

CAPE COD COMMERCIAL
FISHERMEN'S
ALLIANCE

Small Boats. Big Ideas.

Dr. Cate O'Keefe
Executive Director
New England Fishery Management Council
50 Water Street, Mill # 2
Newburyport, MA 01950

April 24, 2024

To Dr. Cate O'Keefe:

Cape Cod Commercial Fishermen's Alliance submits the following comments in response to the request for public comment with respect to Atlantic Herring Amendment 10 Scoping.

Cape Cod Commercial Fishermen's Alliance is a member-based nonprofit organization that works to build lasting solutions to protect our ecosystem and the future of our fisheries. Fishermen's Alliance represents 150 fishing businesses and more than 300 fishing families, making our organization the leading voice for commercial fishermen of Cape Cod. We represent a diverse group of commercial fishermen, seafood processors, and shoreside support businesses who depend on access to healthy fish stocks and the marine environment. While the species we target, the gear we use, and vessel sizes may differ, we all firmly believe in healthy vibrant fisheries, and resilient coastal communities.

At the heart of our community, we have grave concerns about the health and status of Atlantic herring. During the Buzzards Bay, MA scoping meeting, the room was packed with commercial fishermen, tribal members and tribal staff from three different tribes, recreational anglers, town municipal employees, non-profit organizations, and volunteers who count river herring. It was inspiring to see the diverse set of user groups who rely on herring and river herring in Southern New England. While each perspective was unique, the message was loud and clear: we need Atlantic herring populations to rebuild, and we want river herring and shad populations to be healthy. The Atlantic herring resource is currently overfished and is only at 21% of its biomass target. Atlantic herring is a critical forage species for many predators including numerous groundfish, sharks, tuna, seabirds and whales (NEFMC 2003).

At the Fishermen's Alliance, we have respect for the men and women who make their living from the sea and take pride in what they do. But we are concerned that a lack of observer coverage, portside sampling, and other data methods reduces information and increases uncertainty in the herring stock assessments, which results in poorly informed management decisions. We cannot continue with the status quo until we can sufficiently address the challenges associated with incomplete fisheries data.

In this letter we discuss three main issues and solutions: 1) Protections for Atlantic herring on known spawning grounds and egg mats; 2) Protections for river herring/shad as they migrate to and from their natal rivers; and 3) Measures to reduce bycatch and user conflicts. We will conclude with our recommendations for new spatial/temporal management measures.

1. Protections for Atlantic Herring and Known Spawning Grounds and Egg Mats

We would like to highlight our concerns about midwater trawling occurring on known herring spawning grounds, and egg mats. The Atlantic herring Gulf of Maine-Georges Bank stock complex primarily spawns in

BOARD OF DIRECTORS Andrew Baler • Richard Banks • Charles Borkoski • Greg Connors • Beau Gribbin
Eric Hesse • Barry LaBar • Sam Linnell • Bradley Louw • Kurt Martin • Jesse Rose • Brian Sherin

3 regions: the coast of Gulf of Maine; Georges Bank; and Nantucket Shoals (Overholtz et al. 2004). Atlantic herring generally reproduce in the late summer and fall; however, the timing of spawning may vary by several weeks from year to year (Winters and Wheeler, 1996). We know from recent Atlantic herring assessments that recruitment has been relatively weak (e.g., below average since 2013, including some of the lowest recruitment estimates in the assessment series) (NEFSC 2018).

When spawning, herring deposit adhesive eggs that stick to the coarse sand, pebbles, cobbles, and boulders on the ocean floor (NEFMC 2018), and are often laid in layers, creating mats. Based on the goals of the Atlantic Herring Fishery Management Plan, which include providing adequate protection for spawning herring, preventing overfishing of discrete spawning units, achieving full utilization of herring catch, and maximizing social and economic benefits of the fishery, the current spawning closures that exist in the Gulf of Maine (Area 1A) aim to reduce interactions between fishing and spawning, while also providing access to quota (ASMFC 2016). Therefore, the Council should consider similar spatial and temporal management measures that adequately protect spawning herring, and prevent fishing on discrete spawning units, particularly in Area 3 where the known Georges Bank and Nantucket Shoals spawning regions are located.

