



New England Fishery Management Council

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MEETING SUMMARY

Herring Committee Meeting Holiday Inn, Mansfield, MA

August 6, 2009

The Herring Committee met on August 6, 2009 to: review and discuss the recent results of the TRAC assessment, and formulate questions for the SSC; review and discuss catch monitoring measures and maximized retention (MR) as they apply to Amendment 5 of the Herring FMP.

Meeting Attendance: Frank Blount, Rodney Avila, Dana Rice, Sally McGee, David Pierce, Doug Grout, Mark Gibson, Mary Beth Tooley, Jim Odlin, Herring Committee Members (Terry Stockwell, Mike Leary, Erling Berg not present); Dave Ellenton (Herring Advisory Panel Chairman); Lori Steele, Alan Lovewell, NEFMC Staff; Amy Van Atten, Sara Wetmore (NEFSC Observer Program); Carrie Nordeen, William Whitmore (NOAA NERO); Al West (Bumble Bee Foods), Jeff Kaelin (Lund's Fisheries), Herring Advisory Panel Members; Matthew Cieri (Maine DMR), Shaun Gehan (Kelly, Drye, Warren), Ben Martens (CCCFHA), Gary Libby (Port Clyde), Roger Fleming (Earth Justice), Patrick Paquette (Mass. Striped Bass Association), Zack Klyver (Bar Harbor Whale Watch), Mike Flaherty, Raymond Kane, and other interested parties.

The meeting began with brief introductions, announcements, and a review of the agenda. The Chairman invited members of the audience (Ms. Nordeen, and Matt Cieri) to sit at the table for the purpose of contributing to the discussion with understanding that they are not authorized to make motions or vote during the meeting.

Dr. Matt Cieri presented the results of the 2009 Transboundary Resource Assessment Committee (TRAC) Assessment Update for Atlantic Herring.

Mr. Avila referenced the acoustic survey dropping age 6+, and requested clarification from Dr. Cieri. Dr. Pierce pointed out that if he was a part of the TRAC, he would have rejected the assessment. He questioned the TRAC's ability to reject the assessment and whether or not that was an option. Dr. Cieri responded by noting that this assessment was an update. Whether the TRAC committee has the ability to reject the assessment is unknown, and he said it wasn't something that was brought up by the TRAC during the formal discussions but was talked about informally. He also noted that this was an update assessment, and only a bench mark assessment has ability to adjust the formulation of different models. Dr. Pierce asked why the 6+ year class dropped out when the last two years were added; the document indicates that there were quite a bit of older year class fish that were caught. Dr. Cieri pointed out that changing the CAA matrix

only changed it a little bit, so it could very well be a result of the retrospective pattern within the model. Dr. Pierce pointed out how dramatic the change appeared to be in the assessment. He speculated that maybe it was possible that the Canadian weir effort had tremendous impact on that year class. Dr. Cieri responded by saying that as fish become more available, the New Brunswick fishery gets more fish. The New Brunswick weir fisheries catch what is available, and the year class shows up as age 2 or age 3 in the US fishery, but we saw them as age 2 but not age 3.

Mr. Grout asked Dr. Cieri for more clarification on F and SSB. He noted that F has been well below the threshold, even with the retrospective pattern, yet over the last 10 years, SSB and 2+ abundance have been relatively flat and then recently have dropped, and with a strong 2005 year class, its hard to resolve how stocks can be well below the F threshold and have declining abundance and biomass. Dr. Cieri pointed out the importance of surplus production and recruitment variability. Ms. Tooley stated that she felt the model has too many problems and emphasized that several scientists at the TRAC meeting said that they would not pass this as a benchmark assessment. Dr. Cieri noted that this assessment represents the consensus of the scientists involved in the process.

