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

SUMMARY DOCUMENT FOR THE SNAPPER GROUPER ADVISORY PANEL

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

NOVEMBER 2013

Background

What is the ORCS Approach?

Based on methodology in *Calculating Acceptable Biological Catch for Stocks That Have Reliable Catch Data Only (Only Reliable Catch Stocks – ORCS)* (Berkson et al. 2011), the South Atlantic Council's Scientific and Statistical Committee (SSC) recommended an approach to compute the ABC for unassessed stocks without reliable catch data. The approach involved selection of a "catch statistic", a scalar to denote the risk of overexploitation for the stock, and a scalar to denote the management risk level. The SSC provided the first two criteria for each stock, but the South Atlantic Council must specify their risk tolerance level for each stock.

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

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

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

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

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

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

Council Motions Approved in September 2013

MOTION: APPROVE THE RECOMMENDED SCALAR SCHEME FOR RISK OF OVEREXPLOITATION:

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

APPROVED BY COMMITTEE

MOTION: REMOVE BLUELINE TILEFISH FROM AM 29 AND INCLUDE A 3-YEAR REVIEW PROVISION FOR THE ORCS SPECIES IN THE AMENDMENT
APPROVED BY COMMITTEE
GUIDANCE TO INCLUDE A PROVISION THAT A REVIEW COULD HAPPEN SOONER AT THE REQUEST OF THE COUNCIL

GUIDANCE THAT THE SG AP REVIEW THE RECOMMENDED ABCs FOR ORCS SPECIES IN NOVEMBER 2013 (AM 29 DOC) AND PROVIDE THEIR INPUT TO THE COUNCIL. AT THE 3-YEAR REVIEW, THE AP SHOULD REVIEW EACH SPECIES AND PROVIDE THEIR INPUT PRIOR TO THE SSC'S REVIEW.

MOTION: ADD ACTIONS RELATED TO GRAY TRIGGERFISH THAT WERE PREVIOUSLY INCLUDED IN REG AM 14. IN ADDITION, INCLUDE ACTIONS TO ESTABLISH A COMMERCIAL SPLIT SEASON AND TRIP LIMIT.
APPROVED BY COMMITTEE

Proposed Purpose & Need

Purpose for Actions

The purpose of the actions is to: amend the South Atlantic Council's Acceptable Biological Catch (ABC) Control Rule to incorporate methodology for determining the ABC of "Only Reliable Catch Species" (ORCS); adjust ABCs for the affected species; and establish management measures for gray triggerfish in federal waters of the South Atlantic region.

Need for Actions

The need for actions is to: adopt the recommendations of the South Atlantic Council's Scientific and Statistical Committee (SSC) to amend the ABC Control Rule and adjust ABCs for "ORCS", and ensure that overfishing does not occur pending a new assessment of the gray triggerfish stock in the South Atlantic region.

NOTE: The Council has not yet approved the Purpose & Need statements above.

Possible Actions and Alternatives

Action 1. Amend the South Atlantic Council's ABC Control Rule and specify ABCs based on those modifications.

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

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

number of years of catch data for a fishery are available. Requires a higher level of "informed expert judgment" than Level 2.
Level 4 – Unassessed Stocks. Only Reliable Catch Stocks.
OFL and ABC derived on a case-by-case basis. ORCS ad hoc group is currently working on what to do when not enough data exist to perform DCAC.
Level 5 – Unassessed Stocks. No reliable catch.
OFL and ABC derived on a case-by-case basis. Stocks with very low landings that show very high variability in catch estimates (mostly caused by the high degree of uncertainty in recreational landings estimates), or stocks that have species identification issues that may cause unreliable landings estimates. Use "decision tree": 1. Will catch affect stock? NO: Ecosystem Species (Council done this already, ACL Amend) YES: Go to 2 2. Will increase (beyond current range of variability) in catch lead to decline or stock concerns? NO: ABC = 3rd highest point in the 1999-2008 time series YES: Go to 3 3. Is stock part of directed fishery or is it primarily bycatch for other species? Directed: ABC = Median 1999-2008 Bycatch/Incidental: If yes, go to 4. 4. Bycatch. Must judge the circumstance: If bycatch in other fishery: what are trends in that fishery? What are the regulations? What is the effort outlook? If the directed fishery is increasing and bycatch of stock of concern is also increasing, the Council may need to find a means to reduce interactions or mortality. If that is not feasible, will need to impact the directed fishery. The SSC's intention is to evaluate the situation and provide guidance to the Council on possible catch levels, risk, and actions to consider for bycatch and directed components.

