DRAFT

Atlantic Menhaden Advisory Panel

January 9, 2002 Raleigh, North Carolina

The Atlantic Menhaden Advisory Panel (AP) convened for the first time on January 9, 2002, in Raleigh, North Carolina. The Advisors were joined by the Atlantic Menhaden Technical Committee for the morning session to review the progress on the multispecies assessment project and to hear the technical committee's responses to the charges from the management board. Ellen Cosby, chair of the technical committee opened the meeting and welcomed everyone. Joe Desfosse, ASMFC staff, provided the Advisors with an overview of the Commission and the AP process.

Dr. Lance Garrison provided an overview of the multispecies assessment project, including initial results based on preliminary runs of the model using actual data. He cautioned that these results should be used only as examples of the types of outputs available through the use of this model though the trends seen in the outputs may be representative of the real picture. More work needs to be done with the technical committee in order to establish some initial findings. Mr. Weisberg questioned why the filtering aspect of menhaden was not addressed through this approach. Geoff White, ASMFC staff, replied that it was part of the original intent but since funding was limited, the recommendation (by the MSC s/c) was to move forward with the predator-prey approach first. Mr. DeBlieu asked if setting the residual (background) mortality to 0.2 for the older age groups was realistic. Dr. Garrison replied that it would be more accurate to include age-specific estimates of mortality and this was identified as a task for future model development. He noted that natural mortality was lower on the older individuals, while fishing mortality played a greater role on these fish.

Mr. Fote stated that predation levels are much higher when a large yearclass enters the population. Dr. Mahmoudi replied that natural mortality during the pre-recruit stage was important in determining yearclass strength and one of the tasks for the TC was to investigate the effects of varying levels of recruitment inputs with the multispecies model. Dr. Garrison added that large-scale environmental factors were a controlling influence in determining yearclass strength. Mr. Weisberg questioned whether economics would ever be addressed through these approaches. Dr. Garrison replied that that was not a part of the current multispecies model but could be addressed in an ecosytem approach similar to ongoing efforts in European fisheries. Mr. Weisberg asked if the Commission was legally bound to the standards in the Magnuson-Stevens FCMA. Dr. Desfosse replied that the Commission was not but that the Atlantic Coastal Fisheries Cooperative Management Act provided the guidance for the Commission's management program.

Ellen Cosby, Chair of the technical committee, provided a brief summary of the committee's meeting including an overview of Amendment 1 to the FMP, goals and objectives, the new overfishing definition, the charges forwarded by the Management Board and recent changes in stock status due to the inclusion of the bait fishery data. Mr. Fote questioned the accuracy of the bait fishery data. Ms. Cosby responded that the Virginias data was quite accurate due to increased reporting. Mr. Himchak provided an overview of the history behind the collection of data from the bait fishery by each state relative to Amendment 1. He also noted the improvements in reporting over time, with the improved reporting in Virginia and New Jersey. These two states account for approximately 85% of the Atlantic coast bait landings, has resulted

in very accurate records over the last three years.

Dr. Armstrong provided an explanation of the changes made to the assessment including the new data and resulting changes to the overfishing definition as proposed by the committee. Changes in the input data had necessitated a re-estimation of the biological reference points. When the Board was presented with these changes last summer, questions were raised and the Board asked for a clear rationale for the changes and also for advice from the AP. Dr. Armstrong then read the draft response again explaining that these changes were due solely to a change in the input data and not a change in the methodology. Mr. Fote reiterated his concerns regarding the accuracy of the bait data and the historical catch. Mr. Himchak noted the lack of records for the bait fishery prior to 1985.

Mr. Hinman asked what has changed recently since the fish are no longer in New England waters. Dr. Armstrong replied that the distribution of the population seemed to be a function of its size as well as environmental factors. Mr. Windley asked if the spawning stock biomass has tripled due to the new assessment did that mean there was an increase in the overall population. Dr. Vaughan replied that that was the case, that the age-1+ population had been increasing and that the adult population (age-3+) was near a record high three years ago. Dr. Armstrong added that survival of the age-1+ fish has increased over the last ten years. Mr. DeBlieu suggested adding tables to show the old and new reference points and the current stock status.

