

## NEW ENGLAND FISHERY MANAGEMENT COUNCIL

**Final Herring Plan Development Team (PDT) Report****August 27, 2013****NERO Office, Gloucester, MA**

The Herring Plan Development Team (PDT) met on August 27, 2013 to continue development of options/analyses for Framework 3 to the Atlantic Herring Fishery Management Plan (FMP). Framework 3 proposes measures to establish catch caps for river herring and shad (RH/S) in the Atlantic herring fishery.

**Meeting Attendance:** Lori Steele (Herring PDT Chairman), Rachel Feeney NEFMC Staff; Matt Cieri (ME DMR), Micah Dean (MA DMF), Renee Zobel (NHFG), Min Yang Lee (NEFSC), Madeline Hall-Arber (MIT Sea Grant), Carrie Nordeen (NERO), Rob Vincent (NERO) (Herring PDT Members); Melissa Yuen (ASMFC), Michael Lanning (NERO), Dave Ellenton (Cape Seafoods), Jeff Kaelin (MAFMC, Lund's Fisheries), Judd Crawford (Pew).

GoToMeeting (webinar): Sara Weeks (NEFOP, Herring PDT); Mary Beth Tooley, Jason Didden (MAFMC), Erika Fuller (EarthJustice), and other interested parties.

***Summary of Herring PDT Recommendations***

- The PDT agrees that the statistical area clusters developed for the Amendment 5 measures to address river herring bycatch are appropriate to use for RH/S catch cap areas at this time.
- The Herring PDT recommends that the Council first identify its objectives for the caps for 2014-2015 before selecting a preferred option. For example, is the objective for 2014-2015 to reduce catch of RH/S from recently observed levels, or to cap catch at the highest level observed in recent years, or to cap catch at a level that promotes responsible management and provides an opportunity to evaluate the monitoring issues? The identification of a specific objective for specifying the 2014-2015 RH/S catch caps should influence which option is selected.
- The Herring PDT agreed to develop a range of options for 2014-2015 RH/S catch caps based on the best available fishery data, scaled to the 2013-2015 herring quota. The range includes options for gear-specific caps for purse seines, midwater trawls, and bottom trawls in the GOM; options for midwater trawl catch caps in the Cape Cod area; and options for midwater trawl and bottom trawl catch caps in the southern New England/Mid-Atlantic area. The Herring PDT agrees that there does not appear to be a need for RH/S catch caps for any gear types in the Georges Bank cap area in 2014 and 2015.
- The PDT notes that the methods for monitoring the catch cap will affect when the triggers are reached and could affect a closure of the herring fishery, so this is a significant concern. The RH/S catch ratio can be significantly influenced by one large event (especially in strata with low sample sizes), so the approach to recalculating a moving catch ratio, and timing issues, will be important to consider when developing the details of the catch cap monitoring methods.

