

# Herring Update

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**Council Staff**

**Council Mtg**  
**April 20, 2016**



New England  
Fishery Management Council

# **1. Amendment 8**

- a. ABC control rule**
- b. Localized depletion**

## **2. GB haddock AMs**



# Amendment 8 Goals

1. To account for the role of Atlantic herring within the ecosystem, including its role as forage;
2. To stabilize the fishery at a level designed to achieve optimum yield;
3. To address localized depletion in inshore waters.

## A8 Objective

1. Develop and implement an Acceptable Biological Catch (ABC) control rule that manages Atlantic herring within an ecosystem context and addresses the goals of Amendment 8.



# **Amendment 8**

## **Acceptable Biological Catch control rule**



# Management Strategy Evaluation (MSE)

- Council is developing alternatives via management strategy evaluation, involving:
  - Discussion about the objectives/desired outcomes of the control rule.
  - Technical analysis to test how various control rules may/may not achieve various objectives.

prior to approving the Range of Alternatives.



# MSE workshop

**May 16-17, 2016**

**Holiday Inn by the Bay**

**Portland, ME**

## **Steering Committee:**

- Herring Cte - Peter Kendall, Matt McKenzie
- NEFSC - Sarah Gaichas, Jon Deroba
- GARFO - Carrie Nordeen
- Council staff - Deirdre Boelke, Rachel Feeney

## **Facilitator:**

**Brian Irwin, University of Georgia/USGS**



# MSE workshop

## Goals/objectives:

1. Improve understanding of MSE.
2. Develop Council recommendations:
  - a. ABC control rule objectives.
  - b. How performance of control rules relative to the objectives could be measured.
  - c. A range of control rules or their characteristics to be evaluated.



# MSE workshop

## Goals/objectives:

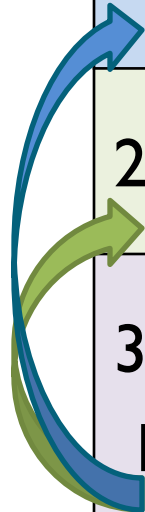
3. Improve understanding of the potentials and limitations of models that may affect simulation testing, and given those, identify which uncertainties are most important to resolve.
4. Provide an opportunity for stakeholders to provide greater input than typically possible at Council meetings.





# MSE process

| Phase  | Timeframe  | Process  |
|--|------------|--|
| 1. Select objectives, performance metrics, ABC CRs to be evaluated | May 16-17  | Public workshop.   |
|  | May-June   | PDT, AP, Cte input.  |
|  | June       | Council approval.  |
| 2. Simulations   | 2 months   | NEFSC work with contract support.                            |
| 3. Evaluate results; potential iteration.                          | 2-3 months | Possible 2 <sup>nd</sup> workshop. PDT/AP/Cte/Council input. |
| 4. Range of Alts.  | 2 months   | Council approval.  |



# Amendment 8

## localized depletion



# Defining localized depletion

## From Scoping document:

*“...when harvesting takes more fish than can be replaced either locally or through fish migrating into the catch area within a given time period.”*

## January Council motion...referred to Cte to develop:

*“...a reduction of population size, independent of the overall status of the stock, over a relatively small spatial area as a result of intensive fishing.”*



## No specific problem statement in scoping document

*“The Council will consider input from the interested public as to how to define, measure, evaluate impacts, and minimize inshore, localized depletion in the herring fishery as part of the scoping process and during the development of Amendment 8.”*



# Jan. Council motion re problem statement ...referred to Cte to develop

“Scoping comments for Amendment 8 identified concerns with concentrated, intense commercial fishing of Atlantic herring in specific areas and at certain times that has caused detrimental socioeconomic impacts on other user groups (commercial, recreational, ecotourism), who depend upon adequate local availability of Atlantic herring to support business and recreational interests both at sea and on shore.”

“Measures to prevent localized depletion were implemented in Herring Management Area 1A to prevent the negative biological and ecological effects that occur spatially on Atlantic herring, their predators, habitat, and other components of the marine ecosystem, and this approach should be expanded to prevent localized depletion of this important keystone species in other areas/seasons.”

