



February 3, 2014

Mr. Bob Mahood  
Executive Director  
South Atlantic Fishery Management Council  
4055 Faber Place Drive, Suite 201  
North Charleston, SC 29405

**RE: Amendment 29 to the Snapper Grouper Fishery Management Plan**

Dear Mr. Mahood,

On behalf of The Pew Charitable Trusts, please accept these comments for consideration by the South Atlantic Fishery Management Council regarding Amendment 29 (Am29) to the Snapper Grouper Fishery Management Plan (FMP) for data-limited stocks in the South Atlantic.<sup>1</sup> We urge the Council to delay action on Am29 until the Science and Statistical Committee (SSC) has had another opportunity to review the proposed application of the Only Reliable Catch Stocks (ORCS) approach for specifying allowable biological catch (ABC) in the ABC control rule.

We commend the Council on achieving significant progress toward ending and preventing overfishing of its managed species. Staying on the path to long-term sustainability is critically important but as currently drafted, Am29 could undermine that progress. Although we support efforts to refine and improve the methods used to calculate and assign catch levels, any revisions to the ABC control rule should be scientifically justified and adequately safeguard fish populations from overfishing. As proposed, the applied ORCS methodology would greatly increase the ABCs - and the risk of overfishing - for most of the managed species addressed by this action without strong scientific justification and assurance. **Specifically, Am29 would result in ABCs that are 20-80% above the highest reported landings for each species.** While we do not necessarily oppose increasing catch limits, particularly moderate increases over time, major changes should have strong justification supported by scientific analysis.

**Application of ORCS Approach in Amendment 29 Could Undermine its Basic Objectives**

As described by technical experts in a report to the NOAA Fisheries Service (“ORCS report”),<sup>2</sup> the ORCS approach is designed to specify the legally required Overfishing Limit (OFL) and ABC in data-limited situations where managed species cannot be assessed with traditional stock assessment methods and reliable catch data are the only information available. Because

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<sup>1</sup> SAFMC (2013), Amendment 29 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region: Decision Document, 44pp. Available at:

[http://safmc.net/sites/default/files/meetings/pdf/Council/12-2013/SG/Attach8\\_Am29DD\\_Dec2013.pdf](http://safmc.net/sites/default/files/meetings/pdf/Council/12-2013/SG/Attach8_Am29DD_Dec2013.pdf).

<sup>2</sup> NOAA Fisheries Service (2011), Calculating Acceptable Biological Catch for Stocks that have Reliable Catch Data Only, NOAA Technical Memorandum NMFS-SEFSC-616, 44pp.

uncertainty and the risk of overfishing are greater in these situations, methods for specifying OFL and ABC should generally be more conservative than those applied to data-rich stocks. As currently proposed, Am29 consistently chooses the least conservative catch statistics and numerical risk multipliers (scalars) among a range of values suggested in the ORCS report.

As such, the method for managing data-limited stocks proposed by Am29 does not provide adequate assurance that the resulting ABCs and ACLs will meet the requirement of National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) to “prevent overfishing while achieving, on a continuing basis, the optimum yield (OY) from each fishery for the U.S. fishing industry.”<sup>3</sup>

The ORCS method outlines a structured, step-wise approach for obtaining an OFL and ABC when reliable catch data are the only information available:

1. Assign stocks to one of three exploitation categories (i.e. Lightly, Moderately, Heavily Exploited) using an evidence-based scoring procedure;
2. Obtain an OFL by multiplying a statistical measure of historical catch by a scalar that depends upon the exploitation category; and
3. Obtain an ABC as a proportion (<1) of the OFL to reflect a policy decision on acceptable risk, which may depend on productivity of the stock.<sup>4</sup>

**The intent of this approach is to maintain stable catches at current levels for moderately exploited species and reduce catches on heavily exploited species whose populations may be categorized as overfished, while allowing for limited increases in catch for lightly exploited species.**<sup>5</sup> By contrast, the risky approach proposed in Am29 sidelines caution and stability in favor of large increases in ABCs for most species. With the possible exception of the one species classified in the lightly exploited category (bar jack), the catch statistic used by the SAFMC at each exploitation level is higher than recommended in the ORCS report (Table 1). Likewise, the scalar used to calculate an OFL based on the selected catch statistic is also less conservative in most cases (Table 2).

