Atlantic Menhaden Advisory Panel

Meeting Summary
October 28, 2004
Baltimore, MD

Advisory Panel Participants

Ed Cherry
Richard Daiger
Ken Hinman
Lyell Jett
Louis LaChance
Tom Ogle
Richard Souza
Brian Tarbox
Richard J. Weisberg
Jule Wheatly
William Windley (Chair)

Additional Participants

Matthew Cieri (Technical Committee Chair)
Joseph Smith (Technical Committee)
Nancy Wallace (ASMFC Staff)

Guests

Mary Madison, MWA
Niels Moore, Menhaden Resource Council
Amy Schick, Environmental Defense
James Price, CBEF
Steve Meyers, NOAA Fisheries
Bill Goldsborough, CBF
Charlie Hutchinson, MSSA
Jack Travelstead, VMRC
Jimmy Kellum, VA Bait Association
Fredrick R. Rogers III, Reedville Menhaden Inc.
Margaret Ransone, VA Bait Association
Karen Ripple, CCA MD
Larry Jennings, CCA MD
Martin Gary, MD DNR
Susan Gaston, Omega Protein

Meeting Summary

The Atlantic Menhaden Advisory Panel (AP) met on October 28, 2004 in Baltimore, MD. Bill Windley chaired the meeting. Joseph Smith, from the National Marine Fisheries Service Beaufort Lab, gave an update to the AP on the 2004 commercial fisheries landings so far this year. Commercial Fisheries Landings update by Joe Smith. Matthew Cieri then presented the Technical Committee (TC) report to the AP. The TC met in September 2004 and reviewed the 2003 landings and indices. They calculated the triggers approved in Addendum 1 and recommended that a stock assessment not be conducted this year. They will review the landings and indices again in 2005 and the next full assessment is scheduled for 2006.

Nancy Wallace updated the AP on the approval of Addendum 1 to Amendment 1 to the Atlantic Menhaden FMP in August of this year. This addendum revised the biological reference points based on the benchmark stock assessment of 2003, revised the frequency of assessments from annually to every three years and updated the habitat section.

The main purpose of this meeting was to review the recommendations from the Atlantic Menhaden Workshop held October 12-14, 2004. Nancy Wallace gave an overview of the workshop. She went through the background, goals of the workshop, the highlights from the presentations given at the workshop and the consensus statements from the workshop participants.

The AP asked several questions about the workshop. There was a question about the nutrient cycling abilities of menhaden. They would like to have some more background information on this issue. Menhaden as a filter feeder was discussed. The discussion also focused on sewage treatment plants and what was being done in different locations to help minimize the amount of pollution discharged into coastal waters.

There was also a lot of discussion about how we are going to determine ecologically based reference points and what research would be needed to quantify abundance of menhaden in the Bay. Matthew Cieri presented a list of research priorities that the TC had developed to determine if localized depletion was occurring in Chesapeake Bay.

Public Comment

The next agenda item was public comment. This afforded the public the opportunity to voice the opinions to the AP as well as comment on the menhaden workshop. Below is a summary of each person's public comment.

Niels Moore, Menhaden Resource Council

The industry hopes that the AP, as a body, will rely on the best scientific information available. Three sources should be used when determining the best scientific information, the TC, who have recommended no regulations on industry, the PRT who have recommended no additional regulations on the industry and the workshop participants, who have not recommended any additional regulations on the industry.

Amy Schick, Environmental Defense

ASMFC faces a difficult challenge in managing menhaden. The Menhaden Board has recognized the many signs of concern for the menhaden population, and dedicated a great deal of time and money on this issue. The Board directed the Technical Committee to investigate the problem of depletion in the Chesapeake Bay. The TC conclusion was that localized depletion is a potentially serious problem for menhaden and the ecosystems in which they reside, but are unable to address the issue given the lack of information. The Board also sought scientific advice on the ecological role of menhaden from a panel of scientists. Those scientists concluded that menhaden has experienced recruitment failure for over a decade. Abundance of menhaden is near historic lows. Predatory populations are showing signs of stress that may be related to diet and nutrition. Menhaden play a unique and critical role in the ecosystem, and that role has diminished with reductions in abundance. Additional scientific research is needed to better understand the relationships between menhaden and the ecosystem in which it lives.

