

Marine Stewardship Council 1st Surveillance Report

For The

Canada 3LN Redfish Fishery



Facilitated by the

Groundfish Enterprise Allocation Council

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Foreword

The Canada 3LN Redfish Fishery was certified in accordance with the MSC Principles and Criteria for Sustainable Fishing in 22nd May 2017.

At certification, two Performance Indicators (PIs) were identified as having scored below the unconditional passing score of 80: 2.1.3 Retained Species Information/Monitoring and 3.2.1 Fishery Specific Objectives and a Client Action Plan for improving the performance of these PIs was put in place.

Based on the surveillance level for the fishery, SAI Global determined that the 1st Annual Surveillance Audit of the fishery should be conducted as a Level 6 fishery surveillance audit in accordance with the provisions of the MSC Fisheries Certification Requirements v.2.0 (effective 1st April 2015) G7.23.2, G7.23.3.1 and G7.23.3.2.

The location of the on-site audit was chosen to reflect the client's preference and also facilitated the collection of information through face-to-face meetings with the client, stakeholders and those responsible for science and management of the fishery (Department of Fisheries and Oceans, Newfoundland and Labrador Region). An onsite visit with NAFO Staff was not possible around that time. Thus, a conference call was arranged with NAFO Staff .

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Glossary

AFR	Atlantic Fishery Regulations
AFS	Aboriginal Fisheries Strategy
B_{lim}	Stock size below which the recruitment would be impaired
B_{MSY}	Stock size that can produce maximum sustainable yield when it is fished at a level equal to F_{MSY}
CAB	Conformity Assessment Body
C&P	Conservation and Protection (DFO Enforcement Unit)
CoC	Chain of Custody
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CPUE	Catch per Unit Effort
CR	Certification Requirements
CSAS	Canadian Science Advisory Secretariat
DFO	Department of Fisheries and Oceans Canada
DMP	Dockside Monitoring Program
EAM	Ecosystem Approach Management
EEZ	Exclusive Economic Zone
ESBA	Ecologically and Biologically Significant Areas
ETP	Endangered, Threatened and Protected species
F	Fishing Mortality Rate
F_{lim}	Fishing mortality rate that causes a stock to fall below B_{lim}
F_{MSY}	Fishing mortality rate at the level that would produce maximum sustainable yield from a stock that has size of B_{MSY}
FAO	United Nations Food and Agriculture Organization
GEAC	Groundfish Enterprise Allocation Council
IFMP	Integrated Fisheries Management Plan
IPI	Inseparable or Practically Inseparable stock(s)
HCR	Harvest Control Rule
LCH	Laurentian Channel
LRP	Limit Reference Point
MPA	Marine Protected Area
MSC	Marine Stewardship Council
MSE	Management strategy evaluation
MSY	Maximum Sustainable Yield, it is the largest average catch that can be continuously taken from a stock under existing environmental conditions
NAFO	North Atlantic Fisheries Organization
PA	Precautionary Approach
P1	MSC Principle 1
P2	MSC Principle 2
P3	MSC Principle 3
PI	MSC Performance Indicator
RAP	Regional Advisory Process

SAR	Science Advisory Report
SARA	<i>Species At Risk Act</i>
SFF	<i>Sustainable Fisheries Framework</i>
SG	<i>Scoring Guidepost</i>
SSB	<i>Spawning stock biomass</i>
UoC	<i>Unit of Certification</i>
VME	<i>Vulnerable marine ecosystem</i>

1. Executive Summary

This report contains the findings of the 1st surveillance audit in relation to the Groundfish Enterprise Allocation Council's (GEAC) certificate of the Canada 3LN Redfish Fishery.

This surveillance report under the 'Unit of Certification' (UoC) covers the Acadian redfish stock and two methods of capture; (UoC1) bottom and (UoC2) mid-water trawl landings by registered licence holders. Fishing for these UoCs is within and outside the Canadian Exclusive Economic Zone (EEZ) and exclusively in North Atlantic Fisheries Organization (NAFO) divisions 3LN.

The 1st surveillance audit focused on any changes to the fishery and its management since the initial assessment, and monitoring of compliance with the MSC Principles and Criteria. Also, the audit team evaluated progress against the 2 conditions: PI 2.1.3 Retained Species information/Monitoring and PI 3.2.1 Fishery Specific Objectives.

SAI Global determines that:

- **The Canada 3LN Redfish 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.**

Table below summarises conditions status.

Condition number	Performance Indicator (PI)	Status	PI original score	PI revised score
1	2.1.3	Open - On Target	75	Not revised
2	3.2.1	Open On Target	70	Not revised

Score of Performance Indicator (PI) 3.1.1 was revised and consequently, the overall score of Principle 3 was revised. Re-scored P1 3.1.1 scoring table is presented in Appendix 1.

For both UoAs

PI 3.1.1		Principle 3	
Initial score	Revised score	Initial score	Revised score
80	85	83.1	83.8

On behalf of the MSC client, the Groundfish Enterprise Allocation Council (GEAC), SAI Global would like to extend thanks and appreciation to the management organisations and stakeholders of the Canada 3LN Redfish Fishery who took part in this surveillance audit. In particular we would like to thank all the staff of the Department of Fisheries and Oceans (DFO) – Newfoundland and Labrador Region who provided information that greatly facilitated the conduct of this surveillance audit.

The surveillance assessment team is different from the original assessment team due to Assessor availability.

Lead Assessor and P1 Expert: Dr. Ivan Mateo

Dr. Ivan Mateo has over 20 years' experience working with natural resources population dynamic modelling. His specialization is in fish and crustacean population dynamics, stock assessment, evaluation of management strategies for exploited populations, bioenergetics, ecosystem-based assessment, and ecological statistical analysis. Ivan received a Ph.D. in Environmental Sciences with Fisheries specialization from the University of

Rhode Island. He has studied population dynamics of economically important species as well as candidate species for endangered species listing from many different regions of the world such as the Caribbean, the Northeast US Coast, Gulf of California and Alaska. He has done research with NMFS Northeast Fisheries Science Centres' Ecosystem Based Fishery Management on bio-energetic modeling for Atlantic cod. He also has been working as environmental consultant in the Caribbean doing fieldwork and looking at the effects of industrialization on essential fish habitats and for the Environmental Defense Fund developing population dynamics models for data poor stocks in the Gulf of California. Recently Ivan worked as National Research Council postdoc research associate at the NOAA National Marine Fisheries Services Ted Stevens Marine Research Institute on population dynamic modelling of Alaska sablefish. Ivan has completed his MSC Team Leader training.