Ms. Cosby then explained the second charge from the management Board was to examine current fishing practices and the impact on age-0 menhaden. She said the reduction industry had reduced their harvest of age-0 menhaden over the last ten years. The preliminary runs of the multispecies model indicated that predation was much more of a factor in the mortality of age-0 menhaden than the impacts of the reduction fishery. The consensus of the technical committee was that the fishing mortality of age-0 menhaden was not a problem at this time and further exploratory work would be conducted with the multispecies model. Mr. Windley cautioned that this conclusion was based on preliminary analyses that had not been tested. Mr. Fote stressed the need to protect young menhaden, 17% of the recent catch was age-0 menhaden. Dr. Garrison stated that there were orders of magnitude difference between predation losses and the fishery harvest of age-0 menhaden. Mr. Weisberg added that we can't manage predation but fishermen could be managed. Mr. Hinman stated the need to look at total mortality on both age-0 menhaden and the overall population to meet the needs of predators and the fishery. Low age-0 menhaden in the landings could be related to poor recruitment. There is a shortfall in that the technical committee had not identified a rate of removal that would be problematic. Dr. Vaughan offered that this would be examined through the use of the multispecies model. Dr. Mahmoudi said that the model would be used to identify potential rates of removal that might be problematic. Mr. Hinman worried that this could mean a span of 3-4 years before any measures would be initiated. Dr. Vaughan stated that the age-0 fishing mortality was approximately 0.0001 while the predation mortality was around 1.0. Dr. Garrison added that age-0 mortality had been relatively stable over time despite the apparent increased predation. Dr. Mahmoudi said the VPA could also be tuned using coastwide juvenile indices and observed recruitment. Mr. Himchak pointed out the relationship between the catch-at-age versus the estimates of age-0 menhaden and likewise for age-1. Mr. Wheatly said that the reduction industry has almost zero effect on the age-0 population based on the reports and presentations given today. The majority of the catch was age-2 and age-3 menhaden and catches now were better than they were 10-15 years ago when there was 25 boats. Mr. Fote stated that these were only estimates of the population size. Landings data are real numbers. He expressed concern over the catch of young fish and their survival to older ages. If this was any other species, we would have protected the fish to spawning age. Mr. Wheatly said that if the reduction fishery shut down today it wouldn't have any effect. Mr. Moore said

that even if the entire menhaden catch was taken as age-0 fish, it would still pale compared to the losses due to predation. He noted the relative comparison between 15 billion age-0 menhaden consumed by predators versus the 77 million taken in the reduction fishery. ASMFC should increase the removal rate of striped bass. Mr. Weisberg stated that the value of the striped bass fishery was so much greater than the menhaden fishery. Mr. Hinman said that the concern over the status of the young fish originated at the Management Board. Why shouldn't the charge be broader? He suggested going back to the Board with that question. Dr. Vaughan stated that the reference points should address this issue, however the issue of age-0 harvest had been around for a long time. Mr. Weisberg asked if we were fishing at or above the target. Dr. Vaughan replied that it was below the target.

Ms. Cosby stated that the next charge was to review potential management options and provide advice to the Board. The Board's preferred option identified in Amendment 1 was to implement TACs by area in the event that new measures were needed. The technical committee suggested that the most effective measures would be TACs by area and seasonal and/or area closures. Measures that might be effective included gear modifications and those that would be least effective were days at sea and trip limits. The technical committee suggested that manipulation of predator levels should be evaluated further before it could be categorized. Mr. Fote asked about the potential effects of cropping weaker individuals from the population. Mr. Weisberg asked why trip limits would have a low effectiveness. Dr. Cieri stated that this could increase discarding. Mr. Tarbox suggested that this needed to be more specific in order for the Advisory Panel to provide comments. Should provide more detail in future discussions and consideration of options.