Spawning closures aim to protect the vulnerable stage of a fish's life cycle. They are designed to account for the fact that spawning may make fish more susceptible to overfishing since fish are highly aggregated during this time period (NEFMC 2019). Fishing can also disrupt spawning behavior (e.g., formation of schools) which can impact recruitment success. Spawning closures also can protect habitat over which herring spawn. This is particularly important for fish that deposit eggs over specific habitats, like Atlantic herring, making them vulnerable to bottom tending gears. When considering possible spatial and temporal management measures, I encourage the Council to consider Amendment 5 to the Fishery Management Plan for Atlantic Herring (NEFMC 2013), where there are figures that highlight essential fish habitat for herring egg mats in Area 3. Ultimately, we believe protections around September-December during the highest spawning activity should be prioritized to enhance recruitment.

Looking back at NEFMC Herring Framework Adjustment 7 discussion document of alternatives and rationale: Implementing a spawning closure on Georges Bank was expected to improve the overall herring biomass by reducing potentially negative impacts of herring fishing on spawning adults, as well as reduce disturbance/interaction of spawning activity; and potentially protect herring egg Essential Fish Habitat (EFH) from disturbance. We encourage the Council to consider these alternatives once again.

2. Protections for River Herring – protecting the timing and spatial extent of migrations

River herring spawn in freshwater ponds and streams, and then run downstream to the ocean, where they grow to sexual maturity over the next three to five years. They then return as adults to their natal rivers to spawn. Due to the nature of these anadromous fish, which bring them to the coast and into rivers each year at a relatively predictable time and place, herring are easily caught in great numbers by fishing gear at little expense. In the ocean, river herring and shad co-occur with other forage species like Atlantic herring and Atlantic mackerel. Therefore, these species can be caught incidentally by the directed Herring fishery, particularly as they aggregate prior to returning to their natal rivers.

Bycatch in commercial fisheries has become a major concern for river herring conservation (ASMFC 2012; Cournane et al. 2013; Bethoney et al. 2013, 2014a). Bycatch in the directed Atlantic herring fishery off Southern New England is of particular concern because this fishery encounters river herring at relatively high rates (Cournane et al. 2013; Bethoney et al. 2014a, 2014b), and is geographically close to the populations and genetic stocks that have experienced the greatest overall declines in spawning adult abundances and body size (Palkovacs et al. 2014).

River herring bycatch is highest from January to March (NEFMC 2013). Bethoney et al. (2014b) paper, highlights the percentage of total river herring (Alewife and Blueback herring) bycatch by weight in the Atlantic herring and Atlantic Mackerel midwater trawl fishery within the four nearshore areas, from 2000 to 2012 by the Northeast Fisheries Observer Program (NEFOP) in Table 1. For east of Cape Cod (NMFS statistical area 521), 95% of the bycatch of river herring was during the period December to March, and in Southern New England, 81% of the bycatch was from January to March.

Hasselman et al. 2016, highlights the concern that bycatch may be disproportionately impacting the most severely depleted river herring genetic stocks. Therefore, reducing bycatch on the Southern New England fishing grounds (stat areas 537, 539 and 611) may also serve to increase spawning population abundances. The diversity of geographic location by species can be seen in the bycatch reports in the Reid et al. (2022) paper.

Despite the reduced Atlantic herring quotas in 2024, fishing pressure by the midwater trawl fleet, triggered a sub-area closure for the near shore Cape Cod Midwater Trawl Management Area catch cap on January 23, 2024 (Figure 1). This is significant given that the fishery opens on January 1, 2024. Fishing activity reached the river herring bycatch cap of 33 mt before approaching the Atlantic Herring quota set for the larger area (Area 3), highlighting the focus of fishing pressure closer to shore.

