

### 6.5.3 Impacts on Non-Target Species and Other Fisheries

#### *Midwater Trawl Vessel Catch in Groundfish Closed Areas*

On November 3, 2009, NMFS announced new regulations for any vessel issued a Category A or B herring permit fishing in Northeast Multispecies Closed Area I (CAI). These requirements included 100 percent observer coverage on trips in the closed areas and a prohibition on releasing catch before it is sampled by an observer, except in certain circumstances. The results of this coverage offer a unique look into the overlap between the herring fishery and the northeast multispecies.

As a result of the requirement, there was a high percentage of observer coverage on midwater trawl trips to Herring Management Area 3 in 2010. There were 114 observed trips on GB in CY 2010; 105 in FY 2010. Through March, 2011, during FY 2010 there were 135 MWT trips on GB according to VTR records. As a result, about 84 percent of reported VTR trips carried an observer during the fishing year. Total herring landings from GB in CY 2010 were about 15,430 mt according to IVRs. Estimated landings on observed trips were about 14,700 mt, so about 95 percent of the landed herring came from observed trips. This provides a near census of midwater trawl (MWT) fishing activity on GB in CY and/or FY 2010. The analyses were performed when data were available through October 2010, so these data reflect an additional two months of data that were not used in the previous sections.

The following information is based on the ending tow locations to be consistent with how NMFS determines catch areas, and the data below are reported for all tows on trips with an observer unless otherwise specified, and not just those tows that are flagged as observed (which means discards were estimated). While this gives a higher count of tows and accounts for more MWT catch, it could be argued that by including tows where discards may not have been estimated it makes discards appear lower than actually occurred. Observer practices for pair trawl trips differ slightly from those used with other gear. A tow is only coded as observed if all the catch is observed and discards are estimated. In pair trawl operations, if the catch is split between the two vessels, the tow is coded as not observed because the observer does not see the catch that is taken onto the other vessel. As shown in the table below, differences between the two approaches are minor. These analyses consider not just haddock, but all groundfish to reflect that there are regulatory requirements that set a standard for the amount of groundfish caught in closed areas as a proportion of the amount of herring and mackerel kept (50 CFR 648.81(a)(2)(iii)). Almost all the groundfish catch is haddock, and almost all the kept catch is Atlantic herring.

In 2010, NMFS observer coverage on herring vessels in Area 3 (Georges Bank) was about 85%. Table 192 shows that the observed ratio of groundfish to kept species (almost all of which is Atlantic herring) in 2010 was higher in the closed areas than in the open areas of Georges Bank. The difference between CAI and open areas was relatively small, but the ratio for CAII was noticeably higher, although the number of observed tows in CAII was small.

**Table 192 – Summary of Catch (Pounds) on Observed MWT Trips to GB in CY 2010**

	<b>Groundfish Caught</b>	<b>Alt Herring Kept</b>	<b>Mackerel Kept</b>	<b>Herring NK Kept</b>	<b>Ratio Groundfish/ (Herring + Mackerel)</b>
<i>All tows on trips with an observer</i>					
CAI	22,525	4,790,088	27,810	0	0.0047
CAII	44,248	1,423,605	0	0	0.0311
Open	87,623	26,165,111	121,174	4	0.0033
Total	154,396	32,378,804	148,984	4	0.0047
Combined CAs	66,773	6,213,693	27,810	0	0.0107
<i>Tows coded as observed only</i>					
CAI	21,828	4,245,530	2,370	0	0.0051
CAII	43,772	1,254,462	0	0	0.0349
Open	86,603	24,201,905	121,169	4	0.0036
Total	152,203	29,701,897	123,539	4	0.0051
Combined CAs	65,600	5,499,992	2,370	0	0.0119

