



October 1, 2015

Dr. Chris Moore, Executive Director
Mid-Atlantic Fishery Management Council
Suite 201, 800 North State St.
Dover, DE 19901

RE: UNMANAGED FORAGE SCOPING COMMENTS

Dear Dr. Moore,

On behalf of *Wild Oceans* and as an advisor to the Mid-Atlantic Council, I am pleased to offer recommendations for moving forward with an action that efficiently and effectively safeguards the unmanaged component to the region's forage base. Maintaining adequate forage to support food web function and productive fisheries demands a long-term strategy that prioritizes the ecological value of the aggregate forage base, both managed and unmanaged forage species. In light of escalating demand for forage fish products,ⁱ prohibiting the expansion or development of fisheries for unmanaged species, until adequate science is available to assess and avoid negative impacts, is an essential precautionary step. However, as the Council moves forward, it is important to be mindful of the bigger picture, understanding how this action fits within a more holistic strategy for conserving the forage base in its entirety.

Below I outline our recommendations for each of the eight issue areas as presented in the "Scoping Document for Council Action on Unmanaged Forage Species" (Scoping Document).

Issue 1: The most appropriate type of management action

Through Objective 15 in the Mid-Atlantic Council's 2014-2018 Strategic Plan, the Council commits to a strategy (15.2) to "incorporate consideration of species interactions into fishery management plans and coordinate these considerations across appropriate management plans." In keeping with this strategy, *Wild Oceans* supports a management action that recognizes the critical links between forage species and the dependent predators managed by the Council through its fishery management plans (FMPs). Two options are promising for identifying these connections:

1. An omnibus amendment that will amend the Council’s FMPs to explicitly recognize links between unmanaged forage and managed species. An omnibus action would follow the model of the Pacific Fishery Management Council’s Comprehensive Ecosystem-based Amendment 1 (CEBA-1) in which trophic pathways are recognized between unmanaged forage species and predators within the ecosystem, including predatory fish managed under FMPs; or
2. An amendment to the Atlantic Mackerel, Squid and Butterfish FMP which recognizes that managed and unmanaged forage species, as an assemblage, comprise the region’s forage base and together support the ecosystem’s predators, including other FMP species.

Both of the above actions would set the stage to advance future ecosystem-based initiatives that recognize and account for species interactions and the ecological role of all forage fish. Amending the Bluefish FMP alone would fail to recognize links between unmanaged forage species and other Council-managed predators and would fall short of the Strategic Plan Strategy 15.2 described above. For example, a comprehensive analysis of stomach contents data collected from the Northwest Atlantic revealed that northern sand lance (*Ammodytes dubius*), an unmanaged forage species that ranges from Greenland to North Carolina, is prey for summer flounder, scup, black sea bass, spiny dogfish, monkfish and bluefish.ⁱⁱ Including sand lance in the bluefish plan alone would not acknowledge the importance of sand lance to these other Council-managed stocks.

Issue 2: The most effective provisions of such an action

Wild Oceans supports identifying unmanaged forage species as ecosystem component (EC) species and prohibiting their directed harvest until sufficient science is available and management policies in place to guide sustainable harvest (Provision A). The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Act) grants regional councils the authority to identify and manage EC species for “ecosystem considerations related to specification of optimum yield (OY) for the associated fishery”, “and/or to address other ecosystem issues.”ⁱⁱⁱ Once identified, councils should act to “protect their associated role in the ecosystem.”^{iv} Arguably, forage fish populations directly support the growth and productivity of their predators, and it falls within the Council’s purview to protect unmanaged forage species from unregulated harvest in order to enhance OY for dependent predator stocks and to support ecosystem structure and function.

Ecosystem component species may also be grouped as “Shared EC Species,” as was done on the west coast, if an omnibus amendment is chosen. The Pacific Council incorporated the entire list of unmanaged forage species into each of its four plans as “Shared EC Species” in recognition that collectively, these species play an important ecological role throughout the ecosystem.