At the same time the reduction fishery is taking an enormous amount of menhaden out of the system. Reedville, Virginia has the highest volume of landings on the East Coast, and

the third largest in the entire United States. To put landings in perspective, the reduction fishery takes 5 times the amount of lobsters landed on the East Coast, fifteen times the amount of shrimp, and ninety times the amount of tuna on the Atlantic coast. We are talking about a lot of fish coming out of a very small area – about thirty percent of the Chesapeake Bay or slightly larger than the size of Baltimore County.

The status of the menhaden population in the Chesapeake Bay is unknown. A research plan is under development, but it will be several years before management can benefit from this new information. In the mean time, I believe the Menhaden Board should proactively manage the stocks. ASMFC has shown a precedent for maintaining current harvest levels when stock status in unknown with the Bluefish FMP. As with bluefish, the Menhaden Board could actively manage menhaden by maintaining the fishery at current levels until we know more about what is going on with the resource. This course of action would prevent an increase in landings while additional scientific information is collected and multi-species modeling efforts are available to managers.

I urge the Menhaden Advisory Panel to consider a recommendation to the Board to take action to protect menhaden.

Larry Jennings, CCA Maryland
It is clear that the menhaden stock is near historic lows, the reduction fishery should be shut down and then you could get the stock assessment scientifically.

Charlie Hutchinson, MSSA
One purpose of this meeting is to get public input to the Management Board. There have been what seems to be an endless number of meetings to develop scientific data which would make the decision making process easier. It seems, however, that there is no science now available to give an easy answer. However, there are some facts available that are at least generally accepted.

1) We don't know how many menhaden are in the Chesapeake at any given time. We do know how many are removed.
2) We do know menhaden are effective filtering agents and do remove some nutrients.
3) We know the quality of the water in the Bay is poor and not improving and we can't rely on oysters (at least in the near term) for filtration.
4) Costs for reclamation of the Bay now estimated to be over $30 billion.
5) We know menhaden are necessary to the health of the predator stock, which is only one of the roles menhaden must play.
6) The value of the reduction fishery assuming Reedville at 25% of the Omega total would be about $40 million of sales, $10 million payroll and perhaps $3-4 million profit.
7) The value of the recreational fishery in MD and VA is somewhere in the $5 billion range.
8) It is pretty clear that from an economic stand point the better value of the menhaden would be for forage and filter feeders as opposed to feed stock for the reduction industry.

9) From a management viewpoint it would seem that the only means available to increase the number of menhaden in the Bay is to reduce the numbers taken from the Bay since we can't grow menhaden as we can other species.
10) What the scientists really need to figure out is whether the reduction fishery can coexist with the other needs for menhaden and to what degree.
11) Short-term action by the Management Board to limit the reduction catch seems to be necessary and can be done without necessarily putting the industry out of business although it is likely that there would be a significant unfavorable financial effect.

Perhaps it is a case of public versus private interest in the short term. It should not be difficult to reach a directional decision.

