

**Virginia Marine Resources Commission  
Menhaden Management Advisory Committee (MMAC)**

Conducted via electronic means using WebEx  
Wednesday, September 27, 2023 – 4:00 P.M.

**ATTENDANCE**

Members Present

Dr. Rob Latour (Chair)  
Shanna Madsen (Vice Chair)  
Monty Diehl  
AJ Erskine  
Craig Freeman  
Daniel Knott  
Mike Leonard  
Chris Moore  
Kenny Pinkard  
Ken Schultz

Ruth Boettcher  
Steve Horton  
Taylor Deihl  
Tom Lilly  
One unidentified caller

VMRC Staff Present

Pat Geer (Chief, Fisheries Management)  
Alexa Galván  
Lewis Gillingham  
Brooke Lowman  
Jill Ramsey  
Somers Smott

Others Present

Bill Dunn  
Brent Hunsinger  
Jaclyn Higgins  
Jerald Ault  
Kyle Shreve  
Mark Sanford  
Peter Himchak

Minutes were prepared by Brooke Lowman.

**I. MMAC Welcome and Announcements**

Chair Dr. Rob Latour called the meeting to order at 4:00pm. This meeting was conducted virtually via WebEx.

**II. Approval of the September 12, 2022 meeting minutes**

Chris Moore made a motion to approve the minutes, which passed by consensus.

**III. Progress on SB1388 and the Chesapeake Bay Menhaden Research Objectives Workshop**

Chair Dr. Rob Latour presented the background and content of Senate Bill 1388 (SB1388, proposed by Senator Lewis during the spring session) which called for VIMS to assemble a list of menhaden research plans/objectives. VIMS facilitated an Atlantic Menhaden Research Planning stakeholder workshop at the College of William and Mary in August. The discussion was organized around three themes specified in SB1388: ecology, fishery impacts, and economic importance of menhaden populations in the waters of the Commonwealth. Twenty attendees representing all sectors attended. The meeting was co-chaired by Dr. Latour and Deputy Chief Madsen and was facilitated by an external professional. For each of the three themes, three top priorities were identified.

- Ecology
  - Estimate seasonal abundance of Atlantic menhaden in Chesapeake Bay.
  - Evaluate movement rates of Atlantic menhaden between the Atlantic coast and Chesapeake Bay.
  - Assess impacts of predator demand and consumption of Atlantic menhaden.
- Fishery Impacts
  - Analyze spatiotemporal patterns in Atlantic menhaden commercial fishing effort in Chesapeake Bay.
  - Assess the possibility of localized depletion of Atlantic menhaden in Chesapeake Bay. (This item will require synthesis of all three Ecology topics).
  - Quantify changes in the recreational fisheries in Chesapeake Bay.
- Economic Importance
  - Assess the economic impacts of management decisions on Atlantic menhaden fisheries and related industries. (This ranked highest priority but is reliant on the results of the second priority item, listed next.)
  - Assess the economic impacts of management decision on Atlantic menhaden fisheries and related industries.
  - Quantify the bioeconomic impact of Atlantic fishery removals from the Chesapeake Bay to those from the Atlantic coast.

Further detail will be made available following the submission of the report to the legislature, due on October 1, 2023. Following the presentation, Dr. Latour addressed questions from MMAC members.

Mr. AJ Erskine asked if there has been a study on localized depletion and its impacts. Dr. Latour responded that the NOAA Chesapeake Bay Office coordinated efforts (circa 2009, uncertain of date) to determine whether the question could be answered without additional data collection. There was insufficient information available at the time to address it. However, it was noted that there was no singular definition of “localized depletion” at the time, with respect to temporal and spatial scale. These definitions were not the focus of the workshop, and Dr. Latour emphasized that understanding whether fishery removals are a small or large fraction of Atlantic menhaden in the Bay is the essence of the research objective.

