

Appendix III

Calculation of Northeast Multispecies Annual Catch Limits, FY 2010 - FY 2012

This appendix documents the calculation of Northeast Multispecies Overfishing Levels (OFLs), Acceptable Biological Catches (ABCs), and Annual Catch Limits (ACLs) for FY 2010 - FY 2012. The general approach for all stocks is to first determine the OFL, then determine the ABC. 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.

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:

- GB cod
- GOM cod
- GB haddock
- GOM haddock
- GB yellowtail flounder
- CC/GOM yellowtail flounder
- SNE/MA yellowtail flounder
- GB winter flounder
- SNE/MA winter flounder
- Witch flounder
- Plaice
- White Hake
- Redfish
- Atlantic halibut

For most stocks, the projections were performed using the Northeast Fisheries Science Center’s (NEFSC) AGEPRO projection model; the exception is white hake and Atlantic halibut, which used a projection model developed by SCAA/ASP. Initial conditions for the projections are based on five year averages (2003-2007) from the most recent assessment. For all stocks except GB yellowtail flounder, the most recent assessment was completed in GARM III (NEFSC 2008), and the terminal year in the assessment is 2007. GB yellowtail flounder was assessed by the Transboundary Resource Assessment Committee (TRAC) in 2009, with a terminal year of 2008.

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 GARM and TRAC review panels.

Since the first year for ACLs is 2010, an additional assumption must be made in the projections for the years between the terminal year and 2010. For the assessments with a

terminal year of 2007, an estimate of 2008 catch developed by the NEFSC was input into the projection model. While these catches were calculated using the same techniques as were used by GARM III, the values have not been subject to a peer review and could be modified in the future when an assessment is completed. The 2008 catches used are shown in Table 1.

The assumption for 2009 was based on an estimate of 2009 fishing mortality. This estimate was developed after considering the expected impacts of the Northeast Multispecies interim action that was implemented May 1, 2009. For most stocks, the expected change in exploitation predicted to result from the interim action were applied to the 2008 mortality that results from the updated 2008 catch to get an estimate of the 2009 mortality. An exception was made for three stocks, two affected by the U.S./Canada Resource Sharing Understanding. The first is for GB yellowtail flounder. Since this stock is managed by a hard TAC, the 2009 TAC of 2100 mt was used in the projection (consistent with the projection approach used by the Transboundary Resource Assessment Committee (TRAC)). The second exception is for GB haddock. The interim action analysis cannot reliably predict GB haddock mortality because much of the catch comes from the Canadian fishery in recent years and this is not affected by U.S. management measures. The Canadian fishery has nearly harvested its TAC in recent years, so the 2009 TAC of 19,000 mt was assumed caught. The 2009 U.S. catch was assumed to be the same as the 2008 catch of 6,000 mt. Total 2009 GB haddock catch assumed was 25,000 mt. The 2009 catch assumption is not as critical for this stock since recent catches are well below catch projections for future years. The third exception is for Atlantic halibut. The 2009 catch was assumed to be 100 mt, a 40 percent increase from the four year average catch but only a 20 percent increase from the 2007 catch. An increase seems warranted since the Canadian TAC is increasing by 15 percent from 2008 to 2009 (only a small portion of this TAC is taken from the stock area used in the U.S. assessment).

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.). There were two exceptions. For GB yellowtail flounder, because there are two assessment models extant, FY 2011 and FY 2012 ABCs are preliminary and are expected to be revisited after the 2010 TRAC assessment. The ABCs for these two years shown were calculated using the “excluding” assessment model. Fishing year 2011 and FY 2012 mortality was set at the mortality that results from a 1500 mt catch in FY 2010. For SNE/MA winter flounder, the ABC was calculated using the fishing mortality expected to result from management measures designed to achieve a mortality as close to 0 as possible. Specific mortality targets used for the ABC projections are provided in Table 2.

Projection output used for setting ABCs is in Appendix IV.