Although Am29’s proposed risk level scalar (used to calculate ABC from the OFL level) is within the range suggested in the ORCS framework, the Council’s preferred risk levels are the least conservative for species in the lightly and moderately exploited categories and the second least conservative for species in the high-moderate categories (Table 3). In addition, the Council’s preferred choice of maximum catch statistics, OFL risk scalars, and ABC risk scalars in Am29 differs substantially from the approach NOAA recommends for obtaining OFLs and ABCs in the ORCS report (Table 4). The net effect of Am29’s preferred choice of maximum catch statistics, OFL risk scalars, and ABC risk scalars is much higher and much less conservative ABCs compared to the current ABCs (Table 5). **The Council’s approach in Am29 is sufficiently different from the approach recommended in NOAA’s ORCS report to warrant revisions to be more consistent with the report’s recommendations.**

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<sup>3</sup> Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. 1851(a)(1).

<sup>4</sup> NOAA Fisheries Service (2011), NOAA Technical Memorandum NMFS-SEFSC-616, p.19.

<sup>5</sup> Berkson et al. (2011), Table 3, p. 36.

## **Application of ORCS in Amendment 29 Yields Unjustifiably High Catch Limits**

With the exception of lightly exploited/low-risk stocks, each of the new ABC outcomes is less precautionary under Am29, and in the case of “moderate risk stocks,” increases the proposed ABC from the current ABC for any determined catch statistic by 20%.<sup>6</sup> However, the Council also has also chosen to use the highest reported catch in the selected time series and when this catch statistic is multiplied by the Council’s preferred risk scalars, the resulting ABCs are skewed even higher, producing increases of ABCs from 31% to 329% in the “moderate” risk category and 8% to 14% in the “moderately high” risk category, although ABCs for two stocks (rock hind and the northern stock of white grunt) would decrease slightly (1-4%).

**The resulting large increases in ABCs conflict with NOAA recommendations in the ORCS report to set the management objective for moderately exploited stocks at “maintaining current catch levels.”**<sup>7</sup> The choice of catch statistic based on the highest reported landings from 1999-2007 in Am29<sup>8</sup> undermines this objective, and the Council does not provide sufficient justification for its choice. Indeed, in the case of Atlantic spadefish, the highest reported catch in the time series (1999-2007) greatly exceeds any reported catch since NOAA Fisheries began keeping modern catch records (Fig. 1).

The rationale for choosing the highest reported landings from the time series as the relevant catch statistic (rather than average or median) is not clearly documented in the SSC’s reports to the Council or justified in the public documentation for Am29. Choosing a less risky catch statistic, such as mean or median catch, would be more consistent with the objective of maintaining stable catches at or near the current levels for species categorized at moderate level, as intended in the ORCS report. **The ORCS Report cautions that use of “the maximum catch statistic should only be considered for non-target species with compelling evidence that they are lightly exploited.”**<sup>9</sup> Only one species in the list of species proposed to receive new ABCs under Am29 has been determined to be “lightly exploited,” and the council has not analyzed the other species proposed to receive new ABC to determine whether they are targeted in the fishery. **We calculate that the end result for Low and Medium Risk stocks in Am29 would be to set ABCs that are 20-80% above the highest reported landings for each species.**

As proposed, Am29 threatens to reverse the significant progress made in ending and preventing overfishing in the South Atlantic. We strongly urge the Council to delay action on this amendment until the SSC has had an opportunity to re-examine the rationale for using the highest reported catch from 1999-2007 as the appropriate catch statistic for all species under consideration, as well as the adequacy of the proposed risk scalars in preventing unintended overfishing in these poorly monitored fisheries. This review should include consideration of other data-limited approaches that may be more suitable for use in the ABC control rule as well

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<sup>6</sup> See SAFMC (2014), Overview of Snapper Grouper Amendment 29, Slide 15: Summary of Preferred Alternative 3b under Action 2. Available at: <http://www.safmc.net/sites/default/files/meetings/pdf/Public%20Hearings%20&%20Scoping/Jan%202014/SGAm29Presentation.pdf>. 20% is derived by multiplying the Risk of Overexploitation scalar (1.5) x the Risk Tolerance scalar (0.80):  $1.5 \times 0.8 = 1.20$ .

<sup>7</sup> Berkson et al. (2011), pp. 20, 36.

<sup>8</sup> SAFMC (2013), p.1.

<sup>9</sup> Ibid., p. 24.

as more recent evaluations of data-limited methods for setting catch limits such as the simulation analyses by Carruthers *et al.* (in press). This analysis indicates that use of catch-based, ORCS-like methods do not appear to provide a better basis for management than maintaining current catch or effort levels, and often perform even worse than the status quo methods of current catch or current effort if stock biomass is below  $B_{MSY}$ .<sup>10</sup>

In addition, the SSC and the Council should give careful consideration to the long-term effects on the stability and sustainability of the fishery by authorizing large increases in catches for these stocks. Finally, we encourage the Council to continue improving data collection, catch monitoring and reporting systems at every opportunity, in order to provide better information on the sustainability of data-limited catch limits.<sup>11</sup> We thank you for providing this opportunity to comment and look forward to working with the Council to ensure that healthy fisheries are sustained in the South Atlantic.