Assesor and P2 Expert: Conor Donelly

Conor is an MSC approved Fisheries Team Leader. He is an experienced marine ecologist and environmental manager with a background of over 17 years at the UK's statutory nature conservation body, Natural England, where he was Senior Marine Adviser responsible for marine delivery across the East Midlands, Norfolk and Suffolk. He has a BSc. in Environmental Science from King's College, University of London and an MRes in Marine and Coastal Ecology and Environmental Management from the University of York. Conor has extensive experience of working with fisheries managers, the fishing sector, local communities and NGOs, particularly from assessing the environmental impacts of mussel, cockle and shrimp fisheries in The Wash, UK and providing advice on their management. He was Natural England's representative on the Eastern Inshore Fisheries and Conservation Authority and its predecessor. He also advised and supported the UK's Department for Environment, Food and Rural Affairs (Defra) on fisheries casework in the southern North Sea under the Common Fisheries Policy (CFP) including meetings with other member states. Other experience includes Marine Protected Area designation, conservation advice and condition assessment; conservation legislation and policy; and working with partners and stakeholders to deliver positive environmental outcomes. Conor is certified as a Fisheries Team Leader under MSC FCR versions 1.3 and 2 and a fisheries assessor under the IFFO RS Standards

Assesor and P3 Expert: Eric Dunne

Eric has over 45 years' experience in the economic, policy and operations analyses and executive management of the full range of fishery management activities and functions. Since 1995, he has been a fishery consultant based in St. John's, Newfoundland, Canada, specializing in comprehensive analysis of all aspects of fisheries management activities and issues. He was Regional Director-General of DFO's Newfoundland and Labrador Region from 1981 to 1995. With an educational background in the economics of fishing, he had previously held senior positions in the Department's economics and policy development functions. He later gained experience in the area of fisheries innovation and technology development. As well, he has lectured on fisheries management and fisheries economics in the Masters of Marine Studies Program at Memorial University of Newfoundland and Labrador. Most recently he has become fully versed in the overall MSC assessment process. In this context, he has assessed all aspects of the management systems utilised for a variety of finfish and shellfish fisheries from the sub-Arctic areas of the Northwest Atlantic to the Gulf of Mexico. Eric was a member of the initial assessment team.

2. General Information

Fishery name	Canada 3LN Redfish Fishery		
Unit(s) of certification	Species: Acadian Redfish (<i>Sebastes fasciatus</i>) Geographical Area: NAFO Divisions 3LN (within and outside Canada EEZ) Methods of Capture: Bottom trawl and mid-water trawl Client Group: Groundfish Enterprise Allocation Council (GEAC); Other Eligible Fishers: There are no other eligible fishers.		
Date certified	22 th May 2017	Expiry date	21 th May 2021
Surveillance level and type	Surveillance Level 6 (Default Surveillance), on-site surveillance audit		
Date of surveillance audit	June 28 2018		
Surveillance stage (pick one)	1st Surveillance	X	
	2nd Surveillance		
	3rd Surveillance		
	4th Surveillance		
	Other (expedited etc.)		
Surveillance team	Lead Assessor: Dr. Ivan Mateo Assessor(s): Conor Donnelly Assessor(s): Eric Dunne		
CAB name	SAI Global		
CAB contact details	Address	3rd Floor, Block 3, Quayside Business Park, Mill Street, Dundalk, Co. Louth, Ireland	
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	Phone/Fax	902-526-4582	
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	Contact name(s)	Kris Vascotto Executive Director	

3. Introduction

This report sets out the results of the 1st surveillance audit in relation to the Groundfish Enterprise Allocation Council's (GEAC) certificate of the Canada 3LN redfish 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 re-assessment of the fishery. Action Plans for each Condition were submitted by the fishery client and these were 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 28th May 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.

Error! Reference source not found. 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 client, GEAC, at the initial certification decision.

Meetings were held with the following management and scientific organizations responsible for the the Canada 3LN Redfish Fishery:

- Northwest Atlantic Fishery Organization (NAFO) – Dartmouth, Nova Scotia
- Department of Fisheries and Oceans (DFO) – Newfoundland and Labrador Region

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. The client submission and supporting documentation was quite extensive, rather than include it all in this audit report it can be provided on request from SAI Global.

4. Background

As mentioned previously the target species or stock for the initial assessment was the Acadian redfish (*S. fasciatus*). The Deepwater Redfish *S. mentella*, which is indistinguishable from *S. fasciatus* in commercial catches, was categorized in the initial assessment as an Inseparable/Practically Inseparable (IPI) species owing to its low relative abundance within the 3LN redfish complex. Its status and management is currently addressed on the P2 section of this report. Therefore, while in this section focussing on P1, we refer to the stock as “redfish” or the “redfish complex” to be consistent with the NAFO management and assessment documents, we are referring to the status and management of *S. fasciatus* unless explicitly noted otherwise.

The Canada 3LN redfish fishery occurs in FAO Fishing Area 21 (Northwest Atlantic), NAFO Divisions 3L and 3N (Figure 1) inside and outside Canada EEZ.

Division 3L. That portion of the subarea lying between the Newfoundland coast from Cape Freels to Cape St Mary’s and a line described as follows: beginning at Cape Freels; thence due east to the meridian of 46°30’ west longitude, thence due south to the parallel of 46°00’ north latitude; thence due west to the meridian of 54°30’ west longitude, thence along a rhumb line to Cape St. Mary’s, Newfoundland.

Division 3N. That portion of the subarea lying south of the parallel of 46°00’ north latitude and between the meridian of 46°30’ west longitude and the meridian of 51°00’ west longitude

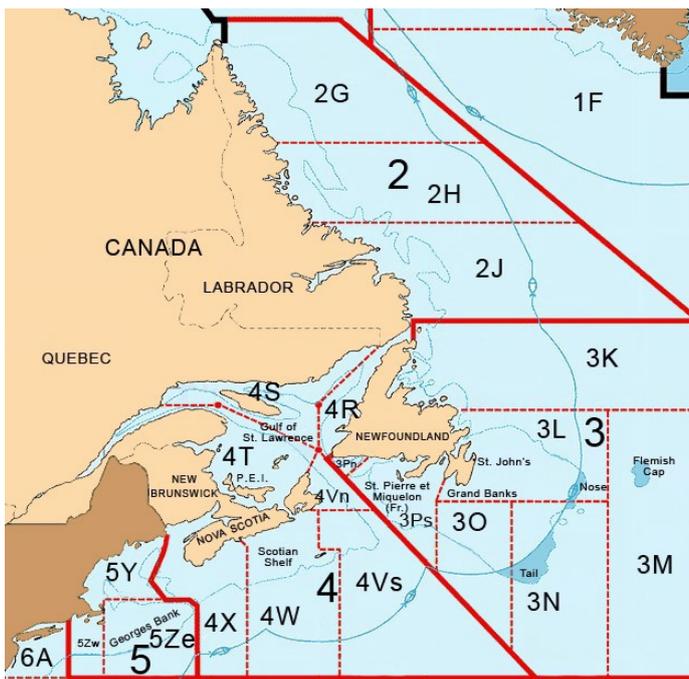


Figure 1. Map of NAFO Convention Area. Plain red line: boundary on Subareas; dotted red line: boundary of Divisions; plain light blue line with fish; 200 mile zone boundary.

