Marine Stewardship Council 1st Surveillance Report

For The

US Acadian redfish, haddock and pollock otter trawl fishery

Facilitated By the

Sustainable Groundfish Association, Inc.

Final Report

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Foreword

The MSC Fisheries Standard sets out requirements that a fishery must meet to enable it to claim that its fish come from a well-managed and sustainable source. The standard applies to wild-capture fisheries that meet the scope requirements. The MSC Fisheries Standard comprises three core principles:

Principle 1: Sustainable target fish stocks
A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.

Principle 2: Environmental impact of fishing
Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.

Principle 3: Effective management
The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.

A full description of the MSC Fisheries Certification Requirements and Processes followed during this assessment can be found in MSC Fisheries Certification Requirements and Guidance. This assessment uses the version of the MSC Standard outlined in the MSC Certification Requirements (CR) v1.3 published on January 14th 2013 but follows the processes outlined in the MSC Fisheries Certification Requirements (FCR) v2.0 re-released on 1st October, 2015. The definitive version of all documents are maintained on the MSC's website www.msc.org. Any discrepancy between copies, versions or translations shall be resolved by reference to the definitive English version.

Readers should verify that they are using the copy of the MSC CR/FCR (and other documents) that are relevant to this assessment. Updated documents, together with a master list of all available MSC documents, can be found on the MSC's website.

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Glossary

ABC	Acceptable Biological Catch
ASM	At sea monitoring
ACE	Annual Catch Entitlements
ACL	Annual Catch Limits
AM	Accountability measures
ASAP	Age Structured Assessment Program
B_{MSY}	Biomass calculated for Maximum Sustainable Yield
CAB	Conformity Assessment Body
DFO	Fisheries and Oceans Canada
F	Fishing Mortality
FG	Fixed Gear
FMP	Fishery Management Plan
FSB	Fisheries Sampling Branch (NESC)
F_{LIM}	Limit Reference Point for Fishing Mortality
F_{REF}	Fishing Mortality reference Point
GARFO	Greater Atlantic Regional Fisheries Office (NOAA)
GARM	Groundfish Assessment Review Meeting
GB	Georges Bank
GOM	Gulf of Maine
GOMAC	Gulf of Maine Advisory Committee
GN	Gillnet
HL	Handline
IFMP	Integrated Fisheries Management Plan
LL	Longline
LMOT	Large Mesh Otter Trawl
MG	Mobile Gear
MSC	Marine Stewardship Council
MSP	Maximum Spawning Potential
NEFMC	New England Fisheries Management Council
NEFOP	Northeast Fisheries Observer Program
NCRP	Northeast Cooperative Research Program
NEFSC	Northeast Fisheries Science Center
NMFS	National Marine Fisheries Service (NOAA)
NOAA	National Oceanic and Atmospheric Administration
OTB	Otter Trawl, Bottom
P1, P2, P3	MSC's Guiding Principles
PA	Precautionary Approach
PI	Performance Indicator
RAP	Regional Advisory Process
RV	Research Vessel
RV Biomass Index	Research Vessel Biomass Index
SARC	Stock Assessment Review Committee
SAW	Stock Assessment Workshop
SFF	Sustainable Fisheries Framework
SH	Stakeholder
SSB	Spawning Stock Biomass
SSB_{MSY}	Spawning Stock Biomass for Maximum Sustainable Yield
SSR	Special Science Response

PDT	Plan Development Team (Groundfish)
TAC	Total Allowable Catch
TMGC	Trans-boundary Management Guidance Committee (US-Can)
TRAC	Trans-boundary Resources Assessment Committee (US-Can)
UoA	Unit of Assessment (MSC)
UoC	Unit of Certification (MSC)
USR	Upper Stock Reference Point
VPA	Virtual Population Analysis
VMS	Vessel Monitoring System

1. Executive Summary

This report contains the findings of the 1st surveillance audit in relation to the Sustainable Groundfish Association, Inc. certificate of the US Acadian redfish, haddock and pollock otter trawl Fishery.

The 1st surveillance audit focused on any changes to the fishery and its management since the full assessment and monitoring continued compliance with the MSC Principles and Criteria. Also, the assessment team evaluated progress against the 2 conditions (PI 2.1.1- Retained Species Outcome and PI 2.1.2- Retained Species-Management).

SAI Global determines that:

- **The US Acadian redfish, haddock and pollock otter trawl Fishery continues to operate a well-managed and sustainable fishery and therefore, continued certification to the MSC Principles and Criteria for Sustainable Fishing is awarded.**

On behalf of the MSC client, the Sustainable Groundfish Association, Inc. (SGA), SAI Global would like to extend thanks to the management organisations and stakeholders of the **US Acadian redfish, haddock and pollock otter trawl Fishery** who took part in this surveillance audit.

The surveillance assessment team is different from the original team due to SAI Global staff turn-over. Skills and experience are summarized below.

- **Lead Assessor:** Virginia Polonio (responsible of P2, Traceability)

Dr. Virginia Polonio, has a degree in Environmental Sciences (B.S.c. University of Cádiz). She has a Master degree (M.Sc. University of Cádiz) in Fisheries Management and Aquaculture. She obtained her PhD in Biodiversity and Natural resources at the University of Oviedo and during her PhD she gained experience in the field of research of fisheries and Vulnerable Marine Ecosystems (VMEs). During her PhD, she gained skills in the fields of benthic ecology and management of ecosystems.

She has participated in the Spanish National Basic Plan of Data to collect and evaluate the fishing activities in ICES and CECAF areas where Spanish fleets realize theirs activities. She carried out feeding habit and age/size studies of *Pagellus Bogaraveo* and others commercial species (hake, anchovy, sharks, mackerel, squid, etc.) to define trophic and predation levels of commercial species in the Gulf of Cadiz and the Strait of Gibraltar.

She has worked on several full assessments such as ISF Capelin, ISF Mackerel, CSHMAC Herring, Cantabrian Sardine, North Atlantic Albacore, Squat lobster, Blue sharks and Swordfish, among others as a Lead Assessor and Team member responsible for P2. She has also participated in Surveillances and pre-assessments acquiring experience in the MSC certification.

She is a full-time employee at SAI Global and she will be Lead assessor and P2 expert in this audit.

- **Assessor:** Jerry Ennis (responsible of P1)

Following undergraduate and graduate degrees at Memorial University of Newfoundland in the 1960s, Dr. Ennis completed a Ph.D. in marine biology at University of Liverpool in the early 1970s. He retired in 2005 following a 37-year research career with the Science Branch of the Department of Fisheries and Oceans. His extensively published work has focused primarily on lobster fishery and population biology and on various

aspects of larval, juvenile and adult lobster behavior and ecology in Newfoundland waters. Throughout his career, Dr. Ennis was heavily involved in the review and formulation of scientific advice for management of shellfish in Atlantic Canada as well as the advisory/consultative part of managing the Newfoundland lobster fishery.

- **Assessor:** Robert (Bob) Allain (responsible of P3)

During his 32-year career with Canada's Department of Fisheries and Oceans (DFO), Mr. Allain served in a variety of fisheries management, strategic planning and policy positions in Atlantic Canada and at Departmental Headquarters in Ottawa. He served as a senior executive from 1991 to 2008 when he retired from public service.

While in Government Service, he consulted internationally for the Canadian International Development Agency, the (former) International Centre for Ocean Development, the World Bank, and the Food and Agricultural Organization of the United Nations in several West African coastal states. He has participated in, and spoken at, international conferences in the United States, Ireland and Australia and has given over 600 media interviews to national and international news agencies.

Mr. Allain received several Deputy Minister's Commendations in recognition of his contribution to DFO's priorities; in 2004, he was bestowed the prestigious John Tait Memorial Award (previously the Prime Minister's Award of Excellence for Public Service) for values and ethics. In 2014, he was inducted into the Atlantic Canada Marine Industries Hall of Fame in the Builders category. He is fluent in both French and English.

Currently, Mr. Allain is the president and principle consultant at OceanIQ Management Services based in Dieppe, New Brunswick. He is a Marine Stewardship Council-certified P3 assessor and has participated in numerous MSC fisheries assessments and surveillance audits in Canada and the U.S. He currently serves as the Canadian technical expert on the Alaska Seafood Marketing Institute's Fisheries Standard Committee for the Responsible Fisheries Management Model.

Table 1 below summarises conditions status, Performance Indicator (PI) and Principle level score changes related to currently open conditions.

Table 1. Conditions status and original and revised Performance Indicator (PI) and Principle level scores.

Condition	PI	Status	Performance Indicator		Principle	
			Original score	Revised Score	Original score	Revised Score
						Surveillance 1 (2018)
1	2.1.1	On target	70	Not revised	84.7	Not revised
2	2.1.2	On target	70	Not revised		

2. General Information

<table>
<tr><td>Fishery name</td><td colspan="3">US Acadian redfish, haddock and pollock otter trawl fishery</td></tr>
<tr><td>Unit(s) of Certification (UoCs)</td><td colspan="3">The fishery has 4 UoCs defined as follows:
UoC 1:
<table>
<tr><td>Species</td><td>Acadian Redfish (Sebastes fasciatus)</td></tr>
<tr><td>Geographical Area</td><td>NW Atlantic, US EEZ (Gulf of Maine, Georges Bank)</td></tr>
<tr><td>Stock</td><td>NW Atlantic, US EEZ (Gulf of Maine, Georges Bank)</td></tr>
<tr><td>Method of capture</td><td>Otter Trawl</td></tr>
<tr><td>Management system</td><td>NMFS/NEFMC</td></tr>
<tr><td>Client Group</td><td>Sustainable Groundfish Association, Inc.</td></tr>
</table>
UoC2:
<table>
<tr><td>Species</td><td>Pollock (Pollachius virens)</td></tr>
<tr><td>Geographical Area</td><td>NW Atlantic, US EEZ (Gulf of Maine, Georges Bank)</td></tr>
<tr><td>Stock</td><td>NW Atlantic, US EEZ (Gulf of Maine, Georges Bank)</td></tr>
<tr><td>Method of capture</td><td>Otter Trawl</td></tr>
<tr><td>Management system</td><td>NMFS/NEFMC</td></tr>
<tr><td>Client Group</td><td>Sustainable Groundfish Association, Inc.</td></tr>
</table>
UoC3 and UoC4:
<table>
<tr><td>Species</td><td>Haddock (Melanogrammus aeglefinus)</td></tr>
<tr><td>Geographical Area</td><td>UoC3:NW Atlantic, US EEZ (Gulf of Maine)
UoC4: NW Atlantic, US EEZ (Georges Bank)</td></tr>
<tr><td>Stock</td><td>Haddock
NW Atlantic, US EEZ
(i) Gulf of Maine
(ii) Georges Bank</td></tr>
<tr><td>Method of capture</td><td>Otter Trawl</td></tr>
<tr><td>Management system</td><td>NMFS/NEFMC</td></tr>
<tr><td>Client Group</td><td>Sustainable Groundfish Association, Inc.</td></tr>
</table></td></tr>
<tr><td>Date certified</td><td>July 5th, 2016</td><td>Expiry date</td><td>July 5th, 2020</td></tr>
<tr><td>Surveillance level and type</td><td colspan="3">The surveillance score of 5 was used to identify the surveillance level appropriate to the fishery. The level was established at 2 or more, therefore the surveillance is normal with on-site surveillance visit every year.</td></tr>
<tr><td>Date of surveillance audit</td><td colspan="3"></td></tr>
<tr><td>Surveillance stage (tick one)</td><td>1st Surveillance</td><td colspan="2">X</td></tr>
<tr><td></td><td>2nd Surveillance</td><td colspan="2"></td></tr>
<tr><td></td><td>3rd Surveillance</td><td colspan="2"></td></tr>
<tr><td></td><td>4th Surveillance</td><td colspan="2"></td></tr>
<tr><td></td><td>Other (expedited etc.)</td><td colspan="2"></td></tr>
<tr><td>Surveillance team</td><td colspan="3">Lead assessor: Virginia Polonio
Assessor(s): Robert (Bob) Allain
Gerald (Jerry) Ennis</td></tr>
<tr><td>CAB name</td><td colspan="3">SAI Global</td></tr>
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3. Introduction

This report sets out the results of the 1st surveillance audit in relation to the Sustainable Groundfish Association, Inc. certificate of the US Acadian redfish, haddock and pollock otter trawl Fishery.

To be awarded an MSC certificate for the fishery, the applicants agreed in a written contract to develop an action plan for meeting the required 'Conditions' against the performance indicators that scored below 80% in the initial assessment. An Action Plan in respect of both Conditions was submitted by the client and was approved by SAI Global as the certification body of record.

The applicant also agreed in a written contract to be financially and technically responsible for surveillance visits by an MSC accredited certification body, which would occur at a minimum of once a year, or more often at the discretion of the certification body (based on the applicant's action plan or by previous findings by the certification body from annual surveillance audits or other sources of information).

Announcement of Surveillance Audit

An announcement of the surveillance site visit was published on the MSC website on the June 15th 2018 to provide an opportunity to stakeholders to meet with or submit information on the fishery to the assessment team. Additionally, written notification was sent to the list of stakeholders representing the consultation plan during the initial assessment of this fishery and in many cases follow up mails were also made to ensure that stakeholders had been provided with sufficient opportunity to participate in consultation.

Meetings were held with the following management and scientific organizations responsible for the US Acadian Redfish, haddock and Pollock Fishery. Table 2 provides a list of the stakeholders and management organizations engaged in the process either through meetings, conference call or submission of information. These consultations focused on the questions and evidence that demonstrates the performance of the fishery throughout the year and measures that supported the fulfilment of the Conditions of Certification placed upon the SGA at the initial certification decision.

Table 2. List of stakeholders consulted during the first Surveillance audit

Stakeholder
Northeast Fisheries Science Centre (NEFSC)
NOAA Fisheries – Greater Atlantic Regional Fisheries Office (GARFO)
Sustainable Groundfish Association (SGA)-Client Group
New England Fishery Management Council (NEFMC)

A number of scientific and meeting reports were also examined by the surveillance team in producing this report, as detailed in the information sources section and briefly the list below has pointed out the most recent information reviewed by the team to conclude the results of this audit. Additional information and data considered by the team includes:

- Ground fish regulations 2018
- Multispecies regulations 2017

- NE multispecies FMP 2017
- NEFMC Approves Ground fish- FW57 (measures for 2018-2010)
- 2018 Discard estimation precision and sample size analyses for federally-managed species groups in the waters off the Northeastern US (at-sea observer information for 2018-2019)
- NOAA Discard report for 2018
- NOAA Bycatch reporting for 2017
- Stock assessments- ecosystem considerations for target species
- TMGC 2016 GB cod
- TMGC 2017 GB cod
- TRAC 2016 GB cod
- TRAC 2017 GB cod
- TRAC 2016 GB haddock
- TRAC 2017 GB haddock
- TRAC 2016 yellowtail flounder
- TRAC 2017 yellowtail flounder
- Catch reporting system and requirements –Updated October 2017
- Vessel Monitoring System (VMS) program for 2018
- Draft of FW 58- (in place May 1st 2019)
- External review requirements
- List of formal and informal document documents used in the stock assessment evaluations
- NEFMC program review ref doc 4a
- Ground fish plan development team (PDT)- drafted scope, objectives and ranges of alternatives for FW58
- NOAA Next generation stock assessment-June 2018- Summary-
- Northeastern Ground fish stock assessment –Information full assessment per species
- TRAC process overview 2017
- NEFMC list of laws
- Stakeholders (SH)involvements
- Summary table of stock status
- 2017 Management priorities after consultation
- Draft amendment 23 to northeast multispecies FMP
- Capacity of trawl in the study area
- NEFMC enforcement requirements
- SAI Global PCR 2016 US Acadian redfish, haddock and Pollock otter trawl fishery
- Acoura PCR 2018 US Gulf of Maine and Georges Bank haddock, Pollock and redfish trawl fishery
- Bycatch reports from: https://www.fisheries.noaa.gov/topic/bycatch
- FW 57- http://s3.amazonaws.com/nefmc.org/180302_Groundfish_FW57__EA_formal_sub.pdf
- https://www.fisheries.noaa.gov/insight/bycatch
- https://www.nefmc.org/management-plans/northeast-multispecies
- https://www.greateratlantic.fisheries.noaa.gov/aps/monitoring/nemultispecies.html

4. Background

The fishery under assessment was evaluated during 2015 and the beginning of 2016 under MSC CR version 1.3. Following the PCR posted on MSC website in July 2016, the UoCs described are listed in the table below (Table 3).

Table 3. Unit of certifications (UoCs) defined in the full assessment and evaluated during the surveillance audit

UoC 1 Acadian Redfish	
Species	**Acadian Redfish** (*Sebastes fasciatus)*
Geographical Area	NW Atlantic, US EEZ (Gulf of Maine, Georges Bank)
Stock	NW Atlantic, US EEZ (Gulf of Maine, Georges Bank)
Method of capture	Otter Trawl
Management system	NMFS/NEFMC
Client Group	Sustainable Groundfish Association, Inc.
UoC 2 Pollock	
Species	**Pollock** (*Pollachius virens)*
Geographical Area	NW Atlantic, US EEZ (Gulf of Maine, Georges Bank)
Stock	NW Atlantic, US EEZ (Gulf of Maine, Georges Bank)
Method of capture	Otter Trawl
Management system	NMFS/NEFMC
Client Group	Sustainable Groundfish Association, Inc.
UoC 3 GOM Haddock	
Species	**Haddock** (*Melanogrammus aeglefinus*)
Geographical Area	NW Atlantic, US EEZ (Gulf of Maine)
Stock	**Haddock** NW Atlantic, US EEZ, Gulf of Maine
Method of capture	Otter Trawl
Management system	NMFS/NEFMC
Client Group	Sustainable Groundfish Association, Inc.
UoC 4 GB Haddock	
Species	**Haddock** (*Melanogrammus aeglefinus*)
Geographical Area	NW Atlantic, US EEZ (Georges Bank)
Stock	**Haddock** NW Atlantic, US EEZ, Georges Bank
Method of capture	Otter Trawl
Management system	NMFS/NEFMC
Client Group	Sustainable Groundfish Association, Inc.

During the surveillance audit and site visits, the assessment team noted several changes to the fishery's management regime and associated policies. These are presented in Sections 4.3 and 4.4 of the report.

The UoCs are still defined as in the full assessment. The Client group has been revised and now includes 2 companies that are named to the certificate:

- Cape Ann Seafood Exchange, Inc.
- Atlantic Coast Seafood, Inc

Around 2,472 vessels have w/a multispecies permits as found at NOAA GARFO in the followed link: list of vessels. However while all of them are considered in the study as eligible fishers which can share the certificate

with the client group, only the otter trawl vessels that commercialise their product through the client group companies can carry on the MSC ecolabel and are included in the certificate.

4.1. Fishery Observations

In the MSC assessment of US Acadian redfish, haddock and Pollock otter trawl fishery, consideration of stocks status was based on the 2015 assessments, which included data to 2014. This first surveillance audit updates stock status to 2016 based on the 2017 stocks assessments.

4.1.1. TAC and Catch

Table 4 and bis provides a summary of 2017 catches against ACLs reported by NOAA for the four UoCs (target species/stocks) as well as the key retained and bycatch species. The information was provided by NEFMC quota monitoring quota report run Aug 31, 2018 for Quota Period dates May 1, 2017 to April 30, 2018.

Table 4. TAC and summary of catches of Sector and Common Pool in 2017 in the multispecies fisheries (source: NEFMC). Note that UoA = UoC, meaning there are no other eligible fishers.

TAC redfish	**Year**	2017	**Amount**	**10,182.60 mt**
TAC haddock GOM	**Year**	2017	**Amount**	**3,017.30 mt**
TAC haddock GB	**Year**	2017	**Amount**	**52,619.60 mt**
TAC pollock	**Year**	2017	**Amount**	**17,816.80 mt**
UoA/UoC share of TAC redfish	**Year**	2017	**Amount**	**10,182.60 mt**
UoA/UoC share of TAC haddock GOM	**Year**	2017	**Amount**	**3,017.30 mt**
UoA/UoC share of TAC haddock GB	**Year**	2017	**Amount**	**52,619.60 mt**
UoA/UoC share of TAC pollock	**Year**	2017	**Amount**	**17,816.80 mt**
Total green weight catch by UoC redfish	**Year**	2017	**Amount**	**4,647.5 mt**
Total green weight catch by UoC haddock GOM	**Year**	2017	**Amount**	**2,265.0 mt**
Total green weight catch by UoC haddock GB	**Year**	2017	**Amount**	**4,090.5 mt**
Total green weight catch by UoC pollock	**Year**	2017	**Amount**	**3,008.5 mt**

4.1.2. Acadian redfish (UoA) stock status

The 2016 total catch was 3,925 t. In 2017 the ACL was 10,182.60 mt and the estimated total catch 4,647 t (Figure 1). The percent of cacth in 2017 was 45.6%.

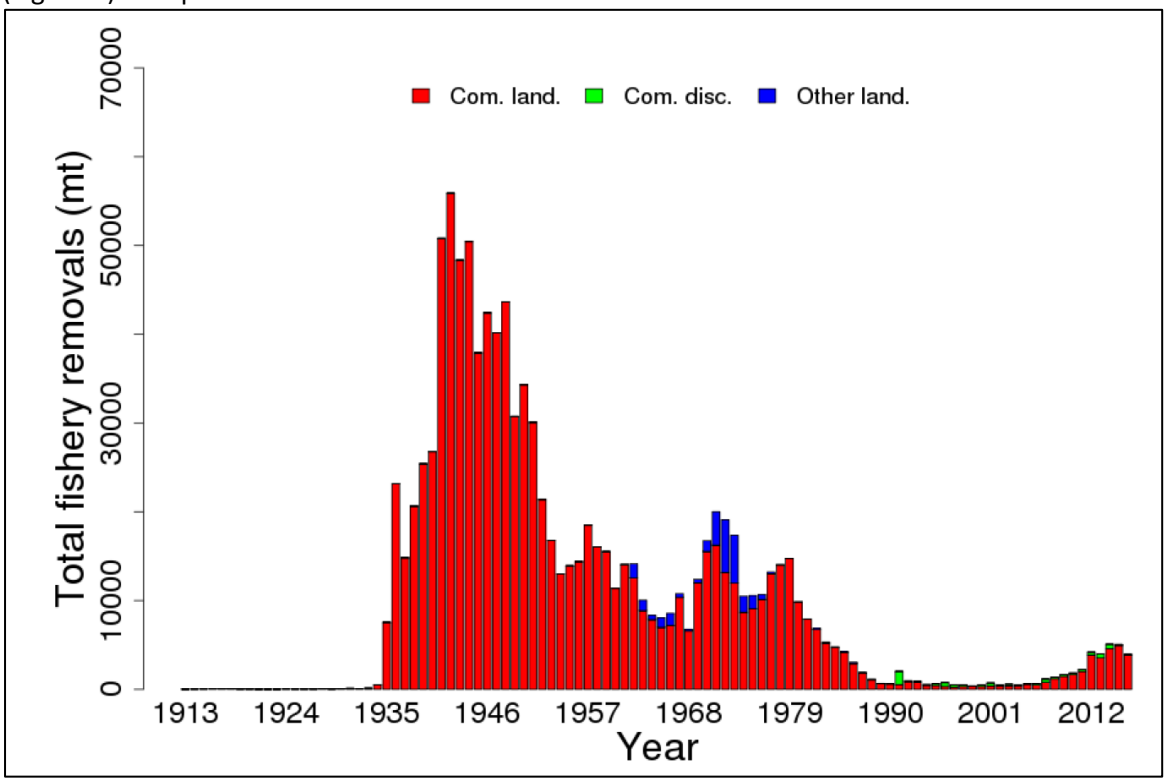


Figure 1. Total catch of Acadian redfish between 1913 and 2016 by fleet (commercial and other) and disposition (landings and discards). Source: NEFSC-NOAA

Based on the 2017 assessment, the Acadian redfish (*Sebastes fasciatus*) stock is not overfished and overfishing is not occurring (Figure 2 and Figure 3). Retrospective adjusted spawning stock biomass (SSB) in 2016 was estimated to be 359,970 t which is 145% of the biomass target (SSB_{MSY} proxy of SSB at $F_{50\%}$) (Figure 2). The retrospective adjusted 2016 fully selected fishing mortality (F) was estimated to be 0.011 (cf. 0.15 in 2014) which is 29% of the overfishing threshold (F_{MSY} proxy of $F_{50\%}$) (Figure 3).

