

New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116 Eric Reid, *Chair* | Thomas A. Nies, *Executive Director*

MEMORANDUM

DATE: November 30, 2022

TO: Groundfish Committee

FROM: Groundfish Plan Development Team

SUBJECT: Follow-up Draft Alternatives for Framework Adjustment 65

The Groundfish Plan Development Team (PDT) met on November 28, 2022 and discussed the draft alternatives for Framework Adjustment 65 (FW65). The following memo includes discussion on (1) sub-annual catch limits (ACL) for the scallop fishery for groundfish stocks, (2) acceptable biological catch (ABC) control rules, (3) additional measures to promote stock rebuilding of Gulf of Maine (GOM) cod, and (4) additional measures to promote stock rebuilding of Georges Bank (GB) cod.

1) Scallop Fishery Sub-ACLs for Groundfish Stocks

The Scallop PDT prepared a memo on projected bycatch of four groundfish stocks based on alternatives under consideration in draft Scallop FW36. See attached memo from Scallop PDT to Groundfish PDT, dated Nov. 28, 2022.

The Scallop PDT estimates the Southern New England/Mid-Atlantic (SNE/MA) yellowtail flounder bycatch in the scallop fishery to be 3 mt in FY2023. Therefore, 90% of Scallop PDT's projected bycatch estimate for 2023 is 2.7 mt, which is used to set the sub-ACL.

	Scallop fishery sub-ACL (mt)								
Stock	2023	2024	2025						
Georges Bank yellowtail flounder	16.5	16.5	n/a						
Southern New England/Mid-Atlantic yellowtail flounder	2.7	2.7	2.7						
Northern windowpane flounder	31	n/a	n/a						
Southern windowpane flounder	129	n/a	n/a						

Generally, the Scallop PDT's bycatch estimates indicate that the scallop fishery may exceed sub-ACLs for GB yellowtail flounder and Northern windowpane flounder, and slightly exceed that for SNE/MA yellowtail flounder. Southern windowpane flounder bycatch is anticipated to be below the scallop fishery's sub-ACL. The Scallop PDT discusses several caveats to their estimates, including uncertainty in the estimation method, subject to Council's final alternatives selected, and positive benefits to GB yellowtail flounder and Northern windowpane flounder of anticipated accountability measures (AMs) in place during FY2023.

2) ABC Control Rules

Background

At its June 2022 meeting, the Committee passed the following motion:

Move that the Committee recommends to the Plan Development Team that work related to the ABC control rule in Framework 65 begin with Council staff approach #1 (refine the existing control rules, including developing guidance on when to use a constant ABC). The Committee continues to recognize the value of Council staff approaches #2 (modify the existing control rules) and #3 (replace the existing control rules); however, additional time and conversations with the SSC and Advisory Panels is warranted under these approaches and their more extensive nature may be best addressed under an additional priority in 2023. June 14, 2022

PDT Discussion: When to consider constant ABCs

Reflecting on its work this year following the management track assessments, the PDT developed a draft list of when to consider developing constant ABCs. Typically, constant ABCs means holding year 1 of the projected ABC constant when the ABCs in year 2 and 3 would otherwise increase. If recent recruitment is low, projections that are overly optimistic could overestimate SSB if drawn from a longer recruitment series.

Many groundfish assessments have declining trends in recruitment which tend to produce overly optimistic projections that occur when increases in recruitment within the projections were not realized in subsequent assessments. Keeping the first-year constant is a proxy for accounting for uncertainty associated with the assumed increase in recruitment within the projection (i.e., "paper fish" assumption) in the short term. Increases in catch in years 2 and 3 of the projection tend to be due to the assumed increases in recruitment in the projections. Most groundfish projections make the same assumption as the projections for biological reference points for the recruitment assumption. An alternative to this approach of application in the ABC control rules would be for the stock assessments to develop different projections for the short term which can have different assumptions relative to BRP projections in order to better characterize the likely recruitment in the short term.

Draft list for when to consider constant ABCs:

- When a stock is in a rebuilding plan and particularly when near the end of its rebuilding plan.
- When a stock is approaching an overfished condition.
- When a high level of uncertainty in the projections is anticipated.
- When a stock is recently considered rebuilt to help to maintain that status in the specifications period.

The PDT supports the Committee's motion to continue working on revising ABC control rules in 2023. There are several factors to consider in the other elements of the control rules. For example, should a large increase in ABC be put in place if a projection becomes a "fishing down" exercise to SSB_{MSY} ? How should the control rule deal with stocks that seem to be more influenced by climate change effects rather than reductions in fishing mortality and catch. Should the control rule be developed to lessen the large fluctuations in ABCs from one assessment to the next?

3) Additional measures to promote stock rebuilding for Gulf of Maine cod

Background

At its June 2022 meeting, the Committee passed the following motion:

The Groundfish Committee tasks the Plan Development Team to analyze the effectiveness of the management uncertainty buffer for the Gulf of Maine cod recreational fishery including consideration of how the uncertainty buffer could impact carryover determinations for sectors. June 14, 2022

Annual Catch Limits

Once the U.S. ABC is distributed to the various fishery components, sub-annual catch limits (sub-ACLs) are set by reducing the amount of the ABC distributed to each component to account for management uncertainty (i.e., the likelihood that management measures will result in a level of catch greater than the catch target).

For each stock, management uncertainty is estimated using the following criteria: Enforceability and precision of management measures, adequacy of catch monitoring, latent effort, and catch of groundfish in non-groundfish fisheries.

The following default management uncertainty buffers are used for groundfish stocks:

- 3% for stocks with no state waters catch:
- 7% for zero possession stocks;
- 7% for recreational allocations; and
- 5% for all other stocks/components of the fishery.

The Council proposed changes to the management uncertainty buffer for sectors among the alternatives in Amendment 23 – commercial groundfish monitoring. See Amendment 23, located here: https://www.nefmc.org/library/amendment-23

Stock Structure Uncertainty

The current GOM cod stock overlaps the new cod biological units of Western Gulf of Maine winter spawners, Western Gulf of Maine spring spawners, and Eastern Gulf of Maine. A Research Track for Atlantic cod is presently underway.

PDT Discussion

The management uncertainty buffer for the recreational GOM cod sub-ABC is 7% to determine a sub-ACL. This is the default for recreational allocations set through A16.

The last time the recreational sub-ACL was exceeded was in FY2017, since then the recreational fishery has remained under its sub-ACL for FY2018 through FY2021.

Preliminary catch information for FY2022 indicates GOM cod catches may be declining slightly compared with FY2021.

Catch Performance (see Table 49): https://s3.us-east-1.amazonaws.com/nefmc.org/220328 Groundfish FW63 Final Submission.pdf

Recreational Data (Tables 1-3): https://s3.us-east-1.amazonaws.com/nefmc.org/6_Updated-recreational-catch-and-effort-for-cod-and-haddock-NEFSC.pdf

Evaluation of Criteria - Recreational Management Uncertainty Buffer GOM cod

- Enforceability and precision of management measures:
 - o Challenge if management measures changing often, each year
 - O Split measures by mode (private / for-hire) presents an additional challenge
 - o Timing of implementation can be a factor
 - o Compliance/non-compliance with measures, could evaluate with MRIP data
- Adequacy of catch monitoring:
 - o MRIP data has improved in recent years and is being used in the stock assessment and catch accounting
 - o Trip reporting for for-hire (party and charter) vessels is by eVTRs
 - o Private mode greater uncertainty than for-hire
 - o Evaluation of PSEs, and convert to range around the estimate
- Latent effort:
 - Active for-hire permits have declined
 - No separate limited access/entry program for recreational groundfish, Council decided not to pursue
- Catch of groundfish in non-groundfish fisheries
 - Not applicable for this buffer.

4) Additional measures to promote stock rebuilding for Georges Bank cod

Background

At its June 2022 meeting, the Council passed the following motion:

That the Council include Georges Bank cod as a stock to pursue "additional measures to promote rebuilding" in Framework Adjustment 65, including mechanisms that could be adopted to minimize the impact to the commercial fishery if the recreational fishery exceeds its catch target. June 29, 2022

The Council expressed concern about the delayed implementation of Framework Adjustment 63 (FW63) which included a major reduction in the GB cod catch limit for the commercial fishery and more conservative measures for the recreational fishery based on a reduced recreational fishery catch target. Measures for the recreational fishery were designed to be in place by May 1, 2022. Implementation did not occur until July 15, 2022.

Preliminary updated in-season catch information for the commercial and recreational fisheries shows that the commercial fishery is well-below its sub-ACL (42.1 mt of 243.9 mt through

November 8, 2022) and the recreational fishery may have already exceeded the catch target (83 mt of 75 mt target, through August 2022).

See updated catch information in PDT report as Commercial (Table 1) and Recreational (Table 2): https://s3.us-east-1.amazonaws.com/nefmc.org/3C7_221118-GF-PDT-memo-to-CMTE-re-Recreational-Fishery-Georges-Bank-Cod-Catch-Target-with-attachments.pdf

Stock Structure Uncertainty

The current GB cod stock overlaps the new cod biological units of Western Gulf of Maine winter spawners, Georges Bank, and Southern New England. A Research Track for Atlantic cod is presently underway.

Current Approach

Amendment 16 prescribes a process for addressing overages from vessels fishing outside of the allocated fishery. If the overall ACL for a stock is exceeded, then the amount of the overage due to catch from vessels fishing outside of the allocated fishery shall be distributed among allocated components of the Northeast multispecies fishery based on each component's share of that stock's ACL. Each component's share of the overage is then added to that component's catch to determine the net overage amount. If the sum exceeds the component's sub-ACL, the respective AMs for that component of the fishery will be triggered. The AM for sectors and the common pool is a pound-for-pound payback. For details on how the GB cod overage in FY2016 was addressed, see attached letters from GARFO in 2017 and 2018.

PDT Discussion

The PDT discussed two ideas (see below) on how to modify the commercial AMs, but the PDT did not recommend either approach. First, the PDT found it difficult to connect Idea #1 to the objective of promoting stock rebuilding over the current approach as the AM would not be triggered until the ABC was exceeded rather than the ACL. Second, Idea #2 is challenging due to timing and if a mid-year adjustment to re-allocate back would be feasible. Generally, the PDT felt creating a sub-ACL for the recreational fishery in future years would be more appropriate to address the concerns. Furthermore, if the cod stock units change through the research track, how AMs would be applied may become more complicated.

Some ideas discussed on temporary modifications to AMs for GB cod for the commercial fishery (sectors and common pool)

Idea #1-Temporary modification to the AM trigger for GB cod when an overage is due to vessels fishing outside of the allocated fishery

Only for when addressing overages from vessels fishing outside of the allocated fishery and as a temporary measure for fishing years 2022, 2023, and 2024, modify the AM trigger to be if the Georges Bank cod US ABC is exceeded. All other provisions would remain.

Idea #2- Temporary modification to include a performance-based AM for GB cod when an overage is due to vessels fishing outside of the allocated fishery

Only for when addressing overages from vessels fishing outside of the allocated fishery and as a temporary measure for fishing years 2022, 2023, and 2024, a performance-based AM would be added, as:

• Year 1 – An overage occurs due to vessels fishing outside the allocated fishery – this is known in year 2 – for a reduction in year 3.

- Year 2 The total ACL is not exceeded by any amount.
- *Year 3* In-season reduced lb-for-lb payback based on the underage of the total ACL in year 2.

All other provisions would remain.



New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116 Eric Reid, *Chairman* | Thomas A. Nies, *Executive Director*

MEMORANDUM

DATE: November 28, 2022

TO: Groundfish PDT

FROM: Scallop PDT

SUBJECT: Scallop Fishery Bycatch Outlook for FY2023

This memo provides the Groundfish PDT with projected scallop fishery catch estimates for the four flatfish stocks for which the scallop fishery is allocated sub-annual catch limits (sub-ACLs): Georges Bank (GB) yellowtail, Southern New England/Mid-Atlantic (SNE/MA) yellowtail, northern windowpane, and southern windowpane. The Scallop PDT met via conference call on November 16, 2022 and November 18, 2022 to review bycatch projections and provided input to this memo through correspondence.

Bycatch projections of GB yellowtail, SNE/MA yellowtail, northern windowpane, and southern windowpane were calculated for the specifications alternatives being developed in Framework 36 (Table 1). Given the uncertainty in these forecasts, the Scallop PDT is presenting bycatch estimates for FY2023 only. The PDT notes that these bycatch estimates will be updated annually as part of the specifications process. Bycatch forecasts are based on modeled fishing behavior and landings projections, which increases the uncertainty of these estimates.

Framework 36 Overview:

Framework 36 (FW36) will set fishery allocations for fishing year 2023 (FY2023) and FY2024 (default). There are three spatial management alternatives being considered in FW36 (in addition to No Action; Map 1, Map 2, Map 3). All three FW36 alternatives allocate two access area trips to Area II (i.e., formerly referred to as Closed Area II), with options for a 10,000-pound trip limit (20,000-pound allocation per vessel total), a 12,000-pound trip limit (24,000-pound allocation per vessel total), and a 14,000-pound trip limit (28,000-pound allocation per vessel total). All alternatives continue closures in the New York Bight, Nantucket Lightship West, and establish new closures of Area I (i.e., formerly referred to as Closed Area I) and the Elephant Trunk. All closures are in response to recent recruitment in these areas, with the goal of optimizing yield per recruit through the rotational management program. There are two open area days-at-sea (DAS) options for the limited access component being considered with each alternative: 22 DAS and 24 DAS. The Council is also considering a range of specifications for the Northern Gulf of Maine management area, which is within the northern windowpane stock area. Overall landings are expected to decline from around 34 million pounds projected for FY2022 to approximately 23-25 million pounds projected for FY2023, depending on the Council's preferred alternative. The decline in projected landings is consistent with a continued downward trend in scallop biomass, with estimated biomass being at its lowest point since 1999. The measures being considered in

FW36 represent a decline in access area fishing in terms of the number of trips and trip limits from FW34. The Council has set DAS at 24 for the last five fishing years, meaning that open area effort would be expected to be consistent with, or below, recent levels. As noted in the discussion below, the PDT anticipates that fishing effort in 2023 will be distributed similarly to FY 2022, with more effort on Georges Bank than in the Mid-Atlantic.