Fishing activities take place from January 1 to December 31, at any time of the year. The fishing method is bottom trawl and mid-water trawl. However, mid-water trawl has not been used recently. All fishing vessels are equipped with Vónin Bacalao bottom trawl with a mesh size 190 mm outside the Canadian EEZ and 155 mm inside. Vessels fish with “flying doors” (semi-pelagic doors) and elevated sweeps that are designated to lift a portion of the sweep line off the seabed. At the time of this surveillance audit four >100’ vessels operate on the 3LN redfish fishery

4.1. Fishery Observations

4.1.1. Principle 1

The Groundfish Enterprise Allocation Council (GEAC), Department of Fisheries and Oceans (DFO), Newfoundland and Labrador Region provided a number of documents in support of this audit. The following is a summary of relevant documentation related to this audit.

Included with the client's submission was a letter dated 25th June, 2018, from the Regional Director General of DFO's Newfoundland and Labrador Region (see Appendix 3 of this report). The letter highlights the following:

- No material changes to data collection, the regulatory compliance regime, governance arrangements and consultative processes.

TACs and Catches

Table 1. TACs and Catch Data – UoC 1= Otter trawl detail the Total Allowable Catch (TACs), and UoC shares of those TACs as well as total landings by the UoC 1 (i.e. the total certified catch) for the years 2016 and 2017 respectively. Midwater trawl has not been used since 2010. Since the reopening of the 3LN redfish fishery in 2010, Canada, Russia and EU-Portugal are the main harvesters for this fishery (Table 2, and Table 3). Canada holds 42.6% of the redfish overall TAC for Div. 3LN. GEAC represents licence holders who have 96.99% of Canada's allocation.

Table 1. TACs and Catch Data – UoC 1= Otter trawl.

TAC (Initial)	Year	2017	Amount	14200 t
UoA share of TAC	Year	2017	Amount	5867 t
UoC share of TAC	Year	2017	Amount	5867 t
Total green weight catch by UoC	Year (most recent)	2017	Amount	1059 t
	Year (second most recent)	2016	Amount	2361 t

Table 2. Catch (t) of redfish in 3LN by nation, 2016-2017. Source: NAFO-Statlant.

Nation	2016
Canada	2822
Cuba	0
Estonia	418
Faroe Islands	63
France (St. Pierre and Miquelon)	0
Lithuania	0
Portugal	2057
Russia	2972
Spain	229
Grand Total	8561

Table 3. 3LN redfish overall quota (t) and each nation's allocation (t). Source: NAFO.

Nation	2017
Canada	6049
Cuba	1392
European Union	2589
Russian Federation	4085
Others	85
Grand Total	14200

Historical Landings:

Landings have fluctuated around 21000 t from 1960-1985 (Avila de Melo et al 2018). Landings increased afterwards and peaked in 1987 to a 79000 t high and decreased to a 450 t minimum in 1996. Landings were at low levels (450-3 000t) until 2009. Because of the lower catches, The NAFO Fisheries Commission implemented a moratorium between 1998 and 2009. The fishery reopened in 2010 with a TAC of 3500 t. The Fisheries Commission approved the Scientific Council recommendations from 2011 onwards and catches increased, being at 11 800t in 2017, the highest level recorded since 1993 (Table 4, Figure 2). A management strategy has been adopted for this stock based on a stepwise rule with biennial catch increases over the years 2015 to 2020¹ (NAFO/COM Doc. 18-01, NCEM).

Table 4. Total allowable catch and reported landings (t) for Redfish in 3LN from 2009-2018.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TAC	ndf	3.5	6	6	6.5	6.5	10.4	10.4	14.2	14.2
STATLANT 21	0.3	3.1	5.4	4.3	5.2	5.7	10.2	8.5	11.9	
STACFIS	1.1	4.1	5.4	4.3	6.2	5.7	10.2	8.5	11.8	

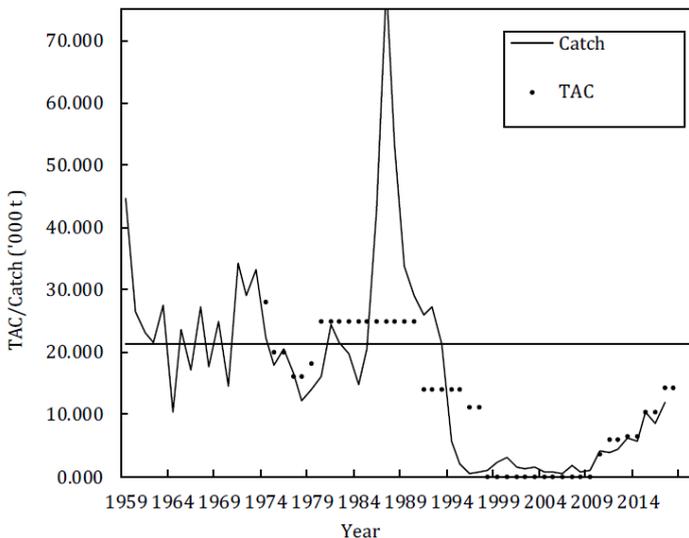


Figure 2. Redfish in Div. 3LN: catches and TACs (No directed fishing is plotted as zero TAC).

Abundance Indices

Research survey data

There have been information on redfish stock abundance on 3NL coming from research vessels from Canada, Russia and Spain (Avila de Melo et al 2018). All of the research survey abundance estimates show that biomass has declined from the early 1980s to the early 1990s. The biomass remained below average levels until 1997 when it started to increase with a consistent and large increase from 2007 onwards. As noted in the assessment, while the surveys do not align well during the period of declining abundance (1978-1990) the trends are similar during the increasing phase from mid 1990s to 2017. Length/sex data from 1991-2017 surveys were converted to estimates of spawning stock biomass using female maturity-at-length and weight-at-length estimates. The results indicate a similar increase in abundance to overall estimates (Figure 3).

¹ <https://www.nafo.int/Portals/0/PDFs/COM/2018/CEM-2018-web.pdf>

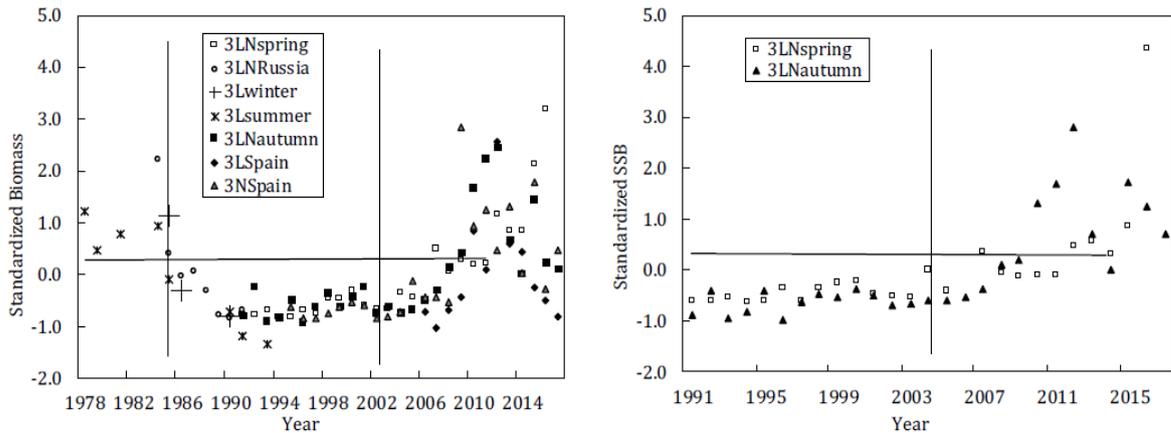


Figure 3. Redfish in Div. 3LN: standardized survey biomass (1978-2017, left panel) and female spawning biomass (1991-2017, right panel). Each series standardized to zero mean and unit standard deviation. Vertical bars indicate periods when indices cross average levels.

