Industry-Funded Monitoring Omnibus Amendment

Herring Coverage Target Alternatives

By Carrie Nordeen
New England Fishery Management Council
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Presentation Overview

- General Approach
- Update on Herring/Mackerel EM Project
- Omnibus Alternatives
- Updates to Herring Coverage Target Alternatives
- Updates to Biological Impacts
- Updates to Economic Impacts
- Summary of Impacts

General Approach

- New IFM programs would specify fishery-specific coverage *targets*
- Tool to approve Council's desired levels of monitoring, without NMFS committing to supporting coverage levels before funding determined to be available.
- No IFM for herring fishery in years when there is no additional Federal funding to cover NMFS administration costs

Two Types of Alternatives in this Amendment

- Omnibus Alternatives
  - Apply to all NEFMC and MAFMC FMPS
  - Both Councils selected preliminary preferred omnibus alternatives earlier this year
- Herring and Mackerel Coverage Target Alternatives
  - Specify IFM coverage targets for herring and mackerel fisheries

Update on Herring/Mackerel EM Project

- NMFS received $400,000 to support EM project
- Request for proposals went out to small business EM service providers on May 5 and closed on May 31
- NMFS expects to award service provider contract in July
- Service provider will work with NMFS and vessels to generate vessel monitoring plans
- NMFS outreach to vessels has already begun
- Hoping to involve all active midwater trawl vessels on a volunteer basis
- Project expected to be completed in the Fall of 2017

Timeline

Dates	Action
January-February 2016	NEFMC and MAFMC selected preliminary preferred omnibus alternatives
June 2016	MAFMC and NEFMC select preliminary preferred mackerel and herring alternatives MAFMC and NEFMC approve Draft EA for public comment
July-August 2016	30-day comment period on Draft EA and public hearings NMFS begins EM pilot project
September-October 2016	NEFMC and MAFMC take final action
November 2016-February 2017	EA finalized and proposed and final rulemaking
March 2017	Final rule publishes
November 2017	NMFS completes EM pilot project
January 2018	Amendment implemented

OMNIBUS ALTERNATIVES

Omnibus Alternatives

- Alternative 1: No Standardized Industry-Funded Monitoring Programs (No action)
- **Alternative 2: Standardized Industry-Funded Monitoring Programs**
  - Standardize cost responsibilities
  - Framework adjustment process for industry-funded monitoring programs
  - Standardized industry-funded monitoring service provider requirements
  - Prioritization process
  - Option for Monitoring Set-Aside

Omnibus Alternative 2: Prioritization Process

- Alternative 2.1 – NMFS-led
- **Alternative 2.2 – Council-led**
- Alternative 2.3 – Proportional
- Alternative 2.4 – Lowest Coverage Ratio-based
- Alternative 2.5 – Highest Coverage Ratio-based

Weighting approach needed for Alternatives 2.1 and 2.2

Council Consideration

- Currently two weighting approaches are possibilities for Omnibus Alternative 2.2
  - Weight by criteria (p 65)
  - Weight equally (p 72)
- Changes to the weighting approach would be done through a future rulemaking (similar to a specifications rulemaking)
- MAFMC recommended an equal weighting approach.
- Would the Council like to identify a preliminary preferred weighting approach?

HERRING COVERAGE TARGET ALTERNATIVES

Goals of IFM Monitoring

Increased monitoring in the herring fishery should address the following goals:

- Accurate estimates of catch (retained and discarded),
- Accurate catch estimates for incidental species for which catch caps apply, and
- Affordable monitoring for the herring fishery

Gear Type	Purse Seine	MWT	Bottom Trawl
Alt 1: No Coverage Target for IFM Programs (No Action)	SBRM	SBRM	SBRM
Alt 2: Coverage Targets Specified for IFM Programs	Includes Sub-Options: 1) Waiver Allowed, 2) Wing Vessel Exemption, 3) 2 Yr Sunset, 4) 2 Yr Re-Evaluation, and 5) 25 mt threshold		
Alt 2.1: 100% NEFOP-Level Coverage on Category A and B Vessels	100% NEFOP	100% NEFOP	100% NEFOP
Alt 2.2: ASM Coverage on Category A and B Vessels	25 - 100% ASM	25- 100% ASM	25 - 100% ASM
Alt 2.3: Combination Coverage on Category A and B Vessels and Midwater Trawl Fleet	25 - 100% ASM	50, 100% EM & Portside	25% - 100% ASM
Alt 2.4: EM and Portside Sampling on Midwater Trawl Fleet	SBRM	50, 100% EM & Portside	SBRM
Alt 2.5: 100% NEFOP-Level Coverage on Midwater Trawl Fleet Fishing in Groundfish Closed Areas	SBRM	100% NEFOP	SBRM
Alt 2.6: Combination Coverage on Midwater Trawl Fleet Fishing in Groundfish Closed Areas	SBRM	Same as 2.1-2.4	SBRM