Note: The ABC control rule provides a hierarchy of dimensions and tiers within dimensions used to characterize uncertainty associated with stock assessments in the South Atlantic. Parenthetical values indicate (1) the maximum adjustment value for a dimension; and (2) the adjustment values for each tier within a dimension.

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

Level 1 – Assessed Stocks	
Tier	**Tier Classification and Methodology to Compute ABC**
1. Assessment Information (10%)	6. Quantitative assessment provides estimates of exploitation and biomass; includes MSY-derived benchmarks. (0%) 7. Reliable measures of exploitation or biomass, no MSY benchmarks, proxy reference points. (2.5%) 8. Relative measures of exploitation or biomass, absolute measures of status unavailable. Proxy reference points. (5%) 9. Reliable catch history. (7.5%) 10. Scarce or unreliable catch records. (10%)
2. Uncertainty Characterization (10%)	6. Complete. Key determinant – uncertainty in both assessment inputs and environmental conditions are included. (0%) 7. High. Key determinant – reflects more than just uncertainty in future recruitment. (2.5%) 8. Medium. Uncertainties are addressed via statistical techniques and sensitivities, but full uncertainty is not carried forward in projections. (5%) 9. Low. Distributions of F_{MSY} and MSY are lacking. (7.5%) 10. None. Only single point estimates; no sensitivities or uncertainty evaluations. (10%)
3. Stock Status (10%)	6. Neither overfished nor overfishing. Stock is at high biomass and low exploitation relative to benchmark values. (0%) 7. Neither overfished nor overfishing. Stock may be in close proximity to benchmark values. (2.5%) 8. Stock is either overfished or overfishing. (5%) 9. Stock is both overfished and overfishing. (7.5%) 10. Either status criterion is unknown. (10%)
4. Productivity and Susceptibility Analysis (10%)	4. Low risk. High productivity, low vulnerability, low susceptibility. (0%) 5. Medium risk. Moderate productivity, moderate vulnerability, moderate susceptibility. (5%) 6. High risk. Low productivity, high vulnerability, high susceptibility. (10%)
Level 2 – Unassessed Stocks. Reliable landings and life history information available	
OFL derived from "Depletion-Based Stock Reduction Analysis" (DBSRA). ABC derived from applying the assessed stocks rule to determine the adjustment factor if possible, or from expert judgment if not possible.	
Level 3 – Unassessed Stocks. Inadequate data to support DBSRA	
ABC derived directly from "Depletion-Corrected Average Catch" (DCAC). Done when only a limited number of years of catch data for a fishery are available. Requires a higher level of "informed expert judgment" than Level 2.	
Level 4 – Unassessed Stocks. Only Reliable Catch Stocks.	
OFL and ABC derived on a case-by-case basis. Apply ORCS approach using a catch statistic, a scalar derived from the risk of overexploitation, and the Council's risk tolerance level.	
Level 5 – Unassessed Stocks. No reliable catch.	
OFL and ABC derived on a case-by-case basis. Stocks with very low landings that show very high variability in catch estimates (mostly caused by the high degree of uncertainty in recreational landings estimates), or stocks that have species identification issues that may cause unreliable landings estimates. Use "decision tree":	

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

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

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

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

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

Sub-alternative 2a. Use 0.75(catch statistic x scalar) for stocks with low, moderate and moderately high risk of overexploitation.

