June 8, 2012

Mr. David Cupka
Chairman
South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
North Charleston, SC 29405

RE: Comments on the Development of Comprehensive Ecosystem-based Amendment 3 and the Potential Opening of the Red Snapper Fishery

Dear Mr. Cupka,

On behalf of the Pew Environment Group, I would like to offer comments for consideration by the South Atlantic Fishery Management Council (Council) at its June meeting regarding the development of alternatives in the Comprehensive Ecosystem-Based Amendment 3 (CE-BA 3) to end overfishing for speckled hind and Warsaw grouper. Specifically, we urge the Council at this meeting to:

- Vote to send CE-BA 3 out to public hearings this August;
- Include alternatives in CE-BA 3 to protect 20%, 30% and 40% of high-relief, hard bottom habitat and documented occurrences of the two species;
- In selecting these areas, prioritize inclusion of sites identified by the Expert Workgroup and all known or suspected spawning sites found in the scientific literature, fishery surveys and suggested by the Council's Expert Workgroup convened in May;
- Designate these sites as Habitat Areas of Particular Concern (HAPC) for speckled hind and Warsaw Grouper and as Type II marine protected areas (MPAs) that allow trolling for pelagic species but prohibit snapper and grouper fishing and possession, in line with the existing regulations for the MPAs implemented via Snapper-Grouper Amendment 14; and
- Include alternatives in CE-BA 3 to address monitoring, enforcement, evaluation and research priorities for these MPAs.

We also offer several points for consideration as the Council deliberates whether recent scientific data supports re-opening red snapper to directed fishing. In particular, we

remind the Council of its legal obligation to ensure adherence to the rebuilding plan for this species. We also recommend that the Council develop a longer-term vision and corresponding management plan for the red snapper fishery.

COMPREHENSIVE ECOSYSTEM BASED AMENDMENT 3

A Documented Need for Protections Beyond the Moratorium on Directed Catch

The Magnuson-Stevens Fishery Conservation and Management Act mandates the regional fishery management councils develop fishery management plans that are,

> "necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery." (16 U.S.C. § 1853(a)(1)(A))

According to the National Marine Fisheries Service (NMFS), both speckled hind and Warsaw grouper are "currently undergoing overfishing."[1] These species are "extremely vulnerable to overfishing" and depletion because they are slow growing, long-lived and they change sex from female to male with increasing size and age.[2] Furthermore, both species are believed to form spawning aggregations, which can further increase their vulnerability to fishing pressure.[3]

Although the overfished status of both stocks is currently listed as "unknown" due to data limitations and the lack of recent stock assessments, there is strong evidence that both species remain severely depleted. As recently as 2005, NMFS classified both species as "overfished"[4] and has listed them as "Species of Concern" since 2004. The most recent assessment estimated static spawning potential ratios to be 0.2% and 6% for the fishing years 1988 and 1990.[5] Speckled hind was assessed four times between 1988 and 1999. In that time period, these assessments show the spawning potential fell steadily from 25% in 1988 to 12%, 8%, and finally to 5% in 1999.[6]

Amendment 17B to the Council's Snapper Grouper Fishery Management Plan (FMP) was intended to end overfishing of nine species, including speckled hind and Warsaw grouper. Amendment 17B and the Final Rule implementing it concluded that prohibiting landings (*i.e.*, setting an ACL equal to zero landed catch) alone "would not be sufficient to end overfishing of speckled hind and Warsaw grouper."[7] As a result, in addition to enacting a moratorium on the catch and possession of speckled hind and Warsaw grouper, Amendment 17B also prohibited the harvest of deep-dwelling snappers and groupers seaward of 240 feet of ocean depth (the "deepwater closure"). The Council and NMFS had determined that"[p]rohibiting all harvest of deepwater snapper grouper

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[1] 77 Fed. Reg. 27374, at 27375 (May 10, 2012) (Regulatory Amendment 11 Final Rule).
[2] *Id.* at 27379.
[3] NMFS, Amendment 17B to the Fishery Management Plan for the Snapper-Grouper Fishery of the South Atlantic Region with Environmental Assessment, Initial Regulatory Flexibility Act Analysis, Regulatory Impact Review, and Social Impact Assessment/Fishery Impact Statement. South Atlantic Fishery Management Council. March 2010.
[4] 2005 status of stocks report.
http://www.nmfs.noaa.gov/sfa/statusoffisheries/2005/4th%20quarter/revisedTablesA_B.pdf
[5] Ibid.
[6] Ibid.
[7] 75 Fed. Reg. 82,280, at 82,291.