Stocks with Index-Based Assessments

For these four 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.

Northern Windowpane Flounder
Southern Windowpane Flounder
Ocean Pout
Pollock

GOM Winter Flounder

GARMI III did not accept the GOM winter flounder assessment. As determined by the SSC, the ABC was set as 75 percent of the average catch for the most recent three years (CYY 2006/2007/2008).

Atlantic Wolffish

The OFL for Atlantic wolffish was established as F_{MSY} applied to the most recent estimate of exploitable biomass, while the ABC was set as 75% of F_{MSY} applied to the exploitable biomass. Alternative assumptions of selectivity and size at maturity provide a range of F_{MSY} and exploitable biomass estimates (e.g., $F_{MSY} = 0.2$ to 0.7 and exploitable biomass = 215 to 533 t). Based on the guidance from the DPSWG that F_{MSY} is most likely less than 0.35 and that survey-based estimates of size-at-maturity may not be reliable, the OFL and ABC are based on the assessment model that assumes steep selectivity and 75cm knife edge size at maturity.

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:

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). For other stocks with substantial Canadian catches this is based on an estimate of Canadian catch.

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.

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.

Scallops: Portion of U.S. ABC either allocated to, or expected to be harvested by, the U.S. scallop fishery.

Groundfish: Portion of the U.S. ABC available to the groundfish fishery (including recreational and commercial vessels). 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 commercial vessels.

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

Table 3 summarizes the distribution of the U.S. ABC to the various sub-components, while Table 4 provides the resulting ABCs. Details for specific stocks are provided below.

a. 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.

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

		Rec	Comm	Total
Shares,	Based on Total Catch, in Numbers	0.337	0.663	1.0
	ABC, Based on Totals	2,875	5,655	8,530
	State waters (assumed all commercial)		566	
	Other sub (assumed all commercial)		283	
	Adjusted ABC	2,875	4,807	

b. GOM haddock: This stock has similar 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 0.2% of the total ABC. The ABC is first divided between the recreational and commercial fisheries, then 1% of the commercial share is allowed for state waters and 4% for other subcomponents. The MWT share is also subtracted from the commercial ABC.

		Rec	Comm	Total
Shares,	Based on Total Catch, in Numbers	0.275	0.725	1
	ABC, Based on Totals	348	917	1,265
	MWT Haddock		3	
	State waters (assumed all commercial)		9	
	Other sub (assumed all commercial)		37	
	Adjusted ABC		869	
	ACL	313	825	
	Total ABC for component	348	917	

c. GB yellowtail flounder: There is no state waters component because the stock area does not include state waters. Five 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. In FY 2010 this allocation is 100 percent of the amount expected to be harvested, while in FY 2011 and FY 2012 it is 90 percent of the amount expected to be harvested. In FY 2010 this is an “other subcomponent” and is not adjusted for management uncertainty.

d. 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. In FY 2010 this allocation is 100 percent of the amount expected to be harvested, while in FY 2011 and FY 2012 it is 90 percent of the amount expected to be harvested. In FY 2010 this is an “other subcomponent” and is not adjusted for management uncertainty.

e. GB winter flounder: There is no state waters allocation because the stock area does not include state waters.

f. GOM winter flounder: The recreational fishery is almost entirely in state waters. From 2005 to 2007, the recreational harvest averaged 29 mt, but increased to 107 mt in 2008. ASMFC is adopting management measures to reduce harvests 11 percent. The PDT has allowed 60 mt for state waters/recreational harvest for this stock. This is 89 percent of the 2007/2008 average, reflecting the expected impacts of ASMFC measures. This is 25 percent of the ABC.

g. SNE/MA winter flounder: Recreational harvest increased from 92 mt in 2004 to 167 mt in 2006, then declined to 75 mt in 2008. ASMFC is adopting management measures to reduce harvest 46 percent. The PDT allowed 53 mt in 2010 for recreational/state waters harvest for this stock, 54 percent of the 2007/2008 average. This is 8 percent of the ABC; 8 percent was used for FY 2011 and FY 2012; this gives a slightly larger allocation in future years, reflecting stock rebuilding.