Mr. Chris Moore asked if effects of climate change will be considered. Dr. Latour noted that most topics included a subpoint to link the findings to environmental variables, so although it was not stated explicitly, the concept is captured. Mr. Moore followed up to ask whether the report will include a “bibliography” of other ongoing studies during the time frame of this work. Dr. Latour replied that no such list is currently included, because the report is written for a legislative audience, assuming limited available time and expertise. The report is a road map for the chairs of the Senate and House subcommittees of natural resources as well as the Secretary of Natural Resources, but it is uncertain as to what topics may be funded. Moore asked if an estimate of funding and time necessary to achieve this research is available. Dr. Latour confirmed that there are rough cost estimates associated with each of the priorities, a timeframe of two to three years per item, and teams have been identified.

Mr. Craig Freeman asked what the economic impact of banning menhaden removals from the Chesapeake Bay would be. Dr. Latour responded that the bait fishery operates solely in the Bay and that much of the reduction fishery also operates in the Bay. Mr. Monty Deihl noted that in large-volume operations with high overhead/fixed costs, the revenue stream is essentially ~20%, thus cutting out a third of harvest (the approximate proportion of the harvest coming from the Bay) renders the business inviable. Mr. Freeman followed up to question whether the potential economic impact of the return of game fish and recreational fishing to the Bay has been considered. Dr. Latour noted that some previous studies of menhaden economic impacts have addressed that, but he is unaware of any ongoing or very recent studies. Dr. Latour suggested that a more direct way of “bringing back” the recreational fisheries would be through alternate management strategies which are being implemented. Deputy Chief Madsen noted that the 2020 economic value of the menhaden fishery was approximate \$57 million (from the annual NOAA Economic Report) and that while there has been some work to understand the various economic factors at play, it is infeasible to calculate a direct comparison of, for example, the value of a single menhaden in the reduction fishery compared to the indirect value of a single menhaden through its contribution to the diet of recreationally caught fish.

Mr. Ken Schultz further emphasized the economic value of the Chesapeake Bay recreational fisheries (and concern over their decline), noting that there would be minimal consideration and data to support its inclusion in the studies as outlined. Dr. Latour agreed that that would not be considered in the way that Mr. Schultz asked for. Deputy Chief Madsen offered a list of factors that cannot be quantified and/or not fully addressed based on lack of data. She further offered that based on prior research, a complete shutdown of the coastwide menhaden fishery would not be sufficient to rebuild the striped bass population without changes to the fishing pressure on striped bass. There is no way to calculate the importance of an individual menhaden passing through the food web or through the menhaden bait fishery or reduction fishery. Lastly, Schultz asked if there will be progress updates from VIMS on the research topics that have been laid out. Dr. Latour replied that, assuming projects are funded, meetings such as this one and others organized by VMRC and/or ASMFC are venues as well as the possibility of presenting the information at fishing clubs or similar venues.

Mr. Monty Diehl stated that the Maryland Department of Natural Resources contingent at the workshop was interested in the research questions, but they do not have the necessary data. He asked how the researchers will go about getting that information from Maryland. Dr. Latour confirmed that the research items do need to be addressed at a Bay-wide level. Estimating abundance is by far the costliest research item because it will require new survey work in the upper portion of the Bay. Although the commercial data are informative, the emphasis was that the current existing data are not sufficient to answer the question.

Mr. Chris Moore asked if all of the work will be carried out by VIMS. Dr. Latour confirmed that other organizations will be involved.

Mr. Moore asked about the possibility to use the survey data collected/presented by Mike Wilberg at the stakeholder meeting. Dr. Latour confirmed that if an aerial survey is determined to be the best route forward, that survey design would be the basis with potential revisions and applied technologies to suit the needs of the study. Mr. Moore asked if other techniques (such as eDNA) would be considered for studying consumption patterns as an alternative stomach content analysis. Yes, other options such as eDNA are being considered, but they are likely not developed enough to answer our questions, and we will likely lean on stomach analysis.

The report will be made available to the MMAC after it has been finalized and sent to the legislature.

#### **IV. Other Business**

Deputy Chief Madsen informed the MMAC that the VMRC is working through a new petition process in accordance with Executive Order 19. VMRC received a petition, received public comments, and the public comment period is now closed. Per the Code of Virginia, the petition must be brought to the Commission within 90 days from the closure of the comment period. The Commission will hear the petition then decide whether they will pursue rule-making. It was asked and confirmed that the general process is similar to the way normal regulations are brought to the Commission. Although the process is generally consistent, there are not specific timing requirements laid out for rule-making.

