

## NEW ENGLAND FISHERY MANAGEMENT COUNCIL

### FINAL Herring Plan Development Team (PDT) Report

March 6, 2014

NERO Office, Gloucester, MA

The Herring Plan Development Team (PDT) met on March 6, 2014 to work on the development of alternatives/analyses for Framework 4 to the Atlantic Herring Fishery Management Plan (FMP). Framework 4 includes alternatives to address disapproved elements of Amendment 5 relating to dealer weighing/reporting requirements and additional management measures to address net slippage.

**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 and Jon Deroba (NEFSC), Madeline Hall-Arber (MIT Sea Grant), Tim Cardiasmenos and Carrie Nordeen (NERO), (Herring PDT Members); Dave Ellenton (Cape Seafoods), Peter Mullen, Herring Advisory Panel Members; Steve Weiner (CHOIR).

**Webinar:** Sara Weeks (NEFOP); Melissa Yuen, Marin Hawk (ASMFC); Mary Beth Tooley; Chris Weiner; other interested parties.

#### *Summary*

- The Herring PDT does not believe that the alternatives under consideration in Framework 4 to address dealer weighing/reporting will substantially improve the accuracy or utility of catch data in the Atlantic herring fishery. The specific issue/problem (i.e., the need) that the dealer weighing/reporting alternatives in Framework 4 would address is unclear to the PDT at this time. The goals/objectives of the catch monitoring program should be evaluated with respect to the alternatives in Framework 4, and any potential benefits should be weighed against the potential costs of implementing additional requirements.
- The Herring PDT reiterated many of its comments related to management measures to address net slippage during the development of Amendment 5. Overall, the PDT agreed that measures implemented in Amendment 5 (effective March 17, 2014) will enhance at-sea monitoring, discourage net slippage, and should minimize the occurrence of slippage events on Atlantic herring vessels throughout the fishery to the extent possible. From a technical perspective, it is not clear to the PDT that additional management measures are needed to further discourage net slippage at this time.
- However, the implementation of the Amendment 5 full sampling provisions has generated questions regarding the treatment of some catch that may not come aboard a herring vessel, and the Herring PDT recommends that the Council clarify provisions that apply to catch not brought on board in Framework 4. The PDT recommends that the Council clarify management measures that apply to catch not brought on board due to operational discards, falling out of the fishing gear, and gear damage.

- If the Council determines that additional consequences for allowable slippage events should be adopted in Framework 4, then the Herring PDT recommends adopting a rule that would apply the same consequences to all three allowable slippage events (safety, mechanical, dogfish), not a subset of allowable slippage events (dogfish and safety but not mechanical failure, for example), and not different rules for different events. This approach would help to reduce complexity and enhance compliance with any additional regulations that may be implemented. The Herring PDT supports adopting a provision that requires VMS notification of slippage events in Framework 4 to better ensure the effectiveness and enforceability of the current (Amendment 5) management measures to address net slippage.

### ***Herring PDT Meeting Minutes***

After some general announcements, Ms. Steele provided an update to the Herring PDT regarding the development of Framework 4 and the anticipated timeline for Council decision-making (final action anticipated at April 2014 Council meeting). She summarized the elements of the Framework 4 alternatives and Council, Herring Committee and Herring Advisory Panel (AP) discussion related to the further development of Framework 4. She noted that the structure of the alternatives in the draft Framework 4 document may be revised and informed the Herring PDT that the deadline for information and analysis to include in the document is March 28, 2014.

### ***Dealer Weighing/Reporting Provisions***

The Herring PDT discussed possible alternatives to address the disapproved dealer weighing/reporting provisions in Amendment 5. The Herring AP members who were present at the February 13, 2014 meeting suggested that the Council could reconsider some of the alternatives to require third-party catch verification, which were discussed thoroughly but ultimately “considered but rejected” in Amendment 5. This is consistent with some of the suggestions in the September 20, 2013 correspondence from NMFS, which addresses possible revisions to the disapproved measures that the Council could consider. Ms. Steele presented an outline of possible alternatives for Framework 4, including Option 2C from Amendment 5 (non-preferred), an alternative that would require third-party catch verification at the vessel level, and an alternative that would standardize volumetric estimates at the dealer level. The last alternative (dealer-level) was initially considered as a possible third-party catch verification alternative but was refined to a volumetric standardization alternative as the PDT discussed the details (see further discussion below).