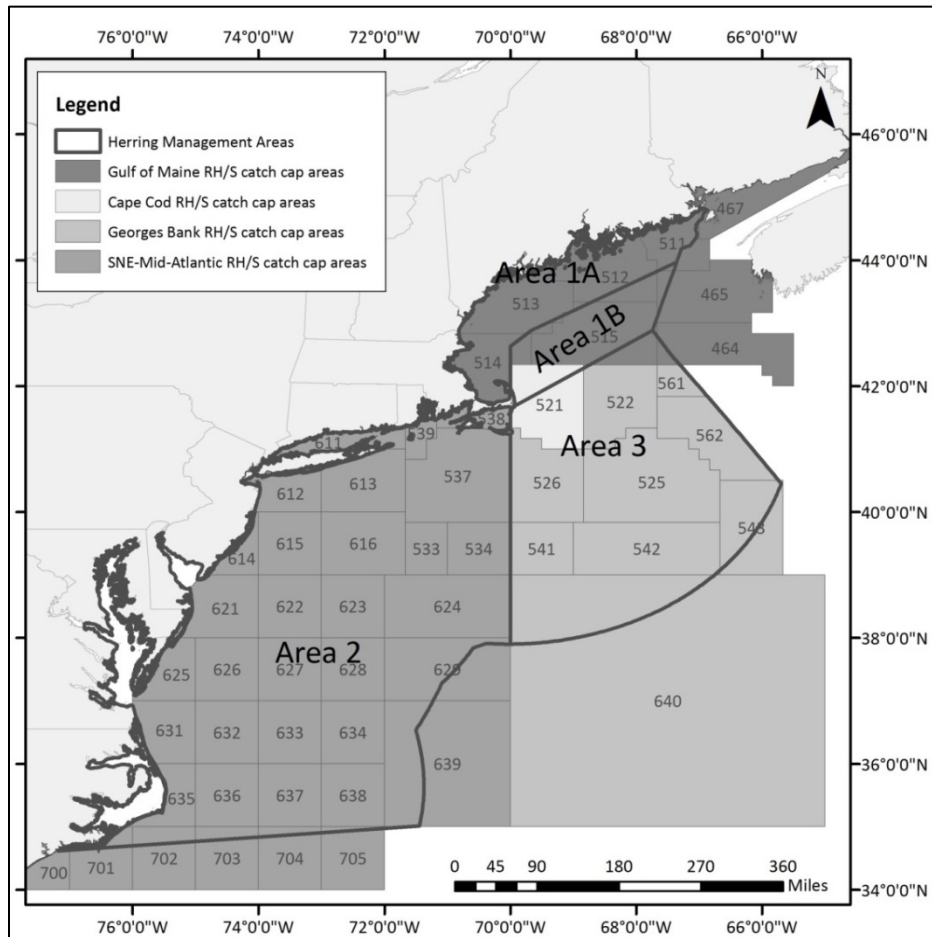
### **Herring PDT Meeting Summary (August 27, 2013)**

After some general announcements, Ms. Steele provided a brief update to the Herring PDT regarding the development of Framework 3 and the anticipated timeline for Council decision-making (September 2013 Council meeting). She summarized the elements of the Framework 3 alternatives and noted that the structure of the alternatives in the draft document may be revised.

- The Herring PDT provided no additional comment regarding the proposed provisions for species to which the cap(s) would apply, vessels/trips subject to the catch cap(s), or trip notification and reporting requirements described in the draft Framework 3 document. These issues were discussed in detail at the May PDT/MSB Monitoring Committee meeting.

**Proposed Catch Cap Areas:** The Herring PDT evaluated available fishery data (updated through 2012) and agreed that the proposed statistical area clusters developed for the measures to address river herring bycatch in Amendment 5 are appropriate to use for RH/S catch cap areas at this time. Ms. Steele noted that the boundary lines for the catch cap areas (and possibly the herring management areas) may be further clarified through work with the NERO but that any further revisions would not affect the Framework 3 analysis.

### **Proposed RH/S Catch Cap Areas (Framework 3)**



*\*This figure will be updated for the Final Framework 3 document.*

**Monitoring the RH/S Catch Caps:** If RH/S catch caps are established in Framework 3, the catch cap estimation and monitoring methodology will be determined by NMFS NERO, generally consistent with the approaches utilized for the haddock catch cap in the herring fishery and the butterfish mortality cap in the loligo squid fishery, in consultation with the Council. The details of the estimation and monitoring methods will be published by NMFS during the implementation of this framework adjustment. In general, trips with observers that retain more than 6,600 pounds of herring would be used to determine the ratio of RH/S caught to all species retained on observed cap trips. For all trips that land more than 6,600 pounds of herring, the current RH/S ratio would be applied to the combined total landings to generate a RH/S catch estimate for all herring cap trips during the fishing year.