Ms. Cosby explained that the final charge for the technical committee was to examine the current population age structure and identify if possible, some future, desired age structure. A number of questions were raised concerning the distribution of the adult population and where the age-0 menhaden were being produced. Dr. Mahmoudi stated that oceanographic or biological factors may be influencing the distribution of older fish. Mr. Souza said that three years ago there were record numbers of age-0 menhaden and asked where they were now. Ms. Cosby noted that large menhaden were caught 6-18 miles off New Jersey last year. Mr. Fote said that the NJ bait boats saw these fish but couldn't catch them because their nets weren't deep enough. Ms. Cosby stated the technical committee's response was that a stable age structure would result as long as fishing mortality was maintained below the target level. Mr. Weisberg asked whether the technical committee was dropping the issue. Ms. Cosby replied that they would continue to monitor this. Dr. Mahmoudi added that simulations could be run to project what the population should look like at different fishing mortalities. Mr. Weisberg asked if the technical committee could examine the impact of decreasing the age-0 catch on recruitment. Dr. Vaughan stated that this would have no effect on recruitment. Mr. Moore asked what the effect of decreasing predation would have on recruitment. Dr. Garrison said that this would be examined this year using the multispecies approach.

Mr. Wheatly offered a motion for the AP to accept the recoomendations and responses of the technical committee as provided. Mr. Windley seconded the motion for discussion. Mr. Hinman said that these tasks were given to the technical committee by the Board and asked if the AP would like to address them further. He asked if there were other issues before the Commission. Mr. DeBlieu asked how often the AP would meet and how active would they be in providing advice to the Board? The level of activity would provide guidance on how to answer these questions. Mr. Weisberg said that the AP should discuss each issue separately. Mr. Jones agreed that the AP needed to meet at least twice each year to provide advice to the Board. Mr. Fote said that these are all new tools, including the multispecies model, and the AP needs another meeting to follow up on. Mr. Hinman offered that the technical committee will send

their report, the AP doesn't seem to agree with all the recommendations and the Board expects us to add to that. Mr. Weisberg said that he was unhappy with the technical committee's response to the second charge and we need more input from them.

The motion failed by a show of hands, with 4 in favor and 8 opposed. Mr. Fote expressed the need to avoid voting and to forward majority and minority opinions to the Board.

Charge #1

Mr. Windley said that all the reference points need to be revised due to the addition of the bait fishery data. Mr. Jones agreed saying that the bait fishery has increased in relative importance. Mr. Fote concurred saying that it should be made clear that the changes are also reflected in past years stock status. Mr. Hinman supported this adding that there was some concern that we need to know more about what is going on with the adult population. The technical committee should provide more input on whether there is a problem or not.

Charge #2

Mr. Weisberg said that the Board seemed to believe there was a recruitment problem and the technical committee failed to address the issue. He asked that the Board specify why they think there is a recruitment problem. Mr. Tarbox stated that the technical committee did not ignore the question but stated they would examine through the multispecies model. The AP should urge them to continue this work. Mr. Windley said the Board will have new information when they get this report, i.e. the relative percentages of age-0 menhaden taken by the fishery and lost to predation, but that they are unproven and should be tested. He suggested placing a cap on the age-0 harvest at 20-25% (of the total catch). Mr. Wheatly questioned the need to consider a cap on the fishery when the technical committee said there was no effect. Mr. Fote stated that this was the only fishery where we allow harvest prior to the age at maturity. Mr. Jones said the preliminary evidence suggested that there was no effect of fishing mortality on age-0 menhaden. Mr. Windley stated that New Hampshire historically had some fishery for menhaden and there wasn't any today. The only way we'll see menhaden in the Gulf of Maine is if the population expands. Mr. Hinman said that the technical committee's response was premature, there were outstanding issues and questions. He said the spawning stock biomass was larger than previously thought. He recommended expanding the concern to age-0 and age-1 fish. Mr. Weisberg asked what the spawning age was and if mesh size regulations would help. Mr. Jones said that during certain weather conditions the fish will get all mixed up and the boats would gill more fish. Mr. Wheatly added that during rough weather there was a danger in clearing the nets of gilled fish. Mr. Tarbox stated that there was no correlation between age-0 fishing mortality and recruitment. The technical committee should continue to evaluate using the multispecies model. Mr. Jones added that there have been additional state closures and the industry can't spread the effort out in order to catch more older fish. Mr. Weisberg stated the technical committee's answers were just cursory and the AP needs more information on what was troubling the Board. Mr. Hinman said the issue needs to be further addressed and that age-0 and age-1 should be the priority. Looking at issues doesn't mean putting people out of business and it was premature to look at new regulations. Mr. DeBlieu said the question was developed to addess the Board's concern. Based on initial information from the multispecies model, it doesn't look like the current harvest of age-0 menhaden is problematic. The other question under the second charge can't be answered by the AP and the technical committee didn't even try to answer it. Mr. Fote stated that this was an ongoing issue for the Board. Mr. Jones said the technical committee did address the issue by saying they will continue to look into this. He also added that the AP should be allowed to sit in on other technical committee meetings. Mr. Hinman said that he couldn't support the statement that the current harvest of age-0 menhaden did not appear to be problematic. This is a work in progress and should continue. The

