

Framework Adjustment 50
to the
Northeast Multispecies FMP

Appendix III

**Calculation of Northeast Multispecies Annual Catch Limits,
FY 2013 – FY 2015**

This appendix documents the calculation of Northeast Multispecies Overfishing Levels (OFLs), Acceptable Biological Catches (ABCs), and Annual Catch Limits (ACLs) for FY 2013 - FY 2015. The general approach for all stocks is to first determine the OFL and then determine the ABC. The ABC in all cases is consistent with the recommendations of the SSC. The ABC is distributed to various components of the fishery, and then an adjustment is made to these “sub-ABCs” to determine the ACLs, sub-ACLs, or other sub-components. The descriptions in this section are only accurate if the preferred alternative specifications are adopted.

For this action, the preferred alternative lists specifications for all Northeast Multispecies stocks for FY 2013- FY 2014, and for several stocks to FY 2015. For three stocks (pollock, GOM winter flounder, GB winter flounder), the FY 2013-FY 2014 values were established by FW 47 and the calculation of OFLs and ABCs are described in Appendix III to that document. That information is not repeated here; it is available at www.nefmc.org. For the remaining stocks, specifications are proposed for FY 2013 – FY 2015 and the calculations are described in detail. These stocks are:

- GB cod
- GOM cod
- GB haddock
- GOM haddock
- GB yellowtail flounder (FY 2013 only)
- SNE/MA yellowtail flounder
- CC/GOM yellowtail flounder
- Plaice
- Witch Flounder
- SNE/MA winter flounder
- Redfish
- White hake (FY 2013 only)
- GOM/GB windowpane flounder
- SNE/MAB windowpane flounder
- Ocean pout
- Atlantic halibut
- Atlantic wolffish

This appendix also documents and clarifies how available catches are distributed to the sub-components of the fishery. These are listed for all stocks (even those where specifications are determined only for FY 2013) in order to keep a clear record of the distribution. Amendment 16 authorized changes to be made in a framework action and this summary documents several changes.

Determining OFL and ABC

Stocks with Age-Based Assessments and Projections

Catch levels (including OFLs, ABCs, and ACLs) for the following stocks are based on age-based projections. For these stocks the projections were performed using the Northeast Fisheries Science Center's (NEFSC) AGEPRO projection model. The projections are based on the most recent benchmark or operational assessment for each stock, as shown in the list:

GB cod	(SARC 55)
GOM cod	(SARC 55)
GB haddock	(2012 Assessment Updates)
GOM haddock	(2012 Assessment Updates)
GB yellowtail flounder	(TRAC 2012)
SNE/MA yellowtail flounder	(SARC 54)
CC/GOM yellowtail flounder	(2012 Assessment Updates)
Plaice	(2012 Assessment Updates)
Witch Flounder	(2012 Assessment Updates)
SNE/MA winter flounder	(SARC 52)
Redfish	(2012 Assessment Updates)
White hake	(GARM III)
Atlantic halibut	(2012 Assessment Updates)
Atlantic wolffish	(2012 Assessment Updates)

There are a number of assumptions that must be made to complete the projections. All of these assumptions are potential sources of error. The assumptions for recruitment, selectivity, and weights-at-age that were used were those recommended by the assessment review panels.

Since the first year for ACLs based on these projections is 2013, an additional assumption must be made in the projections for the years between the terminal year and 2013. An estimate of catch developed by the Plan Development Team (PDT) was input into the projection model. The values may differ from realized catches and introduce uncertainty into the results. The catch assumptions for these projections are provided in Table 1.

When calculating the OFL in future years, F_{MSY} is used as the fishing mortality in the projection. When calculating the ABC, either 75% of F_{MSY} or $F_{rebuild}$ is used (whichever is lower). This is consistent with the ABC control rules recommended by the Science and Statistical Committee (SSC) and adopted in Amendment 16. Specific mortality targets used for the ABC projections are provided in Table 2.

Recent experience and analyses by the PDT have demonstrated that projections are often optimistic. This means that future stock growth is projected to be higher than what is realized, and as a result catches less than the ACLs have frequently led to overfishing. For this reason, in many cases the ABCs that were recommended by the SSC are lower than the projection output in order to take into account this additional uncertainty. In

most (but not all) cases, the ABC in FY 2013 is based on the projection output at the target fishing mortality, and then this ABC is used for FY 2014 and FY 2015 as well. This means that effectively the target fishing mortality is lower for FY 2014 and FY 2015. Specific deviations from the projection output are identified below. Projection output used for setting ABCs is in Appendix IV.

- a. GB cod: The ABC for FY 2013 - 2015 is based the 2013 catch at 75% of F_{MSY} . The ABC is held constant because of concern over the tendency of projections to be biased.
- b. GOM cod: Two assessment models were forwarded. The ABC is held constant for three years because of the uncertainty in projections. The ABC was set between F_{MSY} and 75% F_{MSY} (base case model) based on a large decrease in F in 2013 and achieving the F_{MSY} proxy in FY 2015 for the Mramp model.
- c. GB yellowtail flounder: The ABC of 1,150 mt was recommended by the SSC as a backstop measure and is based on the ABC for FY 2012. The SSC rationale was as follows: “The catch associated with unintentional bycatch may exceed 500 mt, but total removals should be less than the 2012 ABC (1,150 mt) to account for the recommended removal of a directed fishery. This ABC of 1,150 mt should be considered a backstop measure only. If there is no directed fishery and measures are taken to reduce bycatch as much as possible, then fishing mortality would be expected to be below F_{msy} . If this low F results in a catch above 500 mt, it would be de facto evidence that the uncertainty in this stock assessment is greater than described by the sensitivity analyses conducted in the TRAC. Thus, this ABC is appropriate only when management measures are implemented that have a high probability in resulting in low fishing mortality rates. This advice is based on the difficulty of setting quota levels based on highly uncertain stock assessment results.”
- d. SNE/MA yellowtail flounder: The ABC of 700 mt for three years (FY 2013 –FY 2015) is based on the long-term catch at 75% of F_{MSY} based on recent low recruitment stanza.
- e. CC/GOM yellowtail flounder: The assessment has developed a retrospective pattern. Because the standard projections result in a large catch increase in FY 2014-2015 relative to the FY 2013 catch, the SSC set the FY 2014 and 2015 catches at the FY 2013 ABC.
- f. SNE/MA winter flounder: The ABC is consistent with the preferred rebuilding strategy. The catch is lower than the calculated Frebuild. The ABC is based on the long term yield that would be expected to result if recruitment remains poor for this stock.
- g. Witch flounder: To account for the uncertainty over a recent recruitment estimate, the FY 2014 and FY 2015 ABCs were set at the FY 2013 ABC that is based on