h. Pollock: Recreational harvest increased to 912 mt in 2008, about 2.5 times the harvest from 2005 through 2007 and 24 percent of the ABC. Since 2001, about half of the recreational harvest has been from state waters. The PDT allowed 400 mt for recreational harvest, reflecting the approximate average amount harvested from 2003 through 2007. This value is split between state waters and the “other sub-components” category. Canadian catches in 2008 were 650 mt, but Canadian TACs are expected to decline on the order of 20 percent in 2010. The PDT allowed 520 mt for Canadian catches (80 percent of 2008).

i. Atlantic halibut: The PDT estimates that about 50 percent of halibut catches are by Maine state vessels from state waters.

ACLs

After the ABCs are distributed to the various components, they are adjusted for management uncertainty. As discussed in Appendix II, the default sets the ACL at 95 percent of the ABC. For stocks with less management uncertainty the ACL is set at 97 percent of the ABC; for stocks with more uncertainty it is set at 93 percent of the ACL. Adjustments are shown in Table 5. The rationale for deviation from 95 percent for specific stocks is provided below.

a. GOM cod: The management uncertainty associated with the recreational fishery is greater than that associated with the commercial fishery because data for the recreational fishery is more uncertain than that from the commercial fishery, the number of participants is unknown, the AMs for the recreational fishery are implemented after a time lag, and impacts of the management measures are less predictable. Therefore the ACL for the recreational component was set at 93 percent of the ABC.

b. GOM haddock: The MWT ACL was set at 93 percent of the ABC due to uncertainty over monitoring of the herring MWT fishery.

The management uncertainty associated with the recreational fishery is greater than that associated with the commercial fishery because data for the recreational fishery is more uncertain than that from the commercial fishery, the number of participants is unknown, the AMs for the recreational fishery are implemented after a time lag, and impacts of the management measures are less predictable. Therefore the ACL for the recreational component was set at 93 percent of the ABC.

c. GB yellowtail flounder: The management uncertainty is less for this stock because this stock has been successfully managed with a hard TAC for several years and there are in-season AMs (Regional Administrator authority to modify in-season measures including trip limits, closures, gear restrictions, etc.). Therefore, the PDT set the ACL at 97 percent of the ABC. The same percentage is used for the scallop fishery in FY 2011 and FY 2012. There is no state waters allocation because the stock area does not include state waters.

d. SNE/MA yellowtail flounder: This stock is the only stock where catches exceeded TTACs for several years. Also, non-groundfish fisheries may catch this stock. The PDT set the ACL at 93 percent of the ABC in recognition of the fact management measures may not be as effective at keeping catch levels below the desired catch level for this stock. The same percentage is used for the scallop fishery in FY 2011 and FY 2012.

e. SNE/MA winter flounder: The ACL was set at 93 percent of the ABC. With the adoption of Amendment 16, landings are prohibited, which will increase the uncertainty over catch. In addition, there are no controls on the catch of this stock by sector vessels other than a prohibition on retention (in contrast, the proposed measures for the common pool include two gear restricted areas that will help reduce impacts on this stock).

f. Windowpane flounders, ocean pout, Atlantic wolffish: Retention of these stocks is prohibited. In addition, there are no controls on the catches of these stocks by sector vessels other than a prohibition on retention. The ACL was set at 93 percent of the ABC, reflecting the additional uncertainty over catch.

g. GB haddock: The MWT ACL was set at 93 percent of the ABC due to uncertainty over monitoring of the herring MWT fishery.

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.