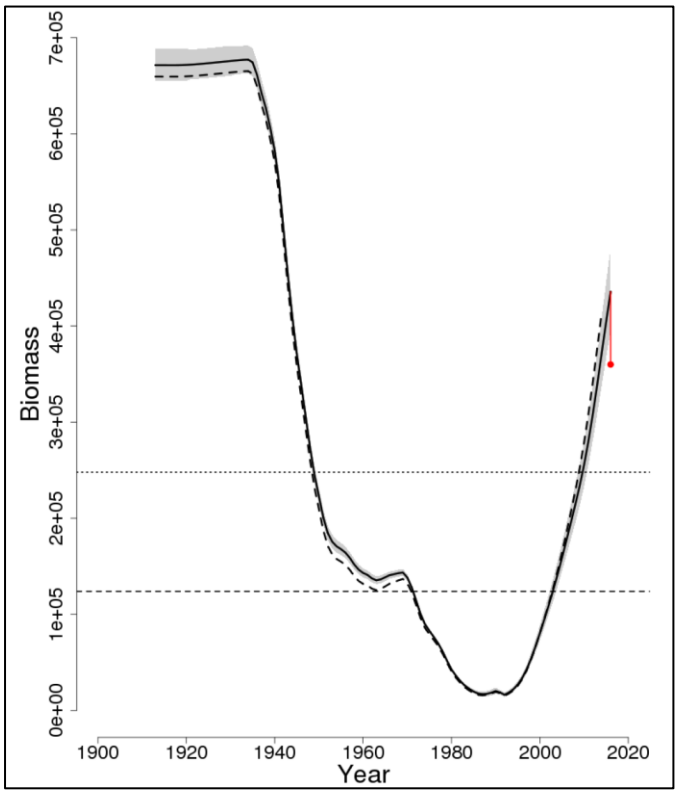


Figure 2. Trends in spawning stock biomass of Acadian redfish between 1913 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $SSB_{Threshold}$ (0.5 * SSB_{MSY} proxy; horizontal dashed line) as well as SSB (SSB_{MSY} proxy; horizontal dotted line) based on the 2017 assessment. The 2016 biomass was adjusted for a retrospective pattern and the adjustment is shown in red. The approximate 90% lognormal confidence intervals are shown. Source: NEFSC-NOAA

The table below shows the catch and status for Acadian redfish. All weights are in tones, and F_{Full} is the fishing mortality on fully selected ages. Unadjusted SSB and F estimates are reported. Model results are from the current updated ASAP assessment (Table 5).

Table 5. Data for Acadian Redfish from 2009 to 2016. All weights are in tones, and FFull is the fishing mortality on fully selected ages. Unadjusted SSB and F estimates are reported. Model results are from the current updated ASAP assessment. Source: NOAA Fisheries

	2009	2010	2011	2012	2013	2014	2015	2016
				Data				
Commercial landings	1,461	1,644	2,015	3,848	3,544	4,574	4,930	3,889
Commercial discards	202	206	212	341	422	509	110	36
Catch for Assessment	1,663	1,850	2,227	4,189	3,966	5,083	5,040	3,925
				Model Results				
Spawning Stock Biomass	233,719	255,536	280,625	308,901	339,804	372,523	404,690	435,852
F_{Full}	0.007	0.007	0.008	0.015	0.012	0.014	0.013	0.009
Recruits (age 1)	184,196	40,650	45,719	49,695	56,379	145,953	94,951	79,711

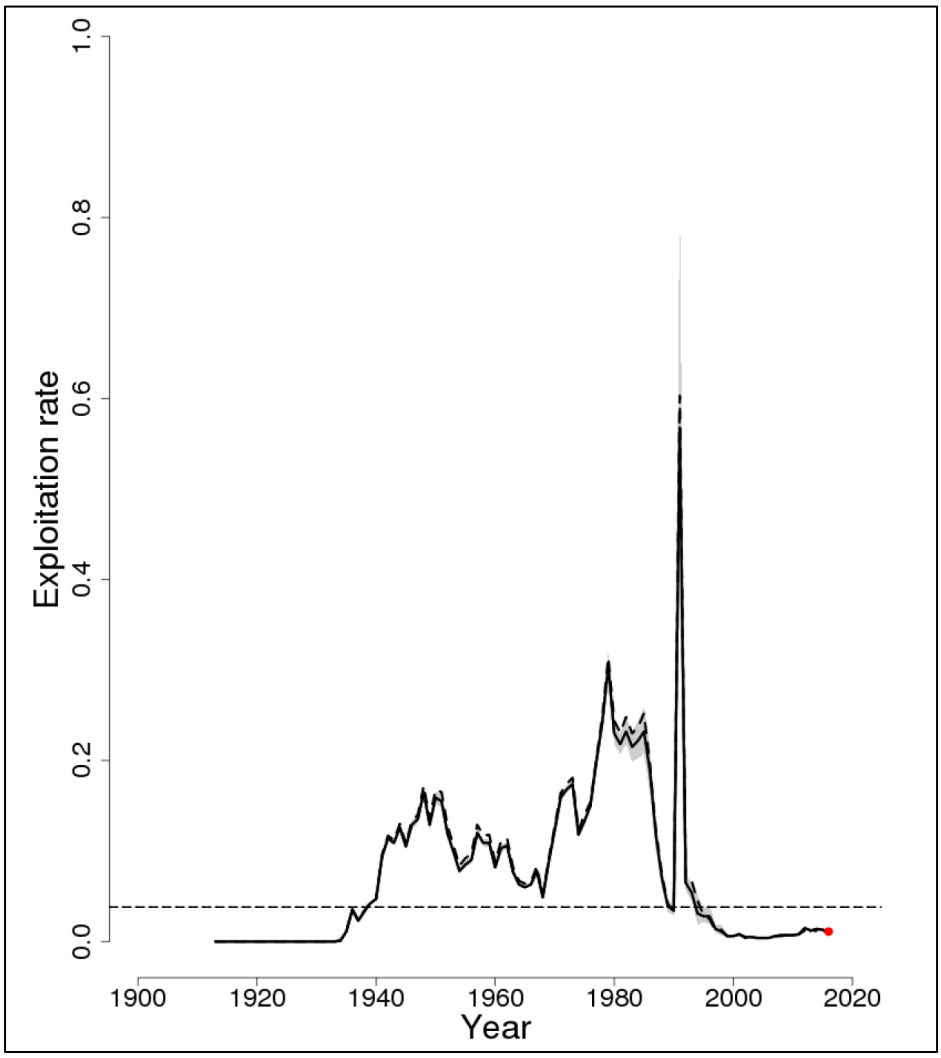


Figure 3. Trends in the fully selected fishing mortality (F_{Full}) of Acadian redfish between 1913 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $F_{Threshold}$ (F_{MSY} proxy=0.038; horizontal dashed line) based on the 2017 assessment. The 2016 F_{Full} was adjusted for a retrospective pattern and the adjustment is shown in red. The approximate 90% lognormal confidence intervals are shown. Source: NEFSC-NOAA

Short term projections of median total fishery yield and spawning stock biomass for Acadian redfish were conducted based on a harvest scenario of fishing at the F_{MSY} proxy between 2018 and 2020. Catch in 2017 has been estimated at 4,630 t. Recruitments were sampled from a cumulative distribution function derived from ASAP estimated age 1 recruitment between 1969 and 2014. The annual fishery selectivity, natural mortality, maturity ogive, and mean weights used in projections are the same as those used in the assessment model. Retrospective adjusted SSB and fully selected F in 2016 fell outside the 90% confidence intervals of the unadjusted 2016 values. Therefore, age-specific abundance rho values were applied to the initial numbers at age in the projections (Table 6).

Table 6. Retrospective adjusted short term projections of median total fishery yield and spawning stock biomass for Acadian redfish based on a harvest scenario of fishing at an F_{MSY} proxy of $F_{50\%}$ between 2018 and 2020. Catch in 2017 has been estimated at 4,630 t. F_{Full} is the fully selected F. Source: NEFSC-NOAA

Year	Catch (mt)	SSB (mt)	F_{Full}
2017	4,630	382,980	0.012

Year	Catch (mt)	SSB (mt)	F_{Full}
2018	15,451	400,038	0.038
2019	15,614	406,382	0.038
2020	15,677	410,365	0.038

4.1.3. Atlantic pollock (UoA 2) stock status

The 2016 total catch was 3,676t (Figure 4). In 2017 the ACL was 17,816.80 mt and the estimated total catch 3,008.5 t. The percent of cacth in 2017 was 16.9%.

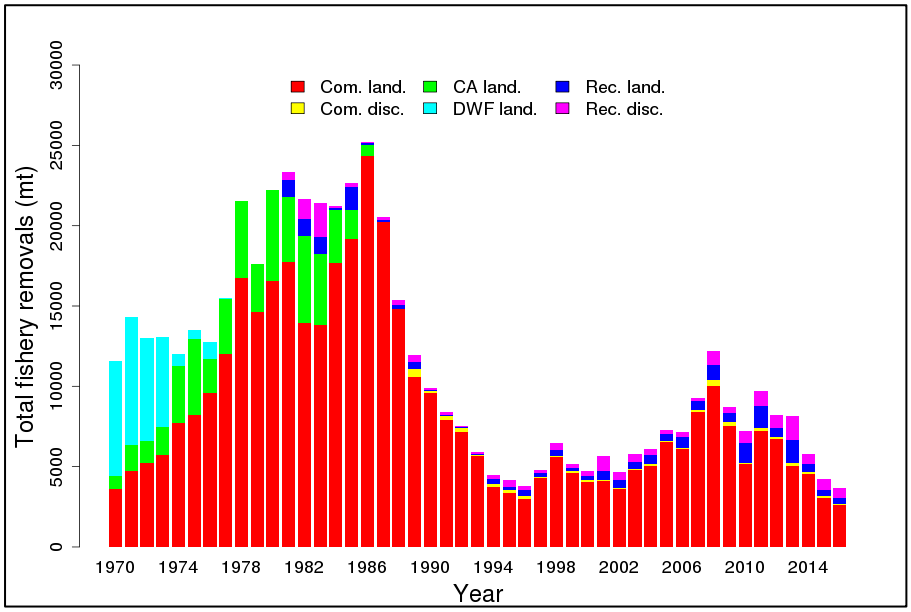


Figure 4. Total catch of pollock between 1970 and 2016 by fleet (commercial, Canadian, distant water fleet, and recreational) and disposition (landings and discards). Source: NEFSC-NOAA

Based on the 2017 assessment, the pollock (*Pollachius virens*) stock is not overfished and overfishing is not occurring (Figure 5 and Figure 7). Retrospective adjustments were made to the model results. Retrospective adjusted spawning stock biomass (SSB) in 2016 was estimated to be 183,907 t under the base model and 72,889 t under the flat sel sensitivity model (174 and 120% respectively of the biomass target), an SSB_{MSY} proxy of SSB at $F_{40\%}$ (Figure 5). Retrospective adjusted 2016 age 5 to 7 average fishing mortality (F) was estimated to be 0.036 under the base model and 0.079 under the flat sel sensitivity model (14 and 32% respectively of the overfishing threshold), an F_{MSY} proxy of $F_{40\%}$ (Figure 7).

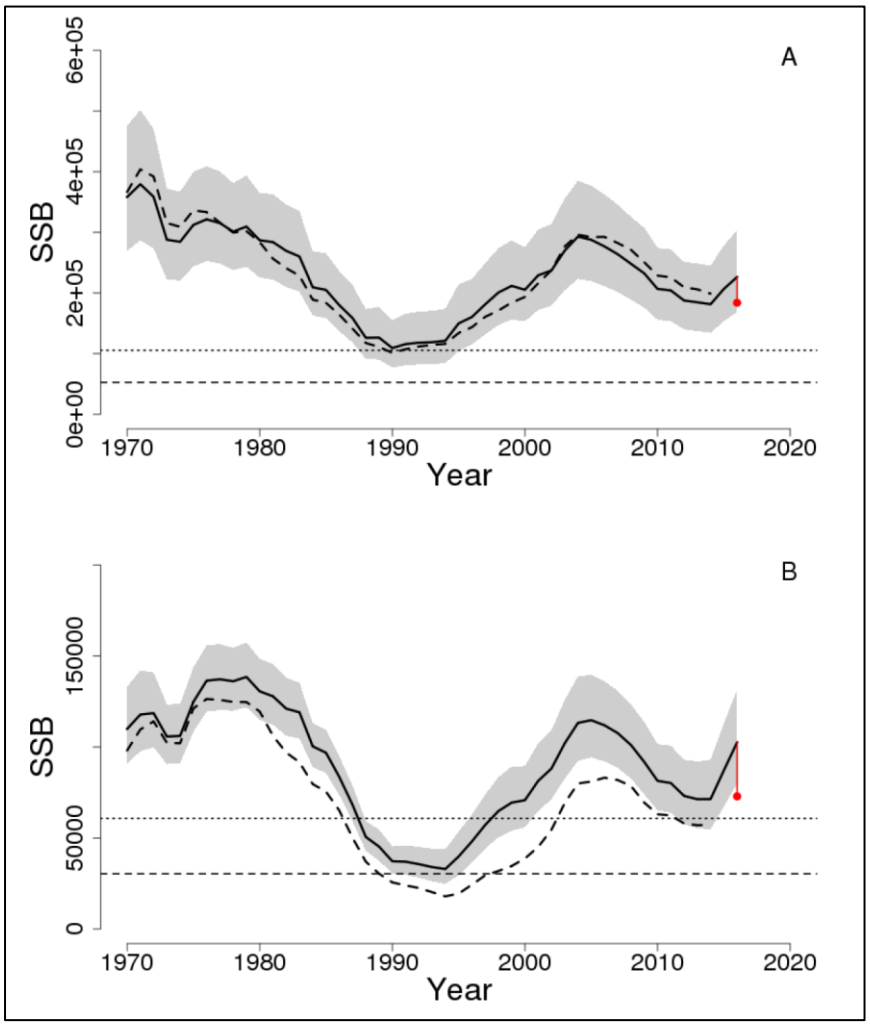


Figure 6. Estimated trends in the spawning stock biomass of pollock between 1970 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $SSB_{Threshold}$ (0.5 * SSB_{MSY} proxy; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} proxy; horizontal dotted line) based on the 2017 assessment models base (A) and at sel sensitivity (B). The 2016 biomass was adjusted for a retrospective pattern and the adjustment is shown in red. The approximate 90% lognormal confidence intervals are shown. Source: NEFSC-NOAA

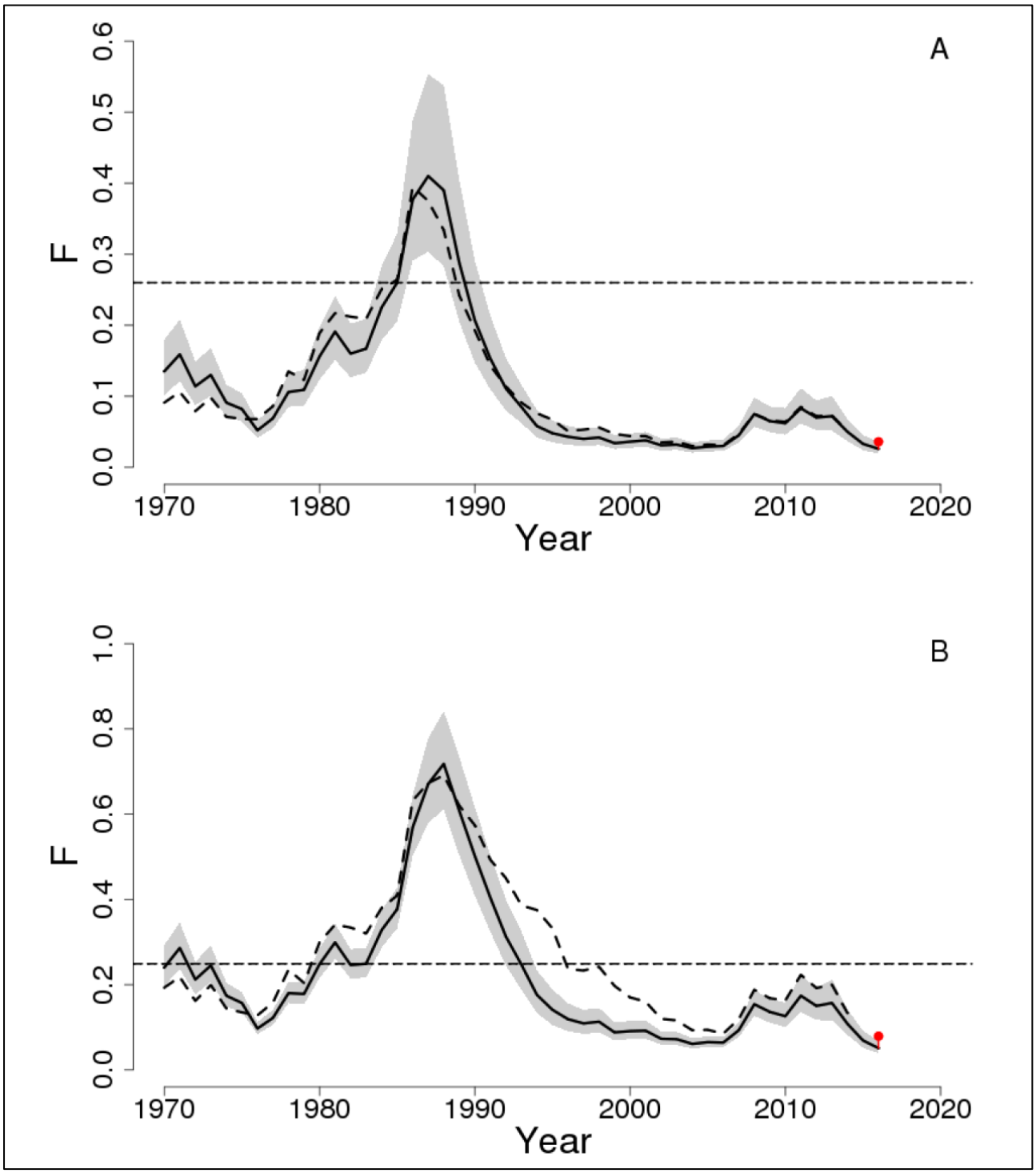


Figure 7. Estimated trends in age 5 to 7 average F (F_{AVG}) of pollock between 1970 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $F_{Threshold}$ (F_{MSY} proxy; dashed line) based on the 2017 assessment models base (A) and at sel sensitivity (B). The 2016 F_{AVG} was adjusted for a retrospective pattern and the adjustment is shown in red. The approximate 90% lognormal confidence intervals are shown. Source: NEFSC-NOAA

Table 7 shows the 2009 to 2016 catch and population model estimates for pollock.

Table 7. Catch and status table for pollock. All weights are in t, recruitment is in (000s), and F_{AVG} is the age 5 to 7 average F. Unadjusted SSB and F estimates are reported. Results are from the current base and flat sel sensitivity models. Source: NEFSC-NOAA

	2009	2010	2011	2012	2013	2014	2015	2016
				Data				
Commercial landings	7,504	5,153	7,211	6,742	5,058	4,545	3,043	2,582
Commercial discards	282	99	176	121	169	135	155	96
Recreational landings	551	1,202	1,411	544	1,404	458	324	352
Recreational discards	399	762	937	836	1,534	639	690	646
Catch for Assessment	8,735	7,217	9,736	8,243	8,164	5,777	4,212	3,676
				Model Results (base)				
Spawning Stock Biomass	232340	206689	204222	187597	184690	181430	206701	226371
F_{AVG}	0.065	0.062	0.083	0.07	0.072	0.05	0.033	0.026
Recruits *age*1	14285	23335	35624	60593	46443	103664	43328	20065
				Model Results (flat sel sensitivity)				
Spawning Stock Biomass	91786	81413	80219	73151	71337	71400	87152	102571
F_{AVG}	0.136	0.126	0.174	0.15	0.157	0.108	0.069	0.051
Recruits *age*1	7994	13105	20282	34744	26876	60273	25391	12000

Short term projections of median total fishery yield and spawning stock biomass for pollock were conducted based on a harvest scenario of fishing at an FMSY proxy of F40% between 2018 and 2020. Catch in 2017 has been estimated at 4,296 t. Recruitments were sampled from a cumulative distribution function derived from ASAP estimated age 1 recruitment between 1970 and 2014. Recruitments in 2015 and 2016 were not included due to uncertainty in those estimates. The annual fishery selectivity, natural mortality, maturity ogive, and mean weights used in projections are the most recent 5 year averages. Retrospective adjusted age 5 to 7 average F in 2016 fell outside the 90% confidence intervals of the unadjusted 2016 value under the base model. Retrospective adjusted SSB and age 5 to 7 average F in 2016 fell outside the 90% confidence intervals of the unadjusted 2016 values under the at sel sensitivity model. Therefore, age-specific abundance rho values were applied to the initial numbers at age in the projections for the base model and the at sel sensitivity model (Table 8).

Table 8. Retrospective adjusted short term projections of median total fishery yield and spawning stock biomass for pollock from the current base model and at sel sensitivity model based on a harvest scenario of fishing at an FMSY proxy of F40% between 2018 and 2020. Catch in 2017 has been estimated at 4,296 t. FAV G is the age 5 to 7 average F. Source: NEFSC-NOAA

Year	Catch (mt)	SSB (mt)	F_{AVG}	Catch (mt)	SSB (mt)	F_{AVG}
		base			*flat sel sensitivity*	
2017	4,296	243,345	0.025	4,296	100,184	0.056

Year	Catch (mt)	SSB (mt)	F_{AVG}	Catch (mt)	SSB (mt)	F_{AVG}
		base			*flat sel sensitivity*	
2018	51,680	286,640	0.260	23,408	121,667	0.249
2019	51,216	267,301	0.260	24,167	117,037	0.249
2020	52,269	236,653	0.260	25,974	105,719	0.249

4.1.4. Gulf of Maine haddock (UoA 3) stock status

The 2016 total catch was 2,313 t (Figure 8). In 2017 the ACL was 3,017.30 mt and the estimated total catch 2,265.0 t. The percent of cacth in 2017 was 75.1 %.