Frebuild. This results in a larger buffer between the ABC and ACL in years 2014 and 2015 than would result from a strict application of Frebuild.

h. Atlantic wolffish: This stock was updated during the 2012 groundfish assessment updates. This stock did not have calibration coefficient for converting Bigelow to Albatross surveys, so the coefficient for ocean pout was used. To account for this additional uncertainty the FY 2014 and FY 2015 ABC was set at the FY 2013 ABC which is calculated based on 75% of F_{MSY} .

Stocks with Index-Based Assessments

For these three stocks, the OFL was calculated as the F_{MSY} proxy applied to the most recent biomass estimate (a survey-based proxy). The ABC was calculated as 75% of F_{MSY} applied to the most recent biomass estimate. The index-based projection model was not used for any of these stocks. The R/V Bigelow survey indices were converted to R/V Albatross units but this correction did not use length-based conversion factors because these are not yet available.

Northern Windowpane Flounder
Southern Windowpane Flounder
Ocean Pout

Other Stocks

The GOM winter flounder assessment approved at SARC 52 is based on a swept area assessment model. The OFL and ABC are based on applying the F_{MSY} proxy to an estimate of swept area biomass, while the ABC is based on the default ABC control rule – 75 percent of the F_{MSY} proxy applied to the most recent estimate of swept area biomass.

Distribution of ABCs

Because the Council wants the ability to consider a different adjustment for management uncertainty for different components of the fishery, ABCs were first distributed to the components prior to applying this adjustment. A brief description of the components follows. Note that there are a few stock-specific instances (described in a later section) that may differ from this general overview.

ABC: Acceptable Biological Catch for the entire stock.

Canadian Share/Allowance: An amount from the stock that Canadian vessels are expected to harvest. For GB cod, GB haddock, and GB yellowtail flounder, this is based on the Canadian allocation under the TMGC (but see the GB yellowtail flounder discussion below).

U.S. ABC: That portion of the ABC available to U.S. fishermen after accounting for Canadian harvests.

State waters: Portion of the U.S. ABC expected to be harvested from state waters, outside of the federal management plan. This is not an allocation.

Other sub-components: Portion of the U.S. ABC expected to be harvested by unidentified non-groundfish fishery components. These are not attributed to specific components because individual amounts are small. This action clarifies that in cases where there is no specific recreational allocation, unless otherwise specified recreational catches are counted against this sub-component. There are a few stocks where this may not be the case, such as when the majority of recreational catches are from state waters and the recreational catch is considered part of the state waters sub-component. These instances will be specifically identified.

Scallops: Portion of U.S. ABC allocated to that fishery.

Groundfish: Portion of the U.S. ABC available to the groundfish fishery (including recreational and commercial vessels if there is a specific allocation). This ABC has several sub-components:

Commercial: Portion of the U.S. ABC available to commercial vessels; this is further sub-divided into sector and common-pool portions.

Recreational: Portion of the U.S. ABC available to recreational vessels, when a specific allocation is made

MWT: Portion of the ABC available to herring mid-water trawl vessels. Currently only applies to the two haddock stocks.

Small-Mesh Fisheries: FW 48 proposes to allocate a portion of the U.S. ABC of GB yellowtail flounder for small-mesh fisheries

Amendment 16 provides that the distribution to various sub-components can be modified in a framework or specification action. These adjustments are often made as more experience is gained with the ACL system adopted by Amendment 16. Changes can also be required if there are large changes in ABCs, particularly because the sub-components of the fishery are not subject to specific catch controls by the FMP and a specific percentage allocation has not been defined. This is the case for state waters and other – sub-component catches. Unlike the case when a specific allocation has been specified, the PDT estimates the expected catch from these two components and then compares that amount to the ABC to determine the percentage that should be set aside to account for these catches. [Table 6](#) summarizes the state waters and other sub-component distribution for recent years and the distribution that would result from the Preferred Alternative.

Table 3 summarizes the distribution of the U.S. ABC to the various components of the fishery, while Table 4 provides the resulting ABCs. Details on the distribution of specific

stocks are provided below. Changes are the result of FY 2010 – FY 2011 catches and are intended to more closely align allocations with recent experiences. It is expected that these values may be changed in future actions as more experience with the ACL system is gained.

a. GB cod: Since the Council has not identified a specific commercial/recreational allocation, recreational catches will be assigned to the “other subcomponents” category unless a recreational allocation is made in the future. This practice, adopted in FW 47, is continued.

b. GOM cod: The division into sub-components was calculated differently for this stock based on the way the components were calculated by the PDT. First, the PDT calculated the recreational/commercial allocation as described in Amendment 16 using the numbers of fish caught (as determined by GARM III). This was done without regard to whether the fish were caught in state waters or not. In contrast, the state waters component (10 percent) came from a NMFS report required by the M-S Act reauthorization and included commercial catches only. Similarly, “other sub-components” represented only commercial catches since a specific recreational/commercial component was anticipated. The state waters component and the other sub-component portion are thus calculated as a percent of the commercial allocation (e.g. 10 percent of the 66.3 percent commercial allocation).