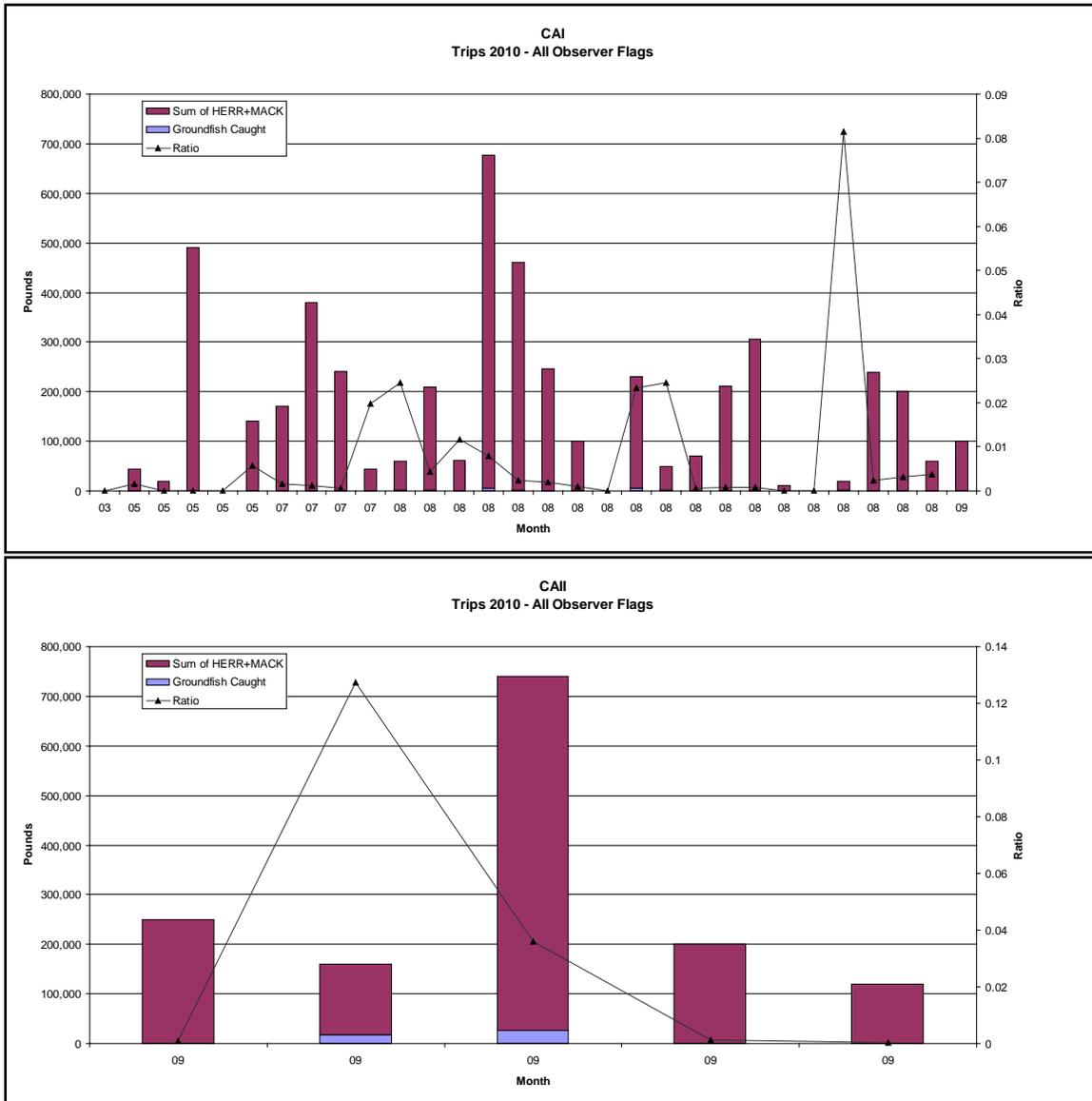
*Source: Groundfish Amendment*

*For this analysis GB defined as SAs 521/522/525/525/561/562 only*

The ratio of haddock (as opposed to all groundfish) to herring was examined in CAI and CAII in two ways. Individual tows were plotted and assigned to the closed area based on where the haul ended. The tows were first summarized by trip and then individual tows were examined. In CAI the ratio of groundfish caught to herring and mackerel kept varied. Generally the ratio is highest on those trips with the smallest kept catches. The same relationship is not as evident for the trips in CAII, but with only five trips it is difficult to draw conclusions.