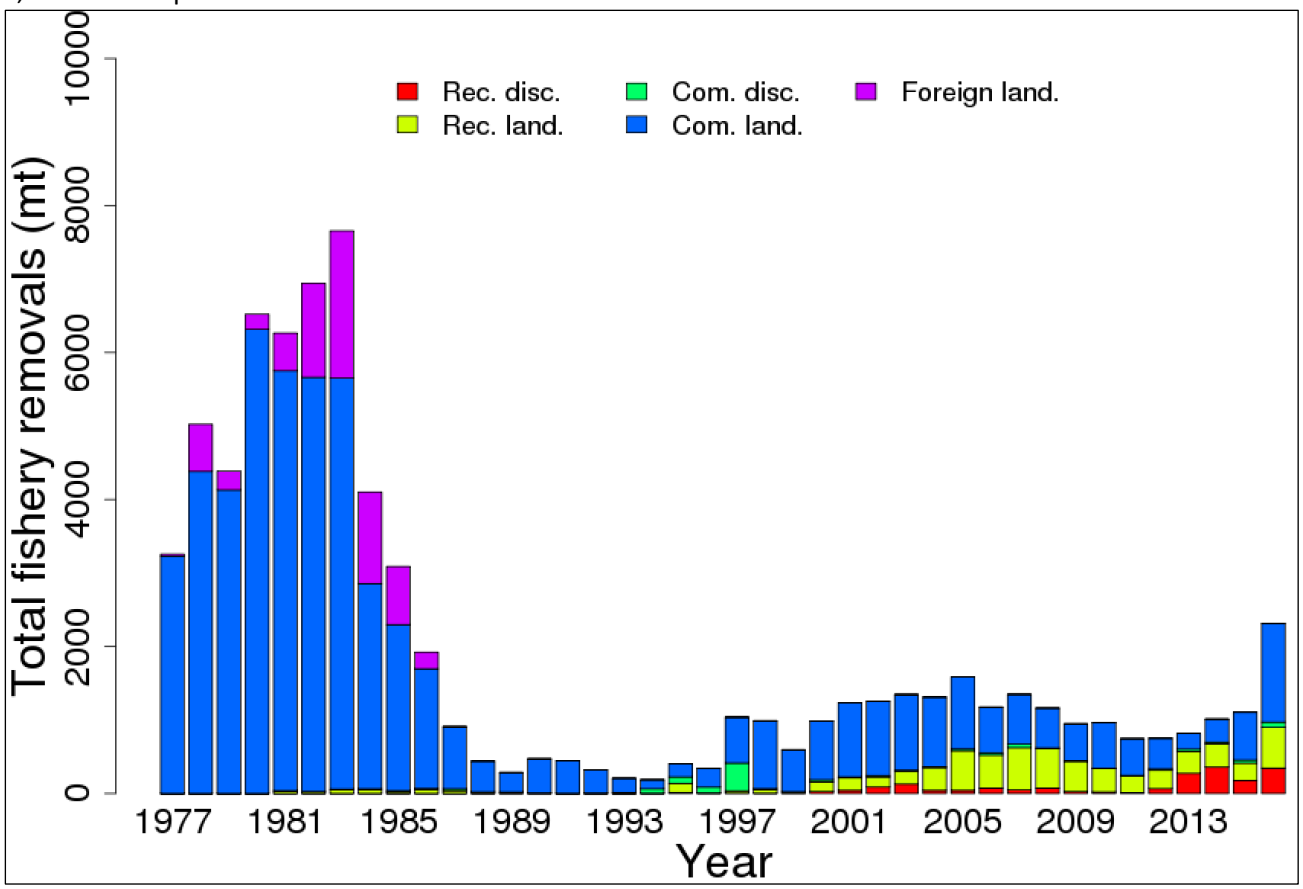


Figure 8. Total catch of Gulf of Maine haddock between 1977 and 2016 by fleet (commercial, recreational, or foreign) and disposition (landings and discards). Source: NEFSC-NOAA

Based on the 2017 assessment, the Gulf of Maine haddock (*Melanogrammus aeglefinus*) stock is not overfished and overfishing is not occurring (Figures 8 and 9). Retrospective adjustments were not made to the model results. Spawning stock biomass (SSB) in 2016 was estimated to be 47,821 t which is 706% of the SSB_{MSY} proxy (Figure 8). The 2016 fully selected fishing mortality was estimated to be 0.137 which is 30% of the overfishing threshold (F_{MSY} proxy = $F_{40\%}$ Figure 9).

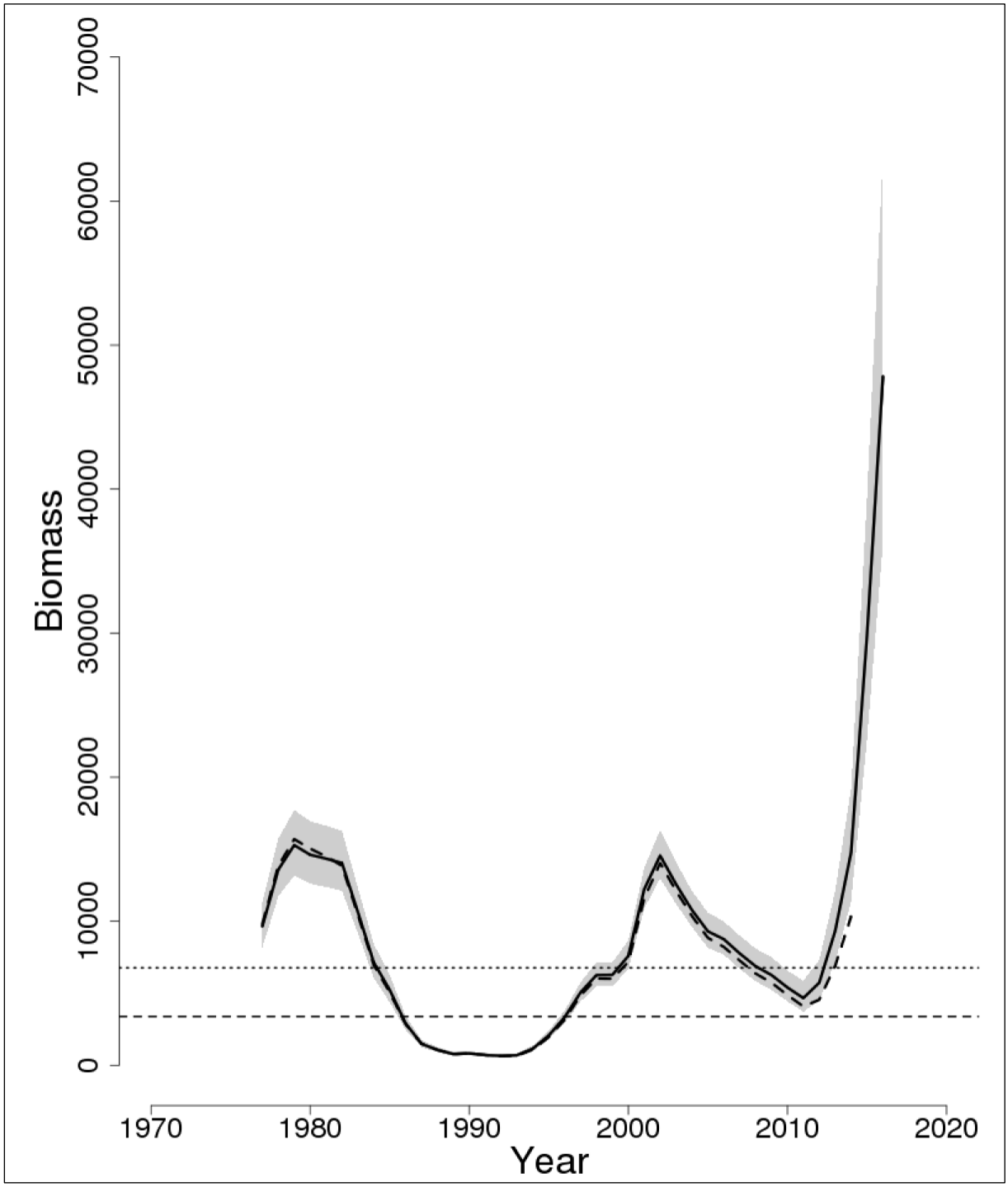


Figure 9. Trends in spawning stock biomass (SSB) of Gulf of Maine haddock between 1977 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $SSB_{Threshold}$ (horizontal dashed line) and SSB_{Target} (horizontal dotted line) based on the 2017 assessment. The approximate 90% lognormal confidence intervals are shown. Source: NEFSC-NOAA

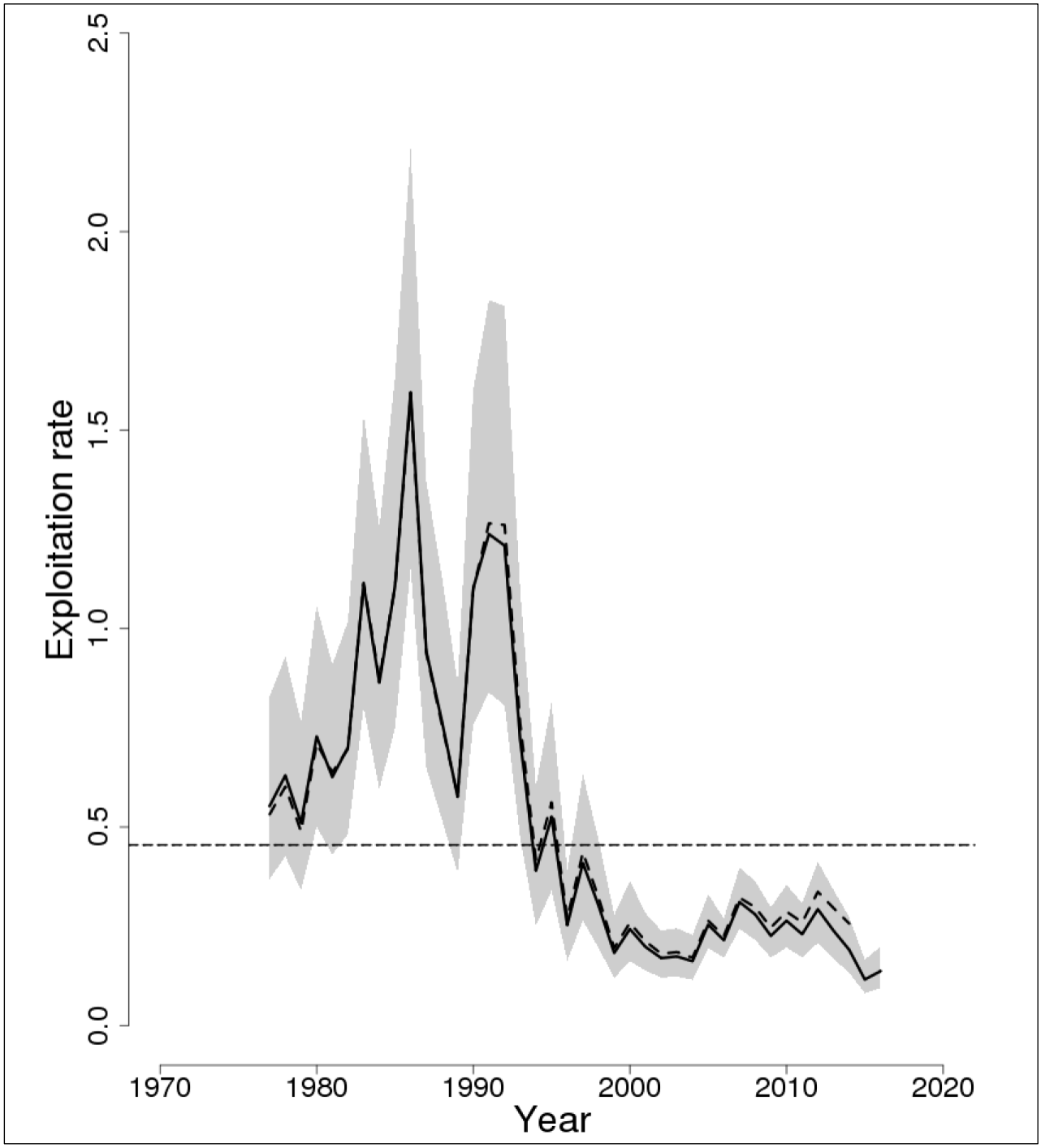


Figure 10. Trends in the fully selected fishing mortality (F) of Gulf of Maine haddock between 1977 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $F_{Threshold}$ (horizontal dashed line) from the 2017 assessment model. The approximate 90% lognormal confidence intervals are shown. Source: NEFSC-NOAA

Table 9 shows the 2009 to 2016 catch and population model estimates for Gulf of Maine haddock.

Table 9. Catch and status table for Gulf of Maine haddock. All weights are in t, recruitment is in (000s) and F_{Full} is the fully selected fishing mortality. Model results are from the current updated ASAP assessment. Source: NEFSC-NOAA

	2009	2010	2011	2012	2013	2014	2015	2016
				Data				
Recreational discards	27	20	11	66	273	359	176	345
Recreational landings	409	320	230	250	298	317	238	554
Commercial discards	12	3	6	18	32	22	42	72
Commercial landings	500	623	499	417	212	314	650	1,342
Foreign landings	0	0	0	0	0	0	0	0
Catch for Assessment	948	966	745	751	816	1,012	1,106	2,313
				Model Results				
Spawning Stock Biomass	6,263	5,401	4,667	5,733	9,325	14,775	29,833	47,821
F_{Full}	0.226	0.264	0.23	0.293	0.239	0.191	0.116	0.137
Recruits (age 1)	519	1,590	15,858	5,496	25,080	93,341	4,724	3,638

Short term projections of median total fishery yield and spawning stock biomass for Gulf of Maine haddock were conducted based on a harvest scenario of fishing at the F_{MSY} proxy between 2018 and 2020. Catch in 2017 has been estimated at 2,306 t. Recruitment was sampled from a cumulative distribution function of model estimated age-1 recruitment from 1977-2014. The age-1 estimate in 2017 was generated from the geometric mean of the 1977-2016 recruitment series. The annual fishery selectivity, maturity ogive, and mean weights at age used in the projections were estimated from the most recent 5 year averages; retrospective adjustments were not applied in the projections (Table 10).

Table 10. Short term projections of total fishery catch and spawning stock biomass for Gulf of Maine haddock based on a harvest scenario of fishing at F_{MSY} proxy ($F_{40\%}$) between 2018 and 2020. Catch in 2017 was assumed to be 2,306 t. Source: NEFSC-NOAA

Year	Catch (mt)	SSB (mt)	F_{Full}
2017	2,306	68,429	0.077

Year	Catch (mt)	SSB (mt)	F_{Full}
2018	16,954	65,130	0.455
2019	15,023	49,069	0.455
2020	11,289	34,123	0.455

4.1.5. Georges Bank haddock (UoA 4) stock status

The 2016 total catch was 17,274 t (Figure 10). In 2017 the ACL was 52,619.60 mt and the estimated total catch 4,090.5 t. The percent of cacth in 2017 was 7.8%.

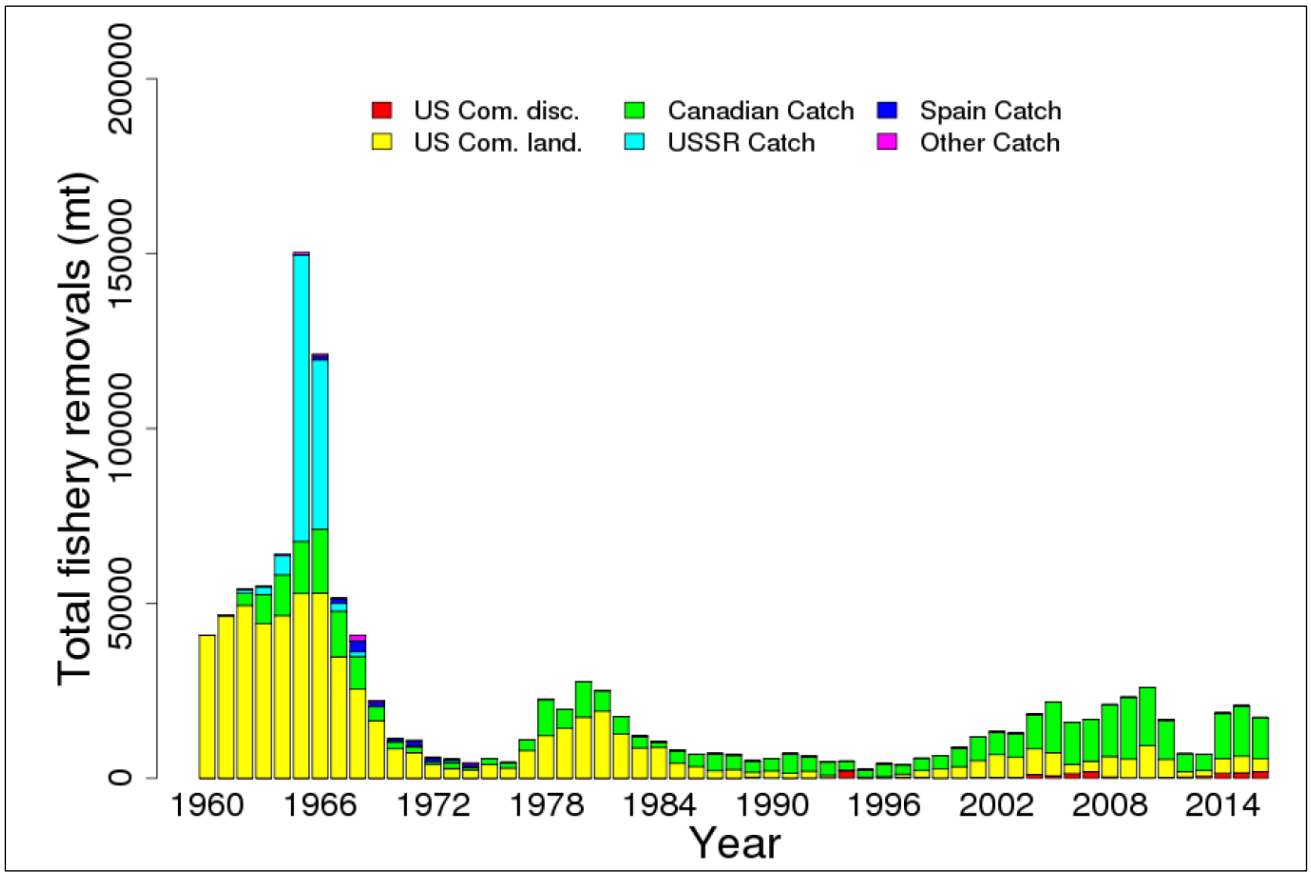


Figure 11. Total catch of Georges Bank haddock between 1931 and 2016 by fleet (US Commercial, Canadian, or foreign) and disposition (landings and discards). Source: NEFSC-NOAA

Based on the 2017, the Georges Bank haddock (*Melanogrammus aeglefinus*) stock is not overfished, and overfishing is not occurring (Figure 12 and Figure 13). Retrospective adjustments were made to the model results. Spawning stock biomass (SSB) in 2016 was estimated to be 290,324 t which is 278% of the biomass target (SSB_{MSY} proxy, Figure 12). The 2016 numbers weighted average fishing mortality on ages 5-7 was estimated to be 0.309 which is 88% of the overfishing threshold (F_{MSY} proxy, Figure 13). The F_{MSY} proxy is expressed as a numbers weighted average F on ages 5-7 for comparability with the VPA estimated F.

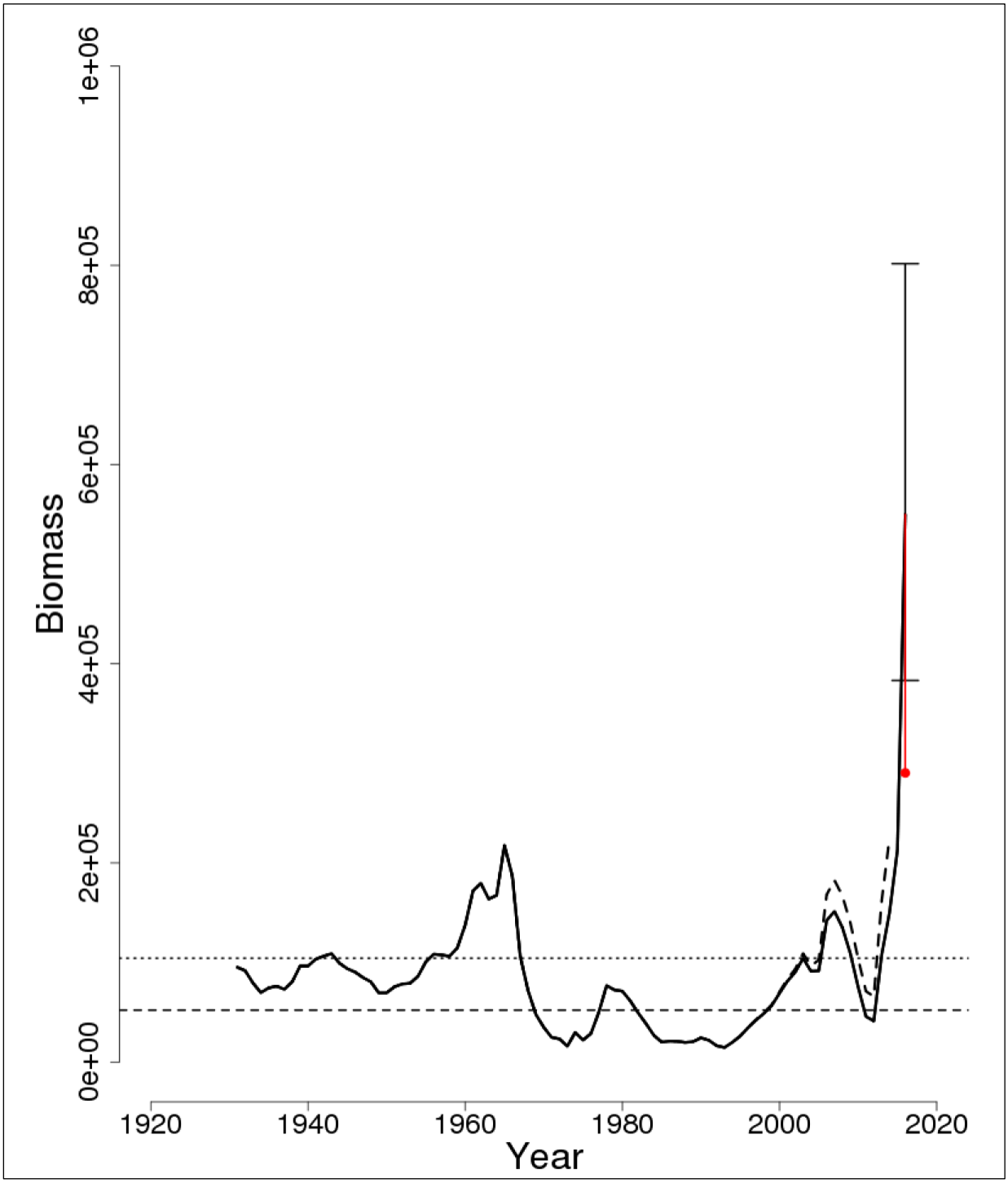


Figure 12. Trends in spawning stock biomass of Georges Bank haddock between 1931 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $SSB_{Threshold}$ (horizontal dashed line) as well as SSB_{Target} (horizontal dotted line) based on the 2015 assessment. The 2016 biomass was adjusted for a retrospective pattern and the adjustment is shown in red. The 90% bootstrap probability intervals are shown. Source: NEFSC-NOAA

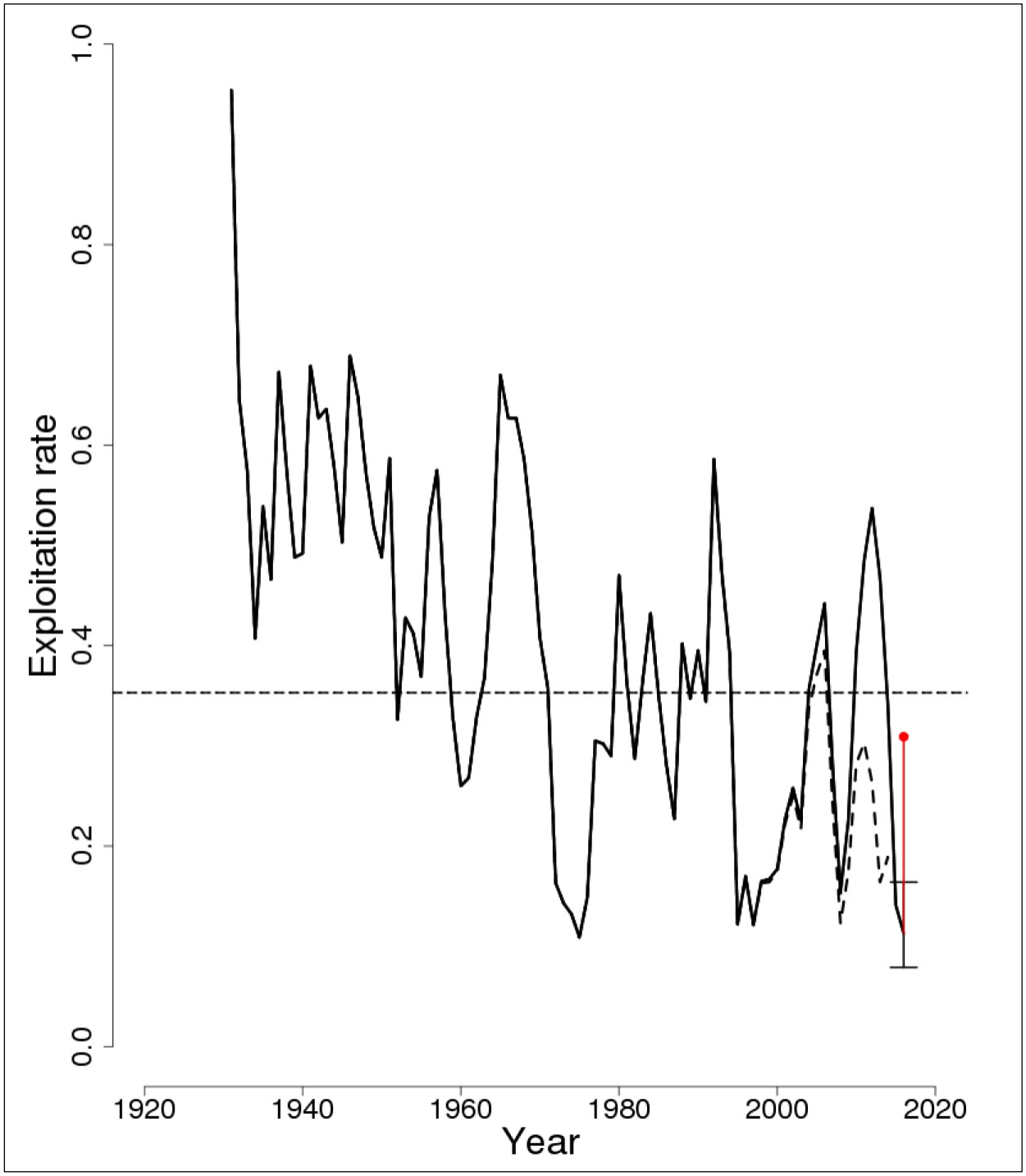


Figure 13. Trends in the numbers weighted fishing mortality (average $F_{5\text{-}7}$) of Georges Bank haddock between 1931 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $F_{Threshold}$ (horizontal dashed line) based on the 2015 assessment. The 2016 average $F_{5\text{-}7}$ was adjusted for a retrospective pattern and the adjustment is shown in red. The 90% bootstrap probability intervals are shown. Source: NEFSC-NOAA

Table 11 shows the 2009 to 2016 catch and population model estimates for George Bank haddock.