Herring Alternative 2 Sub-Options

- Sub- Option 1: Waiver allowed if IFM coverage is not available
- Sub-Option 2: Wing vessel exempt from IFM requirements
- Sub-Option 3: IFM requirements sunset in two years
- Sub-Option 4: IFM requirements are re-evaluated in two years
- Sub-Option 5: IFM requirements only apply on trips that land more than 25 mt of herring

UPDATES TO HERRING COVERAGE TARGET ALTERNATIVES

Under Herring Alternative 2, At-Sea Monitors Would Collect

- **Data on retained and discarded catch (species, weight, composition);**
- Fishing gear information (size of nets and dredges, mesh sizes, and gear configurations);
- Tow-specific information (depth, water temperature, wave height, and location and time when fishing begins and ends);
- **Length data from retained and discarded catch;** and
- Vessel trip costs (operational costs for trip including food, fuel, oil, and ice).

Summary of Monitoring Types

- NEFOP-observers and at-sea monitors would both collect composition data on retained/discarded catch, as well as fishing gear, effort, and vessel cost information
- Portside samplers would collect composition data on retained catch
- NEFOP-level observers would collect whole specimens, photos, and biological samples from catch, as well as interactions with protected species
- NEFOP-level observers and portside samplers would collect age and length data
- At-sea monitors would collect length data
- Both NEFOP-level observers and at-sea monitor would be required to hold a high volume fisheries (HVF) certification

Council Consideration

- MAFMC recommended there be an option that at-sea monitors would also collect biological information (e.g., scales, otoliths, vertebrae, genetic samples) from retained and discarded catch.
- Would the Council like to add a similar option?

Calculating Coverage Targets

- NEFOP-level observer and at-sea monitoring coverage targets would be calculated by combining SBRM and IFM monitoring
  - 10% SBRM coverage + 15% IFM coverage = 25% coverage target
  - A vessel would not carry an SBRM observer and IFM at-sea monitor on the same trip
  - A combined coverage target is intended to reduce IFM costs

- EM and portside sampling coverage targets would be calculated independent of and in addition to SBRM
  - 50% EM video review and 50% portside sampling = 50% coverage target
  - A vessel may carry on SBRM observer on the same trip that would be sampled portside
  - Value in comparing SBRM observer data with data collected by EM and portside sampling

PDT/FMAT Recommendations for Combined Coverage Targets

- There are technical challenges to calculating combined coverage targets
- PDT/FMAT recommends previous year's SBRM coverage be used to calculate a combined coverage target
- PDT/FMAT suggests than NMFS calculate the additional IFM coverage necessary to meet the coverage target

Council Consideration

- MAFMC recommended NMFS use a simplified approach to calculate combined coverage targets.
- PDT/FMAT will continue to explore how to use a simplified approach to calculate combined coverage targets.

Current Slippage Requirements

- Limited access herring vessels must bring catch aboard for sampling by an observer unless there is a safety issue, mechanical failure, or excess catch of dogfish
- If slippage occurs, limited access vessels must report the event via VMS and complete a released catch affidavit
- Midwater trawl vessels fishing in the Groundfish Closed Areas must leave the Closed Areas for the remained of that trip following a slippage event
- Category A and B vessels must move 15 nautical miles following an allowable slippage event (safety, mechanical failure, or dogfish catch)
- Category A and B vessels must terminate the trip and return to port following a non-allowable slippage event (for any other reason)

Slippage Requirements

- Initially slippage reporting requirements, restrictions, and consequence measures only applied to IFM trips covered by NEFOP-level observers
- Council recommended that slippage reporting requirements, restrictions, and consequence measures be extended to IFM trips covered by at-sea monitors and EM/portside samplers

PDT/FMAT Recommendations for Extending Slippage Requirements

- PDT/FMAT believes EM can detect a slippage event, but does not know if EM can be used to determine the cause of slippage event
- If EM cannot determine the cause of a slippage event, it is likely not appropriate to use EM to verify compliance with slippage consequence measures
- PDT/FMAT recommends evaluating extending slippage consequence measures to IFM trips covered by EM at the conclusion of the EM pilot project
- PDT/FMAT recommends that slippage consequence measures not be extended to IFM trips covered by EM at this time, but that measures could be extended via a framework action

Council Consideration

- MAFMC recommended that slippage consequence measures would apply to trips covered by at-sea monitors but not trips covered by EM/portside samplers.
- MAFMC recommended that applying slippage consequence to trips covered by EM/portside samplers would be further reviewed after the EM pilot project is complete and that requiring slippage consequence measures could be done via a framework.
- Would the Council like to reconsider requiring slippage consequence measures on trips covered by EM/portside samplers?

