

**AMENDMENT 1 TO THE HERRING FMP:
BYCATCH CAPS FOR GROUND FISH STOCKS OF CONCERN**

DISCUSSION PAPER

This paper addresses issues related to developing a measure for bycatch caps for groundfish stocks of concern in Amendment 1 to the Herring FMP. At the July 2004 meeting, the Council approved a proposal submitted by Oceana to consider a measure for bycatch caps in the Atlantic herring fishery during the development of Amendment 1. The Oceana proposal focused on groundfish stocks of concern and was based on an approach utilized in Framework 40A to the Multispecies (Groundfish) FMP.

The Herring and Groundfish PDTs met jointly on May 5, 2005 to develop options for bycatch caps and address related issues. The PDTs used the Oceana proposal as a starting point for developing this measure in Amendment 1. The Herring Committee met on May 17/18, 2005 to review this document and develop Committee recommendations regarding options for bycatch caps and monitoring programs to be considered further in Amendment 1.

Options for the bycatch caps as well as monitoring mechanisms that were developed by both the Herring/Groundfish PDTs on May 5 and the Herring Committee on May 17 are included in this document. The Council should review the proposed options and Herring Committee recommendations and determine which options for catch caps as well as monitoring programs to be considered further in the Amendment 1 DSEIS. Groundfish Committee recommendations regarding the options developed by the Herring Committee are also included in this document.

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1.0 BACKGROUND

The elements of the Oceana proposal, including a recommendation to consider bycatch caps, was approved by the Council at the September 16-18, 2003 meeting as part of the original range of alternatives for Amendment 1:

September 16-18, 2003

4. The main motion, as amended, was voted:

to approve the Range of Alternatives for Amendment 1 (in the Amendment 1 discussion document, limited access alternatives document and industry/other proposals) as modified by the committee. Also, that for both alternatives for determining the distribution of TAC, include either a) the approach for ASMFC making in-season adjustments to the Area 1a TAC or b) that NMFS make those in-season adjustments.

The main motion, as amended, carried on a voice vote.

The Herring PDT reviewed the Oceana proposal and considered a measure for bycatch caps for groundfish stocks of concern in Jan/Feb/March 2004. At that time, the PDT recommended that this measure be eliminated from consideration in Amendment 1 and added to the list of measures that can be implemented through a framework adjustment in the future as more information becomes available. The PDT made this recommendation for several reasons, some of which include (see March 2004 Herring PDT Report for additional discussion):

- Adequate monitoring and enforcement of bycatch caps, especially if there are numerous caps, on a real-time basis may be problematic.
- Several PDT members expressed concern about establishing very high caps for species for which there is little or no information. All management measures should be based on the best available scientific information, and it does not seem appropriate to establish management measures for the sake of doing so in the absence of information to support such measures. In addition, relative to the groundfish species, the limited information that is available at this time suggests that groundfish bycatch may not be a significant problem in the herring fishery.
- The Herring PDT supports focusing this amendment on the collection of information to monitor and assess bycatch in the herring fishery as a first step towards identifying any bycatch problems that may exist.

At the March 2004 Herring Committee and Council meetings, the Herring PDT recommendation was supported:

March 23-25, 2004

13. Mr. Flagg moved on behalf of the committee:

to adopt the PDT recommendation that bycatch caps be added to the list of measures that could be implemented through the most expeditious mechanism in the future (framework adjustment or specification process, for example), if necessary, and as more information becomes available, in addition to other possible measures to address bycatch.

The motion carried on a voice vote.

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At the July 13-15, 2004 Council meeting, during discussion of the herring fishery specifications, Oceana submitted an additional, more detailed proposal for bycatch caps for groundfish stocks of concern. Because this measure can not be implemented through the specification process at this time, the Council agreed to reconsider it in Amendment 1:

July 13-15, 2004

7. Ms. McGee moved and Mr. Avila seconded:
that the groundfish and herring committees be directed to reconsider options in Amendment 1 to implement bycatch TACs for groundfish stocks of concern.

The motion carried on a show of hands.

2.0 OCEANA PROPOSAL – BYCATCH CAPS FOR GROUND FISH STOCKS OF CONCERN

This measure would establish bycatch caps (hard quotas) in the herring fishery for groundfish species of concern and was proposed by Oceana for consideration in this amendment. In general, this measure expands upon the current use of bycatch caps on stock of concern in the Category B DAS portion of the groundfish fishery. Bycatch caps would be established for groundfish stocks and management areas as appropriate in the Atlantic herring fishery (the stocks listed in Table 1 are from Framework 40A and were included in the Oceana proposal as an *example*).

Fishing for herring would stop in the respective management areas when the bycatch caps are met, and ideally, observers would monitor bycatch and bycatch mortality throughout the season. Bycatch caps for groundfish stocks of concern would be established at levels similar to those in the B DAS groundfish fishery until observer data provides sufficient information to adjust the caps. The bycatch caps would be adjusted annually based on new scientific information.

The intent of the Oceana proposal is to establish “backstop” quotas for groundfish stocks of concern at levels high enough to permit the herring fishery to remain open in an area unless there is a significant catch and discard of non-target groundfish species.

Table 1 Proposed Bycatch Caps for Groundfish Stocks of Concern (Oceana Example)

Stock	Proposed Bycatch TAC (mt)	Percentage of Overall 2005 Groundfish TAC	Applicable Herring Management Areas
Gulf of Maine Cod	127	2%	1A, 1B
Georges Bank Cod	97	2%	3
CC/GOM Yellowtail	25	2%	1A, 1B
Plaice	181	5%	All
White Hake	76	2%	All
SNE/MA Yellowtail	99	5%	2, small portion of Area 3
SNE/MA Winter Flounder	178	5%	2, coastal waters of MA
Witch Flounder	350	5%	All

**The species and bycatch TACs identified in this table were proposed by Oceana as an example, based on Framework 40A to the Multispecies FMP. The appropriate technical committees will consider these and other species when refining this measure and identifying the species and bycatch caps that will be further analyzed in the Amendment 1 DSEIS.*

***Oceana, the Herring Committee, and the Council have expressed intent to consider bycatch caps for haddock in addition to the species identified above.*

At-sea observers will be necessary to monitor the catch and bycatch in the herring fishery. Oceana states that recent science suggests that an observer coverage level of fifty percent is necessary to capture and statistically estimate the true nature of rare bycatch events. Oceana also suggests that management of the bycatch caps in the herring fishery operate in a manner similar to that of the Category B DAS in the multispecies fishery.

***In order to implement this measure in Amendment 1 to the Herring FMP, Amendment 1 will have to be a joint action with the Multispecies FMP (i.e., Amendment 1 will also serve as Multispecies Framework X.) Many of the details regarding this measure should be specified in the Amendment 1 DSEIS so that supporting information and analyses can be developed.*

3.0 DEFINITION – “CATCH CAPS”

The PDTs agreed that this measure should establish “catch caps” (hard quotas) for groundfish stocks of concern in the herring fishery – that is, caps on the total amount of a groundfish stock caught in the herring fishery. This includes both at-sea discards and any fish that are landed due to the volume nature of the fishery and the inability to completely sort the catch at-sea. Monitoring of the caps should occur both at-sea and dockside. If landing the groundfish stocks for which caps are established continues to be prohibited for herring vessels, the only way to account for the catch is through at-sea observer coverage. Since observer coverage is not likely to increase to levels sufficient to monitor the caps, at least in the short-term, the Council may want to consider allowing the landing of the stocks subject to a cap so that there is an additional mechanism to better account for the fish and monitor the cap at the dock.

4.0 BACKGROUND – HERRING/GROUNDFISH PDT DISCUSSION

The limited observer coverage in the herring fishery to date and the limited observations of groundfish bycatch, make it difficult to identify the stocks that should be subject to a groundfish catch cap. The PDTs discussed that it may be more appropriate to use only the 2004 observer data to estimate catch caps, since that is the only year with a reasonable amount of coverage.

The PDTs also discussed how difficult it is to identify catch caps without clear direction from the Council regarding the intent of this measure. For example, what is the goal of the catch cap?; Is the goal of this measure to create incentives to minimize bycatch in the herring fishery?; Is the goal of this measure to allocate a portion of the groundfish TAC so that the herring fishery can continue to operate?; Is the goal of this measure to better account for bycatch in the herring fishery?