species beyond 240 feet would also protect these spawning aggregations, as well as, decrease bycatch mortality of speckled hind, Warsaw grouper."[8]

A study published in 2011 found that speckled hind catches likely continued to be too high even ten years after the one-fish-per-vessel-per-day regulation went into effect in 1994. Specifically, these researchers determined that, "the speckled hind population is still in decline" and that "[t]raditional methods, such as catch limits and quotas, will not effectively protect this population because once the limits are met, fishing mortality of speckled hind will continue in the form of regulatory discards." [9] This further illustrates the need for additional protections beyond the moratorium on harvest of these two species. However, the Council voted to remove the deepwater closure that protected speckled hind and Warsaw grouper through Regulatory Amendment 11, which was approved on May 10, 2012 by the Secretary of Commerce.

There is now a critical lapse in measures to reduce bycatch mortality and that is likely to result in continued overfishing of these critically imperiled species.[10] The Council is currently considering actions in CE-BA 3 to implement place-based protections for speckled hind and Warsaw grouper with a smaller geographic footprint than the deepwater closure. **It is imperative that the Council move forward with this effort expeditiously. Thus we strongly urge the Council to vote to approve CE-BA 3 for public hearings this August.**

Determining the Extent of Area to be Protected

The CE-BA 3 Options Paper presented at the Council's March 2012 meeting laid out options to include 20%, 30% and 40% of suitable speckled hind and Warsaw grouper habitat and occurrences via marine protected areas (MPAs). The Council also discussed using the spawning potential ratio (SPR) as a proxy to decide the percentage of habitat to protect. Although the Council's Science and Statistical Committee (SSC) "did not feel the amount of area closed was directly related to a similar amount of biological gain,"[11] if the Council chooses to use this approach, the following information should be part of that discussion.

In Amendment 11 to the Snapper Grouper FMP, the Council designated target SPRs for snappers and groupers. A target SPR of 45% was chosen for hermaphroditic groupers like Warsaw grouper and speckled hind. Two species with harvest moratoria (Nassau grouper and Goliath grouper) were assigned a target SPR of 50%. In addition, Dr. Chris Koenig, who has studied snapper and grouper protected areas in the southeast for decades, makes the following recommendation in his letter to the Council dated January 17, 2012:

> *"[M]y suggestion to the South Atlantic Council is to start the process of closing significant portions of the shelf edge—about 50% of significant high-relief reef habitat…Shelf-edge reserves should be at least 100 square miles in area to*

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[8] Ibid

[9] Gabriel L. Ziskin et al., Indications of Continued Overexploitation of Speckled Hind Along the Atlantic Coast of the Southeastern United States, 140 TRANS. AM. FISH SOC. 384-398 (2011).

[10] IUCN Red List Designation. http://www.iucnredlist.org/apps/redlist/details/7860/0. Accessed on May 28, 2012.

[11] SSC Final Report from April, 2012 meeting. http://www.safmc.net/LinkClick.aspx?fileticket=pjfG%2fy83F74%3d&tabid=727

account for the short-range movements of fishes on the shelf edge (Koenig and Coleman 2006) and should encompass important reef structure, whether that structure is overfished or not."[12]

Based upon the above considerations, we recommend that the Council include alternatives in CE-BA 3 to protect 20%, 30% and 40% of identified high-relief hard bottom habitat and documented occurrences. Although these are lower percentages than would be indicated were the Council to rely strictly on the advice of Dr. Koenig or the SPR proxy for these species designated in Amendment 11, if these MPAs are positioned to cover high quality hard bottom habitat instead of mud bottom or other similarly unproductive habitat, this range of alternatives has the potential to provide significant protection for these and other deepwater snapper and grouper species. This approach also has the benefit of providing substantially more fishing opportunities than was allowed under the deepwater closure.