Council Consideration

- Herring Committee recommended adding an alternative that would allow Category A and B vessels using midwater trawl or purse seine gear to choose between at-sea monitoring coverage (25%, 50%, 75%, or 100%) or EM/portside coverage (50% or 100%).
- MAFMC recommended adding similar flexibility for midwater trawl vessels if the above alternative is added by the NEFMC.
- Would the Council like to add a herring coverage target alternative?

Additional Updates

- Council would provide input on any changes to herring coverage target amounts

UPDATES TO BIOLOGICAL IMPACTS OF HERRING COVERAGE TARGET ALTERNATIVES

Herring Alternatives 2.1 – 2.5

- Differ by type of data collected
- Differ by how coverage is allocated
- Differ by amount of coverage

NEFOP Observer Coverage in 2015

Gear	Observer Coverage
Midwater Trawl	4.7%
Purse Seine	2.5%
Small Mesh Bottom Trawl	9.1%

Catch Cap CVs and NEFOP Coverage for Herring Alternative 1

Catch Cap	2011	2012	2013	2014	2015
GB Haddock MWT Cap	17.6% (41.7%)	12.3% (62.9%)	21.3% (35.6%)	20.5% (27.2%)	61.4% (4.9%)
GOM Haddock MWT	0.% (30.4%)	0.% (29.2%)	0.% (34.8%)	0.% (46.3%)	0.% (8.6%)
RHS CC MWT				36.2% (48.0%)	81.4% (10.1%)
RHS GOM MWT				37.3% (50.0%)	94.8% (8.7%)
RHS SNE SMBT				28.4% (17.4%)	24.5% (15.0%)
RHS SNE MWT				70.2% (3.4%)	11.8% (2.3%)
NEFOP coverage is shown in parentheses. 2015 data are preliminary.					

Simulated Catch Cap CVs for Herring Alternatives 2.1 and 2.2

Catch Cap	25% Coverage	50% Coverage	75% Coverage	100% Coverage
GB Haddock MWT Cap	21.7-26.4% (22.2–26.1%)	12.5-15.5% (12.9-15.5%)	7.2-9.1% (7.6-9.7%)	0% (2.2-4.0%)
GOM Haddock MWT	0%	0%	0%	0
RHS CC MWT	62.4-63.2% (61.9-63.7%)	39.5-41.8% (39.7-42.0%)	22.7-24.9% (23.4-24.2%)	0% (4.5-5.0%)
RHS GOM MWT	61.1-64.3% (62.8-63.6%)	35.3-39.1% (39.8-41.8%)	20.8-22.8% (25.0-25.8%)	0% (11.5-13.4%)
RHS SNE SMBT	24.1-28.0% (24.2-24.8%)	17.3-18.6% (17.5-19.3%)	13.2-13.3% (14.1-15.4%)	9.2-9.8% (11.5-12.6%)
RHS SNE MWT	22.7-23.0% (32.5-34.3%)	13.1-13.6% (21.7-22.1%)	7.5-8.5% (15.9-16.2%)	0-3.9% (11.5-12.4%)

CVs with 25 mt trip threshold are shown in parentheses. Data range from 2011-2015. 2015 data are preliminary.

Proposed and Observed Sea Days for Fleets that Harvest Herring

Fleet	Region	Proposed sea days for April 2016 to March 2017	Observed sea days, July 2014 to June 2015	VTR sea days, July 2014 to June 2015	Observed trips, July 2014 to June 2015	VTR trips, July 2014 to June 2015
Small Mesh Bottom Trawl	MA	1,171	997	6,761	360	3,088
Small Mesh Bottom Trawl	NE	798	933	8,847	319	3,381
Purse seine	MA	6	0	174	0	172
Purse seine	NE	19	29	661	13	315
Midwater Trawl (Pair and Single)	MA	30	8	134	1	26
Midwater Trawl (Pair and Single)	NE	440	160	1,189	43	363