The Herring and Groundfish PDTs identified several important complications associated with developing measures for groundfish catch caps in Amendment 1 and, in general, do not support this measure at this time. The PDTs agreed that the focus of Amendment 1 should be on the collection of additional, more comprehensive bycatch information so that problems can be identified and addressed as appropriate. The Herring and Groundfish PDTs do not believe that the available data are adequate to conclude that there is a significant groundfish bycatch problem in the herring fishery. The PDTs are uncomfortable establishing catch caps based on limited data, especially when the Groundfish PDT is about to reassess the status of the multispecies stocks in Framework 42. Moreover, it is difficult to use the limited data available and implement an effective program without knowing how the fishery may change in response to other management measures implemented in Amendment 1 (management area boundaries, purse seine/fixed gear-only areas, limited access, etc.).

Despite the significant reservations described above, the PDTs developed the options for groundfish catch caps, described in this document, as directed by the Council at its July 2004 meeting. There are several issues that the PDTs considered when developing the catch cap options proposed for consideration:

Species-Wide Versus Stock-Wide Catch Caps

The PDTs discussed issues associated with establishing catch caps on a species-wide versus a stock-wide basis. A species-wide approach is simpler from a compliance, monitoring, and enforcement perspective; it may be appropriate to take a simple approach as a starting point given the lack of data with which to work.

However, because of different status, it may not be appropriate to allocate TACs on a species-wide basis. For example, the status of CC/GOM yellowtail flounder is very different than that of GB yellowtail flounder. GB haddock is rebuilding more rapidly than GOM haddock. If TACs are determined based on species, they would have to be more conservative in order to protect the weaker stock. If determined on a stock-by-stock basis, it complicates monitoring of the TAC because the location of catch must be accurately known. In general the PDTs agreed that if a stock-wide program could be monitored, it would be better to identify catch caps on a stock-by-stock basis.

The PDTs agreed to utilize a stock-specific approach to establishing catch caps to account for the differing status of certain stocks (cod, for example).

Groundfish Stock Area Versus Herring Management Area

Depending on which species/stocks are selected for bycatch TACs, there may be a need to resolve differences between groundfish stock areas and herring management areas. One solution is to apply the TAC to the groundfish stock area and prohibit fishing for herring in that area if/when the TAC is reached. However, without adequate monitoring, it will be very difficult to identify which stock the fish are from without accurate information about where the vessel caught the fish. Some important groundfish stock areas are shown in Figure 5 (p. 29) to illustrate this point.

The PDTs agreed that the catch caps should apply to the groundfish stock areas. Herring vessels use VMS, so there should be a mechanism to identify the point of origin of the catch. Moreover, for the most part, herring vessels make trips to specific areas to find fish and do not often catch fish in areas far apart from each other on the same trip.

Herring Fishing Year Versus Groundfish Fishing Year

The herring fishing year is consistent with the calendar year (January 1 – December 31). The groundfish fishing year runs from May 1 – April 30 of the following year.

2006 Herring Fishing Year = January 1, 2006 – December 31, 2006

2006 Groundfish Fishing Year = May 1, 2006 – April 30, 2007

Framework 16/39 addressed this issue when establishing bycatch TACs for the scallop fishery by using the groundfish fishing year. Scallop fishing during March and April (the beginning months of the scallop fishing year) occurred under the previous year's TAC for groundfish. This may only be a minor problem for the herring fishery, as almost all herring fishing from January – April occurs in Area 2, which is an area of less concern with respect to groundfish bycatch.

The PDTs agreed that the catch caps should be established based on the groundfish fishing year. Catches in the herring fishery from January – April would count against the cap established in May of the previous year.

Monitoring the Catch Cap

Any groundfish TAC is meaningless without an adequate monitoring system. Experience with the Council's Bycatch Committee and the recommended haddock bycatch TAC (March 2005) suggests that a measure for bycatch caps in the herring fishery cannot be implemented without a corresponding monitoring program.

Options for a monitoring program are described in Section 7.0 of this document. The Herring Committee should select one or more options for monitoring programs to move forward with this measure for further consideration in Amendment 1.

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Inconsistent Regulations

This measure will require changes to both the herring and groundfish regulations. As such, it must be implemented as a joint action – Amendment 1 to the Herring FMP and Framework X to the Multispecies (Groundfish) FMP. (Note that the framework adjustment to the Multispecies FMP was already initiated by the Council at its November 2004 meeting.)

Herring midwater trawls and herring purse seines are identified as **exempted gear** under the groundfish plan. This is gear that has been deemed not capable of catching groundfish. If this gear is now allowed to catch regulated groundfish up to a certain level, then the basis for assigning this gear to exempted gear status is no longer valid.

From 50 CFR Section 648.2 (Definitions)

Exempted gear, with respect to the NE multispecies fishery, means gear that is deemed to be not capable of catching NE multispecies and includes: Pelagic hook and line, pelagic longline, spears, rakes, diving gear, cast nets, tongs, harpoons, weirs, dipnets, stop nets, pound nets, pelagic gillnets, pots and traps, purse seines, shrimp trawls (with a properly configured grate as defined under this part), surf clam and ocean quahog dredges, and midwater trawls.

Removing this gear from the exempted gear list has several implications. Under the groundfish regulations, vessels are only allowed to use mesh smaller than the regulated mesh size if they are using either exempted gear or are participating in an exempted fishery. While the regulatory text is confusing on whether herring midwater trawls are an exempted fishery, Multispecies Amendment 1 removed the exempted fishery status of herring midwater trawls. Midwater trawl access to the WGOM Closed Area, the Cashes Ledge year-round groundfish mortality closed areas and all seasonal closures is based on its status as exempted gear (this gear has been specifically authorized access to groundfish closed areas in Framework 18).

One way to resolve this issue may be to define the herring midwater trawl and purse seine fisheries as exempted fisheries. Amendment 13 modified the requirements for establishing a fishery as an exempted fishery and allows more flexibility in the criteria used. This fishery could be defined as an exempted fishery and that status tied to the ability of the fishery to comply with the incidental catch TACs. Existing access to the groundfish closed areas might be continued under this same approach. The Committee/Council should consider these issues.

Issues related to the status of midwater trawls and purse seines as exempted gear and/or the status of the herring fishery as an exempted fishery can be addressed through the groundfish framework adjustment aspect of this management action since changes to the existing groundfish regulations are required. The Groundfish Committee should discuss these issues and provide its recommendations to the Council prior to the final selection of management alternatives for Amendment 1, which will also be the final meeting for the corresponding groundfish framework adjustment. Any recommendations that the Groundfish Committee can provide prior to completion of Amendment 1 also can be included in the Amendment 1 DSEIS and public hearing document to provide the industry and public with advanced notification of actions that may be forthcoming in the groundfish framework adjustment. The Groundfish Committee recommendations to date are also summarized in this document.

5.0 GROUNDFISH STOCKS RECOMMENDED FOR CATCH CAPS AT THIS TIME

Oceana proposed that bycatch caps in the herring fishery be established for the following groundfish stocks of concern:

- Gulf of Maine Cod
- Georges Bank Cod
- CC/GOM Yellowtail
- American Plaice
- White Hake
- SNE/MA Yellowtail
- SNE/MA Winter Flounder
- Witch Flounder
- *Haddock

The Groundfish and Herring PDTs reviewed available information regarding groundfish bycatch in the herring fishery (see Section 11.0 of this document as well as the bycatch background section of the Amendment 1 DSEIS for available information about bycatch in the herring fishery). Some of the species listed above in the Oceana proposal are not known to be caught as bycatch in any measurable amounts in the herring fishery.

The PDTs agreed that, as a starting point for this measure, the focus should be on those groundfish species that are known to be caught in the greatest amounts by the herring fishery (based primarily on available observer data).

After reviewing available information and discussing this proposal, the Herring and Groundfish PDTs separated the groundfish stocks (all ten regulated multispecies) into two tiers:

1. **PRIMARY STOCKS** – Groundfish stocks that are known to be caught in the greatest amounts in the herring fishery. These are the stocks for which the PDTs recommend considering a catch cap at this time.

GEORGES BANK HADDOCK

GULF OF MAINE HADDOCK

POLLOCK

REDFISH

GEORGES BANK COD

GULF OF MAINE COD

Table 2 Catch of Regulated Multispecies in the “Greatest Amounts” from Observed Herring Trips by Gear Type in 2004

	Total No. Trips Observed in 2004	#1	#2	#3
Purse Seine	25	Redfish (220 lbs.)		
Midwater Trawl	20	Haddock (795 lbs.)	Pollock (359 lbs.)	Cod (102 lbs.)
Pair Trawl	60	Haddock (7,088 lbs.)	Redfish (2,782 lbs.)	Pollock (102 lbs.)

