March 3, 2012

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

RE: Science-Based Spawning Protections and Implementation of Accountability Measures

Dear Chairman Cupka,

On behalf of the Pew Environment Group, we would like to offer comments on the development of measures to protect Warsaw grouper and speckled hind in the South Atlantic region, and on the implementation of accountability measures for vermilion snapper. We urge the South Atlantic Fishery Management Council (Council) to ensure sufficient protection is given to Warsaw grouper and speckled hind through a combination of reductions in bycatch mortality and spawning protections that meet several criteria. We also urge the Council to address repeated overages of the commercial vermillion snapper catch limit by expanding the accountability measures to include an overage reduction and an annual catch target.

Restoring Speckled Hind and Warsaw Grouper & Protecting Reef Fish Spawning

The fate of the deepwater closure to address bycatch mortality of speckled hind and Warsaw grouper which results in overfishing of these two species, and which the Council recommended removing via Regulatory Amendment 11, has yet to be determined by the Secretary of Commerce. Whatever the decision may be, the Council's pursuit of measures to reduce bycatch mortality and implement spawning protections should seek to maximize the effectiveness of any fishery closures. It is clear that speckled hind and Warsaw grouper need reductions in overall mortality and increases in productivity to restore their populations to a sustainable level of abundance. The Council has indicated that the proposals in Comprehensive Ecosystem-Based Amendment 3 (CEBA) 3 are intended to address these issues. While spawning protections or other place-based management measures should yield long-term benefits and increase these species' ability to recover from their current depleted condition, these approaches may not yield enough reductions in bycatch mortality so that overfishing is no longer occurring. Thus, we urge the Council to analyze and

consider a wider range of possible management measures that would protect Warsaw grouper and speckled hind. These measures could include year-round generalized spawning protections, variable time and area protections, bycatch caps and/or real-time bycatch monitoring.

However, there is strong scientific evidence that a network of spawning reserves, properly scaled and implemented, could also have broader benefits for a range of reef fish species, many of which are depleted and in rebuilding plans. Thus, we strongly encourage the Council to continue to pursue the establishment of such reserves as part of a broader strategy to more quickly restore a range of depleted snapper and grouper species. This could increase fishing opportunities for some species sooner than may otherwise be viable and would yield a range of other benefits.

In a scoping comment letter to the Council on CEBA 3, spawning aggregation expert Dr. Christopher Koenig identified the following such benefits, based on his long-term study of reserves in the Gulf of Mexico:

- "Recovery of the natural size, age, and sex ratio in gag and scamp in the reserves resulting in increased reproductive output;
- Increase in the size and age structure of other spawning reef fish within the reserves (including red grouper, red snapper, gag, scamp, vermilion snapper, and others), thus increasing their reproductive output (that is, more and higher quality eggs);
- Protection of biodiversity through the maintenance of community structure, especially for top predators;
- Provides reference habitats and communities on the shelf edge that make it easier to distinguish the effects of climate change and other broad-scale impacts from fishing impacts and to minimize the "shifting baseline" effect; for example, Steamboat Lumps Reserve in the Gulf of Mexico provided a reference habitat for the effects of the Deepwater Horizon oil spill;
- Spillover benefits to fishermen operating in the area of the reserves. Fishermen in the Gulf of Mexico who fish in the vicinity of Madison Swanson Reserve state that they now catch a "better class of fish" which means more and larger fish."[1]

While well-designed spawning protections have been shown to have these positive outcomes, poorly designed protections may fail to have the desired effects.[2] Scientific literature has identified several criteria for the design of spawning protections along the shelf edge, which we strongly encourage the Council to consider in the analysis of potential spawning reserves. The first is geographic placement. Spawning protections

[1] Koenig, C. Comment Letter to the South Atlantic Fishery Management Council as part of scoping for CEBA3, 2012.

[2] Nemeth, R. et al. Spatial and temporal patterns of movement and migration at spawning aggregations of red hind, *Epinephelus guttatus*, in the U.S. Virgin Islands. ENVIRONMENTAL BIOLOGY OF FISHES Volume 78, Number 4, 365-381.

should include areas of high relief reef habitat since these are areas favored for spawning by reef fish species.[3] Another important criterion for the design of spawning protections is depth. The scoping document seeks to place spawning protections on the "shelf edge", which can generally be defined as between 150 feet in depth and 400 feet in depth. It is important that all parts of this depth range are represented since different species may utilize different parts of the shelf edge. The final criterion that we will touch on is the size and extent of protections. We concur with the advice of Dr. Koenig, who recommends protecting about 50% of the shelf edge where there is significant high relief habitat. He also suggests that protections should be at least 100 square miles because fish move during spawning, and to aid in compliance and enforcement.

The Council should seek to place spawning protections in the areas most optimal for spawning in the region. To that end, there are several scientific studies that have identified potential areas that meet these criteria.[4] In addition, Amendment 14 to the snapper grouper fishery management plan identified and analyzed areas designed to protect potential spawning habitat for deepwater snapper and grouper species. The expansion of these areas is another option that the Council should consider and weigh against other options for protecting the breeding grounds of these species.

Accountability Measures for Vermilion Snapper

Amendment 17B to the snapper grouper fishery management plan states that the commercial fishery for vermilion snapper will be closed when the ACL is projected to be met, but there is no overage reduction to correct for any commercial overage. The National Marine Fisheries Service's technical guidance states that,

> "If catch exceeds the ACL for a given stock or stock complex more than once in the last four years, the system of ACLs and AMs should be re-evaluated, and modified if necessary, to improve its performance and effectiveness."[5]

The commercial vermilion snapper fishery has exceeded its ACL in each of the past three years, despite in-season closures (by 20% in 2009, by 26% in 2010 and by 39% in 2011). Thus, it is clear that additional accountability measures are needed to keep the ACL from being regularly exceeded. Thus, we recommend that both the recreational and commercial sectors have an annual catch target and an overage reduction should be added to the commercial AMs for vermilion snapper in order to end and prevent overfishing in this important fishery.

Thank you for your time and for your dedication to our shared vision of vibrant and sustainable South Atlantic Fisheries.

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[3] Koenig, C. et al. Protection of fish spawning habitat for the conservation of warm-temperate reef-fish fisheries of shelf-edge reefs of Florida. Bulletin of Marine Science, Volume 66, Number 3, May 2000 , pp. 593-616(24)

[4] Sedberry GR, Pashuk O, Wyanski DM, Stephen JA, Weinbach P. 2006. Spawning locations for atlantic reef fishes off the southeastern U.S. Gulf and Caribbean Fisheries Institute.Proceedings of the Annual Session (57):463-514.

[5] NS1 Section 600.310(g)(3)

Sincerely,

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