Biological Impacts of Herring Coverage Target Alternatives

- Herring Alternative 1 – Low Positive
- Herring Alternative 2 – Low Positive
    - Data on retained and discarded catch – Positive
    - Data collected on retained catch – Low positive
    - Coverage allocated by fleet – Positive
    - Coverage allocated by permit – Low Positive
    - Coverage only in GF Closed Areas – Low Positive
    - Not Selecting Sub-Option 1 – Positive
    - Selecting Sub-Option 5 – Low Negative

UPDATES TO ECONOMIC IMPACTS OF HERRING COVERAGE TARGET ALTERNATIVES

Midwater Trawl Landing Ports

Ports	Currently Sampled (Y/N)	Issues Affecting Sampling
Maine		
Portland	Y	None
Rockland	Y	None
Vinalhaven	N	Not cost effective; fish sold over the side of vessels
Prospect Harbor	Y	None
Jonesport	Y	None
Massachusetts		
Boston	N	Costly to sample; logistically challenging; unsafe area
Gloucester	Y	Only a few landings during the year
New Bedford	Y	Logistically challenging; safety issues
Rhode Island		
Point Judith	Y	None
North Kingstown	N	Only frozen product landed
Newport	N	Safety issues
New Jersey		
Cape May	Y	None

Midwater Trawl Landing Ports

- 95% of midwater trawl landings are in ports with portside sampling
- Some vessels only land in a single port and that port is not currently sampled portside
- Travel time and seller/buyer arrangements are likely to be most affected
- Vessel may need to substantially revise its business plan if it must land in a port it has not previously used

Monitoring Cost on Declared Herring Trips that did not Land Herring

Cost Categories	Small Mesh Bottom Trawl	Single Midwater Trawl	Paired Midwater Trawl	Total
Total Number of Sea Days	111	6	4	121
100% NEFOP Coverage	$90,798	$4,908	$3,272	$98,978
100% ASM Coverage	$78,810	$4,260	$2,840	$85,910
75% ASM Coverage	$59,108	$3,195	$2,130	$64,433
50% ASM Coverage	$39,405	$2,130	$1,420	$42,955
25% ASM Coverage	$19,703	$1,065	$710	$21,478
100% EM Coverage		$1,950	$1,300	$3,250
50% EM Coverage		$1,122	$748	$1,870
Monitoring costs are on an annual basis. Data are from 2014.				

Other Updates to Economic Analysis

- Text was added to clarify the following:
  - Depreciation of vessel improvements is included in the return-to-owner (RTO) calculation
  - Depreciation of the vessel is not included in the RTO calculation because that information was not collected in the survey
- Text was added to further explain box plot analysis
- RTO analysis by fishery was not added to the analysis, instead analysis continues to show revenue by fishery

Summary of Median Potential Reduction in RTO From Monitoring Costs

- Herring Alternative 2.1 – 44.7% to 5.8%
- Herring Alternative 2.2 – 38.9% to 1.4%
- Herring Alternative 2.3 – 38.5% to 1.4%
- Herring Alternative 2.4 – 29.1% to 2.4%
- Herring Alternative 2.5 – 5.4% to 1.0%
- Herring Alternative 2.6 – Same as 2.1 to 2.4

Conclusions of Economic Analysis

- Paired MWT vessels have highest monitoring costs as a percentage of RTO because of more sea days
- Revenue sources differ across gear types, 50% of SMBT revenue is from other fisheries
- Exempting trips that catch < 25 mt of herring reduces monitoring costs
- EM and Portside is generally less expensive than comparable levels of ASM coverage in Year 2, but not Year 1
- Using revised cost assumptions for EM and Portside reduce cost by over 50% in Year 2

Summary of Herring Coverage Target Alternative Impacts

Alternatives	Biological Impacts	Economic Impacts
HER Alt 1	Low Positive	Low Positive
HER Alt 2	Low Positive	Negative
HER Alt 2.1	Low Positive	Negative
HER Alt 2.2	Low Positive	Negative
HER Alt 2.3	Low Positive	Negative
HER Alt 2.4	Low Positive	Negative
HER Alt 2.5	Low Positive	Negative
HER Alt 2.6	Low Positive	Negative

Council Consideration

- Herring Committee did not recommend a preliminary preferred herring coverage target alternative.
- MAFMC did not recommend a preliminary preferred mackerel coverage target alternative.
- Would the Council like to specify a preliminary preferred herring coverage target alternative and/or sub-options?

Council Consideration

- Herring Committee recommended to the Council approving the Draft EA as amended (including updated analysis) for public hearings.
- MAFMC recommended approving the Draft EA as amended for public hearings.
- Would the Council like to approve the Draft EA as amended for public hearings?