The PDT evaluated the possible benefits and costs associated with alternatives that would implement additional dealer weighing/reporting measures in Framework 4. The PDT agreed that the Council should clearly specify the focus of Framework 4 as well as the goals/objectives, so that the alternatives that are developed/considered will meet the purpose and need of the action. The issue/problem that these management measures are intended to address should be more clearly identified. Generally, dealer data are utilized by NMFS for the purposes of Atlantic herring ACL/sub-ACL monitoring. Vessel trip report (VTR) data are the only data that are utilized for Atlantic herring stock assessment purposes at this time. During the last herring stock assessment (SAW 54, June 2012), assessment scientists compared VTR and dealer data to identify any discrepancies and determine whether it is appropriate to move forward with only VTR data to inform the assessment. Dr. Deroba noted that the analysis shows that since 2003,

the two sources of catch data are fairly consistent with one another in terms of total Atlantic herring landings (Table 1). Prior to 2003, much larger discrepancies existed between the two data sets. However, from 2003-2010, the average annual difference between VTR and dealer reports is about 1,000 mt of Atlantic herring, which represents around 1% of the annual catch (see Table 1 below, from SAW 54).

**Table 1 Comparison of Atlantic Herring Landings (MT) from Dealer and VTR Data, 1994-2010**

Year	Atlantic Herring Dealer Data (mt)	Atlantic Herring VTR Data (mt)	Difference Between Datasets (mt and %)
1994	45,337	63,701	18,364 (41%)
1995	68,918	106,185	37,267 (54%)
1996	87,902	117,275	29,373 (33%)
1997	97,149	123,845	26,697 (27%)
1998	82,474	108,428	25,955 (31%)
1999	79,532	110,800	31,268 (39%)
2000	75,591	108,818	33,227 (44%)
2001	97,914	120,025	22,111 (23%)
2002	68,533	93,181	24,648 (36%)
2003	97,350	102,442	5,092 (5%)
2004	85,176	94,239	9,063 (11%)
2005	96,992	93,436	-3,556 (-4%)
2006	123,673	103,801	-19,872 (-16%)
2007	73,163	81,463	8,300 (11%)
2008	78,597	84,152	5,555 (7%)
2009	101,380	103,094	1,714 (2%)
2010	65,285	68,192	2,907 (4%)

*\*2010 data were incomplete when this table was generated.*

*Source: Saw 54, June 2010*

The specific issue/problem (i.e., the need) that the dealer weighing/reporting alternatives under consideration in Framework 4 would address is unclear to the Herring PDT at this time. While there may be perceptions that dealer reporting (and/or vessel reporting) is not accurate, these problems have not been identified by individuals who rely on the data for technical or management purposes (assessment biologists, quota monitors, for example). Additionally, the alternatives under consideration in Framework 4 are not likely to substantially improve the accuracy of catch data. The Herring PDT recognizes that there may be some benefits to addressing perceptions and improving consistency in catch reporting by standardizing the methods for reporting the weight of Atlantic herring. One of the goals of the Amendment 5 catch monitoring program is to *Develop a program providing catch of herring and bycatch species that will foster support by the herring industry and others concerned about accurate accounts of catch and bycatch, i.e., a well-designed, credible program, with a related objective to eliminate reliance on self-reported catch estimates.* There may be a marginal improvement in

data accuracy from standardizing estimation methods and/or third-party catch verification, but it will not be possible to predict or quantify this impact. As discussed below, the impacts could actually be beneficial or detrimental to data quality and catch monitoring, and this is a concern to the Herring PDT. Third-party verification of total catch may provide a cross-check for dealer and VTR data but would not replace these data sources for the purposes of catch monitoring or stock assessment any time in the near future. The goals/objectives of the catch monitoring program should be evaluated with respect to the alternatives under consideration in Framework 4, and any potential benefits should be weighed against the potential costs of implementing additional requirements. Additional discussion is provided below.