2. **SECONDARY STOCKS** – Groundfish stocks that may be caught in the herring fishery, but in much lesser amounts than the primary stocks. These are the stocks which the PDTs recommend monitoring closely. If bycatch of any of these stocks increases in the future, catch caps could be established accordingly (the Council already determined that Amendment 1 will include language to establish/adjust catch caps through either the framework adjustment process or the fishery specification process, whichever is most expeditious).

WHITE HAKE

AMERICAN PLAICE

WINDOWPANE FLOUNDER

GOM WINTER FLOUNDER

GB WINTER FLOUNDER

SNE/MA WINTER FLOUNDER

CC/GOM YELLOWTAIL FLOUNDER

SNE/MA YELLOWTAIL FLOUNDER

WITCH FLOUNDER

6.0 ADDITIONAL BACKGROUND – CATCH CAP TRIGGER, CLOSURE, AND CONSEQUENCES

The PDTs considered several questions:

What is the trigger for the TAC to be reached? In the past, when 95% or more of a TAC is projected to be reached by the Regional Administrator, the fishery/area under the TAC closes. This is the case with the herring TACs in Areas 1A, 1B, 2, and 3.

When the trigger is reached, does the entire groundfish stock area close?

OR...

When the trigger is reached, do the herring management areas that overlap with the groundfish stock area close?

The PDTs agreed to recommend that when the trigger is reached, the area that includes 90% of the area where the groundfish stock is caught should close. This approach was considered for the hard TAC alternative of Amendment 13 and provides a compromise between protecting groundfish and

allowing the herring fishery to operate in some areas even if a stock cap is caught (see table below). **Consistent with this approach, the trigger for closure would be when 90% of the catch cap is reached.** This provides a buffer of 10% of the catch cap to account for any additional bycatch of the stock in question that may occur outside of the groundfish stock area that is closed.

Table 3 Areas Closed to Herring Fishing When 90 Percent of Groundfish Catch Cap is Caught

SPECIES	STOCK	Area Closed
		Statistical Areas
Cod	GB	521,522,525,526,561
	GOM	513,514,515
Haddock	GB	521,522,561
	GOM	512,513,514,515
Redfish		513,514,515,521,522,561
Pollock		513,514,515,521,522,561

A chart depicting the statistical areas is provided on p. 19 (Figure 1).

7.0 HERRING/GROUNDFISH PDT OPTIONS FOR CATCH CAPS

The Herring and Groundfish PDTs developed two catch cap options for the Herring Committee to consider at its May 17/18, 2005 meeting. The two options developed by the PDTs are described in the following subsections. The options that the Herring Committee ultimately recommended for further consideration in Amendment 1 are described in Section 8.0 of this document (p. 14). The Herring and Groundfish PDTs did not identify a preferred option.

7.1 PDT OPTION 1 – SUBSET OF FRAMEWORK 40A INCIDENTAL CATCH TACS

Herring catch caps would be part of the incidental catch TACs identified for Category B DAS programs by FW 40A. FW 40A established incidental catch TACs for stocks of concern in order to limit catches on Category B DAS. Incidental catch TACs for stocks of concern were set at levels that reduced the risk that additional fishing effort would threaten Amendment 13 rebuilding targets. Since there was uncertainty over the impacts of Amendment 13 when these TACs were established, the amounts were determined based on a review of the expected impacts of the amendment’s management measures, the impacts of the interim measures in place in FY 2002 and FY 2003, and the status of the stocks. The TACs are projected forward based on the most recent assessment, and will be updated in FY 2006 and FY 2009. It is possible that the results of assessments in 2005 and 2008 may change the approach used to establish incidental catch TACs. The overall incidental catch TACs are allocated to specific programs that provide opportunities for increased effort on groundfish. This approach would treat the herring fishery as one of those programs since in essence this approach acknowledges that herring fishing results in mortality on groundfish that was not explicitly considered in Amendment 13.

When 90% of one of the above catch caps is projected to be reached, the statistical areas listed in Table 3 (90% of area where stock is caught) would close to herring fishing for the remainder of the groundfish fishing year (i.e., until the next catch cap becomes effective on May 1 of the following year).

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Incidental catch TACs were not identified for healthy stocks, including pollock, redfish, GB haddock, and GOM haddock. This option thus requires that a catch cap be specified for these stocks solely for the herring fishery.

The following tables illustrate recommended changes to the incidental catch TACs and the resulting catch caps that would be applied to the herring fishery. These tables are based on the assumption that FW 40B and FW 41 are approved as submitted by the Council. If these actions are not approved or are changed by NMFS, then these tables will be revised. In order to reflect a comprehensive picture of this option, the TACs are shown for all programs.

Table 4 Proposed Incidental Catch TACs for Major Stocks of Concern (mt)

	Percentage of Total TAC	Incidental Catch TAC (MT)		
		2004	2005	2006
GOM cod	Two	97	127	149
GB cod	Two	79	97	127
CC/GOM yellowtail	Two	18	25	21
Plaice	Five	185	181	151
White Hake	Two	77	76	76
SNE/MA Yellowtail	Five	35	99	166
SNE/MA Winter	Five	143	178	222
Witch Flounder	Five	259	350	383

TACs are for the groundfish fishing year.

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Table 5 Allocation of Incidental Catch TACs for Major Stocks of Concern to Category B DAS Programs (shown as percentage of the incidental catch TAC) (assumes extension of Category B (regular) DAS program)and Herring Fishery Catch Caps

	Category B (regular) DAS Pilot Program	WGOM Rod/Reel Haddock SAP	CAI Hook Gear SAP	Eastern US/CA Haddock SAP	Research Set-Aside	Herring Fishery Catch Cap
GOM Cod (w/o herring catch cap)	95%	5%	NA	NA	NA	0%
GOM Cod (w/ herring catch cap)	71.0%	4.0%	NA	NA	NA	25.0%
GB cod (w/o herring catch cap)	45%	NA	14.4%	30.6%	10%	0
GB Cod (w/ herring catch cap)	33.7%	NA	10.8%	23.0%	7.5%	25.0%
CC/GOM yellowtail	100%	NA	NA	NA	NA	NA
Plaice	100%	NA	NA	NA	NA	NA
White Hake	100%	NA	NA	NA	NA	NA
SNE/MA Yellowtail	100%	NA	NA	NA	NA	NA
SNE/MA Winter Flounder	100%	NA	NA	NA	NA	NA
Witch Flounder	100%	NA	NA	NA	NA	NA
GOM Haddock	NA	NA	NA	NA	NA	46.4 mt
GB Haddock*	NA	NA	NA	NA	NA	150 mt*
Pollock	NA	NA	NA	NA	NA	105.8 mt
Redfish	NA	NA	NA	NA	NA	18.0 mt

**Number for Georges Bank haddock is estimated. Exact value will not be known until after the September Council meeting.*

Table 6 Current Estimates of the GB Cod Incidental Catch TACs and Herring Fishery Catch Cap for FY 2006 (assumes extension of Category B (regular) DAS program)

Program	FY 2006 (w/o herring catch cap)	FY 2006 (w/herring catch cap)
Category B (regular) DAS Pilot Program	57.1	42.8
CAI Haddock SAP	18.3	13.7
Eastern US/CA Haddock SAP	38.9	29.2
GB Cod research set aside	12.7	9.5
Herring Fishery catch cap	0	31.8

Table 7 Current Estimates of the GOM Cod Incidental Catch TACs and Herring Fishery Catch Cap for FY 2006 (assumes extension of Category B (regular) DAS program)

Program	FY 2006 (w/o herring catch cap)	FY 2006 (w/herring catch cap)
Category B (regular) DAS Program	141.6	105.8
WGOM Rod/Reel Haddock SAP	7.5	6.0
Herring Fishery Catch Cap	0	37.3

Discussion: This option explicitly recognizes that all sources of groundfish mortality must be consistent with the rebuilding programs adopted by Amendment 13. The allocation of a catch cap to the herring fishery recognizes that groundfish mortality results from that fishery. As a result, that mortality must be consistent with the overall rebuilding programs. Mortality from the herring fishery is conceptually no different than mortality that results from any other program that does not use DAS (Category A DAS). FW 40A established a structure to account for that extra effort in the context of the groundfish fishery. This option extends that approach.