The recreational harvest of cod from state waters (without regard to stock) averaged 19 percent from 2001-2008, but was highly variable and ranged from 9 percent to 35 percent. Proportional standard errors (PSEs) are also high for the state waters components, indicating high uncertainty over these values. It is not known how much of the state waters recreational catch came from party/charter boats with federal permits that should be subject to ACL requirements. These factors make it difficult to determine what percentage of the recreational allocation is expected to be harvested from state waters.

The PDT calculated the groundfish recreational and commercial ACLs based on the recreational/commercial percentages as determined by the Council (based on historical data). Since some of the recreational catch comes from state waters, the ACL for recreational fishermen is higher than if a specific state water recreational allocation could be identified. It also means in order to monitor and account for recreational catch, all recreational catches (including state waters catches) should be applied against the ACL. With the recent adoption of the MRIP estimation method for recreational catches, there have been some changes to the time series of recreational catches. Because the Council has not revisited the recreational/commercial allocation issue using the revised catch streams, no changes have been made based on this updated data stream.

The commercial components (state waters, other sub-components, and federal waters) add to the total commercial allocation.

Shares,	Based on Total Catch, in Numbers	Rec	Comm	Total
		0.337	0.663	1.0
	FY 2013 ABC, Based on Totals	522	1,028	1,550
	State waters (assumed all commercial)		103	
	Other sub (assumed all commercial)		51	
	Adjusted ABC	522	874	

c. GB haddock: Under the terms of the U.S./Canada Resource Sharing Understanding, a portion of this stock is allocated to Canada. Because this allocation is determined annually, it is only specified for FY 2013. Future values will be adopted based on future TMGC advice.

d. GOM haddock: This stock has similar issues recreational/commercial issues as GOM cod. Calculations were done in a similar fashion. One difference is that there is a portion of this stock that is allocated to the MWT fishery. This is based on 1% of the total ABC. The ABC is first divided between the recreational and commercial fisheries. This action continues the state waters allowance at 2% and the other subcomponents at 3%. The MWT share is also subtracted from the commercial ABC.

Shares,	Based on Total Catch, in Numbers	Rec	Comm	Total
		0.275	0.725	1
	ABC, Based on Totals		80	210
	MWT Haddock			2
	State waters (assumed all commercial)			4
	Other sub (assumed all commercial)			6
	Adjusted ABC		80	198
	ACL			

d. GB yellowtail flounder: There is no state waters component because the stock area does not include state waters. There are three changes from previous years. The “other sub-component” amount would be reduced from 4 percent to 2 percent, a new sub-ACL for small-mesh fisheries would be established at 2 percent (a Preferred Alternative in FW 48), and there are changes to the scallop fishery sub-ACL that are proposed in FW 48 – a fixed percentage is adopted. The scallop fishery sub-ACL for FY 2013 is 40 percent, and the sub-ACL for future years is 16 percent.

e. SNE/MA yellowtail flounder: One percent is expected to be taken in state waters. Four percent is considered an “other subcomponent” caught in other fisheries. As described in the framework text, there is an allocation to the scallop fishery that is based on an estimate of the amount the fishery is expected to harvest if the scallop yield is taken. No other changes are included in this action

f. CC/GOM yellowtail flounder: State waters catches in FY 2011 were 3.5 times the amount allowed for state waters catches. This action would increase the amount allowed for state waters from 3 percent to 6 percent. There is a concern that an expected increase in scallop fishing activity in SA 521 in FY 2013 may result in an increase in the catch in the other sub-components category. The PDT discussed this issue with the Scallop PDT. Scallop effort in SA 521 is expected to increase and the Scallop PDT estimated that CC/GOM yellowtail flounder catches may double as a result, but an adjustment to the other sub-components does not appear necessary for FY 2013- 2015.

g. Plaice: Only ten percent of the other sub-components amount was caught in FY 2011. The reduction in the ABC/ACL for FY 2013 suggests that state waters catches might exceed the current amount. This action would reduce the other sub-components by 2 percent (to 2 percent of the ABC), increase the state waters amount by 1 percent to (to 2 percent of the ABC), and increase the groundfish amount by 1 percent.

g. Witch flounder: Catches in state waters were 1.6 times the amount expected, and other sub-component catches were 2.9 times the amount expected. The state waters catches seemed unusual, as witch flounder is usually found in deeper water. The PDT examined this catch estimate and concluded it was accurate, and further noted that witch flounder are caught in the DMF inshore survey. The other sub-components amount is being driven by an increase in discards in the squid and whiting fisheries, which discarded 62 mt in FY 2011. This may be the result of an increase in the squid quota from 2010 to 2011. In order to account for these catches this action would increase the other-sub-components category to 15 percent (from 4 percent). This is large enough that the Council may need to consider adopting an additional sub-ACL for this stock in a future action.

h. GB winter flounder: There is no state waters allocation because the stock area does not include state waters. Fifty percent of the other sub-components amount was caught in FY 2011. This action would reduce this share to 3 percent for FY 2013-2015.

i. GOM winter flounder: The PDT discussed the possibility of reducing the state waters sub-component since FY 2011 catches were only about 70 percent of the amount expected. If FY 2011 catches were similar to catches expected in FY 2013, the state waters sub-component could be reduced. However, the ASMFC is considering an increase in the state waters trip limit from 250 lbs. to 500 lbs., consistent with the increase in the ABC/ACL and change in stock status. Given the likelihood that the state waters trip limit will increase this year, this action would not change the percentage for state waters until the effect of the trip limit change can be evaluated.