Bycatch Projection Methods:

First, a discard to kept (D:K) ratio was estimated from available observed data for each Scallop Area Management Simulator (SAMS) area (Map 4, Map 5). The PDT used data from observed trips between July 2021 and June 2022, except for areas that had not been fished recently, such as Area II East. For Area II, East observer data were used from the most recent 12-month period available (i.e., FY2021). Second, for each stratum (i.e., SAMS area), the baseline D:K ratio was projected forward using changes in exploitable scallop biomass (*B*):

$$D: K_{proj} = D: K_{obs} \left(\frac{B_{obs}}{B_{proj}} \right)$$

Bycatch was then estimated from the projected catch:

$$bycatch = (D: K_{proj}) * Land_{proj}$$

By including changes in exploitable biomass for each SAMS area, the forecasting approach attempts to more accurately characterize bycatch based on availability of scallops in the coming fishing year versus assuming that D:K ratios observed in the past will reflect future bycatch rates. While the PDT feels that this approach is preferable to the application of just the observed D:K for future landings, it does introduce additional uncertainty. The PDT also notes that the projection method differs from the catch accounting method used by NMFS to track in-season bycatch.

<u>Bycatch Estimates</u>: Bycatch projections relative to the sub-ACL vary for each stock. As shown in Table 1, the projections for southern windowpane are below the anticipated sub-ACL for this stock by roughly 88 mt (i.e., roughly three times less than sub-ACL). The projections for SNE/MA yellowtail are around 3 mt for all options, slightly greater than the 2 mt anticipated sub-ACL. The GB yellowtail projections are about double the anticipated sub-ACL of 16.5 mt and the northern windowpane projections are about 3 to 4 times greater than the anticipated sub-ACL of 31 mt.

The Council is also considering a range of specifications for the Northern Gulf of Maine management area, which is within the northern windowpane stock area. Bycatch projections have not been made for this area in the past due to a lack of observer coverage; however, starting in FY2022, a call-in requirement was implemented for vessels fishing directed trips in the NGOM. Available observer data from the NGOM (n=37 trips) were used to estimate northern windowpane bycatch for FY2023. Note that northern windowpane bycatch projections for the range of NGOM options are less than 0.5 mt, or under 0.005% of the total bycatch projection for this stock.

<u>PDT Discussion</u>: Bycatch estimates are presented in Table 1. The projections are forecasts (with error) and should not be interpreted as precise estimates. The PDT feels that stratifying bycatch estimates by SAMS area is appropriate because projected scallop landings are stratified at this scale and observer data shows differences in bycatch within management units like access areas. Realized bycatch may be higher or lower than forecasted, which is supported by previous experiences where past estimates have both over- and under-estimated realized bycatch.

In FY2023 the majority of open area and access area fishing effort is expected to occur on Georges Bank. This is based on several factors: 1) access area trips are only being considered for Area II, which is on eastern Georges Bank; 2) open areas of eastern Georges Bank hold the majority of open area exploitable biomass and are expected to have higher catch rates than open areas elsewhere in the resource; and 3) lower anticipated catch rates in the Mid-Atlantic region as well as area closures being considered in Framework 36 for the New York Bight and Elephant Trunk will likely push effort that would have occurred in these areas onto Georges Bank.

<u>Open Bottom Fishing</u>: The projection model forecasts that vessels will likely target higher density areas of eastern Georges Bank, specifically the Southern Flank (SF) and Northern Flank (NF) SAMS areas (Map 4) while on open bottom trips. Both of these areas fall within the Georges Bank yellowtail and northern windowpane stock areas. There is less certainty in the bycatch projections for open areas because actual fishing behavior may not reflect predictions from the SAMS model. For example, if there is more open bottom fishing in the Mid-Atlantic than expected, bycatch of southern windowpane flounder may be higher than forecasted and northern windowpane bycatch may be lower. The projections are based on forecasts of scallop biomass and fishing behavior and also are subject to error associated with the flatfish bycatch data used in the bycatch calculation; the PDT notes that these variables could result in error as high as 50% (i.e., bycatch projections could be 50% higher or lower than estimated).

As shown in Table 2, roughly 70% of FY2023 northern windowpane bycatch is attributed to open area fishing on eastern Georges Bank (i.e., SF and NF SAMS areas) and in the Great South Channel (i.e., GSC SAMS area). This is consistent with the spatial distribution of open area effort over the past year given that the majority of open area biomass continues to be concentrated on Georges Bank. About 21% of northern windowpane bycatch is projected to come from the GSC SAMS area, which falls in both the northern windowpane and southern windowpane stock areas. Based on assumptions of fishing behavior in FY2023, the projections assume that 80% of windowpane bycatch in the GSC comes from the northern stock area whereas 20% is assumed to come from the southern stock area. If assumptions of open area fishing in the GSC are incorrect, for example if more fishing occurs in the southern stock area than expected, northern windowpane bycatch could be lower than projected and southern windowpane bycatch could be higher.

<u>Access Area Fishing</u>: Bycatch projections are also driven by assumptions of where fishing will occur within an access area. In the case of Area II, observed D:K ratios suggest that GB yellowtail bycatch tends to be higher in the eastern portion of the access area (i.e., CAII-East SAMS area) and that northern windowpane bycatch tends to be higher in the western portion of the access area (CAII-Southwest). While the FY2023 projections assume that fishing effort will be distributed evenly across the three SAMS areas that make up Area II (i.e., CAII-Southwest, CAII-East, CAII-Extension), if realized effort is focused more in the eastern part of Area II

(currently closed), GB yellowtail bycatch could be greater than projected and northern windowpane bycatch could be less than projected. In a scenario where fishing is focused more in the western part of Area II, northern windowpane bycatch could be higher than projected whereas GB yellowtail bycatch could be lower than projected.

<u>Recent Projections and Flatfish Accountability Measures</u>: The northern windowpane bycatch projections for FY2023 exceed the anticipated scallop fishery sub-ACL and are similar to the PDT's bycatch projections for FY2022 (106 mt – 126 mt in 2023 vs. 86 mt – 115 mt in 2022). Due to recent overages, the reactive large accountability measure for Georges Bank was triggered for FY2022 and is anticipated to be implemented for FY2023 as well. This means the gear restriction was required for all fishing occurring in Area II for the entirety of FY2022 and is expected to be required again in FY2023. The modified gear is expected to have a positive effect on bycatch of both Georges Bank yellowtail and northern windowpane flounder.

The reactive AM gear requirement has been in use for the first time since the start of FY2022 and is anticipated to be required for the duration of FY2023. Experimental work on the modified gear suggested that windowpane bycatch could be reduced by roughly 46% and yellowtail bycatch could be reduced by roughly 34%. Since observer data used to project FY2023 bycatch are from July 2021 to June 2022, observer data used for the projections are mostly representative of fishing in Area II without the modified gear. Thus, it is possible that the projections presented in Table 1 could be as much as 46% lower for windowpane and 34% lower for yellowtail in Area II where the modified gear is required. Table 2 shows the breakdown of projected bycatch by SAMS area for Alternative 3 Option 2 (two 12,000-pound trips with 24 DAS), and a separate breakdown that adjusts the Area II projections based on the bycatch savings expected by using the AM gear modification (i.e., 46% reduction for windowpane, 34% reduction for yellowtail). As shown in the table, adjusting bycatch by the gear reduction values results in an overall reduction in northern windowpane bycatch by roughly 14% and a reduction of roughly 30% for GB yellowtail.

<u>FY2023 Outlook</u>: Bycatch forecasts for both Georges Bank yellowtail and northern windowpane are expected to exceed the scallop fishery sub-ACLs for these stocks. While a reactive AM is expected to help reduce bycatch in Area II, as noted above, the majority of the northern windowpane bycatch is expected to come from open bottom fishing on Georges Bank. On November 18, 2022, the Scallop PDT discussed ways that the fishery could reduce the bycatch of northern windowpane though the use of gear restricted areas in open bottom areas on Georges Bank in Framework 36. Staff will discuss these options with the Scallop AP and Committee on December 1, 2022.

Projections for the other stocks allocated a sub-ACL are at or below the anticipated sub-ACLs for FY2023 (Table 3). The southern windowpane projections are notably lower compared to projections from the past several years. This is a result of a continued shift of effort from the Mid-Atlantic region (i.e., out of the southern windowpane stock area) to Georges Bank.

Table 1 - Overview of FY2023 projected scallop fishery bycatch estimates for the range of alternatives being considered in FW36, including the anticipated FY2023 scallop sub-ACL for each stock. Projections are presented as an average for each alternative (i.e., middle point of each DAS option).

Alternative	Scenario		GB YT	SNE/MA YT	GOM/GB WP	SNE/MA WP
Antici	pated 2023 sub-ACL	GB Closure	16.5 mt	2 mt	31 mt	129 mt
Alternative 2	2 trips to Area II AA at 10,000 per trip (20K total) 22 or 24 DAS New York Bight, Elephant Trunk, Area I, NLS-West Closed	Area II seasonal closure (Aug 15- Nov 15)	32	3	106-112	38-41
Alternative 3	2 trips to Area II AA at 12,000 per trip (24K total) 22 or 24 DAS New York Bight, Elephant Trunk, Area I, NLS-West Closed	Area II seasonal closure (Aug 15- Nov 15)	38	3	112-119	38-41
Alternative 4	2 trips to Area II AA at 14,000 per trip (28K total) 22 or 24 DAS New York Bight, Elephant Trunk, Area I, NLS-West Closed	Area II seasonal closure (Aug 15- Nov 15)	45	3	119-126	38-41

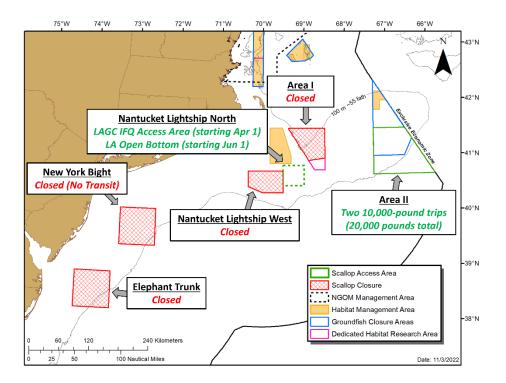
Table 2 - Estimated FY2023 bycatch for GB yellowtail and northern windowpane from Alternative 3 with 24 DAS, by SAMS area (mt). Bycatch values are also shown with reduction parameters applied from fishing the AM gear modification in Area II (i.e., 46% reduction for windowpane, 34% reduction for yellowtail).

	CA2-SE	CA2-SW	CA2-Ext	GSC	NF	SF	Total
		Georges Bo	ank Yellowta	ail Flounder			
2023	30	3	2	1	2	1	38
With AM gear (34% reduction in Area II)	20	2	1	1	2	1	27
		Northern	Windowpan	e Flounder			
2023	12	10	15	25	26	31	119
With AM gear (46% reduction in Area II)	7	5	8	25	26	31	102

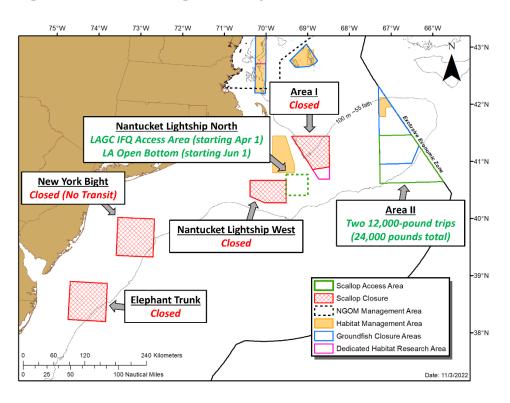
Table 3 – Estimated FY2023 bycatch for SNE yellowtail and southern windowpane from Alternative 3, with 24 DAS, by SAMS area (mt).

	HCS	ET	DMV	NYB	LI	Inshore	NLSN	NLSS	GSC	Total	
Southern New England/ Mid-Atlantic Yellowtail											
2023	0	0	0	0	0	0	0	0	3	3	
	Southern Windowpane Flounder										
2023	0	0	0	2	3	1	24	5	6	41	

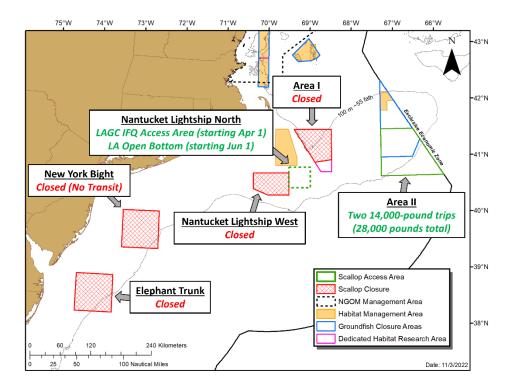
Map 1 – Potential FY2022 spatial management under Alternative 4.3.2 in Framework 36.



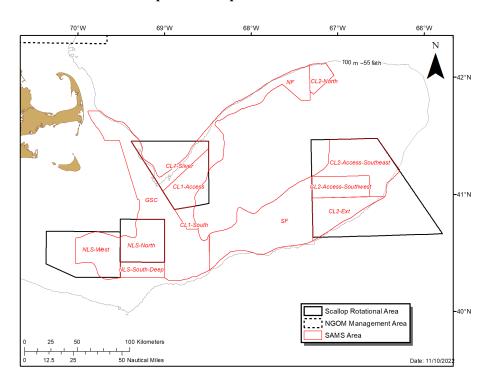
Map 2 – Potential FY2022 spatial management under Alternative 4.3.3 of Framework 36.