The incidental catch TACs are a fixed percentage of the groundfish target TACs. If part of that TAC is assigned to the herring fishery, it has to be taken away from some other program and reduces the opportunities for groundfish vessels to use those programs. The suggested changes in this table are viewed as a starting point for discussion. They were calculated by proportionally reducing the GOM and GB cod TACs for other programs in order to create a catch cap for the herring fishery. For other stocks (haddock, pollock, redfish) the catch caps were calculated as in Option 2. It is possible that there are other fisheries (lobster, squid, scallops, whiting, etc.) that would be candidates for a similar approach.

In the past, many sources of groundfish mortality were not explicitly included in groundfish assessments, including that from the herring fishery. (It is possible that some of this mortality did get included in overall catch statistics if the catch was sold, but catches were not explicitly estimated). These sources of mortality were considered so small as to make little difference in the overall evaluation of stock status. While they contributed to the total mortality that applied to the stock, they were not factored into estimates of fishing mortality. This assumption may prove to be problematic as groundfish stocks recover and interactions with other fisheries increase.

7.2 PDT OPTION 2 – PERCENTAGE OF TARGET TAC

Under this approach, the TAC for the herring fishery would be calculated as a percentage of the overall groundfish target TAC. The size of the groundfish catch cap is thus a function of stock size and the fishing mortality rate adopted by Amendment 13.

Available observed reports of groundfish catch in the herring fishery are not sufficient to determine overall discard/kept ratios and are not a reliable indicator of the frequency, quantity, or spatial distribution of groundfish catches. In the absence of this information, the recommended catch caps are based on an evaluation of groundfish stock status and the fishing mortality rates expected to result from Amendment 13. For stocks that are either not overfished or are rebuilding rapidly, and where fishing mortality is expected to be lower than the Amendment 13 target, the bycatch cap is set at 1 percent of the target TAC. For the stocks that are overfished, or where fishing mortality is expected to meet the Amendment 13 target, the catch cap is established as ½ percent of the target TAC. The cap percentages and current

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estimates of the cap amount are shown in Table 8 for FY 2006. The cap amounts (mt) shown will change when target TACs are updated and will be provided for future years after groundfish assessment updates in August, 2005.

When 90% of one of the above catch caps is projected to be reached, the statistical areas listed in Table 3 (90% of area where stock is caught) would close to herring fishing for the remainder of the groundfish fishing year (i.e., until the next catch cap becomes effective on May 1 of the following year).

Table 8 Option 2 Herring Fishery Groundfish Catch Caps (mt) for FY 2006

Stock	FY 2006 Target TAC	Cap Percentage	FY 2006 Cap Amount
GOM Cod	7,470	0.5%	37.4
GB Cod	6,361	0.5%	31.8
GOM Haddock	4,642	1%	46.4
GB Haddock*	15,000*	1%	150*
Pollock	10,584	1%	105.8
Redfish	1,803	1%	18

**Number for Georges Bank haddock is estimated. Exact value will not be known until after the September Council meeting.*

Discussion: This option does not explicitly acknowledge that catches of groundfish in the herring fishery contribute to fishing mortality. Catches of groundfish in the herring fishery have not been routinely included in the catch-at-age data used in assessments (unless those catches were illegally sold and thus attributed to other fisheries). This does not appreciably affect determinations of stock status unless those catches are substantial enough to affect the assessment, and there is little evidence that this was the case. Including those catches might slightly increase the biomass estimates and resulting TACs and may have a minor effect on fishing mortality. The establishment of a catch cap is a way to make certain that catches do not increase enough to affect rebuilding targets. As long as these caps keep herring catches at levels similar to those experienced in the past they will not have an appreciable effect on rebuilding efforts. While this approach may be attractive because it does not reduce the incidental catch TACs for other programs, it should be recognized that this is no less an allocation decision than the first option. The removals that result from the herring fishery will have some impact, however slight, on groundfish stocks and total groundfish mortality. Any failure of the rebuilding program to achieve its goals will result in additional restrictions on the groundfish fishery.

8.0 HERRING COMMITTEE OPTIONS FOR CATCH CAPS

At its May 17/18, 2005 meeting, the Herring Committee reviewed all available information about bycatch in the herring fishery as well as the Herring/Groundfish PDT options for catch caps for groundfish stocks of concern in Amendment 1 (described above). The Committee determined that haddock should be the only groundfish species for which catch caps in the herring fishery should be established at this time. The Committee passed the following motion, which forms the basis of the two options described in this section:

That the Committee advise the Council that we have reconsidered options in Amendment 1 to implement bycatch TACs for groundfish species of concern and we concur with the Herring and Groundfish PDTs that there should be no measures for groundfish bycatch caps in Amendment 1. The focus of Amendment 1 should be on the collection of additional, more comprehensive bycatch information to assist the Council to determine the existence of bycatch problems and how they should be addressed. However, for recent bycatch problems that have emerged, we recommend two options: (1) 1,000 pound landing/possession limit of haddock (consistent with the emergency action recommendation – suspension of minimum size for haddock bycatch and prohibition on sale for human consumption) and 100 pounds total possession limit for all other regulated species (suspension of minimum sizes and prohibition on sale for human consumption) or (2) the Bycatch Committee recommendation and PDT Option 2 for a 1% catch cap for haddock only (separate caps for Georges Bank and Gulf of Maine haddock) and 100 pounds total possession limit for all other regulated species (suspension of minimum sizes and prohibition on sale for human consumption).

The details of the options in the above motion are discussed in the following subsections.

8.1 COMMITTEE OPTION 1 – MARCH 2005 EMERGENCY ACTION RECOMMENDATION FOR HADDOCK

Committee Option 1 reflects the Council's recommendation for emergency action to address recent haddock bycatch problems, with an additional provision that would allow herring vessels to possess up to 100 pounds of other regulated multispecies. This option would be applicable to Category 1 herring vessels, or those with a limited access permit (directed or incidental catch) once Amendment 1 is implemented. The elements of this option are as follows:

1. 1,000-pound Incidental Catch Possession Limit of Haddock

- Suspension of minimum fish size for haddock caught in the herring fishery
- Prohibition on sale of haddock for human consumption

2. 100-pound Total Incidental Catch Possession Limit of all Other Regulated Multispecies (Cod, Witch Flounder, Plaice, Yellowtail Flounder, Haddock, Pollock, Winter Flounder, Windowpane Flounder, Redfish, and White Hake)

- Suspension of minimum fish sizes for other regulated multispecies caught in the herring fishery
- Prohibition on sale of regulated multispecies for human consumption

8.2 COMMITTEE OPTION 2 – BYCATCH COMMITTEE RECOMMENDATION FOR HADDOCK INCIDENTAL CATCH TAC (SLIGHTLY MODIFIED)

Committee Option 2 generally reflects the Bycatch Committee's recommendation for an incidental catch TAC for Gulf of Maine and Georges Bank haddock with some modifications and additions, as described below. This option would be applicable to Category 1 herring vessels, or those with a limited access permit (directed or incidental catch) once Amendment 1 is implemented. The elements of this option are as follows:

- 1. Incidental Catch Allowance for the Directed Herring Fishery up to 1% of the GB Haddock TAC and 1% of the GOM Haddock TAC**
 - When 90% of the TAC is projected to be reached, 90% of the area where the stock is caught would be closed (consistent with the approach proposed by the Groundfish and Herring PDTs, described in Section 6.0 – the statistical areas that would close if the haddock TACs are reached is provided in Table 3)
 - Prohibition on discarding haddock at sea (full retention)
 - Prohibition on sale of haddock for human consumption
 - Suspension of haddock minimum fish size for vessels in the herring fishery
 - This measure would apply to midwater trawl, pair trawl, and purse seine vessels participating in the directed herring fishery (Category 1, or limited access permit holders after Amendment 1 is implemented). Purse seine vessels would not be exempt from this measure.
- 2. 100-pound Total Incidental Catch Possession Limit of all Other Regulated Multispecies (Cod, Witch Flounder, Plaice, Yellowtail Flounder, Haddock, Pollock, Winter Flounder, Windowpane Flounder, Redfish, and White Hake)**
 - Suspension of minimum fish sizes for other regulated multispecies caught in the herring fishery
 - Prohibition on sale of regulated multispecies for human consumption

9.0 GROUND FISH COMMITTEE RECOMMENDATIONS

At its May 23-24, 2005 meeting, the Groundfish Committee reviewed the options for catch caps that were developed by the Herring Committee. The Groundfish Committee supports the inclusion of both options as alternatives in the Amendment 1 DSEIS. The Groundfish Committee adopted Option 2 as its preferred alternative. The Committee believes that this option will encourage development of fishing practices that minimize the catch of groundfish by herring vessels since it stops herring fishing in an area if the catch cap for a stock is attained. The Committee believe the threat of a closure provides a strong incentive to herring fishermen to minimize bycatch.