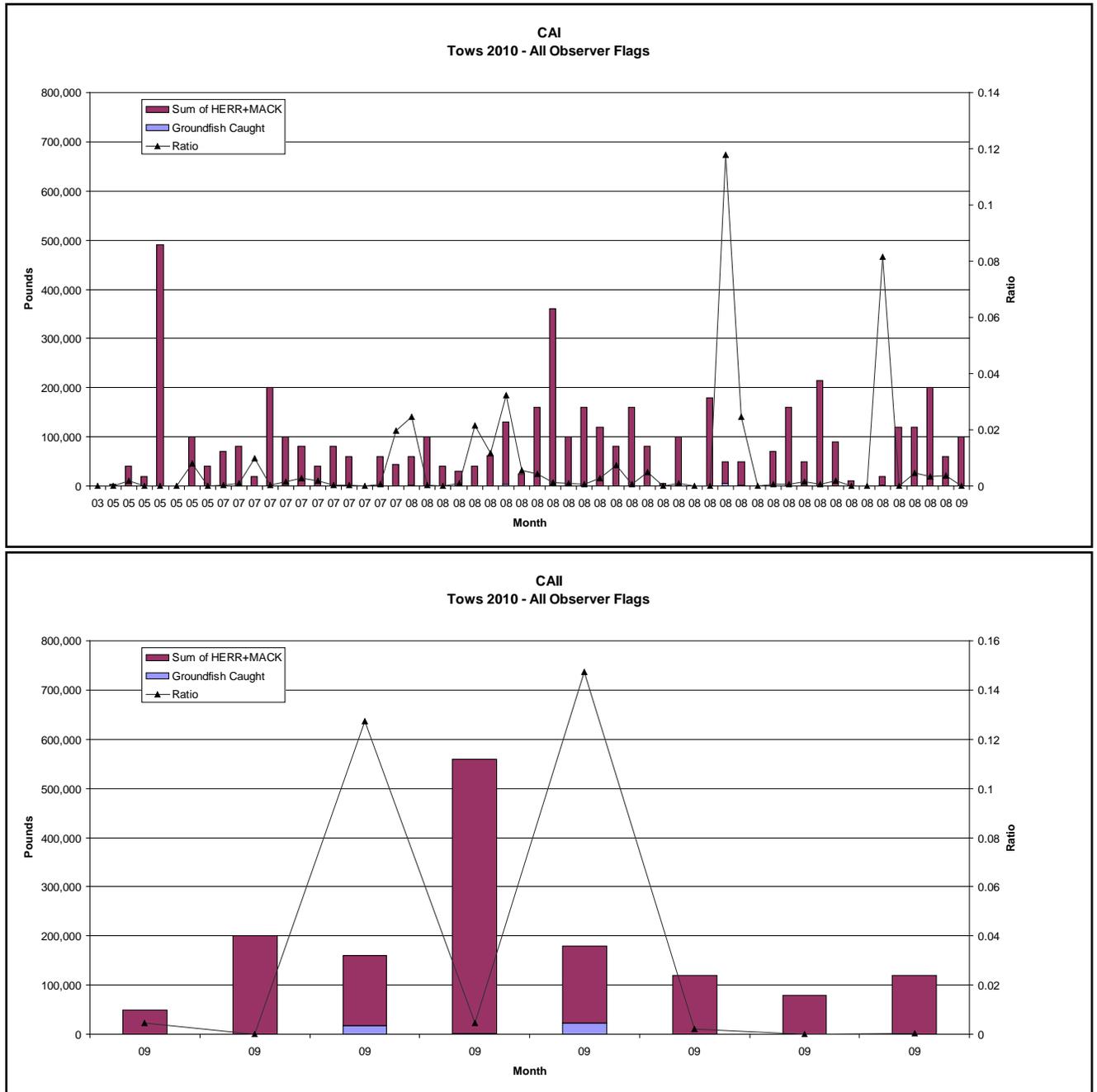
With respect to individual tows (Figure 94), again in CAI it appears that generally the higher ratios of groundfish to kept herring and mackerel occur with small kept catches, though this is not always the case. There are a limited number of tows in CAII that preclude drawing firm conclusions but it does appear that even on an individual tow basis more groundfish is caught in CAII.

**Figure 93 2010 Midwater Trawl Trips in CAI and CAII**



Source: NEFOP

**Figure 94 2010 Midwater Trawl Trips in CAI and CAII**



Source: NEFOP

The Herring PDT's analysis of Alternative 4 to allocate observer coverage on limited access herring vessels indicates that removals of haddock by Category A/B/C vessels were approximately 222,524 pounds (about 101 mt) during 2010, with a CV of 28% (See technical analysis presented in Appendix III, Volume II: *Detailed Analysis of Impacts of Alternatives to Allocate Observer Coverage on Limited Access Herring Vessels*). Table 193 provides NMFS' estimates of commercial removals (landings and discards) of haddock for the 2010 fishing year. Removals from other sources (state waters, recreational fisheries) are not included in the table but are not significant (with the exception of recreational removals of Gulf of Maine haddock). These numbers provide some context to evaluate the potential impact of haddock removals by herring midwater trawl vessels. The commercial haddock fishery remains under-utilized, and removals by herring midwater trawl vessels are relatively small given the available yield.

