



## New England Fishery Management Council

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# DRAFT MEETING SUMMARY

## Herring Committee Meeting (Two Days)

Eastland Park Hotel, Portland ME

September 30/October 1, 2008

The Herring Committee met on September 30 and October 1, 2008 to: continue discussion and development of management alternatives related to catch monitoring for Amendment 4 to the Herring Fishery Management Plan (FMP); review preliminary analyses of river herring bycatch in the Atlantic herring fishery and comparison of portside and observer bycatch information from the herring fishery during 2005-2007; discuss possible options for shoreside monitoring programs; review and discuss additional information related to observer coverage and at-sea monitoring, including industry-funded observer programs, applications for electronic monitoring, observer programs in other regions, and observer cost comparisons; review proposed management measures to address herring bycatch concerns in the Atlantic mackerel fishery; develop Committee recommendations for Council consideration in October regarding the specific management measures to be considered further in Amendment 4; and develop Committee recommendations regarding cooperative research priorities for the 2010 research set-aside (RSA) program.

***Meeting Attendance (both days combined):*** Frank Blount, Chairman; Dana Rice, Rodney Avila, Bob Beal, Mark Gibson, Herring Committee members (Simpson, Berg absent); Mary Beth Tooley and Terry Stockwell, Council members; Dave Ellenton (Herring Advisory Panel Chairman), Peter Moore (Herring AP Vice-Chair), Al West, Peter Baker, Chris Weiner, Jennie Bichrest, Gib Brogan, Herring Advisory Panel Members; Lori Steele, NEFMC staff; Carrie Nordeen, Hannah Goodale, NMFS NERO; Matt Cieri (ME DMR) Jason Stockwell (GMRI), Amy Van Atten and Tyler Staples (NEFSC Sea Sampling), Herring Plan Development Team Members; Roger Fleming (Herring Alliance), Zach Klyver, Lara Slifka, Tom Rudolph, Ashley Zullo, and Tom Dempsey (CCCHFA), Gary Libby, Steve Weiner, Pam Gromen (NCCMC), Sean Mahoney (CLF), Jud Crawford (Pew), Bill McWha, Brad Schondelmeier (MA DMF), Peter Mullen, John Williamson (Ocean Conservancy), Curt Rice, Annie Tsekikis, Jennifer Litteral (Island Institute), and several other interested parties.

**Tuesday, September 30, 2008 (Day 1)**

The meeting began with some general introductions and announcements, a review of the agenda, and a brief review of the timeline for Amendment 4 to the Herring Fishery Management Plan (FMP). The Chairman invited the Council members in the audience (Ms. Tooley and Mr. Stockwell) to sit at the table for the purposes of contributing to the discussion, recognizing that they are not authorized to make motions or vote during the meeting.

***Catch Monitoring – Quota Monitoring and Reporting***

The Herring Committee reviewed the sections of the Amendment 4 Draft Discussion Document pertaining to Quota Monitoring and Reporting (Section 2.2).

- The majority of the preliminary discussion focused on the need to clarify reporting requirements for carriers/dealers in the herring fishery and perhaps develop a new regulatory definition for a carrier/dealer vessel. The Committee generally supported the recommendation to define “herring carrier/dealer” in the regulations and establish two different Letters of Authorization (LOAs) for carriers that only transport herring and those that transport and sell herring. The carrier/dealer LOA would clarify that carrier vessels that transport and sell herring are subject to Federal reporting requirements for dealers.
- Ms. Goodale confirmed that NMFS would provide a list of vessels that receive each of the LOAs for herring along with a cross-check of which LOA vessels already possess dealer permits.
- Mr. Beal asked how bycatch is handled by carrier vessels because the current regulations (p. 13) only authorize the possession of herring and multispecies bycatch. The Herring Committee agreed that the species restrictions for carrier vessels on the LOA should be revisited to be consistent with species allowed for the catcher vessels since the carriers are receiving fish pumped in large volumes directly from the catchers. Ms. Tooley also suggested that the Committee/Council consider modifications to the current regulations to allow herring vessels to possess some incidental catch species like dogfish and whiting in amounts that are consistent with those allowed under the respective FMPs.

The Herring Committee discussed issues associated with reporting through the current Interactive Voice Response (IVR) Program and possible options for improving IVR reporting in Amendment 4 (Section 2.2.3, p. 15). In particular, the importance of negative reporting (calling-in to report no herring caught or no fishing activity) was emphasized. Mr. Stockwell suggested that if alternatives are proposed to require trip-by-trip IVR catch reporting, then measures should be considered to require negative reporting more frequently to improve real-time monitoring of the management area TACs.

**1. MOTION: DANA RICE/RODNEY AVILA**

To develop and consider options that would also require negative IVR Reporting on a trip-by-trip basis

**Additional Discussion on the Motion:** Ms. Steele, Dr. Cieri, and Ms. Goodale provided comments to clarify that this measure would require a call-in on all trips regardless of whether herring was encountered or not. Once a trip has been called-in during a given week, negative

reports would not be required for the remainder of that week if the vessel does not fish but would be required if the vessel fishes and does not encounter herring.

**MOTION #1 CARRIED UNANIMOUSLY.**

- The Committee agreed that the language Option 2, IVR Reporting Deadlines (p. 18) should be clarified to read “within 6 hours of completion of offloading...”
- Ms. Tooley suggested that the Council consider clarifying provisions related to the treatment of haddock bycatch once the catch is sorted for counting towards the Framework 43 catch cap.
- Mr. Stockwell confirmed that ME DMR is developing a list of state-permitted fixed gear and purse seine fishermen for NMFS to include in the IVR reporting program, consistent with the Council’s intent in Amendment 1 and consistent with the ASMFC management measures.
- Ms. Steele asked NMFS for further information regarding the suggestion to require weekly reporting through vessel trip reports (VTRs), versus the current monthly requirements. Ms. Goodale noted that several fisheries may be moving towards a weekly VTR reporting requirement and that if vessels possess multiple permits that require VTR reporting, they would be bound by the most restrictive time requirements (weekly, for example, if some permits were to require weekly reporting and others were to require monthly reporting).

***Transfers At-Sea (Section 2.3 of Amendment 4 Discussion Document)***

The Herring Committee discussed the measures proposed to address the transfer of Atlantic herring at sea, primarily for use as bait in various fisheries. The existing Letters of Authorization (LOAs) issued by NMFS for the Atlantic herring fishery allow an unlimited amount of herring (or the amount allowed by the vessels’ herring permit) to be transferred at-sea (a) from herring catcher vessels to carriers; (b) between federally-permitted herring vessels; and (c) from herring catcher vessels to non-permitted vessels for personal use as bait. Concerns have been expressed by NMFS that many transfers of herring at-sea may not be captured in both of the databases (IVR and dealer) used for in-season monitoring of catch and landings, which can lead to incomplete catch data and inconsistencies between datasets.

- Mr. Rice stated that the high-volume nature of the herring fishery is different from the whiting and other bait fisheries such that there is much less transfer at-sea activity occurring in terms of bait sales directly from herring vessels to lobster vessels. He felt that the amount of herring transferred at sea for bait is not significant relative to the total landings in the fishery. Ms. Tooley added that with increased trip costs, very few, if any vessels are taking the time to stop and sell small amounts of bait to lobster or tuna vessels before returning to the dock to offload their entire catch. The Committee members generally agreed that while reporting loopholes should be addressed in this amendment, efforts should be made to not increase and/or complicate reporting requirements significantly to try to address issues that do not directly affect the ability to monitor the quota and/or accurately estimate catch in the fishery.
- Mr. Blount suggestion that an option to establish a LOA for bait buyers at-sea could be problematic because purchases of bait at sea usually occur when a boat runs out of bait and cannot always be anticipated in advance.

- Ms. Tooley felt that a requirement to submit an IVR or VMS report every time a transfer at-sea occurs would be very difficult and cumbersome, especially for smaller vessels that may transfer a few bushels of bait to several vessels (recreational, tuna, lobster). She suggested that the Committee focus on clarifying the regulatory definition of “transfer at-sea” for the herring fishery and address the activities that involve the most significant amount of fish.
- Mr. Stockwell reminded the Committee that the scale of the herring fishery has changed significantly in recent years and felt that the transfer at-sea issue for bait is relatively minor at this time. He also suggested that many bait sales may be to small vessels (lobster vessels, for example), and that the States could work with ASMFC (through an addendum or similar action) to ensure that transfers at-sea are reported appropriately by state-permitted vessels.

The Herring Committee agreed that the Council should consider addressing the regulatory definition of *transfer at-sea* in Amendment 4, to clarify what activities qualify as a transfer at-sea for the purposes of obtaining appropriate LOAs and reporting requirements. There are a few instances in this fishery where a transfer of fish at-sea may occur, but the fish may not have come aboard the catcher vessel and/or there may not have been any financial transaction involved. For example, when a purse seine vessel captures herring, fills its boat, and allows another herring vessel to pump fish from the purse seine net into its fish hold (so that the catch is not wasted), it is unclear whether this activity would be considered a transfer at-sea and require a LOA. Similarly, the transfer of catch between two pair trawl vessels is common practice, and it should be clarified whether or not this activity is considered a transfer at-sea. The July 29, 2008 Permit Holder Letter issued by NMFS clarifies current provisions, but the Council may want to address this issue further in Amendment 4.

The Committee discussed measures under development to address reporting redundancies and/or streamline reporting requirements (Section 2.4 of the Amendment 4 Draft Discussion Document). Mr. Avila noted that the 72-hour call-in requirement to request an observer prior to making a trip may be problematic; some vessels are calling-in for their next trip before they have even completed the first trip. Ms. Van Atten clarified that the call-ins to the observer program currently can be made on a weekly basis. Ms Goodale reminded the Committee that many of the call-in and notification requirements stemmed from concerns about haddock bycatch and the establishment of the haddock catch cap for the herring fishery in Framework 43 to the Multispecies FMP. She suggested that this amendment provides an opportunity to revisit those requirements to streamline and/or clarify as appropriate.