The Groundfish Committee also recommends that herring purse seine and midwater trawl gear no longer be defined as exempted gear, since this status is not consistent with available information that documents catches of groundfish, nor is it consistent with catch caps that acknowledge groundfish catch and may allow the retention of small amounts of groundfish. The Committee recommends that herring purse seine and midwater trawl fishing be classified as an exempted fishery. With the exception of the prohibition on catching regulated groundfish that may be revised by the catch caps, the Committee recommends that all current regulatory provisions for herring midwater and purse seine gear should be adopted as requirements for the exempted fishery. Current access to groundfish closed areas should not change.

10.0 OPTIONS FOR MONITORING PROGRAMS

Options for monitoring programs were initially developed, primarily in concept, by the Herring and Groundfish PDTs. More detailed discussion occurred at the May 17/18, 2005 Herring Committee meeting, and the Committee recommended two options for further consideration in Amendment 1. The two options developed by the Herring Committee, as well as additional options already included in Amendment 1, are described below and compose the range of monitoring options that could be considered further in Amendment 1, pending approval by the Council.

10.1 HERRING COMMITTEE OPTION 1 – OBSERVER COVERAGE AND IVR REPORTING

This option would require NMFS to implement observer coverage in the herring fishery that is adequate to estimate bycatch across all areas and gear types. It would also require herring vessels to report bycatch of haddock and all species through the interactive voice response (IVR) reporting program. The elements of this option would be as follows:

- **Observer coverage** in the directed herring fishery at a level that is adequate to estimate bycatch across the herring fishery (determined by NMFS with details provided in the Amendment 1 document)
- **Mandatory IVR reporting** of bycatch (all species) by herring vessels

Discussion

The element of this measure that requires increased observer coverage is consistent with Observer Measure 4 in Amendment 1. Observer Measure 4 would require NMFS to establish an observer program sufficient to answer the following question:

What is the nature and extent of bycatch in the directed herring fishery (all gear types and all areas)?

No later than the start of the fishing year in 2007, NMFS would be required to design and implement an observer program in the directed herring fishery to answer the above question and establish a baseline of accurate bycatch data. The Committee members emphasized the need to understand what level of observer coverage and what kind of sampling design would be necessary in the herring fishery to accurately characterize bycatch in the fishery and monitor the proposed catch caps. The Committee assumes that NMFS can provide additional information regarding the details of this measure and a sampling program designed to achieve this objective.

Currently, only herring catch and bycatch are reported through IVRs. The IVR reporting program is currently used to estimate herring catch by management area on a weekly basis, and data collected through IVRs are used to project when 95% of the herring TAC is reached in a management area and the area should be closed for the remainder of the fishing year. The Committee believes that this program can be used similarly to monitor bycatch in the herring fishery and project when 90% of the haddock incidental catch TAC has been reached.

Note: It may be possible to require vessels to report bycatch through the vessel monitoring system (VMS) rather than IVR. The Herring Committee initially identified IVR as the method of reporting since that is the reporting system used to monitor the herring TAC, but all Category 1 herring vessels are also required to have VMS, and Amendment 1 may require VMS for all herring limited access permit holders (directed and incidental catch).

VMS is already used to report bycatch of regulated species in several programs under the Multispecies FMP including the B-regular DAS program, the US/Canada SAP program, as well as other SAP programs. A hard TAC for bycatch is monitored in those fisheries based on mandatory reporting of bycatch through VMS as well as observer coverage. The advantage of reporting bycatch through VMS is that location information is attached to bycatch reports that are required daily. One constraint for the herring fleet to report through VMS may be the challenges of estimating bycatch at sea in a high volume fishery. However, the same problems exist with either reporting system (IVR or VMS).

10.2 HERRING COMMITTEE OPTION 2 – OBSERVER COVERAGE, IVR REPORTING, AND SHORESIDE MONITORING

This option would require NMFS to implement observer coverage in the herring fishery that is adequate to estimate bycatch across all areas and gear types. It would also require herring vessels to report bycatch of haddock and all species through the interactive voice response (IVR) reporting program. In addition, this option would establish a shoreside monitoring program in cooperation with the herring industry to better monitor the incidental catch TACs. The elements of this option would be as follows:

- **Observer coverage** in the directed herring fishery at a level that is adequate to estimate bycatch across the herring fishery (determined by NMFS with details provided in the Amendment 1 document)
- **Mandatory IVR reporting** of bycatch (all species) by herring vessels
- **Shoreside Monitoring Program** in cooperation with the herring industry (details to be provided)

Discussion

See above (Herring Committee Option 1) for discussion of observer coverage and IVR reporting requirements.

The details of a shoreside monitoring program have not been developed yet. However, the Committee recommended that the Council approve this option in concept and task the Herring Advisory Panel to develop the details of an appropriate monitoring program following the June Council meeting and prior to Amendment 1 public hearings. Some Committee members also suggested that ideas for shoreside monitoring may be provided during public hearings on Amendment 1. It is important to keep in mind that a shoreside monitoring program would focus on the landed bycatch only, that is bycatch that is retained and not released at sea. Depending on which catch cap option is selected, the benefits of a shoreside monitoring program will differ. For example, if the bycatch cap option is selected (Option 2), full retention of bycatch would be required; therefore shoreside monitoring would include monitoring of *all* bycatch caught during the trip. However, under Option 1, herring vessels would not be required to retain all bycatch, so the shoreside monitoring program would be limited to *landed* bycatch only.

One example of a shoreside monitoring program that could be developed is an extension of the portside bycatch survey that is currently being conducted by Maine DMR. This survey quantifies bycatch from herring landings sold at a variety of processing locations including canneries, freezer plants, and bait dealers that sort and barrel fish. Currently the program has only one sampler. If the number of samplers could increase, it would be possible to monitor more trips, or even all offloads. Some options for increasing the number of samplers could be more funds for the existing Maine DMR project or requesting other samplers to sort barrels from processing facilities such as NMFS port agents or state agents from coastal states within ASMFC. For more details on this exploratory portside bycatch survey see the bycatch background section of the Amendment 1 DSEIS.

AMENDMENT 1 WORKING DOCUMENT

It should be noted that the herring industry is developing a voluntary at sea monitoring program that could also be incorporated into an overall monitoring program in the future. The details of this program are still being developed, but the industry is considering sharing some of this information in order to improve bycatch monitoring.

10.3 MONITORING OPTION 3 – 100% OBSERVER COVERAGE (OBSERVER MEASURE 6 IN AMENDMENT 1)

Under this monitoring option, NMFS would be required to provide 100% observer coverage on all of the trips in the directed herring fishery (more than 2,000 pounds of herring per trip) for a period of five years. This measure was proposed for consideration by Oceana to address the need for better and more accurate information about bycatch in the herring fishery and is one of the measures for bycatch monitoring that is already proposed for consideration in Amendment 1.

Notes:

- 100% coverage may not be necessary if the measure allows some amount of the species under a cap to be landed by the herring fishery, although any increased coverage would be helpful to monitor as well. (There are other options in the Amendment 1 document to increase observer coverage.)
- Funding 100% observer coverage in the directed herring fishery likely to be problematic – should the Council consider other possibilities for funding (i.e., partial or full industry-funding?)