j. SNE/MA winter flounder: FW 47 increased the state waters allowance to 28% (from 8%). The other subcomponents portion increased to 20% (from 5%). Because of the

increase in ABC as a result of the revised rebuilding plan, the state waters allowance would be reduced to 14% and the other –sub-components allowance would be reduced to 10% by this action. As is the case for GOM winter flounder, for this stock nearly all the recreational catches are taken in state waters. For this stock recreational catches are counted against the state waters catches.

i. White hake: Less than 10 percent of the allowance for state waters and other sub-components amounts were caught. This action would reduce the state waters allowance to 1 percent and the other sub-components amount to 2 percent. These changes may need to be revisited if the upcoming assessment results in a dramatic change in stock status.

j. Pollock: Ninety percent of the state waters allowance was caught in FY 2011, but only 52.5 percent of the other sub-components amount. This action would increase the state waters allowance to 6 percent (from 5 percent) and reduce the other sub-components allocation to 7 percent (from 9 percent). As a result, the groundfish portion increases 1 percent.

k. Atlantic halibut: Only 18 percent of the state waters allowance was caught in FY 2011. This action would reduce this estimate to 40 percent (from 50 percent)t. There are also some Canadian catches that will be attributed to the other subcomponents category

l. GOM/GB windowpane flounder: Scallop fishery catches of this stock are expected to increase to 50 mt in FY 2013. For this reason, this action would increase the other sub-components to 29 percent. If scallop fishery catches continue to account for 25 percent of the catch, the Council may need to consider a scallop fishery sub-ACL for this stock.

m. SNE/MAB windowpane flounder: FW 48 includes a Preferred Alternative that allocates a sub-ACL to the scallop fishery of 36 percent, included in this action. This reduces the amount for other- sub-components to 34 percent.

n. Ocean pout: FW 47 increased the other sub-components allocation to 9% and kept the state waters catch at 1%. No changes are included in this action.

ACLs

After the ABCs are distributed to the various components, they are adjusted for management uncertainty if the catches will be subject to an ACL and corresponding AMs. An uncertainty buffer is not generally applied to state waters catches that are outside the jurisdiction of the FMP. As discussed in Appendix II of FW 44, elements of management uncertainty are taken into account that reduces the ABC to the ACL. The FW 44 the default sets the ACL at 95 percent of the ABC. For stocks with less management uncertainty the ACL was set at 97 percent of the ABC; for stocks with more uncertainty it was set at 93 percent of the ACL.

When first adopted, most groundfish stocks and components used a buffer of 5 percent. GB yellowtail flounder used a buffer of 3 percent and SNE/MA winter flounder used a buffer of 7 percent. The 3 percent buffer was originally adopted for GB yellowtail flounder because there are no state waters catches, observer coverage in the US/CA area had been high (reducing uncertainty about discards), and there are in-season measures that can be adjusted to reduce the probability that the overall ACL is exceeded. A 7 percent buffer is used for other stocks that are discarded (windowpane flounder, ocean pout, wolffish) and for recreational catches of GOM haddock and cod. This increased buffer is because of the increased uncertainty in estimating catches of these stocks, which are almost entirely composed of discards.

The Council discussed increasing the management uncertainty buffer for all stocks because of evidence that the behavior of fishermen on observed and unobserved trips is different. The rationale would be to increase the buffer because of suspected bias in discard estimates that could result in an underestimate of discards. Such an approach, however, would require an estimate of the amount of suspected bias in order to establish the correct buffer. The PDT was unable to identify this bias estimate. In addition, total catches of most allocated stocks have been below 90 percent of the total allocated ACL – in essence reducing the risk that the actual catch exceeds the ACL if there is a bias in the discard estimates.

A second reason to consider a change in the management uncertainty buffer is because FW 48 may modify the minimum size limits for many groundfish species (this is a Preferred Alternative in that action). This could lead to a change in selectivity to younger fish. If the change in selectivity does occur, then ABCs/ACLs that are set assuming a different selectivity pattern may be too high. This issue was examined by the PDT for a few illustrative stocks and the analysis suggested that in the short term this is not a major concern as long as the shift is in the range of one year or so. Over the long-term, however, a shift in selectivity will affect potential yields and status determination criteria. As long as assessment updates are performed within a few years, the shift should be detected and quotas can be adjusted accordingly.

For these reasons this action would not adopt a general increase in management uncertainty buffers. With a few exceptions the Council agreed that the management uncertainty buffer should be 3 percent for stocks with no state waters catch, 7 percent for zero possession stocks and recreational fisheries, and 5 percent for most other stocks/components of the fishery based on the reasons above. Using this rationale, this action would decrease the uncertainty buffer for GB winter flounder to 3 percent (from 5 percent). Similar to GB yellowtail flounder, this stock does not have a state waters component. This action would also reduce the uncertainty buffer for groundfish catches of SNE/MA yellowtail flounder to 5 percent (from 7 percent). The higher buffer was originally adopted because the target TAC for this stock had been exceeded for several years. Recent catches have been below the ACL so an adjustment seems warranted, and this action would allow this stock to be landed. Except for GB yellowtail flounder the buffer for the scallop fishery remains unchanged at 7 percent because nearly all the catch

is discarded. The uncertainty buffer for GB yellowtail flounder for the scallop fishery is 3 percent due to reasons described above.

Adjustments are shown in Table 5.

Incidental Catch TACs

Part of the commercial non-sector ACL is allocated to the incidental catch TACs that limit catches of stocks of concern in the Category B (regular) DAS program and certain SAPs. Table 6 and Table 7 are reproduced from Amendment 16.