Jim Price, Chesapeake Bay Ecological Foundation

Since 1992, the purse seine fishery has annually removed approximately half of the estimated age 3+ menhaden (SSB); the purse seine bait fishery accounted for 24% and the purse seine reduction fishery 76%. The number of age 8+ striped bass increased from an estimated 235,000 fish in 1985 to 3,491,000 fish in 2002. The total Atlantic coast striped bass population's menhaden forage demand in 2002 was 200% more than the average purse seine reduction fishery harvest from 1998 to 2002. Striped bass predation appears to have been significant with the potential to compete with the purse seine fishery. In 1992, purse seine fishery landings, combined with forage demand of age 8+ striped bass, totaled 87% of the estimated population of age 3+ menhaden. The following year menhaden recruitment in the Chesapeake Bay was the lowest in 23 years. The current menhaden stock assessment doesn't provide written comments or charts explaining or showing that from 1993 to 2002 the average landings of age 3+ menhaden have increased three-fold compared to previous thirty-year average. Increased age 3+ menhaden landings, combined with increased striped bass predation, are causing the menhaden SSB to decline. The menhaden stock assessment underestimates total mortality because the increase in striped bass predation isn't detected in the model, therefore, the model overestimates menhaden SSB.

From 1963 to 1992, reduction fishery landings of age 3+ menhaden averaged 6.8% by number and from 1993 to 2002 increased to an average of 20%. In 2002, age 3+ menhaden represented 37% of the reduction fishery landings by weight because recruitment failure had reduced the availability of younger fish; therefore, the reduction fishery had to target the adult fish in order to maintain their plant production. The proportion of adult (age 3+) menhaden in the landings is of concern because it may indicate a short-term reduction in SSB. Also, recruitment overfishing can occur if the SSB is insufficient to produce adequate numbers of recruits to the stock. As SSB is reduced the probability of poor recruitment increases. Large landings of adults relative to sub-adults may indicate lack of availability of sub-adults as occurred in 1961 and 1962. A major concern is that consecutive poor recruitment years have occurred since 1993, coupled with increasing mortality of age 3+ menhaden. The 3-fold increase in the percentage of age 3+ menhaden in the landings and increased striped bass predation may have reduced the SSB to an unhealthy level, which can cause recruitment overfishing. When the menhaden stock assessment has been thoroughly examined, without assuming

the model is estimating the correct SSB, it becomes evident the SSB has declined below the level needed to sustain the population.

Margaret Ransone, VA Bait association
The health of the Bay is critical. There have been presumptuous statements made without hard facts that may have effects. We all need to work together on this problem, constant friction will not help. Direct more funds and energy into problems we know exist. We rely on the panel to make sound decisions based on the reliable facts that the TC is coming up with.

Bill Goldsborough, Chesapeake Bay Foundation
The Management plan was adopted in 2001. One of the objectives was to maintain the ecological role of menhaden. There hasn't been action to try and meet this goal. Filtering and forage are two of the many roles of menhaden. Modeling studies show that we need to do both – increase menhaden and oysters for filtering and lower pollution coming into the Bay.

This is the first big test case for multispecies management. We should manage harvest effects to maximize marine resources to society. This is a value judgment. It comes down to the managers. Part of the job of the AP, is to try and convey some sense of the value judgments to the managers.

Currently there is an imbalance for filtering and forage of menhaden. This started 20 years ago, when we started restoring striped bass. Let's try and have the same amount of conservation across the border. Are we going to increase menhaden, decrease striped bass? Have a combination of the two or take no action? Does something have to be done now, or should we wait until the tools are ready? We need a more responsive adaptive management system. If there is a pattern of increased recruitment, then you should allow an increased harvest, and a system that shows a decrease as soon as possible and adjust harvest accordingly.

Election of Chair and Vice-Chair
The next order of business was to elect a chair and vice-chair. Bill Windley's term had expired as chair and the vice-chair was no longer a part of the AP. Bill Windley was elected to serve another two-year term as chair. Bill Windley nominated Jule Wheatley for vice-chair. Richard Daiger seconded this nomination. There were no other nominations and no objections and Mr. Wheatley was elected vice-chair.

AP Discussion:
(The following is a summary of the discussion at the meeting; these statements do not represent consensus statements. Consensus statements are at the end of the document)

While reviewing, the consensus statements from the workshop, there was discussion on the following recommendations from the workshop: Need to quantify predation mortality and produce estimates of abundance of menhaden to develop ecologically based reference points. An AP member felt that of all the consensus statements from the

workshop, this one is paramount to understanding the needs of a healthy menhaden stock and will help focus future directions of management. This statement was generally agreed on by the members of the AP.