11.0 ADDITIONAL BACKGROUND INFORMATION

11.1 NMFS OBSERVER DATA, 1994-2004

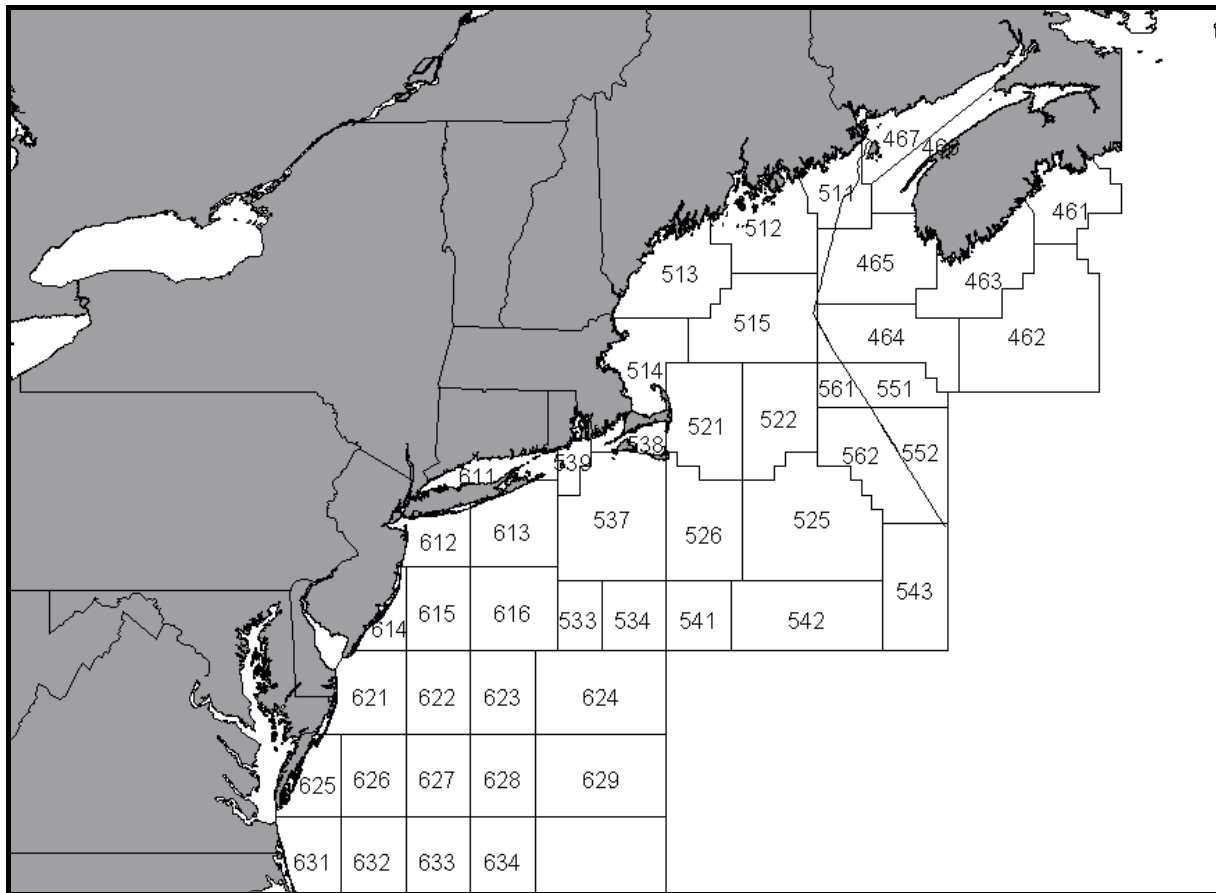
The NMFS Observer Database was queried for all trips in the Atlantic herring fishery (purse seine, midwater trawl, and pair trawl) that were observed from 1994-2004. Specifically, trips were pulled if the observer listed Atlantic herring as one of the five target species *or* if 2,000 pounds or more of Atlantic herring was recorded as “kept.”

For the purpose of developing a measure for “bycatch caps for groundfish stocks of concern,” the focus of the information provided below is the bycatch of regulated multispecies, specifically the species contained in the Oceana proposal: haddock, Atlantic cod, yellowtail flounder, American plaice, white hake, winter flounder, and witch flounder. Redfish (ocean perch) and pollock were also included for further discussion.

The bycatch background section in the Amendment 1 DSEIS should be referenced for all available information relating to bycatch of all species in the Atlantic herring fishery.

11.1.1 Multispecies Bycatch By Gear and Statistical Area (NMFS Observer Data)

Figure 1 Northeast Region Statistical Areas



HADDOCK BYCATCH

Table 9 Observed Haddock Bycatch by Gear Type, Statistical Area, and Month (156 trips, 1994-2004)

STAT AREA	513		514	521		522					561	Grand Total
YEAR	2004		2004	2004		2000	2003	2004			2003	
MONTH	07	08	08	11	12	01	10	07	08	09	10	
MIDWATER TRAWL	263			435		0.5			96.9			795.4
PAIR TRAWL		38	2	404.4	1,433		41	6,507	320.5	260.2	12	9,018.1
Grand Total	263	38	2	839.4	1,433	0.5	41	6,507	417.4	260.2	12	9,813.5

Table 10 Haddock Bycatch (Pounds) Observed Per Observed Trip

2000	2003	2004	
0.5			
	10		
		190	
	2		
	41		
		28.2	
		15	
		6,507	
		240	
		80.5	
		40	
		55	
		70	
		3	
		1,433	
		96.9	
		41	
		136	
		404	
		0.4	
		420	
TOTAL 0.5	TOTAL 53	TOTAL 9,760	TOTAL 9,813.5

*156 trips observed 1994-2004; 21 of these trips had haddock bycatch.
105 trips observed in 2004; 17 of these trips had haddock bycatch.*

AMENDMENT 1 WORKING DOCUMENT

ATLANTIC COD BYCATCH

Table 11 Observed Atlantic Cod Bycatch by Gear Type, Statistical Area, and Month (156 trips, 1994-2004)

STAT AREA	513				514		521	522	539	613	Grand Total
YEAR	2000	2004			2003	2004	2004	2004	2000	2000	
MONTH	10	07	08	11	11	08	11	09	02	02	
MIDWATER TRAWL	6.5	100					2		1	10	119.5
PAIR TRAWL			15	50	39	6		5			115
Grand Total	6.5	100	15	50	39	6	2	5	1	10	234.5

Table 12 Atlantic Cod Bycatch (Pounds) Observed Per Observed Trip

2000	2003	2004	
	39		
1			
10			
6.5			
		100	
		21	
		5	
		10	
		40	
		2	
TOTAL 17.5	TOTAL 39	TOTAL 178	TOTAL 234.5

156 trips observed 1994-2004; 11 of these trips had cod bycatch.

105 trips observed in 2004; 7 of these trips had cod bycatch.

YELLOWTAIL FLOUNDER BYCATCH

Table 13 Observed Yellowtail Flounder Bycatch by Gear Type, Statistical Area, and Month (156 trips, 1994-2004)

STAT AREA	539	613	Grand Total
YEAR	1999	2000	
MONTH	01	02	
MIDWATER TRAWL	3	2	5
Grand Total	3	2	5

AMENDMENT 1 WORKING DOCUMENT

AMERICAN PLAICE BYCATCH

Table 14 Observed American Plaice Bycatch by Gear Type, Statistical Area, and Month (156 trips, 1994-2004)

STAT AREA	513		514		561	Grand Total
YEAR	2004		2004		2003	
MONTH	07	08	08	10	10	
MIDWATER TRAWL	5					5
PAIR TRAWL		4	2	10	6	22
Grand Total	5	4	2	10	6	27

WHITE HAKE BYCATCH

Table 15 Observed White Hake Bycatch by Gear Type, Statistical Area, and Month (156 trips, 1994-2004)

STAT AREA	513			522	539	561	Grand Total
YEAR	2004			2004	2003	2003	
MONTH	06	07	08	08	12	10	
MIDWATER TRAWL		75		6.4			81.4
PAIR TRAWL	79		1		2	1	83
Grand Total	79	75	1	6.4	2	1	164.4

Table 16 White Hake Bycatch (Pounds) Observed Per Observed Trip

2003	2004	
	75	
2		
1		
	1	
	79	
	6.4	
TOTAL 3	TOTAL 161.4	TOTAL 164.4

156 trips observed 1994-2004; 6 of these trips had white hake bycatch.

105 trips observed in 2004; 4 of these trips had white hake bycatch.