An incidental catch TAC is specified for American plaice even though GARM III determined this stock was not overfished and overfishing was not occurring. This was done for several reasons. First, stock size barely exceeds the minimum biomass threshold and is at 51% of B_{MSY} , and has not completed stock rebuilding. Given uncertainty in the assessment it was considered prudent to continue to control catches until certain that rebuilding is on track. Second, plaice is often caught with witch flounder, an overfished stock, and allowing vessels to target plaice in these programs would likely lead to excessive catches of witch flounder.

Incidental catch TACs are no longer specified for pollock, GB winter flounder, and SNE/MA yellowtail flounder because these stocks are rebuilt.

Table 1 – 2011 and 2012 catch assumption used in age-based projections for stocks with recent age-based analytic assessments.

Stock	2011 Catch	2012 Catch
GB Cod	N/A	2,910
GB Haddock	18,385	15,697
GB Yellowtail	N/A	1,150
SNE/MA Yellowtail	N/A	634
CC/GOM Yellowtail	747	950
GOM Cod	N/A	3,767
Witch Flounder	1069	1,318
Plaice	1624	1,922
GOM Winter Flounder	205	N/A
SNE/MA Winter Flounder	363	400
GB Winter Flounder	2,230	N/A
White Hake	2,903	N/A
Pollock	8,951	N/A
Redfish	2,303	2,999
GOM Haddock	696	727
Ocean pout	N/A	N/A
Northern windowpane	N/A	N/A
Southern windowpane	N/A	N/A

Table 2 – Mortality targets used to calculate ABCs, FY 2013 – 2015. ABCs were set constant for several groundfish stocks from FY 2013-2014 (GB cod, GOM cod, SNE yellowtail, CC/GOM yellowtail, SNE winter flounder, witch flounder, GOM winter flounder, wolffish and the index stocks)

Species	Stock	Basis for Target Fishing Mortality	Targeted Fishing Mortality or Exploitation	F_{msy}
Cod	GB	75%FMSY	0.135	0.18
Cod	GOM	75%FMSY (see text)	0.135 (see text)	0.18
Haddock	GB	75%FMSY	0.29	0.39
Haddock	GOM	75%FMSY	0.345	0.46
Yellowtail Flounder	GB	See text	N/A	0.254
Yellowtail Flounder	SNE/MA	75%FMSY (see text)	0.237 (see text)	0.316
Yellowtail Flounder	CC/GOM	75%FMSY (see text)	0.195 (see text)	0.26
American Plaice	GB/GOM	75%FMSY	0.135	0.18
Witch Flounder		Frebuild	0.17	0.27
Winter Flounder	GB	75% FMSY	0.315	0.420
Winter Flounder	GOM	75% FMSY	0.2325	0.31
Winter Flounder	SNE/MA	Frebuild (see text)	0.178 (See text)	0.29
Redfish		75%FMSY	0.03	0.038
White Hake	GB/GOM	Frebuild	0.084	0.125
Pollock	GB/GOM	75%FMSY		
Windowpane	GOM/GB	75%FMSY	0.33 c/i	0.44 c/i
Windowpane	SNE/MA	75%FMSY	1.57 c/i	2.09 c/i
Ocean Pout		75%FMSY	0.57 c/i	0.76
Atlantic Halibut		Frebuild	0.044	0.073
Atlantic Wolffish		75% FMSY	0.251 (See text)	0.334

Table 3 - Summary of ABC Distribution to state and other sub-components (percent of ABC shown)

Stock	State sub-component			Other sub-component		
	FW 44 (FY 10-11)	FW 47 (FY 12)	FW 50 (FY13-15)	FW 44 (FY 10-11)	FW 47 (FY 12)	FW 50 (FY13-15)
GB cod	0.01	0.01	0.01	0.04	0.04	0.04
GOM cod	0.10	0.10	0.10	0.05	0.05	0.05
GB Haddock	0.01	0.01	0.01	0.04	0.04	0.04
GOM Haddock	0.01	0.02	0.02	0.04	0.03	0.03
GB Yellowtail Flounder	0.00	0.00	0.00	0.05	0.04	0.02
SNE/MA Yellowtail Flounder	0.01	0.01	0.01	0.04	0.04	0.04
CC/GOM Yellowtail Flounder	0.01	0.03	0.06	0.04	0.02	0.02
Plaice	0.01	0.01	0.02	0.04	0.04	0.02
Witch Flounder	0.01	0.03	0.03	0.04	0.04	0.15
GB Winter Flounder	0.00	0.00	0.00	0.05	0.05	0.03
GOM Winter Flounder	0.25	0.25	0.25	0.05	0.05	0.05
SNE/MA Winter Flounder	0.08	0.28	0.14	0.05	0.20	0.10
Redfish	0.01	0.01	0.01	0.04	0.04	0.02
White Hake	0.01	0.02	0.01	0.04	0.03	0.02
Pollock	0.06	0.05	0.06	0.06	0.09	0.07
Northern Windowpane	0.01	0.01	0.01	0.29	0.19	0.29
Southern Windowpane	0.01	0.10	0.10	0.29	0.70	0.70
Ocean Pout	0.01	0.01	0.01	0.04	0.09	0.09
Halibut	0.50	0.50	0.40	0.05	0.05	0.05
Wolffish	0.01	0.01	0.01	0.04	0.04	0.04

Note: Changes in the percentage relative to the previous year are shown in bold font as follows: red/italic text indicates increase to sub-component percentage; green/underlined text indicates decrease.

Table 4 – Distribution of ABC to fishery components. Sector PSCs are preliminary and may change based on final sector rosters.