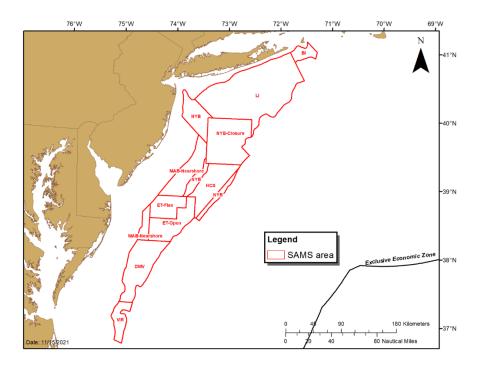
Map 3 – Potential FY2022 spatial management under Alternative 4.3.4 of Framework 36.



Map 4 – The 2022 Georges Bank SAMS areas used for scallop and flatfish bycatch projections in FW36 relative to anticipated scallop rotational area boundaries for FY2023.



 $\label{eq:map-5-the} \begin{tabular}{ll} Map 5-The 2022 Mid-Atlantic SAMS areas used for scallop and flatfish by$ $catch projections in FW36. \end{tabular}$





UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE GREATER ATLANTIC REGIONAL FISHERIES OFFICE 55 Great Republic Drive Gloucester, MA 01930-2276

OCT 3 1 2017

Thomas A. Nies Executive Director New England Fishery Management Council 50 Water Street Mill 2 Newburyport, MA 01950

Dear Tom:

We recently completed groundfish year-end accounting for the 2016 fishing year and the final report is attached to this letter.

In fishing year 2016, catch exceeded the total annual catch limits (ACLs) and acceptable biological catches (ABCs) for Georges Bank (GB) cod, Gulf of Maine (GOM) cod, and witch flounder. The overfishing limit (OFL) was not exceeded for any of these stocks. The GB cod ACL was exceeded by 54 percent (396 mt), and the U.S. ABC was exceeded by 48 percent (364 mt). The GOM cod ACL was exceeded by 37 percent (173 mt), and the ABC was exceeded by 29 percent (146 mt). The witch flounder ACL was exceeded by 37 percent (20 mt), and the ABC was exceeded by less than 1 percent (0.8 mt). Table 1 summarizes these ACL overages.

Table 1: Fishing Year 2016 Catch Limits and Catch for GB cod, GOM cod, and Witch Flounder.

	OFI. U.S. Total		Catch (mt and percent of ACL or sub-ACL)										
Stock (m	OFL (mt)	ABC (mt)	C ACL		al Catch ercent of ACL)	Total		Ifish Fisher Common Pool	У	State Waters	Other		
GB Cod	1,665	762	730	1,125.5	154.2%	98.1%	97.6%	124.8%	N/A	308.3%	462.6%		
GOM Cod	667	500	473	646.2	136.6%	125.3%	96.0%	68.8%	178.9%	332.7%	89.9%		
Witch Flounder	521	460	441	460.8	104.5%	97.0%	97.0%	94.2%	N/A	389.6%	93.6%		

Georges Bank Cod

A combination of catch from the state waters sub-component and the other sub-component contributed to the substantial overage for GB cod. The common pool fishery exceeded its sub-ACL; however, this overage was only 2.8 mt, and overall catch by the commercial groundfish fishery was below the commercial fishery sub-ACL. The majority of state waters catch (82 percent) is from the recreational fishery, and the other sub-component catch was primarily from the Federal waters recreational fishery (97 percent). There is no allocation of GB cod for the recreational fishery, and all recreational catch is attributed to the state and other sub-components. As you know, there are no accountability measures (AMs) for the state and other sub-



components. AMs triggered by an overage of this ACL affect only the Federal fisheries that have an allocation of the stock.

Recreational catch of GB cod has increased dramatically in recent years. Amendment 16 specified that recreational catch would be monitored to determine if recreational catch exceeds 5 percent of the total catch. In the most recent 3 years, recreational catch is greater than 5 percent of total catch (Table 2). Preliminary recreational catch data for fishing year 2017 (through August 2017) collected by the Marine Recreational Information Program (MRIP) suggests that recreational catch of GB cod is lower than 2016 catch in the same time period. However, preliminary MRIP data are often incomplete, and recreational catch of GB cod is typically greatest in the fall and early winter. For these reasons, we are not confident that final 2017 catch will be lower.

Table 2: Georges Bank cod recreational catch.

Year	Federal Waters Recreational Catch (mt)	State Waters Recreational Catch (mt)	All Recreational Catch (mt)	Total Catch (mt)	Recreational Portion of Total Catch (Percent)
2011	54.6	0.0	54.6	3,405.9	1.6
2012	62.7	4.4	67.1	1,724.1	3.9
2013	8.0	0.0	8.0	1,616.3	0.5
2014	75.9	15.5	91.4	1,514.4	6.0
2015	132.1	33.0	165.1	1,835.4	9.0
2016	419.7	57.8	477.5	1,125.5	42.4

We encourage the Council and the Groundfish Plan Development Team to carefully consider recreational catch of GB cod during the development of Framework Adjustment 57 to the Northeast Multispecies Fishery Management Plan as part of setting catch limits for fishing years 2018-2020, and as part of the 2018 priorities setting process.

Gulf of Maine Cod

A combination of catch from the Federal recreational fishery and the state waters sub-component contributed to the GOM cod overage. In 2016, the state waters catch was 66.8 mt greater than anticipated, and was entirely from Massachusetts' waters. The recreational fishery exceeded its sub-ACL by 124 mt despite adjusting measures for the 2016 fishing year. As you know, we already addressed this overage by adjusting recreational measures for fishing year 2017 to achieve, but not exceed, the 2017 recreational sub-ACL. A contributing factor to the recreational overage was that the average weight of cod caught was approximately 30 percent greater than expected when developing the 2016 measures. The increased average weight of cod was incorporated into the development of 2017 recreational measures. However, preliminary MRIP recreational catch data for fishing year 2017 (through August 2017) suggests that the recreational fishery has already exceeded its 2017 sub-ACL. As noted above, preliminary MRIP data are often incomplete and we expect additional bycatch of GOM cod during the open haddock season in September.

We expect the Groundfish Plan Development Team can further explore any trends and/or driving factors for state waters catch of GOM cod. As noted above, there are no AMs for subcomponents, and AMs triggered by an overage of this ACL affect only the Federal fisheries that

have an allocation for the stock. We encourage the Council and the Groundfish Plan Development Team to carefully consider state waters commercial catch of GOM cod in Framework 57 when setting catch limits for fishing years 2018-2020.

Witch Flounder

Catch from the state waters sub-component contributed to the witch flounder overage, and nearly all of this catch came from commercial fisheries in the state waters of Massachusetts (99.8 percent). During the development of Framework 55, the Groundfish Plan Development Team recommended that the Council increase the state waters sub-component from 3 percent to 7 percent of the ABC, due to increasing catch. The Council chose to make no change to the state sub-component in order to conserve quota for the groundfish fishery in light of a decrease in the witch flounder ABC. Even if the Council had selected the higher sub-component value recommended by the Plan Development Team (28 mt), an overage of the ACL would have occurred, although the overage would have only been 4 mt. As noted above, there are no AMs for sub-components, and if sub-component catch causes an ACL overage, any AMs triggered affect only the Federal commercial fleet. State waters commercial catch of witch flounder should also be carefully considered in Framework 57 as part of setting catch limits for fishing years 2018-2020.

We only recently completed the 2016 year-end accounting and wanted to provide the final catch report to you as quickly as possible to support and inform development of Framework 57. We will provide additional information about AMs and possible actions in response to the 2016 ACL overages. If you have any questions on the report, please contact Sarah Heil, Groundfish Team Supervisor, at (978) 281-9257.

Sincerely,

John K. Bullard

Regional Administrator

cc: Terry Stockwell, Chair, NEFMC Groundfish Committee

Dr. Jamie Cournane, NEFMC Groundfish Plan Coordinator

Dr. Jonathan Hare, Science and Research Director, Northeast Fisheries Science Center

Enclosure

Northeast Multispecies Fishery

Final Year-End Results for Fishing Year 2016

- Tables 1 through 5: Total groundfish caught, landed, and discard estimates
- Table 6: Estimated state water catch
- Tables 7-9: Other sub-component catch detail
- Table 10: FY 2014 through FY 2016 GOM cod and haddock recreational catch evaluation
- Table 11: Sector carryover
- Tables 12 through 17: U.S./Canada stocks catch evaluation

In this report: a table cell value of "0" or "0.0" indicates a non-zero value in the cell. "-" is displayed for values exactly equal to zero. Blanks are shown when there are no values. "NA" is displayed when no value is applicable.

Table 1: FY 2016 Northeast Multispecies Percent of Annual Catch Limit Caught (%)

		Compor	ents with AC	Ls and sub-ACL	s: With Account	tability Measures ((AMs)		Sub-component	its: No AMs
Stock	Total	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	E	F	G	Н
GB Cod	154.2	98.1	97.6	124.8					308.3	462.6
GOM Cod	136.6	125.3	96.0	68.8	178.9				332.7	89.9
GB Haddock	9.0	8.5	8.6	0.3		23.2			2.5	47.5
GOM Haddock	75.3	74.0	65.9	40.4	95.6	5.7			34.2	379.0
GB Yellowtail Flounder	11.8	9.5	9.7	-			93.8	95.2	NA	0.0
SNE Yellowtail Flounder	33.3	30.6	26.3	51.3			63.9		23.6	37.3
CC/GOM Yellowtail Flounder	88.9	76.5	76.2	83.7					125.2	187.3
Plaice	98.1	96.3	96.5	86.6					147.8	129.5
Witch Flounder	104.5	97.0	97.0	94.2					389.6	93.6
GB Winter Flounder	65.7	71.6	72.2	-					NA	7.2
GOM Winter Flounder	28.1	17.5	18.0	8.4					82.7	32.0
SNE/MA Winter Flounder	84.9	77.5	75.8	91.6					92.5	125.3
Redfish	41.6	42.8	43.0	0.9					4.6	4.3
White Hake	41.5	42.6	42.9	2.7					3.2	13.4
Pollock	19.6	16.8	16.7	20.9					49.4	29.8
Northern Windowpane	47.3	68.2	NA	NA					36.6	34.8
Southern Windowpane	69.8	121.9	NA	NA			40.4		77.6	71.5
Ocean Pout	27.9	12.5	NA	NA					21.6	151.7
Halibut	90.8	62.5	NA	NA					191.5	83.4
Wolffish	1.0	0.8	NA	NA					1.9	5.8

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run dates of June 25, 2017 and September 19, 2017

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Page 2 of 20 10/17/2017

Table 2: FY 2016 Northeast Multispecies Annual Catch Limits (mt)

		Comp	onents with AC	Ls and sub-ACLs	: With Accounta	ability Measures	(AMs)		Sub-compone	nts: No AMs
Stock	Total ACL	Groundfish	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery ¹	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	Е	F	G	Н
GB Cod	730	608	597	11					23	99
GOM Cod	473	437	271	9	157				27	10
GB Haddock	53,309	51,667	51,328	339		512			561	561
GOM Haddock	3,430	3,344	2,390	26	928	34			26	26
GB Yellowtail Flounder	261.0	250.8	247.1	3.7			2.2	5.0	NA	3.0
SNE Yellowtail Flounder	256	204	169	35			17		5	29
CC/GOM Yellowtail Flounder	409	341	327	14					43	26
Plaice	1,235	1,183	1,163	20					26	26
Witch Flounder	441	370	362	8					12	59
GB Winter Flounder	650	590	585	5					NA	60
GOM Winter Flounder	776	639	607	32					122	16
SNE/MA Winter Flounder	749	585	523	62					70	94
Redfish	9,837	9,526	9,474	52					103	207
White Hake	3,572	3,459	3,433	26					38	75
Pollock	20,374	17,817	17,704	113					1,279	1,279
Northern Windowpane	177	66	NA	66					2	109
Southern Windowpane	599	104	NA	104			209		37	249
Ocean Pout	155	137	NA	137					2	17
Halibut	119	91	NA	91					25	4
Wolffish	77	72	NA	72					1	3

¹The midwater trawl herring fishery GB haddock sub-ACL was reduced mid-year to account for an overage of the 2015 sub-ACL.