A recommendation was made to support the research priority list the TC has developed to examine localized depletion in the Chesapeake Bay and have the numbers put in historical context to develop historical levels of menhaden in the Bay. It was also recommended to urge the Menhaden Management Board to develop management goals to develop the reference points while this research is being conducted.

Before the ASMFC fully engages in the scientific studies that the TC has recommended, the AP would like to see how this will be accomplished. Matt Cieri went through the list of research priorities again to make sure the AP understood what studies will be done along with the timeframe and budget estimates.

An industry AP member said a problem with recruitment is that the embryo can't get into the estuaries, can't get into the bay because the inlets are being filled in, especially in North Carolina. If they embryos can't get into the estuary than they won't be able to hatch.

The recommendation was made by an AP member who represents the environmental community to use a precautionary approach for interim management measures. As a basis for interim measures, the list of possible management measures presented during the May 2004 Atlantic Menhaden Management Board Meeting by Bill Goldsborough offered for consideration. They were:

1. Continue path of no management measures
2. Cap purse seine harvest in the Chesapeake Bay until a scientific assessment is complete
3. Shift purse seine harvest off forage-size fish to older, larger fish
4. Spread purse seine harvest along the coast
5. Other management measures to reduce the risk of localized depletion.

The recommendation was for the Management Board to evaluate these 5 options and others as interim action while research is underway, and while the board and TC are evaluating possible reference points. It was also suggested that while we are doing the research to cap the harvest of menhaden at the current levels. No consensus on this recommendation was reached. An industry representative stated that the Industry does not catch age zeros and ones in the Bay and if any management should be implemented, it should be to increase the amount of striped bass harvested. Other members of the AP felt this statement was inaccurate and disagreed.

The industry representatives on the AP said they would not agree to consideration of any recommendations about quotas or capping the harvest.

The members of the AP were asked to state how they felt about the recommendation for interim management options while research is underway. The group was evenly split. A

number of the AP members felt that since there is not any conclusive data at this time, it would not be appropriate to take management actions, until the research is done and more questions are answered. Others members, however, felt that the Management Board should consider the interim management options presented. Some members of the AP members also felt that the issue of striped bass predation should be researched and considered as a management tool, others disagreed.

There was also discussion on the number of states that already have closed their waters to the reduction fishery. This has caused the fishery to concentrate in Virginia and North Carolina. Some participants felt that it was a waste of time to discuss this point, since the states have a legal right to manage their waters and these closures are not in the scope of the ASMFC.

It was stated, that the menhaden problem is much broader than just striped bass and the reduction fishery. We need to look at habitat, water quality, the fishery and predation.

There were three different opinions that came from the AP on the issue of menhaden management.

1) Currently there is a problem that needs to be addressed immediately
2) There is not t a problem- don't do anything
3) There might be a problem, but we don't have enough data to do anything.

The AP reviewed the consensus statements generated at the menhaden workshop. The AP felt that they should not argue with the points generated by the scientists and generally agreed with them. The AP was presented with the workshop report the morning of their meeting. Staff informed them, that if they needed more time to review the document and had comments at a later time, these would be forwarded on to the Management Board.

Members of the AP also wanted it noted that they thank the Management Board for beginning to address the issues that have concerned the AP for a long time. They hope this effort continues and they support the research required to learn more about this fishery.

AP Consensus Points

- **The AP supports the TC's recommendations for research priorities and agrees that this research should be conducted.**

- **The AP feels a Fishery Independent measure of recruitment and SSB should be developed.**

- **The AP supports the recommendation by the workshop participants for the Management Board and the TC to get together and finalize a plan on the reference points including what ecologically based reference points mean.**