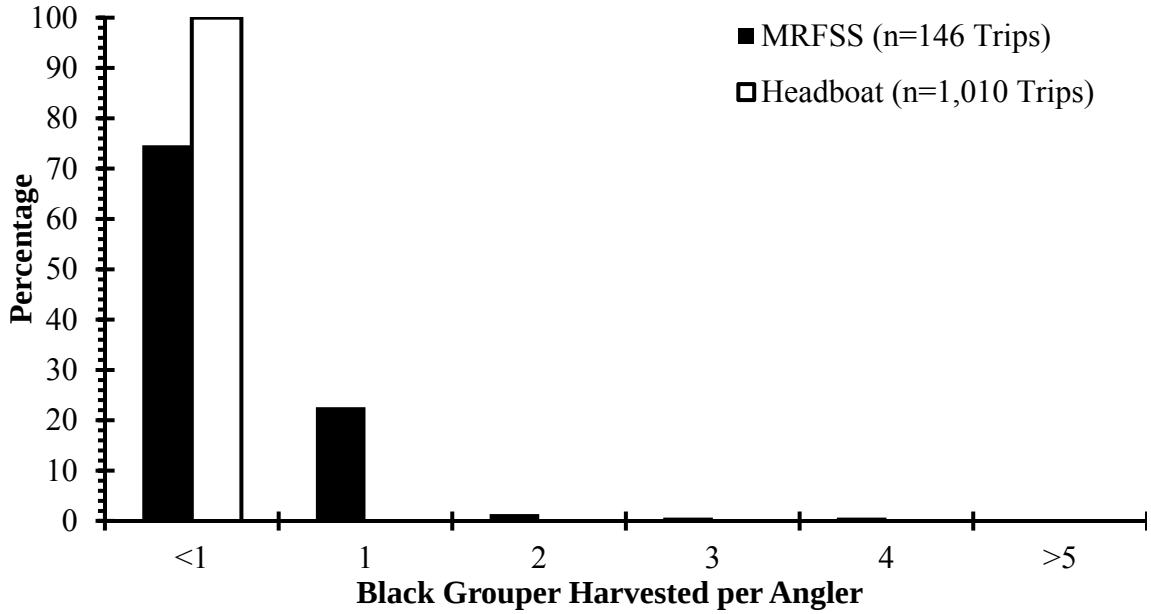

Figure 7. Distribution of South Atlantic black grouper harvested per angler from the two recreational datasets (MRIP and Headboat) from 1996 to 1998.

Table 5. Percent increases in landings for various bag limits applied to South Atlantic recreational landings for the years 2011 and 2013. The increases were calculated in terms of numbers of fish with respect to dataset (MRIP and Headboat).

Bag Limit	MRIP	Headboat
1	0	0
2	2.9%	< 1%
3	3.2%	< 1%
4	3.4%	< 1%

The bag limit percent increases in landings were applied to landings Scenarios 1 and 2 of the 2014 landings. Figure 3 from above displays the landings scenarios for the 2014 landings. Alternative 8 also proposed to modify the bag limit for all of the South Atlantic region, only in waters off Monroe County, only in Federal waters off Florida, and only in Federal waters of the South Atlantic. The 2014 landings were separated by County, State, and Federal waters to analyze all of the bag limit options in Alternative 8, and Table 6 reveals the breakdown of those landings. The same landings were provided for the two categories of only in Federal waters off of Florida and only in Federal waters of the South Atlantic. This is because there were no additional black grouper 2014 landings outside of Florida that were declared in Federal waters of the South Atlantic. The percent increases in landings were applied to the appropriate body of water to analyze the options in Alternative 8. Table 7 provides the predicted annual landings and closure dates for the analytical results. It should be noted that because of low sample sizes, it was not possible to calculate bag limit increases for specific water bodies (county, State, Federal) and the same overall region-wide increase in harvest relating to the bag limit was used for all options considered.