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017

Page 3 of 20 10/17/2017

Table 3: FY 2016 Northeast Multispecies Total Catch (mt)

Stock	Total Catch	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery ¹	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	C	D	Е	F	G	Н
GB Cod	1,125.5	596.6	582.3	14.3					70.9	458.0
GOM Cod	646.2	547.4	260.4	6.1	280.9				89.8	9.0
GB Haddock	4,790.8	4,391.3	4,390.3	1.0		118.9			14.2	266.4
GOM Haddock	2,582.9	2,473.5	1,576.1	10.4	887.0	1.9			8.9	98.5
GB Yellowtail Flounder	30.7	23.9	23.9	-			2.1	4.8	-	0.0
SNE/MA Yellowtail Flounder	85.2	62.5	44.5	18.0			10.7		1.2	10.8
CC/GOM Yellowtail Flounder	363.5	261.0	248.8	12.1					53.8	48.7
Plaice	1,211.4	1,139.3	1,121.9	17.4					38.4	33.7
Witch Flounder	460.8	358.8	351.4	7.4					46.8	55.2
GB Winter Flounder	426.9	422.6	422.6	-					-	4.3
GOM Winter Flounder	217.8	111.9	109.2	2.7					100.9	5.1
SNE/MA Winter Flounder	635.8	453.3	396.6	56.7					64.7	117.8
Redfish	4,091.6	4,078.1	4,077.6	0.4					4.8	8.8
White Hake	1,483.5	1,472.2	1,471.5	0.7					1.2	10.0
Pollock	3,998.7	2,985.1	2,961.5	23.6					631.8	381.8
Northern Windowpane	83.6	45.0	45.0	0.0					0.7	37.9
Southern Windowpane	417.9	126.7	108.3	18.4			84.4		28.7	178.1
Ocean Pout	43.3	17.1	16.3	0.8					0.4	25.8
Halibut	108.1	56.9	56.7	0.2					47.9	3.3
Wolffish	0.8	0.6	0.6	0.0					0.0	0.2

¹Based on scallop fishing year March 2016 through February 2017

Sector and common pool include estimate of missing dealer reports

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run dates of June 25, 2017 and September 19, 2017

Any value for a non-allocated species may include landings of that stock or misreporting of species and/or stock area. These are northern windowpane, southern windowpane, ocean pout, halibut, and wolffish.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Page 4 of 20 10/17/2017

Table 4: FY 2016 Northeast Multispecies Landings (mt)

Stock	Total Landings	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	E	F	G	Н
GB Cod	1,058.6	571.9	557.7	14.2					61.4	425.2
GOM Cod	446.0	350.8	250.5	5.9	94.5				89.4	5.7
GB Haddock	3,580.5	3,445.7	3,444.8	1.0		115.3			0.2	19.2
GOM Haddock	2,072.2	2,062.5	1,492.5	9.7	560.2	1.9			5.1	2.7
GB Yellowtail Flounder	23.4	23.4	23.4	-			1	-	-	-
SNE/MA Yellowtail Flounder	63.2	59.5	43.1	16.5			-		0.9	2.8
CC/GOM Yellowtail Flounder	301.3	245.3	234.5	10.8					53.4	2.6
Plaice	1,088.9	1,044.7	1,028.9	15.9					35.3	8.8
Witch Flounder	343.2	294.4	287.5	6.9					44.7	4.1
GB Winter Flounder	421.8	421.3	421.3	-					-	0.5
GOM Winter Flounder	200.5	106.9	104.2	2.7					93.5	0.1
SNE/MA Winter Flounder	524.3	443.8	388.9	54.9					63.0	17.5
Redfish	4,035.7	4,026.4	4,026.0	0.4					3.1	6.2
White Hake	1,439.9	1,436.8	1,436.1	0.7					0.4	2.7
Pollock	3,305.4	2,910.5	2,886.9	23.6					284.3	110.6
Northern Windowpane	0.0	0.0	0.0	-					0.0	-
Southern Windowpane	13.2	-	-	-			1		13.2	0.0
Ocean Pout	0.0	-	-	-					0.0	0.0
Halibut	69.1	20.3	20.1	0.2					46.5	2.3
Wolffish	0.0	-	-	-					-	0.0

Values in metric tons of live weight Sector and common pool include estimate of missing dealer reports

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run dates of June 25, 2017 and September 19, 2017

Any value for a non-allocated species may include landings of that stock or misreporting of species and/or stock area. These are northern windowpane, southern windowpane, ocean pout, halibut, and wolffish.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Page 5 of 20 10/17/2017

Table 5: FY 2016 Northeast Multispecies Estimated Discards (mt)

Stock	Total Discards	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	C	D	E	F	G	Н
GB Cod	66.9	24.6	24.6	0.1					9.5	32.8
GOM Cod	200.3	196.6	9.9	0.3	186.4				0.4	3.3
GB Haddock	1,210.3	945.6	945.6	0.0		3.6			14.0	247.2
GOM Haddock	510.6	411.0	83.6	0.6	326.8	-			3.8	95.8
GB Yellowtail Flounder	7.3	0.5	0.5	-			2.1	4.8	-	0.0
SNE/MA Yellowtail Flounder	22.1	3.0	1.4	1.5			10.7		0.3	8.0
CC/GOM Yellowtail Flounder	62.2	15.7	14.3	1.3					0.4	46.1
Plaice	122.5	94.6	93.0	1.5					3.1	24.9
Witch Flounder	117.5	64.4	63.9	0.5					2.0	51.1
GB Winter Flounder	5.0	1.2	1.2	-					-	3.8
GOM Winter Flounder	17.3	5.0	5.0	0.0					7.3	5.0
SNE/MA Winter Flounder	111.6	9.6	7.7	1.8					1.7	100.3
Redfish	55.9	51.7	51.7	0.0					1.6	2.7
White Hake	43.6	35.4	35.4	-					0.9	7.4
Pollock	693.3	74.7	74.7	0.0					347.5	271.1
Northern Windowpane	83.6	45.0	45.0	0.0					0.7	37.9
Southern Windowpane	404.7	126.7	108.3	18.4			84.4		15.5	178.1
Ocean Pout	43.3	17.1	16.3	0.8					0.4	25.8
Halibut	39.0	36.6	36.6	0.0					1.3	1.1
Wolffish	0.8	0.6	0.6	0.0					0.0	0.1

Sector and common pool include estimate of missing dealer reports

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run dates of June 25, 2017 and September 19, 2017

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Page 6 of 20 10/17/2017

Table 6: FY 2016 Northeast Multispecies Estimated State Water Sub-Component Catch Detail (mt)

		Total			Commercial			Recreational	
Stock	Catch	Landings	Discard	Total Catch	Landings ¹	Discard ¹	Total Catch	Landings	Discard
	A+B+C+D	A+C	B+D	A+B	A	В	C+D	C	D
GB Cod	70.9	61.4	9.5	13.1	12.8	0.4	57.8	48.7	9.1
GOM Cod	89.8	89.4	0.4	89.8	89.4	0.4	_*	_*	_*
GB Haddock	14.2	0.2	14.0	14.2	0.2	14.0			
GOM Haddock	8.9	5.1	3.8	8.9	5.1	3.8	_*	_*	_*
GB Yellowtail Flounder	-	-	-	-	-	-			
SNE/MA Yellowtail Flounder	1.2	0.9	0.3	1.2	0.9	0.3			
CC/GOM Yellowtail Flounder	53.8	53.4	0.4	53.8	53.4	0.4			
Plaice	38.4	35.3	3.1	38.4	35.3	3.1			
Witch Flounder	46.8	44.7	2.0	46.8	44.7	2.0			
GB Winter Flounder	-	-	-	-	-	-			
GOM Winter Flounder	100.9	93.5	7.3	72.5	72.4	0.1	28.3	21.1	7.2
SNE/MA Winter Flounder	64.7	63.0	1.7	50.4	50.0	0.4	14.3	13.0	1.3
Redfish	4.8	3.1	1.6	4.8	3.1	1.6			
White Hake	1.2	0.4	0.9	1.2	0.4	0.9			
Pollock	631.8	284.3	347.5	5.8	2.9	2.9	626.0	281.4	344.6
Northern Windowpane	0.7	0.0	0.7	0.7	0.0	0.7			
Southern Windowpane	28.7	13.2	15.5	28.7	13.2	15.5			
Ocean Pout	0.4	0.0	0.4	0.4	0.0	0.4			
Halibut	47.9	46.5	1.3	47.9	46.5	1.3			
Wolffish	0.0	-	0.0	0.0	-	0.0			

^{*}Recreational catch of GOM cod and haddock in state waters is attributed to the recreational sub-ACL (see Tables 1 - 5), and so is not included above.

State discard rate estimates based on discard rates on federal trips

Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run date of Sept. 13, 2017

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Page 7 of 20 10/17/2017

¹January through April 2017 commercial catches are estimated.

Table 7: FY 2016 Northeast Multispecies Other Sub-Component Catch Detail (mt)

Stock	Total Catch	SCALLOP1	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB ²	MENHADEN	MONKFISH	RESEARCH	SCUP	SHRIMP
GB Cod	458.0	5.7	0.2	-	0.1	NA	0.0	0.9	26.8	0.0	0.0
GOM Cod	9.0	1.2	-	-	0.2	NA	-	0.1	5.6	-	0.0
GB Haddock	266.4	7.7	0.0	-	22.3*	NA	0.2	0.1	19.1	0.0	15.6
GOM Haddock	98.5	0.8	-	-	8.2*	NA	-	0.1	1.3	-	0.7
GB Yellowtail Flounder	0.0	_*	-	ı	-*	NA	-	-	-	-	-
SNE Yellowtail Flounder	10.8	_*	1.1	-	0.7	NA	0.0	0.0	1.5	0.2	0.5
CC/GOM Yellowtail Flounder	48.7	40.5	-	-	0.3	NA	-	0.1	2.6	-	0.0
American Plaice	33.7	15.5	0.1	-	0.8	NA	0.0	0.1	8.7	0.2	0.6
Witch Flounder	55.2	20.6	1.6	0.0	2.3	NA	0.0	0.2	3.4	1.4	1.6
GB Winter Flounder	4.3	3.0	-	1	0.0	NA	-	-	-	-	-
GOM Winter Flounder	5.1	4.8	-	-	0.0	NA	-	-	0.1	-	0.0
SNE Winter Flounder	117.8	40.4	3.6	-	4.8	NA	0.1	0.1	11.1	3.7	3.4
Redfish	8.8	0.0	0.0	0.0	0.5	NA	0.0	0.0	5.5	0.0	0.2
White Hake	10.0	0.5	0.3	0.0	0.3	NA	0.0	0.0	1.9	0.3	0.2
Pollock	381.8	0.0	-	-	0.1	NA	0.0	0.1	0.5	-	0.0
Northern Windowpane	37.9	31.8	-	-	0.2	NA	-	0.0	0.0	-	0.0
Southern Windowpane	178.1	_*	23.0	-	6.1	NA	0.1	0.9	0.1	27.6	4.3
Ocean Pout	25.8	1.9	1.2	-	1.6	NA	0.0	0.0	0.0	1.4	1.1
Halibut	3.3	0.5	0.0	-	0.0	NA	-	1.1	0.1	0.0	0.0
Wolffish	0.2	0.1	0.0	-	0.0	NA	-	0.0	0.0	0.0	0.0

¹Based on scallop fishing year March 2016 through February 2017

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 8 of 20 10/17/2017

²Estimates not applicable. Lobster/crab bycatch was not attributed to the ACL, consistent with the most recent assessments for these stocks used to set the respective quotas.

^{*}Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Table 7: FY 2016 Northeast Multispecies Other Sub-Component Catch Detail (mt)

Stock	Total Catch	SQUID	SQUID/ WHITING	SURFCLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	458.0	0.3	0.2	0.0	-	0.0	4.0	419.7
GOM Cod	9.0	0.0	0.6	0.0	1	0.6	0.6	_*
GB Haddock	266.4	88.7	54.5	1.6	-	0.5	56.1	-
GOM Haddock	98.5	1.3	30.9	1.3	-	30.1	23.9	_*
GB Yellowtail Flounder	0.0	_*	_*	-	-	-	0.0*	
SNE Yellowtail Flounder	10.8	2.9	1.1	0.1	-	-	2.6	
CC/GOM Yellowtail Flounder	48.7	0.1	2.5	0.0	-	1.4	1.0	
American Plaice	33.7	3.1	2.2	0.0	-	0.1	2.2	
Witch Flounder	55.2	9.0	6.2	0.2	0.0	0.4	8.4	
GB Winter Flounder	4.3	0.0	1.3	-	-	0.0	0.0	
GOM Winter Flounder	5.1	0.0	0.0	0.0	-	0.0	0.0	0.1
SNE Winter Flounder	117.8	19.6	8.5	0.4	-	0.1	20.3	1.7
Redfish	8.8	0.9	0.8	0.0	0.0	0.0	0.8	
White Hake	10.0	1.0	0.8	0.0	0.0	0.1	4.6	
Pollock	381.8	0.1	0.1	0.0	-	0.0	0.7	380.2
Northern Windowpane	37.9	0.2	4.8	0.0	-	0.7	0.3	
Southern Windowpane	178.1	28.1	17.0	1.7	-	-	69.3	
Ocean Pout	25.8	6.4	4.5	0.1	-	0.3	7.1	
Halibut	3.3	0.0	0.0	0.0	1	-	1.7	
Wolffish	0.2	0.0	0.0	0.0	-	-	0.0	

Source: NMFS Greater Atlantic Regional

Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 9 of 20 10/17/2017

Table 8: FY 2016 Northeast Multispecies Other Sub-Component Landings Detail (mt)

Stock	Total	SCALLOP ¹	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB ²	MENHADEN	MONKFISH	RESEARCH	SCUP	SHRIMP
GB Cod	425.2	0.4	0.2	-	0.0	NA	-	0.6	26.8	0.0	-
GOM Cod	5.7	-	-	1	-	NA	-	0.0	5.6	-	-
GB Haddock	19.2	-	-	-	_*	NA	-	-	19.0	-	-
GOM Haddock	2.7	-	-	1	_*	NA	-	-	1.3	-	-
GB Yellowtail Flounder	-	_*	-	ı	-	NA	-	-	-	-	-
SNE Yellowtail Flounder	2.8	_*	0.9	1	-	NA	-	0.0	1.5	-	-
CC/GOM Yellowtail Flounder	2.6	-	-	-	-	NA	-	-	2.6	-	-
American Plaice	8.8	0.0	-	-	-	NA	-	0.0	8.7	0.1	-
Witch Flounder	4.1	0.3	0.4	-	-	NA	-	-	3.4	-	-
GB Winter Flounder	0.5	0.5	-	ı	-	NA	-	-	-	-	-
GOM Winter Flounder	0.1	0.0	-	-	-	NA	-	-	0.1	-	-
SNE Winter Flounder	17.5	1.3	0.8	1	-	NA	-	0.0	11.1	0.4	-
Redfish	6.2	-	-	-	0.2	NA	-	-	5.5	0.0	-
White Hake	2.7	-	0.1	1	0.1	NA	-	0.0	1.9	0.0	-
Pollock	110.6	-	-	ı	-	NA	-	0.0	0.5	-	-
Northern Windowpane	-	-	-	-	-	NA	-	-	-	-	-
Southern Windowpane	0.0	_*	-	-	-	NA	-	-	-	0.0	-
Ocean Pout	0.0	-	-	-	-	NA	-	-	-	-	-
Halibut	2.3	0.1	-	-	-	NA	-	0.7	0.1	-	-
Wolffish	0.0	-	-	-	-	NA	-	-	-	-	-

¹Based on scallop fishing year March 2016 through February 2017

²Estimates not applicable. Lobster/crab bycatch was not attributed to the ACL, consistent with the most recent assessments for these stocks used to set the respective quotas.