- ***Dealer Alternative 2, Options A and B (Draft Framework 4 Document)***: Options A and B in this alternative represent non-preferred Option 2C in Amendment 5. Ms. Nordeen informed the Herring PDT members that the methodology utilized by NMFS for monitoring herring catch against the annual catch limits (ACLs) during the fishing year has been revised so that dealer data can be incorporated more quickly, and so that the discrepancy between the in-season catch estimation and the year-end catch estimation is now minimized. For this reason, there may be less utility to the provision included in this alternative that would require dealer and vessel trip reports to be submitted more expeditiously (24 hours). Ms. Steele and Ms. Nordeen agreed to follow-up on this issue more before the Council selects final measures for Framework 4 (April 2014 Council meeting).
- ***Dealer Alternative 2, Option C (Draft Framework 4 Document)***: Ms. Steele noted that the ASMFC is considering a measure that would require herring vessel fish holds to be empty before leaving the dock. This measure was briefly discussed by the Herring Committee during the development of Amendment 5 but was not explicitly considered/analyzed in the Amendment 5 EIS. For consistency, this provision was added as a potential option under Dealer Alternative 2 for the Herring Committee and Council to consider in Framework 4. The PDT suggested that the Herring Advisory Panel provide further comment on this measure.
- ***Dealer Alternative 3 – Third-Party Catch Verification (Vessel-Based)***: Ms. Steele informed the Herring PDT that she drafted a possible alternative to require third-party catch verification on Atlantic herring vessels based on Council guidance, suggestions from Herring AP members, and guidance from NMFS in its September 2013 letter to the Council following-up on the disapproval of the Amendment 5 measures. This alternative was considered but rejected in Amendment 5; Ms. Steele encouraged the Herring PDT to revisit this approach to provide the Herring Committee and Council with technical guidance regarding a wide range of alternatives. *This alternative would require Federally-permitted Atlantic herring dealers to accurately weigh all fish. To better ensure the accuracy of catch information, this alternative would require third-party catch verification at the first point of landing on trips by limited access herring vessels carrying a NMFS-approved observer. At the first point of landing, the observer would dip the measuring stick in the fish hold(s) to estimate the total weight of fish on board, prior to beginning the offload process. The total weight of Atlantic herring on board would be estimated by the observer based on conversions (provided in the document).*

The PDT noted that portside samplers could provide additional opportunities for third-party catch verification (on trips without observers that are sampled at the dock), but suggested that portside samplers should not be required under this alternative, as this could affect the vessels' ability to begin offloading the catch in a timely manner if a portside sampler is not present at the beginning of the pump out.

**NEFOP personnel raised significant concerns about adding responsibilities for observers on Atlantic herring vessels under this alternative.** Currently, observers are not required to stay with the vessel upon landing, and contracts for observers do not include sampling responsibilities when the vessel is at the first point of landing. Implementing third-party catch verification using observers under this alternative would necessitate a change to the NEFOP observer contract. It would also require additions/adjustments to observer training and could potentially increase related costs. Ms. Weeks asked whether sticking the tanks is a task that could be performed while the vessel is steaming home (versus at the first point of landing). The PDT agreed to raise the NEFOP concerns to the Herring Committee/Council and suggested that the question of sticking tanks at-sea be considered by the Herring Advisory Panel. Some field testing would likely be needed to determine the effects, if any, of vessel movement on the ability to determine the volume of fish in the tank. Overall, however, the PDT recognizes the significance of the concerns expressed by the NEFOP with respect to how this alternative is currently structured. Ms. Steele noted that the alternative could be modified if other third parties could be identified to fulfill this responsibility.