Sincerely,



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<sup>10</sup> For instance, see: T. Carruthers, C.J. Walters, and M.K. McAllister (2013), Evaluating methods for setting catch limits in data-limited fisheries. In press.

<sup>11</sup> Berkson et al. (2011), pp. 30-21.

**Table 1. Comparison of management objectives and catch statistics used to calculate OFLs as suggested by NOAA (ORCS Report) and as proposed by the Council in Am29.**

<b>Stock Status</b>	<b>Management Objectives (ORCS Report)</b>	<b>Suggested Catch Statistic for Setting ‘OFL’ (ORCS Report)</b>	<b>Proposed by SAFMC in Am29</b>
Light/Low	Maintain current catch levels or allow for limited increases in catch	<ul style="list-style-type: none"> <li>• 75% of highest catch</li> <li>• Highest catch only for lightly exploited, non-targeted species</li> <li>• 2 standard deviations above average catch</li> </ul>	Maximum catch
Low Moderate			Maximum catch
Moderate	Maintain current catch levels	Average catch	Maximum catch
High Moderate			Maximum catch
Heavy / High	Reduce catches to end overfishing	Below average catch	Maximum catch

**Table 2. Comparison of the “scalars” used to calculate OFL**

<b>Exploitation Level</b>	<b>Recommended in ORCS Report</b>	<b>Proposed by SAFMC in Am29</b>
Light/Low	2.0 x catch statistic	2.0 x catch statistic
Low Moderate	NA	1.75 x catch statistic
Moderate	1.0 x catch statistic	1.5 x catch statistic
High Moderate	NA	1.25 x catch statistic
Heavy/High	0.50 x catch statistic	NA

*In Amendment 29, scalar is the catch level associated with the risk of overexploitation.*

**Table 3. NOAA ORCS Recommended options for risk levels**

<b>Risk Level</b>	<b>ORCS Alt A</b>	<b>ORCS Alt B</b>	<b>ORCS Alt C</b>	<b>ORCS Alt D</b>	<b>Am29</b>
Light/Low	0.75 x OFL	0.75 x OFL	0.90 x OFL	0.90 x OFL	0.90 x OFL
Low Moderate					0.80 x OFL
Moderate	0.75 x OFL	0.75 x OFL	0.75 x OFL	0.80 x OFL	0.80 x OFL
High Moderate					0.70 x OFL
Heavy/High	0.75 x OFL	0.50 x OFL	0.50 x OFL	0.70 x OFL	NA

*Please note that NOAA’s ORCS Report uses three exploitation levels whereas the SAFMC uses five exploitation levels as determined by the SSC.*

**Table 4. Comparing ABC calculations: NOAA’s ORCS report vs. Am29.**

<b>Exploitation Level</b>	<b>Catch Statistic ORCS</b>	<b>Catch Statistic Am29</b>	<b>OFL Scalar ORCS</b>	<b>OFL Scalar Am29</b>	<b>Risk Level</b>	<b>ABC Calc. ORCS</b>	<b>ABC Calc. Am29</b>
Light/Low	Max Catch	Max Catch	2.0	2.0	0.90	1.8 x Max Catch	1.8 x Max Catch
Moderate	Average Catch	Max Catch	1.0	1.5	0.80	0.8 x Avg Catch	1.2 x Max Catch
Heavy/ Moderate High	Below Avg Catch	Max Catch	0.75 <sup>1</sup>	1.25	0.70	0.525 x Below Avg Catch	0.875 x Max Catch