Table 1 – 2008 catch used in age-based projections

Stock	Landings	Actual 2008 Catch ¹		Canada	Total 2008 Catch
		Commercial discards ²	Recreational Landings or Harvest ³		
GB Cod	3,207	366	32	1,529	5,134
GB Haddock	5,744	343		14,814	20,901
GB Yellowtail(1)	748	370		158	1,276
SNE/MA Yellowtail	354	150			504
CC/GOM Yellowtail	566	161			727
GOM Cod	5,439	1,356	1,704		8,499
Witch Flounder	1,005	58			1,063
Plaice	1,106	242			1,348
GOM Winter Flounder	284	12	107		402
SNE/MA Winter Flounder	1,247	109	76		1,432
GB Winter Flounder	824	139			963
White Hake	1,876				1,876
Pollock	9,964		912	493	11,370
Redfish	1,190	174			1,364
GOM Haddock	575	11	611		1,197
Ocean pout	7	118			125
Northern window	34	316			350
Southern window	87	276			363

Notes:

1. Actual 2008 catch as calculated by NEFSC in July 2009. These numbers are preliminary until incorporated into an assessment.
2. For winter flounder stocks, discards are after application of a 50 percent mortality rate to commercial catch.
3. For winter flounder stocks, discard mortality for recreational catch is 15 percent.

Table 2 – Mortality targets used to calculate ABCs, FY 2010 – 2012

(1) Because there are two assessments for this stock, FY 2010 ABC recommended by the SSC was based on Frebuild used in both models. Future (FY 2011 and FY 2012) ABCs were based on the mortality that results from this ABC when projected forward from one of the models. See text for details.

Species	Stock	Basis for Target Fishing Mortality	Targeted Fishing Mortality	F _{msy}
Cod	GB	75%FMSY	0.184	0.2466
Cod	GOM	75%FMSY	0.18	0.237
Haddock	GB	75%FMSY	0.26	0.35
Haddock	GOM	75%FMSY	0.32	0.43
Yellowtail Flounder	GB	Frebuild ⁽¹⁾	0.018/0.086/(0.068) ⁽¹⁾	0.254
Yellowtail Flounder	SNE/MA	Frebuild	0.072	0.254
Yellowtail Flounder	CC/GOM	75%FMSY	0.18	0.239
American Plaice	GB/GOM	75%FMSY	0.14	0.19
Witch Flounder		75%FMSY	0.15	0.2
Winter Flounder	GB	75%FMSY	0.2	0.26
Winter Flounder	GOM	75% average catch	n/a	0.283
Winter Flounder	SNE/MA	See text	0	0.248
Redfish		75%FMSY	0.03	0.038
White Hake	GB/GOM	Frebuild	0.084	0.125
Pollock	GB/GOM	See text	4.245	5.66
Windowpane	GOM/GB	75%FMSY	n/a	0.5
Windowpane	SNE/MA	75%FMSY	n/a	1.47
Ocean Pout		75%FMSY	n/a	0.76
Atlantic Halibut		Frebuild	0.044	0.073
Atlantic Wolffish		75% FMSY	See text	

Table 3 – Distribution of ABC to fishery components.