(1) Includes commercial ABC in state waters and other subcomponents

Stock	Year	ABC	Canadian Share/ Allowance	US ABC	State Waters	Other Sub-Components	Scallops	Groundfish	Comm Groundfish	Rec Groundfish	Sector PSC	MWT/ Small-Mesh
GB Cod	2013	2,506	504	2,002	0.01	0.04		0.95	0.95		0.9823204	
	2014	2,506	504	2,002	0.01	0.04		0.95	0.95		0.9823204	
	2015	2,506	504	2,002	0.01	0.04		0.95	0.95		0.9823204	
GOM Cod	2013	1,550		1,550	0.10	0.05			0.663	0.337	0.981037334	
	2014	1,550		1,550	0.10	0.05			0.663	0.337	0.981037334	
	2015	1,550		1,550	0.10	0.05			0.663	0.337	0.981037334	
GB Haddock	2013	35,783	6,448	29,335	0.01	0.04		0.940	0.94		0.997258146	0.01
	2014	35,699		35,699	0.01	0.04		0.940	0.94		0.997258146	0.01
	2015	43,606		43,606	0.01	0.04		0.940	0.94		0.997258146	0.01
GOM Haddock	2013	290		290	0.02	0.03		0.94	0.725	0.275	0.992915418	0.01
	2014	341		341	0.02	0.03		0.94	0.725	0.275	0.992915418	0.01
	2015	435		435	0.02	0.03		0.94	0.725	0.275	0.992915418	0.01
GB Yellowtail Flounder	2013	1,150	655	495	0.00	0.02	0.400	0.560	0.56		0.988535172	0.02
	2014											
	2015											
SNE/MA Yellowtail Flounder	2013	700		700	0.01	0.04	0.093	0.857	0.86		0.798211632	
	2014	700		700	0.01	0.04	0.102	0.848	0.85		0.798211632	
	2015	700		700	0.01	0.04	0.099	0.851	0.85		0.798211632	
CC/GOM Yellowtail Flounder	2013	548		548	0.06	0.02		0.92	0.92		0.975764987	
	2014	548		548	0.06	0.02		0.92	0.92		0.975764987	
	2015	548		548	0.06	0.02		0.92	0.92		0.975764987	
Plaice	2013	1,557		1,557	0.02	0.02		0.96	0.96		0.983290759	
	2014	1,515		1,515	0.02	0.02		0.96	0.96		0.983290759	
	2015	1,544		1,544	0.02	0.02		0.96	0.96		0.983290759	
Witch Flounder	2013	783		783	0.03	0.15		0.82	0.82		0.984707922	
	2014	783		783	0.03	0.15		0.82	0.82		0.984707922	
	2015	783		783	0.03	0.15		0.82	0.82		0.984707922	

Stock	Year	ABC	Canadian Share/ Allowance	US ABC	State Waters	Other Sub-Components	Scallops	Ground-fish	Comm Groundfish	Rec Groundfish	Sector PSC	MWT
GB Winter Flounder	2013	3,750		3,750	0.00	0.03		0.97	0.97		0.994187508	
	2014	3,598		3,598	0.00	0.03		0.97	0.97		0.994187508	
	2015											
GOM Winter Flounder	2013	1,078		1,078	0.25	0.05		0.70	0.70		0.949972429	
	2014	1,078		1,078	0.25	0.05		0.70	0.70		0.949972429	
	2015											
SNE/MA Winter Flounder	2013	1,676		1,676	0.14	0.10		0.76	0.76		0.8	
	2014	1,676		1,676	0.14	0.10		0.76	0.76		0.8	
	2015	1,676		1,676	0.14	0.10		0.76	0.76		0.8	
Redfish	2013	10,995		10,995	0.01	0.02		0.97	0.97		0.995942609	
	2014	11,465		11,465	0.01	0.02		0.97	0.97		0.995942609	
	2015	11,974		11,974	0.01	0.02		0.97	0.97		0.995942609	
White Hake	2013	3,638		3,638	0.02	0.03		0.95	0.95		0.990422378	
	2014											
	2015											
Pollock	2013	15,600		15,600	0.05	0.09		0.86	0.86		0.992546584	
	2014	16,000		16,000	0.05	0.09		0.87	0.87		0.992546584	
	2015											
N. Window-pane Flounder	2013	151		151	0.01	0.29		0.70	0.70			
	2014	151		151	0.01	0.29		0.70	0.70			
	2015	151		151	0.01	0.29		0.70	0.70			
S. Window-pane Flounder	2013	548		548	0.10	0.34	0.36	0.20	0.20			
	2014	548		548	0.10	0.34	0.36	0.20	0.20			
	2015	548		548	0.10	0.34	0.36	0.20	0.20			
Ocean Pout	2013	235		235	0.01	0.09		0.90	0.90			
	2014	235		235	0.01	0.09		0.90	0.90			
	2015	235		235	0.01	0.09		0.90	0.90			

Stock	Year	ABC	Canadian Share/ Allowance	US ABC	State Waters	Other Sub-Components	Scallops	Groundfish	Comm Groundfish	Rec Groundfish	Sector PSC	MWT
Atlantic Halibut	2013	99		99	0.40	0.05		0.55	0.55			
	2014	109		109	0.40	0.05		0.55	0.55			
	2015	119		119	0.40	0.05		0.55	0.55			
Atlantic Wolffish	2013	70		70	0.01	0.04		0.95	0.95			
	2014	70		70	0.01	0.04		0.95	0.95			
	2015	70		70	0.01	0.04		0.95	0.95			