Recruitment

Data of commercial catch and Canadian survey length data (numbers of redfish < 20cm) in recent years (2014 – 2017) shows no signs of recruitment of above average year classes to the exploitable stock in recent years (Avila de Melo et al 2018). Between 2006-2007 and 2009-2010 the recruitment index (numbers of redfish < 20cm) increased rapidly, reaching by then maximum values. The recruitment index drops fast on the following years and is at lower levels since 2014-2015 (Figure 4). Nevertheless, unusual high numbers of very small redfish pre recruits (5-12cm) have been observed on recent years (2015-2017) on Canadian spring and autumn surveys.

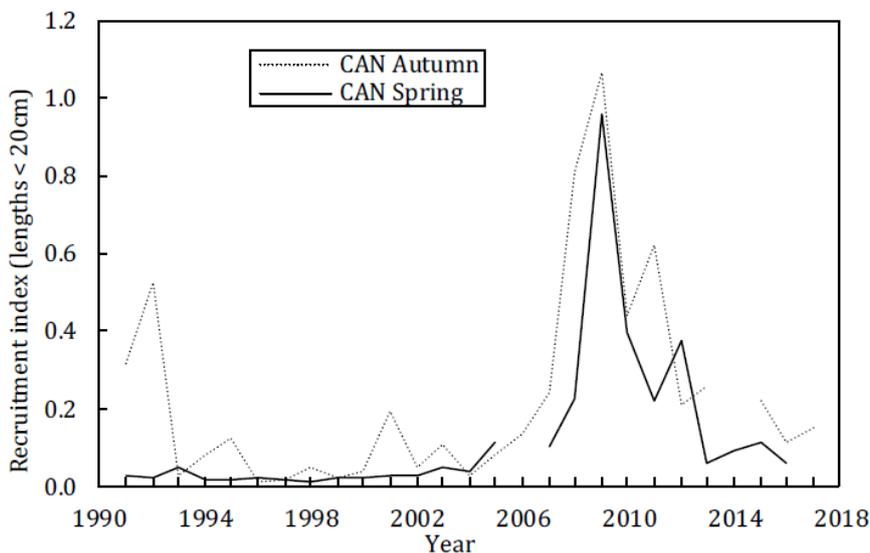


Figure 4. Redfish in Divs. 3LN: Recruitment index (lengths < 20 cm) from spring and autumn Canadian rv surveys in NAFO 3LN, 1991-2017.

Stock Assessment:

A non-equilibrium surplus production model (ASPIC; Prager, 1994) was used to assess the status of the stock since 2008 (Avila de Melo et al. 2018). Surplus production or Biomass dynamics models are some of the simplest population dynamics models used in stock assessment to apply to data on fishery data (Effort, CPUE, Landings) (Shertzer et al. 2008). Their basic assumption is that the biomass or index of biomass for the

population is related to the biomass in the previous year with the addition of recruitment and growth and the subtraction of catch and natural mortality. Surplus production models assume that stock biomass components (i.e., ages or sizes) react similarly in terms of basic demographic processes (i.e., per capita births, growth, and deaths) irrespective of age. There is only one parameter (r) estimated for growth of the population, that incorporates all aspects of production – recruitment, growth of individuals, and mortality.

The current model used similar approaches as such as the ones used on the the 2014 assessment (Avila de Melo et al 2014) where MSY was fixed at a user starting guess of 21000 t. This MSY proxy is the average level of sustained catch for the 1960-1985 interval, when the stock experienced an apparent stability, suggested either by the STATLANT CPUE series or available surveys, before declining in response to a sudden rise of catch level. The fixing of the MSY parameter was justified because estimates generated from models that freely estimated B_{msy} were unrealistic (estimating MSY's of more than 100 000 tons). This framework also kept negative correlated STATLANT CPUE series and all “outliers” in their respective survey series, while Canadian autumn surveys on Div. 3L and Div. 3N were assembled in a single 3LN Canadian autumn series. For more details on the model and approach please see (Avila de Melo et al 2014)

Estimates of Biomass and Fishing Mortality

Biomass: Total Biomass was slightly above B_{msy} for most of the former years up to 1985 and declined from 1986 to 10% B_{msy} in 1995. 1995 is the year where the minimum stock size is documented (Avila de Melo et al 2018). Over the moratorium years redfish biomass has been recovering to healthy levels and at the beginning of 2018 biomass was predicted to be 1.5 x B_{msy} . The probability of being above B_{msy} is very high (>90%). At the beginning of 2018, the probability of being below B_{lim} is less than 1% (Figure 5).

Fishing mortality: Fishing mortality has been decreasing to very low levels since 1996 but has slightly increased since the reopening of the fishery in 2010. On 2017 fishing mortality was estimated to be at 0.38 x F_{msy} , and the probability of being above F_{msy} is very low. At the beginning of 2017, the probability of being above F_{msy} is less than 1%. (Figure 5)

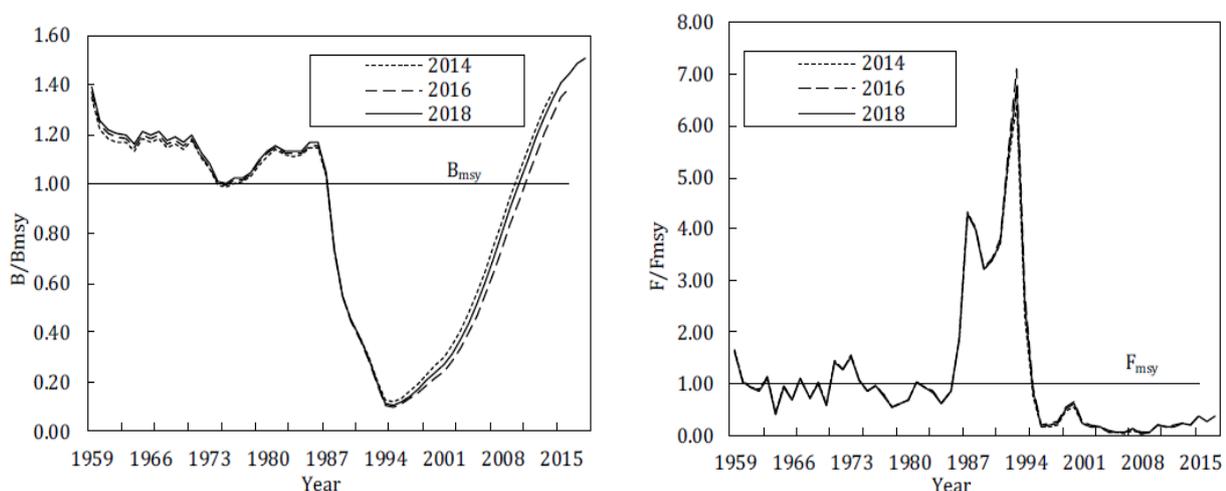


Figure 5. Redfish in Divs. 3LN: B/ B_{msy} (left) and F/ F_{msy} (right) from ASPICfit 2018 versus ASPICfit 2016 and ASPICfit 2014 assessment.