Mr. Gibson questioned how selectivity was handled in the model, because there is no selectivity coefficient for age 1 attached to this assessment. He asked if there are partial selections, or if it is fully selected for age 2+. Dr. Cieri responded by saying that the 1's don't really to appear to be attached to a year class strength, and to do that, they would have to model the selectivity. Dr. Pierce pointed out the impacts of increasing natural mortality and asked if predator consumption would be incorporated into the next benchmark. Dr. Cieri stated that in general, when removals are considered with increasing M, the model responds by saying the stock is more productive. Dr. Pierce questioned the removal of the winter survey from the TRAC assessment, because it reflects the abundance of fish in Area 2. Dr Cieri pointed out that there are a number of reasons why the winter survey was removed, the main reason being that there was a lot of variability and it showed no trend over a short time series, and the survey is no longer occurring. Another reason for removing the winter survey was the coverage, which did not include parts of Georges Bank. The timing of the survey was also somewhat inconsistent every year.

Mr. Rice emphasized his concern that the TRAC results suggest that the Committee will be making decisions on the lack of good data rather than science. He mentioned the 1990s, when scientists told the Council that the resource is in great shape, and now this retrospective analysis tells us that we are in trouble and have to do something. Dr. Cieri reiterated that the stocks are not in trouble but agreed that the retrospective pattern is a concern. Mr. Grout asked Dr. Cieri if the impacts of adding age 1 fish to the model could be explored. Dr. Cieri replied by noting that there were 5 age groups; 2,3,4,5, and 6+, and the more ages outside the plus group the better the results are from the model. Ms. Steele pointed out that the model is predicting an MSY of 170,000 mt, and FMSY .27. It was mentioned that this is counter intuitive if the biomass is dropping. Dr. Cieri replied by saying it is a result of recruitment and surplus production. Mr. Rice noted that during the period of time of the survey, the year class works up and down the coast and may not be surveyed. He believes that some of those fish are there, and aren't being found.

Dr. Cieri emphasized that the biggest and largest piece of this model is the information collected from what the fishermen catch. Dr. Pierce asked Dr. Cieri was whether or not trends in the inshore survey strata play a major roll in determining recent recruitment. Dr. Cieri responded by clarifying that the TRAC survey uses all the strata, and projections use a mean level of recruitment. Mr. Gibson asked if there was a way to look at the time and landings per unit of effort (LPUE) for fixed gear specifically related to the weir fishery who catches the age one year class. Ms. Tooley noted some of the problems associated with ageing the fish. Many questions still remain. Ultimately, this highlights the need to move beyond revising models and the need to use a benchmark assessment.

Discussion of Issues Related to Scientific Uncertainty and the SSC's Upcoming ABC Recommendations

Following a thorough discussion of the TRAC results, the Herring Committee generated questions regarding the assessment to ask the Council's Science and Statistical Committee (SSC) at the September 16 SSC Meeting. Mr. Blount pointed out that the Committee has to be very specific when they ask for recommendations from the SSC. Ms. Steele reviewed the Herring PDT discussion and memo from July 28, 2009 as a starting point for the Committee to generate their questions.

The Committees discussion regarding questions for the SSC was centered on the prominent retrospective pattern present in the TRAC assessment, and how to interpret the assessment from data with high margins of error and uncertainty. To put the issue into perspective Ms. McGee recommended the Committee ask for more clarification because she thinks given all other sources of uncertainty in the assessment, retrospective is the greatest. Dr. Cieri agreed and said the PDT felt like given all the scientific uncertainty; they can all be addressed if the retrospective uncertainty is accounted.

The issue of minimizing the uncertainty reductions due to double accounting for uncertainty was brought up by the Committee. The overfishing of certain stock components is a big concern, and how to account for uncertainty in stock mixing. Mr. Grout wanted to know what the basis would be for distributing the quota amongst area specific TAC. Dr. Cieri replied by saying the PDT used a risk assessment in the past but may utilize a different approach, but ABC needs to be determined first. Ms. Tooley highlighted that it's not currently possible to indentify stock of origin within the mixed stock fishery such as the Gulf of Maine and/or the Georges Bank herring. Mr. Rice made an important point regarding the economic implications of this assessment, and the amount of money that stands on an assessment largely based on scientific uncertainty.

