Shad & River Herring Technical Committee Meeting Summary

October 27, 2022

Technical Committee Members: Brian Neilan (Chair, NJ), Wes Eakin (Vice-Chair, NY), Jacque Benway (CT), Kevin Job (CT), Bill Post (SC), Brad Chase (MA), Ingrid Braun (PRFC), Jeremy McCargo (NC), Ken Sprankle (USFWS), Mike Brown (ME), Patrick McGee (RI), Ruth Haas-Castro (NOAA), Matthew Jargowsky (MD), Patrick McGrath (VA), Kevin Sullivan (NH), Jim Page (GA) **ASMFC Staff:** James Boyle, Katie Drew, and Caitlin Starks

The TC met via conference call on October 27, 2022 to review updates to the Massachusetts Shad Habitat Plan and the Massachusetts and Maine River Herring Sustainable Fishery Management Plans (SFMPs).

The next SFMPs to be reviewed are from Connecticut (Shad) and the Potomac River Fisheries Commission (Shad).

1. Massachusetts Taunton River Shad Habitat Plan Addition

Brad Chase presented the American Shad Habitat Plan for the Taunton River that was developed to begin a stocking project of juvenile shad. A previous assessment from the 1960s determined there were 45rkm of potential spawning habitat in the river, and Massachusetts seeks to assess the amount of suitable habitat that currently exists and use stocking to restore the population. In 2022, 5 million shad larvae were stocked with the goal of stocking 2-4 million each year at 4-5 locations in the river over the next 6-8 years for a cumulative total of 20 million fish stocked. **The TC recommended the plan for approval by consensus.**

2. Massachusetts River Herring SFMP (Nemasket River Update and Herring River Addition)

Brad Chase presented the updated MA SFMP for River Herring, which included updated information for the Nemasket River and added a section for the Herring River.

Nemasket River

The update proposes the following sustainability metrics:

Sustainability Measures. The ongoing spawning run count with calculated run size will serve as the primary measure to monitor the Nemasket River run status.

Sustainability Target. One fishery-independent sustainability target will be used. Harvest will be capped at 10% of the time series mean (TSM). This value will be recalculated each year. **Primary Action Threshold.** The 25th percentile of the Nemasket River run count time series will serve as the primary action threshold to trigger a management response to declining run size.

Management Actions. With two consecutive years where the Nemasket River run count is below the 25th percentile, the sustainability target will be reduced to 5% of the TSM for the following year. Three consecutive years with the run count below the 25th percentile of the time series will trigger a minimum 3-year closure the following year. In order to reopen the harvest, an opening threshold of three consecutive years above the TSM would have to occur. Secondary Threshold. An annual exploitation rate of 10% of the run size will serve as a secondary threshold or warning limit. Following a single, annual exceedance of this threshold, the Massachusetts Department of Marine Fisheries (DMF) will meet with the Herring Commission to review harvest records and management practices and document the review and cause of increase in exploitation rate in a joint memorandum.

Additionally, the update proposes to limit harvest establishing a harvest period of five weeks, with three harvest days per week, and by establishing a weekly catch limit to 20 fish per permit.

Herring River

The new section concerning the portion of the Herring River in the town of Harwich proposes the following sustainability metrics:

Sustainability Measures. The ongoing spawning run count will serve as the primary measure to monitor the Herring River run status.

Sustainability Target. One fishery-independent sustainability target will be used that limits harvest at 10% of the time series mean (TSM) with adjusted count data for 2009-2022. This value will be recalculated every three years.

Primary Action Threshold. The 25th percentile of the Herring River run count time series distribution will serve as the primary action threshold to trigger a management response to declining run size.

Secondary Threshold. An annual exploitation rate of 10% of the run size will serve as a secondary threshold or warning limit. Following a single, annual exceedance of this threshold, DMF will meet with the Harwich Department of Natural Resources to review harvest records and management practices and document the review and cause of the increase in exploitation rate in a joint memorandum.

Management Actions. In any given year, a run count falling below the 25th percentile will result in DMF reporting this to ASMFC in their annual compliance report for Shad and River Herring, and DMF having a pre-season discussion with Harwich Department of Natural Resources on potential concerns. If the run count drops below the 25th percentile for two consecutive years, the sustainability target will be reduced to 5% of the TSM. If the run count drops below the 25th percentile three consecutive years a minimum 3-year closure will be imposed on harvest for the following year. In order to reopen the harvest, a threshold of three consecutive years above the 25th percentile would have to occur.

Additionally, harvest will be limited by distributing a maximum of 600 permits, establishing a harvest period of five weeks, with three harvest days per week, and by establishing a weekly

catch limit to 20 fish per permit. The TC recommended the updated plan for approval by consensus.

The TC also discussed the difficulty of using mortality estimates as sustainability metrics due to the sensitivity of the estimate to variations in age classes. The Stock Assessment Subcommittee for the 2023 River Herring Benchmark Assessment will review alternative methods for estimating mortality that are less sensitive to these variations.

3. Progress Update on Maine River Herring SFMP Addendum

In 2019, the Board approved an addendum to the Maine River Herring SFMP to allow for three provisional fisheries through 2024, with a required update in 2022, in an effort to incentivize the continuation of local restoration efforts. Mike Brown presented the report on the status of the fishery relative to the established metrics with the request that the fishery be allowed to continue for the remainder of its permitted term. Of the three locations that were capable of harvest under the addendum, only one chose to permit harvest. At that location, while mortality is higher than desired (1.79), it is still under the target of 2.0. Repeat spawning was the only metric not met, and the addendum establishes a management action of reducing harvest by 5% of TSM. Notably, one location that did not yet allow harvest met the criteria for inclusion in the state SFMP. The TC recommended the fishery be allowed to continue under the current guidelines of the addendum for the remainder of the permitted period.