Reference Points

The ASPIC₂₀₁₈ point estimates were put under the precautionary framework (Figure 6) (Avila de Melo et al. 2018). The trajectory shows a stock within $B_{msy} - 1.2 B_{msy}$ under exploitation around F_{msy} through 25 years in a row (1960- 1985). The stock rapidly declined afterwards to well below B_{msy} when fishing mortality increases to well above F_{msy} (1987-1994). Fishing mortality was reduced to well below F_{msy} in 1996, and have been kept at a very low level ever since. Biomass gradually reaches and surpasses B_{msy} several years after (2011-2012). The stock is currently in the safe zone of the NAFO precautionary approach framework and is estimated to be at

1.5 x B_{msy} . There is a very low risk of the stock being below B_{lim} . Fishing mortality is well below F_{msy} (0.36 x F_{msy}), and the probability of being above F_{lim} (= F_{msy}) is very low. Recent recruitment appears to be low.

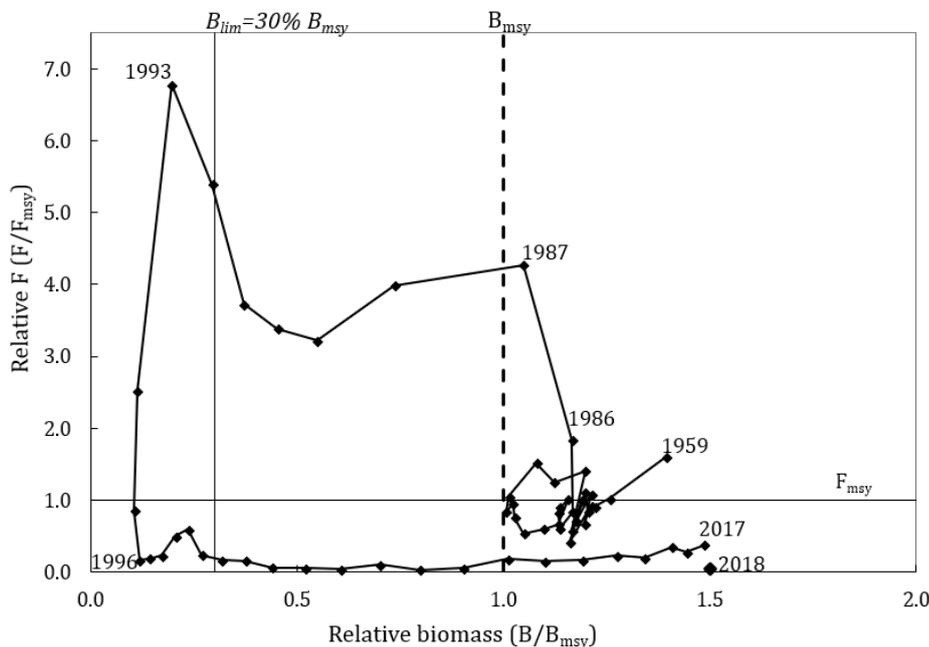


Figure 6. Redfish in Div. 3LN: stock trajectory under a precautionary framework for ASPICfit 2018.

Advice

The Fisheries Commission adopted in 2014 an MSE approach for Redfish in Division 3LN (FC Doc. 14/24). This approach uses a Harvest Control Rule (HCR) designed to reach 18 100 t of annual catch by 2019-2020 through a stepwise biannual catch increase, with the same amount of increase every two years².

SC conducted the 2018 full assessment of Redfish in Division 3LN and evaluated the impact of the implementation of the adopted MS on the state of the stock. At the beginning of 2018 the stock was still in the safe zone, with a probability of biomass being above B_{msy} > 90%. The probability of biomass being below B_{lim} and fishing mortality being above F_{msy} is < 1%.

A short term catch projection followed the assessment, in order quantify the likelihood of the stock sustain the approved 2019-2020 MS catches (18 100 t in both years). There is > 90% probability that TACs agreed within the adopted management strategy for 2019 to 2020 will maintain biomass at the beginning of 2021 above B_{msy} , while the probability of biomass being below B_{lim} is <1%. The probability that biomass will grow from the beginning of 2018 to the beginning of 2021 is low (38.5%). The probability of fishing mortality by the end of 2020 being above F_{msy} is 1.6%.

² <https://www.nafo.int/Portals/0/PDFs/fc/2014/fcdoc14-29.pdf>

4.1.2. Principle 2

Most of the 3LN redfish catch still occurs in the same areas in 3LN, mostly within 200 nm. The footprint of the fishery has not changed significantly.

No mid-water trawl fishery for 3LN redfish has occurred nor is one planned in 3LN. The gear is not currently used to target redfish because of the high levels of juvenile redfish in the catch (Kris Vascotto, GEAC, surveillance site visit). There are indications that vessels in the client group very occasionally undertake what are presumably test hauls with mid-water gear: in the last three years (2015-2017) only two hauls with mid-water gear were recorded by observers. There was no catch on these hauls.

Continuing eligibility to enter further chains of custody (MSC FCR v2.0, 7.4.13)

Deepwater redfish *Sebastes mentella* continue to fulfil the requirements of MSC FCR v2.0, 7.4.13 and Annex PA 4.2:

- a. The retained catch is practicably indistinguishable during normal fishing operations: The two redfish species Acadian redfish *Sebastes fasciatus* and deepwater redfish *S. mentella* have very similar external characteristics making them extremely difficult to distinguish.
- c. The total catches of *S. mentella* do not exceed 15% by weight of the total combined catches of redfish within the unit of certification in the most recent annual fishing year: The results of on-going species identification work on the species structure of both the commercial fishery and survey catches of both *S. mentella* and *S. fasciatus* in 3LN are consistent with the findings of the fall 2015 DFO survey used to inform the full assessment. Anal Fin Counts (AFC) are used to distinguish the two species; individual redfish with AFC less than 8 are assigned as *S. fasciatus* and samples with AFC > 8 are *S. mentella*. Previous work undertaken by GEAC (2011) suggests that where the samples are dominated (over two thirds) by either AFC of < 8 or > 8, the ambiguous samples (AFC = 8) generally follow the dominant species in the sample. In the 2016 and 2017 3LN redfish fishery nearly 90% of effort occurred at depths between 300 and 500m (Figure 7). Analysis of AFC from DFO research vessel and commercial samples in 2017 indicates *S. fasciatus* dominates the catch with *S. mentella* comprising less than 10% of the samples in the depths where virtually all the fishing occurs (Figure 8, Figure 9) (GEAC update, 2018; unpublished paper provided to assessment team for first surveillance, outputs of which verified with DFO staff on site visit).
- d. Redfish are not Endangered, Threatened or Protected (ETP) species.
- e. *S. mentella* is not certified separately.

