

# Staff Presentation

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**Herring Committee Mtg.**  
**January 13, 2016**



New England  
Fishery Management Council

# Outline

- “ Amendment 8
  - . ABC control rule
  - . Public scoping comments
  - . Localized depletion
- “ River herring/shad catch cap monitoring
- “ Five-year research priorities
- “ Georges Bank haddock catch cap accountability measure



# **Amendment 8**

## **Acceptable Biological Catch (ABC) Control Rule**



## A8 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 OY;
3. To address localized depletion in inshore waters.

## A8 Objective

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



# Interim ABC Control Rule

“ABC will be specified for three years based on the annual catch that is projected to produce a probability of exceeding  $F_{MSY}$  in the third year that is less than or equal to 50%. For 2016-2018, this value is 110,000 mt.”

*2016-2018 Atlantic herring specifications*



# Review of work to date (2015)

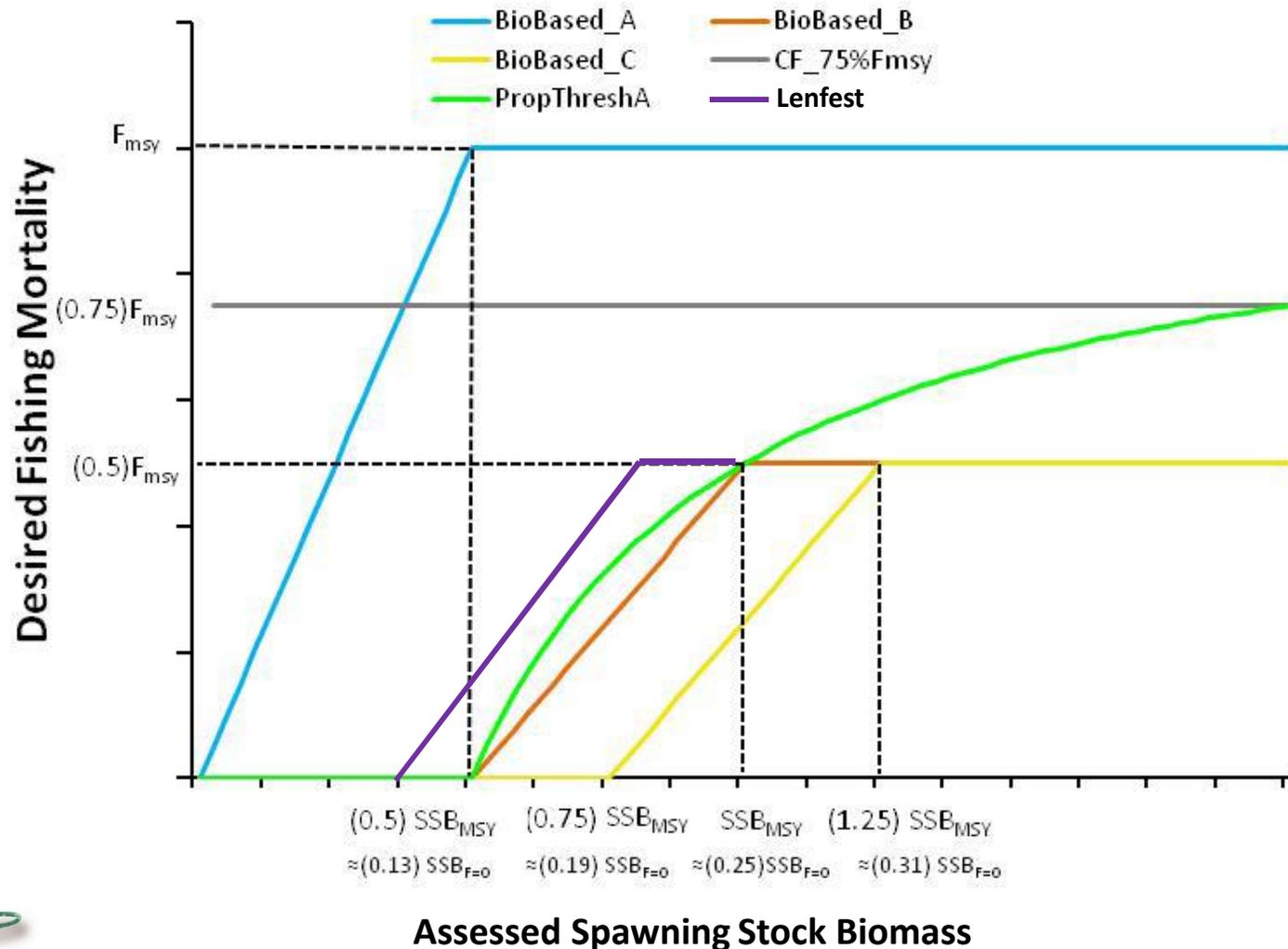
## EBFM ecological advice

- “ Several possible control rules can account for herring as forage (e.g., keep  $B > B_{MSY}$ , reduce catch to promote rebuilding). Suggested six rules to consider.
- “ Productivity of predators/trophic interactions are difficult to quantify, though several models are under development.
- “ Trophic effects may be more effectively managed by tools other than an ABC control rule.
- “ Potential ABC control rules should be evaluated through simulation to reduce risk of depletion.



# Work to date (2015)

ABC control rule preliminary evaluation (EBFM PDT/Deroba) simulated six potential rules:



# Review of work to date (2015)

## ABC control rule preliminary evaluation

- “ Deroba simulated the six potential rules suggested.
- “ Performance metrics
  - “  $SSB/SSB_{unfished}$
  - “  $SSB/SSB_{MSY}$
  - “ # years  $SSB < 0.4 SSB_{unfished}$
  - “ Fishery yield/MSY
  - “ Interannual variation in yield
  - “ Years with fishery closures



# Review of work to date (2015)

## Science and Statistical Committee input

- “ Commended the preliminary evaluation and encouraged work towards a Management Strategy Evaluation (MSE).
- “ Reiterated its support for MSE becoming more central to the scientific basis for management.