Table 11. Catch and status table for Georges Bank haddock. All weights are in t, recruitment is in (2000s), and average F_{5-7} is the numbers weighted average fishing mortality on ages 5 to 7. Model results are from the current updated VPA assessment. A rho adjustment was not applied to values in this table. Source: NEFSC-NOAA

	2009	2010	2011	2012	2013	2014	2015	2016
			Data					
US Commercial discards	142	130	212	321	538	1,409	1,552	1,880
US Commercial landings	5,335	9,180	5,210	1,550	1,659	4,240	4,762	3,682
Canadian Catch	17,648	16,592	11,248	5,064	4,631	12,953	14,374	11,713
Catch for Assessment	23,126	25,903	16,670	6,935	6,828	18,601	20,687	17,274
			Model Results					
Spawning Stock Biomass	109,334	75,519	45,732	41,227	107,671	150,185	212,734	549,938
$\bar{F}_{5-7}$	0.226	0.394	0.485	0.537	0.468	0.34	0.141	0.113
Recruits (age 1)	1,773	6,366	278,296	41,319	23,598	1,839,273	48,629	88,436

Short term projections of biomass were derived by sampling from a cumulative distribution function (cdf) of recruitment estimates from ADAPT VPA (corresponding to SSB>75,000 t and dropping the two most recent year class estimates for 2015 and 2016). The extremely large 1963, 2003, 2010, and 2013 year classes were included in the cdf. The annual fishery selectivity was a recent 5 year average. Selectivity for the 2013 year class was not assigned the same selectivity at age as the 2010 year class, because the projected selectivity at ages 5 and 6 (in years 2018 and 2019) appeared unreasonably low. The maturity ogive was a recent 5 year average. Mean weights at age were a recent 2 year average, except for the 2010 and 2013 year classes, where recent trends in growth were assumed to continue. Retrospective adjustments were applied to the starting numbers at age (2017) in the projections (Table 12).

Table 12. Short term projections of total fishery catch and spawning stock biomass for Georges Bank haddock based on a harvest scenario of fishing at FMSY proxy between 2018 and 2020. Catch in 2017 was assumed to be 18,920 t. Source: NEFSC-NOAA

Year	Catch (mt)	SSB (mt)	$\bar{F}_{5-7}$
2017	18,920	308,304 (214,535 - 454,442)	0.140 (0.098 - 0.197)

Year	Catch (mt)	SSB (mt)	$\bar{F}_{5-7}$
2018	94,274 (64,109 - 141,160)	324,547 (220,458 - 481,224)	0.414
2019	93,569 (62,519 - 138,829)	329,516 (221,969 - 487,070)	0.414
2020	85,292 (57,025 - 127,046)	246,774 (163,125 - 382,012)	0.414

4.2. Additional Information from Site Visit Meetings

Some information not detailed in the original MSC assessment was obtained during the July 16-18, 2018 site visit meetings and is provided here to clarify certain aspects of the stock assessments and for follow-up during future audits and reassessment.

Operational assessments for the stocks under consideration are currently carried out at 2-year intervals. These generate new estimates for reference points that result from the addition of data for the two years since the last assessment as well as slight modifications to the modelling that are described in the report for each stock assessment. Major changes to models are only done as part of benchmark assessments which were last done in 2008 (Redfish and Georges Bank Haddock), in 2010 (Pollock) and in 2014 (Gulf of Maine Haddock). With each assessment, a new, model-generated time series of trends in SSB and a new B_{MSY} proxy are provided

along with a new F_{MSY} proxy (based on F at 40% or 50% of maximum spawning potential) from a yield per recruit analysis.

The terminal year in an assessment is adjusted for a retrospective pattern. Retrospective adjusted short term projections of fishery yield and spawning stock biomass based on a F_{MSY} proxy harvest scenario and assumptions regarding catch levels in intervening years are provided using the NEFSC AGEPRO projection model. These projections provide the basis for annual ACL calculations until the next assessment.

In the MSC assessment of these fisheries, only three of the P1 scoring issues did not meet the SG 100 requirements. Each of these focused on sources of uncertainty. During the site visit meetings, clarification regarding certain aspects of dealing with uncertainty were pursued. The initial step in the calculation of the ACL (i.e. TAC) is to multiply the projected OFL (B_{MSY} proxy) by 75% of the F_{MSY} proxy to determine the ABC (see schematic below, Figure 14).

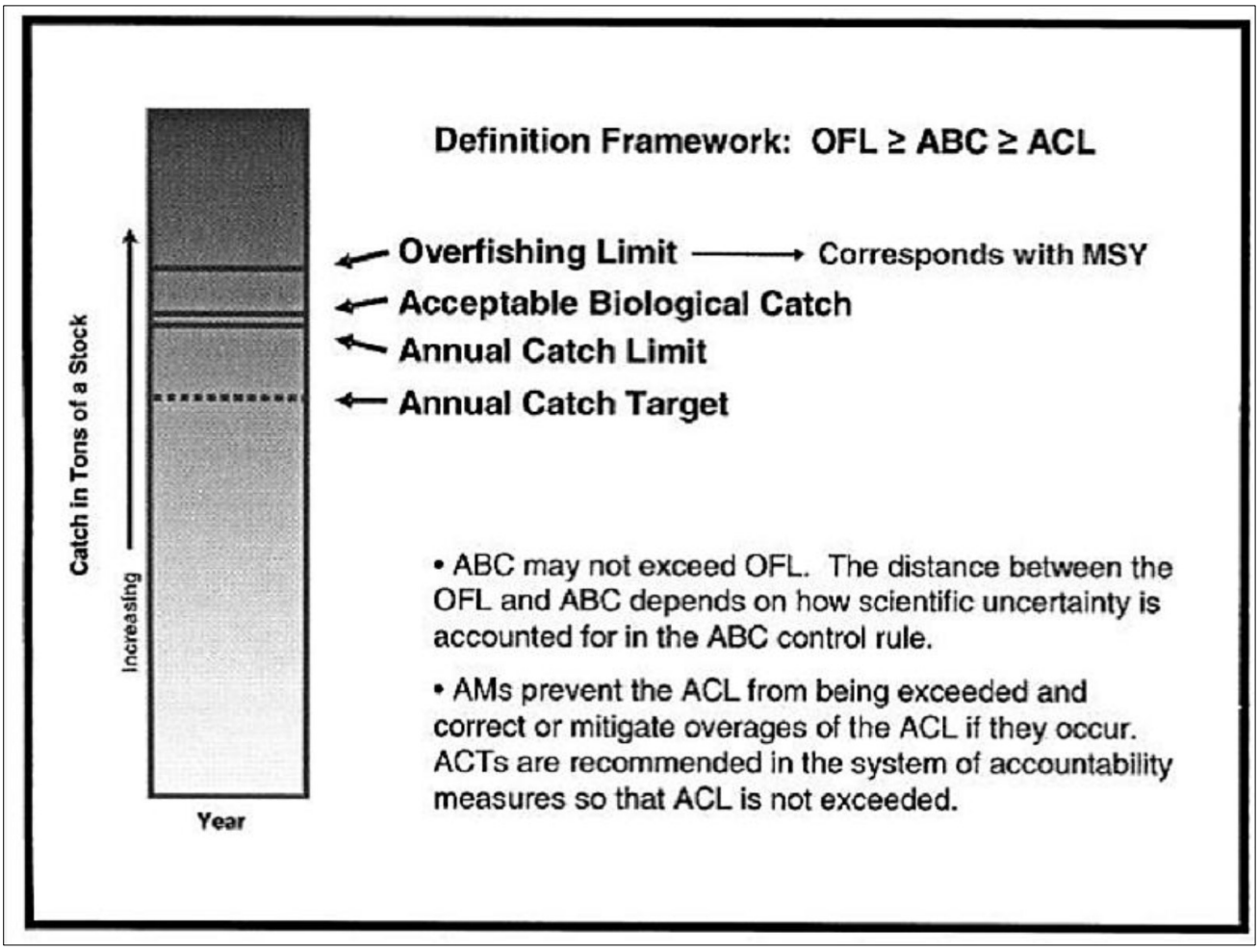


Figure 14. Calculation of reference points OFl, ABC and ACl. Source: Framework 57 NEFMC

This step is intended as a buffer against uncertainty pertaining to the stock assessment. The next step in the calculation applies default management uncertainty buffers for groundfish stocks as follows: 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 lower percentages primarily reflect greater confidence in reliability of discard estimates. Application of this buffer represents the final step in the calculation of catch level, although AMs are in place to prevent or mitigate overages of the ACL should they occur.

Evaluations of SIs dealing with uncertainty in the MSC assessment noted that a Management Strategy Evaluation (MSE) had not been done for these fisheries. This is still the case and, in fact, a MSE has not been

done for any of the groundfish fisheries in the region. However, MSE is a component of a broader scale Ecosystem-Based Fishery Management Strategy Review that is underway. A description of a conceptual framework for such a review can be found in Levin et al. (2009). Progress can be monitored at: www.nefsc.noaa.gov/program_review/ and at www.nefmc.org/committees/ecosystem-based-fisheries-management .

4.3. Relevant changes to Legislation and Regulations

This section includes information not previously reported or only partially reported during the initial full assessment of the Groundfish Otter Trawl Fishery in the 4 UoCs. The certified fishery continues to operate under a variety of applicable laws and Executive Orders including analytical and procedural requirements that must be complied with, such as the Magnuson-Stevens Act (MSA), the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), the Regulatory Flexibility Act (RFA), the Paperwork Reduction Act (PRA), the Information Quality Act (IQA), and the Administrative Procedure Act (APA).

Information deemed to be significant and not previously reported include:

4.3.1. Omnibus Essential Fish Habitat Amendment 2.

This amendement revises essential fish habitat and habitat area of particular concern designations, revises or creates habitat management areas, including gear restrictions, to protect vulnerable habitat from fishing gear impacts, establishes dedicated habitat research areas, and implements several administrative measures related to reviewing these measures, as well as other regulatory adjustments to implement these measures. This action is necessary to comply with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act to periodically review essential fish habitat designations and protections. The measures are designed to minimize to the extent practicable the adverse effects of fishing on essential fish habitat.

The amendment has specific implications for the operations of US Acadian redfish, haddock and pollock otter trawl Fishery of the 4 UoCs beginning in 2018 through closed areas and times (i.e., protection of essential fish habitat and spawning periods). Details are available in a 3rd January 2018 decision letter.[1] The amendment's rule was published in the Federal Registry on 9th April 2018.[2]

4.3.2. Endangered Species Act (1973), as amended.

In 2017, the U.S Fish and Wildlife Service and NOAA Fisheries jointly proposed revisions to regulations that implement portions of the Endangered Species Act (ESA). The proposed revisions include (i) to parameters under which other federal agencies must consult with both agencies to ensure their actions do not jeopardize the continued existence of listed species, or destroy or adversely modify critical habitat, (ii) to various measures to clarify some of the standards under which listings, delisting, and reclassifications, and critical habitat designations are made, and (iii) improvements to inter-agency cooperation.

The proposed rules will be published in the Federal Register on July 25, 2018, and will provide detailed information on how the public can submit written comments and information concerning these provisions. Comments for each proposed rule must be received within 60 days, by September 24, 2018.

[1] http://s3.amazonaws.com/nefmc.org/180103_OA2-Decision_Letter-to-NEFMC.pdf
[2] http://s3.amazonaws.com/nefmc.org/2018-06760.pdf

4.4. Relevant changes to the Management Regime

This section incorporates both information and data not previously reported or only partially reported during the initial full assessment of US Acadian redfish, haddock and pollock otter trawl Fishery in the 4 UoCs defined :

- **NMFS Policy Directive #01-121-01: Guidance for Conducting a Review of Catch Share Programs.**

This policy directive dated 4th January 2017 adopted the NOAA Catch Share Policy as the NMFS's Catch Share Policy.

- **NMFS Procedural Directive on Cost Allocation in Electronic Monitoring (EM) Programs for Federally Managed U.S. Fisheries**

This Procedural Directive establishes a framework for allocating costs for electronic monitoring (EM) programs in federally managed U.S. fisheries between NOAA Fisheries and the fishing industry, and a timeline for implementing the framework. Currently, all appropriated funds designated for implementing systems to monitor the landings of fishing vessels at sea are fully subscribed. As a result, any new monitoring system must either be funded through discretionary spending appropriations or be substantially funded through non-appropriated funds, such as industry funding.

The procedural directive explains the categories of costs associated with EM programs and describes how such program costs should be allocated between NOAA Fisheries and industry participants. When approved, Regional Fishery Management Councils are expected to use the cost allocation framework set forth in the directive when creating new EM programs and evaluating existing EM programs.

NOAA Fisheries generally expects that both new and existing EM programs will include cost allocation provisions consistent with this procedural directive within two years of its approval. In programs in which industry is responsible for certain costs, but NOAA Fisheries has historically been paying those costs, the costs should transition to industry over time. Depending on the availability of appropriated funds, NOAA Fisheries may cover sampling costs in the initial stages of implementing a program. However, in such cases, transition plans should be developed to transition those costs to industry over time (not to exceed 3 years). The pace of the transition to industry funding will be specific to each fishery and will be determined by NOAA Fisheries and the Regional Fishery Management Councils, taking into account the status of the fisheries and the amount of funding appropriated to NOAA Fisheries for fishery monitoring programs.

- **NMFS Policy Directive 01-119: Fisheries Allocation Policy Review**

The policy describes the fisheries allocation review process collaboratively developed NMFS' Office of Sustainable Fisheries and the Council Coordinating Committee. The revised policy provides a mechanism to ensure fisheries allocations are periodically evaluated to remain relevant to current conditions. In addition, it will improve transparency and minimize conflict for a process that is often controversial.

The policy directive stipulates that Regional Fishery Management Councils will be responsible for determining what triggers are applicable for each of their fishery management plans (FMPs) that contain a fisheries allocation, including allocations across jurisdictions (e.g., state, regional), across sectors (e.g., commercial, recreational, tribal, research), and within sectors (e.g., individual fishermen, gear type). These triggers should be identified within three years (or as soon as practicable) from the finalization of this policy. When identifying triggers, if the trigger is indicator-based, councils must also clarify their process for periodically determining if a trigger has been met. The process could be part of already existing analysis which resides in annual or periodic reports (i.e., 5/7 year catch share reviews, stock assessments, economics). Councils will determine the appropriate method to identify triggers, such as a policy document or an FMP amendment.

- **Northeast Multispecies Fishery Management Plan (FMP)**

The Northeast Multispecies FMP was implemented in 1986 to reduce fishing mortality of heavily fished groundfish stocks and to promote rebuilding to sustainable biomass levels. Thirteen species are managed

through framework adjustments and amendments to the original plan, while five additional stocks are managed under a separate small mesh multispecies program.

Since the initial assessment of the fishery, there have been two Framework Adjustments (Nos. 56 and 57) and one FMP Amendment (No. 23) with implications for the MSC-certified US Acadian redfish, haddock and pollock otter trawl fishery, the content of which is summarized below:

4.4.1. Framework Adjustments

Framework Adjustment 56 (issued 31st July 2017 for implementation 1st August 2017)

- Fishing Year 2017 Catch Limits

This action increased the 2017 catch limit for Eastern Georges Bank (GB) cod (+6%), Eastern GB haddock (+94%), and witch flounder (+91%), but decreases the catch limit for GB yellowtail flounder (-23 percent).

- Common Pool Measures and Trip Limits

This action increased the trip limit for witch flounder and decreases the trip limit for American plaice.

- Windowpane Flounder Accountability Measure

Effective August 1st, 2017, through August 31, 2017, all trawl vessels on a groundfish trip must use selective trawl gear (Haddock separator trawl, rope separator trawl, or Ruhle trawl) when fishing in the large AM areas for northern and southern windowpane flounder.

Framework Adjustment 57 (issued 7th December 2017 for implementation 1st May 2018)

The New England Fishery Management Council (NEFMC) voted on December 6th, 2017 to submit Framework 57 to the NOAA's National Marine Fisheries Service (NMFS) for review. The target implementation date of May 1st, 2018, coincided with the start of the new fishing year. The proposed framework contained fishery specifications and annual catch limits (ACLs) for the 2018-2020 fishing years, as well as: (a) U.S./Canada total allowable catches (TACs) for shared stocks on Georges Bank; (b) Atlantic halibut management measures; (c) modifications to the southern windowpane flounder accountability measures (AMs) for large-mesh non-groundfish trawl fisheries such as scup and summer flounder; (d) adjustments to how common pool trimester TACs were apportioned; and (e) a temporary change to the scallop fishery's AM implementation policy to cover the Southern New England/Mid-Atlantic yellowtail flounder stock.

Framework Adjustment 57 was approved in April 2018. Changes to the Northeast Groundfish Management Plan were announced in a NOAA bulletin. The new specifications included substantial quota increases for several commercially important groundfish stocks, including Georges Bank cod, Gulf of Maine cod, Gulf of Maine haddock and pollock, as well as smaller but important increases for a few "choke" stocks. These are stocks with low quotas that can make accessing healthy, high-quota stocks more difficult (Table 13).

Table 13. Fishing Year 2018 Commercial Groundfish Sub-ACLs in Metric Tons with Percent Changes from 2017 Allocation. Source: NE Multispecies FMP FW57

	Stock	FY 2017 commercial groundfish sub-ACL	FY 2018 commercial groundfish sub-ACL	% Change
Allocated Stocks	GB Cod	531	1,360	156.1%
	GOM Cod	280	390	39.3%
	GB Haddock	52,620	44,659	-20.8%
	GOM Haddock	3,018	8,738	189.5%
	GB Yellowtail Flounder	163	169	3.7%
	SNE/MA Yellowtail Flounder	187	42	-77.5%
	CC/GOM Yellowtail Flounder	341	398	16.7%
	American Plaice	1,218	1,580	29.7%
	Witch Flounder	734	849	15.7%
	GB Winter Flounder	620	731	17.9%
	GOM Winter Flounder	639	357	-44.1%
	SNE/MA Winter Flounder	585	518	-11.5%
	Redfish	10,183	10,755	5.6%
	White Hake	3,358	2,735	-18.6%
	Pollock	17,817	37,400	109.9%
Non-allocated Stocks	GOM/GB Windowpane Flounder	129	63	-51.2%
	SNE/MA Windowpane Flounder	104	53	-49%
	Ocean Pout	130	94	-27.3%
	Atlantic Halibut	91	93	2.2%
	Atlantic Wolffish	72	82	13.9%

During its September meeting, the Council approved 2018 fishing year TACs for three shared U.S./Canada groundfish stocks on Georges Bank, which also are part of Framework 57. The Council issued a press release on 27th September confirming the 2018 allocations. The U.S. share for Eastern Georges Bank cod increased 76% from 2017. Eastern Georges Bank haddock decreased 47.1%. Georges Bank yellowtail flounder went up 2.9% (Table 14).

Table 14. Fishing Year 2018 U.S./Canada TACs in Metric Tons (mt). Source: TRAC Status report 2017

Quota (mt)	Eastern GB Cod	Eastern GB Haddock	GB Yellowtail Flounder
Total Shared	951	40,000	300
U.S.	257 (27%)	15,600 (39%)	213 (71%)
Canada	694 (73%)	24,400 (61%)	87 (29%)

The TMGC recommended that 40,000 mt also be used as the "upper bound" when determining 2019 catch advice for Eastern Georges Bank haddock. Furthermore, the TMGC requested that the U.S./Canada Steering Committee consider a benchmark assessment for this stock as a priority.

The TMGC commented on the shared stocks as follows:
Eastern Georges Bank Cod: "The status of the stock remains poor. However, there have been recent improvements in survey indices. Accordingly, the TMGC sought to balance the utilization of other species while continuing to promote biomass growth."

Eastern Georges Bank Haddock: "Although model projections show a decrease in biomass in upcoming years, biomass is expected to remain high. The total 2018 quota represents a 10,000 mt reduction compared to the 2017 TAC and addresses concerns around the growth of the 2013 year class and the request from industry for stability in the inter-annual TACs."

Georges Bank Yellowtail Flounder: "The change in the area above, which covers water both in the U.S. and Canada, applies to Georges Bank yellowtail flounder.''

The Council also voted to revise the common pool trimester TAC apportionments based on a request from industry. However, the Council limited these revisions to stocks that have experienced early closures in Trimester 1 or Trimester 2 since the implementation of Amendment 16.

The qualifying stocks are: Georges Bank cod, Gulf of Maine cod, Southern New England/Mid-Atlantic yellowtail flounder, Cape Cod/Gulf of Maine yellowtail flounder, American plaice, and witch flounder. These stocks are shaded in grey in the table below showing the revised 2018 common pool trimester apportionments and TACs.

In order to facilitate management of the common pool fishery, the Council voted to broaden the authority of the GARFO regional administrator to modify common pool trimester TACs and accountability measures. This way, the regional administrator will have more flexibility to make necessary changes without requiring further Council action (Table 15).