# March 25 PDT report

- Info on the spatial/temporal footprint of the herring fishery and fisheries that rely on the predators of herring; some overlaps found.
- Thus far, few negative correlations found between herring removals and a signal in a predator fishery.
- Relying on existing data, it will be difficult to know if any correlations are due to localized depletion or other factor.



# March 29 Cte discussion

- Amendment I development (2007) also suffered from a lack of data to prove/disprove localized depletion.
- Does Council action require proving localized depletion exists?
- Is the main concern biological or social?
- Let's reconcile long-standing user conflicts.



# March 29 Cte – motion (11/0/1)

“Scoping comments for Amendment 8 identified concerns with concentrated, intense commercial fishing of Atlantic herring in specific areas and at certain times that has caused detrimental socioeconomic impacts on other user groups (commercial, recreational, ecotourism), who depend upon adequate local availability of Atlantic herring to support business and recreational interests both at sea and on shore.”

“The Council intends to further explore these concerns through examination of the best available science on localized depletion, the spatial nature of the fisheries, reported conflicts amongst users of the resources and the concerns of the herring fishery and other stakeholders.”



# March 29 Cte – PDT tasking

1. Determine where/when herring fishing intensifies within 6 & 12 nm of shore; analyze midwater trawl trips (catch, tow duration).
2. Describe herring catch from the specific 30 min squares (around Cape), by season/month, 2000-.
3. Overlay “heat maps” of herring effort with management boundaries.
4. Determine if the Study Fleet habitat suitability model could help understand localized depletion.
5. Compare private rental/charter striped bass catch per trip on Back side of Cape (0-3 mi from shore) to herring catches.
6. Describe tuna fishery CPUE over time.



# Herring Cte plans

## June 2 meeting

- MSE workshop outcomes (confirmed)
- Enforcement priorities (confirmed)
- GB haddock action development (potential)
- Industry-funded monitoring amendment (potential)

## July-August meeting

- Localized depletion (confirmed)
- Study Fleet update (confirmed)
- GB haddock action development (potential)



# **GB Haddock Catch Cap Accountability Measures**



# Outline of Presentation

1. Review Current GB Haddock AM
2. Council consideration of initiating an action
3. Council consideration of specific goals and objectives



# I. Incidental catch of haddock

- Not a new issue – Council working on this over 10 years
- Haddock bycatch first observed in herring fishery in 2004 -very large 2003 haddock year class
- Council established Ad-hoc Bycatch Cmte
- Emergency Action from June 2005-June 2006 to suspend prohibition on possession of haddock with incidental limits and other measures
- FW43 replaced emergency measures and included a cap (0.2%), lower incidental limit (100 lbs), and a monitoring program. Herring fishery now an “exempted fishery” (under 5% of catch).

# I. Amendment 16 and Framework 44

- FW43 caps in place for several years
- MSA reauthorized and requires ACLs and AMs
- A16 took existing haddock cap and converted it to a sub-ACL and FW44 specifies the catch levels for FY2010
- Sub-ACL reduced by 7% for management uncertainty related to weakness in monitoring adequacy.
- Haddock year classes continue to grow – 0.2% not sufficient



# I. Framework 46

- Purpose and Need

*Unless action taken to modify FW43 provisions to reflect current conditions, it appears likely that herring midwater trawl vessels may be prevented from fishing on GB for a large portion of the year after the cap is reached. Action needed to reduce negative impacts on fishery, avoid impacts on bait supply and negative impacts on lobster fishery, achieve OY in Area 3, and reduce effort shift and associated impacts in Area 1A.*

- Objectives

- 1) *Maximize chance GB herring TAC is caught;*
- 2) *Provide incentives to fish offshore;*
- 3) *Incentives to fish when and where haddock bycatch is low; and*
- 4) *Reduce impact of haddock cap on entire herring fishery*