S. mentella continues to meet the requirements of FCR PA4.2:

- The status of *S. mentella* relative to its Point of Recruitment Impairment (PRI) is currently unknown, however data is being collected to examine this issue (as referred to above and for further information see update on Condition 1).
- While there is no *S. mentella* specific harvest strategy in place, there is a partial strategy in place to ensure that the fishery does not hinder the recovery of deep-water redfish. The current harvest strategy for the Div. 3LN redfish complex includes a comprehensive combination of strategic elements including a precautionary harvest policy, catch and abundance monitoring (five current annual surveys), biennial stock assessments, harvest control rules and management actions that includes an explicit management plan tested by a management strategy evaluation.
- Previous harvest strategies have shown to be responsive to stock complex abundance by imposing a moratorium on targeted fishing from 1998-2008 until the fishery showed signs of recovery.

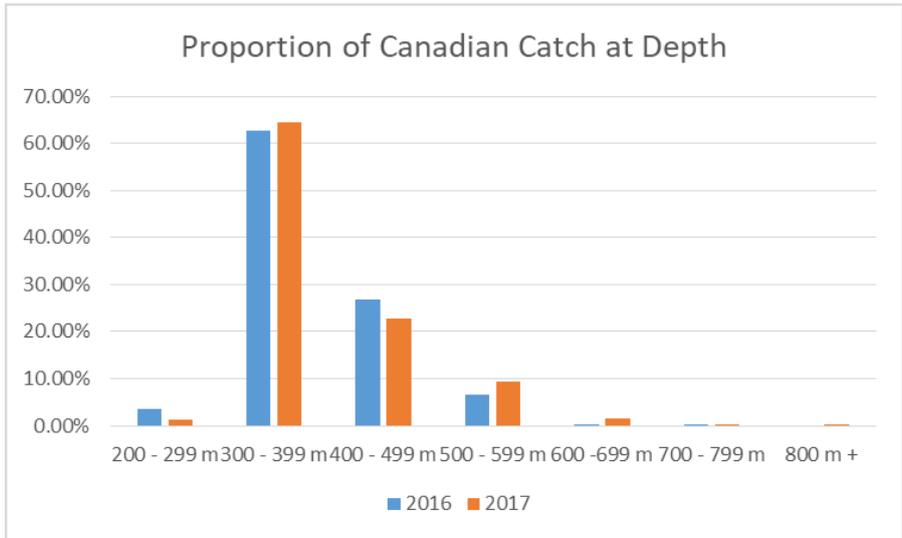


Figure 7. Proportion of Canadian landings by depth (Source: GEAC update, 2018).

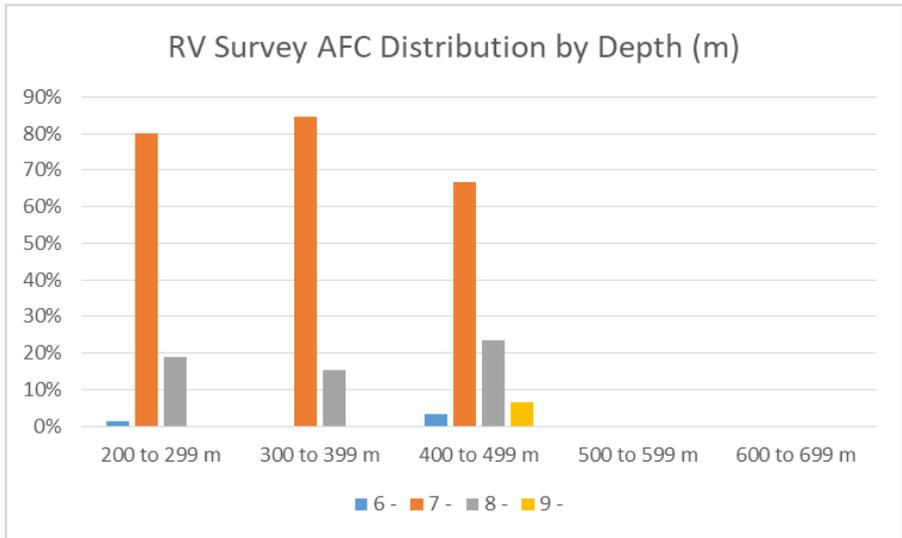


Figure 8. AFC distribution by DFO research vessel survey depth in 2017. Samples were not taken by DFO in 2016 and the lack of data below 500m depth is due to logistic constraints (vessel issues) that prevented complete sampling of deep water stratum of 3L in 2017 (source: GEAC update, 2018).

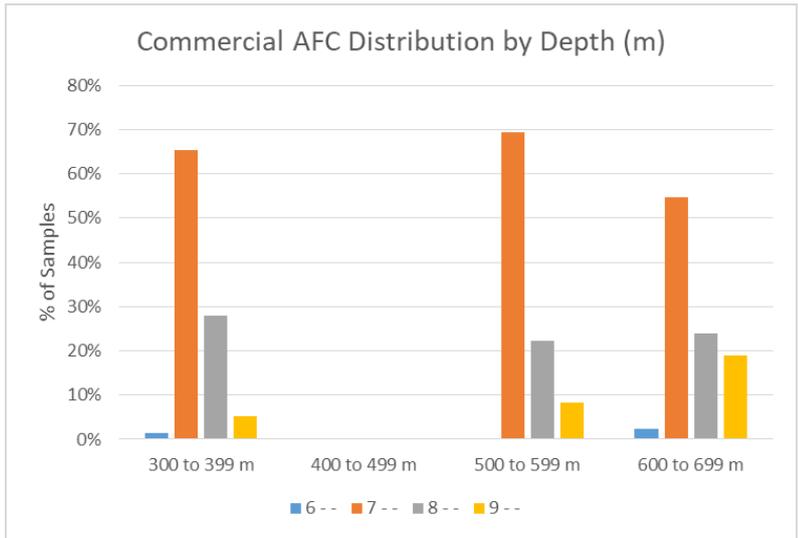


Figure 9. Proportion of specimens by AFC by depth of commercial samples collected in the 2017 fishery (Source: GEAC update, 2018).

4.1.2.1. Retained species

Data on catches including bycatch was provided to the client by DFO and covers the vessels in the client group targeting redfish in 3LN (OCI bottom trawl fleet only (vessels >100') – 2 vessels involved, the Kinguk and Ocean breaker).