Another issue that was raised in the discussion was the historical shifts within the industry that have changed data due to economic and management factors. Shifts in demand, fleet compositions, are all factors that are not accounted for in the assessment. As an example, Mr. Odlin noted that last year, the fishery went through a dramatic change in Area 1 with the move back towards purse seining, and that purse seine vessels catch more small fish than midwater vessels. He felt that there have been significant changes in retention due to the dynamic fleet composition of gear types, because both gear types operate differently and selectivity is diverse. Dr. Cieri replied by citing the statistical analysis that shows the gear types are generally catching

the same fish in the same areas at the same times. He pointed out that the 2009 selectivity is the same as what was used in 2006, and if this needs to be re-examined, the appropriate time would be during the next benchmark assessment. Ms. Tooley wanted to make sure everyone understood that when the SSC looks at catch history, it should be acknowledged that the reduction in catch since 2000 has been a result of management actions, not necessarily fish availability.

The productivity discussion in the TRAC assessment document stated that the current spatial distribution pattern of the fishery was similar to the patterns observed prior to the collapse of the offshore component. This was somewhat of an alarm initially for Dr. Pierce, but Dr. Cieri pointed out that this conclusion was drawn as an optimistic statement and not as a pessimistic statement. The current health of the stock is like what it was before the stock was overfished.

Resulting from the discussion are the following questions developed by the Committee to ask the SSC regarding the 2009 TRAC Assessment and the specification of ABC.

- 1. In light of the significant retrospective pattern and other problems associated with the stock assessment model, what are the implications of this information relative to the quality and usefulness of this assessment, and is it robust enough for a three-year TAC setting process? (NOTE – The SSC discussed and addressed this issue at August 11, 2009 Meeting)**
- 2. Since the stock is not considered to be overfished and overfishing is not occurring, what value of F would be appropriate to use in 2010?**
- 3. Would it be appropriate to use the TRAC assessment results with a higher M to address previous recommendations, and if so what would be the implications of a higher mortality rate, and would there be an effect on those reference points?**
- 4. Given that the herring resource is composed of smaller spawning components and the mixing ratios and migratory patterns remain somewhat uncertain, how does the Committee prevent double counting scientific uncertainty? What are the limitations to setting something that is a realistic sub-ABC for the spawning components?**
- 5. What is the impact of the uncertainty related to the 2005 year class? Would understanding the impact of weir fishery on the NE Atlantic herring improve understanding and is it something that should be addressed?**
- 6. The reasons for eliminating the winter survey from the assessment model appear to be unclear. Does the SSC agree with the elimination of the winter survey from the updated assessment?**

Presentation on Catch Monitoring Research (Alan Lovewell)

Alan Lovewell from the NEFMC gave a presentation on Global Case Studies regarding Catch Monitoring and Maximized Retention Programs.

Dr. Pierce asked for clarification on the end result of the project, and what the Committee should expect for a final product. Mr. Lovewell stated that it was up to the Committee as to what kind of recommendations should be developed, pointing out that the initial idea was to develop a thorough discussion of available information for the Committee to consider and generate its own recommendations for Amendment 5. Dr. Pierce thought it would be helpful to have a bit more elaboration as to why specific fisheries have been certified by the Marine Stewardship Council (MSC). He assumed this was done with the understanding that the certification standards were met. He thought it would be helpful if Mr. Lovewell could identify why the certification was obtained and what the standards are because the herring fishery may want to try to achieve a level of monitoring that would allow the industry to get the MSC certification. Mr. Lovewell agreed with Dr. Pierce regarding the MSC certification process pointing out that his understanding was that certification can be achieved by meeting specific objectives, and if there are issues, publicly stating that the management team will address flagged sustainability problems all within a certain time frame.