The PDT questioned whether this alternative would address the goals and objectives related to improving catch monitoring and providing accurate counts of catch and bycatch in the Atlantic herring fishery. This alternative would provide a third-party estimate of total catch on board at the first point of landing (all species combined) on a subset of trips by limited access vessels participating in the fishery. It may improve perceptions about data quality and provide a cross-check for existing fishery data sources, but it does not address the need for accurate species-specific catch and bycatch information. The estimate provided by the third party would be based on a volume-to-weight conversion for Atlantic herring and would not provide useful information for trips that land a mixed catch (i.e., herring and mackerel). This alternative also would not decrease reliance on self-reporting since other data sources would likely continue to be utilized to monitor the fishery and assess the condition of the Atlantic herring resource.

From a technical perspective, the PDT agreed that there would be very little benefit to this alternative, especially given the potential costs. Additionally, there could be a detriment if there is additional error introduced by the volume-weight conversions to estimate total catch on board. The conversions are based on herring only (from other regions) and do not account for either differences in sizes and weights of fish (herring and other species) or water that may be in the tank. There is an element of consistency (in the size, weight, and density of the catch) assumed by using a conversion factor. The PDT notes that there can be substantial variability in the catch composition of this fishery, depending on area and season. Converting a volume of total fish on board to pounds of Atlantic herring could therefore result in less accurate catch estimates. Moreover, observers, portside samplers, assessment scientists, and fishery monitors have not suggested that estimates of total catch on board provided by vessel captains (hail weights) may be problematic or inaccurate.

If this alternative does not meet the purpose and need for the action, then the Herring PDT recommends that the Council include this measure as “considered but rejected” in the Framework 4 document.

- **Dealer Alternative 4 – Volumetric Standardization (Dealer-Based):** Ms. Steele informed the Herring PDT that she drafted a possible alternative to standardize weight conversions used by Atlantic herring dealers based on Council guidance, suggestions from Herring AP members, and guidance from NMFS in its September 2013 letter to the Council following-up on the disapproval of the Amendment 5 measures. This alternative was considered but rejected in Amendment 5; Ms. Steele encouraged the PDT to revisit this approach in order to provide the Committee and Council with technical guidance regarding a wide range of alternatives. After some initial discussion, the Herring PDT agreed that third-party verification under this alternative may not be necessary or feasible at this time and developed the details of this alternative based on standardizing volume-to-weight conversions used by Atlantic herring dealers. *This alternative would require Federally-permitted Atlantic herring dealers to accurately weigh all fish. If dealers do not use scales, they would be required to document (annually) the volumetric capacity of the storage containers and transport vehicles used for Atlantic herring transactions. The weight of Atlantic herring purchased will be determined for each storage container or transport vehicle by the dealer through standard volumetric conversions (provided in the alternative).* Some details of this alternative remain TBD; Ms. Steele noted that it is unclear what agencies/entities would be utilized to certify the volumetric capacity of transport trucks and stated that she would explore this issue further.

The PDT expressed similar concerns about the potential impacts of using one standard volume-to-weight conversion under this alternative and reiterated that standardizing catch estimation methods is not likely to improve accuracy or quality of catch data (see previous discussion). However, this approach may address negative perceptions about catch reporting and may provide some benefits to participants in the fishery, as noted in the February 13, 2014 Herring Advisory Panel report.

Notwithstanding the improvements that are being implemented through the Amendment 5 provisions (effective March 17, 2014), the Herring PDT noted that none of the dealer weighing alternatives currently included in Framework 4 would likely result in substantial improvements in the accuracy of catch information for the Atlantic herring fishery. As this is considered the primary objective of the dealer weighing/reporting provisions, the Herring PDT questions whether any of the alternatives would meet the goals and objectives and purpose and need of Framework 4.