Table 6. Two landings scenarios of 2014 recreational landings separated by water body. Scenario 1 used historical proportional relationships of Headboat landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Scenario 2 used historical proportional relationships of Headboat and MRIP landings for wave 1 to wave 3, and wave 2 to wave 3 to estimate wave 1 and wave 2 landings. Following the options in Alternative 8 the landings were separated into the four water body categories of: 1) all of the South Atlantic region, 2) only in waters off Monroe County, 3) only in Federal waters off Florida, and 4) only in Federal waters of the South Atlantic.

	Scenario 1				Scenario 2		
	Only Monroe County	Remaining Landings	Total		Only Monroe County	Remaining Landings	Total
Landings	117,211	22,658	139,869	Landings	175,583	33,403	208,986
Percent	84	16	100	Percent	84	16	100
	Only Federal Waters off Florida	Remaining South Atlantic Landings	Total		Only Federal Waters off Florida	Remaining South Atlantic Landings	Total
Landings	110,503	29,367	139,870	Landings	169,538	39,448	208,986
Percent	79	21	100	Percent	81	19	100
	Only Federal Waters of the South Atlantic	Remaining South Atlantic Landings	Total		Only Federal Waters of the South Atlantic	Remaining South Atlantic Landings	Total
Landings	110,503	29,367	139,870	Landings	169,538	39,448	208,986
Percent	79	21	100	Percent	81	19	100

Table 7. Predicted closure dates for Alternative 8 options using the two landings scenarios for 2014 recreational landings. Following the options in Alternative 8 the bag limit increases were applied to the four water body categories of: 1) all of the South Atlantic region, 2) only in waters off Monroe County, 3) only in Federal waters off Florida, and 4) only in Federal waters of the South Atlantic. The ACL is 165,750 lbs ww.

	Scenario 1		Scenario 2	
Bag Limit	Predicted Annual Landings (lbs ww)	Closure Date	Predicted Annual Landings (lbs ww)	Closure Date
All of South Atlantic Region (Federal and State waters)				
1 Fish	139,868	None	208,985	23-May
2 Fish	143,737	None	214,858	16-May
3 Fish	144,137	None	215,465	15-May
4 Fish	144,404	None	215,870	15-May

Option 8e: Sub-option 8e(i): Off Monroe County, Florida				
1 Fish	139,868	None	208,986	23-May
2 Fish	143,269	None	214,078	17-May
3 Fish	143,620	None	214,605	16-May
4 Fish	143,855	None	214,956	16-May
Option 8e: Sub-option 8e(ii): In Federal Waters off Florida				
1 Fish	139,869	None	208,986	23-May
2 Fish	143,074	None	213,903	17-May
3 Fish	143,405	None	214,411	16-May
4 Fish	143,626	None	214,750	16-May
Option 8e: Sub-option 8e(iii): In Federal Waters in South Atlantic				
1 Fish	139,869	None	208,986	23-May
2 Fish	143,074	None	213,903	17-May
3 Fish	143,405	None	214,411	16-May
4 Fish	143,626	None	214,750	16-May

Predictions of whether the stock exceeds the ACL or not are dependent which landings scenario is representative of future landings. If the future landings are similar to scenario 1 then the recreational sector will be open for the entire year. However, if future landings are similar to scenario 2 then the recreational sector will close in May.

The highest predicted landings and shortest season came from applying the increased bag limit options to the 2014 scenario 2 landings for the entire South Atlantic region. This is because this option applies the increased bag limit to the largest geographic area. The second highest predicted landings came from applying the increased bag limit options to the 2014 scenario 2 landings for the waters off Monroe County. This occurred because most of the black grouper landings (84%) in the 2014 landings occurred in Monroe County.

This analysis attempted to bracket the possible range of future landings considering with and without recreational season closures. Uncertainty exists in these projections, as economic conditions, weather events, changes in catch-per-unit effort, fisher response to management regulations, and a variety of other factors may cause departures from the predictions. Also, the majority of the landings estimates generated for each wave had proportional standard error values greater than 50%. This indicates high variability around the landings estimates and therefore low precision. This must be considered when evaluating the effects of bag limits and season closures.

References

SEDAR 19. 2009. Stock assessment of black grouper. Available from the SEDAR website: www.sefsc.noaa.gov/sedar/

APPENDIX C. MUTTON SNAPPER BAG LIMIT ANALYSIS

Mutton Snapper Bag Limit analysis for Action 5 of the Draft Joint Generic Amendment on South Florida Management Issues.

