

NEW ENGLAND FISHERY MANAGEMENT COUNCIL

Final Herring PDT Report

May 26, 2009

Holiday Inn, Mansfield, MA

The Herring Plan Development Team (PDT) met in Mansfield, MA to review and discuss the development of alternatives for Amendment 4 to the Herring Fishery Management Plan (FMP). Many of the Herring PDT comments have been incorporated directly into the Draft Amendment 4 Discussion Document (dated June 2009) and are not included in this report. This report focuses on the Herring PDT discussion related to proposed measures to address maximized retention and net slippage, as well as issues related to observer coverage, dockside monitoring, and catch monitoring in general.

Maximized Retention/Net Slippage

Maximized retention may be one mechanism for measuring/verifying at-sea catch, but it poses some significant logistical, operational, safety, enforcement, and compliance challenges that must be addressed when designing the system. It is unclear what the goal/expectation of a maximized retention program may be.

- Is the goal of maximized retention to obtain a census of all bycatch in the Atlantic herring fishery or to improve precision and accuracy for estimates of bycatch?
- Is maximized retention being considered because there is uncertainty about the accuracy of sea sampling data? While recognizing that coverage levels should be increased, is there a lack of faith in the sea sampling data that are collected?

Is maximized retention being considered because of concerns that:

- Observed trips are not representative of the entire fleet (i.e., trip selection for sampling is biased)?
- Observed trips are biased by an “observer effect” (ex., frequency and composition of slipped and partially slipped hauls differ between observed and unobserved trips)?
- Precision around discard estimates is too low (i.e., not enough trips, insufficient geographical/temporal coverage)?
- A census may provide better estimates of catch than statistical sampling?

If the goal of maximized retention is to fully and accurately sample all catch on herring vessels and estimate bycatch, then there may be other ways to achieve this goal – for example, through increased observer coverage and provisions to better address net slippage and fully sample discarded catch.

Issues to Address/Potential Challenges

Under the assumption of full compliance (no slippage and/or at-sea discarding), maximized retention could provide an opportunity to sample at-sea catch that would have otherwise been discarded. The amount of various species would still be estimated, unless the entire catch was disaggregated into species and fully sampled. Several issues regarding the sampling program would need to be specified/clarified:

- Would vessels separate the target harvest and unwanted catch at-sea?
- Would the unwanted/discarded portion of the catch be fully sampled (high volume) or counted (very low volume)?
- Would all trips or just some trips be sampled at the dock for species composition?
- Would the volume of unwanted/discarded catch be measured for all vessels or only some vessels?

The above questions need careful consideration in order to assess the efficacy of maximized retention compared to other methods for estimating discards in the Atlantic herring fishery. Currently, dockside sampling of landed catch on herring vessels can take 12 hours or more. If the retained portion of unwanted catch is high in volume (for example, feedy herring), then sampling of retained discards will likely take several hours. This will impact the size/design of the dockside monitoring program.

The Herring PDT identified several challenges to a maximized retention approach for the herring fishery, which should be acknowledged and addressed to the extent possible when designing provisions for maximized retention in this amendment.

- Separating the harvest from the unwanted catch may be difficult for some vessels and could reduce vessel capacity.
- With such a large-volume fishery, many boats take trips with the intention of bringing back a specific quantity of herring needed for the market. There may be trips where either the desired market quantity of fish will be reached before a bag is fully pumped. There is also the potential for landing poor quality/unmarketable fish under a maximized retention program.
- How are “test tows” addressed? Fishermen may make a short tow to determine the composition and/or quality of fish they are catching before fully loading the bag. If the fish in the test tow are not desirable, the vessel can release the bag and move elsewhere. Would test tows be prohibited under maximized retention provisions? Would vessels be required to retain fish from test tows even if they are unwanted and/or unmarketable (for example, feedy herring)?
- How will the unwanted/discarded portion of the catch be sampled? For example, will the discarded portion need to be pumped out at the dock, sampled, and then pumped back into the vessel to be dumped at-sea? Will the unwanted fish be handled and sampled at the dealer/processing facilities or on the vessel?
- How to dispose of the unwanted/unmarketable catch? Are vessels or processors/dealers responsible for unwanted catch? Will vessels need to take the unwanted catch back to sea and dump, or are other land-based options available? If the excess catch is sold (even as bait), this could depress the market price for other landings.