Mr. McWha expressed opposition to the current power-down provision for vessel monitoring systems (VMS) and felt that VMS on herring vessels should remain on at all times. He also suggested that the Committee investigate the feasibility of using a GPS tracking system similar to UPS. Ms. Van Atten stated that the Observer Program is working with NOAA Fisheries to make VMS data more open and accessible for applications other than enforcement (which requires the data to remain confidential) and hoped that there would be a mechanism in the future to better integrate all of the call-ins and notifications across the fishery.

### ***Herring/Mackerel Interactions***

The Herring Committee reviewed the options developed thus far to address concerns about herring bycatch by mackerel vessels that may not possess a herring limited access permit (Section 4.0 of Amendment 4 Discussion Document).

- Mr. Blount asked whether a weekly possession limit of herring could be considered for mackerel vessels. Ms. Goodale noted that weekly limits are discouraged because they are complicated from an enforcement/administrative perspective; she suggested that the Committee may want to explore VMS requirements for the open access vessels that may receive a higher possession limit for herring under these options.
- Ms. Tooley emphasized the need to avoid creating a directed fishing opportunity and asked whether options had been considered to allow vessels to possess herring in amounts up to a specified percentage of their total catch on board. Ms. Goodale noted that the Coast Guard would not be able to assess a percentage of total catch at-sea for enforcement purposes. Ms. Tooley noted that the Coast Guard will not be able to assess a possession limit at-sea either. She questioned the difference between a possession limit and a percentage catch and also wondered if a TAC set-aside could be considered. Ms. Goodale emphasized the need to specify how a TAC set-aside would be monitored.
- Mr. Blount cautioned the Committee about creating opportunities for directed fishing through the measures under consideration.
- The Committee clarified its intent that (Draft) Alternative 3 is contingent upon adoption of a limited access program for mackerel by the Mid-Atlantic Council; this alternative would ultimately require possession of a limited access permit for the Atlantic mackerel fishery.

### ***Observer/Portside Sampling Bycatch Data - Presentation***

The Committee received a presentation from Dr. Cieri (ME DMR, Herring PDT) entitled *Characterization of Observer and Portside Bycatch Studies for Atlantic Herring & A Preliminary Examination of Overlapping Trips*. The presentation showed preliminary results from a comparison of 18 trips that included a NMFS observer documenting catch at-sea and a ME DMR sampler documenting catch as the vessel offloads to a plant/dealer. Overall, the two programs appear to observe a similar mix of species, but the data require additional analysis. Dr. Cieri suggested that the Herring PDT could investigate the size distribution of the observed catch and compare at-sea and shoreside bycatch ratios. Most importantly, he emphasized the need for additional information and suggested that a research project that compares information collected on a number of trips with both an observer and a portside sampler would be helpful to determine the most effective method for monitoring catch in the fishery.

Dr. Cieri noted that the ME DMR portside sampling program is also responsible for obtaining commercial catch samples for stock assessment purposes and to evaluate the effectiveness of spawning closures (and the appropriate dates to close/open). However, long-term funding for this program is not secure. The project is currently funded through ACCSP and was not awarded herring research set-aside during 2008 or 2009. Ms. Tooley and Mr. Rice emphasized the importance of continued funding for the portside sampling project.

### ***Dockside Monitoring***

The Herring Committee discussed issues related to developing a dockside monitoring program for the Atlantic herring fishery, particularly the questions for consideration posed on p. 7 of the Amendment 4 Draft Discussion Document.

- Mr. Rice expressed strong opposition for any measures that would require herring catch to be weighed and does not support the use of the term “weighmaster.” He noted that the Atlantic herring fishery is a very high-volume fishery and differs greatly from the multispecies or other fisheries in the region. Fish are measured volumetrically; they always have been measured volumetrically, and Mr. Rice supports the continued use of this approach as part of whatever monitoring program is ultimately adopted. Mr. Avila agreed that the term “weighmaster” is a misnomer.
- Ms. Tooley described some of the monitoring activities for high-volume fisheries on the west coast but noted that there are some significant differences between the west coast fisheries and the Atlantic herring fishery. Many vessels on the west coast are larger catcher/processor vessels where the catch is weighed by flow scales as it is sorted and brought directly to the at-sea factory for processing. She acknowledged that the Council could learn from some monitoring/weighing practices on the west coast, but cautioned that the differences between the fisheries may not allow for direct translation from the west coast practices to the Atlantic herring fishery. She did, however, acknowledge the potential to develop a more standardized and clear approach to measuring the catch than currently exists.

The Herring Committee discussed **possible goals/objectives** for a dockside monitoring program for the herring fishery. Some goals that were proposed include (not in any particular order or rank at this time):

- Evaluate the effectiveness of existing management measures in the herring fishery (allowing fishing in groundfish closed areas, spawning restrictions, for example);
- Enhance available bycatch information;
- Collect commercial catch samples that are necessary to monitor the condition of the resource (spawning) and assess the status of the stock (catch-at-age).

During the discussion of goals and objectives for a dockside monitoring program, Herring Committee members began to generally agree that a dockside monitoring program should not focus on estimating total catch or monitoring catch against the TACs, but instead on improving the collection of bycatch information and biological samples necessary for effective management of the resource. Several audience members spoke in opposition to the direction the Committee was heading relative to this issue, indicating that they would prefer that a dockside monitoring program focus on verifying the total amount of catch in the herring fishery for the purposes of monitoring TACs and knowing more precisely what amount of fish (all species) is caught by vessels participating in the fishery.

- Mr. Rice again emphasized the need to eliminate measures from consideration that would require all catch in the fishery to be weighed; he felt that this is not a feasible approach and should not be considered further.
- Ms. Tooley suggested that instead of requiring fish to be weighed, there may be some approaches that could be considered to standardize some of the volumetric measurements

that are currently used in the fishery. She thought that there may be a way to certify or standardize fish totes/baskets and/or trucks and fish holds so that it is more certain how much fish is in the container when it is filled. She suggested that the Committee explore this possibility more and do some outreach to discuss this issue with vessel captains and dealers in some of the more remote areas of the fishery (Island communities, for example).

- Mr. Rudolph from the Cape Cod Commercial Hook Fishermen's Association (CCCHFA) presented a "white paper" on shore-based monitoring for the Atlantic herring fishery, which includes several recommendations to consider when structuring a monitoring program for this fishery. He also agreed with Ms. Tooley that more outreach is needed with the industry and suggested that educating the industry and public about how the catch is currently measured would be a good starting point. Mr. Rudolph noted that the CCCHFA proposal includes a *Catch Monitoring and Control Plan* (CMCP), which could be the appropriate vehicle for each entity to clearly describe its methods for standardizing and documenting catch. A CMCP can be crafted for any entity that requires a protocol that is tailored to their specific operation(s), and different tools can be utilized to measure the catch as long as the tools are standardized and clearly described in the CMCP. Mr. Rudolph urged the Herring Committee not to eliminate a standardization/verification system for landed weights of fish at this time simply because it may be difficult to develop. Mr. Fleming echoed Mr. Rudolph's comments and reminded the Herring Committee that the new ACL/AM requirements in the Magnuson Act may necessitate the establishment of some standardized weighing methods in this fishery.
- Ms. Bichrest urged the Committee to continue to consider approaches to resolve the catch weighing issues in the fishery because many of the affected individuals were not in attendance at this particular meeting. She asked whether a list of federally-permitted herring dealers could be provided and suggested that discussion focus on how the dealers can contribute to the catch monitoring program. She wondered whether dealer trucks/holds could somehow be standardized and tied to a dealer's annual permit renewal for the fishery.
- Mr. Mullen emphasized that with current prices for fuel and other increasing trip expenses, fishermen want to ensure that they are being paid for every pound of fish that they are landing. He suspected that the current reporting of landed weights is likely to be accurate for these reasons. Mr. Ellenton confirmed that the herring captains can estimate quite well how much fish they have on board at any time; he added that when fish are weighed at his processing plant (Cape Seafoods, Gloucester), the outcome is quite often within decimal points of the hail weight initially reported by the captains.
- Mr. Weiner reiterated that his interest in a dockside monitoring program is to implement a system to accurately verify the amount of fish being landed in the fishery and improve the overall credibility of the accounting system.
- Mr. Gibson agreed that the Council needs to develop a system that provides for an unbiased and reasonably precise estimate of how much fish is caught/landed in the fishery. The catch monitoring system should produce a reliable estimate of total catch and allow for appropriate biological sub-sampling to obtain information necessary for stock assessment purposes.
- Mr. Baker suggested that the Herring Committee not get bogged down with details concerning if/how the catch will be weighed, but instead to focus on ways to verify and standardize the measurement of catch. Mr. Rudolph noted that the CCCHFA proposal conveys some of the lessons learned in other fisheries about verifying high volume catches

and explores the expansion of some of these ideas across the entire herring fishery. He suggested that the Committee explore the ideas presented in the CCCHFA White Paper in greater detail.

- Mr. McWha mentioned that Onset Computers (Cape Cod, Massachusetts) produces real-time data sensors that can measure the height of fish in a hold and send information through VMS regarding the amount of fish that a boat may have at any given time. He urged the Committee to explore existing technologies to improve the measurement of catch in the herring fishery and stated that he would be willing to provide additional information to the Committee/Council regarding this issue.
- Ms. Tooley noted some of the potential difficulties associated with trying to standardize and verify catch in some of the more remote areas of the herring fishery, particularly on Island communities like Vinalhaven.
- Mr. Ellenton emphasized the need to consider requirements for measuring catch across a wide range of vessels in the fishery and highlighted recently-increasing landings of herring from bottom trawl vessels in Area 2.
- Ms. Goodale stated that as much as NMFS is interested in improving monitoring of catch across the fishery, the resources are not available at this time to implement more monitoring programs, so thought must be given to sources of funding and additional resources to support the measures/programs that the Council may develop in this amendment.
- Ms. Bichrest urged the Herring Committee to think more broadly than just herring fishing vessels when thinking about funding for catch monitoring programs. She felt that the “industry” should be considered in terms of all end users of the product, including dealers and lobster fishermen. Ms. Bichrest suggested that if full retention is going to be considered for the herring fishery, that it be considered for all fisheries. She also reminded the Committee of the importance of factoring the fixed gear fishery for herring into any dockside monitoring program.