Action 5 of the Draft Joint Generic Amendment on South Florida Management Issues proposes to both remove mutton snapper from the aggregate bag limit and reduce the mutton snapper bag limit. This report analyzes the Action 5 alternatives. The analysis focused primarily on the South Atlantic region because the Gulf of Mexico region had a low number of trips that sampled mutton snapper in the recreational surveys. An examination of the recent years of complete data (2011 to 2013) there were only 72 trips (0 in Texas, 6 MRIP, and 66 Headboat trips) in the Gulf of Mexico region. Therefore, there are not enough samples for the Gulf of Mexico region to do a meaningful analysis. The South Atlantic has significantly more mutton snapper trips surveyed with 8,525 trips (466 MRIP and 8,059 Headboat trips) from 2011 to 2013.

Alternative 2: Remove mutton snapper from the recreational aggregate bag limit

Mutton snapper are included in an aggregate bag limit and alternative 2 of Action 5 considers removing mutton snapper from it. This aggregate bag limit has a maximum of 10 fish, and encompasses the snapper species of mutton, gray, yellowtail, cubera, queen, blackfin, and silk for the Gulf of Mexico and South Atlantic regions. Wenchman are included in the Gulf of Mexico aggregate, and dog, lane, and mahogany snapper are included in the South Atlantic aggregate.

The Gulf of Mexico trips that harvested the aggregate snapper species were explored to reveal if the trip limit was being reached. An examination of the 2011-2013 catch records for all of the snapper in the aggregate are shown in Figure 1. Less than 2% (n = 153 trips) of the trips reached or exceeded the bag limit of 10 snapper per person. Therefore, the other snapper species should not be impacted by removing mutton snapper from the aggregate group as the 10 fish per angler aggregate is not currently constraining harvest.

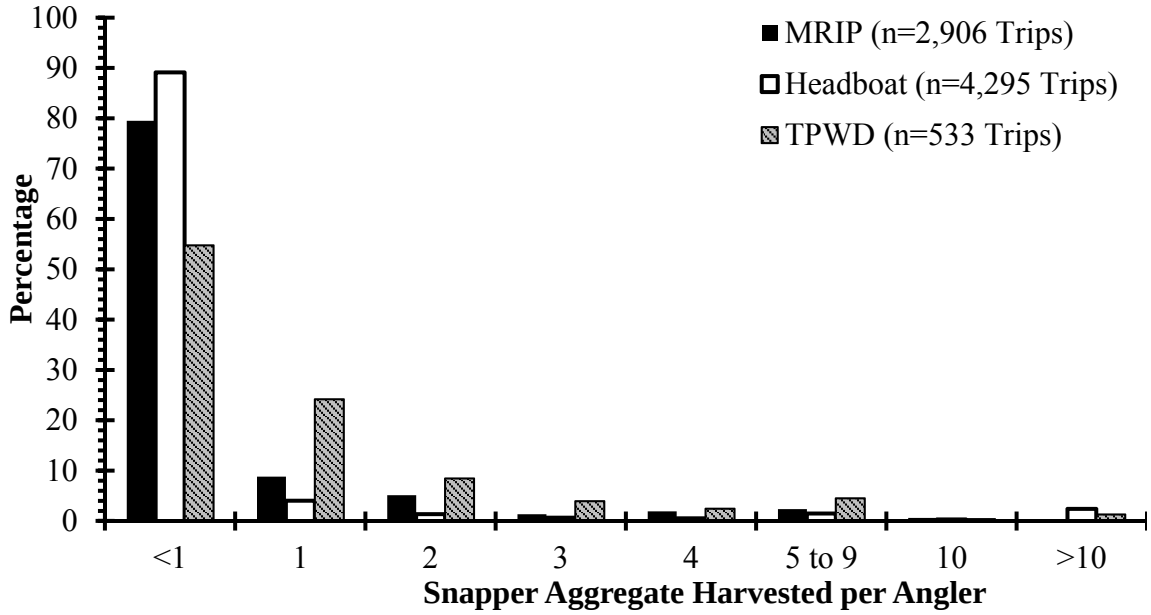

Figure 1. Distribution of Gulf of Mexico snapper harvested per angler for the species of snapper included in the snapper aggregate bag limit from the three recreational datasets (MRIP, Headboat, and TPWD) from 2011 to 2013. This aggregate includes the snapper species of mutton, gray, yellowtail, cubera, queen, blackfin, silk, and wenchman.