Dr. Cieri and other PDT members expressed concern about the variability associated with the data on which the RH/S catch caps are based and emphasized the need for NERO to consider this when monitoring the caps. At this time, it is unclear whether NERO methods for RH/S catch cap monitoring will be peer-reviewed, and if so, whether the methods for monitoring the RH/S cap will be evaluated. NERO will develop the details of the monitoring methods with the implementation of Framework 3. The Herring PDT notes that the methods for monitoring the cap will affect when the triggers are reached and could affect a closure of the fishery, so this is a significant concern. The catch ratio can be significantly influenced by one large event (especially in strata with low sample sizes), so the approach to recalculating a moving catch ratio, and timing issues, will be important to consider when developing the details of the monitoring methods.

**Catch Cap Triggers:** The Herring PDT discussed options for triggering the closure of a RH/S catch cap area and agreed to develop two options based on (1) the current trigger for the haddock catch cap (100%) and (2) the trigger proposed by the Mid-Atlantic Council for the RH/S catch caps in the mackerel fishery (95% projection). The group reiterated concerns about data variability and emphasized the importance of monitoring as close to real-time as possible. It was suggested that because of variability, an option that includes a trigger of less than 100% may be appropriate. Ms. Weeks clarified that changes to the NEFOP system should reduce the lag time so that catch can be verified and uploaded to the database within about five days.

**Goals/Objectives:** Mr. Crawford (audience) asked a question regarding the goals and objectives of the RH/S catch caps established in Framework 3. Ms. Steele noted that the Council approved goals/objectives for Framework 3 that focus on providing incentive for the industry to continue to reduce river herring and shad catch, promoting flexibility, and facilitating coordination with the Mid-Atlantic Council. She noted that these goals/objectives are general and long-term and suggested that it may be appropriate for the Council to identify objectives specific to the catch caps for the 2014 and 2015 fishing years, which also will be implemented in Framework 3. The Herring PDT agreed and recommends that the Council first identify its objectives for the caps for 2014-2015 before selecting a preferred option. For example, is the objective for 2014-2015 to reduce catch of RH/S from recently observed levels, or to cap catch at the highest level observed in recent years, or to cap catch at a level that promotes responsible management and provides an opportunity to evaluate the monitoring issues? The identification of a specific objective for specifying the 2014-2015 RH/S catch caps should influence which option is preferred.

### ***Options for 2014/2015 RH/S Catch Caps***

Mr. Vincent summarized 2008-2012 Atlantic herring fishery data provided to the Herring PDT as a basis for developing the catch cap options for 2014 and 2015. These data will be included in Appendix I to Framework 3. The tables provided by Mr. Vincent are similar to the table considered by the Mid-Atlantic Council for the RH/S catch cap for the mackerel fishery and characterize RH/S catch on observed trips landing more than 6,600 pounds of herring from 2008-2012. They provide detailed information about RH/S catch on observed trips by gear type, catch cap area, and year. The RH/S catch ratio was expanded to derive a total RH/S catch based on methods similar to those utilized to monitor the butterfish catch cap. Mean, median, 75<sup>th</sup> percentile, high, and low values were provided. Several PDT members asked clarifying questions regarding the data and the simulations that were performed to derive the summary statistics. Mr. Vincent agreed to provide a written summary of his calculation methods.

Ms. Steele noted that the NERO tables include important information for the Council to consider but would provide too many options for catch caps for 2014 and 2015. She suggested that the Herring PDT agree on a reasonable range of options that may be appropriate given the fishery data. She proposed that options for purse seine caps be eliminated from all areas except the Gulf of Maine; also, she noted that only midwater trawl vessels fish in the Cape Cod area, so no other gear-specific caps need to be considered at this time. Also, only bottom trawl/midwater trawl fish in the southern New England area. She further suggested that there does not appear to be a need for catch caps for any gear types in the Georges Bank area at this time. The Herring PDT agreed with this. The PDT also agreed with the additional options developed by Ms. Steele for the southern New England/Mid-Atlantic area, which expand the RH/S catch estimate based on an assumption of full utilization of the 2014 and 2015 sub-ACL in this area (which is higher than the sub-ACL during 2008-2012). There was some question as to whether there is a need to consider a separate catch cap for bottom trawl vessels in the Gulf of Maine area at this time. Because the group could not fully reach consensus on this issue, the bottom trawl information will be included in the Gulf of Maine table for the Council to consider. Dr. Cieri and Mr. Dean both noted that they have additional bottom trawl data that can be incorporated into the Gulf of Maine calculations (see further discussion below).