Mr. Avila asked for clarification on the cost recovery slide for dockside monitoring questioning what the discretion in price was for trawl offloads and hook and line offloads; \$72 an hour for monitoring trawl vessel offloads, \$113 an hour for hook and line offloads. Mr. Lovewell clarified the reasons for a price discretion between the two gear types, explaining that the average amount of labor required for the offload, for example, more instances of bycatch associated with those fisheries, required a lot more labor and species identification.

Ms. McGee requested information on the cost of monitoring compared to the value of the fishery to permit holders as a result of monitoring, as well as more data that could illustrate the change in value of the fishery to individuals or the fishery in aggregate with implementation of the monitoring system. She suggested:

1. Information that may demonstrate that better catch monitoring information could result in higher allowable catch;
2. Data on poaching in the BC fishery and the value that was lost before monitoring as compared to the actual cost of monitoring;
3. Determining if there is a way to look at the value of bycatch that is retained and sold as compared to the expense of discarding bycatch;
4. Regarding the BC groundfish fishery, exploring the change in costs as the program becomes more mature, assuming that the initial infrastructure expenses are higher, plus the learning curve with the program, should it become less expensive; and also finding out if there was a change in the cost share between the government and industry.

Mr. Odlin mentioned Dr. Pierce's statement regarding a conclusion for Mr. Lovewell's research, and encouraged the Committee to come up with its own conclusions and recommendations. He also pointed out that the BC trawl fleet cost was 14.5% of revenues generated, and he doesn't think herring fishermen will be able to absorb an additional cost like that. Regarding the Norwegian fisheries, Mr. Odlin asked if all 2,185 Coast Guard inspections were just for the pelagic fleet, and regarding the arrests, he wanted to know what exactly that meant (fines, jail time, etc.).

Ms. Tooley asked if Mr. Lovewell was going to lay out these fisheries and do a comparison with the herring fishery. She felt that including a comparison would be helpful. She also reminded the Committee that the herring fishery already has dockside monitoring in ME and MA. She also pointed out that the total cost for the herring program is listed by Mr. Lovewell as low, and was not sure how it would be characterized in the future, but it may not be low. Mr. Lovewell clarified his information noting that the New England herring fishery monitoring cost characterization as low was comparative to the other programs cited in the study and presentation.

Mr. Odlin noted that he has never seen labor or monitoring costs decrease over time and said that everything seems to go up, except the price of fish. Ms. McGee pointed out that it is important to look at how the costs of the program may change relative to the value of the fishery over time, as well as cost sharing and who is paying for the monitoring. Mr. Odlin stated that if that was the case, then the assessment should also include repairs and maintenance costs in all of the equipment. As an example, he said every two years his vessels need to spend \$2500 to replace their VMS antenna.

Mr. Blount opened the discussion to the audience.

- Mr. Gehan asked for clarification on video monitoring; he noted that he didn't see the management costs associated with these programs. Also, he was curious as to what the data storage costs are associated with the program, and who bears these costs. Are these costs outsourced to an agency, and what are the total costs and how are they allocated? He also noted that it would be good to know what spurred decision to implement maximized retention in the fisheries that have, and then what was considered and what was implemented. Specifically what was the problem the managers were trying to address? Regarding catch sensors, he noted that most of the midwater trawl vessels have Simrads on their nets. He stated that he was intrigued by the idea of passive monitoring systems, but it was his understanding that they weren't sensitive enough for managerial applications. He asked if there was any info on the reliability of the sensors. He also asked if anyone has used sensors for management purposes.
- Mr. Kaelin noted that there are not 99 active boats in the herring fishery. He expressed interest in knowing which of the comparison fisheries are catch share or IFQ-managed fisheries. He also speculated that a lot of the fisheries may have moved to these kinds of monitoring programs to protect their catch shares. He pointed out that in the herring fishery he doesn't see the mortality effects that indicate there should be a high level of concern about bycatch.