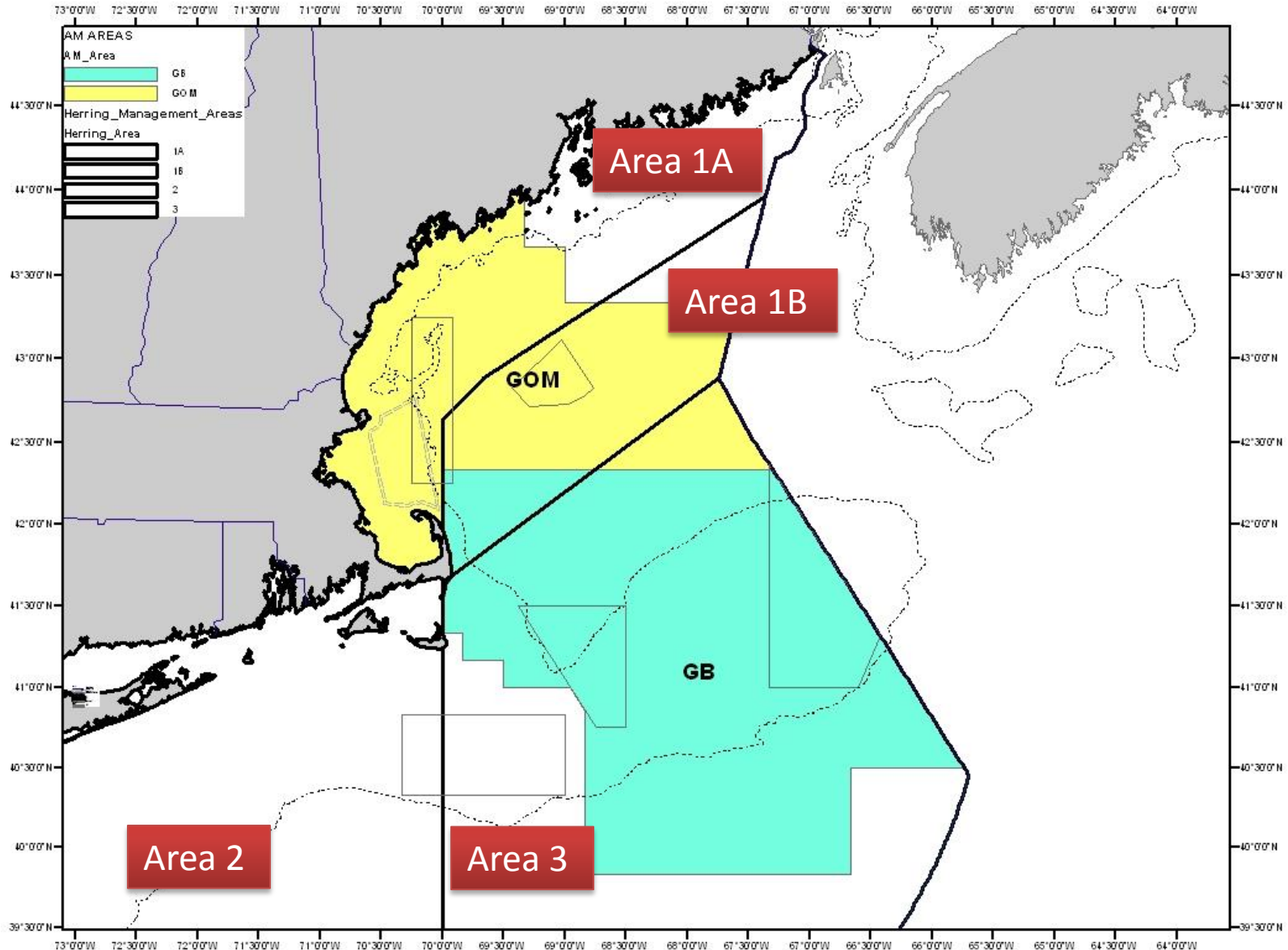
# I. Framework 46 (cont.)

- In 2011, GOM and GB haddock catch caps separated and increased to 1% of ACL – applies to all mid-water trawl vessels only
- Several changes to reporting requirements and method for estimating catch (from observed only to extrapolated for entire fishery).
- Accountability measures implemented in-season:
  - When cap is reached, midwater trawl vessels limited to 2,000 lb possession limit in haddock stock area.
  - Overage deduction in following year's sub-ACL.