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional

Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 10 of 20 10/17/2017

Table 8: FY 2016 Northeast Multispecies Other Sub-Component Landings Detail (mt)

Stock	Total	SQUID	SQUID/ WHITING	SURFCLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	425.2	0.0	0.0	-	-	-	3.4	393.8
GOM Cod	5.7	-	1	-	-	-	0.1	_*
GB Haddock	19.2	-	-	-	-	-	0.2	
GOM Haddock	2.7	-	ı	-	1	-	1.4	_*
GB Yellowtail Flounder	-	-	•	-	-	-	•	
SNE Yellowtail Flounder	2.8	0.0	-	-	-	-	0.3	
CC/GOM Yellowtail Flounder	2.6	-	-	-	ı	-	0.0	
American Plaice	8.8	-	1	-	-	-	0.0	
Witch Flounder	4.1	-	1	-	-	-	0.0	
GB Winter Flounder	0.5	-	-	-	-	-	-	
GOM Winter Flounder	0.1	-	-	-	-	-	-	-
SNE Winter Flounder	17.5	0.2	0.0	-	-	-	2.0	1.6
Redfish	6.2	0.0	0.2	-	ı	-	0.1	
White Hake	2.7	-	0.0	-	ı	0.1	0.6	
Pollock	110.6	-	•	-	-	-	0.6	109.5
Northern Windowpane	-	-	-	-	ı	-	-	
Southern Windowpane	0.0	-	-	-	ı	-	0.0	
Ocean Pout	0.0	-	0.0	-	•	-	-	
Halibut	2.3	-	-	-	-	-	1.3	
Wolffish	0.0	-	-	-	-	-	0.0	

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional

Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 11 of 20 10/17/2017

Table 9: FY 2016 Northeast Multispecies Other Sub-Component Estimated Discards Detail (mt)

Stock	Total	SCALLOP ¹	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB²	MENHADEN	MONKFISH	RESEARCH	SCUP	SHRIMP
GB Cod	32.8	5.3	0.0	-	0.1	NA	0.0	0.3	0.0	0.0	0.0
GOM Cod	3.3	1.2	-	-	0.2	NA	-	0.1	0.0	-	0.0
GB Haddock	247.2	7.7	0.0	-	22.3*	NA	0.2	0.1	0.1	0.0	15.6
GOM Haddock	95.8	0.8	-	-	8.2*	NA	-	0.1	0.0	-	0.7
GB Yellowtail Flounder	0.0	_*	-	-	_*	NA	-	ı	-	-	-
SNE Yellowtail Flounder	8.0	_*	0.2	-	0.7	NA	0.0	0.0	0.0	0.2	0.5
CC/GOM Yellowtail Flounder	46.1	40.5	-	-	0.3	NA	-	0.1	0.0	-	0.0
American Plaice	24.9	15.5	0.1	-	0.8	NA	0.0	0.1	0.0	0.1	0.6
Witch Flounder	51.1	20.3	1.2	0.0	2.3	NA	0.0	0.2	0.0	1.4	1.6
GB Winter Flounder	3.8	2.5	-	-	0.0	NA	-	ı	-	-	-
GOM Winter Flounder	5.0	4.8	-	-	0.0	NA	-	-	0.0	-	0.0
SNE Winter Flounder	100.3	39.1	2.8	-	4.8	NA	0.1	0.1	0.0	3.3	3.4
Redfish	2.7	0.0	0.0	0.0	0.2	NA	0.0	0.0	0.0	0.0	0.2
White Hake	7.4	0.5	0.2	0.0	0.3	NA	0.0	0.0	0.0	0.3	0.2
Pollock	271.1	0.0	-	-	0.1	NA	0.0	0.0	0.0	-	0.0
Northern Windowpane	37.9	31.8	-	-	0.2	NA	-	0.0	0.0	-	0.0
Southern Windowpane	178.1	_*	23.0	-	6.1	NA	0.1	0.9	0.1	27.6	4.3
Ocean Pout	25.8	1.9	1.2	-	1.6	NA	0.0	0.0	0.0	1.4	1.1
Halibut	1.1	0.4	0.0	-	0.0	NA	-	0.3	0.0	0.0	0.0
Wolffish	0.1	0.1	0.0	-	0.0	NA	-	0.0	0.0	0.0	0.0

¹Based on scallop fishing year March 2016 through February 2017

²Estimates not applicable. Lobster/crab bycatch was not attributed to the ACL, consistent with the most recent assessments for these stocks used to set the respective quotas.

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional

Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

These criteria are used by the Greater Atlantic Regional Fisheries Office to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 12 of 20 10/17/2017

Table 9: FY 2016 Northeast Multispecies Other Sub-Component Estimated Discards Detail (mt)

Stock	Total	SQUID	SQUID/ WHITING	SURFCLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	32.8	0.3	0.2	0.0	-	0.0	0.6	25.9
GOM Cod	3.3	0.0	0.6	0.0	-	0.6	0.5	_*
GB Haddock	247.2	88.7	54.5	1.6	-	0.5	55.9	
GOM Haddock	95.8	1.3	30.9	1.3	-	30.1	22.5	_*
GB Yellowtail Flounder	0.0	_*	_*	-	-	-	0.0*	
SNE Yellowtail Flounder	8.0	2.9	1.1	0.1	-	-	2.3	
CC/GOM Yellowtail Flounder	46.1	0.1	2.5	0.0	-	1.4	1.0	
American Plaice	24.9	3.1	2.2	0.0	-	0.1	2.2	
Witch Flounder	51.1	9.0	6.2	0.2	0.0	0.4	8.4	
GB Winter Flounder	3.8	0.0	1.3	-	-	0.0	0.0	
GOM Winter Flounder	5.0	0.0	0.0	0.0	-	0.0	0.0	0.1
SNE Winter Flounder	100.3	19.4	8.5	0.4	-	0.1	18.3	0.1
Redfish	2.7	0.9	0.6	0.0	0.0	0.0	0.6	
White Hake	7.4	1.0	0.7	0.0	0.0	0.0	4.0	
Pollock	271.1	0.1	0.1	0.0	-	0.0	0.1	270.7
Northern Windowpane	37.9	0.2	4.8	0.0	-	0.7	0.3	
Southern Windowpane	178.1	28.1	17.0	1.7	-	-	69.3	
Ocean Pout	25.8	6.4	4.5	0.1	-	0.3	7.1	
Halibut	1.1	0.0	0.0	0.0	-	-	0.4	
Wolffish	0.1	0.0	0.0	0.0	-	-	0.0	

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional

Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

These criteria are used by the Greater Atlantic Regional Fisheries Office to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 13 of 20 10/17/2017

Table 10: FY 2014 - 2016 GOM Cod and Haddock Recreational Catch Evaluation (mt)

				Recreational	Catch	
Stock	Fishing Year	Catch	Landings	Discard	Recreational sub-	
		A + B	A	В	ACL	Limit Taken
GOM Cod	2014	623.3	468.2	155.1	486	128.3
	2015	84.5	4.5	80.0	121	69.8
	2016	280.9	94.5	186.4	157	178.9
	Average	329.6	189.1	140.5	255	129.5
GOM Haddock	2014	658.6	293.1	365.5	173	380.7
	2015	381.9	238.3	143.6	372	102.7
	2016	887.0	560.2	326.8	928	95.6
	Average	642.5	363.9	278.6	491	130.9

Recreational estimates based on Marine Recreational Information Program (MRIP) data. Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017

These data are the best available to NOAA's National Marine Fisheries Service (NMFS).

Page 14 of 20 10/17/2017

Table 11: FY 2016 Northeast Multispecies Sector Carryover (mt)

	FY 2016 Av	ailable Annua	ll Catch Entitle	ement (ACE)	Available Carryover from FY 2016 to FY 2017			
Stock †	FY 2016 Initial ACE	FY 2015 Carryover	FY 2016 Total ACE	Total ACE as a Percent of Initial ACE	de minimis	Maximum		
	A	В	C = A + B	C / A	D	Е		
GB Cod	597	32	629	105.4	5	28		
GOM Cod	271	20	291	107.2	3	23		
GB Haddock	51,328	2,156	53,483	104.2	518	2,830		
GOM Haddock	2,390	93	2,483	103.9	29	236		
GB Yellowtail Flounder	247.1	NA*	247.1	100.0	NA*	NA*		
SNE/MA Yellowtail Flounder	169	12	181	107.1	2	11		
CC/GOM Yellowtail Flounder	326	18	344	105.5	3	18		
Plaice	1,163	62	1,225	105.3	11	64		
Witch Flounder	362	19	381	105.2	6	27		
GB Winter Flounder	585	18	603	103.1	6	19		
GOM Winter Flounder	607	34	641	105.6	6	34		
SNE Winter Flounder	523	31	554	105.9	5	31		
Redfish	9,474	501	9,975	105.3	93	536		
White Hake	3,433	182	3,615	105.3	33	177		
Pollock	17,704	938	18,642	105.3	174	938		

^{*} Carryover of GB yellowtail flounder is not allowed because this stock is jointly managed with Canada.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Source: NMFS Greater Atlantic Regional Fisheries Office Run Date: August 16, 2017

Page 15 of 20 10/17/2017

[†] There is no carryover for non-allocated stocks: Northern windowpane flounder, southern windowpane flounder, ocean pout, halibut, and wolffish.

Table 12: FY 2016 End of Year Accounting of Transboundary U.S./Canada Stocks - Percentage of U.S. TACs Caught (%)

	0/ actic			Perc	ent of Each Fish	ery Componer	nt U.S. TAC Ca	aught		
Stock	% of U.S. TAC	Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	Е	F	G	Н
Eastern GB Cod	59.5	59.4	60.6	0.0					NA	NA
Eastern GB Haddock	3.9	3.6	3.6	0.0		NA			NA	NA
GB Yellowtail Flounder	11.4	9.5	9.7	0.0			93.8	95.2	NA	0.0

Values in percent live weight (%) Includes estimate of missing dealer reports Source: NMFS Greater Atlantic Regional Fisheries Office September 27, 2017

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 16 of 20 10/17/2017

Table 13: FY 2016 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. TACs (mt)

					Fishery	Component '	ГАС			
Stock	U.S. TAC	Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery	Small-Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	Е	F	G	Н
Eastern GB Cod	138	138	135	3						
Eastern GB Haddock	15,170	15,170	15,070	100						
GB Yellowtail Flounder	269.0	250.8	247.1	3.7			2.2	5.0		3.0

Values in live weight

Source: NMFS Greater Atlantic Regional Fisheries Office August 15, 2017

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 17 of 20 10/17/2017

Table 14: FY 2016 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. Catch (mt)

					U.S. Catch	by Fishery Compor	nent			
Stock	U.S. Catch	Groundfish	Sector	Common Pool	Recreational	Herring Fishery*	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	E	F	G	Н
Eastern GB Cod	82.1	82.0	82.0	-					-	0.0
Eastern GB Haddock	588.0	549.0	549.0	1		29.2			-	9.8
GB Yellowtail Flounder	30.7	23.9	23.9	ı			2.1	4.8	-	0.0

^{*}Estimated. Worst case haddock catch should not exceed 119 mt.

Values in live weight

Includes estimate of missing dealer reports

September 27, 2017

Table 15: FY 2016 End of Year Transboundary U.S./Canada Vessels, Trips, DAS Used, and Observers

	Number of	f Vessels	Number	of Trips	DAS U	sed	Number of O	bserved Trips
Area ¹	Sector	Common	Sector	Common Pool	Sector	Common	Sector	Common
	Sector	Pool	Sector	Common 1 001	Sector	Pool	Sector	Pool
Eastern U.S./Canada Area	47	0	299	0	2,015	0	44	0
Western U.S./Canada Area	58	0	642	0	3,745	0	102	0
Total	59	0	689	0	3,996	0	107	0

¹Area based on area fished. Totals don't sum due to multi-area trips Data display "NA" due to data confidentiality.

Source: NMFS Greater Atlantic Regional Fisheries Office September 27, 2017

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 18 of 20 10/17/2017

Table 16: FY 2016 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. Landings (mt)

		U.S. Catch by Fishery Component								
Stock	U.S. Landings	Groundfish	Sector	Common Pool	Recreational	Herring Fishery*	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	E	F	G	Н
Eastern GB Cod	76.7	76.7	76.7	1					1	0.0
Eastern GB Haddock	463.8	435.7	435.7	ı		28.1			1	-
GB Yellowtail Flounder	23.4	23.4	23.4	1			-	-	-	-

Values in live weight Includes estimate of missing dealer reports Source: NMFS Greater Atlantic Regional Fisheries Office September 27, 2017

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 19 of 20 10/17/2017

Table 17: FY 2016 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. Discards (mt)

					U.S. Catch	by Fishery Co	mponent			
Stock	U.S. Discards	Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	Е	F	G	Н
Eastern GB Cod	5.4	5.4	5.4	1					1	0.0
Eastern GB Haddock	124.2	113.3	113.3	1		1.1			1	9.8
GB Yellowtail Flounder	7.3	0.5	0.5	ı			2.1	4.8	-	0.0

Values in live weight Includes estimate of missing dealer reports Source: NMFS Greater Atlantic Regional Fisheries Office September 27, 2017

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 20 of 20 10/17/2017



UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE GREATER ATLANTIC REGIONAL FISHERIES OFFICE 55 Great Republic Drive Gloucester, MA 01930-2276

MAR 2 0 2018

Thomas A. Nies Executive Director New England Fishery Management Council 50 Water Street Mill 2 Newburyport, MA 01950

Dear Tom:

On October 31, 2017, we sent you the groundfish year-end report for the 2016 fishing year. In that letter, we also explained that three annual catch limit (ACL) overages occurred. Fishing year 2016 was the first time since the implementation of ACLs and accountability measures (AM) that the total ACL for any groundfish stock was exceeded mainly from vessels in fisheries outside of the Northeast Multispecies Fishery Management Plan (FMP) that do not receive an allocation (i.e., other sub-components and state catch). We are writing to provide an updated 2016 year-end report and details of the ACL overages and AMs that the FMP requires.