### ***Management Measures to Address Net Slippage***

The Herring PDT discussed possible alternatives to reconsider the disapproved management measures to address net slippage in Amendment 5. The PDT reiterated many of its comments related to this issue during the development of Amendment 5 and suggested that Amendment 5 analyses be carried over to the Framework 4 Discussion Document. Overall, the PDT agreed that the Closed Area I provisions and the additional management measures implemented in Amendment 5 (effective March 17, 2014) enhance at-sea monitoring, discourage net slippage on Atlantic herring vessels, and are expected to minimize the occurrence of slippage events to the extent possible. The Amendment 5 measures are just becoming effective this month. Based on a technical review of available information, it is not clear to the PDT that additional management measures are needed to further discourage net slippage at this time.

However, the implementation of the Amendment 5 full sampling provisions has generated questions regarding the treatment of some catch that may not come aboard a herring vessel, and the Herring PDT recommends that the Council clarify provisions that apply to catch not brought on board in Framework 4. Ms. Weeks (NEFOP) explained the disposition codes utilized by observers to document catch not brought on board during herring fishing operations and indicated that observers do not specifically make a determination of whether or not a slippage event occurs on a given trip. Observers document all catch not brought on board and classify the catch based on a number of disposition codes, some of which are later evaluated to determine if they were slippage events. The PDT agreed that clarifying the treatment of catch not brought on board should enhance the effectiveness and enforceability of the Amendment 5 sampling provisions and management measures to address net slippage. **The Herring PDT recommends that the Council clarify management measures that apply to catch not brought on board due to operational discards, falling out of the fishing gear, and gear damage.** Ms. Steele presented a table of clarifications and related options that will be included in Framework 4 for final decision-making at the April 2014 Council meeting. The option to prohibit operational discards on midwater trawl vessels, added for consideration by the Council at the January 2014 meeting, has been incorporated into this table.

Several PDT members questioned the Council's rationale for implementing additional consequences for slippage events that are *allowed* under the Amendment 5 regulations (i.e., slippage for safety reasons, mechanical failure, or spiny dogfish). It seems inconsistent to specifically allow these slippage events to occur while prohibiting other slippage events, but then to implement additional penalties if the allowable slippage events do occur. Moreover, there does not appear to be a connection between the proposed consequences (move along, trip termination) and the behavior associated with their cause (slippage for safety, mechanical, or dogfish reasons). The PDT agreed that the current suite of regulations (Amendment 5) should significantly reduce the occurrence of slippage events in the directed Atlantic herring fishery. If the number of allowable slippage events and/or the reasons for slippage events increases significantly after the Amendment 5 regulations are implemented, this would serve as a "red flag" and alert the Council that management measures to address slippage may not be effective, in which case the rules could be revisited. The PDT finds it very challenging to address this issue up-front, before the impacts and effectiveness of the current management measures can be evaluated.

The majority of additional concerns regarding the slippage alternatives under consideration in Framework 4 relate to their enforceability and, ultimately, to their effectiveness. Ms. Steele noted that the Council's Enforcement Committee will meet to review the Framework 4 alternatives and provide comments and recommendations to the Council for consideration during final decision-making at its April 2014 meeting. For the most part, the management measures to address net slippage cannot be enforced at-sea, and enforcement at the dock must occur after the fishing trip has ended, once observer data and other information has been collected and reviewed. The measure proposed under all slippage alternatives in Framework 4 to require notification of slippage events through VMS would be appropriate to provide a real-time identifier to trips on which slippage events have occurred. This would inform NMFS that a particular fishing trip may warrant further investigation. This requirement may be beneficial to better ensuring the effectiveness and enforceability of the current (Amendment 5) management measures. **The Herring PDT therefore supports adopting a provision that requires VMS notification of slippage events in Framework 4.**

Furthermore, **if the Council determines that additional consequences for allowable slippage events should be adopted in Framework 4, then the Herring PDT recommends adopting a rule that would apply the same consequences to all three allowable slippage events (safety, mechanical, dogfish)**, not some subset of allowable slippage events (dogfish and safety but not mechanical failure, for example), and not different rules for different events. This approach would help to reduce complexity and enhance compliance with any additional regulations that may be implemented.