AMENDMENT 1 WORKING DOCUMENT

WINTER FLOUNDER BYCATCH

Table 17 Observed Winter Flounder Bycatch by Gear Type, Statistical Area, and Month (156 trips, 1994-2004)

STAT AREA	539	Grand Total
YEAR	2000	
MONTH	02	
MIDWATER TRAWL	10	10
Grand Total	10	10

WITCH FLOUNDER BYCATCH

Table 18 Observed Witch Flounder Bycatch by Gear Type, Statistical Area, and Month (156 trips, 1994-2004)

STAT AREA	513	522	561		Grand Total
YEAR	2004	2003	2003		
MONTH	07	10	07	10	
MIDWATER TRAWL	2		1		3
PAIR TRAWL		1		0.5	1.5
Grand Total	2	1	1	0.5	4.5

REDFISH BYCATCH

Table 19 Observed Redfish Bycatch by Gear Type, Statistical Area, and Month (156 trips, 1994-2004)

STAT AREA	512		513	514		521	522			Grand Total
YEAR	2004		2004	2004		2004	2003	2004		
MONTH	08	09	08	08	10	12	10	08	09	
PURSE SEINE	20	200								220
MIDWATER TRAWL								86		86
PAIR TRAWL	3		8	5	100	0.5	1	924	1,741	2,782.5
Grand Total	23	200	8	5	100	0.5	1	1010	1,741	3,088.5

Table 20 Redfish Bycatch (Pounds) Observed Per Observed Trip

2003	2004	
	100	
1		
	1,681	
	924	
	13	
	20	
	33	
	200	
	0.5	
	86	
	27	
	3	
TOTAL 1	TOTAL 3,087.5	TOTAL 3,088.5

*156 trips observed 1994-2004; 12 of these trips had redfish bycatch.
105 trips observed in 2004; 11 of these trips had redfish bycatch.*

POLLOCK BYCATCH

Table 21 Observed Pollock Bycatch by Gear Type, Statistical Area, and Month (156 trips, 1994-2004)

STAT AREA	512	513	514	521	522	613	Grand Total
YEAR	2004	2004	2004	2004	2004	2000	
MONTH	08	05	08	12	08	02	
MIDWATER TRAWL		351			8	4	363
PAIR TRAWL	22		9	20	50.5		101.5
Grand Total	22	351	9	20	58.5	4	464.5

Table 22 Pollock Bycatch (Pounds) Observed Per Observed Trip

2000	2004	
4		
	12	
	1	
	350	
	50.5	
	9	
	20	
	8	
	10	
TOTAL 4	TOTAL 460.5	TOTAL 464.5

*156 trips observed 1994-2004; 9 of these trips had pollock bycatch.
105 trips observed in 2004; 8 of these trips had pollock bycatch.*

11.2 BYCATCH COMMITTEE INFORMATION (HADDOCK)

The Council's Bycatch Committee met from December 2004 – March 2005 to develop measures to address the extraordinary recruitment of the 2003 year class of Georges Bank haddock, and the resulting increase in bycatch in multispecies and other fisheries including the Atlantic herring fishery. The Bycatch Committee recommended an incidental catch TAC of haddock for the herring fishery, but this measure was not adopted by the Council largely because it did not include a mechanism for monitoring the TAC, a significant problem identified by the NMFS Regional Administrator at the March 2005 Council meeting.

The Bycatch Committee recommended that the Council adopt the following measures to address haddock bycatch in the herring fishery:

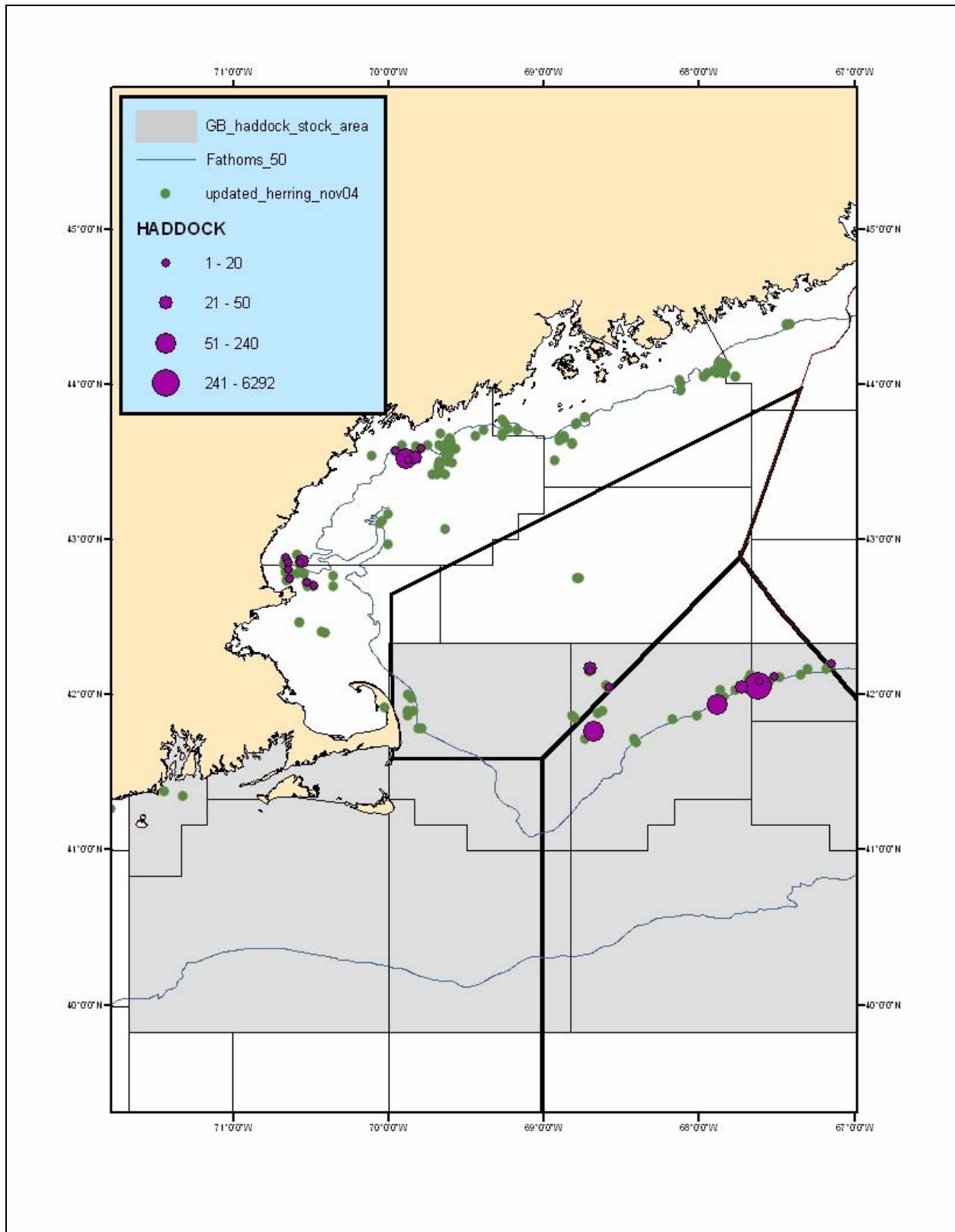
1. Incidental catch allowance for the directed herring fishery of 1% of the GB haddock TAC and 1% of the GOM haddock TAC, provided an appropriate monitoring system is developed in coordination with the Enforcement Committee, if possible. Once the 1% TAC is reached in one of the areas (95% of the TAC, see below), the directed herring fishery closes for the remainder of the groundfish fishing year for that area.
2. When NMFS projects, from all available data, that 95% the TAC will be reached, the haddock stock area will be closed.
3. The TAC will be monitored using all available and appropriate data including but not limited to: information from IVR, VTR, observer, dockside and monitoring and dealer reporting. Category 1 herring vessels are not currently required to report bycatch to the IVR system but the Committee recommends that NMFS consider the appropriateness of requiring vessels to report haddock bycatch through the IVR system.
4. Prohibition on discarding haddock at sea (full retention of haddock).
5. Prohibition of sale for human consumption.
6. Suspension of the haddock minimum fish size regulation for the incidental catch allowance.
7. Purse seine gear would be exempt from any closure.

Information provided to the Bycatch Committee is presented below. Note that 2004 VTR and observer data were not complete when this information was provided.

Figure 2 displays the location of herring hauls observed in 2004, overlaid with the hauls that observed haddock bycatch. The hauls with larger amounts of haddock discards observed were from the northern edge of Georges Bank and one haul along the southern coast of Maine deeper than 50 fathoms. Only five tows in this database had haddock bycatch over 100 pounds per tow and these tows were observed in July and August of 2004.

Overall, the sea sampling data suggests that the herring fishery does interact with haddock, but on a very limited basis except for a few individual hauls. In earlier years, haddock bycatch was not observed at all on herring vessels. Haddock bycatch only began to show up in 2003 and more notably in 2004. Haddock was caught in large amounts in 2004 on several trips only; for example, 6,507 pounds, 400 pounds, 240 pounds and 190 pounds per trip. The size of individual haddock in the bycatch was recorded for some trips, and the majority of the fish seem to be members of older year classes. One pair trawl trip reported 400 pounds of haddock kept on one haul and the fish measured in that haul measured 20-51 cm, so some of the fish may have been part of the 2003 year class.