Updated 2016 Catch Accounting Report

Following the release of the initial fishing year 2016 groundfish year-end report, the Commonwealth of Massachusetts provided us with updated state catch information. We worked with the State to update the state catch information, and attached is a revised fishing year 2016 ACL report. We plan to collaborate with the states to develop a new process for incorporating state data into future catch accounting reports to improve year-end accounting.

In fishing year 2016, catch exceeded the total ACLs and U.S. acceptable biological catches (ABC) for Georges Bank (GB) cod, Gulf of Maine (GOM) cod, and witch flounder (Table 1). The overfishing limit (OFL) was not exceeded for any of these stocks. Incorporating the revised state catch information changed the magnitude of the overages minimally (GB cod catch increased, GOM cod and witch catch decreased). We also revised the method for calculating the recreational GB cod catch. A 3-year average was used to estimate recreational GB cod catch in the state and other sub-components to better account for the variability and uncertainty associated with the recreational catch estimates.

The GB cod overage was caused by a minmial overage of the common pool sub-ACL and higher than expected catches by the state and other sub-components. The GOM cod overage was caused by an overage of the recreational fishery's sub-ACL and higher than expected catch by the state sub-component. Higher than expected catch from vessels fishing in state waters caused the witch flounder overage.



Table 1: Fishing Year 2016 Catch Limits and Catch for GB cod, GOM cod	I, and Witch Flounder.
-----------------------------------------------------------------------	------------------------

					Catch									
	OFL	ABC	Total			(mt and p	ercent of	ACL or su	ıb-ACL)					
Stock			ACL	To	tal Catch		Ground	fish Fisher	у	State				
	(mt) (mt) (mt)		(mt and percent of ACL)		Total	Sector	Common Pool	Recreational	Waters	Other				
GB Cod*	1,665	762	730	1,132.1	155.1%	98.1%	97.6%	124.8%	N/A	337.1%	462.6%			
GOM Cod	667	500	473	633.7	134.0%	125.3%	96.0%	68.8%	178.9%	286.3%	89.9%			
Witch Flounder	521	460	441	460.3	104.4%	97.0%	97.0%	94.2%	N/A	385.4%	93.6%			

^{*}The GB cod U.S. ABC was exceeded, not the overall ABC.

Accountability Measures

Amendment 16 prescribes a process for addressing overages from vessels fishing outside of the allocated fishery. If the overall ACL for a stock is exceeded, then the amount of the overage due to catch from vessels fishing outside of the allocated fishery shall be distributed among allocated components of the Northeast multispecies fishery based on each component's share of that stock's ACL. Each component's share of the overage is then added to that component's catch to determine the net overage amount. If the sum exceeds the component's sub-ACL, the respective AMs for that component of the fishery will be triggered. The AM for sectors and the common pool is a pound-for-pound payback. The AM for the recreational fishery is the adjustment of management measures in the next fishing year.

Any 2016 overages for allocated components of the fishery were previously addressed with AMs. In consultation with the Council, we adjusted the recreational fishery management measures for fishing year 2017 to address the fishery's 2016 overage for GOM cod (82 FR 35457; July 31, 2017). As required, we also reduced the 2017 common pool sub-ACL for GB cod to account for the fishery's small overage of its 2016 sub-ACL (82 FR 51778; November 8, 2017).

We proportionally applied the remaining overages that resulted from the state and other sub-component catch to the components of the fishery that receive an allocation. A summary of the net overage amounts is provided in Table 2. These net overages will be deducted from the 2018 fishing year sub-ACLs in the rulemaking for Framework Adjustment 57 to the FMP. Table 3 summarizes the adjustments for the 2018 fishing year based on the ACLs that the Council recommended in Framework 57.

Sectors are required to pay back, pound-for-pound, a portion of the GB, GOM cod, and witch flounder overages. The common pool will pay back, pound-for-pound, overages of GB cod and witch flounder. The 2018 common pool GOM cod sub-ACL will not be reduced because the common pool's portion of the 2016 overage and its 2016 catch did not exceed the 2016 sub-ACL. The GOM recreational fishery is allocated a portion of the stock; therefore, the recreational fishery is held accountable for the overage. The recreational fishery's AM is not a

pound-for pound payback, thus their sub-ACL is not being reduced, but management measures are being proactively adjusted to prevent future overages.

Table 2: Net overages, in metric tons, due to 2016 other and state catch.

Stock	Net Overages (mt)									
	Sectors	Common Pool	Recreational							
GB cod	162.57	3.40	n/a							
GOM cod	21.05	0.00	16.61							
Witch flounder	19.15	0.05	n/a							

"n/a" indicates that the stock is not allocated to that sub-component of the fishery A value of 0.00 indicates that the balance was zero and no payback is required

Table 3: Initial and revised ACLs and sub-ACLs for fishing year 2018 based on payback.

Stock	Total ACL	Groundfish sub-ACL	Initial Preliminary Sector sub-ACL	Revised Preliminary Sector sub-ACL	Initial Preliminary Common Pool sub-ACL	Revised Preliminary Common Pool sub-ACL
GB Cod	1,519	1,360	1,335.17	1,172.61	25.13	21.73
GOM Cod	666	610	376.92	355.87	12.73	unchanged
Witch Flounder	948	849	830.09	810.94	18.93	18.88

If you have any questions on the 2016 ACL report, or the AMs triggered because of the 2016 ACL overages, please contact Sarah Heil, Groundfish Team Supervisor, at (978) 281-9257.

Sincerely,

Michael Pentony

Regional Administrator

cc: Dr. Jamie Cournane, NEFMC Groundfish Plan Coordinator

Dr. Jonathan Hare, Science and Research Director, Northeast Fisheries Science Center

Enclosure

Northeast Multispecies Fishery

Final Year-End Results for Fishing Year 2016

- Tables 1 through 5: Total groundfish caught, landed, and discard estimates
- Table 6: Estimated state water catch (updated February 8, 2018)*
- Tables 7-9: Other sub-component catch detail
- Table 10: FY 2014 through FY 2016 GOM cod and haddock recreational catch evaluation
- Table 11: Sector carryover
- Tables 12 through 17: U.S./Canada stocks catch evaluation

*Estimated state water catch was updated to include Massachusetts Division of Marine Fisheries (Mass DMF) data for the January through April 2017 time period, and to include Mass DMF harvester data used to apportion groundfish species to stock areas.

In this report: a table cell value of "0" or "0.0" indicates a non-zero value in the cell. "-" is displayed for values exactly equal to zero. Blanks are shown when there are no values. "NA" is displayed when no value is applicable.

Table 1: FY 2016 Northeast Multispecies Percent of Annual Catch Limit Caught (%)

		Compor	nents with AC	Ls and sub-ACL	s: With Account	tability Measures ((AMs)		Sub-componer	nts: No AMs
Stock	Total	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	E	F	G	Н
GB Cod	155.1	98.1	97.6	124.8					337.1	462.6
GOM Cod	134.0	125.3	96.0	68.8	178.9				286.3	89.9
GB Haddock	9.0	8.5	8.6	0.3		23.2			2.5	47.5
GOM Haddock	75.3	74.0	65.9	40.4	95.6	5.7			35.5	379.0
GB Yellowtail Flounder	11.8	9.5	9.7	-			93.8	95.2	NA	0.0
SNE Yellowtail Flounder	33.1	30.6	26.3	51.3			63.9		13.2	37.3
CC/GOM Yellowtail Flounder	88.1	76.5	76.2	83.7					118.0	187.3
Plaice	97.9	96.3	96.5	86.6					138.3	129.5
Witch Flounder	104.4	97.0	97.0	94.2					385.4	93.6
GB Winter Flounder	65.7	71.6	72.2	-					NA	7.2
GOM Winter Flounder	31.9	17.5	18.0	8.4					107.1	32.0
SNE/MA Winter Flounder	79.7	77.5	75.8	91.6					37.4	125.3
Redfish	41.6	42.8	43.0	0.9					4.6	4.3
White Hake	41.5	42.6	42.9	2.7					3.2	13.4
Pollock	19.6	16.8	16.7	20.9					49.4	29.8
Northern Windowpane	47.3	68.2	NA	NA					37.3	34.8
Southern Windowpane	69.7	121.9	NA	NA			40.4		75.7	71.5
Ocean Pout	27.9	12.5	NA	NA					21.4	151.7
Halibut	90.8	62.5	NA	NA					191.1	83.4
Wolffish	1.0	0.8	NA	NA					1.9	5.8

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run dates of June 25, 2017 and September 19, 2017. State waters catch updated February 8, 2018

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Page 2 of 20 2/9/2018

Table 2: FY 2016 Northeast Multispecies Annual Catch Limits (mt)

		Comp	onents with AC	Ls and sub-ACLs	: With Accounta	ability Measures	(AMs)		Sub-compone	nts: No AMs
Stock	Total ACL	Groundfish	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery ¹	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	Е	F	G	Н
GB Cod	730	608	597	11					23	99
GOM Cod	473	437	271	9	157				27	10
GB Haddock	53,309	51,667	51,328	339		512			561	561
GOM Haddock	3,430	3,344	2,390	26	928	34			26	26
GB Yellowtail Flounder	261.0	250.8	247.1	3.7			2.2	5.0	NA	3.0
SNE Yellowtail Flounder	256	204	169	35			17		5	29
CC/GOM Yellowtail Flounder	409	341	327	14					43	26
Plaice	1,235	1,183	1,163	20					26	26
Witch Flounder	441	370	362	8					12	59
GB Winter Flounder	650	590	585	5					NA	60
GOM Winter Flounder	776	639	607	32					122	16
SNE/MA Winter Flounder	749	585	523	62					70	94
Redfish	9,837	9,526	9,474	52					103	207
White Hake	3,572	3,459	3,433	26					38	75
Pollock	20,374	17,817	17,704	113					1,279	1,279
Northern Windowpane	177	66	NA	66					2	109
Southern Windowpane	599	104	NA	104			209		37	249
Ocean Pout	155	137	NA	137					2	17
Halibut	119	91	NA	91					25	4
Wolffish	77	72	NA	72					1	3

¹The midwater trawl herring fishery GB haddock sub-ACL was reduced mid-year to account for an overage of the 2015 sub-ACL.

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017

Page 3 of 20 2/9/2018

Table 3: FY 2016 Northeast Multispecies Total Catch (mt)

Stock	Total Catch	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery ¹	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	E	F	G	Н
GB Cod	1,132.1	596.6	582.3	14.3					77.5	458.0
GOM Cod	633.7	547.4	260.4	6.1	280.9				77.3	9.0
GB Haddock	4,790.7	4,391.3	4,390.3	1.0		118.9			14.1	266.4
GOM Haddock	2,583.2	2,473.5	1,576.1	10.4	887.0	1.9			9.2	98.5
GB Yellowtail Flounder	30.7	23.9	23.9	-			2.1	4.8	-	0.0
SNE/MA Yellowtail Flounder	84.7	62.5	44.5	18.0			10.7		0.7	10.8
CC/GOM Yellowtail Flounder	360.4	261.0	248.8	12.1					50.8	48.7
Plaice	1,208.9	1,139.3	1,121.9	17.4					36.0	33.7
Witch Flounder	460.3	358.8	351.4	7.4					46.2	55.2
GB Winter Flounder	426.9	422.6	422.6	-					-	4.3
GOM Winter Flounder	247.7	111.9	109.2	2.7					130.7	5.1
SNE/MA Winter Flounder	597.2	453.3	396.6	56.7					26.1	117.8
Redfish	4,091.6	4,078.1	4,077.6	0.4					4.7	8.8
White Hake	1,483.5	1,472.2	1,471.5	0.7					1.2	10.0
Pollock	3,998.8	2,985.1	2,961.5	23.6					631.9	381.8
Northern Windowpane	83.7	45.0	45.0	0.0					0.7	37.9
Southern Windowpane	417.2	126.7	108.3	18.4			84.4		28.0	178.1
Ocean Pout	43.3	17.1	16.3	0.8					0.4	25.8
Halibut	108.0	56.9	56.7	0.2					47.8	3.3
Wolffish	0.8	0.6	0.6	0.0					0.0	0.2

¹Based on scallop fishing year March 2016 through February 2017

Sector and common pool include estimate of missing dealer reports

Any value for a non-allocated species may include landings of that stock or misreporting of species and/or stock area. These are northern windowpane, southern windowpane, ocean pout, halibut, and wolffish.