# I. Haddock AM areas



# I. Framework 46 (cont.)

- Rationale for 1% compared to SQ (0.2%) - better balance of controlling incidental catch, reducing uncertainty for fishing communities, and achieving OY.
- Rationale for AM area – where 90% of commercial haddock caught (2006-2009).
- Are issues different now?

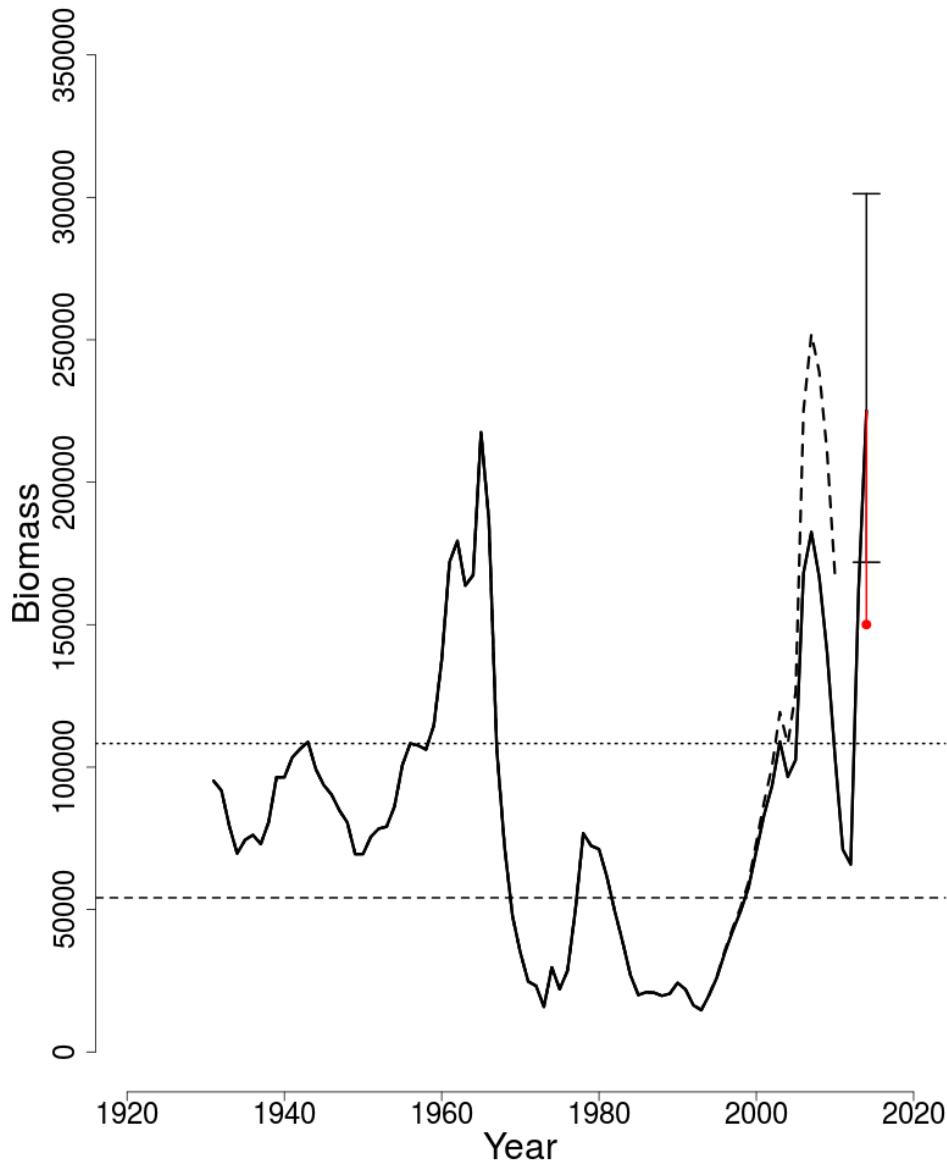