- Mr. Crawford pointed out the precision of the catch sensor system comes from how many sensors are utilized. More precise measurements require more sensors and are more expensive.
- Mr. Klyver from the Bar Harbor Whale Watch asked a question about the Norway and Scottish herring fisheries, both of which have little observer coverage. He was curious to know what these fisheries are doing to monitor marine mammal bycatch, and be able to get the MSC certification. Mr. Lovewell pointed out that in the MSC certification process it was indicated that there was very little, if any, interaction with marine mammals. The Scottish fleet had some information from sampling more than observers. Norway monitored through a large presence of Coast Guard. As reported in the MSC certification document there was no electronic monitoring on board the vessels, and it was not required.
- Mr. Libby commented that monitoring bycatch requires observers, and to have a comprehensive plan, observers need to be on the boats, not just cameras; ultimately, he felt that the fishery needs more coverage than in the past.
- Mr. Odlin stated that has worked for Simrad, and he believes that there is no way to use the sensors for management purposes. He pointed out that there can be a high percentage of false readings; as an example, sometimes if it's rough out, the sensors will go off even if the bag is empty.

Further Discussion of Issues for SSC and ABC Specification

Mr. Blount resumed discussion on SSC questions and sought comments from the audience. Mr. Kaelin sought guidance from the Committee as to when he should introduce some issues that have applicability to the SSC and the determination of ABC, as well as the discussion that the Committee and Council will have about sub-ACLs and the 2010-2012 specifications. A specific issue he brought up relates to increasing the incidental catch level of herring for mackerel vessels. He also noted that some of the industry is interested in exploring options for moving some quota from Area 3 to Area 2 so that Area 2 doesn't shut down prematurely. A question he raised was the accuracy of the herring stock mixing percentages. Dr. Pierce reiterated the importance of having the SSC look at stock mixing, i.e., finding out what the implications are of working with an incorrect mixing ratio. Ms. Tooley noted that 80% 20% is about the current range of mixing of stocks for the Area 2 winter fishery.

Ms. Steele noted that the options for moving quota between the management areas will be similar to what they have been in the past based on the available information about stock mixing. She recommended that the Committee consider asking the SSC for further guidance if it is not comfortable with the information and analysis presented by the Herring PDT. Ms Tooley noted that the previous analysis had various scales to it. With no assessment for the separate stock components, there is no specified target F. She expressed concern about applying a similar analysis for the upcoming specifications. She reminded the Committee that the risk assessment was a relative comparison but it was utilized as a more absolute analysis when the specifications were implemented by NMFS. She emphasized that the Committee needs to determine how valuable information is as they go through the specifications process.

Dr. Pierce pointed out to the Committee that the SSC is not a peer review group, which is why it is important not to overburden them. He noted that within the SSC, there are point people for certain tasks and that not all SSC members will delve into the details of the specifications analysis. Mr. Paquette asked the Committee if this was normal specification business, and noted that Area 2 has a lot of river herring bycatch hotspots that should be considered and incorporated into the analysis.

Discussion of Amendment 5 Catch Monitoring Alternatives

Mr. Grout suggested the Committee make progress on the aspects of the catch monitoring alternatives that do not require any more additional input from the Herring PDT at this time. He suggested that the Committee start with Alternative 1, go through each alternative and each section, resolve outstanding issues, make decisions on measures to consider further, and identify areas where they will need input from the PDT. Ms. Tooley pointed out that the Committee has reached the point in the process where they have received suggestions and proposals for alternatives, and now the Committee needs to make the proposals into its own alternatives. The current goal, she said, should be to get the alternatives into a state where the PDT can do an analysis. Ms. Nordeen pointed out a few issues that could be addressed by the Committee during the discussion of catch monitoring alternatives. She noted that observers are not usually placed on carrier vessels. She suggested that the Committee address the treatment of carrier vessels in the catch monitoring program and determine how transfers at sea will be handled. Mr. Blount encouraged the Regional Office to provide suggestions for resolving issues and developing the catch monitoring alternatives in writing for the next Committee meeting.

The Herring Committee Meeting was adjourned at 4:30 p.m..