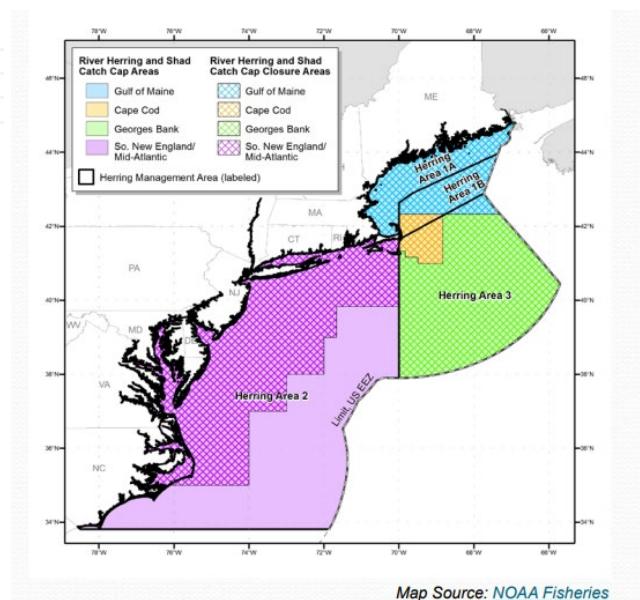
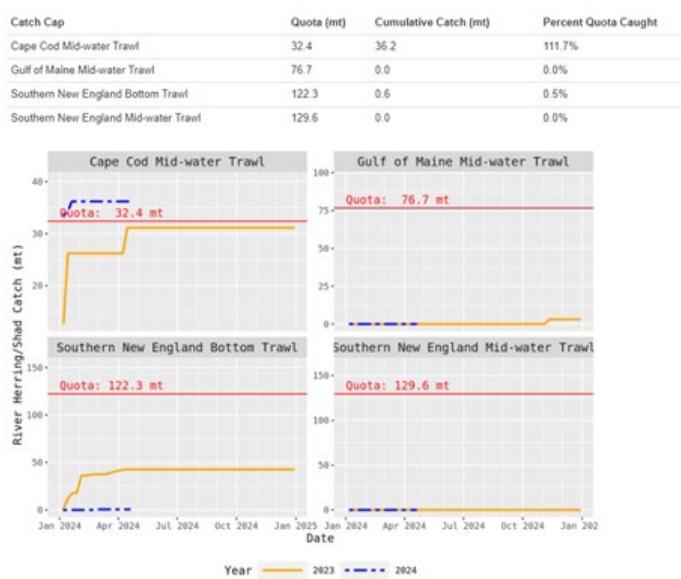


Figure 1. NOAA River Herring Quota Monitoring.

Finally, we encourage the Council and Plan Development Team (PDT) to use scientific data from local tribes who have been monitoring the local migrating herring populations for many years. For example, the Wampanoag Tribe of Gay Head (Aquinnah) has a Herring Monitoring Program through their Natural Resources Department that installs a temporary seasonal fish weir, designed by MA Division of Marine Fisheries, within the herring creek each spring. The weir funnels migrating herring past an underwater camera that records video all day and night. The footage is then analyzed throughout the herring migration. River herring has been in drastic decline, and the Tribe's herring population was once estimated at "1.5 million fish around the 20th century, with populations now at only 3% of their historical abundance" (Wampanoag Tribe of Gay Head (Aquinnah) Herring Monitoring Program). In 2023, yearly herring counts by the Wampanoag Tribe of Gay Head Herring Monitoring Program was at a historic low 20,908. The program has collected information for the past nine years.

3. Bycatch concerns and understanding user group conflicts

While midwater trawl fishing vessels fish for sea herring, they indiscriminately catch other fish including striped bass, juvenile haddock, river herring and other species. Unlike other fisheries, where federal observers monitor catch, midwater trawlers have gone without 50% monitoring like the NEFMC wanted when establishing a 50% monitoring coverage target for Cat A and B herring boats on declared herring trips in 2021. NOAA Fisheries has also suspended the Industry Funded Monitoring (IFM) program on April 1, 2023 and additionally there is no longer portside sampling. Therefore, a lack of observers has made it difficult to document what local fishermen have seen (and some cases filmed) where midwater trawlers are catching pollock, haddock, striped bass, and other fish alongside herring. Not having accurate estimates of catch

(retained and discarded), or accurate catch estimates of incidental species with catch caps (haddock and river herring/shad) leads to management uncertainty.

As a prior fisheries observer myself, I observed on these midwater trawl boats, and therefore have intimate knowledge and experience on how the gear works, what a typical trip looks like, what is caught in the gear, and how challenging it can be to adequately sample on high volume trips. So, while having more observer coverage is a good step in the right direction, it is not the only solution. Therefore, we would recommend robust port side sampling, and even electronic monitoring to have a better handle of what is happening out on the water, when the net is still in the water, and what slippage may or may not occur.

We are not here to promote banning midwater trawl vessels from fishing, but we do think it is fair to have them fish farther offshore at certain times of year, where they can safely operate and achieve their quota targets, while leaving the inshore areas protected for Atlantic herring spawning events, and for smaller vessels that can only fish inshore safely.

At the Fishermen's Alliance we firmly believe you should always bring facts to the table, not just opinions. So, while we have heard numerous accounts that herring midwater trawl vessels do not always fish the middle of the water column and are towing on the bottom when fish are in deeper waters during the daylight hours, we wanted to see for ourselves if there was any truth to it. As a result, we requested Northeast Fisheries Observer data and want to share the facts. We examined midwater haul information from 2006 to 2023 from paired or single midwater trawl that targeted Atlantic Herring as their primary target species. Of those 2,866 hauls, the midwater trawl fleet interacted with American lobster, Striped Bass, Monkfish and Haddock to name a few bycatch species.