Stock	Risk of Overexploitation	Catch Statistic (Highest landings 1999-2007)	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)
Bar Jack	Low (2)	34,583	0.75	51,875	24,780
Margate	Moderate (1.5)	63,993	0.75	71,992	29,889
Red Hind	Moderate (1.5)	27,570	0.75	31,016	24,867
Cubera Snapper	Moderate (1.5)	52,721	0.75	59,311	24,680
Blue Runner	Moderate (1.5)	1,328,272	0.75	1,494,306	1,125,729
Yellowedge Grouper	Moderate (1.5)	46,330	0.75	52,121	30,221
Silk Snapper	Moderate (1.5)	75,269	0.75	84,678	25,104
White Grunt (South)	Moderate (1.5)	735,873	0.75	827,858	674,033
Atlantic Spadefish	Moderate (1.5)	677,065	0.75	761,698	189,460
Gray Snapper	Moderate (1.5)	1,039,277	0.75	1,169,187	795,743
Lane Snapper	Moderate (1.5)	169,572	0.75	190,769	119,984
Rock Hind	Mod High (1.25)	42,849	0.75	40,171	37,953
Tomtate	Mod High (1.25)	105,909	0.75	99,290	80,056
Hogfish	Mod High (1.25)	211,595	0.75	198,370	134,824
White Grunt (North)	Mod High (1.25)	735,873	0.75	689,881	674,033
Scamp	Mod High (1.25)	596,879	0.75	559,574	509,788
Gray Triggerfish	Mod High (1.25)	819,428	0.75	768,214	626,518

Sub-alternative 2b. Use 0.75(catch statistic x scalar) for stocks with low and moderate risk of overexploitation. Use 0.50(catch statistic x scalar) for stocks with moderately high risk of overexploitation.

Stock	Risk of Overexploitation	Catch Statistic (Highest landings 1999-2007)	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)
Bar Jack	Low (2)	34,583	0.75	51,875	24,780
Margate	Moderate (1.5)	63,993	0.75	71,992	29,889
Red Hind	Moderate (1.5)	27,570	0.75	31,016	24,867
Cubera Snapper	Moderate (1.5)	52,721	0.75	59,311	24,680
Blue Runner	Moderate (1.5)	1,328,272	0.75	1,494,306	1,125,729
Yellowedge Grouper	Moderate (1.5)	46,330	0.75	52,121	30,221
Silk Snapper	Moderate (1.5)	75,269	0.75	84,678	25,104
White Grunt (South)	Moderate (1.5)	735,873	0.75	827,858	674,033
Atlantic Spadefish	Moderate (1.5)	677,065	0.75	761,698	189,460
Gray Snapper	Moderate (1.5)	1,039,277	0.75	1,169,187	795,743
Lane Snapper	Moderate (1.5)	169,572	0.75	190,769	119,984
Rock Hind	Mod High (1.25)	42,849	0.50	26,781	37,953
Tomtate	Mod High (1.25)	105,909	0.50	66,193	80,056
Hogfish	Mod High (1.25)	211,595	0.50	132,247	134,824
White Grunt (North)	Mod High (1.25)	735,873	0.50	459,921	674,033
Scamp	Mod High (1.25)	596,879	0.50	373,049	509,788
Gray Triggerfish	Mod High (1.25)	819,428	0.50	512,143	626,518

Sub-alternative 2c. Use 0.90(catch statistic x scalar) for stocks with low risk of overexploitation, 0.75(catch statistic x scalar) for stocks with moderate risk of overexploitation, and 0.50(catch statistic x scalar) for stocks with moderately high risk of overexploitation.

Stock	Risk of Overexploitation	Catch Statistic (Highest landings 1999-2007)	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)
Bar Jack	Low (2)	34,583	0.90	62,250	24,780
Margate	Moderate (1.5)	63,993	0.75	71,992	29,889
Red Hind	Moderate (1.5)	27,570	0.75	31,016	24,867
Cubera Snapper	Moderate (1.5)	52,721	0.75	59,311	24,680
Blue Runner	Moderate (1.5)	1,328,272	0.75	1,494,306	1,125,729
Yellowedge Grouper	Moderate (1.5)	46,330	0.75	52,121	30,221
Silk Snapper	Moderate (1.5)	75,269	0.75	84,678	25,104
White Grunt (South)	Moderate (1.5)	735,873	0.75	827,858	674,033
Atlantic Spadefish	Moderate (1.5)	677,065	0.75	761,698	189,460
Gray Snapper	Moderate (1.5)	1,039,277	0.75	1,169,187	795,743
Lane Snapper	Moderate (1.5)	169,572	0.75	190,769	119,984
Rock Hind	Mod High (1.25)	42,849	0.50	26,781	37,953
Tomtate	Mod High (1.25)	105,909	0.50	66,193	80,056
Hogfish	Mod High (1.25)	211,595	0.50	132,247	134,824
White Grunt (North)	Mod High (1.25)	735,873	0.50	459,921	674,033
Scamp	Mod High (1.25)	596,879	0.50	373,049	509,788
Gray Triggerfish	Mod High (1.25)	819,428	0.50	512,143	626,518

Sub-alternative 2d. Use 0.90(catch statistic x scalar) for stocks with low risk of overexploitation, 0.80(catch statistic x scalar) for stocks with moderate risk of overexploitation, and 0.70(catch statistic x scalar) stocks with moderately high risk of overexploitation.