Table 5 – Distribution of ABC to fishery components

(1) Includes commercial ABC in state waters and other sub-components

Stock	Year	ABC	Canadian Share/ Allowance	US ABC	State Waters	Other Sub-Components	Scallops	Groundfish	Comm Groundfish	Rec Groundfish	Sector PSC	Non-Sector	MWT
GB Cod	2013	2,506	504	2,002	7	28	0	661	661	0	650	12	0
	2014	2,506	504	2,002	7	28	0	661	661	0	650	12	0
	2015	2,506	504	2,002	7	28	0	661	661	0	650	12	0
GOM Cod	2013	1,550		1,550	103	51	0	1,550	1,028	522	857	17	0
	2014	1,550		1,550	103	51	0	1,550	1,028	522	857	17	0
	2015	1,550		1,550	103	51	0	1,550	1,028	522	857	17	0
GB Haddock	2013	35,783	6,448	29,335	293	1,173	0	27,575	27,575	0	27,499	76	293
	2014	35,699		35,699	357	1,428	0	33,557	33,557	0	33,465	92	357
	2015	43,606		43,606	436	1,744	0	40,990	40,990	0	40,877	112	436
GOM Haddock	2013	290		290	4	6	0	290	210	80	195	1	3
	2014	341		341	5	7	0	341	247	94	230	2	3
	2015	435		435	6	9	0	435	315	120	293	2	4
GB Yellowtail Flounder	2013	1,150	655	495	0	10	198.0	277	277	0	274	3	10
	2014												0
	2015									0			0
SNE/MA Yellowtail Flounder	2013	700		700	7	28	65	600	600	0	479	121	7
	2014	700		700	7	28	71	594	594	0	474	120	7
	2015	700		700	7	28	69	596	596	0	475	120	7
CC/GOM Yellowtail Flounder	2013	548		548	33	11	0	504	504	0	492	12	33
	2014	548		548	33	11	0	504	504	0	492	12	33
	2015	548		548	33	11	0	504	504	0	492	12	33
Plaice	2013	1,557		1,557	31	31	0	1,495	1,495	0	1,470	25	0
	2014	1,515		1,515	30	30	0	1,454	1,454	0	1,430	24	0
	2015	1,544		1,544	31	31	0	1,482	1,482	0	1,457	25	0

Stock	Year	ABC	Canadian Share/ Allowance	US ABC	State Waters	Other Sub-Components	Scallops	Ground-fish	Comm Ground-fish	Rec Ground-fish	Sector PSC	Non-Sector	MWT
Witch Flounder	2013	783		783	23	117	0	642	642	0	632	10	0
	2014	783		783	23	117	0	642	642	0	632	10	0
	2015	783		783	23	117	0	642	642	0	632	10	0
GB Winter Flounder	2013	3,750		3,750	0	113	0	3,638	3,638	0	3,616	21	0
	2014	3,598		3,598	0	108	0	3,490	3,490	0	3,470	20	0
	2015												
GOM Winter Flounder	2013	1,078		1,078	272	54	0	752	752	0	727	26	0
	2014	1,078		1,078	272	54	0	752	752	0	727	26	0
	2015												
SNE/MA Winter Flounder	2013	1,676		1,676	235	168	0	1,274	1,274	0	1,019	255	0
	2014	1,676		1,676	235	168	0	1,274	1,274	0	1,019	255	0
	2015	1,676		1,676	235	168	0	1,274	1,274	0	1,019	255	0
Redfish	2013	10,995		10,995	110	220	0	10,665	10,665	0	10,622	43	0
	2014	11,465		11,465	115	229	0	11,121	11,121	0	11,076	45	0
	2015	11,974		11,974	120	239	0	11,615	11,615	0	11,568	47	0
White Hake	2013	3,638		3,638	36	73	0	3,529	3,529	0	3,501	28	0
	2014												
	2015												
Pollock	2013	15,600		15,600	936	1,092	0	13,572	13,572	0	13,484	88	0
	2014	16,000		16,000	960	1,120	0	13,920	13,920	0	13,830	90	0
	2015												
N. Window-pane Flounder	2013	151		151	2	44	0	106	106	0	0	106	0
	2014	151		151	2	44	0	106	106	0	0	106	0
	2015	151		151	2	44	0	106	106	0	0	106	0
S. Window-pane Flounder	2013	548		548	55	186	197	110	110	0	0	110	0
	2014	548		548	55	186	197	110	110	0	0	110	0
	2015	548		548	55	186	197	110	110	0	0	110	0

Stock	Year	ABC	Canadian Share/ Allowance	US ABC	State Waters	Other Sub-Components	Scallops	Ground-fish	Comm Ground-fish	Rec Ground-fish	Sector PSC	Non-Sector	MWT
Ocean Pout	2013	235		235	2	21	0	212	212	0	0	212	0
	2014	235		235	2	21	0	212	212	0	0	212	0
	2015	235		235	2	21	0	212	212	0	0	212	0
Atlantic Halibut	2013	99		99	40	5	0	54	54	0	0	54	0
	2014	109		109	44	5	0	60	60	0	0	60	0
	2015	119		119	48	6	0	65	65	0	0	65	0
Atlantic Wolffish	2013	70		70	1	3	0	67	67	0	0	67	0
	2014	70		70	1	3	0	67	67	0	0	67	0
	2015	70		70	1	3	0	67	67	0	0	67	0