(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
GB Cod	2010	4,812	1,012	3,800	0.01	0.04		0.95	0.95		0.949389974	
	2011	5,616	0	5,616	0.01	0.04		0.95	0.95		0.949389974	
	2012	6,214	0	6,214	0.01	0.04		0.95	0.95		0.949389974	
GOM Cod	2010	8,530	0	8,530	0.10	0.05		na	0.663	0.337	0.926205087	
	2011	9,012	0	9,012	0.10	0.05		na	0.663	0.337	0.926205087	
	2012	9,018	0	9,018	0.10	0.05		na	0.663	0.337	0.926205087	
GB Haddock	2010	62,515	17,612	44,903	0.01	0.04		0.95	0.95		0.972129238	0.002
	2011	46,784	0	46,784	0.01	0.04		0.95	0.95		0.972129238	0.002
	2012	39,846	0	39,846	0.01	0.04		0.95	0.95		0.972129238	0.002
GOM Haddock	2010	1,265		1,265	0.01	0.04		na	0.725	0.275	0.952531093	0.002
	2011	1,206		1,206	0.01	0.04		na	0.725	0.275	0.952531093	0.002
	2012	1,013		1,013	0.01	0.04		na	0.725	0.275	0.952531093	0.002
GB Yellowtail Flounder	2010	1,500	300	1,200	0.00	0.05	0.092	0.858	0.858		0.93516549	
	2011	1,689	608	1,081	0.00	0.05	0.188	0.762	0.762		0.93516549	
	2012	1,916	690	1,226	0.00	0.05	0.259	0.691	0.691		0.93516549	
SNE/MA Yellowtail Flounder	2010	493		493	0.01	0.04	0.225	0.725	0.725		0.726460172	
	2011	687		687	0.01	0.04	0.124	0.826	0.826		0.726460172	
	2012	1,003		1,003	0.01	0.04	0.136	0.814	0.814		0.726460172	
CC/GOM Yellowtail Flounder	2010	863		863	0.01	0.04		0.95	0.95		0.932830303	
	2011	1,041		1,041	0.01	0.04		0.95	0.95		0.932830303	
	2012	1,159		1,159	0.01	0.04		0.95	0.95		0.932830303	
Plaice	2010	3,156		3,156	0.01	0.04		0.95	0.95		0.935528195	
	2011	3,444		3,444	0.01	0.04		0.95	0.95		0.935528195	
	2012	3,632		3,632	0.01	0.04		0.95	0.95		0.935528195	
Witch Flounder	2010	944		944	0.01	0.04		0.95	0.95		0.950533446	
	2011	1,369		1,369	0.01	0.04		0.95	0.95		0.950533446	
	2012	1,639		1,639	0.01	0.04		0.95	0.95		0.950533446	

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	2010	2,052		2,052	0.00	0.05		0.95	0.95		0.970333537	
	2011	2,224		2,224	0.00	0.05		0.95	0.95		0.970333537	
	2012	2,543		2,543	0.00	0.05		0.95	0.95		0.970333537	
GOM Winter Flounder	2010	238		238	0.25	0.05		0.70	0.70		0.835133988	
	2011	238		238	0.25	0.05		0.70	0.70		0.835133988	
	2012	238		238	0.25	0.05		0.70	0.70		0.835133988	
SNE/MA Winter Flounder	2010	644		644	0.08	0.05		0.87	0.87			
	2011	897		897	0.08	0.05		0.87	0.87			
	2012	1,198		1,198	0.08	0.05		0.87	0.87			
Redfish	2010	7,586		7,586	0.01	0.04		0.95	0.95		0.965879893	
	2011	8,356		8,356	0.01	0.04		0.95	0.95		0.965879893	
	2012	9,224		9,224	0.01	0.04		0.95	0.95		0.965879893	
White Hake	2010	2,832		2,832	0.01	0.04		0.95	0.95		0.952587679	
	2011	3,295		3,295	0.01	0.04		0.95	0.95		0.952587679	
	2012	3,638		3,638	0.01	0.04		0.95	0.95		0.952587679	
Pollock	2010	3,813	520	3,293	0.06	0.06		0.88	0.88		0.956936325	
	2011	3,813	520	3,293	0.06	0.06		0.88	0.88		0.956936325	
	2012	3,813	520	3,293	0.06	0.06		0.88	0.88		0.956936325	
N. Window-pane Flounder	2010	169		169	0.01	0.29		0.70	0.70			
	2011	169		169	0.01	0.29		0.70	0.70			
	2012	169		169	0.01	0.29		0.70	0.70			
S. Window-pane Flounder	2010	237		237	0.01	0.29		0.70	0.70			
	2011	237		237	0.01	0.29		0.70	0.70			
	2012	237		237	0.01	0.29		0.70	0.70			
Ocean Pout	2010	271		271	0.01	0.04		0.95	0.95			
	2011	271		271	0.01	0.04		0.95	0.95			
	2012	271		271	0.01	0.04		0.95	0.95			