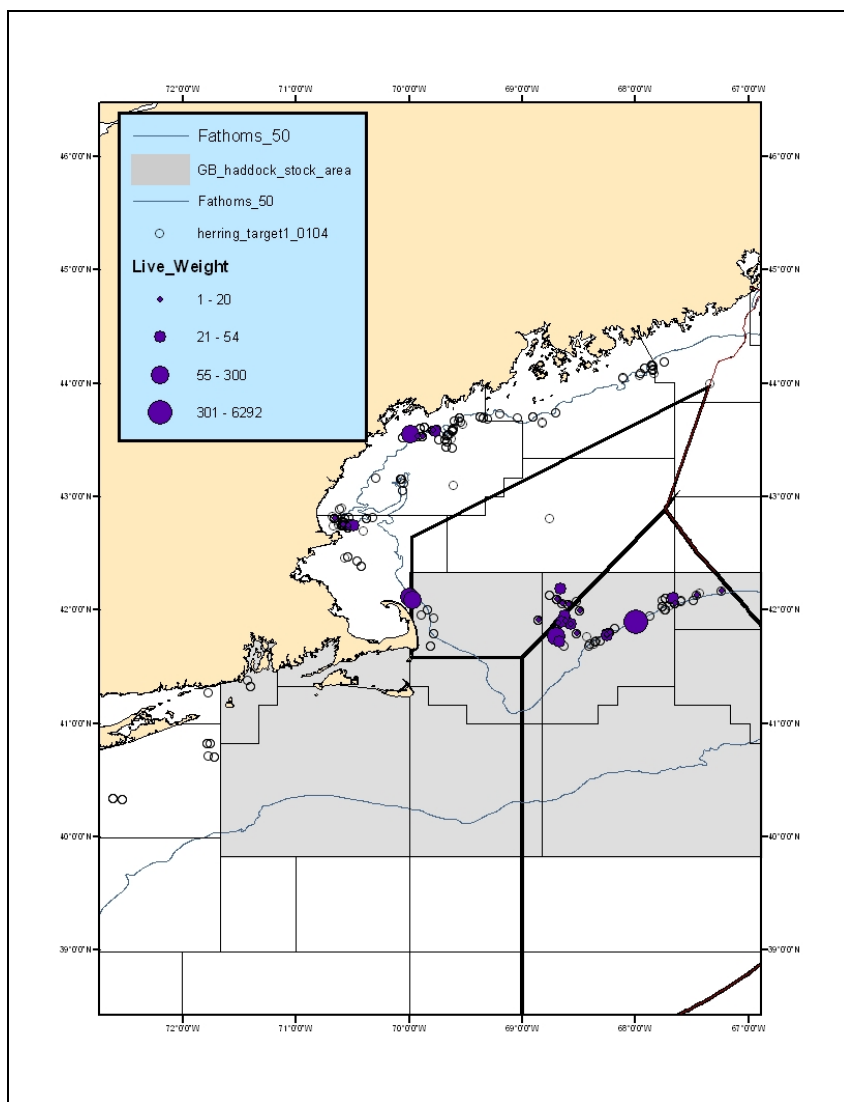
Figure 2 Location of observed herring hauls from January – November 2004 (green) overlaid with hauls that observed haddock discards (purple)



AMENDMENT 1 WORKING DOCUMENT

In order to determine if the herring fishery has had incidents of haddock bycatch in the past, data from the sea sampling database was analyzed from 2001 to present. Figure 3 displays the location of observed herring hauls from January 2001 through July 2004. Note this figure includes most of the records included in the 2004 data presented in Figure 2 except for several trips observed in the fall of 2004. Except for a few hauls, the haddock bycatch levels observed in the herring fishery are not substantial. The majority of haddock bycatch has been observed on hauls in 2004, primarily along the northern edge of Georges Bank and the northwest corner of statistical area 522 (Figure 4). No haddock bycatch was recorded from herring hauls observed in 2001 or 2002. Very small amounts of haddock bycatch were observed in 2003 on the northern flank of Georges Bank (Figure 4).

Figure 3 Location of observed herring hauls from the sea sampling database from 2001 through July 2004 (open circles) compared to the hauls with haddock bycatch observed (blue circles)



AMENDMENT 1 WORKING DOCUMENT

Figure 4 Location of observed herring hauls from the sea sampling database from 2003 (left) and Jan – July 2004 (right) compared to the hauls with haddock bycatch observed

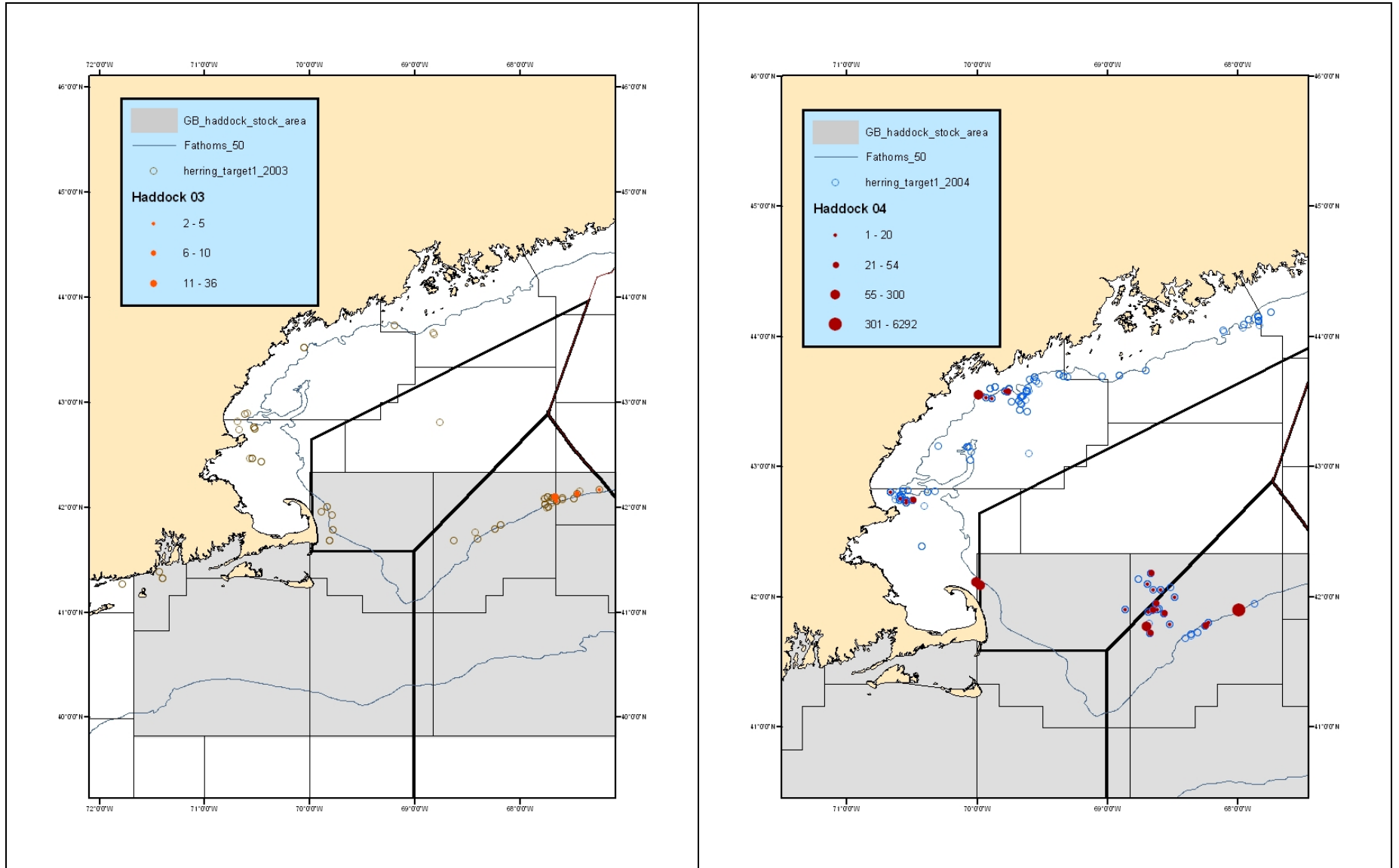


Figure 5 – Groundfish stock areas: yellowtail flounder, cod, haddock, winter flounder