Board should broaden their focus beyond age-0 menhaden. Mr. Windley said that it appeared that the AP couldn't justify action on this issue yet and we need more information. Dr. Mahmoudi said that the multispecies model was a demonstration, it was the first time the technical committee had seen it. The next step is to verify the data, mathematics and results. After that was complete there would be two choices to make, either everything was acceptable, have some further review and implement, or more model work. Mr. Fote expressed his desire to have the assumptions behind the model documented and published.

Charge #3

In regards to the third charge, Mr. Weisberg said there was no basis to reject or accept the technical committee's response. Mr. DeBlieu added that it might be more apparent if the two committees met jointly in the future. Mr. Himchak stated that the preferred management option had been identified in Amendment 1. The technical committee identified other measures that might be effective and ranked them. It might be possible for the states to choose what is suitable for their fisheries. The AP consensus was to agree with the technical committee's response at this time.

Charge #4

To address the final charge, Dr. Cieri reiterated the technical committee's response that the distribution of adult menhaden was probably due to ocean temperatures or other environmental factors. Mr. Smith asked if the AP could recommend that this is a concern and that the Board should look for funds to study the problem. Mr. Weisberg suggested that the technical committee further investigate this issue. Mr. Tarbox added that the AP shouldn't endorse one funding source over another and that the occurrence of menhaden in the Gulf of Maine was cyclic in nature. Mr. Smith added that Southern New England had a large population of adult menhaden which are not there now. Mr. Smith asked if this might be an indication of a problem or a trend moving from north to south which could affect the entire fishery and if there could be an investigation before the occurrence spreads to New Jersey waters and south. Mr. Hinman agreed on the need for further study, need to know where the juveniles are coming from. Mr. Jones concurred adding we need to know where the fish went and what could be done about this.

Bait Fishery

The advisors agreed that the bait fishery numbers represented the best information available at this time, but that they should be monitored on a continuing basis.

Elections

Mr. Jones nominated Mr. Windley as Chair of the Atlantic Menhaden Advisory Panel. The motion carried with no objections. Mr. Windley nominated Mr. Jones as Vice-Chair. The motion carried with no objections.

Other Issues

Mr. Hinman asked if the AP would be kept up to date with any new information prior to their next meeting (May-June). Dr. Desfosse said this would be a staff function and any new materials would be forwarded to the advisors.

Mr. Doubley raised concerns over localized depletions, predator-prey issues and water quality. Mr. Weisberg said the filtering aspect of the study was not being addressed and it should be done so ASAP. He also stated the need for an economic study to encompass all aspects of the fisheries. Mr. Hinman stated that this should not detract from the current multispecies efforts. The technical committee should examine what is already being done and evaluate the utility of the information.

Mr. Tarbox stated that when menhaden return to the Gulf of Maine, bycatch issues need to be addressed, should this need to be studied further.

Mr. Fote said that the AP should point out that all states are not represented on the technical committee. They should appoint someone since the committee was formed (on a coastwide basis). All of the AP members need to attend the meetings. Mr. Windley added that the AP needs to work as a team for a common goal. We should stay productive since the public scrutiny will be great.