Table 15. Fishing Year 2018 Common Pool Trimester Apportionments and TACs in Metric Tons. Source:NE Multispecies FY 2017 GARFO

	Percentage Apportionments			Trimester TACs (mt)		
Stock	**Trimester 1**	**Trimester 2**	**Trimester 3**	**Trimester 1**	**Trimester 2**	**Trimester 3**
GB Cod	28%	34%	38%	7.0	8.5	9.6
GOM Cod	49%	33%	18%	6.2	4.2	2.3
GB Haddock	27%	33%	40%	84.0	102.6	124.4
GOM Haddock	27%	26%	47%	25.6	24.7	44.6
GB Yellowtail	19%	30%	52%	0.5	0.8	1.3
SNE/MA Yellowtail	21%	28%	51%	1.7	2.2	4.1
CC/GOM Yellowtail	57%	26%	17%	10.0	4.6	3.0
American Plaice	74%	8%	18%	21.8	2.4	5.3
Witch Flounder	55%	20%	25%	10.4	3.8	4.7
GB Winter	8%	24%	69%	0.5	1.4	4.2
GOM Winter	37%	38%	25%	6.5	6.7	4.4
Redfish	25%	31%	44%	14.8	18.4	26.1
White Hake	38%	31%	31%	8.3	6.8	6.8
Pollock	28%	35%	37%	66.4	83.0	87.7

Framework Adjustment 58 (in development)

The Groundfish Plan Development Team (PDT) met on May 22nd, 2018, in Falmouth, Massachusetts to discuss Framework Adjustment 58 – to be initiated at the June Council meeting. Anticipated implementation of the Adjustment is May 1st, 2019. Based on the Council priorities for 2018, the PDT drafted the scope, objectives, and likely range of alternatives for the adjustment.

The scope is to set specifications for FY 2019 for U.S./Canada stocks (Eastern Georges Bank (GB) cod, Eastern GB haddock, and GB yellowtail flounder); to revise/establish rebuilding plans for several stocks (ocean pout, GB winter flounder, witch flounder, Gulf of Maine(GOM)/GB (Northern) windowpane flounder, and Southern New England (SNE)/Mid-Atlantic (MA) yellowtail flounder); to address Status Determination Criteria when analytic assessments fail; to provide additional guidance on sector overages; and to revise other management measures, if necessary. The objectives are to meet regulatory requirements to prevent overfishing, ensure rebuilding, and help achieve optimum yield in the commercial groundfish fishery.

Amendments

The New England Fishery Management Council held a series of public scoping hearings from Maine to Connecticut in March 2017 to solicit ideas for potentially changing the region's groundfish monitoring and reporting system. The purpose of this initiative (identified as Amendment 23) was to improve reliability and accountability of the monitoring program through more accurate and timely catch reporting. In its 17th February, 2017 press release, the Council opined that Amendment 23 would not impact NEFOP or SBRM coverage. However, the amendment could modify or even remove the at-sea monitoring program if an alternative holistic monitoring and reporting program is developed and implemented for the groundfish fishery. As part of Amendment 23, the Council also may consider changes to the way landings information is provided by both dealers and vessel operators and how it is assigned to stock areas.

The Amendment is scheduled to come into force on 1st May 2019 as is guided by the following timetable of remaining activities:

- Range of alternatives - Plan Development Team, Advisory Panel, and Groundfish Committee review results of public scoping; March - May 2017.
- Council discusses likely range of alternatives; June 2017.
- Develop alternatives and analysis (draft EIS), Council selects preliminary preferred alternatives, and public comment period; Mid 2017 - late 2018.

- Review of public comments and final action by the Council; Late 2018 - early 2019.
- Implementation FY 2019 (May 1).

4.4.2. Regulatory Framework

Regulations for fisheries managed by NOAA are kept current and are available online at: GARFO Fisheries. For the Northeast Multispecies Groundfish fisheries, management measures/regulations are available at: Northeast Groundfish fisheries.

Specific components (excluding Monkfish) include:
§648.80 NE Multispecies regulated mesh areas and restrictions on gear and methods of fishing
§648.81 NE multispecies year-round and seasonal closed areas
§648.82 Effort-control program for NE multispecies limited access vessels
§648.83 Multispecies minimum fish sizes
§648.84 Gear-marking requirements and gear restrictions
§648.85 Special management programs
§648.86 NE Multispecies possession restrictions
§648.87 Sector allocation
§648.88 Multispecies open access permit restrictions
§648.89 Recreational and charter/party vessel restrictions
§648.90 NE multispecies assessment, framework procedures and specifications, and flexible area action system.
§648.95 Offshore Fishery Program in the SFMA
§648.96 FMP review, specification, and framework adjustment process
§648.97 Closed areas

A separate set of management measures/regulations for the Northeast Skate Complex Fisheries is equally available from the aforementioned URL. Specific components include:
§648.320 Skate FMP review and monitoring
§648.321 Framework adjustment process
§648.322 Skate allocation, possession, and landing provisions
§648.323 Accountability measures

4.4.3. Monitoring and Enforcement

The VMS/Enforcement Committee is a standing committee of the Council that meets as needed to review and comment on the enforceability aspects of management measures proposed by other committees. It also discusses general enforcement policies and priorities. Representatives from the NOAA Office of Law Enforcement, the U.S. Coast Guard, NOAA General Counsel, and state marine enforcement agencies serve on the committee along with designated Council members.

The Committee met on 15th June 2016 and meeting minutes were publicly posted at:
VMS/Enforcement Committee and Advisors meeting.
The Committee last met on 3rd November 2016. The Committee's agenda and presentation material are available publicly at:
Joint Enforcement Committee and Advisory Panel Meeting 2016.
However, meeting minutes had not been posted at the time of this annual surveillance audit.

On 11th September 2017, the NEFMC announced the launch of a new Cod-end Compliance Assistance Program (CAP) that is designed to help fishermen document the purchase of legal size codends and contribute to the collection of data on codend shrinkage rates. The program is in the pilot phase and participation is voluntary.

It was developed by the Council's Enforcement Committee, which includes representatives from the U.S. Coast Guard and NOAA Office of Law Enforcement. The Enforcement Committee began working on the CAP roughly two years ago under the premise that fishermen who volunteered to have codends pre-measured and tagged would be recognized as program participants. Then, in the event that codend mesh inspected during subsequent Coast Guard boardings measured-out smaller than on the original purchase date, the fisherman's involvement in the CAP would be noted and possibly result in a "fix it" opportunity or reduced penalty. The committee's long-term goal is to end up with a program that certifies codends for a defined period of time – possibly six or 12 months from the date of purchase – depending on what the data reveals during the pilot phase.

4.4.4. NOAA Enforcement

NOAA's Office of General Council's website contains annual summaries of (i) Administrative Law Judge Initial Decisions, (ii) NOAA Administrative Orders, (iii) District Court Decisions, and (iv) Circuit and Supreme Court Decisions) for the years 2010 to 2017 inclusive. The documents are available at: Enforcement Decisions and Orders

In the Northeast region, there are thirteen fisheries management plans (FMPs) and at least forty species of fish regulated by NOAA's NMFS. As in other regions, enforcement efforts here are focused on serious and purposeful offenders. Over the past several years, there has been a significant increase in the number of serious cases being referred to NOAA General Counsel.

Areas of particular concern include the use of illegal net configurations in the multispecies fishery, large-scale violations by fish dealers, incursions into closed areas by scallop and multispecies vessels, and fish landings that exceed trip limits (particularly in the cod and general category scallop fisheries).

In this region, Vessel Monitoring Systems (VMS) have a large impact on detection of closed area and Days-At-Sea violations. VMS first became mandatory in the fisheries of the Northeast in mid-1998. Over the last several years, many catch seizures resulted from VMS-based information have taken place and a number of closed area cases, based solely on VMS positional data, have been prosecuted.

To enhance active enforcement presence, visibility, and industry interactions, OLE partners with state, federal, and territorial marine law enforcement agencies.

The Cooperative Enforcement Program (CEP) enables OLE (Office of Law Enforcement) to join forces with state and territorial partners. Through signed Joint Enforcement Agreements (JEAs), our partners are deputized to enforce federal laws and regulations. Currently 28 JEAs are active in various states and territories. OLE also partners with federal agencies such as U.S. Customs and Border Protection, U.S. Fish and Wildlife Service, and U.S. Coast Guard.

Penalty Policy

On February 21st, 2014, NOAA published in the Federal Register draft revisions to its "Policy for the Assessment of Civil Administrative Penalties and Permit Sanctions" (Penalty Policy), and sought informal public comment on that revised Policy. After review of the comments received, NOAA finalized the draft revisions to the Penalty Policy. The revised Penalty Policy is effective as of July 1, 2014.

Enforcement Settlement Schedule – Northeast (Summary)

This schedule details the monetary penalties to be assessed in regards to the violator's history (first, second and third time offender), the violation type and the applicable federal statute as of October 2015.

4.4.5. Engagement and Deliberations – New England Fishery Management Council

Opportunities for in-person input may include council meetings, local hearings and workshops, and advisory body and committee meetings. The Council utilizes a wide variety of materials that may include white papers, discussion papers, advisory body meeting reports, fishery performance reports, agendas, staff memos, published literature, action memos, situation analyses, and public comment summaries.

It also solicits and collects input through other media including pamphlets, videos, press releases, direct mail, *Federal Register*, telephone call-in, websites, social media (Facebook and Twitter), webinars, advisory bodies and committees, web-streaming, newsletters, and tablet apps.

The Council generally meets five times a year at locations that are centrally located to faciliate members' travel. Meeting dates, locations, and key reports and business of relevance to the U.S. redfish, pollock and haddock otter trawl fishery of the 4 UoCs since the initial assessment are highlighted in Table 16.

Although not reported here, the Council's regular meetings also include (i) Reports on Recent Activities by the Council's Chair and Executive Director, and representatives from GARFO, NOAA, NEFSC, ASMFC and the USCG; and (ii) Open Period for Public Comments.

The Council's meetings are well populated with a broad cross-section of pertinent inter-agency documents that serve to inform its analyses, discussions and decision-making processes. The documents can be retrieved by copying and pasting the URL links to a browser for any of the meeting summaries listed in the table.

Table 16.NEFMC meeting highlights: January 2016 - June 2018. Source: Author

2016	Location	Selective Agenda Reports and Business
Jan 26th-28th	Portsmouth, NH	Committee Reports: Observer Policy; Scientific and Statistical; Groundfish; Small Mesh Multispecies. Others: NOAA's Draft Guidance for conducting Catch Share Program Reviews; NEFSC's Revised Stock Assessment Process. https://www.nefmc.org/calendar/january-2016-council-meeting
Apr 19th-21st	Mystic, CT	Committee Reports: Ecosystem-Based Fisheries Management; Small Mesh Multispecies; Habitat; Groundfish. Others: Status of Northeast Continental Shelf Ecosystem; Assessing the Vulnerability of Fish Stocks to Climate Change; Draft National Bycatch Strategy; Draft Northeast Regional Ocean Plan; Discard Methodology Review. https://www.nefmc.org/calendar/april-2016-council-meeting
Jun 21 st-23th	Portland, ME	Committee Reports: Enforcement/VMS; Small Mesh Multispecies; Scientific and Statistical; Groundfish; Others: Review of NOAA Fisheries' Draft Northeast Climate Science Action Plan; NEFMC Comments on Climate Science Action Plan; Trawl Survey Advisory Panel Update; Develop NEFMC Comments on the Northeast Regional Planning Body's Draft Northeast Regional Ocean Plan. https://www.nefmc.org/calendar/june-2016-council-meeting
Sep 20 -22nd	Danvers, MA	Committee Reports: Small Mesh Multispecies; Transboundary Resource Assessment; Transboundary Management Guidance; Groundfish; Habitat. Others: Presentation on Draft Amendment 10 to the 2006 Consolidated Highly Migratory Species (HMS) Fishery Management Plan to Address Habitat Revisions; Electronic Monitoring (EM) Pilot

		Program Progress Report; 2017 Council Priorities - Initial Discussion; Ecosystem-Based Fishery Management (EBFM). https://www.nefmc.org/calendar/september-2016-council-meeting
Nov 15-17 th	Newport, RI	Committee Reports: Enforcement /VMS; Habitat; Scientific and Statistical; Groundfish. Others: Public Hearing on Draft Amendment 5b to the 2006 Consolidated HMS Plan Following Council Adjournment; National Standard 1 Guidelines; 2017 Council Priorities - Final Action; Observer Safety Program Review. https://www.nefmc.org/calendar/november-2016-council-meeting
2017	**Location**	**Selective Agenda Reports and Business**
Jan 24-26 th	Portsmouth, NH	Committee Reports: Stock Assessment Workshop (SAW)/Stock Assessment Review Committee (SARC) Report; Scientific and Statistical. Others: Industry-Funded Monitoring (IFM) Omnibus Amendment; Cooperative Research Review; Council Programmatic Review; Fishery Dependent Data Visioning Project; Marine Mammal Commission; Lenfest Fishery Ecosystem Task Force. URL:http://s3.amazonaws.com/nefmc.org/NEFMC_Agenda_January2017_Portsmouth.pdf
Apr 18-20 th	Mystic, CT	Committee Reports: None Others: Ecosystem Status Report; Ecosystem-Based Fishery Council Research Priorities; Standardized Bycatch Reporting Methodology; Industry-Funded Monitoring (IFM) Omnibus Amendment; Discard Methodology Review; Research Steering Committee Report. URL: http://s3.amazonaws.com/nefmc.org/NEFMC_Agenda_April2017_Mystic_final.pdf
Jun 20-22th	Portland, ME	Committee Reports: Groundfish, Scientific and Statistical; Habitat. Others: Best Scientific Information Available Guidance; Ecosystem-Based Fishery Management Report; Fishery Dependent Data Visioning Project. URL: https://www.nefmc.org/calendar/june-2017-council-meeting
Sep 26 -28 th	Beauport, Gloucester, MA	Committee Reports: Transboundary Resource Assessment (TRAC); Scientific and Statistical; Transboundary Management Guidance; Groundfish; Ecosystem-Based Fishery Management; Research Steering Committee. Others: 2018 Council Priorities - Initial Discussion; Council Program Review Update; Standardized Bycatch Reporting Methodology. https://www.nefmc.org/calendar/september-2017-council-meeting
Dec 5 th -7 th	Newport, RI	Committee Reports: Habitat; Scientific and Statistical; Groundfish. Others: Groundfish Operational Assessments; Regulatory Reform Initiative. http://s3.amazonaws.com/nefmc.org/NEFMC_Dec.-5-7-2017-Newport-for-posting.pdf
2018	**Location**	**Selective Agenda Reports and Business**
Jan 30-31	Portsmouth, NH	Committee Reports: Habitat; Research Steering; Scientific and Statistical; Groundfish.

		Others: Industry-Funded Monitoring; Council Program Review; Electronic Monitoring; Groundfish Performance. http://s3.amazonaws.com/nefmc.org/NEFMC_Jan.-30-31-2018_Portsmouth.pdf
Apr 17-19th	Mystic, CT	Committee Reports: Habitat; Groundfish; Scientific and Statistical. Others: Council Program Review; Draft Procedural Directive for Electronic Monitoring (EM) Cost Allocation; Best Scientific Information Available; Industry-Funded Monitoring; Northeast Continental Shelf Ecosystem Status; Regulatory Reform Initiative. http://s3.amazonaws.com/nefmc.org/NEFMC_April-17-19-2018_Mystic_UPDATED.pdf
Jun 12-14th	Portland, ME	Committee Reports: Groundfish; Habitat. Others: Council Program Review; Observer Policy/Industry-Funded Monitoring; Fisheries Allocation Policy Directive; Northeast Fisheries Observer Program; Research Set-Aside Program Review; Regulatory Reform Initiative; Ecosystem-Based Fishery Management; Northeast Regional Coordinating Council (NRCC) Stock Assessment Process. http://s3.amazonaws.com/nefmc.org/NEFMC_June-12-14-2018_Portland.pdf

Stakeholders and the general public can submit comments to NOAA/GARFO proposed rules changes that have been posted in the Federal Registry by one of two ways: (i) electronically at Regulations.gov by clicking on the Comment Now! icon, or (ii) by mail by addressing the letter to the address found in the Federal Register notice.

4.4.6. Observer Monitoring – Groundfish Sector

The Fisheries Sampling Branch (FSB) at the Northeast Fisheries Science Center collects, maintains, and distributes data from fishing trips that carry at-sea monitors. FSB manages two separate but related monitoring programs: the Northeast Fisheries Observer Program (NEFOP) and the At-Sea Monitoring (ASM) Program. Although both programs collect similar information (trip activity, species landed, discarded, gear used, etc.), NEFOP observers are funded by the federal government and implement federal programs [Standardized Bycatch Reporting Methodology (SBRM), Marine Mammal Protection Act (MMPA), Endangered Species Act (ESA)] across fisheries, while at-sea monitors are partly funded by fishermen and will be fully funded by fishermen in 2017, and are specific to sector monitoring.

For the FY 2018 fishing season, GARFO recommended that the total monitoring coverage for Northeast multispecies sectors should be 15% of sector trips. It expects that the recommended coverage level is sufficient to monitor and enforce catch levels for the Northeast multispecies sectors. The recommendation relies on an analysis of past performance to provide a reasonable expectation of meeting the requirement of achieving the Coefficient of Variation of 30% (CV30) or better precision at the overall stock level for each groundfish stock.

The updated regulatory requirements related to the monitoring coverage rate standard are found at 50 CFR 648.87(b)(1)(v)(B) and require that:

- Coverage levels must be sufficient to at least meet the standard specified in the Standardized Bycatch Reporting methodology, CV30, at the overall stock level for each stock of regulated species and ocean pout and to monitor sector operations, to the extent practicable, in order to reliably estimate overall catch by sector vessels;

- The coverage level shall reflect the primary goal of the program, to verify area fished, as well as catch and discards by species and gear type, in the most cost-effective means practicable, as well as the other goals and objectives;
- The coverage levels will be based on the most recent 3-year average of the total required coverage level necessary to reach the required coefficient of variation for each stock;
- The coverage level that will apply is the maximum stock-specific level after filtering out healthy stocks;
- Healthy stocks are defined as those in a given fishing year that are not overfished, with overfishing not occurring according to the most recent available stock assessment, and that in the previous fishing year have less than 75 percent of the sector sub-ACL harvested and less than 10 percent of catch comprised of discards.

The total monitoring coverage, ultimately, should provide confidence that the overall catch estimate is accurate enough to ensure that sector fishing activities are consistent with National Standard 1 requirements to prevent overfishing while achieving on a continuing basis optimum yield from each fishery.

However, as in previous years, GARFO concluded that it was not feasible to establish different coverage requirements for each sector or for other sub-stock strata, such as gear type.

In previous years, information from the most recent full fishing year was used to recommend the total monitoring coverage target for the upcoming fishing year. The approach was developed in the initial years of the monitoring program, when multiple years of data were not available. Since FY 2016, GARFO's recommendation is based on the most recent 3 years of data that are averaged to smooth assumed random inter-annual fluctuations of the discard variability estimates for each stock. While a total monitoring coverage target level is expected to generate a 30-percent CV on discard estimates, there is no guarantee that the required coverage level will be met or result in a 30-percent CV across all stocks due to changes in fishing effort and observed fishing activity that may happen in a given fishing year. Due to fluctuations in fishing activity, it is difficult to deploy observers throughout the fishing year to sufficiently ensure that target coverage levels are attained.

Table 17. Target and realized coverage levels, FY 2010 - FY 2017. Source: NE Multispecies FY2017 GARFO

Fishing Year	NEFOP target coverage level	ASM target coverage level	Total target coverage level	Realized coverage level
FY 2010	8 %	30 %	38 %	32 %
FY 2011	8 %	30 %	38 %	27 %
FY 2012	8 %	17 %	25 %	22 %
FY 2013	8 %	14 %	22 %	20 %
FY 2014	8 %	18 %	26 %	25.7%
FY 2015	4 %	20 %	24 %	19.8%
FY 2016	4 %	10 %	14 %	11.1%
FY 2017	4 %	12 %	16 %	n/a*

*FY 2016 realized coverage not available; fishing year still underway.

A multi-year federal funding commitment for the NEFOP of $50 million was recently announced by NOAA and awarded to AIS Inc., a scientific services company headquartered in Marion, MA.

A July 2015 SBRM amendment requires an annual discard report utilizing information obtained from the NEFSC's FSB observer programs - the NEFOP and Industry Funded Scallop observer program for 14 federally managed species groups and sea turtles. The 2018 annual report is available at: Bycatch reporting

4.4.7. Monitoring, Control and Surveillance

Operational enforcement activities in the U.S. Northeast Region are carried out by NOAA's Office of Law Enforcement and the USCG. Investigations that result in high interest convictions are summarized through weekly press releases on NOAA's website at: Weekly enforcement press releases.

The Audit Team had hoped to include specific enforcement and compliance information and data of relevance to the certified fishery in this report. However, the release of the information and data is subject to federal privacy legislation and must be authorized by the client. The team has included a recommendation that the client consider filing a request in this regard so that the progress of the fishery-specific management system - a requirement under Principle 3 - can be examined at the 2nd annual surveillance audit.

During the NEFMC's June 2018 meeting, NOAA's Northeast Enforcement Division (NED) reported on its' second quarter activities (1st January – 31st March 2018). The following data and narratives were extracted from that report. The full report is available at: 2nd Quarter 2018 Council Report

Enforcement and Compliance

Since the last Council meeting, there were 50 documented patrols (32% of effort), allowing critical face-to-face interaction between field staff and the industry; 90 documented instances of outreach (57% of effort - not an exhaustive list; includes phone calls with industry, dock visits, trade shows, presentations, etc.); and 18 meetings (11% of effort). This list does not include the extensive outreach that the VMS team provides on a daily basis, nor can it fully capture the interaction that agents, officers, and support staff regularly have with industry. A total of 227 incidents were reported during Fiscal Year 2017 (Table 18 and Figure A). The NED reported that of the 227 incidents, 135 were completed and 92 were ongoing during the period.