MPA Site Selection and Regulations

We urge the Council to maintain the same level of protections as was determined appropriate when the existing network of deepwater MPAs was established via Snapper-Grouper Amendment 14. The Council designated these areas as both HAPCs, and "Type II MPAs" — meaning the closure is permanent but some fishing is allowed."[13] The specific regulations for these MPAs include:

- No fishing for or possession of any snapper grouper species;
- No shark bottom longline gear allowed;
- Vessels (both commercial and recreational) may transit (direct, non-stop progression) through the MPAs with snapper grouper species onboard with fishing gear appropriately stowed; and
- Trolling for pelagic species such as tuna, dolphin, mackerel and billfish is allowed within the MPAs.[14]

The Council's stated purpose in establishing these MPAs was, "to protect a portion of the long-lived, deepwater snapper grouper species and their habitat from directed fishing pressure" and "to protect the size, age, and genetic structure of populations of deepwater species that are susceptible to overfishing."[15] However, recent analysis by NMFS reveals that these MPAs capture less than 6% of the hard bottom habitat on the shelf edge, which is critical habitat for these species, and capture less than 10% of the encounters with Warsaw grouper and speckled hind.[16]

As the Council considers repositioning, expanding and potentially adding to this network of MPAs, we recommend that you prioritize sites identified by the Expert Workgroup (EWG); then include additional high-relief hard bottom habitat; and

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[12] Comments by Chris Koenig (Florida State University, marine research biologist) on deep-water closures in the South Atlantic Region for the protection of warsaw grouper and speckled hind. 2012.
[13] http://www.safmc.net/Portals/6/Library/MPAdeepwaterbrochure.pdf, page 2.
[14] http://www.safmc.net/MPAInformationPage/tabid/469/Default.aspx. Accessed on June 6, 2012
[15] http://www.safmc.net/Portals/6/Library/MPAdeepwaterbrochure.pdf, page 2. Accessed on June 6, 2012
[16] NMFS. Speckled Hind and Warsaw Grouper: A Review of Available Distribution and Catch Data. http://www.safmc.net/LinkClick.aspx?fileticket=RlM9zzhWEyE%3d&tabid=725

finally look to incorporate areas where there are clusters of documented occurrences of these species.

We recommend prioritizing habitat because the documented encounters with speckled hind and Warsaw grouper are limited to areas where fishing occurs and where scientific sampling regularly takes place. This is generally biased towards waters inshore of 240 feet, according to a 2011 analysis by the National Marine Fisheries Service Southeast Regional Office.[17] Of the data used in this analysis, greater than 90% of all commercial logbook reported landings were inshore of 240 feet, while more than 95% of the Reef Fish Observer Program, discard logbooks, and Marine Resources Monitoring Assessment and Prediction (MARMAP) Program data points were from inshore of 240 feet. In contrast, according to the scientific literature, which the Council and NMFS rely on in describing the biology of speckled hind and Warsaw grouper in RA 11:

"speckled hind is…found in depths from 25 m (98 ft) (Heemstra and Randall 1993) to 400 m (1,312 ft) (Bullock and Smith 1991). Heemstra and Randall (1993) reported that it most commonly occurs at depths of 60-120 m (197-394 ft)." RA 11, at 12.

and

"warsaw is found at "depths from 55 to 525 m (180-1,722 ft) (Heemstra and Randall 1993). Juveniles are sometimes observed in inshore waters (Robins and Ray 1986), on jetties and shallow reefs (Heemstra and Randall 1993)." RA 11, at 13.

We urge the Council to ensure that any current or historic spawning sites identified through scientific literature, fishery surveys and local ecological knowledge are included in the protected areas. Some fishermen at the Council's EWG meeting identified several probable spawning locations in the EWG report to the Council and scientific surveys have found speckled hind and Warsaw grouper in spawning condition[18], indicating the proximity of a spawning location.

Developing an Effective Management Plan

There is wide agreement both in the scientific literature[19] and among stakeholders[20] that the selection of MPA sites is only the first step and that elements of an effective management plan include monitoring, enforcement, research and evaluation. Both the Snapper Grouper Advisory Panel (AP) and the EWG made specific recommendations on these topics and we urge the Council to use these to develop actions and alternatives in CE-BA 3 to address monitoring, evaluation, enforcement and research priorities.

Monitoring and Evaluation

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[17] NOAA Fisheries Service, SOUTHEAST REGIONAL OFFICE, REGULATORY AMENDMENT 11: WARSAW GROUPER AND SPECKLED HIND CATCHES IN THE U.S. SOUTH ATLANTIC, SERO-LAPP-2011-06, ("*SERO Catch Analysis*"), (June 1, 2011, *revised* Aug. 23, 2011).

[18] Speckled Hind and Warsaw Grouper: Review of Available Distribution and Catch Data. http://www.safmc.net/LinkClick.aspx?fileticket=RlM9zzhWEyE%3d&tabid=725. Pgs. 26, 32, 41. Accessed 6/5/2012.