Stock	Year	ABC	Canadian Share/ Allowance	US ABC	State Waters	Other Sub-Components	Scallops	Groundfish	Comm Groundfish	Rec Groundfish	Sector PSC	MWT
Atlantic Halibut	2010	71		71	0.50	0.05		0.45	0.45			
	2011	78		78	0.50	0.05		0.45	0.45			
	2012	85		85	0.50	0.05		0.45	0.45			
	2010	83		83	0.01	0.04		0.95	0.95			
Atlantic Wolffish	2011	83		83	0.01	0.04		0.95	0.95			
	2012	83		83	0.01	0.04		0.95	0.95			

Table 4 – 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	2010	4,812	1,012	3,800	38	152	0	3,610	3,610	0	3,427	183	0
	2011	5,616	0	5,616	56	225	0	5,335	5,335	0	5,065	270	0
	2012	6,214	0	6,214	62	249	0	5,903	5,903	0	5,605	299	0
GOM Cod	2010	8,530	0	8,530	566	283	0	8,530	5,655 ⁽¹⁾	2,875	4,452	355	0
	2011	9,012	0	9,012	597	299	0	9,012	5,975 ⁽¹⁾	3,037	4,704	375	0
	2012	9,018	0	9,018	598	299	0	9,018	5,979 ⁽¹⁾	3,039	4,707	375	0
GB Haddock	2010	62,515	17,612	44,903	449	1,796	0	42,568	42,568	0	41,382	1,186	90
	2011	46,784	0	46,784	468	1,871	0	44,351	44,351	0	43,115	1,236	94
	2012	39,846	0	39,846	398	1,594	0	37,774	37,774	0	36,721	1,053	80
GOM Haddock	2010	1,265		1,265	9	37	0	1,265	917 ⁽¹⁾	348	828	41	3
	2011	1,206		1,206	9	35	0	1,206	874 ⁽¹⁾	332	789	39	2
	2012	1,013		1,013	7	29	0	1,013	734 ⁽¹⁾	279	663	33	2
GB Yellowtail Flounder	2010	1,500	300	1,200	0	60	110	1,030	1,030	0	963	67	0
	2011	1,689	608	1,081	0	54	203	824	824	0	770	53	0
	2012	1,916	690	1,226	0	61	318	847	847	0	792	55	0
SNE/MA Yellowtail Flounder	2010	493		493	5	20	111	357	357	0	260	98	0
	2011	687		687	7	27	86	567	567	0	412	155	0
	2012	1,003		1,003	10	40	136	817	817	0	593	223	0
CC/GOM Yellowtail Flounder	2010	863		863	9	35	0	820	820	0	765	55	0
	2011	1,041		1,041	10	42	0	989	989	0	923	66	0
	2012	1,159		1,159	12	46	0	1,101	1,101	0	1,027	74	0
Plaice	2010	3,156		3,156	32	126	0	2,998	2,998	0	2,805	193	0
	2011	3,444		3,444	34	138	0	3,272	3,272	0	3,061	211	0