Issue 3: Which forage species to address

The authors of *Managing Forage Fishes in the Mid-Atlantic Region: A White Paper to Inform the Mid-Atlantic Fishery Management Council* (Forage Fish White Paper) have derived a list of unmanaged species from a detailed definition of forage fish. **We support the Forage Fish White Paper definition as *guidance* but not as a fixed definition for developing the list of species to be included in this action.** The Marine Stewardship Council (MSC), while finalizing its definition of lower trophic level species (i.e., forage fish), acknowledged that some species fulfill the critical niche of transferring energy from lower to higher trophic levels but do not exhibit all the typical characteristics associated with most forage fish. Therefore, the MSC developed appendices to guide assessors in identifying species that should be treated as lower trophic level species when evaluating the sustainability of fisheries.^v If some, not all, of the criteria on these menus are met, then the species is considered to be lower trophic level. We recommend that the approach to the Forage Fish White Paper definition be broadened in the same manner. We also recommend allowing the list to be modified through a framework action, in the event that new information reveals a previously omitted species.

The species list in Table 3 of the Scoping Document (p. 13) is a good starting point for developing a list of species to be included in this action, but further research by the Fishery Management Action Team (FMAT) is warranted. We recommend investigating data from the Northeast Fisheries Science Center (NEFSC) Food Web Dynamics Program to identify forage species important to managed stocks and other predators in the region.

Identifying EC species through higher taxonomic groupings (e.g., family or order) would likely be more straightforward and comprehensive. Species within the region that are classified under the following groups, recognized in the MSC's lower trophic level definition,^{vi} should be considered EC species for the purpose of this action.

- Family Ammodytidae (sandeels, sandlances)
- Family Clupeidae (herrings, menhaden, pilchards, sardines, sardinellas, sprats)
- Family Engraulidae (anchovies)
- Family Euphausiidae (krill)
- Family Myctophidae (lanternfish)
- Family Osmeridae (smelts, capelin)
- Genus *Scomber* (mackerels)
- Order Atheriniformes (silversides, sand smelts)

Issue 4: The types of fishing to address

Any new directed fishing activity, recreational or commercial, which would result in significant harvest of unmanaged forage fish should be prohibited. "Significant harvest" should be defined as a threshold of catch, informed by data on current or recent effort. Establishing a baseline of existing fishing activity on species identified through this action is essential for achieving the

stated purpose while verifying and allowing for the continued operation of established small-scale fishing activities, as long as these activities are monitored and not permitted to expand.

Issue 5: The most appropriate geographic scope of the action

Through the Council's "Ecosystem Approaches to Management Guidance Document," the Council intends to advance ecosystem-based fisheries management throughout the Mid-Atlantic Ecosystem under its jurisdiction. Therefore, minimally, the geographic scope of this action should extend throughout the mid-Atlantic waters of the Exclusive Economic Zone (EEZ). Initially focusing on mid-Atlantic EEZ will also facilitate completing this action in a timely manner in accordance with the timeline proposed in the Scoping Document (p. 17). As previously stated, we believe that pressure on forage fish populations will continue to increase with escalating demand for products such as fishmeal and fish oil, and it is important for the Council to take action now to get ahead of the curve.

Because ecosystems do not adhere to regional council boundaries, collaboration with the New England Council, South Atlantic Council and the Atlantic States Marine Fisheries Commission on actions to conserve and manage the forage base along the Atlantic coast should be a priority and complementary actions pursued. A Memorandum of Understanding, like the one developed for deep sea corals, could be used to clarify responsibilities of each of the management partners.

Issue 6: Effective ways to prohibit the expansion of existing fisheries

Opportunely, the Pacific Council recently reviewed proposed regulations for implementing CEBA-1,^{vii} and these can serve as a model for Mid-Atlantic Council action. These regulations define "directed fishing" through constraining catch ratios and by establishing hard landings limits based on historic landings data, accommodating those fisheries, like the whiting fishery, that incidentally capture Shared EC species.

Fishery dependent and independent monitoring programs will need to track landings data and collect biological information about the EC species. If an increasing trend in landings or a potential biological threat to the EC species is detected, actions should be triggered to reduce fishing effort as necessary.

Issue 7: An appropriate process for allowing new fisheries to develop

Foreseeing the need to address the potential development of new fisheries for unfished species, the Pacific Council articulated a policy within its Fishery Ecosystem Plan that describes an Exempted Fishing Permit (EFP) process. Applicants must include:

“a science plan for that EFP fishery, describing the data to be collected by the EFP fishery and the likely analyses needed to assess the potential effects of converting the fishery to an FMP fishery over the long term. EFP fishery data and analyses should, at a minimum, assess: the amount and type of bycatch species associated with the EFP gear, including protected species, such as marine mammals, sea turtles, sea birds, or species listed as endangered or threatened under the Endangered Species Act (ESA); how the gear will be deployed and fished, and its potential effects on essential fish habitat (EFH), including the portions of the marine environment where the gear will be deployed (surface, midwater, and bottom).”^{viii}

The Pacific Council policy then describes considerations for approving a permit, emphasizing impacts to the Council’s conservation and management measures, which include impacts on “species that are the prey of any: Council-managed species, marine mammal species, seabird species, sea turtle species, or other ESA-listed species.”^{ix} (emphasis added)

We urge the Mid-Atlantic Council to take a similar approach, using Exempted Fishing Permits to explore the feasibility and sustainability of a new fishery if rigorous application and review criteria are satisfied.