By request, Deputy Chief Madsen reminded the MMAC of written materials provided by Tom Lilly.

Ruth Boettcher, Coastal Wildlife Biologist with the Department of Wildlife Resources, announced an upcoming (Oct 21-Nov1) Marine Mammal Conservation Planning Workshop and invited any interested members of the MMAC to attend. The workshop will be held Oct 31-Nov1 at the Brock Environmental Center in Virginia Beach. Goal is to get stakeholder input on the Virginia Marine Mammal Conservation Plan, part of the Department of Environmental Quality Coastal Zone Management Program's broader plan. The workshop will consist of a series of presentations on the first day followed by breakout group discussions on the second

day (topics may include vessel strikes, offshore wind energy, dredging, and fishery interactions).

## **VI. Public Comment**

Mr. Brent Hunsinger (Friends of the Rappahannock) asked if Omega Protein has agreed to provide their catch data to further inform the study going forward. Dr. Latour confirmed that there is agreement to provide high-level, conceptual information; however, the data are confidential and will require careful attention to detail on how the information can be displayed and shared. Such details have not been worked out, but the industry has indicated an intent to work cooperatively to reach an agreement on how to share.

Mr. Tom Lilly asserted that under VA law, fishery management plans are to be constructed in favor of the Commonwealth with preference given to recreational and food fisheries. He stated that factory fishing should be subordinate to charter fishing, which he lamented has collapsed completely. Mr. Lilly also commented on a causal connection between menhaden and recreational fishing, stating that the ASMFC's ecological reference points are developed on the basis of the relationship between menhaden and striped bass. He claimed that the cause of the reproductive failure of the striped bass population is the overfishing of menhaden and asserted that population declines in osprey are indicative of trouble for striped bass, being "partners in demise." He concluded by questioning the need to study the interactions among these species.

Ms. Jaclyn Higgins (Theodore Roosevelt Conservation Partnership) asked Dr. Latour about a recent presentation on spatial modeling framework for striped bass to estimate abundance and mortality rates, specifically whether spatial models will be considered in the menhaden studies and/or if there are other ongoing studies which could be incorporated into the menhaden studies. The striped bass spatial model work is in conjunction with University of Maryland Chesapeake Bay Lab. Dr. Latour gave an overview of the project, noting that a similar framework is also being applied to spot. He confirmed that answering the ecological questions that have been prioritized will require spatial modeling and that a similar framework would be applied. Ms. Higgins followed up to question whether the work would be considered in broader questions or plans in the Greater Atlantic region or through the ASMFC. Latour confirmed the intention to work in concert with the ASMFC and other management bodies.

With no further questions or comments from the public, discussion returned to the Committee. Mr. Dan Knott followed up on Mr. Lilly's written and verbal comments. He asked for additional information about articles that were referenced in a letter from Mr. Lilly which noted that "the deficit [in osprey diets] is being driven by...fish availability with key species being menhaden...harvest policy and rates have not allowed stocks to recover to the level required by osprey to successfully reproduce." Mr. Knott questioned how this was determined and how it can be known that menhaden have not recovered if the abundance is unknown. Dr. Latour summarized the study in question, which found that osprey whose diets were supplemented

with menhaden provided by researchers were observed to have greater reproductive success than the control treatment nests which did not receive supplements to their natural diets. Dr. Latour does not question the findings but noted that the discussion points regarding the link between declining menhaden in the diet with fishery management failures cannot be validated, especially given the lack of data on menhaden fishing and management. A plausible explanation for mixed success rates of osprey chick production may be shifts in the geographic distribution of menhaden leading to decreased availability unrelated to abundance.

Mr. Knott also asked about the impact of the burgeoning blue catfish population and questioned how they are impacting the menhaden population. Dr. Latour agreed that predation from blue catfish is likely important. Deputy Chief Madsen contributed that blue catfish predation is being considered by the ecological reference point working group for the upcoming/ongoing benchmark assessment.

## **VII. Adjournment**

Chair Dr. Latour called the meeting adjourned at 5:15 P.M.