### ***Opportunity for Public Comment***

Mr. Ellenton presented a letter to the Herring Committee signed by several vessel owners who support the continued development of Limited Access Privilege Programs in Amendment 4. He requested that the letter be submitted to the Council for consideration at the October Council Meeting.

**Day 1 of the Herring Committee meeting adjourned at approximately 5:45 p.m..**



**Wednesday, October 1, 2008 (Day 2)**

***Presentation – Estimating River Herring Bycatch in the Directed Herring Fishery***

The Committee received a presentation from Dr. Cieri summarizing a recent report prepared for the ASMFC river herring stock assessment regarding the bycatch of river herring (blueback herring, alewife) in the Atlantic herring fishery (*see attached presentation slides*). Dr. Cieri summarized the findings of the analysis of observer data and highlighted the variability associated with the data and the bycatch estimates. He noted that the report was prepared for the ASMFC Technical Committee as part of an ongoing river herring stock assessment, and it remains unclear at this time how the information will be used by ASMFC in the stock assessment or otherwise.

- Several audience members commented about the variability associated with the bycatch estimates and noted that the analysis' applications for management are unclear.
- Mr. Crawford (Pew) asked several questions regarding the statistical approach to the analysis and possible ways to deal with inadequate sampling. He also emphasized the need to consider this information in the context of the river herring stock because some runs of river herring are small and could be eliminated by one significant bycatch event. He asked a question clarifying the treatment of observer records where bags are partially or fully dumped, and Ms. Van Atten confirmed that in these cases, the composition of the dumped catch is not known by the observer. Mr. Baker and Mr. McWha asked related follow-up questions. Mr. Libby expressed concern about bags that are dumped at sea.
- Mr. Rudolph asked about whether the data had been sorted for directed mackerel trips versus directed herring trips; Dr. Cieri clarified that the analysis he presented includes all trips where 2,000 pounds or more of herring was recorded as "kept," so some trips that may have been targeting mackerel are likely included in the data.
- Dr. Cieri noted that while his analysis focuses primarily on the herring fishery and trips landing more than 2,000 pounds of Atlantic herring, the next step for the purposes of the ASMFC stock assessment would be to examine other small mesh fishing trips and investigate the bycatch of river herring in other fisheries.

Mr. Gibson expressed concern about the results of the analysis and emphasized the importance of investigating river herring bycatch in all fisheries. He noted that some of the clusters of observed bycatch are in the right place at the right time to be consistent with river herring migration patterns. He also highlighted the importance of the data from the first quarter of the year in the southern New England and Mid-Atlantic region and felt that fishery interactions with river herring during this time period should be addressed to the extent possible. He expressed significant concern about the declining status of the river herring resource and felt that some management action should be taken to try to protect the important runs in the southern area. While the data are limited, he noted that clearly mortality is occurring and suggested that something should be considered to prevent further declines. He did express some caution about moving forward with management measures based on limited and highly variable information but felt that the issue should be explored further by the ASMFC as well as the two Councils involved in managing the fisheries that overlap with the river herring resource. Mr. Stockwell

agreed that collaboration between the ASMFC and the two Councils is critical in order to develop effective long-term management measures to protect the resource.

**2. MOTION: MARK GIBSON/RODNEY AVILA**

That the Council request that the Herring PDT craft alternatives for time/area closures to protect the SNE/MA runs of river herring (including Cape Cod area)

**Additional Discussion on the Motion:**

- Mr. Blount suggested that there may be a way to coordinate management measures between the ASMFC, New England Council, and Mid-Atlantic Council through some form of an omnibus amendment or management action.
- Ms. Gromen and Ms. Slifka expressed support for the motion as well as increasing coordination between the management groups regarding this issue.
- Mr. Moore stated that the vessels he represents (NORPEL, APA) have been working under a voluntary agreement to stay out of Long Island, Block Island, and the Vineyard areas over the last two years, to minimize interactions with river herring. He also expressed concern that the herring fishery is being “singled out” regarding this issue and suggested that a more comprehensive investigation of river herring bycatch across all fisheries be conducted to see where the most significant problems exist. He felt that it may not be effective to only address one part of the problem and suggested that the ASMFC process may be able to take a more comprehensive approach.
- Ms. Tooley suggested that the Council consider engaging in more dialogue with the herring vessel captains through some outreach or perhaps a workshop/seminar to have more discussion and collect more information regarding this issue.
- Ms. Van Atten suggested that the Herring PDT could explore the existing observer data in more detail to look more closely at interactions by gear type/area/quarter; the PDT can also investigate whether any additional information exists regarding the contents of bags at sea that are partially or fully dumped.

**MOTION #2 CARRIED UNANIMOUSLY.**

**3. MOTION: DANA RICE/RODNEY AVILA**

That the Council collaborate as much as possible with ASMFC and the MA Council regarding the management of the river herring resource

**Additional Discussion on the Motion:** Mr. Beal stated that the ASMFC is currently in the process of developing a comprehensive assessment for the river herring resource and will investigate sources of mortality from all fisheries. ASMFC is currently in the midst of a public comment period regarding this issue, which extends until January 1, 2009. At that point, the Commission will determine if it will move forward with any specific management actions, but nothing has been decided at this time. ASMFC will also discuss this issue at the upcoming annual meeting.

**MOTION #3 CARRIED UNANIMOUSLY.**

***Research Priorities for the 2010 Research Set-Asides***

Ms. Steele reviewed the research priorities for the 2008 and 2009 TAC set-asides and suggested that the Committee recommend the same priorities for the 2010 set-asides since still represent some of the most important research issues for the herring fishery and remain appropriate for priorities for cooperative research.

The TRAC stock assessment for Atlantic herring, scheduled for December 2009, should yield an updated list of data and research needs that can then form the basis of the priorities for cooperative research and RSAs during the 2011-2013 fishing years. At that time, the Committee and Council should conduct a more comprehensive review of the RSA process to date.

**4. MOTION: RODNEY AVILA/DANA RICE**

To recommend that the research priorities for the 2008/2009 fishing year be carried over for the 2010 research set-asides

**Additional Discussion on the Motion:** Mr. Rudolph asked if the timing would allow for the proposals that are awarded RSA to be incorporated into the Environmental Assessment (EA) for the specifications package; Ms. Nordeen confirmed that is the intent. He emphasized the importance of priorities #2 and 3 (investigate bycatch/discards in the directed herring fishery and continue commercial catch sampling program and portside bycatch survey). Mr. Moore highlighted #6 (develop tagging and morphometric studies to explore uncertainties in stock structure, stock mixing rates, and the impacts of harvest mortality on different components of the stock) and reminded the Committee that more information is needed to better assess the condition of the resource.

**MOTION #4 CARRIED UNANIMOUSLY.**

Currently, there is un-allocated set-aside remaining in Areas 2 and 3 for both the 2008/2009 fishing years (3%). Ms. Nordeen (NMFS) explained to the Committee that when research set-aside funds are not allocated, the Amendment 1 regulations allow NMFS, with a recommendation from the Council, to (1) release the un-allocated set-aside back to the management area TACs for the fishery; or (2) issue another request for research proposals. She stated that re-advertising for proposals will be problematic given the timing; there would not be any opportunity for projects to be awarded during 2008, and funds would likely only be available during the later part of the 2009 fishing year. Ms. Steele noted that there is no incentive to use the research set-asides in Areas 2/3 because the TACs are not fully utilized in those areas.

**5. MOTION: RODNEY AVILA/DANA RICE**

To request that NMFS release the unused RSA for Areas 2/3 back into the fishery for 2008 and 2009

**Additional Discussion on the Motion:** None.

**MOTION #5 CARRIED UNANIMOUSLY.**

***Opportunity for Public Comment***

Mr. McWha indicated that he would be submitting written comments for the Council meeting.

### *At-Sea Monitoring*

The Herring Committee received a presentation from Amy Van Atten of the NEFSC Sea Sampling Branch regarding Observer Program Topics (see attached presentation slides). The presentation focused on: the National Observer Program (NOP); results from reviews of the current observer program; cost descriptions for the observer program (what is included in the cost per sea day); industry-funded observer programs (pros and cons); electronic monitoring (EM); and an upcoming International Fisheries Observing and Monitoring Conference (Portland ME, July 2009). Following the presentation, several Committee and audience members asked follow-up questions and provided comments regarding the presentation and possible approaches to addressing at-sea monitoring for the herring fishery in Amendment 4.

- Mr. Rudolph provided some summary information about “scientific data collectors” that were contracted by the CCCHFA to collect information that ultimately led to the creation of the first groundfish Special Access Programs (SAPs). The CCCHFA worked with independent contractors approved by NMFS to collect data for this special project, and the cost was approximately \$300-400 per day. Ms. Van Atten noted that these data are different than existing NEFSC Sea Sampling (Observer) data.
- Ms. Tooley asked about costs associated with observer days in the Northeast Region compared to other regions and noted that other regions appear to be much better-funded for observer coverage. Ms. Van Atten indicated that the NOP is preparing a report that will explore this issue in detail, the draft of which should be available in the near future.
- Mr. Baker expressed discouragement about the possibility of developing an effective industry-funded observer program at this time after listening to the presentation and gaining a better understanding of the challenges and difficulties associated with doing so. He stated that he is less discouraged about electronic monitoring and expressed hope that applications for EM in the fishery be investigated further. Mr. Baker noted that EM could be an effective tool to help enforce a “maximized retention” strategy to ensure that bags are not dumped at sea.

Ms. Steele reviewed a preliminary analysis of observer coverage levels provided by the Herring PDT on p. 27 of the Amendment 4 Draft Discussion Document (Section 2.5, ***Observer Coverage– Goals/Objectives? How Much Coverage?***). She emphasized that one of the most important elements of an at-sea monitoring program, and one of the initial decisions that must be made by the Committee and Council in order to develop an appropriate sampling design, concerns the **goals and objectives** of the program – specifically:

- What are the observers going to measure? (catch/bycatch, species, gear types, etc.)
- What are the priorities?
- Should observer data be used to estimate bycatch of species x across the entire fishery or gear type? If so, what is the level of precision that should be achieved by using observer data to estimate bycatch?