- “ Made suggestions for refining the evaluation to better approximate natural mortality and recruitment

## Deroba refined the analysis accordingly

- “ The results were not appreciably affected.



# What is Management Strategy Evaluation?

- “ A decision-making process for managers and stakeholders to collaboratively develop an ABC CR.
- “ Greater public involvement upfront in identifying potential objectives.
- “ More technical analysis upfront about how potential ABC CRs would perform relative to various objectives.
- “ A tool increasingly used by NMFS and Councils to support decision-making, though new to New England.



# MSE components/steps

1. Select range of ABC CR objectives and performance metrics to evaluate potential ABC CRs.
2. Select potential ABC CRs to be evaluated.
3. Test potential ABC CRs.
4. Evaluate results relative to the objectives.
5. Inform Range of Alternatives.



# Typical approach vs. MSE

## Typical approach

1. Set amendment goals
2. Develop alternatives
3. Approve range of alternatives
4. Impacts analysis
5. Approve DEIS
6. Public comment on DEIS
7. Recommend preferred alternative

## MSE

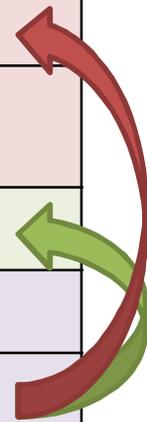
1. Identify range of ABC CR objectives
2. Evaluate potential CRs
3. Inform range of alternatives.

MSE contributes



# Proposed MSE process

Phase	Duration	Activity
1. Select objectives & performance metrics	2-3 months	Public stakeholder workshop
		PDT/AP/Cte input
		Council approval
2. Select ABC CRs to be evaluated	2-3 months	PDT/AP/Cte input
		Council approval
3. Simulations	1 month	Contractor (TBD)
4. Evaluate results	1 month	Contractor (TBD)
	2-3 months	Feedback from PDT/AP/Cte/Council. Potential iteration and review to ensure objectives are met.
5. Range of Alternatives	2 months	PDT/AP/Cte input
		Council approval



# A8 timeline

<b>2015</b>	Council initiates action, revises goals & objectives, public scoping
<b>2016</b>	Review scoping comments, conduct Management Strategy Evaluation of potential ABC control rules, develop alternatives, approve range of alternatives
<b>2017</b>	Impacts analysis of alternatives, peer review of MSE, public comment period on DEIS, Council selects preferred alternatives
<b>2018</b>	A8 implementation; develop 2019-2021 herring specifications with ABC control rule implemented