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run dates of June 25, 2017 and September 19, 2017. State waters catch updated February 8, 2018

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Page 4 of 20 2/9/2018

Table 4: FY 2016 Northeast Multispecies Landings (mt)

Stock	Total Landings	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	C	D	Е	F	G	Н
GB Cod	1,065.2	571.9	557.7	14.2					68.1	425.2
GOM Cod	433.4	350.8	250.5	5.9	94.5				76.9	5.7
GB Haddock	3,580.4	3,445.7	3,444.8	1.0		115.3			0.1	19.2
GOM Haddock	2,072.7	2,062.5	1,492.5	9.7	560.2	1.9			5.6	2.7
GB Yellowtail Flounder	23.4	23.4	23.4	-			1	-	-	-
SNE/MA Yellowtail Flounder	62.7	59.5	43.1	16.5			-		0.3	2.8
CC/GOM Yellowtail Flounder	298.2	245.3	234.5	10.8					50.3	2.6
Plaice	1,086.4	1,044.7	1,028.9	15.9					32.9	8.8
Witch Flounder	342.8	294.4	287.5	6.9					44.3	4.1
GB Winter Flounder	421.8	421.3	421.3	-					-	0.5
GOM Winter Flounder	230.4	106.9	104.2	2.7					123.4	0.1
SNE/MA Winter Flounder	485.7	443.8	388.9	54.9					24.4	17.5
Redfish	4,035.7	4,026.4	4,026.0	0.4					3.1	6.2
White Hake	1,439.9	1,436.8	1,436.1	0.7					0.4	2.7
Pollock	3,305.6	2,910.5	2,886.9	23.6					284.5	110.6
Northern Windowpane	0.0	0.0	0.0	-					0.0	-
Southern Windowpane	13.2	-	-	-			-		13.2	0.0
Ocean Pout	0.0	-	-	-					0.0	0.0
Halibut	69.0	20.3	20.1	0.2					46.5	2.3
Wolffish	0.0	-	-	-					-	0.0

Sector and common pool include estimate of missing dealer reports

Any value for a non-allocated species may include landings of that stock or misreporting of species and/or stock area. These are northern windowpane, southern windowpane, ocean pout, halibut, and wolffish.

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run dates of June 25, 2017 and September 19, 2017. State waters catch updated February 8, 2018

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Page 5 of 20 2/9/2018

Table 5: FY 2016 Northeast Multispecies Estimated Discards (mt)

Stock	Total Discards	Groundfish Fishery	Sector	Common Pool	Recreational	Midwater Trawl Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	Е	F	G	Н
GB Cod	66.9	24.6	24.6	0.1					9.5	32.8
GOM Cod	200.2	196.6	9.9	0.3	186.4				0.4	3.3
GB Haddock	1,210.4	945.6	945.6	0.0		3.6			14.0	247.2
GOM Haddock	510.5	411.0	83.6	0.6	326.8	-			3.6	95.8
GB Yellowtail Flounder	7.3	0.5	0.5	-			2.1	4.8	-	0.0
SNE/MA Yellowtail Flounder	22.0	3.0	1.4	1.5			10.7		0.3	8.0
CC/GOM Yellowtail Flounder	62.2	15.7	14.3	1.3					0.5	46.1
Plaice	122.5	94.6	93.0	1.5					3.1	24.9
Witch Flounder	117.4	64.4	63.9	0.5					1.9	51.1
GB Winter Flounder	5.0	1.2	1.2	-					-	3.8
GOM Winter Flounder	17.3	5.0	5.0	0.0					7.3	5.0
SNE/MA Winter Flounder	111.6	9.6	7.7	1.8					1.7	100.3
Redfish	55.9	51.7	51.7	0.0					1.6	2.7
White Hake	43.6	35.4	35.4	-					0.9	7.4
Pollock	693.3	74.7	74.7	0.0					347.4	271.1
Northern Windowpane	83.7	45.0	45.0	0.0					0.7	37.9
Southern Windowpane	404.0	126.7	108.3	18.4			84.4		14.8	178.1
Ocean Pout	43.3	17.1	16.3	0.8					0.4	25.8
Halibut	39.0	36.6	36.6	0.0					1.3	1.1
Wolffish	0.8	0.6	0.6	0.0					0.0	0.1

Sector and common pool include estimate of missing dealer reports

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run dates of June 25, 2017 and September 19, 2017. State waters catch updated February 8, 2018

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Page 6 of 20 2/9/2018

Table 6: FY 2016 Northeast Multispecies Estimated State Water Sub-Component Catch Detail (mt)

		Total			Commercial			Recreational	
Stock	Catch	Landings	Discard	Total Catch	Landings ¹	Discard ¹	Total Catch	Landings	Discard
	A+B+C+D	A+C	B+D	A+B	A	В	C+D	C	D
GB Cod	77.5	68.1	9.5	19.8	19.4	0.4	57.8	48.7	9.1
GOM Cod	77.3	76.9	0.4	77.3	76.9	0.4	_*	_*	_*
GB Haddock	14.1	0.1	14.0	14.1	0.1	14.0			
GOM Haddock	9.2	5.6	3.6	9.2	5.6	3.6	_*	_*	_*
GB Yellowtail Flounder	-	-	-	-	-	-			
SNE/MA Yellowtail Flounder	0.7	0.3	0.3	0.7	0.3	0.3			
CC/GOM Yellowtail Flounder	50.8	50.3	0.5	50.8	50.3	0.5			
Plaice	36.0	32.9	3.1	36.0	32.9	3.1			
Witch Flounder	46.2	44.3	1.9	46.2	44.3	1.9			
GB Winter Flounder	-	-	-	-	-	-			
GOM Winter Flounder	130.7	123.4	7.3	102.4	102.3	0.1	28.3	21.1	7.2
SNE/MA Winter Flounder	26.1	24.4	1.7	11.8	11.4	0.4	14.3	13.0	1.3
Redfish	4.7	3.1	1.6	4.7	3.1	1.6			
White Hake	1.2	0.4	0.9	1.2	0.4	0.9			
Pollock	631.9	284.5	347.4	5.9	3.1	2.8	626.0	281.4	344.6
Northern Windowpane	0.7	0.0	0.7	0.7	0.0	0.7			
Southern Windowpane	28.0	13.2	14.8	28.0	13.2	14.8			
Ocean Pout	0.4	0.0	0.4	0.4	0.0	0.4			
Halibut	47.8	46.5	1.3	47.8	46.5	1.3			
Wolffish	0.0	-	0.0	0.0	-	0.0			

^{*}Recreational catch of GOM cod and haddock in state waters is attributed to the recreational sub-ACL (see Tables 1 - 5), and so is not included above.

State discard rate estimates based on discard rates on federal trips

Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office Updated February 8, 2018, run date of January 23, 2018

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Page 7 of 20 2/9/2018

¹January through April 2017 commercial catches are estimated.

Table 7: FY 2016 Northeast Multispecies Other Sub-Component Catch Detail (mt)

Stock	Total Catch	SCALLOP1	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB ²	MENHADEN	MONKFISH	RESEARCH	SCUP	SHRIMP
GB Cod	458.0	5.7	0.2	-	0.1	NA	0.0	0.9	26.8	0.0	0.0
GOM Cod	9.0	1.2	-	ı	0.2	NA	-	0.1	5.6	-	0.0
GB Haddock	266.4	7.7	0.0	-	22.3*	NA	0.2	0.1	19.1	0.0	15.6
GOM Haddock	98.5	0.8	-	ı	8.2*	NA	-	0.1	1.3	-	0.7
GB Yellowtail Flounder	0.0	_*	-	ı	-*	NA	-	-	-	-	-
SNE Yellowtail Flounder	10.8	_*	1.1	1	0.7	NA	0.0	0.0	1.5	0.2	0.5
CC/GOM Yellowtail Flounder	48.7	40.5	-	-	0.3	NA	-	0.1	2.6	-	0.0
American Plaice	33.7	15.5	0.1	ı	0.8	NA	0.0	0.1	8.7	0.2	0.6
Witch Flounder	55.2	20.6	1.6	0.0	2.3	NA	0.0	0.2	3.4	1.4	1.6
GB Winter Flounder	4.3	3.0	-	ı	0.0	NA	-	-	-	-	-
GOM Winter Flounder	5.1	4.8	-	-	0.0	NA	-	-	0.1	-	0.0
SNE Winter Flounder	117.8	40.4	3.6	ı	4.8	NA	0.1	0.1	11.1	3.7	3.4
Redfish	8.8	0.0	0.0	0.0	0.5	NA	0.0	0.0	5.5	0.0	0.2
White Hake	10.0	0.5	0.3	0.0	0.3	NA	0.0	0.0	1.9	0.3	0.2
Pollock	381.8	0.0	-	ı	0.1	NA	0.0	0.1	0.5	-	0.0
Northern Windowpane	37.9	31.8	-	1	0.2	NA	-	0.0	0.0	-	0.0
Southern Windowpane	178.1	_*	23.0	-	6.1	NA	0.1	0.9	0.1	27.6	4.3
Ocean Pout	25.8	1.9	1.2	-	1.6	NA	0.0	0.0	0.0	1.4	1.1
Halibut	3.3	0.5	0.0	ı	0.0	NA	-	1.1	0.1	0.0	0.0
Wolffish	0.2	0.1	0.0	-	0.0	NA	-	0.0	0.0	0.0	0.0

¹Based on scallop fishing year March 2016 through February 2017

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 8 of 20 2/9/2018

²Estimates not applicable. Lobster/crab bycatch was not attributed to the ACL, consistent with the most recent assessments for these stocks used to set the respective quotas.

^{*}Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Table 7: FY 2016 Northeast Multispecies Other Sub-Component Catch Detail (mt)

Stock	Total Catch	SQUID	SQUID/ WHITING	SURFCLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	458.0	0.3	0.2	0.0	-	0.0	4.0	419.7
GOM Cod	9.0	0.0	0.6	0.0	-	0.6	0.6	_*
GB Haddock	266.4	88.7	54.5	1.6	-	0.5	56.1	-
GOM Haddock	98.5	1.3	30.9	1.3	-	30.1	23.9	_*
GB Yellowtail Flounder	0.0	_*	_*	-	-	-	0.0*	
SNE Yellowtail Flounder	10.8	2.9	1.1	0.1	-	-	2.6	
CC/GOM Yellowtail Flounder	48.7	0.1	2.5	0.0	-	1.4	1.0	
American Plaice	33.7	3.1	2.2	0.0	-	0.1	2.2	
Witch Flounder	55.2	9.0	6.2	0.2	0.0	0.4	8.4	
GB Winter Flounder	4.3	0.0	1.3	-	-	0.0	0.0	
GOM Winter Flounder	5.1	0.0	0.0	0.0	-	0.0	0.0	0.1
SNE Winter Flounder	117.8	19.6	8.5	0.4	-	0.1	20.3	1.7
Redfish	8.8	0.9	0.8	0.0	0.0	0.0	0.8	
White Hake	10.0	1.0	0.8	0.0	0.0	0.1	4.6	
Pollock	381.8	0.1	0.1	0.0	-	0.0	0.7	380.2
Northern Windowpane	37.9	0.2	4.8	0.0	-	0.7	0.3	
Southern Windowpane	178.1	28.1	17.0	1.7	-	-	69.3	
Ocean Pout	25.8	6.4	4.5	0.1	-	0.3	7.1	
Halibut	3.3	0.0	0.0	0.0	-	-	1.7	
Wolffish	0.2	0.0	0.0	0.0	-	-	0.0	

Source: NMFS Greater Atlantic Regional

Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 9 of 20 2/9/2018

Table 8: FY 2016 Northeast Multispecies Other Sub-Component Landings Detail (mt)

Stock	Total	SCALLOP ¹	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB ²	MENHADEN	MONKFISH	RESEARCH	SCUP	SHRIMP
GB Cod	425.2	0.4	0.2	-	0.0	NA	-	0.6	26.8	0.0	-
GOM Cod	5.7	-	-	-	-	NA	-	0.0	5.6	-	-
GB Haddock	19.2	-	-	-	_*	NA	-	1	19.0	-	-
GOM Haddock	2.7	-	-	1	_*	NA	-	ı	1.3	-	-
GB Yellowtail Flounder	-	_*	-	ı	-	NA	-	ı	-	-	-
SNE Yellowtail Flounder	2.8	_*	0.9	-	-	NA	-	0.0	1.5	-	-
CC/GOM Yellowtail Flounder	2.6	-	-	-	-	NA	-	ı	2.6	-	-
American Plaice	8.8	0.0	-	ı	-	NA	-	0.0	8.7	0.1	-
Witch Flounder	4.1	0.3	0.4	-	-	NA	-	1	3.4	-	-
GB Winter Flounder	0.5	0.5	-	ı	-	NA	-	i	-	-	-
GOM Winter Flounder	0.1	0.0	-	-	-	NA	-	1	0.1	-	-
SNE Winter Flounder	17.5	1.3	0.8	1	-	NA	-	0.0	11.1	0.4	-
Redfish	6.2	-	-	-	0.2	NA	-	1	5.5	0.0	-
White Hake	2.7	-	0.1	1	0.1	NA	-	0.0	1.9	0.0	-
Pollock	110.6	-	-	-	-	NA	-	0.0	0.5	-	-
Northern Windowpane	-	-	-	-	-	NA	-	1	-	-	-
Southern Windowpane	0.0	_*	-	-	-	NA	-	-	-	0.0	-
Ocean Pout	0.0	-	-	-	-	NA	-	ı	-	-	-
Halibut	2.3	0.1	-	-	-	NA	-	0.7	0.1	-	-
Wolffish	0.0	-	-	-	-	NA	-	-	-	-	-

¹Based on scallop fishing year March 2016 through February 2017

²Estimates not applicable. Lobster/crab bycatch was not attributed to the ACL, consistent with the most recent assessments for these stocks used to set the respective quotas.