A statistical approach to determining the appropriate level of observer coverage in a fishery would to (1) set a goal (usually based on precision and expressed as a *coefficient of variation*, CV) and then (2) use existing information to determine the level of coverage needed to achieve the goal. A CV is a normalized measure of dispersion of a probability distribution. The CV is

generally defined as the ratio of the standard deviation to the mean. To begin to explore this issue relative to catch monitoring in Amendment 4, the Herring PDT has provided a sample approach to determining levels of observer coverage necessary to meet a specific goal.

Ms. Steele emphasized that the tradeoffs associated with increasing precision to meet a specified goal are very important to understand when developing an observer program. Ultimately, a statistically-sound program should be developed based on both the top priorities for coverage and the resources that will be available to support it. She suggested that the Herring PDT can move forward and develop a statistically-sound sampling design once the Committee/Council identify specific goals, objectives, and/or priorities for the observer program. She asked the Herring Committee for additional guidance on this issue.

The Committee began to try to identify sampling priorities (by species) for an observer program designed specifically for the herring fishery. Mr. Gibson suggested a tiered approach – for example, the species for which catch information is most important could be identified as “tier 1” with a goal of a 20% CV; “tier 2” species would be important but not critical and could have a goal of a 30% CV; etc. Once the priorities are set, the PDT could design a program, and the Committee could begin to address the tradeoffs that may be required to achieve the catch estimates that are desired for all of the species. As a possible starting point for discussion of tiers and/or ranks, Dr. Cieri presented the list of species sampled through the observer program and the portside bycatch sampling project from the prior day’s presentation. It became clear that ranking species by order of importance for sampling would be very challenging, as one individual’s most important species may not be the same as another individual’s. Several Committee and audience members suggested that one approach may be to prioritize species that are overfished and/or subject to overfishing.

- Ms. Steele reminded the Herring Committee to also think broadly about the need to accurately document catch of all species in the fishery and how at-sea sampling could best fit into a program designed to achieve that larger objective.
- Mr. Crawford expressed concern about using the current observer/portside project species rankings to identify priorities for future coverage because it may result in a coarse-scale sampling approach that focuses only on the species that have been observed in the past and does not adequately account for species’ relative abundance or stock status.
- Dr. Cieri suggested that the Herring PDT can explore the size distribution of some of the bycatch species as well as look at just trips with more significant amounts of herring catch (versus 2,000 pounds or more).
- Mr. Rudolph suggested that the goal of the monitoring program should be to obtain accurate information about all catch in the Atlantic herring fishery, not just priority species. He also reminded the Committee that one of the most important species to consider when designing an observer program may be Atlantic herring. Ms. Steele agreed that the sampling program should also focus on obtaining better information about Atlantic herring catch, including bycatch.

The Herring Committee wrestled with the issue of identifying goals and objectives for an observer/at-sea program and the difficulties associated with designing the best approach for monitoring the fishery. It was generally agreed that the overall objective of the monitoring program should be to accurately determine catch of all species in the herring fishery, but it is unclear what level of precision would be necessary for each species and/or what level of coverage would be required. It is also very unclear how any coverage above and beyond current levels (which is acknowledged to be insufficient for the purposes of accurately estimating all catch in the fishery) will be funded. Mr. Baker stated that it is more likely that his organization and others that are focused on this issue can lobby for additional funding if the Council first designs a monitoring program that will require the additional funds. He also said that the Herring Alliance and other organizations are prepared to submit proposals for monitoring programs for this fishery and encouraged the Committee to consider how/when to entertain such proposals during the development of Amendment 4.

**6. MOTION: DANA RICE/NO SECOND**

Request the Herring PDT to develop a sampling design to achieve a 20% CV for estimating bycatch in the herring fishery, along with recommendations for how to combine observer coverage with portside sampling and electronic monitoring.

**Additional Discussion on the Motion:**

**MOTION #6 FAILED FOR LACK OF A SECOND.**

Mr. Gibson stated that he could not second/support the motion presented above because he felt that achieving a 20% CV for estimating catch of all species in this fishery is just not possible at this time, given the current situation with funding and available resources. He suggested that the Council be re-engaged in this discussion in order to provide more guidance to the Herring Committee regarding the goals and objectives of a monitoring program for the herring fishery. He urged the Committee to report back to the Council and seek additional guidance regarding realistic goals for a monitoring program. He stated that if it is the Council's intent to estimate all catch of all species in the herring fishery with a certain degree of precision, then the Council needs to be re-engaged in the discussion to make some realistic decisions about the sampling design and possible priorities. **The Herring Committee agreed to seek additional guidance from the Council regarding this issue.**

- Mr. Crawford suggested that the Council may want to consult with its Scientific and Statistical Committee (SSC) regarding this issue.
- Mr. Fleming suggested that the Council may want to consult with NOAA General Counsel regarding this issue because the action taken in this amendment also must comply with new requirements related to the establishment of Annual Catch Limits (ACLs) and Accountability Measures (AMs).
- Ms. Van Atten asked whether the intent of the discussion was to focus on the details associated with the current observer program (protocols and collection of information) or the need for additional coverage. The Committee members generally agreed that the focus is on obtaining additional coverage and securing the resources necessary to improve long-term sampling across the fishery.

The Herring Committee also discussed the bulleted list of *Possible Measures to Consider* regarding at-sea monitoring on p. 30 of the Amendment 4 Draft Discussion Document. Committee members generally supported the continued discussion/development of those measures as possible options for the amendment to improve current sampling protocols and the enforcement of provisions related to vessels carrying observers on board.

- Mr. Rudolph emphasized the importance of considering some of the measures listed on p. 30 and the need to implement regulations to support the observer sampling protocol and obtain better information about partially or fully-dumped bags.
- Ms. Tooley felt that many of the issues addressed in the list on p. 30 could be published through guidelines for vessel owners/operators instead of implementing specific regulations. She suggested that more outreach with the industry could improve compliance with current provisions and help enforce current sampling protocols.
- Mr. Avila agreed with Ms. Tooley and highlighted the need for more outreach to the industry. He also expressed concern about considering options for full retention of catch in this fishery.
- Mr. Rudolph observed that the Committee seems to continue to try to back away from measures that would require high sampling rates in the fishery and suggested that the high sampling rates may be inevitable due to bycatch concerns, ACL/AM requirements, and other issues. He urged the Committee to move forward with developing a sampling design to accurately monitor all catch in the fishery and stated that failing to design measures to achieve the information goals, simply because the design may indicate that a very high level of coverage is necessary, is doing a disservice to the amendment and to the stakeholders who have been asking the Council to address this issue for some time now.

**After lengthy discussion, the Herring Committee agreed to seek additional guidance from the Council regarding the specific goals and objectives of a monitoring program, and in particular, the goals/priorities for designing an at-sea catch monitoring program.**

**7. MOTION: DANA RICE/RODNEY AVILA**

To approve the Amendment 4 Draft Discussion Document, as modified by the Committee 9/30 and 10/1, for further development into management alternatives for inclusion in the Draft EIS.

**Additional Discussion on the Motion:** It was recognized by everyone that the Amendment 4 Draft Discussion Document is a “living” document, a work in progress that will continue to be updated and revised and will ultimately form the basis of the management alternatives that the Council approves for the Draft EIS sometime during 2009.

**MOTION #7 CARRIED UNANIMOUSLY.**

The Herring Committee meeting adjourned at approximately 5:00 p.m. on October 1, 2008.





# *Estimates of River Herring Bycatch in the Directed Atlantic Herring Fishery*

Matthew Cieri

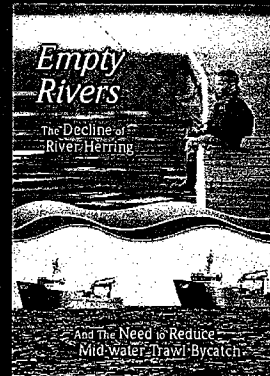
Maine Department of Marine Resources

Gary Nelson and Michael Armstrong

Massachusetts Division of Marine Fisheries

## Introduction

- ▣ Recent concern about bycatch of River Herring in the directed Atlantic Herring fishery
- ▣ ASMFC management action to reduce mortality
- ▣ Tools
  - ▣ Observers: NMFS
  - ▣ Portside Project :ACCSP & DMR



## Overview: Observer Project

- ▣ At sea observers looking for bycatch and marine mammal interaction
- ▣ No real effort expended for Atlantic Herring until 2004
- ▣ Expanded in 2004 due to management questions and haddock bycatch issues
- ▣ Has since declined due to a lack of funding
- ▣ Challenges of high volume fishery

## Overview: Portside Sampling Project

- ▣ Started in 2001 as commercial catch sampling of herring
- ▣ Expanded in 2002 to include mackerel
- ▣ Continued to include other sampling
- ▣ Expanded in 2004 to include pilot portside bycatch survey
- ▣ Funded largely by ACCSP