# Amendment 8 Public Scoping

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- “ **Initial: Feb. 26 – Apr. 30, 2015**
- “ **Supplemental: Aug. 21 – Sept. 30, 2015**
- “ **290 comments (29 oral, 261 written)**
- “ **468 people gave input, plus 28,000 signers of 3 large form letters**



# Stakeholder Type (All commenters)\*

<b>Fishermen</b>	<b>387 (82%)</b>
Tuna, groundfish, recreational, etc.	380
Herring	7
<b>Non-governmental organization</b>	<b>41 (8%)</b>
Environmental local	17
Other fishery interests	11
Commercial fisheries	7
Environmental national/regional	6
<b>Other</b>	<b>20 (4%)</b>
<b>Unknown</b>	<b>20 (4%)</b>
<b>Total</b>	<b>468 (100%)</b>



\* excludes the three large form letters.

# Large Form Letters

	<b>Signers</b>	<b>Personal comments</b>	<b>Demographics</b>
Pew Environment Group	12,381	1,259	95% U.S., all 50 states, 8% New England
Earth Justice	13,434	1,072	100% U.S., all 50 states
Ocean River Institute	2,443	many	100% U.S., 45 states, 5% New England



# General Comments

- ” **Support:** Most comments supported addressing concerns about localized depletion, explicitly accounting for herring’s role in the ecosystem, and thanked the Council for undertaking Amendment 8.
- ” **Concern:** 6 individuals and 2 NGOs (9 comments) were concerned with the goals of Amendment 8 – that accounting for herring as forage in the assessment is adequate, the focus should be on improving the assessment, and localized depletion lacks definition and sufficient scientific evidence.



# Current Problems

<b>The more commonly cited</b>	<b>NGO</b>	<b>Other</b>
Herring declines negative for predators	26	251
Declines in other forage species have increased pressure to harvest A. herring	14	17
Stock assessment accuracy	7	45
Insufficient precaution in accounting for herring as forage	17	114
Concentration of herring fishing effort in certain times and locations	18	294



# Desired Outcomes

<b>The more commonly cited</b>	<b>NGO</b>	<b>Other</b>
Protect spatial/temporal availability of herring for predators	18	270
Ecosystem-based management	35	151
Improved accounting of natural mortality in stock assessment &/or control rule	5/25	13/94
Benefits for predators and their fisheries	9	142



# Specific Ideas for Alternatives

<b>ABC control rule</b>	<b>NGO</b>	<b>Other</b>
Revise biomass target	10	1
Revise fishing mortality rate	13	5
Create biomass cut-off	5	0
Consider forage needs on a sub-regional basis	4	3
Create rules for data-poor situations	4	0
Maintain stability of catch when stock conditions are normal	1	0



# Specific Ideas for Alternatives

Herring fishery effort	NGO	Other
Make inshore closure year-round throughout New England	3	242
Create inshore closure off Cape Cod and RI	7	116
Expand IA closure to year-round	7	82
Ban midwater trawls	1	15
Lower Annual Catch Limits	0	4



# Other Comments

- “ Several references to scientific studies, and examples of how other fisheries are managed.
- “ Many comments called for considering tradeoffs of: the value of herring to the ecosystem, herring and lobster fisheries, other commercial and recreational fisheries, whale watch industry.
- “ Networking among stakeholders evident. About 60 written comments signed by 200+ people used 6-8 versions of similar text.



# Amendment 8

## Localized Depletion



# Review of current measures

## Seasonal split of Area IA sub-ACL:

- “ January-May & June-December (Framework I, 2002).
- “ Rationale primarily economic, to maximize ACL use.

## Seasonal Area IA midwater trawl closure:

- “ June–September (Amendment I, 2007).
- “ Rationale:
  - “ Ensure access to herring for purse-seine/fixed gear.
  - “ Public concern about midwater trawl impacts on the inshore herring component.
  - “ SSC concerns about concentrated catch inshore and need for precaution due, in part, to lack of data on inshore resource.
- “ No data analysis: “No specific data that link midwater trawling to localized depletion and overall declines in herring abundance are available...”



# December PDT discussion

- “ PDT discussed potential technical analyses to support developing the problem statement and measures, and seeks direction from the Committee.
- “ Preliminary look at 2006-2013 changes in catch (by gear type, per trip, per tow) by statistical area for cod, dogfish, and pollock within a week of herring catch.
- “ No significant trends were discovered, which doesn't mean that localized depletion isn't occurring; other treatments of the data may be necessary.