The species composition and relative proportions of the retained catch have not changed substantially since the full assessment (Table 5). Catches of Atlantic cod *Gadus morhua* in 2016 and 2017 are higher than in 2013 and 2014 (when they were 2 t and 5 t respectively). However, the proportion of total catch is still small at less than 2%. In any case in the full assessment cod was considered to have vulnerable status (together with American plaice *Hippoglossoides platessoides*, witch flounder *Glyptocephalus cynoglossus* and roundnose grenadier *Coryphaenoides rupestris*) and so was assessed as a main species alongside deepwater redfish *S. mentella*. In 2016 and 2017 the grenadier species caught by the fishery has been the roughhead grenadier *Macrourus berglax* rather than the roundnose.

As noted in the full assessment redfish is assessed as a stock complex and the status of *S. mentella* relative to its Point of Recruitment Impairment (PRI) is currently unknown. Species-specific monitoring is now being undertaken and interim findings of this work are reported in section 6.

There are several new stock assessments available for the retained species including Atlantic cod, American plaice and witch flounder (NAFO, 2018; Fisheries and Oceans Canada, 2018a; NAFO 2017c). There are no significant changes in the status of the stocks since the full assessment. Key points from the assessments are as follows:

Atlantic cod in NAFO Divisions 3NO: The stock has been under moratorium to directed fishing since February 1994. Stock size has decreased and remains below Blim (2018 estimate of 31% of Blim). As noted in the full assessment the year classes following the strong 2006 year class have been weaker suggesting medium term prospects for the stock are not good. Fishing mortality continues to be low and well below Flim (NAFO, 2018). The 3LN redfish bottom trawl fishery currently occurs within 3L so is not interacting with the stocks in NAFO division 3N at present.

Atlantic cod in NAFO divisions 2J3KL: A moratorium on directed fishing in the offshore stock has been in place since 1992. A limited entry Stewardship fishery restricted to fixed gear in the inshore area and also a recreational fishery were opened in 2006 and continue to the present. The estimated SSB has been well below the Limit Reference Point (LRP) since the early 1990s. The status of the stock is improving but 2017 SSB is estimated at 37% of Blim. The stock is considered to have suffered serious harm and the ability to produce good recruitment is seriously impaired. Fishing mortality is low but has increased in recent years (0.014 in 2015 to 0.021 in 2016 and 0.025 in 2017) (Fisheries and Oceans Canada, 2018a).

American plaice in NAFO Divisions 3LNO: The stock has been under moratorium to directed fishing since 1995. Stock size remains low compared to historic levels and is presently at 34% of the Blim level. Recruitment has been low since the late 1980s, but Canadian surveys indicate a large number of pre-recruits in Division 3L in recent years. Current estimates of fishing mortality are low (NAFO, 2018).

Witch flounder in Divisions 3NO: This stock was under moratorium to directed fishing from 1995 to 2014. It is currently considered to have an intermediate status relative to Bmsy (52% of Bmsy) and there is a high likelihood it is above Blim (15% risk $B_{2016} < Blim$) and a high likelihood that fishing mortality is below Fmsy (19% risk $F > Fmsy$) (NAFO, 2017c). As noted previously, the 3LN redfish bottom trawl fishery currently occurs within 3L so is not interacting with the stocks in NAFO division 3N at present.

There has been no change to the management measures and partial strategies in place for the retained species except for an update to the groundfish license conditions that require fishers to report lost gear and interaction with marine mammals including a specific requirement to report North Atlantic right whale sightings (Kris Vascotto, GEAC, site surveillance meeting). These provisions are being implemented in 2018 and 2019.

Roughhead grenadier

Roughhead grenadier shares the vulnerable status of *C. rupestris*, so, is considered as a main species here.

NAFO note that the stock structure of this species in the North Atlantic remains unclear because there is little information on the number of different populations that may exist and the relationships between them. Roughhead grenadier is distributed throughout NAFO Subareas 0 to 3 in depths between 300 and 2000m. However, the population of Subareas 2 and 3 is considered as a single stock for assessment purposes. NAFO note that a substantial part of the grenadier catches in Subarea 3 previously reported as roundnose grenadier were actually roughhead grenadier and have revised the catch statistics to account for this. The stock was last assessed in 2016 (NAFO, 2016). Biomass indices showed a general increasing trend from 1995-2004 and a clear downward trend from 2005-2012. In the most recent period (2013-2015) the information of the different indices is contradictory, the Canadian 2J3K and the EU 3L indices show an increase while EU-FC and EU 3NO continue to decline. No reference points have been set for the stock. Fishing mortality showed a decreasing trend from 1998 - 2006 and since then is more or less stable at very low levels.

There is a partial strategy in place to ensure that the fishery does not hinder the recovery of grenadier. As per licence condition for groundfish, incidental catch for each trip shall not exceed 5% of the weight of the authorized directed species.

Table 5. 2016 and 2017 retained catches for the 3LN redfish bottom trawl from observer records (Source: DFO observer records for UoC client group vessels).

Species	2016		2017	
	Landings (t)	% of total catch	Landings (t)	% of total catch
Redfish	2632.844	97.62	2214.931	95.11
American plaice <i>Hippoglossoides platessoides</i>	0.037	0	22.945	0.99
Atlantic cod <i>Gadus morhua</i>	16.218	0.60	49.450	2.12
Witch flounder <i>Glyptocephalus cynoglossus</i>	2.948	0.11	1.978	0.08
Greenland halibut <i>Reinhardtius hippoglossoides</i>	22.800	0.85	20.233	0.87
Atlantic halibut <i>Hippoglossus hippoglossus</i>	21.957	0.81	19.025	0.82
Rough head grenadier <i>Macrourus berglax</i>	0.310	0.01	0.025	0
White hake <i>Urophycis tenuis</i>	0.004	0	0	0
Skate spp. <i>Rajidae</i>	0	0	0.055	0
Skate, Thorny <i>Amblyraja radiata</i>	0	0	0.055	0
Skate spinytail <i>Bathyraja spinicauda</i>	0.002	0	0	0

Wolffish, striped <i>Anarhichas lupus</i>	0	0	0.005	0
Capelin <i>Mallotus villosus</i>	0	0	0.069	0

4.1.2.2. Bycatch species

The full assessment noted that bycatches are very low in the 3LN redfish bottom trawl fishery with none of the species accounting for more than 0.5% of the total catch in weight (Table 6). The situation has not changed since then with all species except redfish (1.09% in 2017) and roughhead grenadier (0.53% in 2016) comprising less than 0.5% of total catch. The species composition of the bycatch remains similar comprising low proportions of a wide range of different species including sharks, dogfish and rays, flatfish, grenadiers, cod, capelin and wolffish.