### Methods: Observer

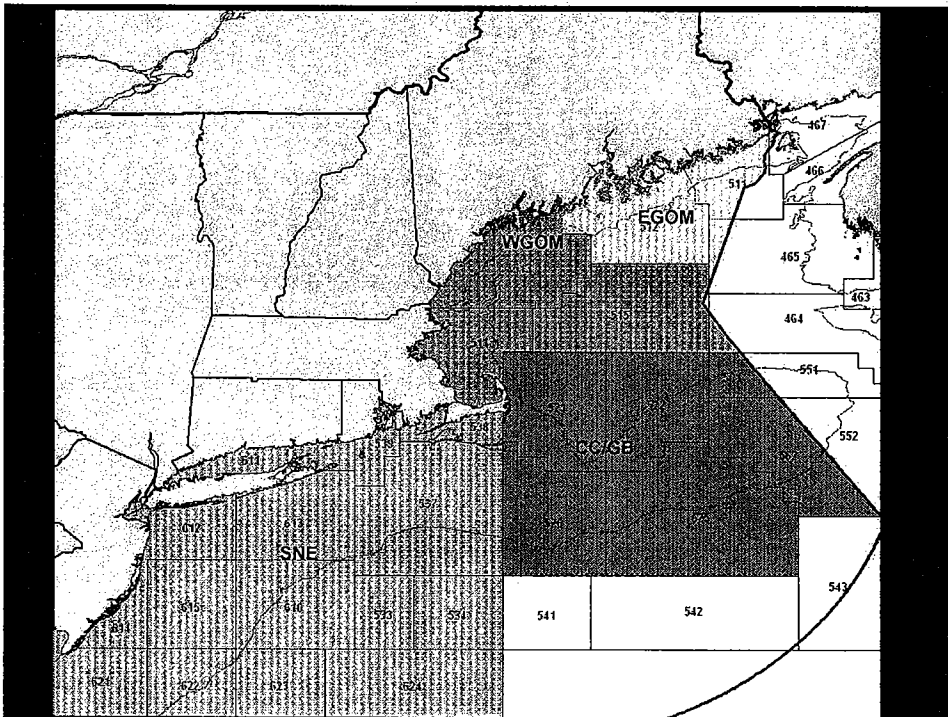
- ▣ Targeted herring trips (by gear type)
- ▣ Range: Maine to NC through out the year
  - ▣ No Purse Seine trips in 2006
- ▣ Sampler present at pumping from cod end to hold
- ▣ Documents bycatch
  - ▣ Sub sampling the pumping process into the hold
  - ▣ Hand select larger species
- ▣ Weigh, measure, and takes biological samples by species
- ▣ Data centralized in a database

### Methods: Portside

- ▣ Targeted herring trips (by gear type)
- ▣ Range: Maine to NJ through out the year
- ▣ Sampler present at off-loading to a process facility
- ▣ Documents all bycatch by “lots”
  - ▣ Lots are from one trip
  - ▣ Which may or may not be total catch for a trip
- ▣ Weigh, measure, and takes biological samples by species
- ▣ Record “Lot” weight, Stat area fished, gear type, and month

## Methods: Analysis

- ▣ Defined targeted Atlantic Herring trips
  - ▣ Landed more the 2,000 lbs
- ▣ Combined Observer and Portside data
  - ▣ 18 trips with both Observer and Portside
  - ▣ Paired Wilcox signed rank suggests no difference
  - ▣ Low samples sizes means power to detect low
- ▣ Stratified by
  - ▣ Year
  - ▣ Area (EGOM, WGOM, GB/Cape, and SNE)
  - ▣ Gear (Single and Pair MWT, Purse Seine)
  - ▣ Quarter
- ▣ Used ratio estimation:
  - ▣ Pounds of River herring to Atlantic Herring
- ▣ Propagated the error of those simple ratios



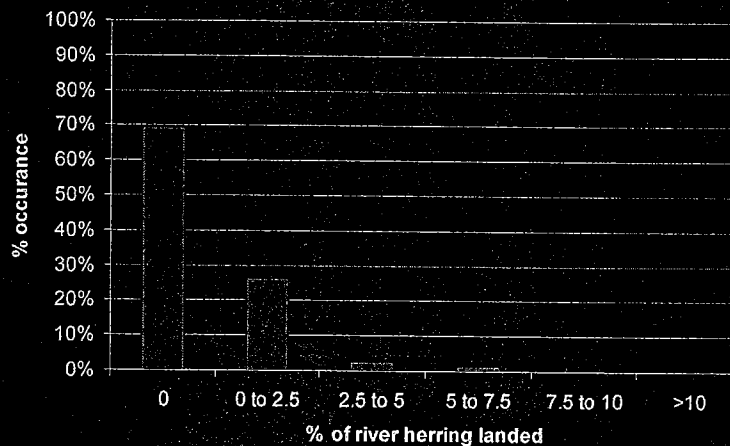
## Percentage and Proportion Coverage

Year	Area	EGOM	EGOM	EGOM	EGOM	GB	GB	GB	GB	SNE	SNE	SNE	SNE	WGOM	WGOM	WGOM	WGOM	Strata	Yearly
Quarter	Bottom	Seine	Pair	Single	Bottom	Seine	Pair	Single	Bottom	Seine	Pair	Single	Bottom	Seine	Pair	Single	Average	Average	
2005	1	0.00							0.00	0.00	0.00	0.23	0.13					0.19	0.26
2005	2	0.00	0.10	0.00					0.00	0.00	0.00	0.20	0.33				0.13	0.28	0.21
2005	3	0.00	0.15	0.22	0.09				0.39	0.28				0.08	0.53	0.27	0.13	0.25	0.25
2005	4	0.00	0.24	0.00	0.00	0.00			0.72	0.36	0.00	1.59	0.75	0.14	0.47	0.57	0.20	0.33	0.33
2006	1	0.00									0.08	0.24	0.25					0.19	0.14
2006	2	0.00	1.00	0.22	0.00		0.00	0.14	0.33	0.00	0.44	0.00		0.04	0.05	0.19		0.10	0.10
2006	3	0.00	0.08	0.13	0.00			0.21	0.00	0.00	0.00	0.00		0.00	0.11	0.14	0.22	0.12	0.12
2006	4	0.00	0.44			0.20		0.15	0.27	0.00	0.43	0.50		0.23	0.10	0.35		0.20	0.20
2007	1	0.00		0.00				0.21	0.25	0.04	0.11	0.07			0.17	0.00		0.08	0.08
2007	2	0.00	0.14					0.11	0.17	0.00	0.10	0.18			0.00	0.08	0.19	0.11	0.11
2007	3	0.00	0.13	0.00	0.00	0.00								0.00	0.08			0.07	0.07
2007	4	0.00	0.06	0.10	0.00	0.00		0.11	0.30	0.05	0.13				0.00	0.00	0.00	0.10	0.10
grand mean																		0.16	

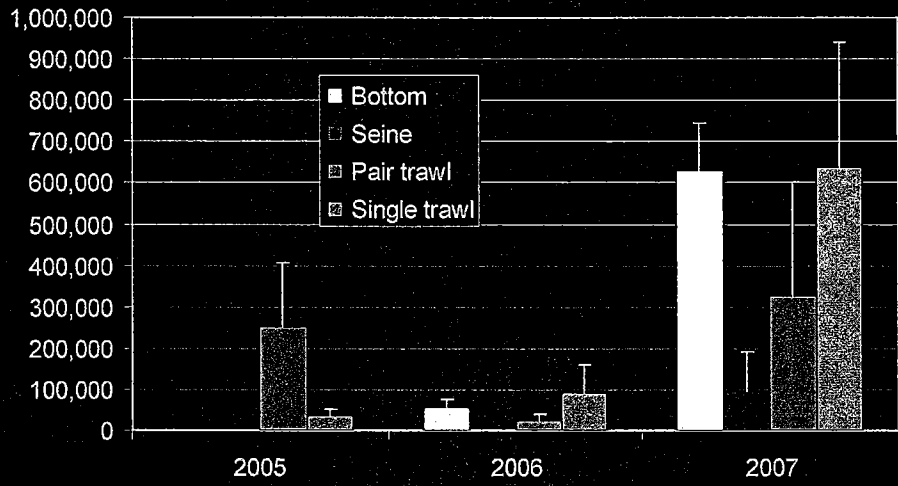
Note: Some of the strata that have good coverage have few directed trips

Year	Number of trips observed	Percent coverage	Discards (lbs)	CV
2005	267	26	285,833	61.4
2006	145	14	171,973	59.0
2007	90	8	1,686,617	46.8
average	167	16	714,808	55.8

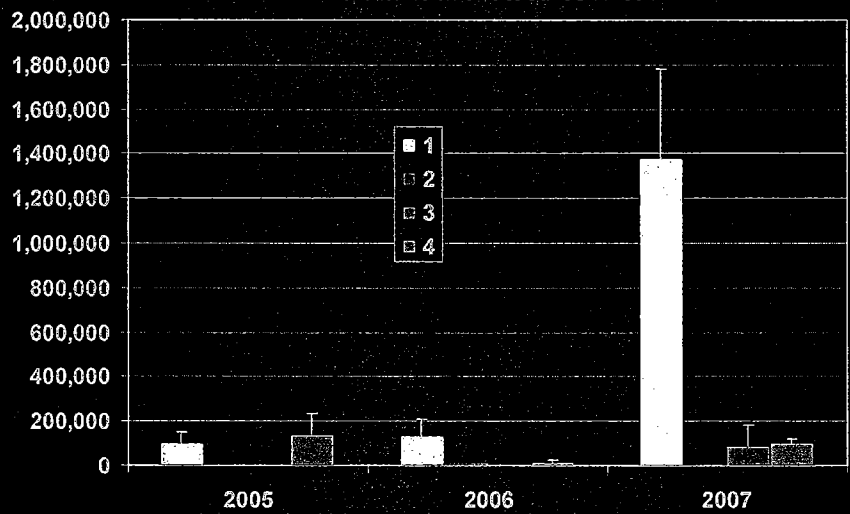
Percent occurrence of trips categorized by the amount of river herring bycatch expressed as a percentage of Atlantic herring landings



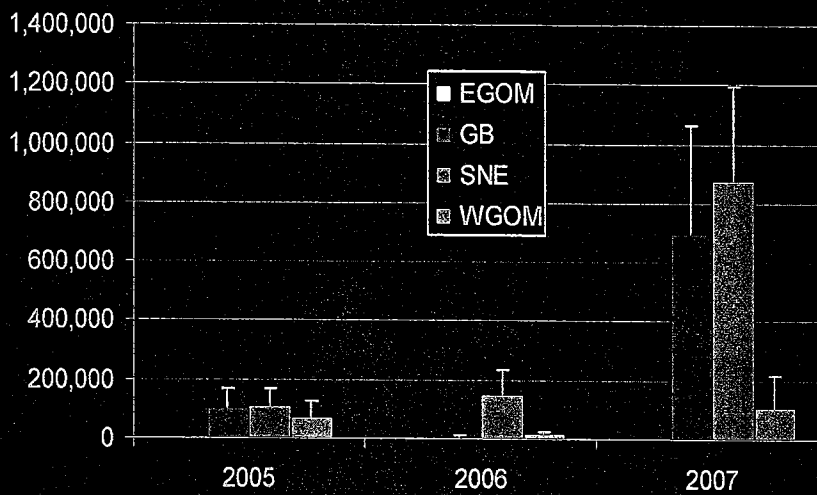
Estimated river herring bycatch by gear type :  
errors are standard error of mean



