



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmfmc.org

MEMORANDUM

To: Atlantic Menhaden Management Board
From: Atlantic Menhaden Technical Committee
RE: Update on 2014 Benchmark Stock Assessment Progress
Date: May 7, 2013

In preparation for the 2014 benchmark stock assessment, the Atlantic menhaden Technical Committee (TC) and Stock Assessment Subcommittee (SAS) have held four joint webinars and one in-person meeting to date. Given the amount of preparatory work required for this benchmark, the TC/SAS felt it necessary to begin preliminary data gathering and analyses in 2013. The primary goal of these meetings is to identify and explore the utility of agency-collected data sources in advance of the 2014 Data and Assessment Workshops. These meetings have also included preliminary discussions about potential alternative modeling approaches. The TC/SAS plan to continue meeting regularly via webinar and at TC Meeting Weeks through 2013 to ensure steady progress on data collection tasks. Final vetting of data and decision-making with regard to modeling approaches will be made at the 2014 Data and Assessment Workshops, respectively. Consideration of public data submissions and analyses will occur at the 2014 workshops as well.

Below is a brief summary of topics discussed and progress made at each meeting to date. A tentative timeline for 2014 Atlantic menhaden workshops follows.

Meeting summaries:

December 18, 2012 webinar

- Discussed alternative modeling approaches that account for spatial heterogeneity in stock movement and fishery selectivity and identified data sources that might inform such models (e.g., tagging).
- Brainstormed potential sources of new data not included in previous assessments and developed plan to begin examining them.

January 25, 2013 webinar

- Discussed utility of historical tagging data for benchmark assessment.
- Discussed potential data sources available to build a coastwide, fixed-gear, fisheries-dependent index of adult abundance. Also discussed recommendations for biosampling requirements for Atlantic menhaden fixed gear fisheries.

February 26, 2013 webinar

- Further discussed alternative modeling approaches that account for spatial and seasonal heterogeneity in age structure and fishery selectivity.
- Discussed Multi-Species Virtual Population Analysis and prioritized tasks necessary to prepare it for use in the upcoming benchmark assessment.
- Discussed previous treatment of the Potomac River Fisheries Commission (PRFC) index and the juvenile abundance indices to identify potential new data analysis pathways.
- Discussed potential new data sources (e.g., VA shad survey) and assigned data collection tasks.

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April 3, 2013 in-person meeting

- Identified draft criteria for inclusion of data sources in the stock assessment to be considered at the 2014 Data Workshop. Selected data elements desired for development of future catch per unit effort (CPUE) indices.
- Reviewed existing state data (Maine to Florida) collected from fixed gear fisheries that have potential to be developed into adult CPUE indices.
- Successfully identified new data sources (5 pound net or fish trap datasets and 5 gill net datasets) as candidates for index development. Planned additional data exploration to determine proper treatment of pound net data and utility of non-pound net gear data.
- Discussed development of state, regional, and coastwide indices.
- Reviewed details of historical tagging data study.

May 6th, 2013 webinar

- Received presentation from Kristen Anstead (Old Dominion University) on otolith microchemistry research identifying nursery contributions to the adult Atlantic menhaden population.
- Reviewed additional details gathered on fixed gear fisheries data, including effort measurements.
- Reviewed comparisons of age readings between MD Department of Natural Resources and NOAA Fisheries Beaufort Lab.
- Reviewed comparison of age distributions between purse seine and pound net bait fisheries. Additional analyses that incorporate seasonality and spatial considerations were identified for completion and review at future workshops.
- Identified 5 pound net (MA, RI, MD, PRFC, VA) and 1 gill net (NJ) data source that will be considered more thoroughly at the 2014 Data Workshop.

Tentative timeline for 2014 Atlantic menhaden workshops:

January 2014 – Data Workshop

June 2014 – Assessment Workshop

December 2014 – Peer Review Workshop (SEDAR)