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional

Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 10 of 20 2/9/2018

Table 8: FY 2016 Northeast Multispecies Other Sub-Component Landings Detail (mt)

Stock	Total	SQUID	SQUID/ WHITING	SURFCLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	425.2	0.0	0.0	-	-	-	3.4	393.8
GOM Cod	5.7	-	-	-	-	-	0.1	_*
GB Haddock	19.2	-	-	-	ı	-	0.2	
GOM Haddock	2.7	-	-	-	ı	-	1.4	_*
GB Yellowtail Flounder	-	-	•	-	-	-	-	
SNE Yellowtail Flounder	2.8	0.0	-	-	ı	-	0.3	
CC/GOM Yellowtail Flounder	2.6	-	-	-	ı	-	0.0	
American Plaice	8.8	-	1	-	1	-	0.0	
Witch Flounder	4.1	-	1	-	1	-	0.0	
GB Winter Flounder	0.5	-	1	-	-	-	-	
GOM Winter Flounder	0.1	-	-	-	-	-	-	-
SNE Winter Flounder	17.5	0.2	0.0	-	-	-	2.0	1.6
Redfish	6.2	0.0	0.2	-	ı	-	0.1	
White Hake	2.7	-	0.0	-	ı	0.1	0.6	
Pollock	110.6	-	ı	-	-	-	0.6	109.5
Northern Windowpane	-	-	-	-	ı	-	-	
Southern Windowpane	0.0	-	-	-	ı	-	0.0	
Ocean Pout	0.0	-	0.0	-	•	-	-	
Halibut	2.3	-	-	-	•	-	1.3	
Wolffish	0.0	-	-	-	-	-	0.0	

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional

Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

These criteria are used by the Greater Atlantic Regional Fisheries Office (GARFO) to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 11 of 20 2/9/2018

Table 9: FY 2016 Northeast Multispecies Other Sub-Component Estimated Discards Detail (mt)

Stock	Total	SCALLOP ¹	FLUKE	HAGFISH	HERRING	LOBSTER/ CRAB²	MENHADEN	MONKFISH	RESEARCH	SCUP	SHRIMP
GB Cod	32.8	5.3	0.0	-	0.1	NA	0.0	0.3	0.0	0.0	0.0
GOM Cod	3.3	1.2	-	-	0.2	NA	-	0.1	0.0	-	0.0
GB Haddock	247.2	7.7	0.0	-	22.3*	NA	0.2	0.1	0.1	0.0	15.6
GOM Haddock	95.8	0.8	-	-	8.2*	NA	-	0.1	0.0	-	0.7
GB Yellowtail Flounder	0.0	_*	-	-	_*	NA	-	ı	-	-	-
SNE Yellowtail Flounder	8.0	_*	0.2	-	0.7	NA	0.0	0.0	0.0	0.2	0.5
CC/GOM Yellowtail Flounder	46.1	40.5	-	-	0.3	NA	-	0.1	0.0	-	0.0
American Plaice	24.9	15.5	0.1	-	0.8	NA	0.0	0.1	0.0	0.1	0.6
Witch Flounder	51.1	20.3	1.2	0.0	2.3	NA	0.0	0.2	0.0	1.4	1.6
GB Winter Flounder	3.8	2.5	-	-	0.0	NA	-	ı	-	-	-
GOM Winter Flounder	5.0	4.8	-	-	0.0	NA	-	-	0.0	-	0.0
SNE Winter Flounder	100.3	39.1	2.8	-	4.8	NA	0.1	0.1	0.0	3.3	3.4
Redfish	2.7	0.0	0.0	0.0	0.2	NA	0.0	0.0	0.0	0.0	0.2
White Hake	7.4	0.5	0.2	0.0	0.3	NA	0.0	0.0	0.0	0.3	0.2
Pollock	271.1	0.0	-	-	0.1	NA	0.0	0.0	0.0	-	0.0
Northern Windowpane	37.9	31.8	-	-	0.2	NA	-	0.0	0.0	-	0.0
Southern Windowpane	178.1	_*	23.0	-	6.1	NA	0.1	0.9	0.1	27.6	4.3
Ocean Pout	25.8	1.9	1.2	-	1.6	NA	0.0	0.0	0.0	1.4	1.1
Halibut	1.1	0.4	0.0	-	0.0	NA	-	0.3	0.0	0.0	0.0
Wolffish	0.1	0.1	0.0	-	0.0	NA	-	0.0	0.0	0.0	0.0

¹Based on scallop fishing year March 2016 through February 2017

²Estimates not applicable. Lobster/crab bycatch was not attributed to the ACL, consistent with the most recent assessments for these stocks used to set the respective quotas.

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional

Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

These criteria are used by the Greater Atlantic Regional Fisheries Office to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 12 of 20 2/9/2018

Table 9: FY 2016 Northeast Multispecies Other Sub-Component Estimated Discards Detail (mt)

Stock	Total	SQUID	SQUID/ WHITING	SURFCLAM	WHELK/ CONCH	WHITING	UNCATEGORIZED	RECREATIONAL
GB Cod	32.8	0.3	0.2	0.0	-	0.0	0.6	25.9
GOM Cod	3.3	0.0	0.6	0.0	-	0.6	0.5	_*
GB Haddock	247.2	88.7	54.5	1.6	-	0.5	55.9	
GOM Haddock	95.8	1.3	30.9	1.3	ı	30.1	22.5	_*
GB Yellowtail Flounder	0.0	_*	_*	-	-	-	0.0*	
SNE Yellowtail Flounder	8.0	2.9	1.1	0.1	-	-	2.3	
CC/GOM Yellowtail Flounder	46.1	0.1	2.5	0.0	•	1.4	1.0	
American Plaice	24.9	3.1	2.2	0.0	1	0.1	2.2	
Witch Flounder	51.1	9.0	6.2	0.2	0.0	0.4	8.4	
GB Winter Flounder	3.8	0.0	1.3	-	-	0.0	0.0	
GOM Winter Flounder	5.0	0.0	0.0	0.0	-	0.0	0.0	0.1
SNE Winter Flounder	100.3	19.4	8.5	0.4	-	0.1	18.3	0.1
Redfish	2.7	0.9	0.6	0.0	0.0	0.0	0.6	
White Hake	7.4	1.0	0.7	0.0	0.0	0.0	4.0	
Pollock	271.1	0.1	0.1	0.0	1	0.0	0.1	270.7
Northern Windowpane	37.9	0.2	4.8	0.0	-	0.7	0.3	
Southern Windowpane	178.1	28.1	17.0	1.7	•	-	69.3	
Ocean Pout	25.8	6.4	4.5	0.1	•	0.3	7.1	
Halibut	1.1	0.0	0.0	0.0	-	-	0.4	
Wolffish	0.1	0.0	0.0	0.0	-	-	0.0	_

*Some or all catch attributed to separate sub-ACL as shown in Tables 1 through 5, and so is not included above.

Source: NMFS Greater Atlantic Regional

Fisheries Office

October 17, 2017, run date of Sept. 19, 2017

These criteria are used by the Greater Atlantic Regional Fisheries Office to categorize trips to attribute groundfish catch for groundfish ACL accounting. By necessity these rules cannot capture the full complexity of categorizing every trip taken by vessels fishing in the Northeast. Further analysis should be completed to definitively attribute groundfish catch to an FMP for management purposes.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 13 of 20 2/9/2018

Table 10: FY 2014 - 2016 GOM Cod and Haddock Recreational Catch Evaluation (mt)

				Recreational	Catch	
Stock	Fishing Year	Catch	Landings	Discard	Recreational sub-	
	G	A + B	A	В	ACL	Limit Taken
GOM Cod	2014	623.3	468.2	155.1	486	128.3
	2015	84.5	4.5	80.0	121	69.8
	2016	280.9	94.5	186.4	157	178.9
	Average	329.6	189.1	140.5	255	129.5
GOM Haddock	2014	658.6	293.1	365.5	173	380.7
	2015	381.9	238.3	143.6	372	102.7
	2016	887.0	560.2	326.8	928	95.6
	Average	642.5	363.9	278.6	491	130.9

Recreational estimates based on Marine Recreational Information Program (MRIP) data. Values in metric tons of live weight

Source: NMFS Greater Atlantic Regional Fisheries Office

October 17, 2017

These data are the best available to NOAA's National Marine Fisheries Service (NMFS).

Page 14 of 20 2/9/2018

Table 11: FY 2016 Northeast Multispecies Sector Carryover (mt)

	FY 2016 Av	railable Annua	al Catch Entitle	ement (ACE)	Available Carryover from FY 2016 to FY 2017			
Stock †	FY 2016 Initial ACE	FY 2015 Carryover	FY 2016 Total ACE	Total ACE as a Percent of Initial ACE	de minimis	Maximum		
	A	В	C = A + B	C / A	D	E		
GB Cod	597	32	629	105.4	5	28		
GOM Cod	271	20	291	107.2	3	23		
GB Haddock	51,328	2,156	53,483	104.2	518	2,830		
GOM Haddock	2,390	93	2,483	103.9	29	236		
GB Yellowtail Flounder	247.1	NA*	247.1	100.0	NA*	NA*		
SNE/MA Yellowtail Flounder	169	12	181	107.1	2	11		
CC/GOM Yellowtail Flounder	326	18	344	105.5	3	18		
Plaice	1,163	62	1,225	105.3	11	64		
Witch Flounder	362	19	381	105.2	6	27		
GB Winter Flounder	585	18	603	103.1	6	19		
GOM Winter Flounder	607	34	641	105.6	6	34		
SNE Winter Flounder	523	31	554	105.9	5	31		
Redfish	9,474	501	9,975	105.3	93	536		
White Hake	3,433	182	3,615	105.3	33	177		
Pollock	17,704	938	18,642	105.3	174	938		

^{*} Carryover of GB yellowtail flounder is not allowed because this stock is jointly managed with Canada.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting; (4) Observers and at-sea monitors via the Northeast Fisheries Observer Program. Differences with previous reports are due to corrections made to the database.

Source: NMFS Greater Atlantic Regional Fisheries Office Run Date: August 16, 2017

Page 15 of 20 2/9/2018

[†] There is no carryover for non-allocated stocks: Northern windowpane flounder, southern windowpane flounder, ocean pout, halibut, and wolffish.

Table 12: FY 2016 End of Year Accounting of Transboundary U.S./Canada Stocks - Percentage of U.S. TACs Caught (%)

	0/ actic			Perc	ent of Each Fish	ery Componer	nt U.S. TAC Ca	aught		
Stock	% of U.S. TAC	Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	C	D	Е	F	G	Н
Eastern GB Cod	59.5	59.4	60.6	0.0					NA	NA
Eastern GB Haddock	3.9	3.6	3.6	0.0		NA			NA	NA
GB Yellowtail Flounder	11.4	9.5	9.7	0.0			93.8	95.2	NA	0.0

Values in percent live weight (%) Includes estimate of missing dealer reports Source: NMFS Greater Atlantic Regional Fisheries Office September 27, 2017

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 16 of 20 2/9/2018

Table 13: FY 2016 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. TACs (mt)

					Fishery	Component 7	ГАС			
Stock	U.S. TAC	Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery	Small-Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	Е	F	G	Н
Eastern GB Cod	138	138	135	3						
Eastern GB Haddock	15,170	15,170	15,070	100						
GB Yellowtail Flounder	269.0	250.8	247.1	3.7			2.2	5.0		3.0

Values in live weight

Source: NMFS Greater Atlantic Regional Fisheries Office August 15, 2017

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 17 of 20 2/9/2018

Table 14: FY 2016 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. Catch (mt)

					U.S. Catch	by Fishery Compo	nent			
Stock	U.S. Catch	Groundfish	Sector	Common Pool	Recreational	Herring Fishery*	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	E	F	G	Н
Eastern GB Cod	82.1	82.0	82.0	-					-	0.0
Eastern GB Haddock	588.0	549.0	549.0	1		29.2			-	9.8
GB Yellowtail Flounder	30.7	23.9	23.9	ı			2.1	4.8	-	0.0

^{*}Estimated. Worst case haddock catch should not exceed 119 mt.

Values in live weight

Includes estimate of missing dealer reports

September 27, 2017

Table 15: FY 2016 End of Year Transboundary U.S./Canada Vessels, Trips, DAS Used, and Observers

	Number of Vessels		Number	of Trips	DAS U	sed	Number of Observed Trips		
Area ¹	Sector	Common	Sector	Common Pool	Sector	Common	Sector	Common	
	Sector	Pool	Sector	Common 1 001	Sector	Pool	Sector	Pool	
Eastern U.S./Canada Area	47	0	299	0	2,015	0	44	0	
Western U.S./Canada Area	58	0	642	0	3,745	0	102	0	
Total	59	0	689	0	3,996	0	107	0	

¹Area based on area fished. Totals don't sum due to multi-area trips Data display "NA" due to data confidentiality.

Source: NMFS Greater Atlantic Regional Fisheries Office September 27, 2017

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 18 of 20 2/9/2018

Table 16: FY 2016 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. Landings (mt)

					U.S. Catch	by Fishery Co	mponent			
Stock	U.S. Landings	Groundfish	Sector	Common Pool	Recreational	Herring Fishery*	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	Е	F	G	Н
Eastern GB Cod	76.7	76.7	76.7	1					1	0.0
Eastern GB Haddock	463.8	435.7	435.7	ı		28.1			-	-
GB Yellowtail Flounder	23.4	23.4	23.4	1			-	-	-	-

Values in live weight Includes estimate of missing dealer reports Source: NMFS Greater Atlantic Regional Fisheries Office September 27, 2017

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 19 of 20 2/9/2018

Table 17: FY 2016 End of Year Accounting of Transboundary U.S./Canada Stocks - U.S. Discards (mt)

	U.S. Catch by Fishery Component									
Stock	U.S. Discards	Groundfish	Sector	Common Pool	Recreational	Herring Fishery	Scallop Fishery	Small Mesh Fisheries	State Water	Other
	A to H	A+B+C	A	В	С	D	Е	F	G	Н
Eastern GB Cod	5.4	5.4	5.4	-					1	0.0
Eastern GB Haddock	124.2	113.3	113.3	1		1.1			1	9.8
GB Yellowtail Flounder	7.3	0.5	0.5	ı			2.1	4.8	-	0.0

Values in live weight Includes estimate of missing dealer reports Source: NMFS Greater Atlantic Regional Fisheries Office September 27, 2017

Any value for a non-allocated species may be due to landings of that stock; misreporting of species and/or stock area; and/or estimated landings (in lieu of missing reports) based on vessel histories.

These data are the best available to NOAA's National Marine Fisheries Service (NMFS). Data sources for this report include: (1) Vessels via VMS; (2) Vessels via vessel logbook reports; (3) Dealers via Dealer Electronic reporting. Differences with previous reports are due to corrections made to the database.

Page 20 of 20 2/9/2018