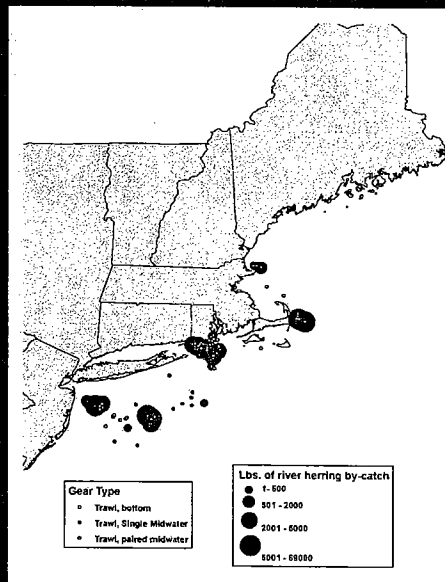
Estimated river herring bycatch by quarter :  
errors are standard error of mean



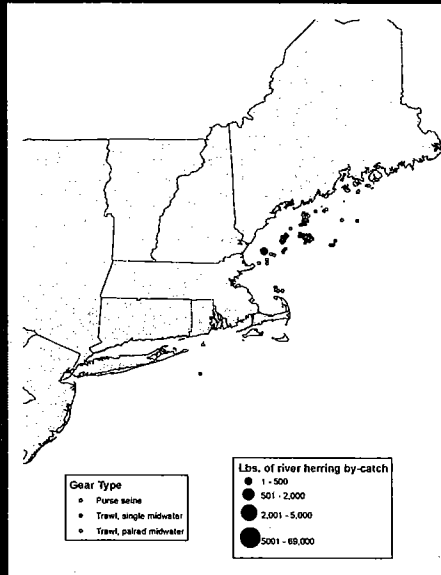
Estimated river herring bycatch by area :  
errors are standard error of mean



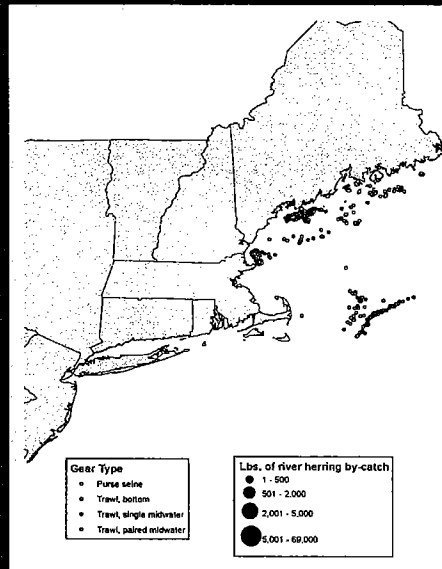
River herring bycatch by gear type 2005-2007 in  
Quarter 1 (Jan-Mar). From observer data only.



River herring bycatch by gear type 2005-2007 in in Quarter 2 (Apr-Jun). From observer data only.

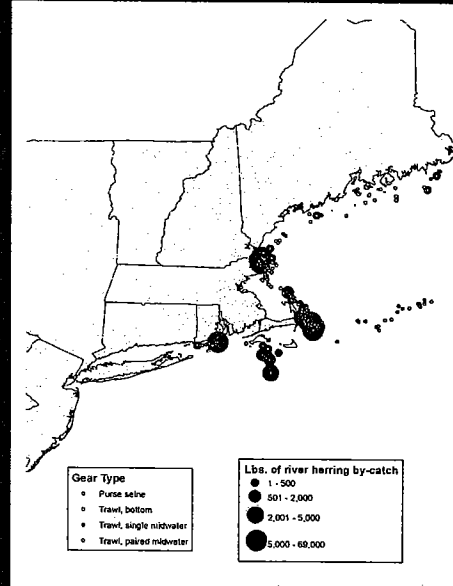


River herring bycatch by gear type 2005-2007 in Quarter 3 (Jul - Sep). From observer data only.





River herring bycatch by gear type 2005-2007 in Quarter 4 (Oct - Dec). From observer data only.



## Conclusion

- ❑ Bycatch is low by weight but maybe important
  - ❑ 0.01% - 2.0% by weight of herring landed
  - ❑ Some much higher and many “zeros”
  - ❑ But nearly equal to the commercial river herring landings coast-wide
- ❑ Estimates are highly variable : 70,434 - 2,476,694 lbs
  - ❑ Based on gear, area fished, and quarter
  - ❑ CV's approaching 100+ by strata
  - ❑ Variability among years disconcerting
- ❑ Coverage is limited: but not as bad as 1<sup>st</sup> thought
  - ❑ Particularly lacking in certain areas, times, & gears
- ❑ Much of the discards occurs in quarters 1 & 4 and around the Cape and in SNE

## Things to Consider

- ▣ Variability is quite high and underestimated
  - ▣ The variability **is** higher than shown given the error distribution
- ▣ Estimates among years difficult to deal with
  - ▣ And should only be used in a “gross” sense
- ▣ 70% of trips had no encounters of river herring
  - ▣ 25% had a small amount relative to total landings
  - ▣ Makes the need for adequate coverage more acute
- ▣ Times and Areas of interactions consistent
  - ▣ Suggest that other small mesh gear may have interactions

## Funding a Priority for Portside

- ▣ Currently this project
  - ▣ Employs one person
  - ▣ Total cost about **\$110,000** per year
- ▣ This get us approximately
  - ▣ 200 commercial herring samples (CAA & Spawning)
  - ▣ 100 bycatch surveys (~6-9% of the fishery)
  - ▣ 20 mackerel samples
  - ▣ 4 Menhaden samples
  - ▣ Biological samples for river herring and others
- ▣ **However this project is likely to end next year without funding**

Herring Committee Meeting  
Portland, Maine  
September 30 – October 1, 2008

Observer Program Topics

Amy S. Van Atten  
Acting Branch Chief, Fisheries Sampling Branch  
Operations Coordinator, Northeast Fisheries Observer Program  
Liaison, Industry Funded Scallop Program  
Outreach Coordinator

National Marine Fisheries Service, Northeast Fisheries Science Center

Presentation Topics

- National Observer Program
- Observer Program Reviews
- Cost Descriptions
- Industry Funded Observer Programs
- Electronic Monitoring
- Observer Conference
- Final Points for Consideration

## Presentation Topics

- **National Observer Program**
- Observer Program Reviews
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## The National Observer Program

- **Mission**
  - To provide a formalized mechanism for NOAA Fisheries to address observer issues of national importance and to develop policies and procedures to ensure that NOAA Fisheries observers and observer programs are fully supported. The policies must reflect the diverse needs of regional observer programs while enhancing data quality and achieving consistency in key areas of national importance.

## Responsibilities of Observer Programs

- National Observer Program (NOP):
  - Coordinate the National Observer Program Advisory Team
  - Communicate and advocate the mission of the NOP and each regional observer program
  - Develop and support national standards and policies to create high quality, cost effective, efficient, and productive observer programs
  - Characterize and qualify the activities and resources of NOAA Fisheries observer programs and advocate for full support
- Regional Observer Programs:
  - Secure funding sources
  - Develop contracts or legal infra-structure
  - Sampling protocols
  - Coverage levels
  - Safety training
  - Observer training and refreshers
  - Observer deployment
  - Observer debriefing
  - Data management and data quality
  - Data requests and analysis
  - Program development
  - Outreach and education

## NMFS Observer Programs

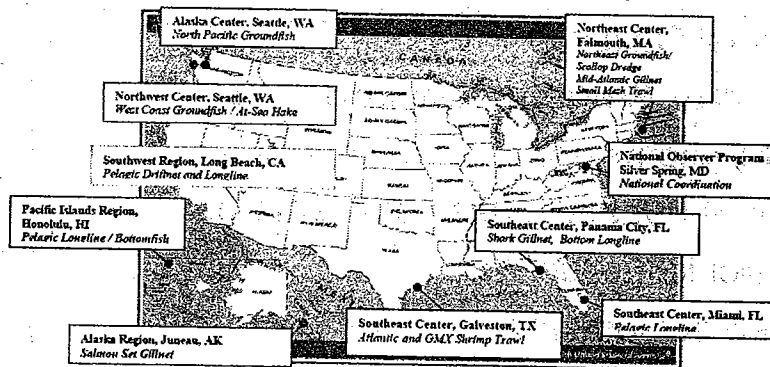
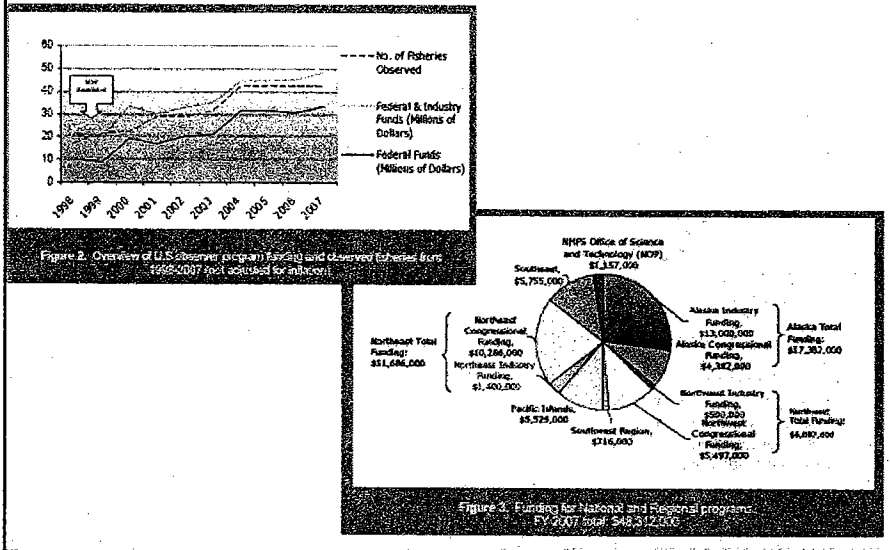


Figure 1. Map of U.S. commercial fishery observer program offices located at NMFS Regional Offices ("Region") and Science Centers ("Center").