- What would prevent non-observed vessels from discarding at sea? Alternative 3 proposes video-based electronic monitoring for this purpose, but are there other alternatives? It seems that maximized retention would only be effective with either an observer or a video camera on the vessel. If this is the case, then can the same goal be achieved just by increasing observer coverage to adequate levels and getting better information about discards and slipped catch?
- Are there safety concerns with requiring maximized retention and putting everything in the hold? For example, slippage events have been noted due to full vessel capacity and gear problems. What about concerns related to compromising the quality of the catch?
- There are additional costs that should be considered, which will include monitoring (video, for example), sampling (dockside), and disposal costs.
- How are carriers addressed under maximized retention provisions? Are carriers required to retain unwanted fish from harvesting vessels, or would harvesting vessels be required to sort the catch prior to pumping fish to a carrier? How would carrier catch be sampled?
- If maximized retention is going to be implemented in this fishery, it will be critical to work in partnership with the industry to address many of the operational and safety challenges associated with this program.

Other Alternatives?

Given the logistic problems and the potential costs of maximized retention, the question arises as to whether the goals of maximized retention (accurately estimating total catch and discards) could be achieved more efficiently and at a lower cost. The PDT expressed concern about reacting too strongly to the existing information and imposing measures that would have a significant cost for the entire fishery before the nature and extent of the problem is fully assessed. It seems that the first and most appropriate step would be to implement measures to ensure that more and better information is gathered and then developing a more technically-sound solution to any problems that are identified. In this context, the Herring PDT discussed some possible alternatives to maximized retention.

- The discarded portion of the catch on herring vessels could be characterized and estimated more accurately with a well-designed allocation of sea sampling effort (observer coverage).
- Slipped catches must be addressed and should be sampled at-sea for species composition and amounts of discards. It is imperative that observers be provided the opportunity to sample the contents of the entire haul.
- The Observer Program was not designed to collect detailed information about net slippage, but this is something that can be addressed in the sampling protocol, added to observer logs, and addressed through regulations requiring detailed information when slippage events occur. A requirement that all vessels report slippage of catch (with reasons and estimates of discards) could be useful for estimating discards and assessing compliance. Data on slippage events need to be collected in a more consistent manner, and this amendment provides an opportunity to implement the necessary elements of a catch monitoring program to do so.
- If observer coverage levels are increased and regulations mandate detailed reporting of slippage events on *all* trips, then that slippage rates can be compared across observed and

unobserved trips to assess compliance and determine the nature/extent of the problem. An analysis of information generated on observed trips versus unobserved trips could identify any discrepancies and be used to determine whether or not more significant action needs to be taken to address the issue.

- A similar analysis was conducted for the groundfish fishery – the mandatory retention of groundfish in the B-DAS program with the provision of “flipping to A DAS” when groundfish catches exceeded the B-DAS trip limit is informative. In this case, flipping rates of observed trips and unobserved trips were significantly different, suggesting that catches of groundfish exceeding B-DAS limits were discarded on some unobserved trips.

Dockside Monitoring/Sampling

The Herring PDT also discussed dockside monitoring/sampling as part of a catch monitoring program, and as something that would be necessary if maximized retention is mandated in the fishery. It is not clear that dockside monitoring would be necessary if observer coverage is adequate to generate estimates of bycatch, but some questions may remain about the accuracy of sampling similar looking, small-bodied fish at-sea in a high-volume fishery, given current protocols. Regardless, dockside monitoring and sampling may be an appropriate tool for monitoring and confirming landings in the fishery.

- “Dockside monitoring” tends to refer more to the monitoring/confirmation of landings in the herring fishery, while “dockside sampling” tends to refer more to the sampling of catch for the purposes of estimating bycatch or incidental catch.
- Dockside sampling is not necessary for estimating landed bycatch if sea sampling is adequate, but the ability of both dockside and at-sea sampling to generate accurate estimates of bycatch should be tested.
- Dockside monitoring could be constructed differently (and perhaps less costly) if used only for confirming the accuracy of self-reporting (of herring catch).
- Dockside sampling is effective for sampling/estimation of catch of small-bodied species like herring, mackerel, river herring, and shad – may provide an appropriate cross-check with observer sampling for these species, which may be more difficult to distinguish in large quantities;
- Dockside sampling/monitoring may be less expensive than at-sea monitoring, but will not address slippage – at-sea monitoring is still necessary, so dockside sampling could increase costs, depending on the goals of the program;
- Dockside sampling is not subject to the same weather (and other) constraints as at-sea sampling.
- Dockside sampling can provide a mechanism to compare and cross-check at-sea sampling data.
- If a dockside monitoring program is included in this amendment, efforts should be made to be consistent with the groundfish sector dockside monitoring program if possible.