South Atlantic trips that harvested the snapper aggregate species were explored to reveal if the trip limit was being reached. An examination of the 2011-2013 catch records for all of the snapper in the aggregate are shown in Figure 2. Less than 1% (n = 329 trips) of the trips reached or exceeded the bag limit of 10 snapper per person. Therefore, the other snapper species should not be impacted by removing mutton snapper from the aggregate group as the 10 fish per angler aggregate is not currently constraining harvest.

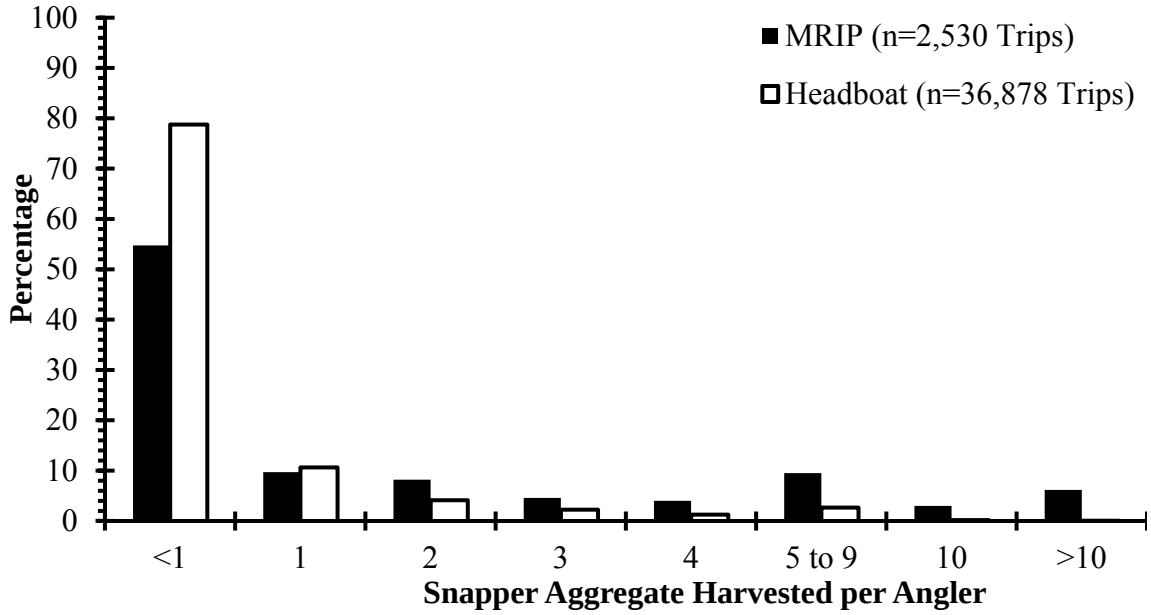

Figure 2. Distribution of South Atlantic snapper harvested per angler for the species of snapper included in the snapper aggregate bag limit from the two recreational datasets (MRIP and Headboat) from 2011 to 2013. This aggregate includes the snapper species of mutton, gray, yellowtail, cubera, queen, blackfin, silk, dog, lane, and mahogany.

Alternative 3: Retain mutton snapper within the aggregate bag limit but specify bag limits for mutton snapper within the regular season and during the spawning season.
Analysis for alternative 3 only focused on the South Atlantic region. There was no analysis for the Gulf of Mexico region because of the low number of trips that sampled mutton snapper in this region.

There is concern from the public regarding fishing effort on mutton snapper spawning aggregations during the May-June peak spawning season. The trips that harvested mutton snapper were explored both within and outside the spawning season. Both the number of mutton snapper harvested per angler (Figure 3), and also the total mutton snapper harvested on a trip (Figure 4) were explored. In both cases the regular season and spawning season did not have distributional differences that were statistically significant (mutton snapper per angler, G-test, P =0.950; total mutton snapper harvested on a trip, G-test, P =0.726).