The Herring PDT reviewed and discussed updated slippage data provided by the NEFOP. A detailed summary of data from slippage events on herring vessels from 2010-2013 will be provided for Framework 4. This will form the basis of the analysis of the Framework 4 alternatives to address net slippage. The PDT notes the following regarding the observer data:

- **Purse Seine Trips:** In 2012 and 2013, there were 34 slippage events and 112 operational discard events observed on 93 purse seine trips; none of these events were documented to be due to safety reasons, mechanical failure, or spiny dogfish. The primary reasons cited by purse seine operators for slipping catch included vessel capacity filled and not enough fish to pump.
- **Midwater Trawl Trips:** In 2012 and 2013, there were 60 slippage events and 260 operational discard events observed on 348 midwater trawl trips (paired and single midwater trawl). There was also one large catch release event observed due to gear damage; about 380,000 pounds was estimated to have been released during this event, which is more than the estimated release of catch on the 60 slippage events combined. None of these events were documented to be due to safety reasons or mechanical failure. Forty seven percent (47%) of the estimated weight of slipped catch occurred on events that were documented to be due to spiny dogfish. The primary reasons cited by midwater trawl operators for slipping catch included vessel capacity filled, not enough fish to pump, and not specified/other.



- **Small Mesh Bottom Trawl Trips:** In 2012 and 2013, there were two (2) slippage events observed on 53 small mesh bottom trawl trips; no operational discards were observed on these trips.
- **Slippage for Safety Reasons:** From 2010-2013, observers did not document any slippage events on herring vessels that were due to safety reasons. If the occurrence of slippage events for safety reasons increases significantly under the Amendment 5 (and/or Framework 4) regulations, then the rules may not be achieving the desired outcome and should be revisited.
- **Slippage for Mechanical Failure and Spiny Dogfish:** The PDT generally agreed that data collected by observers on discard logs should adequately document/confirm whether or not a slippage event occurred due to a mechanical failure or spiny dogfish clog.
- **Slippage because Vessel Capacity is Full:** The PDT acknowledged that the management alternatives under consideration in Framework 4 are not likely to affect/reduce the number of slippage events that occur because vessel capacity is full. Vessels that release catch due to full hold capacity are very likely to be finished with their trips and would not be affected by a move-along rule. Similarly, a trip termination measure would not likely reduce the occurrence of slippage events due to full vessel capacity.
- **Move-Along Rules:** The Herring PDT noted that some of the proposed move-along alternatives could have differential impacts on vessels subject to the rules. For example, the alternative that requires a move-along out of a management area affects midwater trawl and bottom trawl vessels only because purse seine vessels only fish in Area 1A. Some relatively large slippage events, however, have been observed on purse seine vessels; there is likely to be a perception of inequity under this alternative. Moreover, in some cases where catch may be slipped, the vessel may be intending to move from the area anyway (i.e., spiny dogfish).

The alternative that would require a move-along from a statistical area is likely to have differential impacts on vessels of different sizes. Moreover, because of the variable size of the statistical areas, the impact of the move-along requirement will depend on the statistical area and how close to the edge of the area the event occurs. In some cases, this rule could require a vessel to move a very large distance, while in other cases, the move may simply be a few miles. For some smaller vessels, access to other statistical areas may be limited, consequently resulting in trip termination.

It is critical to ensure that the role of the observer as an objective sampler and data collector is preserved in all situations. NEFOP observers only sample the catch and collect/document information; ***observers do not and will not serve in any sort of compliance monitoring or enforcement role.*** Compliance with these regulations, including follow-through with obtaining and completing required paperwork (affidavits) and adherence to any additional consequences for slippage (move-along rules, trip termination provisions) rests entirely on the vessel captain.

Additional information and related Herring PDT analyses will be provided in the Draft Framework 4 document.