	2012	3,632		3,632	36	145	0	3,450	3,450	0	3,228	222	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	2010	944		944	9	38	0	897	897	0	852	44	0
	2011	1,369		1,369	14	55	0	1,301	1,301	0	1,236	64	0
	2012	1,639		1,639	16	66	0	1,557	1,557	0	1,480	77	0
GB Winter Flounder	2010	2,052		2,052	0	103	0	1,949	1,949	0	1,892	58	0
	2011	2,224		2,224	0	111	0	2,113	2,113	0	2,050	63	0
	2012	2,543		2,543	0	127	0	2,416	2,416	0	2,344	72	0
GOM Winter Flounder	2010	238		238	60	12	0	166	166	0	139	27	0
	2011	238		238	60	12	0	166	166	0	139	27	0
	2012	238		238	60	12	0	166	166	0	139	27	0
SNE/MA Winter Flounder	2010	644		644	53	32	0	559	559	0	0	559	0
	2011	897		897	72	45	0	780	780	0	0	780	0
	2012	1,198		1,198	96	60	0	1,042	1,042	0	0	1,042	0
Redfish	2010	7,586		7,586	76	303	0	7,207	7,207	0	6,961	246	0
	2011	8,356		8,356	84	334	0	7,938	7,938	0	7,667	271	0
	2012	9,224		9,224	92	369	0	8,763	8,763	0	8,464	299	0
White Hake	2010	2,832		2,832	28	113	0	2,690	2,690	0	2,563	128	0
	2011	3,295		3,295	33	132	0	3,130	3,130	0	2,982	148	0
	2012	3,638		3,638	36	146	0	3,456	3,456	0	3,292	164	0
Pollock	2010	3,813	520	3,293	200	200	0	2,893	2,893	0	2,768	125	0
	2011	3,813	520	3,293	200	200	0	2,893	2,893	0	2,768	125	0
	2012	3,813	520	3,293	200	200	0	2,893	2,893	0	2,768	125	0
N. Window-pane Flounder	2010	169		169	2	49	0	118	118	0	0	118	0
	2011	169		169	2	49	0	118	118	0	0	118	0
	2012	169		169	2	49	0	118	118	0	0	118	0
S. Window-pane Flounder	2010	237		237	2	69	0	166	166	0	0	166	0
	2011	237		237	2	69	0	166	166	0	0	166	0
	2012	237		237	2	69	0	166	166	0	0	166	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	2010	271		271	3	11	0	257	257	0	0	257	0
	2011	271		271	3	11	0	257	257	0	0	257	0
	2012	271		271	3	11	0	257	257	0	0	257	0
Atlantic Halibut	2010	71		71	36	4	0	32	32	0	0	32	0
	2011	78		78	39	4	0	35	35	0	0	35	0
	2012	85		85	43	4	0	38	38	0	0	38	0
Atlantic Wolffish	2010	83		83	1	3	0	79	79	0	0	79	0
	2011	83		83	1	3	0	79	79	0	0	79	0
	2012	83		83	1	3	0	79	79	0	0	79	0