# NOP Summaries



## Presentation Topics

- National Observer Program
- **Observer Program Reviews**
- Cost Descriptions
- Industry Funded Observer Programs
- Electronic Monitoring
- Observer Conference
- Final Points for Consideration

## Observer Program Reviews

- Government Accountability Office, (ongoing)
- Office of Inspector General, NMFS Observer Programs Should Improve Data Quality, Performance Monitoring, and Outreach Efforts. Final Audit Report No. IPE-15721. 72 p., 2004
- Management Control Review of NMFS Observer Programs/Service Delivery Models, 520 p., 2000
- MRAG Americas; Independent Review of the North Pacific Groundfish Observer Program, 134 p., 2000
- Association of Professional Observers
- National Observer Program

## Office of the Inspector Review

- Department of Commerce Office of the Inspector General's (OIG), Office of Inspections and Program Evaluations
  - Reviewed seven regional National Marine Fisheries Service (NMFS) observer programs
    - whether they are meeting data collection needs
    - how NMFS ensures that observer data is of high quality
    - how well the program's missions and objectives are communicated
  - Ten recommendations

## OIG Recommendations

1. Vessel Selection Biases
  - Report on the National Observer Program Vessel Selection Bias Workshop; Woods Hole, May 17-19, 2006; Jon H. Vølstad (Columbia, MD) and Michael Fogarty (Woods Hole, MA); 532 pages
2. Recruitment and Retention
  - NMFS has implemented national minimum eligibility standards for observers, which ensures consistency in regional recruitment techniques
3. Performance Monitoring
  - Ensure that observer program managers are held accountable for performance related to both national and specific regional program priorities

## OIG Recommendations

- Milestones:
  - Coordination and support for national policy development
  - Coordination of development and publication of a national bycatch report
  - Compilation of information for annual activities reports, including monitoring of target coverage levels
  - Coordination of regional priority setting
  - Coordination of allocation and distribution of national competitive funds
  - Coordination of safety training
  - Coordination of national safety standards and guidelines
  - Coordination of advanced technologies (electronic monitoring) and other alternative data collection methods
  - Participation in regional contract reviews, when requested
  - Data collection, data quality, data storage, data processing
    - maintain the statistical integrity of the sampling program, as well as efficient management of the data



## OIG Recommendations

### 4. Performance Work Statement

- "The Assistant Administrator for Fisheries should develop model performance work statements for observer service provider contracts."
- A standard RFP template was developed and approved by the OIG.
- A workshop was held March 7-8, 2006 to review the RFP template with regional observer program managers and contract specialists and develop consensus on use of this template for all future observer contracts.
- Template includes a standard list of performance measures to be used in all observer contracts, as well as a list of deliverables to be provided under the contract. The measures focus on several key areas, including:
  - Hiring and retention of qualified observers;
  - Observer training and debriefing;
  - Data management and data quality;
  - Timeliness and quality of deliverables;
  - Attainment of target observer coverage levels; and
  - Participation in outreach activities.

## OIG Recommendations

### 5. Training for Contracting Officers

### 6/7. Outreach Strategy/Outreach Activities

### 8. Resource Neutral Incentives

- Fostering Industry Cooperation with Fishery Observer Programs
- Mitigating the animosity fishermen harbor towards observer programs, one based on economic incentives, the other based on education and outreach
- Revenue-increasing incentives, cost-reducing incentives, and cost-sharing incentives (i.e., spreading costs from an observed vessel to a broader, fleet-wide basis)

### 9. NPGOP Services Model

### 10. NPGOP Certification

## Presentation Topics

- National Observer Program
- Observer Program Reviews
- **Cost Descriptions**
- Industry Funded Observer Programs
- Electronic Monitoring
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## What is Included in Observer Seaday Costs

- Seaday rate estimated at \$725/seaday
- What is included in the seaday rate:
  - Observer sampling and safety gear;
  - Observer salaries;
  - Observer life insurance, dental insurance, health insurance, workman's compensation;
  - Observer vacation pay and holiday pay;
  - Maritime Employers Liability Insurance, and General Liability Insurance;
  - State and Federal taxes;
  - Vessel Call-In Coordinator and phone service for call-in fisheries;
  - Service provider office space and program administration;
  - Fedex charges for shipping trip data and samples;
  - Observer cell phone services;
  - Area coordinator support and their associated travel;
  - Data entry for federally funded days;
  - Observers hours during routine observer debriefings; and
  - Aborted trips of less than 6-hours.

## Government's Share of Cost

- For all seadays
  - Program operations administration (budgeting, contract oversight);
  - Data handling (data quality, data processing, data archive, data requests);
  - Office space, phone service, internet service, other utilities;
  - Office equipment, computers, fax machines, scanners, copiers;
  - Trip archival fees;
  - Mail delivery, NMFS Fedex shipping charges;
  - Freezer rentals;
  - Vehicle maintenance;
  - Debriefers salaries and benefits;
  - Portable life rafts and annual servicing;
  - Training staff, supplies for training (manuals, etc.), training aides;
  - Travel for NMFS staff to attend council meetings, Take Reduction Team meetings, outreach events, National workshops, and scientific conferences;
  - Training for NMFS staff (i.e. Oracle, GIS, SQL, Contracting, Ethics, Supervisory);

## Government's Share of Cost

- Development of new gear (electronic fish boards, digital cameras, rugged laptops, video monitoring projects);
- NMFS-issued gear (printed materials such as age structure envelopes, turtle tags, marine mammal tags, diaries);
- Disseminate and report on biological samples collected;
- Ensure permits (turtle, birds, large pelagic fish) are maintained and properly reported;
- Response to fishermen input or requests (interviews, Comment Cards, etc.);
- Development of Emergency Preparedness Plans for Serious Injuries and Fatalities of Observers; and
- Enforcement support related to observer-related issues.

## Government's Share of Cost

- For Federally Funded Seadays Only
  - Bonus incentive program for observers;
  - Housing and per-diem for observers during certification and refresher trainings;
  - Observer's hourly rate for required trainings, refresher training, and safety training;
  - Observer 6-month debriefings (wages and travel);
  - Observer debriefing on enforcement related issues (wages and travel);
  - Vessel meals for multi-day trips reimbursed to fishermen; and
  - Observer travel associated with trip deployments.
- For Industry Funded Seadays Only
  - Vessel call in coordinators for Industry Funded Scallop salary and benefits; and
  - Data processing for Industry Funded Scallop.

## What Drives Costs Up

- Geographic distances between ports
- Sailing and landing ports differ
- Length of trips (short trips)
- Frequency of trips (infrequent or spotty effort)
- Predictability and dependability of trip planning (weather delays, changing target species, vessel performance issues)
- Reliability and accessibility of effort data
- Safety deficiencies (not valid decal, missing/outdated safety equipment, stability issues, compliance issues)
- Uncooperativeness of captains

## Why are NEFOP Costs Higher

- Observer wages fair well in comparison, but not dramatically higher
- Insurance costs
- Estimated that <30% of the direct cost per seaday goes to observer
- 58% of trips are on small boats (< 60 ft)
- 54% of trips are single day trips
- 2% of trips are aborted; up to 10% can be canceled
- 1,000 miles between ports (13 different states)
- Over a two year period, covered up to 1,500 vessels
- Train 50 observers per year (no external source of funds to support training)
- NPGOP receives almost \$5 million annually to support IF program (NEFOP receives \$0)
- More competition in NPGOP (7 providers, observers unionized)
- 100% observer coverage has more efficiencies – no vessel selection, waivers, monitoring coverage levels, etc.
- NPGOP has much more enforcement resources

## Compliance Issues

- Not calling in when required
- Calling in false trips
- Calling in with incorrect areas/fisheries
- Trip refusals, avoidance tactics
- Harassment, sexual harassment
- Interference
- Intimidation
- Veiled threats to observer physical safety
- Not having required safety equipment and maintaining wheel watches
- Extremely poor accommodations
- Tampering with gear/samples
- Restricting observer to certain spaces on vessel
- Not providing observer reasonable assistance
- Not paying observer bills

## Presentation Topics

- National Observer Program
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## Current Industry Funded Programs

- Northwest At-Sea Hake Observer Program, 1970's
  - Catch-processors 125 ft and longer = 2 observers
  - Catcher-processors <125 ft or vessel used to take, retain, receive, land, process, or transport groundfish = 1 observer
- North Pacific Groundfish Observer Program (NPGOP), 1989
  - <60 ft = No coverage
  - 60 ft-125 ft = 30%
  - >125 ft = 100%
  - Head and gut = 200% (2 observers)
- Atlantic Sea Scallop Program, 2006
  - Limited access trips in open areas
  - Limited access and general category in access areas
  - Makes up 35% of NEFOP's days
- *All reviews recommended that the NPGOP be restructured into a direct government contract*

## Basic Outline of an Industry Funded Program

- Government approves providers, certifies observers
- No contract between government and provider
- Rules are laid out in pages and pages of regulations
- Seadays are paid for by industry directly to a service provider

## Industry Funded Program Requirements for Multi-Vendor

- Pre-trip notification system to NMFS
- Pre-trip notification to providers
- Daily reports by providers to NMFS
- Share information on unsafe and non-paying vessels
- Standardized training and data quality assessment of "IF" observers
  
- NMFS approves providers
- NMFS certifies observers
- Decertification and approval withdrawal process
- Observer minimum eligibility standards, security checks
- Some vessel selection rules to disperse coverage
- Conflict of interest rules
- Insurance requirement
- Some safety and emergency response plan
- Gear issuance requirements and observer duties