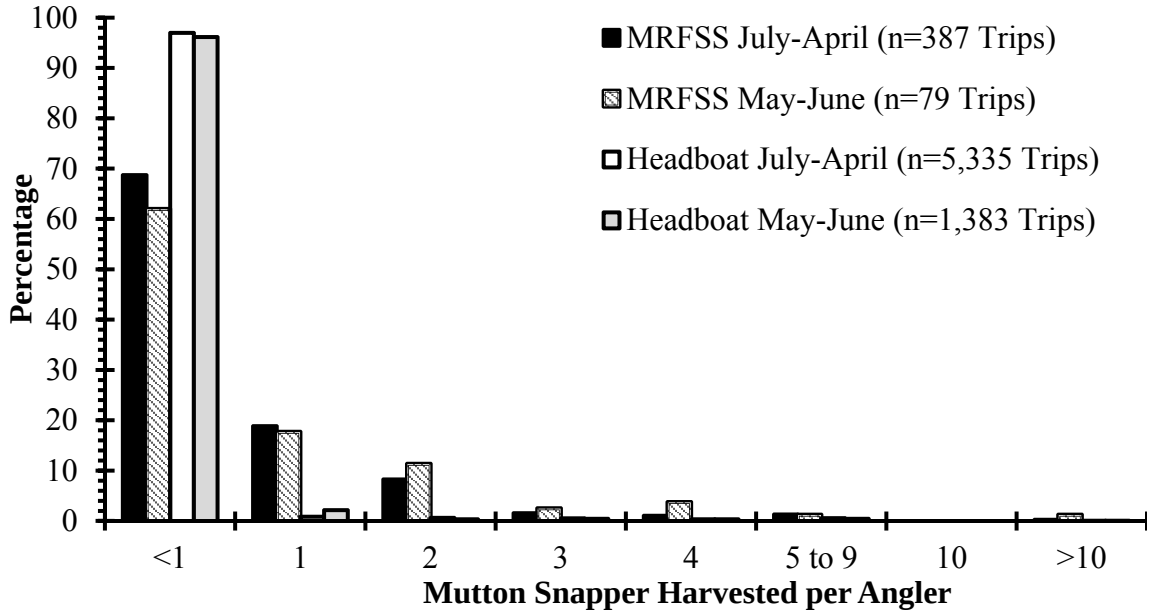

Figure 3. Distribution of South Atlantic mutton snapper harvested per angler by season from the two recreational datasets (MRIP and Headboat) from 2011 to 2013. The regular season is from July to August and the spawning season is from May to June.

