

## River Herring (from page 11)

For Massachusetts, the decline in coastal alewife fisheries had become so extensive that between 1790 and 1860 regulations were adopted for most Massachusetts rivers to manage in-river alewife fisheries.

In North Carolina, river herring were the most economically important finfish harvested during the late 1880s, but by 1918 Atlantic menhaden had become more economically viable than river herring.

River herring have shifted from being used as a major local food source for human consumption in the form of smoked, salted and/or pickled fish toward being used primarily for fishmeal, pet food ingredients, and bait for commercial and sport fishing.

During the 20th century, river herring also supported a small commercial bait industry in the New England states. These harvests declined considerably throughout New England between the turn of the 20th century and the 1980s.

Commercial landings for both species have declined dramatically from historic highs. Domestic landings reached their peak in 1958 at 74.9 million pounds, while total landings by domestic and foreign fleets peaked at 140 million pounds in 1969. Since 2000, domestic landings have totaled less than two million pounds in any given year, with a historic low of 733,605 pounds landed in 2005. Landings in 2018 were estimated at two million pounds, a 19.3% increase from 2017 levels.

Although recreational harvest data are scarce, most harvest is believed to come from the commercial industry.

### Stock Status

The 2012 river herring benchmark stock assessment evaluated the species on a river-by-river basis where data were available. For the vast majority of rivers, insufficient data were available to conduct a model-based stock assessment. Instead, trend analysis was used to identify patterns in the available fishery-dependent and independent data sets.

Of the 52 stocks of alewife and blueback herring assessed, 23 were depleted relative to historic levels, one was increasing, and the status of 28 stocks could not be determined because the time series of available data was too short. Estimates of abundance and fishing mortality could not be developed due to lack of data. The “depleted” determination was used instead of “overfished” and “overfishing” because many factors, not just directed and incidental fishing, have contributed to the low abundance of river herring.

The 2017 stock assessment update indicates that river herring remain depleted at near historic lows on a coastwide basis. Total mortality estimates for 2013-2015 are generally high and exceed region-specific reference points for some rivers.

**(see table on page 37 of this issue)**

However, there are some positive signs of improvement for some river systems. Total mortality estimates for two rivers have fallen below region-specific reference points for 2013-2015, compared to zero mortality estimates below the reference points at the end of the 2012 stock assessment data time series.

Of the 54 stocks for which data were available, 16 experienced increasing abundance, two experienced decreasing abundance, eight experienced stable abundance and ten experienced no

discernable trend in abundance over the final ten years of the time series (2006-2015).

### Atlantic Coastal Management

In 2009, in response to concerns regarding declining river herring populations, the Commission’s Shad and River Herring Management Board approved Amendment 2 to the Interstate FMP. The Amendment has prohibited commercial and recreational fisheries in state waters since January 1, 2012 unless the state or jurisdiction implemented a Board-approved sustainable fishery management plan (SFMP).

A *sustainable fishery* is defined as “a commercial and/or recreational fishery that will not diminish the potential future stock reproduction and recruitment.”

The plans must describe sustainability targets that are achieved to prevent closure of the fishery.

To date, SFMPs have been approved for Maine, New Hampshire, Massachusetts, New York, and South Carolina. Amendment 2 also requires states to implement fishery-dependent and -independent monitoring programs, and contains recommendations to member states and jurisdictions to conserve, restore, and protect critical river herring habitat.

### Federal Action

In support of the sustainable management actions taken by the Commission, both the MAFMC and NEFMC took action regarding the incidental catch of river herring and American shad in federal waters (3-200 miles from shore). MAFMC implemented its first annual cap on incidental catch of river herring and shad in the U.S. Atlantic mackerel fishery in 2014.

This catch cap was one of several protective measures implemented through Amendment 14 to the Atlantic Mackerel, Squid, and Butterfish FMP. The Amendment also increased reporting and monitoring requirements for fishermen and dealers. MAFMC is currently developing 2020-2021 catch caps for the Atlantic mackerel fishery through Framework Adjustment 13 to the Atlantic Mackerel, Squid, and Butterfish FMP. In 2014, NEFMC implemented annual river herring and shad catch caps through Framework 3 to Amendment 5 to the Atlantic Herring FMP. The catch cap applies to all trips landing more than the open access possession limit of 6,600 pounds of Atlantic herring.

In June 2019, NEFMC maintained the current catch caps for 2020-2021.

In June 2019, NOAA Fisheries published its status review of alewife and blueback herring stocks along the U.S. coast, which determined listing these species under the Endangered Species Act is not warranted at this time. The review noted that while river herring have declined from historical numbers and overutilization remains a risk for reduced populations, fisheries management efforts at the state and federal levels have helped to diminish the impacts of fishing mortality.

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