Table 5 – ACL adjustments

Stock	Year	State Waters	Other Sub-Components	Scallops	Groundfish	Comm/Non-Sector Groundfish	Rec Groundfish	Sector PSC	MWT
GB Cod	2010	1	1	1	0.95	0.95	0.95	0.95	1
	2011	1	1	1	0.95	0.95	0.95	0.95	1
	2012	1	1	1	0.95	0.95	0.95	0.95	1
GOM Cod	2010	1	1	1	0.95	0.95	0.93	0.95	1
	2011	1	1	1	0.95	0.95	0.93	0.95	1
	2012	1	1	1	0.95	0.95	0.93	0.95	1
GB Haddock	2010	1	1	1	0.95	0.95	0.95	0.95	0.93
	2011	1	1	1	0.95	0.95	0.95	0.95	0.93
	2012	1	1	1	0.95	0.95	0.95	0.95	0.93
GOM Haddock	2010	1	1	1	0.95	0.95	0.93	0.95	0.93
	2011	1	1	1	0.95	0.95	0.93	0.95	0.93
	2012	1	1	1	0.95	0.95	0.93	0.95	0.93
GB Yellowtail Flounder	2010	1	1	1	0.97	0.97	0.95	0.97	1
	2011	1	1	0.97	0.97	0.97	0.95	0.97	1
	2012	1	1	0.97	0.97	0.97	0.95	0.97	1
SNE/MA Yellowtail Flounder	2010	1	1	1	0.93	0.93	0.95	0.93	1
	2011	1	1	0.93	0.93	0.93	0.95	0.93	1
	2012	1	1	0.93	0.93	0.93	0.95	0.93	1
CC/GOM Yellowtail Flounder	2010	1	1	1	0.95	0.95	0.95	0.95	1
	2011	1	1	1	0.95	0.95	0.95	0.95	1
	2012	1	1	1	0.95	0.95	0.95	0.95	1
Plaice	2010	1	1	1	0.95	0.95	0.95	0.95	1
	2011	1	1	1	0.95	0.95	0.95	0.95	1
	2012	1	1	1	0.95	0.95	0.95	0.95	1
Witch Flounder	2010	1	1	1	0.95	0.95	0.95	0.95	1
	2011	1	1	1	0.95	0.95	0.95	0.95	1
	2012	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	2010	1	1	1	0.95	0.95	0.95	0.95	1
	2011	1	1	1	0.95	0.95	0.95	0.95	1
	2012	1	1	1	0.95	0.95	0.95	0.95	1
GOM Winter Flounder	2010	1	1	1	0.95	0.95	0.95	0.95	1
	2011	1	1	1	0.95	0.95	0.95	0.95	1
	2012	1	1	1	0.95	0.95	0.95	0.95	1
SNE/MA Winter Flounder	2010	1	1	1	0.93	0.93	0.95	0.93	1
	2011	1	1	1	0.93	0.93	0.95	0.93	1
	2012	1	1	1	0.93	0.93	0.95	0.93	1
Redfish	2010	1	1	1	0.95	0.95	0.95	0.95	1
	2011	1	1	1	0.95	0.95	0.95	0.95	1
	2012	1	1	1	0.95	0.95	0.95	0.95	1
White Hake	2010	1	1	1	0.95	0.95	0.95	0.95	1
	2011	1	1	1	0.95	0.95	0.95	0.95	1
	2012	1	1	1	0.95	0.95	0.95	0.95	1
Pollock	2010	1	1	1	0.95	0.95	0.95	0.95	1
	2011	1	1	1	0.95	0.95	0.95	0.95	1
	2012	1	1	1	0.95	0.95	0.95	0.95	1
N. Windowpane Flounder	2010	1	1	1	0.93	0.93	0.95	0.93	1
	2011	1	1	1	0.93	0.93	0.95	0.93	1
	2012	1	1	1	0.93	0.93	0.95	0.93	1
S. Windowpane Flounder	2010	1	1	1	0.93	0.93	0.95	0.93	1
	2011	1	1	1	0.93	0.93	0.95	0.93	1
	2012	1	1	1	0.93	0.93	0.95	0.93	1
Ocean Pout	2010	1	1	1	0.93	0.93	0.95	0.93	1
	2011	1	1	1	0.93	0.93	0.95	0.93	1
	2012	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	2010	1	1	1	0.95	0.95	0.95	0.95	1
	2011	1	1	1	0.95	0.95	0.95	0.95	1
	2012	1	1	1	0.95	0.95	0.95	0.95	1
Atlantic Wolffish	2010	1	1	1	0.93	0.93	0.95	0.95	1
	2011	1	1	1	0.93	0.93	0.95	0.95	1
	2012	1	1	1	0.93	0.93	0.95	0.95	1

Table 6 – 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 ACL
GB cod	Two
GOM cod	One
GB Yellowtail	Two
CC/GOM yellowtail	One
SNE/MA Yellowtail	One
Plaice	Five
Witch Flounder	Five
SNE/MA Winter Flounder	One
GB Winter Flounder	Two
White Hake	Two
Pollock	Two

Table 7 - 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 CAII 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 Yellowtail	100%	NA	NA	
SNE/MA Winter Flounder	100%	NA	NA	
Witch Flounder	100%	NA	NA	
GB Yellowtail	50%	NA	50%	
GB Winter Flounder	50%	NA	50%	
Pollock	50%	16%	34%	