Table 18. Summary of Reported Incidents by Statute and Program. Source: NEFMC

Law/Regulation/Program	FY 17 Incident Totals
ACFCMA	30
Endangered Species Act	4
HMS	53
Lacey Act	8
Marine Mammal Protection Act	24
MSFCMA	101
Other Federal Law	3
State Regulations	4
Total	**227**

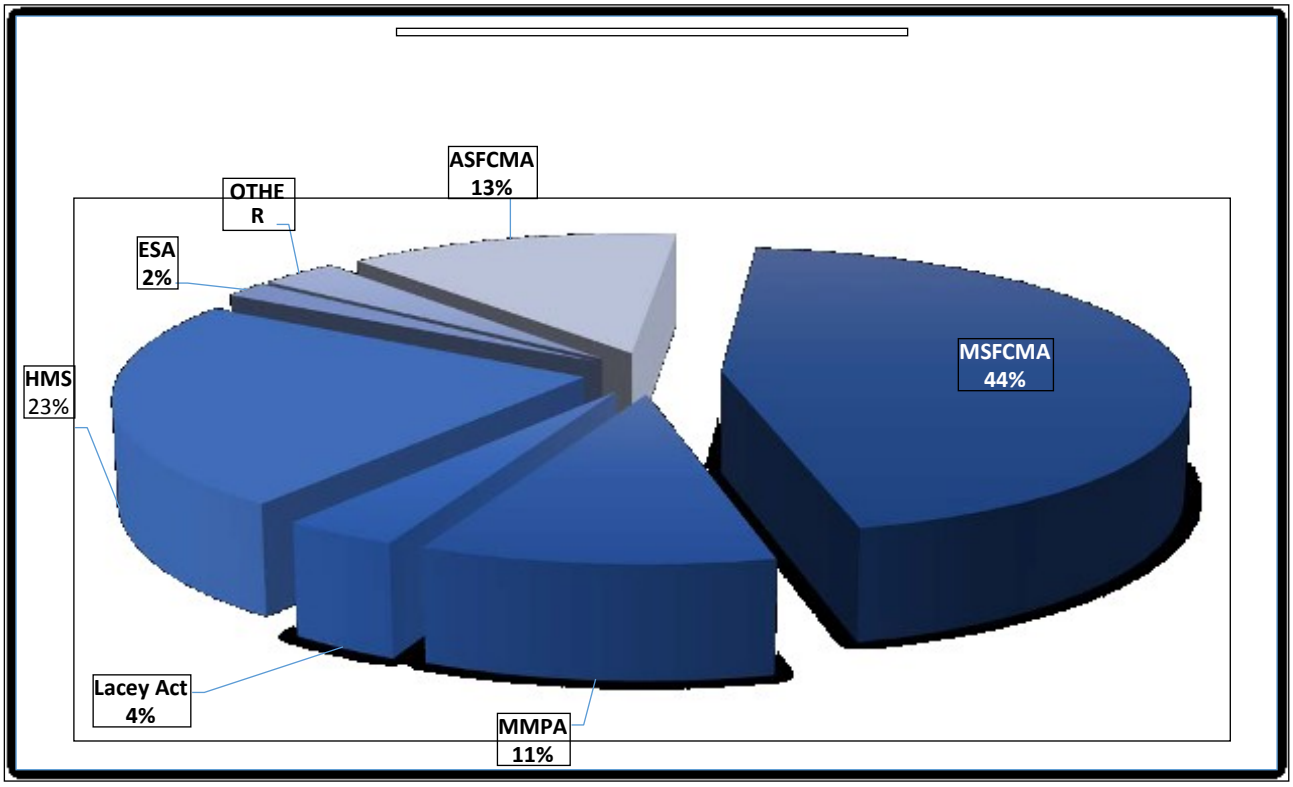


Figure 15. Incidents by Statute for FY 2017 – Northeast Region. Source: NEFMC

A total of 36 Summary Settlements (e.g., tickets) were issued totalling $55, 411.73 in fines. The majority of the associated violations involved the unauthorized possession of striped bass and V-notched lobster, but also included a few settlements pertaining to delinquent Vessel Trip Reports, observer refusals, Monkfish overages, and failure to report Bluefin tuna.

Observer Program Highlights

During the quarter, the observer program deployed on 787 trips for 2,405 sea days. Approximately 98% of all selected or observed trips were completed without a reported enforcement incident. There were a total of 13 reported violations reports received and acted upon during the quarter. Table 19 outlines the status of observer related complaints.

Table 19. Status of observer related complaints. Source: NEFMC

Number of complaints and status	Type of complaint
▪ 8 observer refusal complaints: 5 closed with compliance assistance; 3 ongoing	▪ Refusal
▪ None	▪ Assault
▪ 1 observer harassment complaint: 1 ongoing	▪ Harassment/Intimidation
▪ 2 observer interference complaints: 1 closed due to lack of evidence: 1 ongoing	▪ Interference
▪ None	▪ Vessel Safety
▪ 1 observer safety complaint: 1 ongoing	▪ Observer Safety
▪ 1 observer failure to provide reasonable assistance complaint: 1 closed with compliance assistance	▪ Failure to provide reasonable assistance

▪ None	▪ Failure to provide equal accommodations
▪ None	▪ Observer gear/sample tampering
▪ None	▪ Observer program notification
▪ Nothing to report	▪ Miscellaneous

4.4.8. Research

4.4.8.1. New England Fishery Management Council Research Priorities and Data Needs for 2017-2021

The research priorities were derived from the Council's 2010-2014 Research Priorities and Data Needs, as reviewed and updated by the Council's Plan Development Teams, species committees, Scientific and Statistical Committee, and full Council. Finalized in June 2017 and revised in January 2018, the priorities are grouped into a broad range of categories, including: (i) Fishery Surveys, (ii) Population Dynamics, (iii) Stock Assessments, (iv) Fisheries Management, (v) Fishery Performance and Monitoring, (vi) Bycatch, (vii) Habitat, (viii) Ecosystems, (ix) Endangered, Threatened and Protected Species, and (x) Socio-economics.

The Fisheries Management priorities in relation to Groundfish include:
1. Investigate the modern groundfish fishery:
a. Is the current definition of the directed fishery (landing >1 lb. groundfish per year) still appropriate?
b. How should the inshore and offshore components of the groundfish fishery be identified?

2. Investigate potential means to improve access to healthy stocks while minimizing impacts to stocks in need of conservation:
a. Feasibility of permit splitting by stocks.
b. Catch efficiencies by mesh size, when new minimum fish size regulations are implemented.
c. Options to broaden the definition of the sector system and increase flexibility in groundfish fishery operations (e.g., expanding the range of participants allowed to join the sector system and the suite of permits and their associated allocations that can be used under the sector system).
d. Evaluate the efficacy of existing and potentially new small-mesh and General Category scallop exemption areas and seasons.

3. Investigate groundfish control rules/Evaluate the effectiveness of the SSC control rule for setting groundfish catch advice. The SSC's control rule is used in the absence of better information that may allow a more explicit determination of scientific uncertainty for a stock or stocks. Develop guidance on when to use "Option C" and how to estimate ABC under "Option C". Option C states that for stocks that cannot rebuild to B_{MSY} in the specified rebuilding period, even with no fishing, the ABC should be based on incidental bycatch, including a reduction in bycatch rate (i.e., the proportion of the stock caught as bycatch).

The Bycatch priorities in relation to Groundfish include:
1. Research fishing practices or gear modifications that may change the ratio of component catch species or improve size and species selectivity of gear for groundfish, monkfish, herring and skates.
2. Policy evaluation of bycatch management, including possible implementation of a 100% retention policy to minimize discarding and ecosystem effects.
3. Conduct research on the extent and composition of discards and bycatch in the groundfish fishery, including research to estimate discard mortality rates by gear for groundfish.

The Habitat priorities with implications for Groundfish include:
1. Research resulting in greater understanding of the relationships between managed species and the geological, biological, and physical features of the habitats they occupy.

2. Research that produces information to assess spatial variation in habitat use and fisheries productivity is the highest priority (i.e., research results with demonstrable utility to analyze spatial management alternatives for habitat).
3. Evaluate and quantify linkages between habitat types (e.g., space/time variation of shelter and prey) and the productivity of managed species.
4. Experimental examination of gear impacts on seabed habitats in Northeast US waters that take effort, season, sedimentary character and biological community into account.
5. Groundfish FMP-specific research includes undertaking comparative studies of the impacts of varying gear configurations on habitat (e.g., differential impacts of chain vs. roller sweeps; catchability and concurrent habitat effects modified ground cables (e.g. shortened, raised), semipelagic doors, etc.).

The Ecosystems priorities with implications for Groundfish include:
1. Research ecosystem operational advice, emphasizing synthesis of existing data, modelling, and meta-data analysis, including environmental variability and climate change; relationship between habitat and fishery resource productivity (including the impact of fishing on functional value of habitat); trophic interactions and their implications; managing mix species fisheries; function and effectiveness of closed area management.
2. Evaluate potential resilience of managed species to climate change and ecosystem change through preservation of forage diversity.
3. Quantify predator/prey relationships that are important to the development of management strategy evaluations.
4. Evaluate whether stock status of some species is increasing the rebuilding timeline of groundfish stocks.
5. Investigate effectiveness of seasonal and year-round spatial management areas to achieve desired goals, including improved yield, mortality reduction, spawning protection, bycatch avoidance/reduction, and ecosystem protection and improvement.
6. Monitor trends in non-target, ecosystem components.
7. Develop and enhance industry-based oceanographic data collection (e.g., physical, primary productivity, habitat metrics).

The ETP priorities in relation to Groundfish fishery include:
1. Develop gear modifications or fishing techniques that may be used to reduce or eliminate the threat of sea turtle interactions without unacceptable reductions in target retention (in all fisheries).

The Socio-economics priorities in relation to Groundfish include:
1. Continue to support data collection efforts for improved social and economic impact analyses, as well as cost-benefit analysis, for all fisheries, but particularly groundfish.
2. Improve the ability to quantify economic impacts from restricted fishing in closed areas (e.g., develop spatially-explicit fleet behavior model).
3. Investigate the existence value of deep-sea corals and evaluate tradeoffs between coral protection and fishing.

4.4.8.2. Northeast Fisheries Science Center – Strategic Plan and Annual Priorities

The NEFSC's scientific research activities are informed by its' Strategic Science Plan 2016-2021 which was published in September 2015. The Plan provides a comprehensive, strategic perspective that takes into account the Center's broad, multidisciplinary capabilities, current and emerging scientific needs and challenges, and opportunities for leveraging capacity through research collaborations and cooperative research with fisheries stakeholders.

The Plan is structured around four components. Guiding Principles are overarching values that are integral to all aspects of the Plan; they underpin the Center's science program and operating procedures. Themes are

broad categories that establish a high-level organizational framework for the Plan. Foci describe accomplishments that the Center expects to achieve under each theme, and Targets describe the work that will be undertaken to achieve the accomplishments. The current plan is available at: Strat Plan.

The Plan's research activities are constantly evaluated and adjusted by means of an annual guidance document entitled: *NEFSC Science and Research Director's Annual Guidance Memo*. The Fiscal Year 2019 document is available at: Plan FY 2019. The memo presents a limited number of high priority results that the Center endeavors to achieve in support of its' national and regional strategic goals and priorities.

4.4.8.3. Northeast Fisheries Science Center – Northeast Cooperative Research Program Review

The Northeast Fisheries Science Center initiated an independent review of its Northeast Cooperative Research Program (NCRP) in 2016. Cooperative research is seen as one of the Center's most important tools for transferring knowledge between the fishing industry and our science staff.

The review found that the NCRP has demonstrated success working with fishing industry partners on research that can improve fishery science and management. Examples include long-term efforts like the NEFSC study fleet, development of electronic reporting tools for catch and environmental data, enhanced sampling opportunities of fishery resources, and specialized industry-based survey collaborations.

The review also provided suggestions for improving NCRP programs, including more use of NCRP data and services in the region both within NOAA Fisheries and by management partners, increasing visibility of awards and results generated through the programs managed by the NCRP and NEFSC, improving internal and external communication of NCRP roles, functions, capabilities, and opportunities to become engaged, and organizational efforts to better manage its diverse activities and leverage opportunities with the NEFSC's Fisheries Sampling Branch. The final reviewer report, NEFSC response, and action plan are available in the reference section of this report.

4.4.8.4. NOAA Northeast Regional Action Plan – Fisheries Climate Science Strategy

NOAA Fisheries released the Climate Science Strategy in August 2015. This Strategy develops a national framework to meet the growing demand for information to better prepare for and respond to climate-related impacts on the nation's living marine resources and resource-dependent communities. The strategy is informed by Regional Action Plans that span 3-5 years. The Northeast Regional Action Plan (NERAP) was developed by a working group of representatives from the NEFSC and GARFO and applies to the Northeast U.S. Shelf Ecosystem, which extends from North Carolina to Maine, and includes watersheds, estuaries, the continental shelf and the open ocean. The Strategy and Action Plan are closely related to NOAA's Fisheries Ecosystem-based Fisheries Management Policy[3] with the latter having 15 Actions of highest priorities, for example:

- Action 3 - Develop climate- related products and decision support tools to support protected species assessments and other management actions;
- Action 5 - Develop Management Strategy Evaluation capability to examine the effect of different management strategies under climate change;
- Action 6 - Improve spatial management of living marine resources through an increased understanding of spatial and temporal distributions, migration, and phenology;
- Action 7 - Continue to build industry-based fisheries and ocean observing capabilities and use information to develop more adaptive management;

[3] https://www.st.nmfs.noaa.gov/Assets/ecosystems/ebfm/Final-EBFM-Policy-PDS-Review-5.20.2016-final-for-PDS.pdf

- Action 10 - Conduct research on the mechanistic effects of multiple climate factors on living marine resources with a goal of improving assessments and scientific advice provided to managers;
- Action 12 - Continue production of the NEFSC Ecosystem Status Report, and other related products, and improve the distribution of information from the reports through the formation of an NEFSC Environmental Data Center;
- Action 13 - Maintain ecosystem survey effort in the Northeast U.S. Shelf ecosystem including the Bottom Trawl Survey, Ecosystem Monitoring Program, Sea Scallop Survey, Northern Shrimp Survey, Clam Survey, and Protected Species Surveys and expand where possible (e.g., data poor species), and;
- Action 15 - Coordinate with other NOAA Programs to link living marine resource science and management to climate science and research activities.

4.4.8.5. Commercial Fisheries Research Foundation (CFRF)

The Foundation is a non-profit, private foundation established by commercial fishermen to conduct collaborative fisheries research and education projects. Its primary mission is to conduct collaborative research and education projects that assist in the achievement of sustainable fisheries and vibrant fishing communities. The Foundation's project exposure to the groundfish fishery of the UoCs has been minimal.

4.4.8.6. Monitoring and Evaluation of the Fishery's Performance

The NEFMC and NMFS use both formal and informal processes to measure performance of Fishery Management Plans. These include :

Biological Assessments

- Northeast Fisheries Science Center (NEFSC) – surveys and stock assessments.
- Greater Atlantic Regional Fisheries Office (GARFO) – review and analyze landings, dealer, and observer data to manage Annual Catch Limits (ACLs) and assess the need for triggering in-season adjustments or Accountability Measures (AMs).
- NEFMC – analyses the status of stocks by describing and assessing goals/objectives of FMPs in the Affected Environment sections of National Environmental Policy Act (NEPA) documents (i.e., environmental assessments (EAs) and environmental impact statements (EIS).
- NEFMC/NMFS – compliance with the MSA National Standards is addressed in NEPA documents.
- NEFMC – through the specification setting process (annual, biannual or triennial), the Science and Statistical Committee approves Overfishing Limits and Acceptable Biological Catch (ABC) recommended by Plan Development Teams (PDTs) that assess all available catch, discard, and stock assessment data since the previous specifications were set.
- NEFMC - the MSA requires preparation of a Stock Assessment and Fisheries Evaluation (SAFE) report. These reports summarize the most recent biological, social, and economic conditions of the fishery and fishing communities. In the Greater Atlantic Fisheries Region, this requirement is met using a web page that provides access to the documents with this information: NE Multispecies Safe reports.
- NEFMC – through operationalizing the relatively new Council Risk Policy, PDTs and other technical bodies assess the consistency of FMPs with the Risk Policy over time. This may include use of the Management Strategy Evaluation (MSE) technique.

Social and Economic Assessments

- NEFSC, Social Science Branch (SSB) – prepares reports on the Performance of the Northeast Multispecies (Groundfish) Fishery.

Catch Share Review of Groundfish Sector

In 2018, the 5-year catch share review of the Groundfish sector system is listed as a Council priority. While the review is not a statutory requirement, it will be conducted consistent with NMFS policies and guidance.

Following the site visit, the NEFMC reported that ''planning for the five-year catch share review has begun. Economists working for the NEFSC have done some preliminary work and a technical team meeting is planned for early August to plan the review.'' (The NEFMC) expects work will continue and this will probably be completed in 2019.

Touchstone Report

One recommendation of this 2012 report was to "Design a cost-effective performance management system to track the progress of decisions and capture lessons learned and best practices." Following the site visit, the Audit team was informed that the Council hired a contractor who provided a report on a performance management system in 2012. While the Council accepted the report, the system was not implemented due to a lack of funding. (The Council) underwent another program review (see 4.4.8.7) this spring that made a similar suggestion and it intends to follow-up.

4.4.8.7. NEFMC Program Review

In November 2017, the Council announced that it was launching an independent external 'program review' of its operations to (a) assess past performance; (b) gather feedback on strengths and weaknesses of the Council process and operations; and (c) identify potential areas for improvements. The review will be conducted by an external six-member panel of managers and scientists from other regions and/or international fisheries entities who have a strong understanding of U.S. federal fisheries management but no recent involvement or affiliation with the New England Council.

Stakeholder input was being solicited through two primary avenues: (a) a short online survey; and (b) 14 port meetings from Maine to New Jersey, coupled with a webinar option for anyone who could not attend an in-person meeting or who wanted to contribute additional comments. The port meetings ran from 13th November to 9th January 2018. The stakeholders who provided input into this effort included individuals involved in commercial, recreational, and for-hire fishing activities and related businesses; individuals affiliated with industry, community, environmental, and other organizations; state and federal employees, members of the academic and scientific communities, and a wide range of other interested members of the public.

Stakeholder contributions were summarized in a 60-page final draft public report issued in April 2018 by the Fisheries Forum, a policy-neutral organization, based at Duke University's Nicholas Institute for Environmental Policy Solutions. The authors reported that the summary reflects the cumulative input gathered from stakeholders who chose to participate and provide their ideas and perspectives. The report is not intended as an evaluation of the Council process, and it does not purport to represent the broader perspectives of the Council's large and diverse stakeholder base. In addition, the summary synthesizes a large volume of information and is not comprehensive of all details shared by contributors. Finally, this summary does not offer any recommendations or conclusions beyond those offered by contributors.

Similarly, in April 2018, the authors also produced a second, 90-page summary final draft report of input from members of the Council's management and science community.

The Program Review Final Report was published on 3rd May 2018. At the time this surveillance audit was conducted, Council had set out a process and timeline for considering the report's findings and recommendations. Further information will be reported by the Audit Team at the fishery's 2nd surveillance audit.

4.5. The General Conditions of Certification

The general 'Conditions' set out for the client Sustainable Groundfish Association, Inc. as the certificate holder at initial full assessment were as follows:

- The Client must recognize that MSC standards require regular monitoring inspections at least once a year, focusing on compliance with the 'Conditions' set forth in this report (as outlined below) and continued conformity with the standards of certification;

- The Client must agree by contract to be responsible financially and technically for compliance with required surveillance audits by an accredited MSC certification body, and a contract must be signed and verified by SAI Global prior to certification being awarded;

- The Client must recognize that MSC standards require a full re-evaluation for certification (as opposed to yearly monitoring for update purposes) every five years;

- Prior to receiving final certification, the Client fulfilled the requirement to document an 'Action Plan' for Meeting the Conditions for Continued Certification' and have these approved by SAI Global; and

- The Client must provide a list of all the entities eligible for certification under one the certificate. This list must be updated annually prior to each annual surveillance audit activity.

Fulfilment of General Conditions – Surveillance Audit 1

- An Action Plan was submitted and accepted prior to the initial certification of the US Acadian redfish, haddock and pollock fishery and actions undertaken against the milestones of each Condition in the intervening period are reported upon in the next following sections.

- An up-dated list of members of the client group has been provided during the 1st surveillance audit of the fishery.

4.6. The Specific Conditions of Certification

During the initial assessment of the US Acadian redfish, haddock and Pollock otter trawl Fishery, a conditional score was allocated for PIs (List PIs PI 2.1.1 Retained Species Outcome and PI 2.1.2 Retained Species Management (Table 20).

Table 20. Summary of Assessment Conditions

Condition number	Performance indicator (PI)	Status	PI original score	PI revised score
1	2.1.1	On target	70	Not revised
2	2.1.2	On target	70	Not revised

5. Assessment Process

The Surveillance Audit followed the current version of MSC procedures implemented by SAI Global's accredited MSC Procedures (QP). Also the surveillance audit has followed the procedure of version 2.0 even though the fishery was evaluated with the version 1.3 of MSC standard. The table below below shows the current version of MSC scheme documents (Table 21).

Table 21. MSC scheme version

MSC Scheme Document	Issue Date	Implementation
MSC Certification Requirements v1.3	January 14th, 2013	Standard
MSC FCR and Guidance v2.0	October 1st, 2014	Process
General Certification Requirements v.2.1	February 20th, 2015	Process
Surveillance Reporting Template v1.0	October 8th, 2014	Process

The surveillance audit was carried out as on site visit following the level of surveillance established during the full assessment. The level has not changed since the PCR and it is shown in the table below:

Table 22. Fishery Surveillance Program.

Surveillance Level	Year 1	Year 2	Year 3	Year 4
Level 6 (default Surveillance)	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit and re-assessment

The Surveillance Audit was comprised in general consisted of the following components:

1. To review any changes in the management of the fishery, including regulations, key management or scientific staff or stock evaluation.
2. To evaluate the progress of the fishery against any Conditions of Certification raised during the full--assessment.
3. To review any developments or changes within the fishery which impact traceability and the ability to segregate MSC from non-MSC products.
4. To review any other significant changes in the fishery.

The surveillance audit consisted of the announcement to stakeholders and interested parties as required through the MSC website and more direct stakeholder contact with the original stakeholders that took part in the initial assessment and management organizations that comprise the management system and regime for the US Acadian redfish, haddock and pollock otter trawl fishery. Through this process, a stakeholder consultation plan was developed as part of the on-site audit.

Emails and information on objectives of the surveillance audit were sent to stakeholders and management agencies. From this, a surveillance on-site meeting plan was organized and appointments for each individual meeting set. Due to the nature of the management of the US Acadian redfish, haddock and pollock otter trawl fishery, and the geographic location of the respective clients and stakeholders, the on-site audit meeting was proposed to be in different locations of Massachusetts.

- On site Surveillance Audit date was the week of July 16th 2018.
- On-site meetings were attended by Virginia Polonio (Lead Auditor and P2), Jerry Ennis (Auditor P1) and Bob Allain (Auditor P3).

Each surveillance audit meeting was informed by a pre-determined agenda. The agenda was set out so as to allow specific stakeholder interests and concerns to be covered through a structured approach.

Information and notes from the consultation phase of the audit were combined with a review of formal documentation from science and management agencies, regulatory amendments and the direct evidence collected during each of the client consultation meetings.

5.1. Harmonization process

Certification Bodies assessing fisheries that have areas of overlap are required to ensure consistency of outcomes so as not to undermine the integrity of MSC fishery assessments. The CR requirements section Annex CI provides guidance for harmonisation where a fishery in assessment overlaps with an already certified fishery. The MSC wishes to discourage overlapping assessments to avoid potential financial, consistency and credibility costs, including:

- fisheries managers, scientists and stakeholders receiving duplicate requests for information
- duplication of costs for a fishery's certification, including that expense incurred by fishery management agencies pre- and post-certification; and
- The possibility of different assessments placing different conditions upon the same fisheries managers and upon different fishery clients.

Following the MSC requirement the audit team has followed the same consideration as in the full assessment regarding these two fisheries:

- US Atlantic Spiny Dogfish fishery.
- US Georges Bank Haddock Otter trawl fisheries (that one was evaluated on the MSC Reassessment of Scotia Fundy haddock in 2016 in the area 5Zjm Canadian Georges Bank)

The assessment team concluded in the full assessment that harmonization was not required in relation to these two fisheries; therefore the conclusion regarding these fisheries is the same. However a new fishery was certified in May 2018 by Lloyds Register (Acoura) CAB: **US Gulf of Maine and Georges Bank Haddock, Pollock and Redfish Trawl.**

During the full assessment of this fishery, Acoura and SAI Global had several conversations and both CABs were in touch by emails and conference calls in an effort to reach agreement on the outcomes of the fisheries. An agreement on the outcomes could not be reached; therefore, in subsequent conversations with MSC, SAI Global was informed that the outcomes of these groundfish fishery assessments did not require harmonization (resulting in the Acoura fishery assessment having no conditions).

The principle rationale in support of this issue was that the fisheries were assessed using different versions of the standard (Acoura V2.0 and SAI Global V1.3) and for that reason the wording of the relevant performance indicators has differences that can be understood in different ways and different interpretations can be achieved. Also Acoura has justified in its PCR that at the time when Acoura fishery was certified there was more data to take into account than when SAI Global carried out the full asessment. Therefore, the result was that SAI Global fisherie still have two condition in P2: PI 2.1.1 and 2.1.2 and Acoura has none of them.

