May 14, 2019

Mr. Gregg Waugh
Executive Director, South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
Charleston, SC 29405

Re: Scoping for Adding Bullet and Frigate Mackerel as Ecosystem Component Species to the Dolphin Wahoo Fishery Management Plan

Dear South Atlantic Fishery Management Council Members,

On behalf of The Pew Charitable Trusts, please accept these comments during the scoping period to consider adding bullet mackerel (*Auxis rochei*) and frigate mackerel (*Auxis thazard*) as ecosystem component species to the Dolphin Wahoo Fishery Management Plan (FMP). We commend the South Atlantic Fishery Management Council (Council) for taking the first step to protect these important prey species and soliciting public input. Bullet and frigate mackerel, also called bullet and frigate tuna, play vital roles in the U.S. Atlantic marine ecosystem and the depletion or loss of these species could put the predators and commercially and recreationally valuable fisheries that depend upon them, such as wahoo, at risk. This simple step toward a comprehensive ecosystem-based approach to fisheries management (EBFM) could contribute significantly to the future of productive fisheries and a healthy marine ecosystem.

We support the continued development of this important action and offer the following recommendations:

Recommendation 1: Amend the Dolphin Wahoo FMP to designate bullet and frigate mackerel as ecosystem component species (ECS) with associated management measures.

Recommendation 2: Analyze all management options presented in the scoping document, including trip limits, annual vessel limits, a reporting requirement, a permit requirement, and a protocol for allowing the development of directed fisheries for EC species.

Background

Fisheries are a vital part of the South Atlantic region's economy. It is essential that we sustainably manage these resources to ensure abundant populations that can support thriving coastal communities. Identifying important predator-prey linkages and maintaining an adequate forage base to support dietary needs and production of valuable predator fish species are key components of ensuring abundant commercial and recreational fisheries.

Research shows that bullet and frigate mackerel, which are small tunas rather than true mackerels, are important prey for some of the region's most prized game fish. Data collected from tournaments, such as the Big Rock tournament in North Carolina and the SC Governor's Cup Billfishing Series, as well as other recreational landings show that bullet and frigate mackerel comprise 30-50% of the wahoo diet.[1,2] Wahoo showed the least diverse diet of any predator sampled in the studies, which suggests that wahoo may specialize in these two prey items. Bullet and frigate mackerel also appeared in the diets of popular pelagic predators such as dolphinfish, blue marlin, and yellowfin tuna, providing further evidence of their important role as forage species in the region.

Last year, we were pleased to see the Council approve the Fishery Ecosystem Plan (FEP) II, Implementation Plan, and Roadmap and formally recognized the importance of considering predator-prey relationships in management decisions. As stated in the Council's FEP II South Atlantic Food Webs and Connectivity policy statement, "A key tenet of ecosystem-based fisheries management (EBFM) is the consideration of potential indirect effects of fisheries on food web linkages when developing harvest strategies and management plans." An amendment to the Dolphin Wahoo FMP to protect bullet and frigate mackerel is a concrete way the Council can put these policies into action and continue to operationalize the FEP.

Recommendation 1: Amend the Dolphin Wahoo FMP to designate bullet and frigate mackerel as ecosystem component species (ECS) with associated management measures.

Given the clear scientific evidence showing the importance of bullet and frigate mackerel in the diets of wahoo and other pelagic predators, we encourage the Council to designate these important prey species as ECS with management measures. These species are currently unmanaged by any U.S. jurisdictional body. This simple designation will recognize their importance in the food web and help ensure any potential future growth is done sustainably from an ecosystem-based perspective. This is a straightforward management action that can be established with no impact on current commercial fisheries, but could have significant conservation benefits to protect wahoo and other pelagic predators.

Without these designations in place, fisheries have the potential to develop quickly and unsustainably. Though landings are relatively low, the chub mackerel fishery in the mid-Atlantic offers a cautionary tale of how a fishery can escalate without a council's awareness. In 2013, fishermen landed over 5 million pounds of chub mackerel – almost 32 times more than the 165,000 pounds landed the previous year.[3] The chub mackerel fishery is prosecuted by a handful of industrial-scale trawlers. The Mid-Atlantic Fishery Management Council had to act quickly to add chub mackerel to their existing Mackerel, Squid, and Butterfish FMP to ensure any future growth is sustainable.

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[1] Rudershausen, P. J., Buckel, J. A., Edwards, J., Gannon, D. P., Butler, C. M., & Averett, T. W. (2010). Feeding ecology of blue marlins, dolphinfish, yellowfin tuna, and wahoos from the North Atlantic Ocean and comparisons with other oceans. *Transactions of the American Fisheries Society*, 139(5), 1335-1359.

[2] Poland, S. J. (2014). Trophic dynamics of pelagic fishes in the U.S. South Atlantic inferred from diet and stable isotope analysis. Master's Thesis. University of North Carolina Wilmington. 76pp.

[3] MAFMC (2018). Chub Mackerel Amendment Briefing Materials. October meeting. Accessed at: http://www.mafmc.org/s/Tab10_Chub-Amendment_2018-10.pdf

Recommendation 2: Analyze all management options presented in the scoping document, including trip limits, annual vessel limits, a reporting requirement, a permit requirement, and a protocol for allowing the development of directed fisheries for EC species.

The scoping document presents several management options to improve reporting and monitoring of these species and to prevent large scale, unmanaged fisheries from developing before proper management actions can be put in place. The depletion of these species could have far-reaching ecological and economic impacts if it led to lower predator populations and commercial and recreational fisheries suffered as a result. Therefore, it is important to fully consider all management options at this early stage in the process.

We encourage the Council to fully analyze each of the options, consider trade-offs, and determine which would be viable management tools in the region.

Conclusion

Residents and visitors of the South Atlantic depend upon healthy fish populations and resilient marine ecosystems for nutrition, livelihoods, and recreation. Effective fisheries management requires managers to look at the bigger ecosystem picture and implement ecosystem-based fisheries management. This holistic approach considers the interconnectedness of fish populations and the environment surrounding them. Forage species are a critical piece of the ecosystem puzzle.

We appreciate the Council's efforts to add bullet and frigate mackerel as ecosystem component species to the Dolphin Wahoo FMP. We look forward to continuing to work with you on this and other measures to promote healthy South Atlantic fisheries.

Sincerely,

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