# December PDT discussion

## Data challenges (p. 5-6, mtg summary)

- “ Amendment I analysis hampered by lack of definition of localized depletion or what scale(s) mattered.
- “ Correlating herring and predator catch compounded by factors beyond fish presence/absence.
- “ Various spatial resolutions on catch (e.g., virtually no private angler spatial data, poor tuna data)
- “ Correlation doesn't necessarily = causality.
- “ Consider rate of herring removal vs. immigration; may be hard to identify localized depletion when herring are moving.



# River herring/shad catch cap monitoring



## Sept. 2015 Council motion

*“That because River herring/Shad bycatch in the sea herring fishery is monitored by NMFS solely from observer data, the Council requests NMFS include state port-side monitoring of RH/S catch to determine that catch relative to the bycatch caps.”*

- “ Motion postponed to a later meeting due to the need for more information.
- “ Topic on the January 2016 Council agenda.



## December PDT discussion

- “ MEDMR and MADMF run similar voluntary portside collection programs.
- “ Some offload locations not sampled due to safety.
- “ Data have been combined with observer data to estimate total RH/S catch to establish (FW3) and revise caps (2016-2018 specs).
- “ From 2008-2014, portside sampling measured 16% additional trips.
- “ Requiring participation may resolve reporting biases, but it may not be possible for NMFS to require participation in a state program.



# December PDT discussion

- “ Data transmission lags, sampling differences could become more consistent.
- “ GARFO could use the data without Council action.
- “ Requiring participation/safety standards would require Council action.

## PDT Recommendation

- “ Support continuing the portside programs.
- “ Support moving towards using the data to monitor RH/S and haddock catch caps.
- “ Cautions against using the data immediately, as several issues need resolution.



# **2017-2022**

# **Research Priorities**

# **for Atlantic Herring**



# December PDT discussion

## Priorities Examined

- ” 2010-2014 Council
- ” 2016-2018 A. herring Research Set-Aside
- ” 2016-2020 MAFMC draft priorities for river herring

## PDT Recommendation

- ” All priorities examined are important.
- ” Social science priorities should be more specific.
- ” Add improving RH/S catch estimation methods.



# Georges Bank Haddock Catch Cap Accountability Measure



## Dec. 2015 Council motion

### **A 2016 priority added:**

“initiate an action to amend the accountability measures in the Georges Bank haddock catch cap in the herring fishery.”

- ” Uncertain how quickly the Council will move forward on this action or what the alternatives may be.
- ” Topic on the January 2016 Council agenda.
- ” AM revisions in realm of Herring Cte.
- ” sub-ACL revisions would need joint H/GF action.