If and when these criteria are satisfied, a new or expanded directed fishery should only proceed if the Council is prepared to reclassify the target species as an actively managed stock, fulfilling all Magnuson Act requirements for a stock in the fishery. An accepted recent stock assessment must also be available that provides the Scientific and Statistical Committee (SSC) with sufficient information to establish catch limits according to its ecosystem-based fishery management policy so that the role of the species as forage is protected.

Issue 8: The ability of current scientific data and models to inform the action

We support the FMAT working with the SSC, the Ecosystems Approach to Fisheries Management Working Group, and the Council to gather and evaluate available information to inform this action. We also urge the FMAT to work with the NEFSC Food Web Dynamics Program on data collection and analyses. Because by its very nature this action is precautionary, information gaps should be used to help the Council assess risks and decide how to approach management options and address deficiencies, and *should not be used as an excuse to derail action.*

NOAA’s recently released Draft Policy on Ecosystem-Based Fishery Management (EBFM) is accompanied by a paper debunking “6 Myths of EBFM.” Pertinent to this issue, NOAA explains, “A common misconception is that EBFM requires comprehensive data and complex models, and can only be applied in exceptional, data-rich circumstances. The reality is that EBFM begins with what is known about the ecosystem. ... EBFM allows managers to work with the information available to best manage the resources in an ecosystem, aware of all the parts of the system simultaneously.”^x

In closing, *Wild Oceans* commends the Mid-Atlantic Council for its commitment to advance ecosystem-based approaches to fisheries management and for recognizing the importance of forage fish conservation in achieving the Council's avowed ecosystem-level goal: "to allow for ecologically sustainable utilization of living marine resources while maintaining ecosystem productivity, structure, and function." We look forward to working with you as the Unmanaged Forage Species Action develops.

Sincerely,



Pam Lyons Gromen
Executive Director

cc: Julia Beaty, Assistant Plan Coordinator

ⁱ Froese, R., et al. (2011) *as summarized in* Pikitch, E., Boersma, P.D., Boyd, I.L., Conover, D.O., Cury, P., Essington, T., Heppell, S.S., Houde, E.D., Mangel, M., Pauly, D., Plagányi, É., Sainsbury, K., and Steneck, R.S. 2012. *Little Fish, Big Impact: Managing a Crucial Link in Ocean Food Webs*. Lenfest Ocean Program. Washington, DC. 108 pp.

ⁱⁱ Bowman RE, Stillwill CE, Michaels WL, Grosslein MD. (2000). *Food of Northwest Atlantic Fishes and Two Common Species of Squid*. US Dep Commer, NOAA Tech Memo NMFS NE 155; 137 p.

ⁱⁱⁱ 50 CFR 600.310(d)(5)(iii)

^{iv} Ibid

^v Marine Stewardship Council. "TAB D-036 v1: Assessment of Low Trophic Level (LTL) Fisheries." (2011) https://improvements.msc.org/database/low-trophic-level-fisheries/documents/TAB_D_036_Low_Trophic_Level_Fisheries_v1-1.pdf/view

^{vi} Ibid

^{vii} "National Marine Fisheries Service Report on Federal Regulations to Implement Comprehensive Ecosystem-Based Amendment 1: Protecting Unfished Forage Fish Species http://www.pcouncil.org/wp-content/uploads/2015/08/D2a_SUP_NMFS_Rpt_forage_SEPT2015BB.pdf

^{viii} Pacific Fishery Management Council. *FEP Initiatives Appendix to the Pacific Coast Fishery Ecosystem Plan*. http://www.pcouncil.org/wp-content/uploads/FEP_Initiatives_Appendix_FINAL_July2013.pdf

^{ix} Ibid

^x NOAA. "6 Myths of EBFM." <http://www.st.nmfs.noaa.gov/ecosystems/ebfm/ebfm-myths>