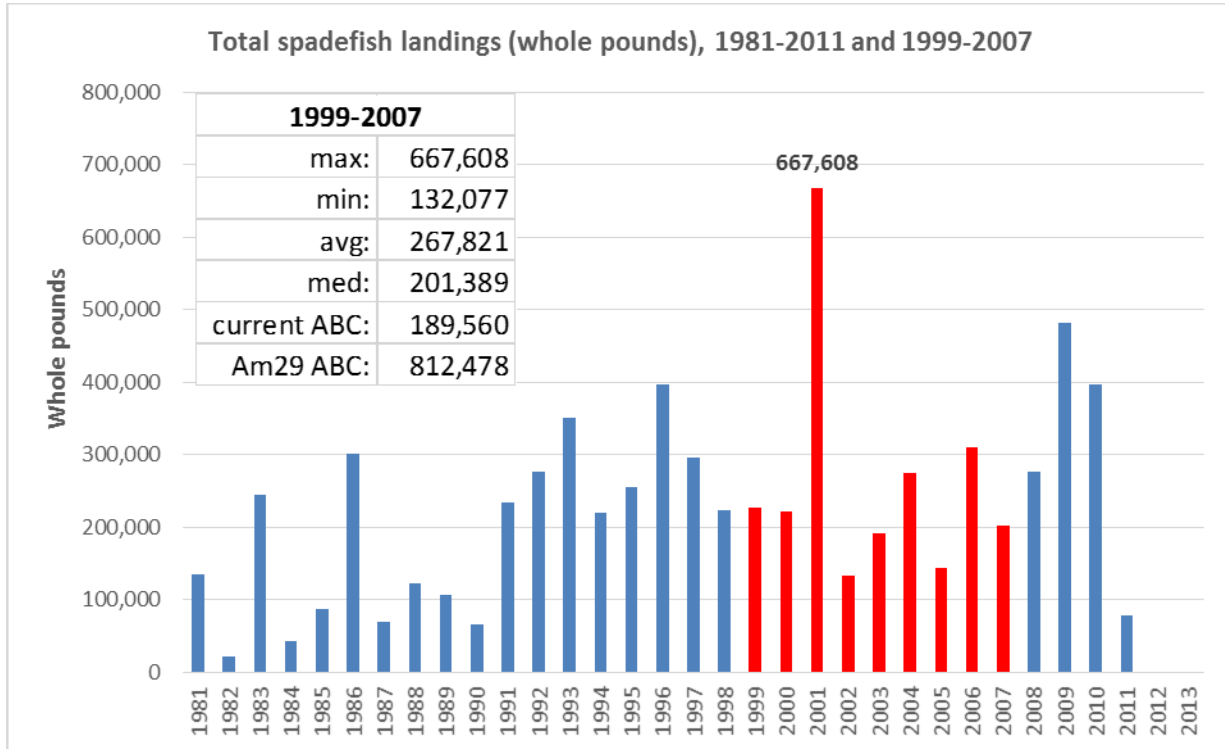
<sup>1</sup> NOAA’s ORCS report did not use the ‘moderately high’ exploitation category as proposed in Am29, thus the OFL scalar shown is interpolated between the ORCS ‘moderate’ and ‘heavy’ exploitation levels. Additionally, the ORCS report recommendations did not have a risk level associated with a ‘moderately high’ category but instead recommended a risk level range of 0.5 to 0.75 for heavily exploited species.

**Table 5. Summary of proposed new ABCs in Am 29**

Species	Exploitation Status	Current ABC	Highest Catch (1999-2007)	New ABC Am29	Diff. in Am29 ABCs
Bar Jack	Low	24,780	34,583	62,250	151%
Margate	Moderate	29,889	63,993	76,792	157%
Red Hind	Moderate	24,867	27,570	33,084	33%
Cubera Snapper	Moderate	24,680	52,721	63,265	156%
Yellowedge Grouper	Moderate	30,221	46,330	55,596	84%
Silk Snapper	Moderate	25,104	75,269	90,323	260%
White Grunt (South)	Moderate	674,033	735,873	883,048	31%
Atlantic Spadefish	Moderate	189,460	677,065	812,478	329%
Gray Snapper	Moderate	795,743	1,039,277	1,247,133	57%
Lane Snapper	Moderate	119,984	169,572	203,486	70%
Rock Hind	Mod High	37,953	42,849	37,493	-1%
Tomtate	Mod High	80,056	105,909	92,670	16%
White Grunt (North)	Mod High	674,033	735,873	643,889	-4%
Scamp	Mod High	509,788	596,879	552,269	8%
Gray Triggerfish	Mod High	626,518	819,428	717,000	14%

*These are based on the selected catch statistic (max catch), scalars and risk levels for each exploitation category compared to current ABCs. ABCs and catch statistics are all in pounds (whole weight).*

**Fig. 1** – Combined recreational and commercial landings of Atlantic spadefish, 1981-2011. The highest reported catch (landings) from the years 1999-2007 (red bars) was selected as the ORCS catch statistic in Am29. This reported catch (667,608 whole pounds in 2001) is far higher than any recorded catch in the past three decades.<sup>2</sup>



<sup>2</sup> Catch (landings) data were obtained by request from NOAA Fisheries, Fishery Monitoring Branch-Southeast Fisheries Science Center.