[19] Pomeroy, R.S., Parks, J.E. and Watson, L.M. How is Your MPA doing? A Guidebook of Natural and Social Indicators for Evaluating Marine Protected Area Management Effectiveness. 2004. IUCN, Gland, Switzerland and Cambridge, UK.

[20] Snapper Grouper Advisory Panel Final Report, April, 2012.

Management should be adaptive and progress towards management goals should be evaluated at some pre-defined time (e.g. ten years, or one generation time) to determine the effectiveness of protections and whether changes in the size, location or regulations for these areas are warranted. The EWG report recommends that "[a]ny MPA designation for SH and WG needs to be re-evaluated in 10 years to see if it is meeting management goals."[21] To facilitate this, clear and measurable criteria should be established that will enable the Council and stakeholders to gauge the success of this approach. These do not necessarily need to be traditional biological benchmarks; they can include more general indications of progress towards recovery of these species such as measuring changes in the catch-per-unit-of-effort (CPUE) or in the average size of fish inside the protected area. Finally, methods must be developed to monitor progress towards the established criteria. The EWG recommends that a "rigorous experimental approach should be taken to determine the efficacy of the selected reserves such as a BACI (Before-After-Control-Impact) design. In this case, it is suggested that the restricted temporal design of Underwood (1994) be taken. Such an approach will allow broad inference for the establishment of other shelf-edge reserves, not only for SH and WG, but for the many other economically important species spawning on the shelf edge."[22]

Enforcement

Effective enforcement of these protections is critical to their success. The Snapper Grouper AP and the EWG both suggest requiring vessel monitoring systems (VMS) for all snapper grouper vessels.[23] We support the Council exploring VMS as an option for commercial and for-hire vessels to aid in enforcement, although there are other tools and policies that could also be used to achieve this goal. The AP also approved a motion[24] urging the Council to "approach the state of Florida and request that harvest of Warsaw grouper in Florida state (Atlantic) waters be prohibited." It should be noted that there is also a fishery for speckled hind in Florida state waters. These discrepancies between state and federal regulations have the potential to hinder enforcement of measures designed to end overfishing and restore these populations in federal waters and are sources of mortality for which there is not yet good accounting.

Research plan

In order to manage adaptively and to gather critical information about fish species, scientific research must be conducted in and around the MPAs. The EWG suggests establishing research priorities such as the identification of high-relief habitat and the use of high resolution habitat maps and models.[25] **Identifying research priorities as well as funding sources should be a high priority.**

Stakeholder Input

Another key to effective MPA design is securing buy-in from stakeholders. The Council has so far sought the advice of stakeholders at each point in the process, including fostering robust and productive discussions during both the Snapper-Grouper AP meeting

[21] South Atlantic Fishery Management Council MPA Expert Workgroup Report. June, 2012.
[22] Ibid.
[23] Snapper Grouper Advisory Panel Final Report, April, 2012.
[24] Ibid.
[25] South Atlantic Fishery Management Council MPA Expert Workgroup Report. June, 2012.

in April and the EWG meeting in May. The traditional ecological knowledge of the collective members of these bodies should continue to inform this process. Working with leaders from the fishing community who are active on these panels will, we hope, result in broader stakeholder support for this approach than might otherwise be expected. That in turn should lead to more effective protections and healthier fisheries in the future. The proposed protections in CE-BA 3 for speckled hind and Warsaw grouper are critically important to end overfishing for these species and once established, they must be monitored, evaluated and enforced for the full benefits to be realized.

RED SNAPPER MANAGEMENT

Red snapper have been chronically overfished and at a depressed population level for decades. In 2010, the Council implemented a moratorium to end overfishing and approved a red snapper rebuilding plan. As the Council reviews new information on red snapper landings and discards since the moratorium was implemented, we remind you of your legal obligation to maintain the rebuilding plan and urge you to carefully consider the following information:

1. It appears that the ACL of 0 directed catch was exceeded in both 2010 and 2011.[26]

2. It is estimated that the combined discard mortality and landings exceeded the total mortality limit established in the rebuilding plan for 2010 and was very close to that limit in 2011. The cumulative overage during the first two years of the rebuilding plan is 16,663 pounds.

	Allowable mortality under the red snapper rebuilding plan	**Total actual mortality**	**Difference**
2010	346,000 lbs.	378,387 lbs.	Overage of 32,387 lbs.
2011	421,000 lbs.	405,276 lbs.	Underage of 15,724 lbs.
TOTAL	767,000 lbs.	783,663	**16,663 lbs. over the total mortality allowed in the 1st two years of the red snapper rebuilding plan**

Table 1. The allowed mortality represents the total pounds of fish (landed and discarded) allowed under the current rebuilding plan. Actual mortality shows the estimated total pounds of fish (landed and discarded) that were reported in 2010 and 2011.