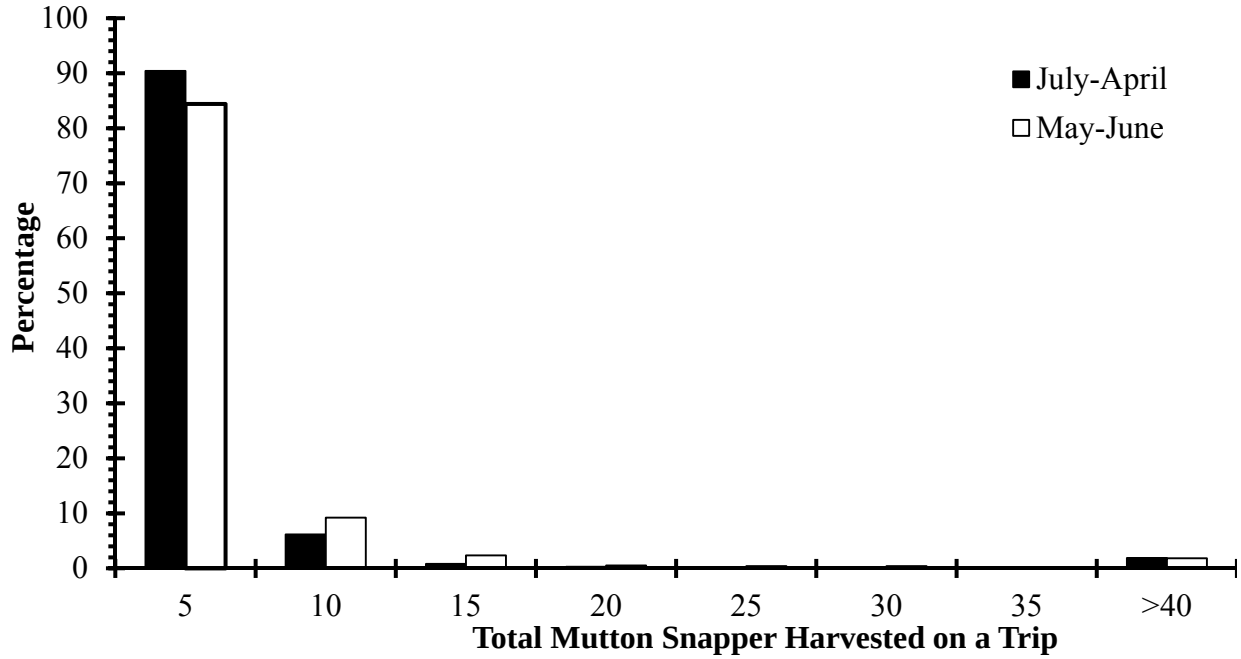

Figure 4. Distribution of the total number of mutton snapper harvested on a trip in the South Atlantic region from the two recreational datasets (MRIP and Headboat) from 2011 to 2013. The regular season is from July to August and the spawning season is from May to June.

Percent reductions in landings from reducing the bag limit were calculated using data from 2011 to 2013. The reductions were calculated for each dataset and season (Table 1).

Table 1. Percent reductions in landings for various bag limits generated from South Atlantic recreational landings for the years 2011 and 2013. The reductions were calculated in terms of mutton snapper numbers with respect to dataset and non-spawning (July to April) and spawning (May-June) season. The datasets were MRIP and Headboat.

Bag Limit	MRIP			Headboat		
	Jul-Apr	May-Jun	All Year	Jul-Apr	May-Jun	All Year
10	0.0	0.0	0.0	0.0	0.0	0.0
9	0.2	1.3	0.4	0.3	0.4	0.3
8	0.4	2.5	0.9	0.7	0.8	0.7
7	1.3	3.8	1.8	1.3	2.0	1.5
6	2.3	5.1	2.9	2.9	3.8	3.1
5	3.5	6.3	4.1	5.5	6.2	5.7
4	5.1	8.4	5.8	9.4	9.7	9.5
3	8.5	12.7	9.3	15.3	14.7	15.2
2	14.1	20.3	15.3	25.0	21.7	24.2
1	29.3	34.2	30.3	37.5	32.4	36.3

Action 5 proposes different bag limits during July to April then during May-June because of the May-June spawning season. Table 2 provides the percent reductions for the bag limit options proposed.

Table 2. Percent reductions in landings for Alternative 2 of Action 5 for the Decision Document for Joint Council Committee on South Florida Management Issues. The bag limits were applied to Gulf of Mexico and South Atlantic recreational landings for the years 2011 and 2013. The reductions were calculated in terms of mutton snapper numbers with respect to dataset and non-spawning (July to April) and spawning (May-June) season. The datasets were MRIP and Headboat.

	MRIP		Headboat	
	Jul-Apr	May-Jun	Jul-Apr	May-Jun
	Alt 2 Option 2a			
Bag Limit	10 fish	2 fish	10 fish	2 fish
Percent Reduction	None	20.3	None	21.2
	Alt 2 Option 2b			
Bag Limit	5 fish	2 fish	5 fish	2 fish
Percent Reduction	3.5	20.3	5.9	21.2

In recent years the majority (about 80%) of the South Atlantic recreational landings came from MRIP (**Table 3**). Therefore, the percent reductions generated from the MRIP data will have a greater impact then the Headboat percent reductions.

Table 3. South Atlantic mutton snapper recreational landings by dataset.

Year	MRIP		Headboat		Total
	lbs	%	lbs	%	
2011	228,075	81	53,171	19	281,247
2012	402,382	84	74,640	16	477,022
2013	429,759	89	51,972	11	481,731