Mr. Dean suggested that variability in the data (between years) be illustrated differently for the Council to make decisions (versus a table of CVs), and the Herring PDT agreed. The PDT discussed the mean, median, and other values associated with the distribution of the data and the catch cap options. Dr. Cieri reiterated the importance of identifying the goals/objectives before selecting an option for specifying the catch cap for 2014 and 2015. He suggested that if the Council wants to select an option that falls generally in the middle of the observations, the median value would be appropriate. Mr. Dean proposed that options based on the mean values be recalculated to reflect the variability associated with sampling from year to year. The Herring PDT agreed that a weighted mean would be more appropriate to consider, and Mr. Dean agreed to provide these calculations along with figures that illustrate annual variability within each area/gear type. The PDT ultimately agreed to bring forward options tables for each catch cap area that include a weighted mean, median, low, and high value for the appropriate gear types in each area.

### ***Additional Data to Consider***

The Herring PDT discussed the availability of additional data on which to base the 2014/2015 RH/S catch caps. For the Gulf of Maine catch cap area, Dr. Cieri indicated that ME DMR can provide some additional sea sampling data for bottom trawl vessels, as well as additional portside sampling data. Analyses by the Herring PDT (Amendment 5) and ME DMR (ongoing) indicate that there is no significant difference between river herring catch estimates derived from sea sampling versus portside sampling on fully-sampled trips. Ms. Steele agreed to include the Herring PDT Amendment 5 analysis in the Framework 3 document and supplement it with the ME DMR analysis, when available. The PDT agreed that the RH/S catch ratios from portside sampling data should be incorporated for any additional trips that were sampled during the 2008-2012 time frame. ME DMR changed its sampling protocol in 2010, so only data from fully sampled trips from 2010-2012 can be added, but this will increase the sample size for some of the strata and should reduce the uncertainty and size of the confidence intervals associated with the expanded RH/S catch estimates.

Mr. Dean summarized available portside sampling data from MA DMF and suggested that these data be incorporated into the tables for developing the 2014/2015 catch cap options. The Herring PDT agreed. Mr. Dean offered to re-calculate the catch cap options using the data from Mr. Vincent, supplemented with ME DMR and MA DMF data. Mr. Vincent and Dr. Cieri agreed to provide the data to Mr. Dean. The Herring PDT reviewed a preliminary summary of the resulting coverage levels by strata once the additional sea sampling and portside sampling data are incorporated. Summary tables will be provided in a second appendix for Framework 3 that will describe the Herring PDT's methods for calculating the 2014-2105 RH/S catch caps. The addition of the portside sampling data substantially increases the sample sizes for the bottom trawl sectors (Gulf of Maine and southern New England) and the midwater trawl sector in the Gulf of Maine. CVs associated with catch estimates will be re-evaluated.

### ***Additional Analyses for Framework 3***

Min Yang Lee and Rachel Feeney briefed the Herring PDT on the analysis of impacts of the Framework 3 measures on fishing-related businesses and communities. Dr. Lee will be evaluating the potential to trigger closure of the directed herring fishery in the cap areas under the options for 2014 and 2015; he will work with Ms. Feeney and Ms. Hall-Arber to characterize the potential impacts of the options on the herring fishery. Dr. Lee's methods for the projections will be very similar to those utilized to evaluate the proposed river herring catch triggers in Amendment 5.

Additional information and analysis will be provided by the Herring PDT in the Draft Framework 3 document.