While we appreciate that there is a high level of interest in reopening the red snapper fishery as soon as possible, potentially via an Emergency Rule, the catch limits laid out in the rebuilding plan must be maintained and closely monitored to ensure the continued recovery of this population. Red snapper can live for more than fifty years and do not reach peak reproductive maturity until they are ten years or older. Prior to the moratorium, bycatch mortality rates were a primary concern in the management of this

[26] South Atlantic Fishery Management Council June 2012 Meeting Briefing Book. http://www.safmc.net/LinkClick.aspx?fileticket=0bzsNawqYFs%3d&tabid=736

fishery and the population was estimated to be at just 11 – 14% of a healthy level by SEDAR 24. Thus, although the moratorium enacted in Amendment 17A was always intended to be temporary, it is important that the Council act judiciously to ensure that any actions taken do not compromise the long-term goal of restoring this species. When data demonstrate that the fishery can be reopened without further risk to the population's recovery, we are supportive of allowing fishing to resume in line with the rebuilding plan's provisions.

As the population rebuilds, the Council will need to balance the needs of private anglers, the charter industry and commercial snapper grouper fishermen who are all interested in access to a limited amount of catch. **Thus, we urge the Council to seize this unique opportunity to proactively engage stakeholders in formulating a vision for the management of this fishery by initiating the development of a long term management plan for red snapper.**

Goals and Stakeholder Input

All good plans begin with a goal. We strongly urge the Council to establish clear conservation, management, socio-economic and other goals for the fishery. Some of the questions that should be explored include:

1. What information will be needed to monitor progress towards full recovery and to allow for adaptive management (i.e. adjustments in the catch limit based on new science and data)?
2. How will bycatch be addressed and reduced?
3. What mechanisms should be explored that could aid in better monitoring and control of catch and effort and are there ways to engage fishery participants more directly in the data collection and monitoring process?
4. Should allocations change over time, and how?
5. Are there management measures like protections for spawning aggregations or for the fishery as a whole during their spawning season that should be considered?

Performance Measures

During the rebuilding period there will be measurable indications of the population's progress and these should be evaluated regularly against clear and explicit goals. Good performance measures are quantitative and should be designed to catch problems early and provide the opportunity to correct them. For example, they might say that if red snapper spawning stock biomass (SSB) is not at **X** level by 2020, then the fishing mortality rate will drop to **Y** level for a specific period of time. If progress towards rebuilding is properly monitored, then corrections can be made mid-course to ensure the success of the rebuilding plan, rather than waiting for another potential crisis to develop.

Identifying Research and Information Gaps

We urge the Council to continue to pursue the research and data collection efforts outlined in the South Atlantic Fishery Independent Monitoring Program[27] to ensure that you have the information necessary to make science-based decisions and to allow for timely adjustments to management measures as indicated by new data. Where it is

[27] Williams, E and J. Carmichael, editors. Final Report: South Atlantic Fishery Independent Monitoring Programs Workshop. Beaufort, NC, 2009.

appropriate, we further encourage the Council to pursue cooperative research opportunities that engage fishery participants and leverage their knowledge and experience for the benefit of the resource.

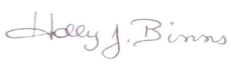
Spawning Aggregations

Red snapper have been found to spawn at 72-200 feet in depth primarily from June to September.[28] One potential tool is the identification and protection of red snapper spawning aggregations.[29] This would allow more focused and useful area management to protect the fishery over the long-term. Another option to consider is seasonal management timed to protect the species when they spawn.

CONCLUSION

We offer these suggestions in the hope that your actions regarding CE-BA 3 and the South Atlantic red snapper population will result in a thoughtful, sustainable approach to managing three of the region's historically depleted fisheries. Thank you for considering these recommendations. We look forward to working with you to achieve abundant and robust Southeast fisheries.

Sincerely,



Holly Binns
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[28] Sedberry, G. et.al. Spawning Locations for Atlantic Reef Fishes off the Southeastern U.S. *South Carolina Department of Natural Resources*

[29] Sedberry, G. et al. 2006.Spawning Locations for Atlantic Reef Fishes off the Southeastern U.S., *GCFI*: 57.