Haddock and herring resource

GF and Herring fisheries

Levels of at-sea observers

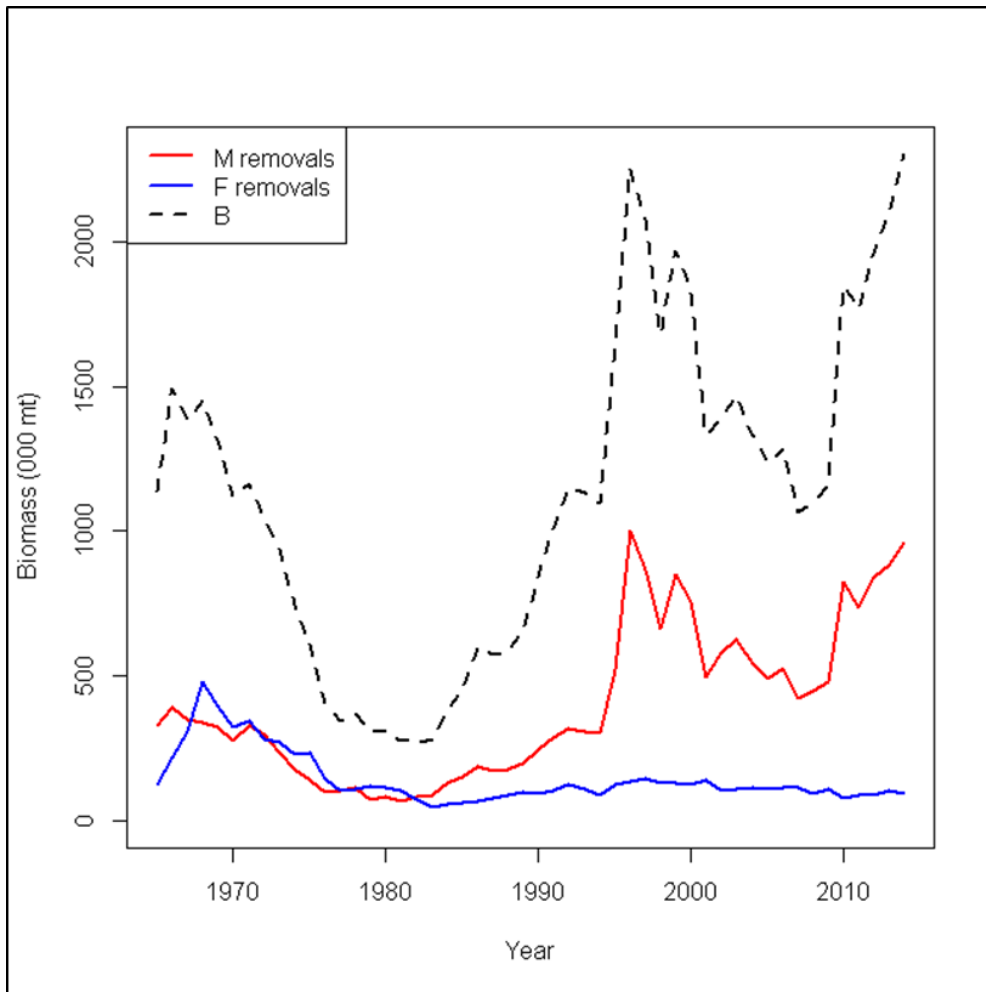


# I. GB haddock resource



- Not overfished
- Overfishing not occurring
- SSB in 2014 = 150,000 mt
- 2013 cohort estimated to be an order of magnitude larger than 2003 and 2010
- Future projections show increases in stock biomass