Table 6 – ACL adjustments

Stock	Year	State Waters	Other Sub-Components	Scallops	Groundfish	Comm/Non-Sector Groundfish	Rec Groundfish	Sector PSC	MWT
GB Cod	2013	1	1	1	0.95	0.95	0.95	0.95	1
	2014	1	1	1	0.95	0.95	0.95	0.95	1
	2015	1	1	1	0.95	0.95	0.95	0.95	1
GOM Cod	2013	1	1	1	0.95	0.95	0.93	0.95	1
	2014	1	1	1	0.95	0.95	0.93	0.95	1
	2015	1	1	1	0.95	0.95	0.93	0.95	1
GB Haddock	2013	1	1	1	0.95	0.95	0.95	0.95	0.93
	2014	1	1	1	0.95	0.95	0.95	0.95	0.93
	2015	1	1	1	0.95	0.95	0.95	0.95	0.93
GOM Haddock	2013	1	1	1	0.95	0.95	0.93	0.95	0.93
	2014	1	1	1	0.95	0.95	0.93	0.95	0.93
	2015	1	1	1	0.95	0.95	0.93	0.95	0.93
GB Yellowtail Flounder	2013	1	1	0.97	0.97	0.97	0.95	0.97	0.93
	2014	1	1	0.97	0.97	0.97	0.95	0.97	0.93
	2015	1	1	0.97	0.97	0.97	0.95	0.97	0.93
SNE/MA Yellowtail Flounder	2013	1	1	0.93	0.95	0.95	0.95	0.95	1
	2014	1	1	0.93	0.95	0.95	0.95	0.95	1
	2015	1	1	0.93	0.95	0.95	0.95	0.95	1
CC/GOM Yellowtail Flounder	2013	1	1	1	0.95	0.95	0.95	0.95	1
	2014	1	1	1	0.95	0.95	0.95	0.95	1
	2015	1	1	1	0.95	0.95	0.95	0.95	1
Plaice	2013	1	1	1	0.95	0.95	0.95	0.95	1
	2014	1	1	1	0.95	0.95	0.95	0.95	1
	2015	1	1	1	0.95	0.95	0.95	0.95	1
Witch Flounder	2013	1	1	1	0.95	0.95	0.95	0.95	1
	2014	1	1	1	0.95	0.95	0.95	0.95	1
	2015	1	1	1	0.95	0.95	0.95	0.95	1

Stock	Year	State Waters	Other Sub-Components	Scallops	Groundfish	Comm/Non-Sector Groundfish	Rec Groundfish	Sector PSC	MWT
GB Winter Flounder	2013	1	1	1	0.97	0.97	0.97	0.97	1
	2014	1	1	1	0.97	0.97	0.97	0.97	1
	2015	1	1	1	0.97	0.97	0.97	0.97	1
GOM Winter Flounder	2013	1	1	1	0.95	0.95	0.95	0.95	1
	2014	1	1	1	0.95	0.95	0.95	0.95	1
	2015	1	1	1	0.95	0.95	0.95	0.95	1
SNE/MA Winter Flounder	2013	1	1	1	0.95	0.95	0.95	0.95	1
	2014	1	1	1	0.95	0.95	0.95	0.95	1
	2015	1	1	1	0.95	0.95	0.95	0.95	1
Redfish	2013	1	1	1	0.95	0.95	0.95	0.95	1
	2014	1	1	1	0.95	0.95	0.95	0.95	1
	2015	1	1	1	0.95	0.95	0.95	0.95	1
White Hake	2013	1	1	1	0.95	0.95	0.95	0.95	1
	2014	1	1	1	0.95	0.95	0.95	0.95	1
	2015	1	1	1	0.95	0.95	0.95	0.95	1
Pollock	2013	1	1	1	0.95	0.95	0.95	0.95	1
	2014	1	1	1	0.95	0.95	0.95	0.95	1
	2015	1	1	1	0.95	0.95	0.95	0.95	1
N. Windowpane Flounder	2013	1	1	1	0.93	0.93	0.95	0.93	1
	2014	1	1	1	0.93	0.93	0.95	0.93	1
	2015	1	1	1	0.93	0.93	0.95	0.93	1
S. Windowpane Flounder	2013	1	1	0.93	0.93	0.93	0.95	0.93	1
	2014	1	1	0.93	0.93	0.93	0.95	0.93	1
	2015	1	1	0.93	0.93	0.93	0.95	0.93	1
Ocean Pout	2013	1	1	1	0.93	0.93	0.95	0.93	1
	2014	1	1	1	0.93	0.93	0.95	0.93	1
	2015	1	1	1	0.93	0.93	0.95	0.93	1

Stock	Year	State Waters	Other Sub-Components	Scallops	Groundfish	Comm/Non-Sector Groundfish	Rec Groundfish	Sector PSC	MWT
Atlantic Halibut	2013	1	1	1	0.95	0.95	0.95	0.95	1
	2014	1	1	1	0.95	0.95	0.95	0.95	1
	2015	1	1	1	0.95	0.95	0.95	0.95	1
Atlantic Wolffish	2013	1	1	1	0.93	0.93	0.95	0.95	1
	2014	1	1	1	0.93	0.93	0.95	0.95	1
	2015	1	1	1	0.93	0.93	0.95	0.95	1

Table 7 – Proposed incidental catch TACs for major stocks of concern (mt). TACs are for the fishing year. TACs shown are metric tons, live weight. Note: GB cod and GB yellowtail flounder TAC is determined annually and cannot be estimated in advance. Values are dependent on ACLs, which have not yet been determined.

	Percentage of Common Pool ACL
GB cod	Two
GOM cod	One
GB Yellowtail	Two
CC/GOM yellowtail	One
Plaice	Five
Witch Flounder	Five
SNE/MA Winter Flounder	One

Table 8 - Proposed allocation of incidental catch TACs for major stocks of concern to Category B DAS programs (shown as percentage of the incidental catch TAC)

	Category B (regular) DAS Program	CAI Hook Gear SAP	Eastern US/CA Haddock SAP	Southern CAI Haddock SAP
GOM cod	100%	NA	NA	
GB cod	50%	16%	34%	
CC/GOM yellowtail	100%	NA	NA	
Plaice	100%	NA	NA	
White Hake	100%	NA	NA	
SNE/MA Winter Flounder	100%	NA	NA	
Witch Flounder	100%	NA	NA	
GB Yellowtail	50%	NA	50%	