More information regarding the conclusions reached during the full assessment can be found in Acoura PCR at this link: https://fisheries.msc.org/en/fisheries/us-gulf-of-maine-and-georges-bank-haddock-pollock-and-redfish-trawl/@@assessments

5.2. Summary of stakeholder and client meetings

Arising out of the stakeholder consultation plan preparation a considerable number of stakeholders were contacted directly by e-mail and a final direct consultation plan for the audit was prepared. Table 23 details the dates, meeting locations and organisations that were consulted through direct meetings or conference calls during the on-site surveillance assessment.

All meetings were conducted by the Surveillance Team Assessors.

Table 23. Consultation Meetings during the On Site Surveillance Assessment of the US Acadian redfish, haddock and Pollock otter trawl Fishery.

Name of Organisation	Present at Meetings	Location	Venue	Date/Time	Purpose
Northeast Fisheries Science Centre (NEFSC)	Russel Brown, Michel Palmer, Brian Linton, Liz Brooks, John Whiteside and the Assessment team	Woods hole, MA	NEFSC Offices	Monday 16th, July 2018	Stock status of target species and retained species Harvest Control Rules Collection of bycatch data Interactions with ETPs Ongoing research projects in relation with the fisheries and the ecosystems encountered
NOAA Fisheries – Greater Atlantic Regional Fisheries Office (GARFO)	William Poole, Stephanie Hunt, Greg Power, Mark Grant, Jeff Ray, Michael Lanning, John Whiteside, Kiersten Reider, Caleb Gilbert and the Assessment team	Gloucester, MA	GARFO offices	Tuesday 17th, July 2018	Stock rebuilding plan Calculations of the quotas/ Allocations/ Sector and common pool Peer-review process and stakeholders consultation FW 57 and priorities for FW58 Results of rebuilding plan and needs to review some of them. Observer program and monitoring system OHMA2 – Ecosystems
Sustainable Groundfish Association (SGA)- Client Group	John Whiteside, Kiersten Reider, Kristian Kristensen and the Assessment team	Gloucester, MA	Beauport Hotel, 55 Commercial Street, Gloucester, MA	Tuesday 17th, July 2018	CoC and traceability Client group and total catches Gear types and vessels Milestones for year 1 Evidences to comply with milestones

New England Fishery Management Council (NEFMC)	Jamie Cournane, Robin Frede, Tom Nies and the Assessment team	Newburyport, MA	NEFMC offices	Wednesday 18th, July 2018	Calculations of allocations on sectors and common pool Rebuilding plans under revision Data of catches Data of non-target species OHA2 amendments FW 57 and FW 58 Peer-review systems Minutes of meetings regarding groundfish Committees and stakeholders consultation Public period of consultation

6. Results

To evaluate each condition the audit team has reviewed information gathered during the site visit and information available prior to the site visit which was verified and consulted with the key stakeholders. Following the site visit the audit team has evaluated each open condition against the Year 1 milestones and MSC Certification Requirements v1.3. The tables below include the Conditions written during the full assessment and the client action plan established. Also the evaluation tables for Condition 1 and 2 during the 1st Surveillance Audit 2018 and the main evidence and conclusions reached at the end of the surveillance audit.

6.1. Condition 1

Performance Indicator(s) & Score(s)	**Insert relevant PI number(s)**	**Insert relevant scoring issue/ scoring guidepost text**
	PI 2.1.1 Retained Species Outcome - The fishery does not pose a risk of serious or irreversible harm to the retained species and does not hinder recovery of depleted retained species **Elements which do not get SG 80 responsible for condition:** **GOM/GB cod** **GOM/GB Yellowtail flounder** **GB Winter flounder** **GB Witch Flounder**	**a) Main retained species are highly likely to be within biologically based limits (if not, go to scoring issue c below).** **c) If main retained species are outside the limits there is a partial strategy of demonstrably effective management measures in place such that the fishery does not hinder recovery and rebuilding.**
Score	**70**	
Condition 1	The client must provide evidence that the current partial strategy that has been adopted for GOM and GB cod is demonstrably effective i.e. the fisheries for Acadian redfish, haddock and pollock do not hinder the recovery and rebuilding of: GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder.	
Client action plan and agreed Milestones	**By Year 1:** In the first year following grant of certification, the Client Group will work actively with NMFS, and NEFMC to monitor compliance and implementation of the adopted partial strategy, and other (new) measures as may be appropriate, with the aim of being able to demonstrate that this strategy is resulting in sufficiently low fishing mortality such that the fishery does not hinder recovery and rebuilding. Evidence required for this purpose could include the following: - Examination of the status of GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder to its' Limit Reference Point (LRP) proxy - For each gear type, fleet sector and management area, (i) data on GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder bycatch from the pre-assessment averages reported in the initial 2016 fishery assessment up to the data available at the time of surveillance audit, in regards to annual quantities caught/retained and discarded, and associated percentages of US Acadian redfish/Pollock and haddock catch, and (ii) US Acadian redfish/Pollock and haddock trip catch and effort; - Quantified estimates of discard mortality in relation to the RV biomass index for the pre-assessment period and recent years; and - Examination of observer reports relative to the management measures applicable to GOMGOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder i.e. handling, live release, move-away protocol etc.) (Score remains to 70) **By Year 2:** The Assessment Team shall be provided with up-dated evidence available at the time of surveillance audit (as per the range of evidence described for year 1 above);	

	that the current partial strategy to reduce GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder mortality by retained catch of US Acadian redfish/pollock/haddock otter trawl fisheries has been reviewed and corrective adjustments (if any) have been proposed. (Score remains to 70) **By Year 3:** The Assessment Team shall be provided with up-dated evidence available at the time of surveillance audit (as per the range of evidence described for year 1 above); that any revised measures of the partial strategy have been implemented and monitoring activity in place to assess their implementation. (Score remains to 70) **By Year 4:** The Assessment Team shall be provided with up-dated evidence available at the time of surveillance audit (as per the range of evidence described for year 1 above); that the relative fishing mortality for GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder from the target fisheries has been maintained at levels that does not hinder their recovery. The Assessment Team shall be provided with enough evidence that SG 80 is met at the end of the year 4th.(Score reaches 80)
Progress on Condition 1 [Year 1]	The species listed above still have catches that led to overfishing. In the FW57, Appendix II the stock status of GB/GOM Cod, GB/GOM Yellowfin flounder and witch flounder is remained as overfishing and overfished status; also some of them have shown that the situation of overfishing is unknown. The GB winter flounder is the only one that is not considered overfished in this report from 2017 and some results of the Groundfish Operational Assessment (GOA) have shown that the stock is improving. The table below extracted from FW57 appendix II shows the status of all the species in the NE multispecies stock assessment. **Table 1.** Framework 57. Appendix II stock status of species in the NE Multispecies Stock Information. Rectangles in red show the species under evaluation. Source NOAA Fisheries

Table 3. Stock status

Stock	2016 Assessment	
	Overfishing?	Overfished?
GB Cod	Unknown	Yes
GOM Cod	Yes	Yes
GB Haddock	No	No
GOM Haddock	No	No
GB Yellowtail Flounder	Yes	Yes
SNE/MA Yellowtail Flounder	Yes	Yes
CC/GOM Yellowtail Flounder	Yes	Yes
American Plaice	No	No
Witch Flounder	Unknown	Yes
GB Winter Flounder	No	No
GOM Winter Flounder	No	Unknown
SNE/MA Winter Flounder	No	Yes
Acadian Redfish	No	No
White Hake	No	No
Pollock	No	No
Northern Windowpane Flounder	No	Yes
Southern Windowpane Flounder	No	No
Ocean Pout	No	Yes
Atlantic Halibut*	No	Yes
Atlantic Wolffish	No	Yes

Evidence for year 1	The evidences shared with the assessment team are listed below. Most of the data are available online, however the client has sent several letters with the information that can apply for each main point in the milestone 1 as shown below. **Examination of the status of GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder to its' Limit Reference Point (LRP) proxy**; See the list of documents below under the heading "NE Multispecies Stock Information" (Appendix 3. Surveillance audit information) **For each gear type, fleet sector and management area, (I) data on GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder bycatch from the pre-assessment averages reported in the initial 2016 fishery assessment up to the data available at the time of surveillance audit, in regards to annual quantities caught/retained and discarded, and associated percentages of US Acadian redfish/Pollock and haddock catch, and (ii) US Acadian redfish/Pollock and haddock trip catch and effort**; GARFO landings reports FW 57 https://www.nefmc.org/library/framework-57 FW 57 App. II (table 1, p. 4 http://s3.amazonaws.com/nefmc.org/180220_Groundfish_FW57_Appendix_II_Calculation-of-ACLs_FINAL.pdf) FW 56 https://www.nefmc.org/library/framework-56 FW 55 https://www.nefmc.org/library/framweork-55 **Quantified estimates of discard mortality in relation to the RV biomass index for the pre-assessment period and recent years**; FW 57 https://www.nefmc.org/library/framework-57 **Examination of observer reports relative to the management measures applicable to GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder i.e. handling, live release, move-away protocol etc.)** 2018 Standardized Bycatch Reporting Methodology Annual Discard Report with Observer Sea Day Allocation http://s3.amazonaws.com/nefmc.org/7b_SBRM-Summary_NEFMC_June2018.pdf 2017 Standardized Bycatch Reporting Methodology Annual Discard Report with Observer Sea Day Allocation https://www.nefsc.noaa.gov/fsb/SBRM/2017/2017_SBRM_Annual_Discard_Report_and_Observer_Sea_Day_Allocation_20170330_reviewed.pdf 2017 Discard Estimation, Precision, and Sample Size Analyses for 14 Federally Managed Species Groups in the Waters off the North-eastern United States (Northeast Fisheries Science Centre Reference Document 17-07) https://www.nefsc.noaa.gov/publications/crd/crd1707/crd1707.pdf After the site visit and with information available and shared as an evidence the assessment team has evaluates each stock that could not reach SG 80 in the full assessment. **GB Cod-** The last stock status was carried out in 2015. Based on this assessment the stock status was unknown, but stock condition was poor. The last report of updated stock status published in October 2017 has concluded that the stock status for Georges Bank Atlantic cod remains unknown and stock condition continues to be poor (TRAC 2017) **GOM Cod-** The last stock status was carried out in 2014. The last report of updated stock status published in October 2017 has concluded that the stock status for Gulf of Maine cod stock is overfished and overfishing is occurring (NEFSC 2017) **GOM yellowtail flounder-** The last assessment was carried in October 2017 and has concluded that the status for GOM yellowtail flounder stock is overfished and overfishing is occurring. The results has shown no change in the stock status since 2012 and the condition is still poor (NEFSC 2017).

GB yellowtail flounder- The last assessment was carried in July 2017 and has concluded that the stock status for George Bank stock is overfished and overfishing is occurring. The declining trend in survey biomass to low levels, despite reductions in catch to historical low amounts, indicates a poor state of the resource (TRAC 2017)

GB winter flounder- The last stock assessment was carried out in October 2017 and has shown that the stock is not overfished and overfishing is not happening. The groundfish operational assessment shows that GB winter flounder has improved and is one of the eight stock in the green area of Kobe diagram. The HCR established in 2015 is working and the constant (75 % F_{MSY}) seemed to work the projected catches are higher than ABCs for 2018. However the GOA has noted that the rebuilding plan needs amendments and its remarked as a priority for the Council in 2018.

Witch Flounder- The stock has no projection and the status is unknown. There is no data regarding if the stock is overfished and NEFSC has shown that overfishing is happening in the last assessment in October 2017. This stock is cited as a priority for the Council to set a rebuilding plan with no projection based on the HCR of 10 years rebuilding plan.

The data from the last 2017 GOA has shown that the stocks which are not responding to low catches measures are: Ocean Pout, Wolfish, GB Yellowtail, GOM Winter Flounder, SNE Winter Flounder and recommended stock status did not change for 18 of the 19 stocks. Improvements have been shown for 1 stock (GB Winter flounder). Therefore GOA results show that most of the stocks are in the same situation as when the fishery was evaluated in the full assessment (2015).

When stock conditions are poor, fishing mortality rates should be further reduced to promote rebuilding and the biomass and recruitment should increase over the years. These facts are not happening in most of the stocks that in the full assessment did not reach SG 80.

The table below (table 2) shows a summary of the main results of the stock assessment for 2015 and 2017 and the slight improvements that the species have been done from the full assessment until the surveillance audit.

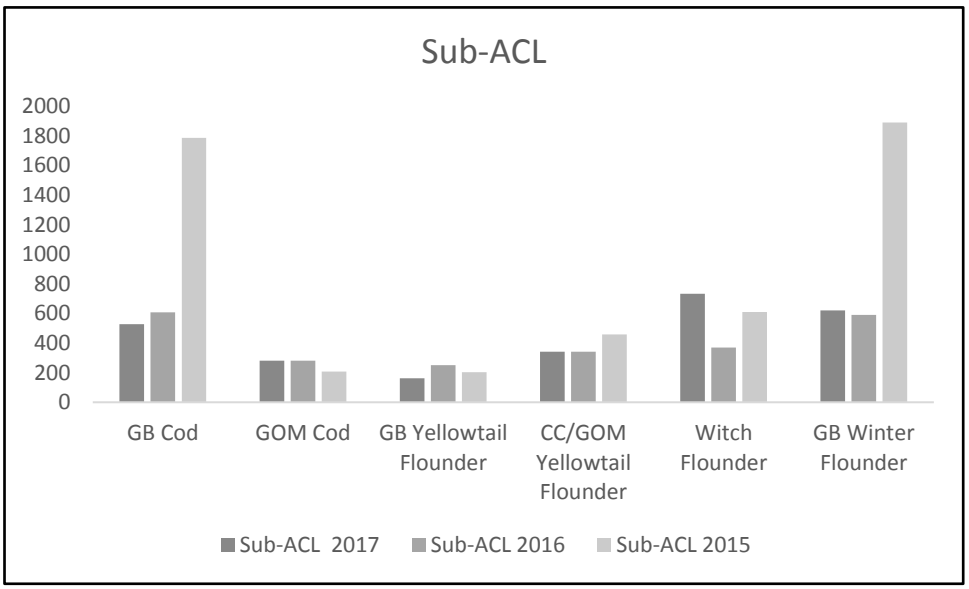
Table 2. Main results from stock assessment from 2015 and 2017. Source: Data from NOAA Fisheries

Species	Full assessment (2015)		Comments full assessment	Surveillance (2018)		Comments Surveillance	Main conclusion
	SSB	F		SSB	F		
GOM Cod	2,366 mt	NA	At 4% of SSB MSY; FMSY(0.2)= 0,185; FMSY(M-ramp)= 0,187	3,262 mt	NA	Data from 2016 posted on 2017; FMSY(0.2)= 0,174; FMSY(M-ramp)= 0,77	SSB has increased; FMSY has decreased running both models
GB Cod	1980 mt	NA	1% of SSB MSY	NA	NA	**Last data from 2017**: Rel.explo.rate = 0.258 (2015) and 0.174 (2016). Biomass (2015)=3,144 mt; Biomass (2016)=4,694 mt	Biomass has increased and Rel.explo.rate has decreased

	GOM Yellowtail flounder	1,680 mt	0.36	SSB MSY proxy= 7,080 mt, F MSY proxy = 0.26, and MSY proxy= 1,600 mt.	1,191 mt	0.314	Data from 2016 posted on 2017; SSB=26% SSB MSY (4,640 mt); F=115% F MSY(0.273)/ Biomass **WITHOUT** adjustment SSB(2015)= 1,439 : SSB(2016)=2, 093	There has been a small increase in the SSB without adjustment and F has decreased but minimal changes
	GB Yellowtail flounder	lowest levels of the time series	NA	No historical estimates of biomass, fishing mortality rate, or recruitment can be calculated	NA	NA	**Last data from 2017**: Rel.explo.rate = 0.017 (2015) and 0.009 (2016). Average Survey Biomass (2015)=7,064 mt; Average Survey Biomass (2016)= 4,997 mt	Average Survey Biomass has decreased and Rel.explo.rate has also decreased
	GB Winter flounder	5,275 (mt)	0.379	79% of the biomass target for an overfished stock SSBMSY = 6,700, FMSY = 0.536	6,083 mt	0.081	SSBMSY = 7,600 of 50% of SSBMSY; 22% of the FMSY = 0.522;	SSB has increased; F has decreased running VPA model
	Witch flounder	3,129 (mt)	0.428	33% of the SSBMSY proxy (9,473mt; 153% of the FMSY proxy (0.279)	NA	NA	Exploitable biomass (2015) = 15,862 mt; Exploitable biomass (2016) =14,563 mt/ Expl. Rate (2015) = 0.037; Expl. Rate (2016)= 0.035	No change in stock status has occurred for witch founder since the previous assessment. Biological references points remain unknown. Condition of stock still poor
Conclusion and Outcome on Condition 1 from 1st surveillance audit	According to the information in the table 12, for the most part, SSB have slightly increased, and Fs are tending to decrease. In terms of evaluating progress in the condition, there has been marginal improvement – good enough for being **"On Target".** As the assessment team has concluded that the information is enough to be on target the score is remained at 70 and PI 2.1.1 has not been rescored.							
Status of condition	The status of the condition 1 at the 1st surveillance audit is: ***On target - open***							

6.2. Condition 2

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text
Performance Indicator(s) & Score(s)	**PI 2.1.2 Retained Species Outcome** **Species included:** **GOM/GB cod,** **GOM/GB Yellowtail flounder** **GB Winter flounder, and** **GB Witch Flounder**	**a) There is a partial strategy in place, if necessary, that is expected to maintain the main retained species at levels which are highly likely to be within biologically based limits, or to ensure the fishery does not hinder their recovery and rebuilding** **b) There is some objective basis for confidence that the partial strategy will work, based on some information directly about the fishery and/or species involved** **c) There is some evidence that the partial strategy is being implemented successfully.**
Score	**70**	
Condition 2	The client must provide evidence that the current partial strategy that has been adopted for GOM and GB cod is demonstrably effective i.e. the fisheries for Acadian redfish, haddock and Pollock do not hinder the recovery and rebuilding of: GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder.	
Client action plan and agreed Milestones	**By Year 1:** In the first year following grant of certification, the Client Group will work actively with NMFS, and NEFMC to monitor compliance and implementation of the adopted partial strategy, and other (new) measures as may be appropriate, with the aim of being able to demonstrate that this strategy is resulting in sufficiently low fishing mortality such that the fishery does not hinder recovery and rebuilding. Evidence required for this purpose could include the following: - Examination of the status of GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder to its' Limit Reference Point (LRP) proxy - For each gear type, fleet sector and management area, (i) data on GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder bycatch from the pre-assessment averages reported in the initial 2016 fishery assessment up to the data available at the time of surveillance audit, in regards to annual quantities caught/retained and discarded, and associated percentages of US Acadian redfish/Pollock and haddock catch, and (ii) US Acadian redfish/Pollock and haddock trip catch and effort; - Quantified estimates of discard mortality in relation to the RV biomass index for the pre-assessment period and recent years; and - Examination of observer reports relative to the management measures applicable to GOMGOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder i.e. handling, live release, move-away protocol etc.) - (Score remains to 70) **By Year 2:** The Assessment Team shall be provided with up-dated evidence available at the time of surveillance audit (as per the range of evidence described for year 1 above); that the current partial strategy to reduce GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder mortality by retained catch of US Acadian	

	redfish/pollock/haddock otter trawl fisheries has been reviewed and corrective adjustments (if any) have been proposed. (Score remains to 70) **By Year 3:** The Assessment Team shall be provided with up-dated evidence available at the time of surveillance audit (as per the range of evidence described for year 1 above); that any revised measures of the partial strategy have been implemented and monitoring activity in place to assess their implementation. (Score remains to 70) **By Year 4:** The Assessment Team shall be provided with up-dated evidence available at the time of surveillance audit (as per the range of evidence described for year 1 above); that the relative fishing mortality for GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder from the target fisheries has been maintained at levels that does not hinder their recovery. The Assessment Team shall be provided with enough evidence that SG 80 is met at the end of the year 4th.(Score reaches 80)
Progress on Condition 2 [Year 1]	The species listed above still have catches that led to overfishing. In the FW57, Appendix II the stock status of GB/GOM Cod, GB/GOM Yellowfin flounder and GB witch flounder is remained as overfishing and overfished status in some of them that the situation of overfishing is unknown. Also, there is species as yellowtail flounder that is not responding to measures implemented as low catches as it is mentioned in the condition 1. However the figure below (figure 1) shows that the ACLs are decreasing in most of the cases from 2015 to 2017. When catches are not decreasing, the SSB or Fs have been decreased as shown in the table 2 of condition 1. That can be considered as a partial strategy to mitigate the fishing effort.  **Figure 1**. Annual Cath limits set up for each species under evaluation. Source FW57 Appendix II

Evidence for year 1	The evidences shared with the assessment team are listed below. Most of the data are available online, however the client has sent several letters with the information that can apply for each main point in the milestone 1. **Examination of the status of GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder to its' Limit Reference Point (LRP) proxy;** See the list of documents below under the heading "NE Multispecies Stock Information" (Appendix 3. Surveillance audit information) **For each gear type, fleet sector and management area, (i) data on GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder bycatch from the pre-assessment averages reported in the initial 2016 fishery assessment up to the data available at the time of surveillance audit, in regards to annual quantities caught/retained and discarded, and associated percentages of US Acadian redfish/Pollock and haddock catch, and (ii) US Acadian redfish/Pollock and haddock trip catch and effort;** GARFO landings reports FW 57 https://www.nefmc.org/library/framework-57 FW 57 App. II (table 1, p. 4 http://s3.amazonaws.com/nefmc.org/180220_Groundfish_FW57_Appendix_II_Calculation-of-ACLs_FINAL.pdf) FW 56 https://www.nefmc.org/library/framework-56 FW 55 https://www.nefmc.org/library/framweork-55 **Quantified estimates of discard mortality in relation to the RV biomass index for the pre-assessment period and recent years;** FW 57 https://www.nefmc.org/library/framework-57 **Examination of observer reports relative to the management measures applicable to GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder i.e. handling, live release, move-away protocol etc.)** 2018 Standardized Bycatch Reporting Methodology Annual Discard Report with Observer Sea Day Allocation http://s3.amazonaws.com/nefmc.org/7b_SBRM-Summary_NEFMC_June2018.pdf 2017 Standardized Bycatch Reporting Methodology Annual Discard Report with Observer Sea Day Allocation https://www.nefsc.noaa.gov/fsb/SBRM/2017/2017_SBRM_Annual_Discard_Report_and_Observer_Sea_Day_Allocation_20170330_reviewed.pdf 2017 Discard Estimation, Precision, and Sample Size Analyses for 14 Federally Managed Species Groups in the Waters off the North-eastern United States (Northeast Fisheries Science Centre Reference Document 17-07) https://www.nefsc.noaa.gov/publications/crd/crd1707/crd1707.pdf After the site visit and with information available and shared as an evidence the assessment team has evaluated each stock that could not get SG 80 in the full assessment. As mentioned in the condition 1 that is linked with condition 2 and in the progress status above, the assessment team has found that the stocks are having a slightly improvement in their status, however the table below (table 1) from GOA shows that most of them are still needing a rebuilding plan. **Table 1.** Groundfish Operational assessment (GOA) summary of rebuilding plans status for NE multispecies groundfish

stock	Rebuild End date	
GB cod	2026	no projection
GOM cod	2024	
GB Haddock	rebuilt	
GOM Haddock	rebuilt	
GB Yellowtail Flounder	2032	no projection
SNE Yellowtail Flounder	NA	
CC/GOM Yellowtail Flounder	2023	
Plaice	2024	
Witch Flounder	~~2017~~	no projection
GB Winter Flounder	~~2017~~	
GOM Winter Flounder	NA	no projection
SNE/MA Winter Flounder	2023	
Redfish	rebuilt	
White Hake	~~2014~~	
Pollock	rebuilt	
Northern Windowpane Flounder	~~2017~~	no projection
Southern Windowpane Flounder	rebuilt	
Ocean Pout	~~2014~~	no projection
Halibut	2056	no projection
Wolffish	undefined	no projection

Rebuilt Stocks	
5	
Overfished Stocks	
1	on schedule (not bound by Frebuild)
1	Frebuild lower than 75%Fmsy
6	overfished and difficult to rebuild
	(Doesn't rebuild with F=0 or no projection)
6	Overfished and did not rebuild, need a new plan
Unknow Biomass Status Stocks	
1	

The fisheries evaluated by TRAC have noted that catch has been below the quota since 2004 and, on average, catch of these species has been decreasing in most of the cases since 2010. This fact can be attributed in part to management regulations in both countries; fo example, yellowtail is not allocated to the directed fishery in Canada, gear restrictions in both countries, bycatch avoidance programs in the USA, and Total Allowable Catch (TAC) management of a multispecies fishery in the USA.