# I. Herring resource and fishery



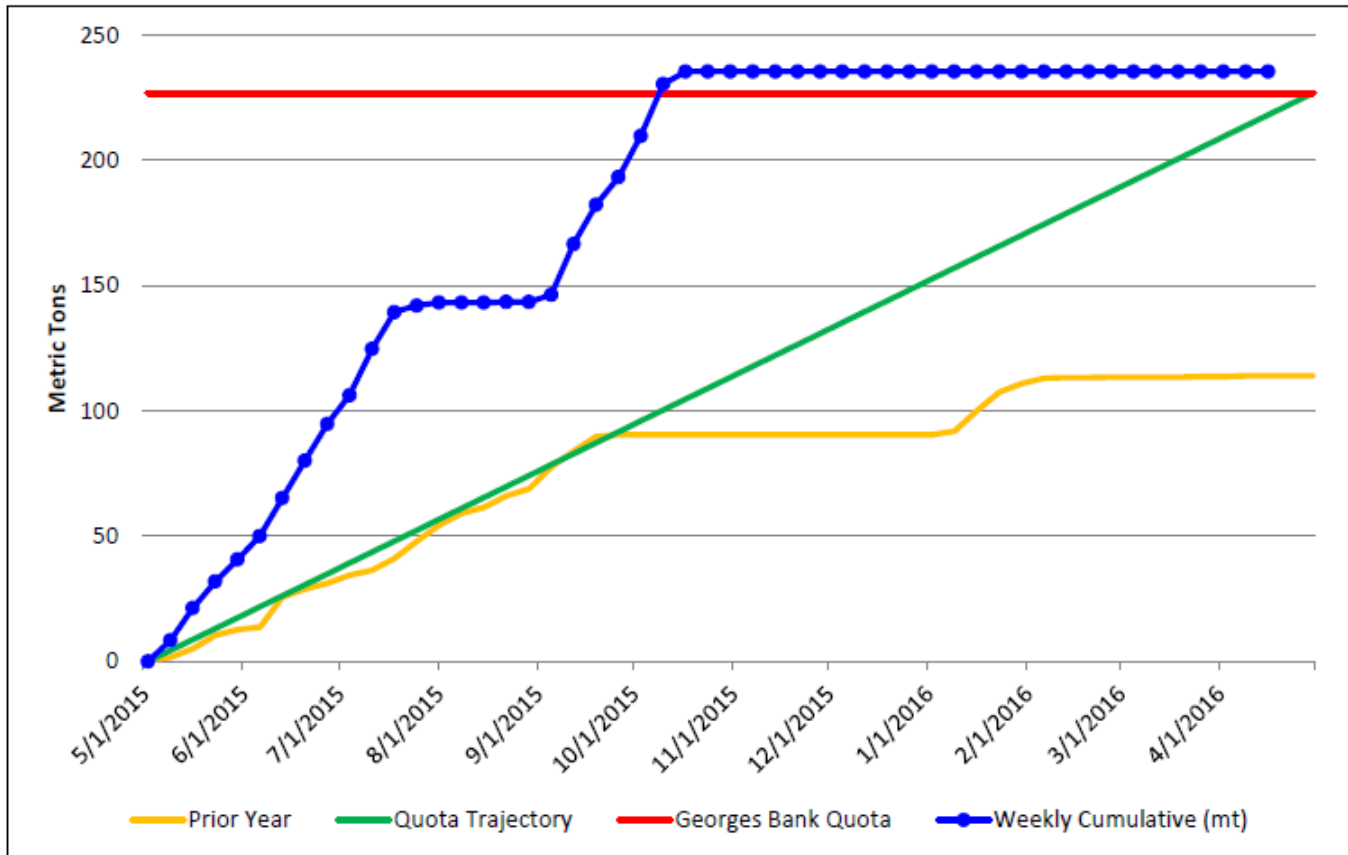
- Not overfished
- Overfishing not occurring
- Based on 2015 assessment update - SSB and SSB msy increased
- 2010-2015 - relatively consistent catches (70-95,000 mt; 75-100% of allocated catch)

# I. Performance of GB haddock cap

|      | Total ACL | % Total caught | Herring MWT sub-ACL | Herring MWT catch | % Herring MWT sub-ACL caught |
|------|-----------|----------------|---------------------|-------------------|------------------------------|
| 2010 | 42,768    | 20%            | 84                  | 69.2              | 82%                          |
| 2011 | 32,611    | 1%             | 318                 | 101.8             | 32%                          |
| 2012 | 29,260    | 1%             | 286                 | 288.6             | 101%                         |
| 2013 | 27,936    | 12%            | 273                 | 290               | 106%                         |
| 2014 | 18,312    | 35%            | 162                 | 113.5             | 70%                          |