We also looked at observer data and the total number of hauls that occurred during the daytime vs nighttime. Day time was categorized as 6am to 6pm, and night was 6pm to 6am time periods. From 2018-2023, 84 midwater trawl hauls were during the day (71.8%) and 33 hauls were at night (28.2%) (n= 117). From 2018-2023, 21 pair hauls occurred during the day (87.5%) and 3 hauls during the night (12.5%) (n=24). Fish are tight to the bottom during the daylight hours as they migrate towards the surface at night (Cushing 2001). Unfortunately, this means midwater trawl vessels are not actually fishing in the middle of the water column as their name may suggest, especially if they are catching and interacting with lobster and monkfish (NEFOP data) which makes Atlantic herring egg mats vulnerable.

At the Maine public scoping meeting someone asked how many observed trips there have been in Stat Area 521, off Cape Cod, over the past 5 years. From 2019-2023, there have been 9 observed trips in NMFS statistical area 521, 16 hauls, 11 hauls observed, from 4 distinct vessels. We bring this up because the data is not about proving who is right. Instead, we believe, it is about all of us evolving our understanding of what is going on and the lack of coverage in this fishery particularly off the backside of the Cape where high fishing activity is occurring.

Area 521 off the backside of Cape Cod, is an area that is heavily used by multiple user groups in the summer and early fall months. As Andy Baler, fish buyer, restaurant owner, and Fishermen's Alliance board member explained at the Buzzards Bay meeting, "there is a conflict in every fishery that relies on herring as a food fish. So, our groundfish fisheries, we have done everything to (try to) bring them back. Nothing is coming back. That's because we have done nothing to change the one thing that interacts with every other fishery, and that is the midwater trawl fishery. There is your conflict." In particular, the start of the groundfish fishery occurs on May 1st, and Bluefin tuna season is from June through November. In addition, whale watching users start their season on Cape Cod mid-April and runs through October (with peak migrations in June through September).

4. Recommendations

We recognize that each user group is trying to make a living, and there are of course competing interests. But this current status quo is impacting our community, small boat fishermen, and the state of our ecosystem. The steady decline in the Atlantic herring resource over the last 3 or 4 stock assessments, and now Atlantic Mackerel, concerns us about the future and health of the ecosystem as we know it. We can do

this all better together, than apart. It's time we find a way to work together so that the herring resource can rebuild, find new ways to achieve optimum yield, protect river herring and shad, and provide the greatest overall benefit to the Nation, so that all stakeholders who value herring can reach a middle ground.

Based on the information provided above, we support spatial and temporal management measures particularly in Area 3 that will protect Atlantic herring on known spawning grounds/egg mats (September-December), protect river herring/shad as they migrate to and from their natal rivers (December to March), and support efforts to reduce bycatch and user conflicts (May-September).

Thank you for the opportunity to provide written comments.

Sincerely,
Aubrey Church
Fisheries Policy Director
aubrey@capecodfishermen.org



References

ASMFC. 2012. River Herring Benchmark Stock Assessment Volume I. Stock Assessment Report 12-02. Atlantic States Marine Fisheries Commission, Washington, D.C.

Atlantic States Marine Fisheries Commission (ASMFC). 2016. Amendment 3 to the Interstate Fishery Management Plan for Atlantic Herring. 105p.

Atlantic States Marine Fisheries Commission (ASMFC). 2019. Draft Addendum II to Amendment 3 to the Atlantic Herring Interstate Fishery Management Plan for Public Comment: Gulf of Maine Spawning Protections.

Bethoney, N.D., Schondelmeier, B.P., Stokesbury, K.D.E., and Hoffman, W.S. 2013. Developing a fine scale system to address river herring (*Alosa pseudoharengus*, *A. aestivalis*) and American shad (*A. sapidissima*) bycatch in the U.S. Northwest Atlantic mid-water trawl fishery. *Fish. Res.* 141: 79–87. doi:10.1016/j.fishres.2012.09.003.

Bethoney, N.D., Stokesbury, K.D.E., and Cadrin, S.X. 2014a. Environmental links to alosine at-sea distribution and bycatch in the Northwest Atlantic midwater trawl fishery. *ICES J. Mar. Sci.* 71: 1246–1255. doi:10.1093/icesjms/fst013.