The cumulative catch reported by NOAA in the FW 57 (figure 2) has decreased since the full assessment was done., except for GOM cod and witch flounder but these cases the F and the exploitation rate have decreased respectively (table 2 condition 1).

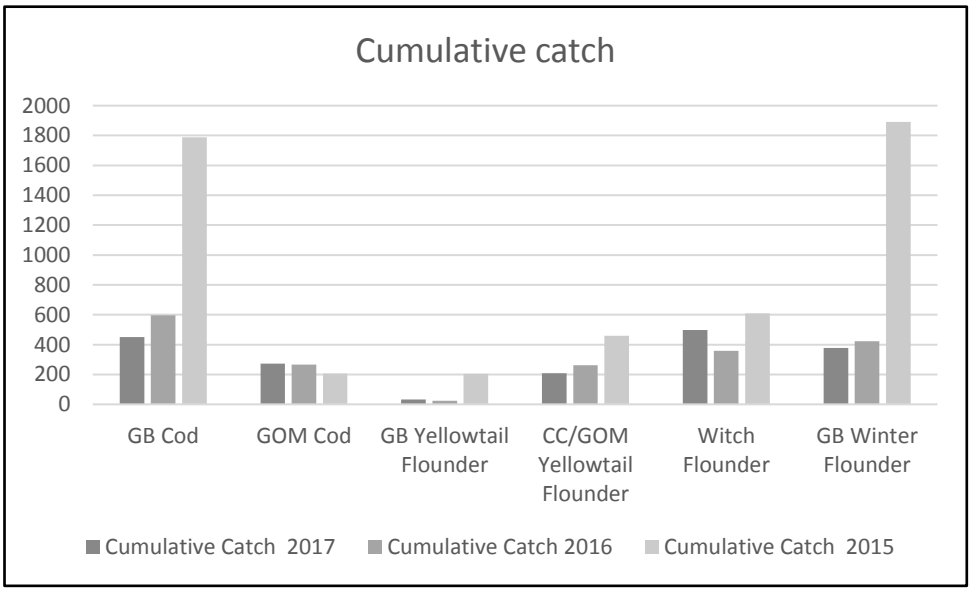


Figure 2. Cumulative catch for NE species in 2017 report Source. FW57 Appendix II.

Conclusion and Outcome on Condition 2 from 1st surveillance audit

According to the information proviced above, for the most part, SSB have slightly increased, and Fs are tending to decrease. Also it has been reported by NOAA fisheries stock status that exploitation rates has decreased for witch flounder, GB cod and GB yellowfin flounder.

In terms of evaluating progress in the condition, there has been marginal improvement that can be considered as a part of the successfully partial strategy in place and the facts can be

	taken as an evidence that the strategy is working however amendments in rebuilding plans are needed for most of the stocks. The assessment team has concluded that the information is enough to be on target the score is remained at 70 and PI 2.1.2 has not been rescored.
Status of condition	The status of the condition 2 at the 1st surveillance audit is: ***On target - open***

6.3. Summary of Status of Conditions

Condition	Performance Indicator	Status
1	2.1.1	Open-**On target**
2	2.1.2	Open-**On target**

6.4. Recommendation

The audit team is including a recommandation to highlight how the management or operation of the fishery could be enhanced and contribute to ongoing efforts to ensure the long-term sustainability of the Groundfish Otter Trawl Fishery in the 4 UoCs. In so doing, the audit team notes that the recommendation does not impose a mandatory requirement nor is it auditable; however, it represents a marker for future audits and assessments and may highlight actions that will ensure that information or evidence of good management remain current and continue to meet MSC requirements.

1. Enforcement and Compliance Monitoring and Performance

The team recommends that the client request from NOAA/NMFS/GARFO and/or the USCG data for the most recent 3 fishing seasons that represent the agency's enforcement and compliance inputs and outputs specifically in relation to the certified-fishery (or to the Groundfish Otter Trawl fishery generally). Inputs could include the number of surveillance hours (air) or days (vessels) that were dedicated against the fleet during each fishing season. Outputs could include the number of inspections undertaken (at-sea, in port), and the number of citations issued and formal charges initiated by violation type during each fishing season.

7. Conclusion

The audit team conducting this 1st surveillance audit confirms that Sustainable Groundfish Association, Inc., has met the general requirements for continued certification to the MSC Principles and Criteria for Sustainable Fishing.

Furthermore, the audit team has concluded that:

There is sufficient evidence and information provided by the client and substantiated through the course of the consultation meetings during the surveillance audit to confirm that sufficient progress has been made such that the Year 1 Milestones for condition 1 (PI 2.1.1) and condition 2 (PI 2.1.2 of certification have been met.

The audit team recommends that continued certification be awarded to the respective client fishery:

US Acadian redfish, haddock and Pollock otter trawl fishery

7.1. Outcome of SAI Global Decision

SAI Global has determined that:

The US Acadian redfish, haddock and Pollock otter trawl fishery continues to operate well-managed and sustainable fisheries and therefore, continued certification to the MSC Principles and Criteria for Sustainable Fishing is awarded.

8. References

- Acoura PCR US Gulf of Maine and Georges Bank haddock, pollock and redfish trawl. May 2018.

- Alade, L. 2015. In Northeast Fisheries Science Center. 2015. Operational Assessment of 20 Northeast Ground_sh Stocks, Updated Through 2014. US Dept Commer, Northeast Fish SciCentRef Doc. 15-24; 251 p. doi:10.1371/journal.pbio.1000014

- Legault, C, L. Alade, S. Emery, J. King, and S. Sherman. 2012. In. Northeast Fisheries Science Center. 2012. Assessment or Data Updates of 13 Northeast Ground_sh Stocks through 2010. US Dept Commer, NOAA Fisheries, Northeast Fish Sci Cent Ref Doc. 12-06.; 789 p. CRD12-06

- Legault, C.M. and D. Busawon. 2016. Stock Assessment of Georges Bank Yellowtail Flounder for 2016. TRAC Ref. Doc. 2016/01. 63 p. TRAC2016

- Legault, C.M. and Q.M. McCurdy. 2017. Stock Assessment of Georges Bank Yellowtail Flounder for 2017. TRAC Working Paper 2017/03. 58 p. TRAC2017

- Levin, P. S., Fogarty, M. J., Murawski, S. A. and Fluharty, D. 2009. Integrated ecosystem assessments: Developing the scientific basis for ecosystem-based management of the ocean. PLoS Biol 7(1): e1000014.

- Northeast Fisheries Science Center. 2011. 52nd Northeast Regional Stock Assessment Workshop (52nd SAW) Assessment Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-17; 962 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026.

- Northeast Fisheries Science Center. 2015. Operational assessment of 20 Northeast ground_sh stocks, updated through 2014. U.S. Dept. Commer. Northeast Fish. Sci. Cent. Ref. Doc. 15-24; 251 p.

- Northeast Fisheries Science Center. 2017. 62nd Northeast Regional Stock Assessment Workshop Assessment Report, Northeast Fisheries Science Center, Woods Hole, Massachusetts, January 2017. US Dep Commer, NOAA Fisheries, Northeast Fish Sci Cent Ref Doc. 17-03; 822 p. CRD17-03

- Northeast Fisheries Science Center. 2017. Operational Assessment of 19 Northeast Groundfish Stocks, Updated Through 2016. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 17-17; 259 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026.

- Northeast Fish Sci Cent Ref Doc. 14-14; p. 84 Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at http://www.nefsc.noaa.gov/publications/. Accessed on December 18th, 2014.

- Palmer MC. 2014. 2014 Assessment update report of the Gulf of Maine Atlantic cod stock. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 14-14; 119 p. Available from: National Marine Fisheries Service,166 Water Street, Woods Hole, MA 02543-1026. CRD14-14

- Palmer MC. 2017. Vessel trip reports catch-area reporting errors: Potential impacts on the monitoring and management of the Northeast United States ground_sh resource. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 17-02; 47 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026. CRD17-02

- SAI Global Revised PCR US redfish, haddock and Pollock otter trawl. March 2017

- TRAC. 2013. Georges Bank Yellowtail Flounder. TRAC Status Report 2013/01. TSR2013

- TRAC. 2017. Georges Bank Yellowtail Flounder. TRAC Status Report 2017/03. TSR2017

Website and online documents consulted

- https://www.nefmc.org/library/omnibus-habitat-amendment-2
- http://s3.amazonaws.com/nefmc.org/180103_OA2-Decision_Letter-to-NEFMC.pdf
- http://s3.amazonaws.com/nefmc.org/2018-06760.pdf
- https://www.fisheries.noaa.gov/action/proposed-rules-revise-endangered-species-act-regulations
- http://s3.amazonaws.com/nefmc.org/180103_OA2-Decision_Letter-to-NEFMC.pdf
- http://s3.amazonaws.com/nefmc.org/2018-06760.pdf
- http://www.nmfs.noaa.gov/op/pds/documents/01/121/01-121-01.pdf
- https://s3.amazonaws.com/nefmc.org/1_draft-em-cost-allocation-pd-feb2018-ccc.pdf
- https://s3.amazonaws.com/nefmc.org/6c_01-119_FishAllocation_RevPolicy.pdf1
- https://www.fisheries.noaa.gov/bulletin/northeast-multispecies-groundfish-fishing-year-2018-regulations
- http://s3.amazonaws.com/nefmc.org/NEFMC-Endorses-U.S.Canada-Groundfish-TACs.pdf

9. Appendices

9.1. Appendix 1. Re-scoring evaluation tables (if necessary)

Not applicable

9.2. Appendix 3. Surveillance audit information

Support letters presented by the client at the time of the first Surveillance audit:

- **Letter sent on July 13th 2018**

WhitesideLaw

July 13, 2018

Virginia Polonio, PhD.
Fisheries Assessment Officer
SAI Global/Global Trust
Block 3, Quayside Business Park,
Mill Street, Dundalk, County Louth, Ireland

Dear Dr. Polonio:

The Sustainable Groundfish Association, Inc. ("SGA") has prepared this document, as advised by our certifying body, SAI Global, as part of the 1st annual audit for the US Acadian redfish, pollock and haddock otter trawl fisheries.

There are 2 conditions: PI 2.1.1 and 2.1.2
The client must provide evidence that there is a partial strategy of demonstrably effective management measures in place such that the fishery does not hinder recovery and rebuilding of the retained species, Atlantic Cod for each of the two fishery geographic locations; GOM and GB.

The SFA respectfully suggests the audit team adopt the findings of the assessment for the fisheries recently concluded by Acoura Marine. Specifically, adopt the following:

> The SG80 requirements are met for all main, primary species in the GOM and GB as they are either highly likely to be above the PRI, or if the species is below the PRI, there is either evidence of recovery or a demonstrably effective strategy in place between all MSC UoAs which categorize this species as main, to ensure that they collectively do not hinder recovery and rebuilding. The SG 100 requirements are only met for any primary main species that are also P1 species, all other primary main species do not meet the SG100 level requirement as there is no evidence with a high degree of certainty that these species are both above the PRI and are fluctuating around a level consistent with MSY. (p. 192)
> https://fisheries.msc.org/en/fisheries/us-gulf-of-maine-and-georges-bank-haddock-pollock-and-redfish-trawl/@@assessment-documentsets?documentset_name=Public+certification+report&phase_name=Public+certification+report+and+certificate+issue&start_date=2017-03-08&title=Initial+assessment

Action Plan for 1st annual audit:
In the first year following grant of recertification, the Client Group will work actively with NMFS, and NEFMC to monitor compliance and implementation of the adopted partial strategy, and other (new) measures as may be appropriate, with the aim of being able to demonstrate that this strategy is resulting in sufficiently low fishing mortality such that the fishery does not hinder recovery and rebuilding. Information required for this purpose shall include the following:

Phone 508-991-3333
Email John@JWhiteside.com
Web JWhiteside.com

Law Office of John F. Whiteside, Jr., P.C.
678 State Road
Dartmouth, MA 02747

Examination of the status of GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder, and witch flounder to its' Limit Reference Point (LRP) proxy;
See the list of documents below under the heading "NE Multispecies Stock Information"

For each gear type, fleet sector and management area, (i) data on GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder bycatch from the pre-assessment averages reported in the initial 2016 fishery assessment up to the data available at the time of surveillance audit, in regards to annual quantities caught/retained and discarded, and associated percentages of US Acadian redfish/Pollock and haddock catch, and (ii) US Acadian redfish/Pollock and haddock trip catch and effort;

A. GARFO landings reports (See attached excel worksheet)
B. FW 57 https://www.nefmc.org/library/framework-57
C. FW 57 App. II (table 1, p. 4 http://s3.amazonaws.com/nefmc.org/180220_Groundfish_FW57_Appendix_II_Calculation-of-ACLs_FINAL.pdf)
D. FW 56 https://www.nefmc.org/library/framework-56
E. FW 55 https://www.nefmc.org/library/framweork-55

Quantified estimates of discard mortality in relation to the RV biomass index for the pre-assessment period and recent years;

A. FW 57 https://www.nefmc.org/library/framework-57

Examination of observer reports relative to the management measures applicable to GOM/GB cod, GOM/GB yellowtail flounder, GB winter flounder i.e. handling, live release, move-away protocol etc.)

A. 2018 Standardized Bycatch Reporting Methodology Annual Discard Report with Observer Sea Day Allocation http://s3.amazonaws.com/nefmc.org/7b_SBRM-Summary_NEFMC_June2018.pdf

B. 2017 Standardized Bycatch Reporting Methodology Annual Discard Report with Observer Sea Day Allocation https://www.nefsc.noaa.gov/fsb/SBRM/2017/2017_SBRM_Annual_Discard_Report_and_Observer_Sea_Day_Allocation_20170330_reviewed.pdf

C. 2017 Discard Estimation, Precision, and Sample Size Analyses for 14 Federally Managed Species Groups in the Waters off the Northeastern United States (Northeast Fisheries Science Center Reference Document 17-07) https://www.nefsc.noaa.gov/publications/crd/crd1707/crd1707.pdf

NE Multispecies Stock Information

Stock Information - GOM/GB Atlantic Cod, yellowtail flounder, winter flounder, witch flounder

2018 Documents

- FW 57 January 22, 2018 (cited above)

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This rule sets 2018–2020 catch limits for 20 multispecies (groundfish) stocks, adjusts allocations for several fisheries, revises accountability measures, and makes other minor changes to groundfish management measures. This action is necessary to respond to updated scientific information and achieve the goals and objectives of the fishery management plan. The final measures are intended to prevent overfishing, rebuild overfished stocks, achieve optimum yield, and ensure that management measures are based on the best scientific information available.

- 2018 Transboundary Resources Assessment Committee (TRAC) Working Paper - Eastern GB Cod
  https://www.nefsc.noaa.gov/assessments/trac/documents/egb-cod-2018.pdf

- 2018 TRAC Working Paper – GB Yellowtail Flounder
  https://www.nefsc.noaa.gov/assessments/trac/documents/gbyt-assessment-2018-v3.pdf

- TAC Area Closure for Common Pool Fishery of Northeast Multispecies
  "Based on catch data through April 23, 2018 the common pool fishery is projected to have caught approx. 90% of the Trimester 3 TAC for GOM cod on April 24, 2018."
  https://www.gpo.gov/fdsys/pkg/FR-2018-05-01/pdf/2018-09148.pdf

2017 Documents

- FW 56 March 16, 2017 (cited above)
  This rule sets catch limits for 4 of the 20 groundfish stocks, adjusts several allocations and accountability measures for groundfish catch in groundfish and non-groundfish fisheries, and makes other administrative changes to groundfish management measures.

- 2017 GB Atlantic cod Assessment Update Report
  https://www.nefsc.noaa.gov/groundfish/operational-assessments-2017/docs/wps/2017_COD_GB_RPT_Georges_Bank_Atlantic_cod_Update_2017_08_18_164915.pdf

- 2017 GOM Atlantic cod –Assessment Update Report
  https://www.nefsc.noaa.gov/groundfish/operational-assessments-2017/docs/wps/Gulf_of_Maine_Atlantic_cod_Update_2017_08_21_072733.pdf

- 2017 TRAC – GB Yellowtail Flounder
  https://www.nefsc.noaa.gov/saw/trac/tsr_2017_gbytail.pdf

- 2017 TRAC – Eastern GB Cod
  https://www.nefsc.noaa.gov/saw/trac/tsr_2017_egbcod.pdf

- 2017 ASMFC Stock Overview – winter flounder
  https://www.asmfc.org/files/pub/ASMFC_StockStatus_August2017.pdf

- 2017 GB winter flounder – Assessment Update Report

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https://www.nefsc.noaa.gov/groundfish/operational-assessments-2017/docs/wps/2017_FLW_GB_RPT.pdf
https://www.nefsc.noaa.gov/groundfish/operational-assessments-2017/docs/AOP-afternon-presentations.pdf

- Witch flounder – 2017 Assessment Update Report
https://www.nefsc.noaa.gov/groundfish/operational-assessments-2017/docs/wps/2017_WIT_UNIT_RPT_2017_08_21_103114.pdf

- GB Yellowtail Flounder – 2017 stock assessment
https://www.nefsc.noaa.gov/saw/trac/wp3_legault_gb_yellowtail_assessment.pdf

- 2017 Groundfish Operational Assessment – Ecosystem Considerations
https://www.nefsc.noaa.gov/groundfish/operational-assessments-2017/docs/presentations/2017OpAssess_EcosystemConsiderations.pdf

2016 Documents

- FW 55 May 2, 2016 (cited above)
This rule sets 2016–2018 catch limits for all 20 groundfish stocks, adjusts the groundfish at-sea monitoring program, and adopts several sector measures.

- Stock Assessment of witch flounder for 2016
https://www.nefsc.noaa.gov/publications/crd/crd1703/witch-flounder-text.pdf

- Northeast Multispecies Fishery for FY 2016
https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/Sector_Monitoring/FY16_Mults_Catch_Estimates.pdf

- FY 2016 End of Year Carryover
https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/Sector_Monitoring/FY16%20Year%20End%20Carryover.htm

- Indications of offshore spawning by southern GOM winter flounder – FY 2016
https://www.tandfonline.com/doi/full/10.1080/19425120.2017.1365786

2015 Documents

- Northeast Fisheries Science Center. 2015 (NEFSC 2015). Operational Assessment of 20 Northeast Groundfish Stocks, Updated Through 2014. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 15-24; 251 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at http:// www.nefsc.noaa.gov/publications/

Miscellaneous:

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-

Use of NOAA ship Pisces to conduct portion of 2017 fall survey because NOAA ship Bigelow had mechanical failures again and could not fully complete it's assigned surveys for 3 of the past 5 years. https://www.nefsc.noaa.gov/assessments/trac/documents/intersessional/gabriel-2017-autumn-survey.pdf

Respectfully submitted,
Sustainable Groundfish Association, Inc.
by
/s/
John F. Whiteside, Jr.
General Counsel

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- **Letter sent on July 27th 2018**

WhitesideLaw

September 14, 2018

Virginia Polonio, PhD.
Fisheries Assessment Officer
SAI Global/Global Trust
Block 3, Quayside Business Park,
Mill Street, Dundalk, County Louth, Ireland

Dear Dr. Polonio:

This letter is in response to the email you sent me on July 26, 2018 where you requested further information and numerous documents as follows (Note I inserted numbers for your bullets for clarity):

In terms of completing the audit we have agreed that the followed information would be very useful for the team:

1. List of vessels, vessel registration number, and home port included in the certificate Companies and other onshore entities included in the certificate.
2. First point of change in ownership of the landed catch (list all points of change in effect).
3. Any "formal (also unformal)" scheme of traceability in place by buyers, shippers, processing plants.
4. Any "raw data (or any useful information)" of catches directly from the fishery/industry.
5. Any evidence of correspondence and/or direct participation in the meetings carried out by committees, NEFMC, etc regarding Year 1 Action Plan milestones for both conditions.

Response:

1. The certificate states eligible users of this certificate are:
   - The vessel offloading and distribution facility of Cape Ann Seafood Exchange, Inc. and Atlantic Coast, Inc.; and
   - Other licensed fishers (subject to Certificate Sharing Agreement requirements) operating the same gear on the same stock and species.

   All of the above vessels hold a Northeast Multispecies permit as found at NOAA GARFO: (https://www.greateratlantic.fisheries.noaa.gov/aps/permits/data/index.html)

2. The certificate covers this. See p. 107-108

3. None other than what is required under federal law (vessels and dealers report landings).

4. NOAA GARFO is the primary source for catch and landings. See letter from John Whiteside dated July 13, 2018.

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5. See letter from John Whiteside dated July 13, 2018.
   John Whiteside is a regular participant in the Council process and is an Advisory Panel member to the NEFMC and attended the following NEFMC meetings, which included the Groundfish Committee: 6/20/2017, 9/27/2017, 12/6/2017, 1/31/2017, 4/18/2018 and 6/13/2018.

Please contact me if you need other documents or information.

Respectfully submitted,
Sustainable Groundfish Association, Inc.
by
/s/
John F. Whiteside, Jr.
General Counsel

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9.3. Appendix 4. Additional detail on conditions/ actions/ results (if necessary)

Not applicable

9.4. Appendix 5. Revised Surveillance Program

A Default Surveillance (Level 6) was determined during the full assessment. It is proposed to revise the surveillance program to Level 5 (3 on-site surveillance audits and 1 off-site surveillance audit). Rationale for this change is provided in Table 24. The 2nd surveillance audit is proposed to be carried out 6 months later than the anniversary date, rationale for this deviation is provided in Table 25. The complete revised surveillance program is provided in Table 26.

Table 24. Surveillance level rationale.

Year	Surveillance activity	Number of auditors	Rationale
2	Off-site audit	3 auditors off-site	The information that will be needed to verify the progress of the fishery against conditions 1 and 2 can be collected from a remote location. Also, the review of changes and updates in management and science can be undertaken from a remote location.

Table 25. Timing of surveillance audit.

Year	Anniversary date of certificate	Proposed date of surveillance audit	Rationale
2	5th July 2018	December 2018-January 2019	This first surveillance audit was carried out 1 year later than the certificate anniversary date due to the fact that the client had not allowed SAIG to conduct the surveillance audit within the required delay and the certificate was suspended. In order to put the fishery back on track regarding timing, the 2nd surveillance audit is proposed to be conducted 6 months later than the certificate anniversary date. .

Therefore the surveillance program remains as set out in the full assessment and as detailed in the table below (Table 26).

Table 26. Fishery Surveillance Program.

Surveillance Level	Year 1	Year 2	Year 3	Year 4
Level 5	On-site surveillance audit	Off-site surveillance audit	On-site surveillance audit	On-site surveillance audit and re-assessment