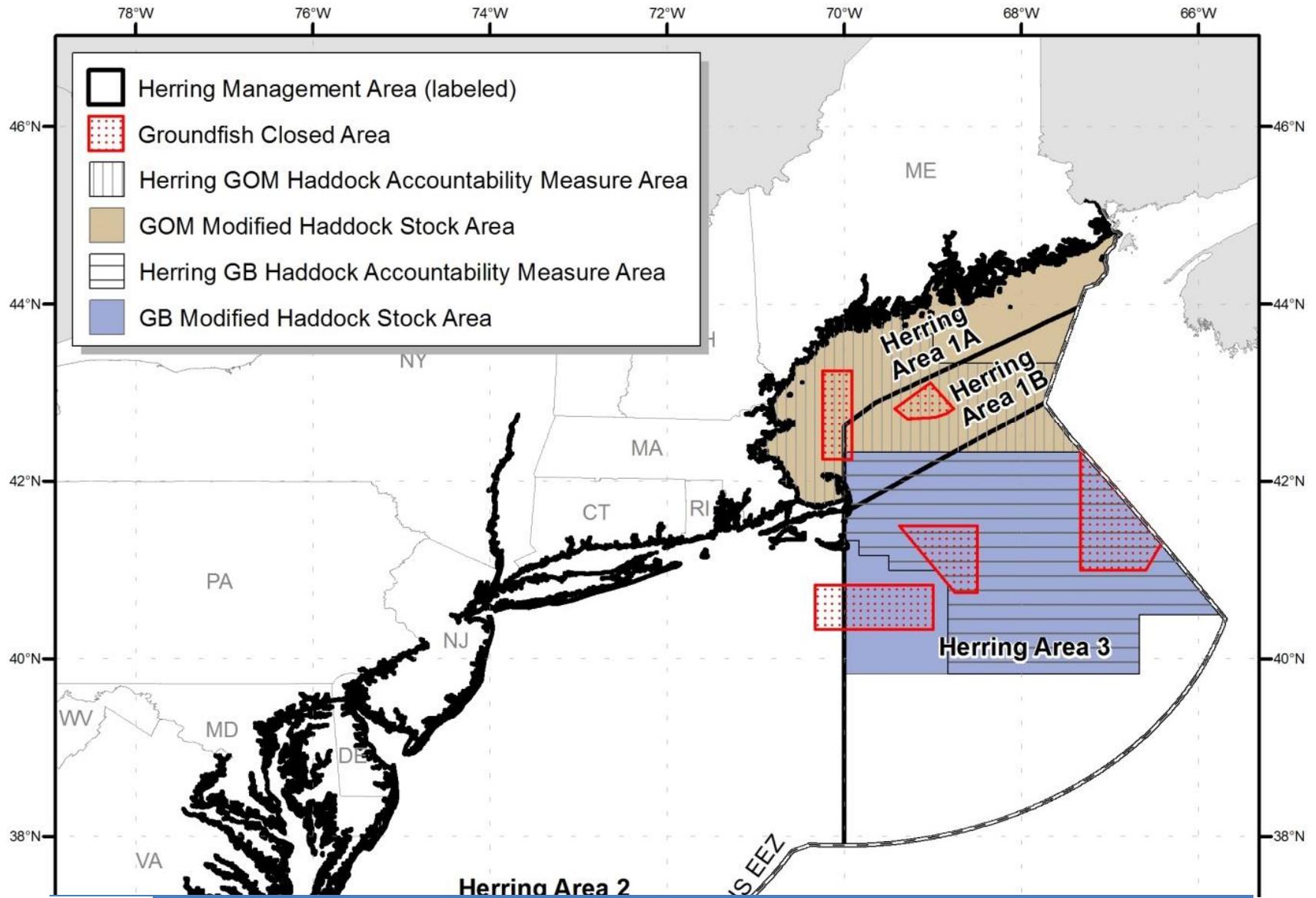


## GB haddock catch cap

- “ In 2011, GOM and GB haddock catch caps separated and increased to 1% of ACL.
- “ 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.