## Sources of Sampling Error

- Vessel selection methods
  - Census (i.e., all trips from all vessels in the sampling frame are observed)
  - Random sampling with replacement
  - Stratified random sampling with replacement
  - Stratified random sampling without replacement
  - Systematic random sampling
  - Ad-hoc selection of vessels
- Changes in fishing behavior when an observer is aboard
  - Avoid areas where bycatch typically is high
  - Change duration of trip
  - Length of tows
  - Most likely to occur if fishing regulations, such as bycatch quotas, provide an incentive to change fishing behavior.
  - Outreach can improve vessel operators' understanding of the benefits to be the best means of reducing this potential source of bias

## Observer Effect in Industry Funded Scallop Program

- No significant difference in fishing location
- No significant difference in tow duration
- Significant difference in trip duration correlation with financial hardship
  - As product value decreases, trip cost increases, trips with observers get shorter
  - As product value increases, even with trip cost increases, trips with observers are longer



# Examples of Observer Effect

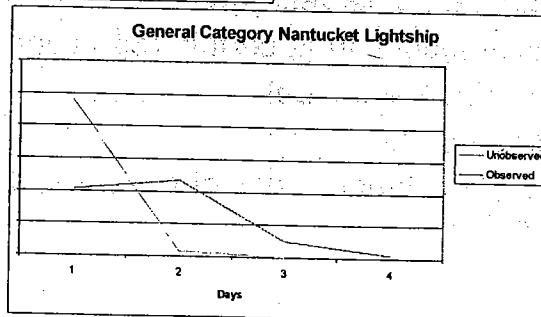
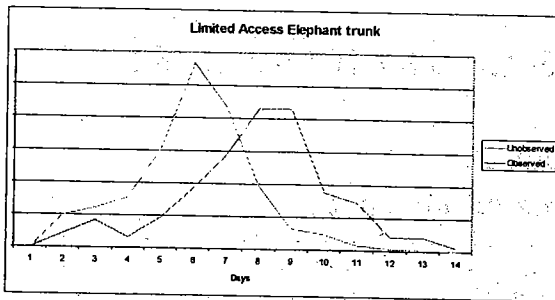
ELEPHANT TRUNK ACCESS AREA						
	Calls*	Observer Assigned*	Assigned Coverage*	Trips Made (From VMS)	Trips Observed	Achieved Coverage
Limited Access	1352	228	16.86%	1085	123	11.34%
General Category	2193	361	16.46%	1692	80	5.03%

General Category data represent the June 1-18 opening of the ETAA  
ETAA closed to General Category June 18th, 2008

NANTUCKET LIGHTSHIP ACCESS AREA						
	Calls*	Observer Assigned*	Assigned Coverage*	Trips Made (From VMS)	Trips Observed	Achieved Coverage
Limited Access	320	47	14.69%	282	34	12.06%
General Category	1195	173	14.48%	593	106	17.88%

NLAA closed to General Category and Limited Access August 4th, 2008

OPEN AREA (MID-ATLANTIC AND GEORGES BANK)						
	Calls*	Observer Assigned*	Assigned Coverage*	Trips Made (From VMS)	Trips Observed	Achieved Coverage
Limited Access	1127	221	19.61%	967	64	6.48%



## Industry Funded Programs

- Pros:
  - Increases coverage levels
  - Industry contribution
- Cons:
  - Lack of contractual structure = lack of management controls
  - Increases observer safety issues
  - Increases incentives to distort fishing operations
  - Complex logistics
  - Non-transparent business practices
  - Lengthy process to make fixes/modifications
  - Increased and overly burdensome requirements
  - Expensive

## Alleviate Costs of the Individual

- Cost sharing incentives
  - Set asides (resource or days at sea)
  - User fees
  - Increased harvest levels
  - Exemptions from certain regulations
  - Seafood eco-label
  - Seafood tax
  - Identify beneficiaries of fishery and share costs

## Industry Funded Programs

- Immediate draw backs
  - Requires contribution of NMFS resources (funds, staff, technology), which may be limited
  - Agency does not have a mechanism to collect fees
  - Slow process to fix shortcomings of program

## What is Included in an Observer Program Contract

- Request for Proposals
- Description/Specifications/Performance Work Statement
- Observer Program objectives
- Performance work statement
  - Project management
  - Project manager
  - Management reporting and coordination
  - Financial management
  - Performance management
  - Quality assurance management
- Operational requirements
  - Observer recruitment, retention, and requirements
  - Qualifications
  - Observer duties and data collection requirements
  - Data quality control

## Observer Contracts Continued

- Observer support services
  - Logistic and operation support for observer deployment
  - Training
  - Gear acquisition and maintenance
  - Travel lodging
  - Vessel selection
  - Vessel notification
  - Toll free telephone service
  - Maintain communications log
  - Notification of potential infractions
  - Vessel compensation for observer food and insurance reimbursement
  - Safety
  - Observer placement
  - Observer conduct
- Performance monitoring
- Deliverables and performance measures
- Conflict of interest
- Insurance
- Key personnel
- Travel

## Observer Contracts Continued

- Allows for creativity and open competition
- Type of contracts
  - Indefinite Delivery-Indefinite Quantity (IDIQ) contract with provisions for competitive or directed
  - Cost-Plus Fixed Fee
  - Cost-Plus Award Fee
  - Cost-Plus Incentive Fee, Labor Hours, Time-and-Materials
  - Firm Fixed Price
  - Fixed Price Incentive Fee
  - Fixed Price Award Fee
  - No-cost Contract

## Observer Contracts Continued

- Source evaluation board
- Evaluation criteria
  - Management approach
  - Operational requirements approach
  - Observer support services approach
  - Past performance
  - Quality assurance
- Review Technical Proposals
- Score independently
- Review and finalize consensus technical scores
- Review Business and Price Proposals
  - Reasonable and realistic
- Determine best value for final product
- Announce award
- Grievances

## Federal Regulations and Policies in Contract Development

- Federal Acquisition Regulations
- Magnuson-Stevens Fishery, Management, and Conservation Act
- Marine Mammal Protection Act
- Endangered Species Act
- Data Quality Control Act (P.L. 106-514)
- Information Technology Security Policy
- Fisheries Management Plans
- Biological Opinions – Take Reduction Team Plans
- NOAA Safety Standards
- Fair Labor Standards Act
- Service Contract Act
- Department of Labor Wage Determination
- Applicable Federal and State labor laws
- Observer Health and Safety regulations
- Federal, state, and local safety regulations
- Merchant Marine Act (Jones Act) and General Maritime Law
- U.S. Longshore and Harbor Worker's Compensation Act

## Presentation Topics

- National Observer Program
- Observer Program Reviews
- Cost Descriptions
- Industry Funded Observer Programs
- **Electronic Monitoring**
- Observer Conference
- Final Points for Consideration

## Electronic Fisheries Monitoring Conference

- Seattle, WA; July 29 – 30, 2008; report on NEFMC Herring Materials website
- Uses of video technology to:
  - Supplement existing observer coverage
  - Enhance the value of the current data
  - Fill data gaps
- Technology has much improved to withstand elements
- Combined use of video and sensors
- Impossible to have it tamper proof
- Need industry support
- Need strong regulatory package
- Needs to be integrated with other data collections

## Outstanding Issues Related to EM

- Currently a lengthy process to get video viewed and analyzed
- Unclear how to deal with video as “data” under the Magnuson Act (confidentiality)
- No accurate time stamping on video
- Lighting requirements of deck and camera positioning
- Technology failure can result in terminating trip
- Field service to repair equipment is a challenge
- Who completes status checks on equipment (OLE?)
- Regulations can't accommodate advances in technology fast enough

## Take Home Thoughts on EM

- EM has some useful applications for compliance monitoring
- Works best with fish counts (use conversion factors to estimate weight)
- Species identification can be difficult
- Not all that much cheaper than observers
- Many inadequacies in case building when there is a compliance issue
- Still have to determine “percent coverage” when analyzing the tapes

## Presentation Topics

- National Observer Program
- Observer Program Reviews
- Cost Descriptions
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- Electronic Monitoring
- **Observer Conference**
- Final Points for Consideration

## Observing & Monitoring Conference

- International Fisheries Observing and Monitoring Conference, Portland Maine, July 2009
- Biennial conference is the premier international forum for fisheries monitoring and observer program issues.
- Expected to attract over 300 delegates from over 40 countries.
- Presented papers, panel discussion sessions, a poster session, a trade show, and social events.
- Mission: To improve fishery monitoring programs worldwide through sharing of practices and development of new methods of data collection and analysis. To provide a forum for dialog between those responsible for monitoring fisheries and those who rely upon the data they collect.
- Link to the conference and the proceedings from prior sessions [www.ifomc.com](http://www.ifomc.com)



## Conference Topics

- Improve the quality of fishery monitoring data through sharing of best practices for collection and analysis of information.
- Improve the use of fishery monitoring data to support sustainable resource management.
- Promote the international exchange of ideas and best practices from fishery monitoring programs throughout the world.
- Improve accessibility to fishery monitoring data.
- Support the development of new innovative data collection methods.
- Improve the training and safety of at-sea fisheries observers.
- Advance the development of the observer profession.
  
- 2007 conference delegates from Canada, USA, El Salvador, Panama, Costa Rica, Guatemala, Ecuador, Chile, Brazil, Peru, Uruguay, Venezuela, Argentina, New Zealand, Australia, Indonesia, Fiji Islands, Papua New Guinea, New Caledonia, South Korea, Malaysia, Philippines, Taiwan, Vietnam, Pakistan, Sri Lanka, India, England, France, Italy, Portugal, Scotland, Spain, Belgium, Russia, Denmark, Estonia, South Africa, Uganda, Kenya, Ghana, Nigeria, and Namibia.

## Presentation Topics

- National Observer Program
- Observer Program Reviews
- Cost Descriptions
- Industry Funded Observer Programs
- Electronic Monitoring
- Observer Conference
- **Final Points for Consideration**

## In Conclusion

- You have a developed observer program
  - Interested, active, experienced
  - Responsive to management needs and stakeholders' concerns
- Sampling design in essential
  - Goals and priorities need to be made clear
  - Clearly define sampling frame (vessel size, gear type, area fished, etc.)
  - Set coverage goals and how to monitor them
- Regulations and Enforcement need to support those goals