**Table 193 FY 2010 (May 1 – April 30) Commercial Haddock Catch (mt)**

<b>Stock</b>	<b>Sub-ACL (mt)</b>	<b>Cumulative Catch (mt)</b>	<b>Percent Caught</b>
GB Haddock	40,440	8,340.2	20.6
GOM Haddock	825	377.7	45.8

***Alternative 1 (No Action/Status Quo)***

This alternative would continue to allow midwater trawl fishing in the year-round groundfish closed areas, and would maintain the enhanced monitoring requirements when fishing in CAI. The haddock catch cap and 100-lb multispecies possession limit would continue to apply, and there would still be prohibitions against discarding haddock at sea. The impacts with respect to non-target species and other fisheries are expected to be neutral under Alternative 1 because status quo conditions would be maintained. While some of the low positive impacts expected under the options considered (below) would not be experienced under Alternative 1, the impacts difficult to quantify with respect to the individual alternatives but are not likely to be significant. The overall impact of taking no action, therefore, is *neutral*.

***Alternative 2 (Pre-Closed Area I Provisions)***

This alternative would also continue to allow midwater trawl fishing in the groundfish closed areas, but would eliminate the additional monitoring/sampling provisions in CAI. It is therefore less restrictive than the no action alternative. However, as discussed throughout this document, providing data about previously unrecorded bycatch of non-target species may improve catch statistics and subsequent assessment and management of those species over the long-term. Therefore, while eliminating the CAI provisions are not likely to have a direct impact on non-target species and other fisheries, there may be an *indirect low negative* impact resulting from the reduction in catch sampling on midwater trawl vessels in CAI relative to the no action alternative.

***Alternative 3 (100% Observer Coverage)***

This alternative would require 100% observer coverage on midwater trawl trips occurring in all the year-round groundfish closed areas. This alternative could lead to a decrease in midwater trawl trips in the groundfish closed areas if industry funding is required and vessels are unwilling to absorb the cost of observer coverage given expected revenues. It is expected that this fishing effort would be redistributed to other herring fishing grounds outside the groundfish closed areas. The impacts on non-target species and other fisheries, therefore, are difficult to predict. However, requiring 100% observer coverage on the midwater trawl trips in the groundfish closed areas would result in increased sampling of the trips these vessels take in the closed areas and could lead to the collection of additional information about catch and bycatch in the herring fishery. As a result, this alternative could have *low positive* impacts on non-target

species and other fisheries to the extent that the additional observer coverage enhances catch information and improves the counting and/or precision of bycatch estimates. The potential for positive impacts is greatest for the groundfish species, as these areas were selected by the Council to reduce groundfish mortality and rebuild groundfish stocks. Catch information presented in this section indicates that the majority of groundfish bycatch by midwater trawl vessels is haddock, the catch of which on midwater trawl vessels is already managed through a catch cap.

***Alternative 4 (Preferred Alternative – Apply Closed Area I Provisions)***

This alternative would apply the current CAI provisions to all trips in all groundfish closed areas. These provisions relate to pumping all fish, the ability to make test tows, not pumping/authorized release of the net due to safety or other specified concerns, slipped catch affidavit requirement, and requirement to leave the closed area if the net is released for exempted reasons. Alternative 4A (***Preferred Alternative***) would apply these requirements and also require 100% observer coverage, whereas alternative 4B would only apply the listed provisions. The impacts of this alternative on non-target species and other fisheries is expected to be *low positive*, resulting from enhanced sampling and the potential documentation of previously unrecorded catch. Providing documentation of previously unrecorded bycatch of non-target species may improve catch statistics and subsequent assessment and management of those species over the long-term.

***Alternative 5 (Closed Areas)***

This alternative would close all of the groundfish closed areas to midwater trawl vessels, but would endorse experimental fisheries. If this alternative is selected, the fishing effort that currently occurs in the groundfish closed areas (representing 12% of revenues in 2010) would likely be redistributed to other herring fishing grounds. The impacts of this alternative on non-target species and other fisheries are therefore difficult to predict. Relative to the no action alternative, however, the impacts of this alternative on non-target species and other fisheries is likely to be *positive* for the reasons addressed in other sections of this document and summarized below.

However, the groundfish year-round closed areas were selected and closed to groundfish fishing to reduce fishing mortality and offer protection to groundfish stocks and spawning grounds. Eliminating midwater trawl fishing from these areas would provide a positive impact in that it would further reduce fishing activity in the areas and help to ensure that catch of non-target species and other fisheries in the area is minimized. The closed areas may provide mortality reductions for some non-target species, especially groundfish. This benefit, however, is dependent on individual species life history and migratory patterns along with their susceptibility to fishing gears at different life stages. It is important to note that catch information presented in this section indicates that midwater trawl vessels are not catching significant amounts of groundfish either inside or outside the closed areas; the majority of groundfish bycatch by midwater trawl vessels is haddock, the catch of which on midwater trawl vessels is already managed through a catch cap.