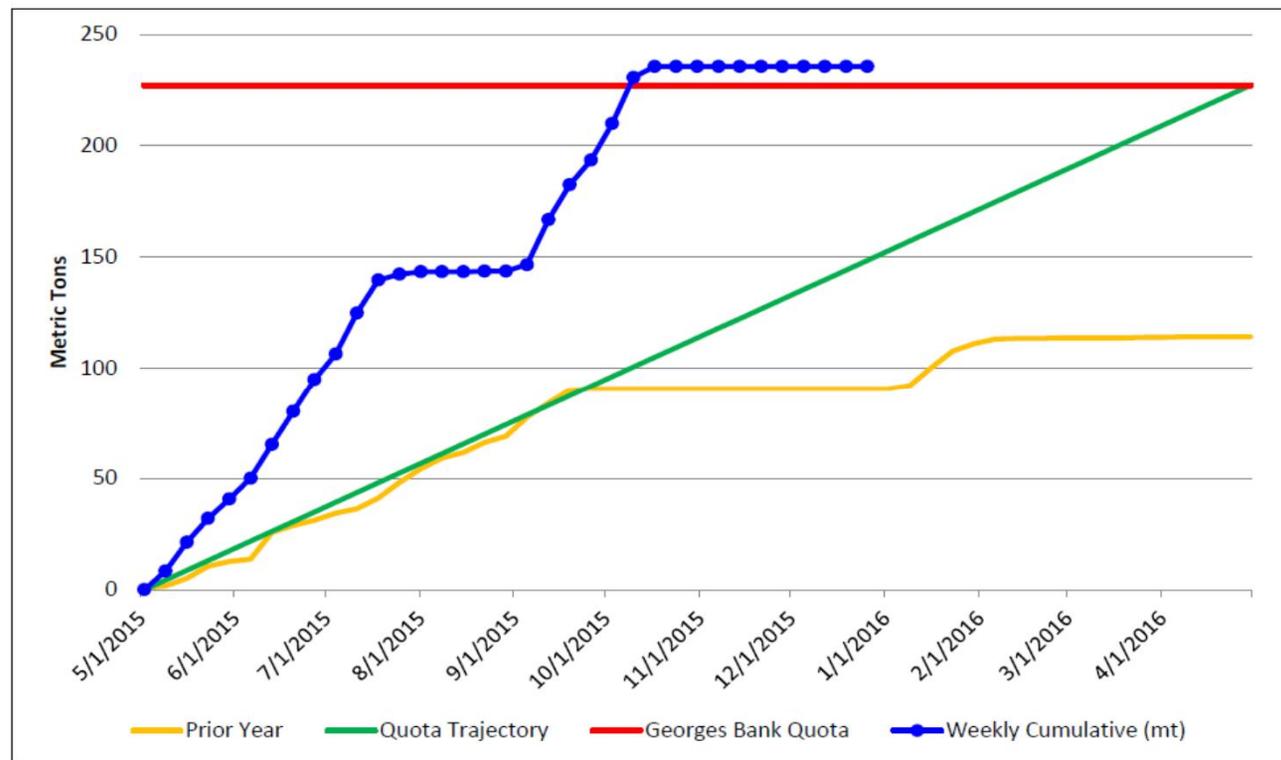


# GB haddock catch cap



# GB haddock catch cap

- “ As of 8/12/2015, almost **8%** of the cap used.
- “ Subsequently, additional observer data became available.
- “ As of 10/31/2015, **103.76%** of the cap used.



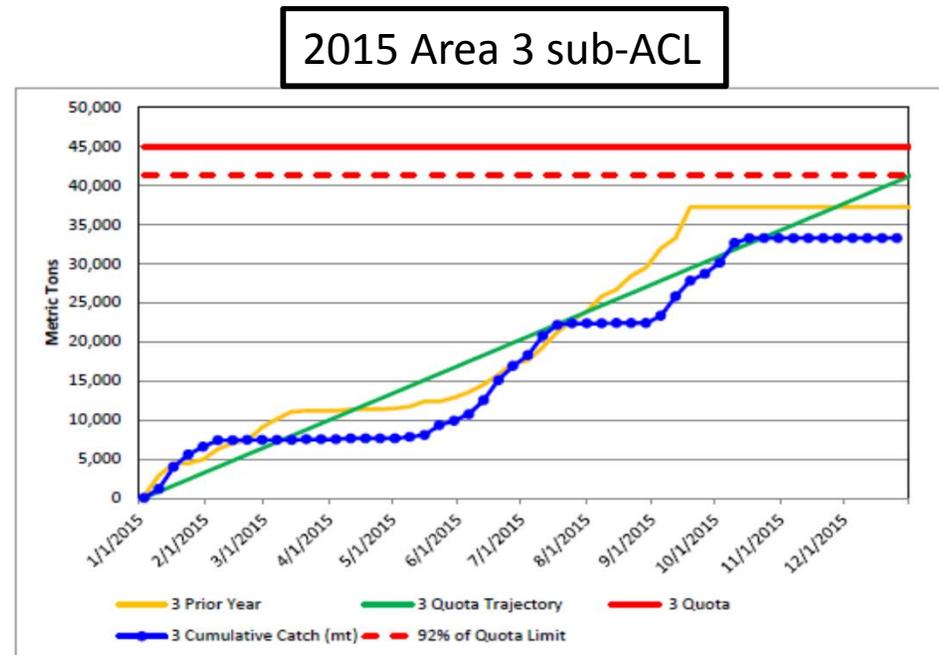
Source: GARFO quota monitoring website, 12/27/2015 update



# GB haddock catch cap

- “ Cap exceeded one other time, in 2013 by 105%.
- “ 9,600 mt of 2015 herring quota was not caught in Areas 1B and 3. The AM constrained effort in Area 3; the fishery had not been active in Area 1B since early June.

- “ 2016 cap expected to increase by 125% to 511 mt.



Source: GARFO quota monitoring website, 12/27/2015 update