- MWT sub-ACL became 1% in 2011
- MWT catch at sub-ACL in 2012 and 2013
- Total % caught has ranged from 1% - 35%

# I. 2015 sub-ACL



- Sub-ACL is monitored on the GF fishing year
- May 1, 2015 – August 12, 2015 about 8% of cap caught
- As of October 31, 103.76% of cap caught
- On October 22, 2015 AM implemented through end of GF FY2015

## 2. Initiate Action?

### Recent motions

**Dec. 2015 Council:** added 2016 priority to initiate an action to amend the AMs in the GB haddock catch cap in the herring fishery.

**Jan. 2016 Council:** ask the Herring/Groundfish committees to review giving the herring midwater trawl fishery on GB a 50% buffer on their 1% GB haddock cap (after April Council mtg).

**Mar. 2016 Cte:** a framework should be initiated at the April Council mtg to consider revising the AMs.



## 2. Committee Discussion

- **AP Meeting** – Motion about goal of action and three motions with input for specific alternatives (transfer by fishery, split the cap seasonally, transfer by sector)
- **Cmte Meeting** – Additional discussion about scope of action, both GF and Herring plans or just Herring – Motion 1 perfected twice and ultimately substituted
- **Motion 1c:** To initiate an action to consider amending the Georges Bank haddock catch cap accountability measures in the herring fishery.
  - Motion to substitute **carried** (7/4/1)
  - The main motion **carried** (8/2/2).
- Discussion – some ideas precluded by this motion (i.e. increase cap)



## 2. Range of Measures discussed to date

1. 50% buffer around Herring sub-ACL – If total ACL is not caught AM does not trigger unless sub-ACL exceeded by 50% or more (Jan Council motion)
2. Transfer haddock from GF ACL to Herring MWT ACL (AP motion 2)
3. Seasonal split of Herring sub-ACL (80/20 split) (AP Motion 3)
4. Increase Herring sub-ACL to 2% (AP Motion 3)
5. Allow transfer of haddock from GF sector to herring fishery or herring vessel/sector (AP Motion 4a)
6. Herring AM does not trigger if total ACL is below some threshold
7. Refine AM area (to leave some area to fish for herring within Area 3)
8. Emergency action to suspend AM
9. Define an AM season linked to higher bycatch rate months
10. Replace in-season AM with following year AM

## 2. Range of Measures - Stoplight



1. 50% buffer around Herring sub-ACL – If total ACL is not caught AM does not trigger unless sub-ACL exceeded by 50% or more
2. Transfer haddock from GF ACL to Herring MWT ACL
3. Seasonal split of Herring sub-ACL (80/20 split)
4. Increase Herring sub-ACL to 2%
5. Allow transfer of haddock from GF sector to herring fishery or herring vessel/sector
6. Herring AM does not trigger if total ACL is below some threshold
7. Refine AM area (to leave some area to fish for herring within Area 3)
8. Emergency action to suspend AM
9. Define an AM season linked to higher bycatch rate months
10. Replace in-season AM with following year AM

# What is in and what is out?

## Based on March Cmte Motion

### IN

- Seasonal split of Herring sub-ACL (80/20 split)
- Refine AM area (to leave some area to fish for herring within Area 3)
- Define an AM season linked to higher bycatch rate months
- Replace in-season AM with following year AM

### OUT - frameworkable

- 50% buffer around Herring sub-ACL
- Transfer haddock from GF ACL to Herring MWT ACL
- Increase Herring sub-ACL to 2%
- Herring AM does not trigger if total ACL is below some threshold

### OUT - Amendment

- Allow transfer of haddock from GF sector to herring fishery or herring vessel/sector
- Emergency action to suspend AM

### 3. Goals and Objectives

**Motion 2b:** That the following be a goal for the management action: to incentivize the midwater trawl fleet to minimize the incidental catch of haddock in the herring fishery while providing the opportunity to fully harvest the sub-ACL of herring for Herring Management Areas 3 and 1B.

The motion **carried** (11/0/0).

Intent to minimize haddock catch – **bycatch discarded** and incidental catch