Stock	Risk of Overexploitation	Catch Statistic (Highest landings 1999-2007)	Risk Tolerance Scalar	New ABC (lbs ww)	Current ABC (lbs ww)
Bar Jack	Low (2)	34,583	0.90	62,250	24,780
Margate	Moderate (1.5)	63,993	0.80	76,792	29,889
Red Hind	Moderate (1.5)	27,570	0.80	33,084	24,867
Cubera Snapper	Moderate (1.5)	52,721	0.80	63,265	24,680
Blue Runner	Moderate (1.5)	1,328,272	0.80	1,593,926	1,125,729
Yellowedge Grouper	Moderate (1.5)	46,330	0.80	55,596	30,221
Silk Snapper	Moderate (1.5)	75,269	0.80	90,323	25,104
White Grunt (South)	Moderate (1.5)	735,873	0.80	883,048	674,033
Atlantic Spadefish	Moderate (1.5)	677,065	0.80	812,478	189,460
Gray Snapper	Moderate (1.5)	1,039,277	0.80	1,247,133	795,743
Lane Snapper	Moderate (1.5)	169,572	0.80	203,486	119,984
Rock Hind	Mod High (1.25)	42,849	0.70	37,493	37,953
Tomtate	Mod High (1.25)	105,909	0.70	92,670	80,056
Hogfish	Mod High (1.25)	211,595	0.70	185,146	134,824
White Grunt (North)	Mod High (1.25)	735,873	0.70	643,889	674,033
Scamp	Mod High (1.25)	596,879	0.70	522,269	509,788
Gray Triggerfish	Mod High (1.25)	819,428	0.70	717,000	626,518

ORCS Approach with Different Risk Tolerance Levels for Three Example Stocks

White Grunt (South)*

Risk of Overexploitation	Highest Landings (1999-2007)	Risk Tolerance Sub-alternative	New ABC	Current ABC
Moderate (1.5)	735,873	0.75 (2a)	827,858	674,033
Moderate (1.5)	735,873	0.75 (2b)	827,858	674,033
Moderate (1.5)	735,873	0.75 (2c)	827,858	674,033
Moderate (1.5)	735,873	0.80 (2d)	883,048	674,033

* There are concerns about the stock status of white grunt. A stock assessment is scheduled for 2017.

Gray Triggerfish*

Risk of Overexploitation	Highest Landings (1999-2007)	Risk Tolerance Sub-alternative	New ABC	Current ABC
Mod High (1.25)	819,428	0.75 (2a)	768,214	626,518
Mod High (1.25)	819,428	0.50 (2b)	512,143	626,518
Mod High (1.25)	819,428	0.50 (2c)	512,143	626,518
Mod High (1.25)	819,428	0.70 (2d)	717,000	626,518

* There are concerns about the stock status of gray triggerfish. A stock assessment was attempted in 2013 but was not completed due to ageing issues. It is not known when the assessment will be completed.

Atlantic Spadefish*

Risk of Overexploitation	Highest Landings (1999-2007)	Risk Tolerance Sub-alternative	New ABC	Current ABC
Mod High (1.25)	677,065	0.75 (2a)	761,698	189,460
Mod High (1.25)	677,065	0.75 (2b)	761,698	189,460
Mod High (1.25)	677,065	0.75 (2c)	761,698	189,460
Mod High (1.25)	677,065	0.80 (2d)	812,478	189,460

* There are currently no concerns regarding the stock status of Atlantic spadefish.

Action 2. Modify the measurement method for gray triggerfish and establish a size limit

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

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

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

Action 3. Establish a commercial split season for gray triggerfish

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

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

Others??

Action 4. Establish a commercial trip limit for gray triggerfish

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

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

Sub-alternative 2a. 500 lbs
Sub-alternative 2b. 1,000 lbs
Sub-alternative 2c. 1,500 lbs

Others?