Bethoney, N.D., Stokesbury, K.D.E., Schondelmeier, B.P., Hoffman, W.S., and Armstrong, M.P. 2014b. Characterization of River Herring Bycatch in the Northwest Atlantic Midwater Trawl Fisheries. *North Am. J. Fish. Manag.* 34(4): 828–838. doi:10.1080/02755947.2014.920736.

Cournane, J.M., Kritzer, J.P., and Correia, S.J. 2013. Spatial and temporal patterns of anadromous alosine bycatch in the US Atlantic herring fishery. *Fish. Res.* 141: 88–94. doi:10.1016/j.fishres.2012.08.001.

Cushing DH. Pelagic Fishes. In: Steele JH, Turekian KK, Thorpe SA, editors. *Encyclopaedia of Ocean Sciences* Second Edition. Elsevier; 2001. pp. 364–369.

Hasselman, D.J., Anderson, E.C., Argo, E.E., Bethoney, N.D., Gephard, S.R., Post, D.M., Schondelmeier, Schultz, T.F., Willis, T.V., Palkovacs, E.P., 2016. Genetic stock composition of marine bycatch reveals disproportional impacts on depleted river herring genetic stocks. *Can. J. Fish. Aquat. Sci.* 73, 951–963.

K Reid, J. Hoey, B. I. Gahagan, B. P. Schondelmeir, D. J. Hasselman, A. A. Bowden, M.P. Armstrong, J. C. Garza, and E. Palkovacs. 2022. Spatial and temporal genetic stock composition of river herring bycatch in southern New England Atlantic herring and mackerel fisheries. *Canadian Journal of Fisheries and Aquatic Sciences*.

New England Fishery Management Council (NEFMC). 2003. The Role of Atlantic Herring, *Clupea Harengus*, in the Northwest Atlantic Ecosystem. https://archive.nefmc.org/herring/planamen/final_a1/appendix5.pdf

NEFMC. 2013. Amendment 5 to the Fishery Management Plan (FMP) for Atlantic Herring: Appendices. Newburyport, MA: New England Fisheries Management Council in consultation with the NMFS, ASMFC and MAFMC, 1102 p.

New England Fishery Management Council (NEFMC). 2018. Amendment 8 to the Atlantic Herring Fishery Management Plan Draft Environmental Impact Statement. Volume 1. <https://s3.amazonaws.com/nefmc.org/Herring-A8-DEIS.Submission.April-12.pdf>

New England Fishery Management Council (NEFMC). 2019. Review and analysis of Atlantic herring (*Clupea harengus*) spawning on Georges Bank 2019 Discussion Document for the New England Fishery Management Council. Prepared by Dr. Graham Sherwood, Ashley Weston, Aaron Whitman in consultation with the Herring Plan Development Team. https://d23h0vhsm26o6d.cloudfront.net/2_Herring-Spawning-Review-191122.final.pdf

New England Fishery Management Council (NEFMC). 2021. Atlantic Herring Fishery Management Plan Framework Adjustment 7 Draft, Draft Environmental Assessment. https://s3.amazonaws.com/nefmc.org/5_Draft-Framework-7_April2021.pdf

Northeast Fisheries Science Center: Fisheries Monitoring and Research Division, Data and Information Systems Branch. 2024. Data Request Ref # 24-016. File contents: Midwater trawl gear and haul information.

Northeast Fisheries Science Center (NEFSC). 2018. 65th Northeast Regional Stock Assessment Workshop (65th SAW) Assessment Summary Report: Atlantic Herring 2018 Benchmark Stock Assessment. US Dept Commerce, Northeast Fish Sci Cent Ref Doc. 18-08; 38 p.

Overholtz, W.J., L.D. Jacobson, G.D. Melvin, M. Cieri, M. Power, D. Libby, K. Clark. 2004. Stock assessment of the Gulf of Maine - Georges Bank Atlantic herring complex, 2003. Northeast Fish. Sci. Cent. Ref. Doc. 04-06.

Palkovacs, E.P., Hasselman, D.J., Argo, E.E., Gephard, S.R., Limburg, K.E., Post, D.M., Schultz, T.F., and Willis, T.V. 2014. Combining genetic and demographic information to prioritize conservation efforts for anadromous alewife and blueback herring. *Evol. Appl.* 7(2): 212-226. doi:10.1111/eva.12111. PMID:24567743.

Wampanoag Tribe of Gay Head (Aquinnah) Herring Monitoring Program. <https://wampanoagtribe-nsn.gov/herring-creek>

Winters, G. H., and J. P. Wheeler. 1996. Environmental and phenotypic factors affecting the reproductive cycle of Atlantic herring. *ICES Journal of Marine Science* 53:73-88.