The full assessment noted that the main shark species caught in the redfish bottom trawl fishery is blue shark. Campana *et al.* (2015) found that almost all blue shark catch mortality can be attributed to hooking and post-release mortality in pelagic longlines but that there is the potential for blue shark to be caught in bottom trawl fisheries. They referred to results from the Newfoundland and Labrador Region At-Sea Observer Program between 1980 and 2012 in which the sharks were observed captured in groundfish trawl fisheries for cod and yellow tail flounder *Limanda ferruginea*. The blue shark bycatch in these fisheries was very small (Figure 10). DFO Newfoundland and Labrador Region At-Sea Observer Program observed catch (kg) of blue shark by fishery in NAFO Divisions 3LNO and NAFO Subdivision 3Ps from 1980-2012 (Source: Campana *et al.* 2015).). In the redfish bottom trawl fishery no blue shark were observed to be caught in 2016 and 2017. As noted previously a small amount of blue shark were observed caught during two isolated hauls using mid-water trawl gear in 2017. Consequently the risk posed to blue shark from the bottom trawl fishery is considered to be unchanged since the full assessment.

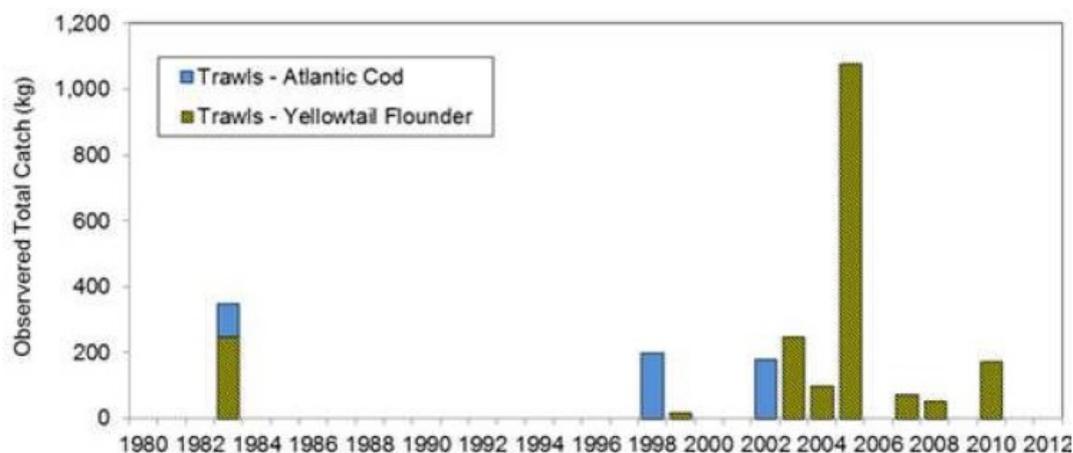


Figure 10. DFO Newfoundland and Labrador Region At-Sea Observer Program observed catch (kg) of blue shark by fishery in NAFO Divisions 3LNO and NAFO Subdivision 3Ps from 1980-2012 (Source: Campana *et al.* 2015).

Greenland shark

Greenland shark *Somniosus microcephalus* is the main shark bycatch in 2016 and 2017. Catches are very low at less than 0.5% of the total catch. Due to its low productivity and therefore vulnerability to fishing impacts this species is considered a main bycatch species. Greenland shark has not been assessed by Committee on the Status of Endangered Wildlife in Canada (COSEWIC) nor is it listed under SARA or Appendix 1 of the Convention on International Trade in Endangered Species (CITES), hence it is not considered an Endangered, Threatened or Protected Species (ETP).

Greenland shark appear to be widely distributed in the Arctic and North Atlantic and can be very abundant in some areas (Campana *et al.*, 2013). There are no targeted fisheries for Greenland shark in Canada (small-scale targeted fisheries exist in Greenland and Iceland) so the main fishery interaction is as incidental catch. Recent NAFO observer data (2014-2017) has been analyzed and, without accounting for variable fishing

effort, found most bycatch was associated with the Greenland halibut bottom trawl fishery mainly in Division 3L (43% of numbers and 53% of weight), followed by the Atlantic halibut longline fishery (26% of numbers, 27% of weight), mainly in Division 3N, then the redfish bottom trawl fishery (19% of numbers and 8% of weight) mainly in Divisions 3N and M. Bottom trawl catches of Greenland sharks were mainly concentrated in 3L and 3M at depths of 400-1,400 m and 300-1,000 m, respectively (NAFO, 2018).

No stock assessment has been conducted for this species. The International Union for Conservation of Nature (IUCN) Red List Shark Specialist Group assessed this species as “Near Threatened” based primarily on the biological vulnerability associated with its life history characteristics (NAFO, 2017a).

Following a request for advice from its Fisheries Commission, and recognizing the sensitive life history characteristics of the Greenland shark, NAFO’s Scientific Council have recently made a number of recommendations to minimize the impact of fishing on the species (NAFO, 2018):

- Retention and landing should be prohibited
- A requirement to release captured sharks alive with safe handling practices promoted amongst fishers
- Where appropriate, gear restrictions and modifications, and/or spatial and temporal closures of areas of high bycatch, be implemented to reduce the incidence of Greenland shark bycatch.
- Improving the reporting of all sharks by species within the NAFO Convention Area, including shark numbers, measurements (when feasible without causing undue harm) and recording of sex data and discard disposition (i.e., dead or alive) by fishery observers in all fisheries in the NAFO Convention Area
- Due to the unknown status of the stock relative to Blim, and the conservative life history traits, management actions should keep fishing mortality as close to zero as possible to ensure that there will be a very low probability biomass will decline within the foreseeable future.

Although the bycatch is small the low productivity of the species means they are vulnerable to incidental mortality from fishing. The current understanding of population status is poor, however catch rates are very low and the fishing operation and characteristics of the fishery act as a partial strategy that does not hinder the recovery of Greenland Shark. NAFO are in the process of considering management measures to minimize the impact of fishing on the species. Taking this into account, consideration of Greenland shark as a new main bycatch species is not considered to change the scoring of the bycatch species performance indicators.

Basking shark

A small bycatch of basking shark *Cetorhinus maximus* has also been recorded from the redfish bottom trawl fishery in 2016 and 2017. This amounted to 2.5 and 2.9 tonnes respectively which is about 0.1% of catch and, based on median weight calculations by Campana *et al.* (2008) likely represents about 2-3 individuals on each occasion. Due to its very low productivity and therefore vulnerability to fishing impacts this species is considered a main bycatch species. The Atlantic population of basking shark has been assessed as of ‘Special Concern’ by COSEWIC (2009) but is not listed under SARA nor under Appendix 1 of the Convention on International Trade in Endangered Species (CITES), hence it is not considered an ETP.

The population of basking shark in the Canadian Atlantic forms part of the Atlantic population shared with the USA, Europe, the Caribbean and northern South America. There is limited information on population size and no recent population assessment. COSEWIC (2009) note a total population estimate for Atlantic Canada of 10,125 individuals based on aerial and shipboard surveys and a more conservative estimate of 4,918 individuals based on minimum estimates for individual areas. Both estimates have a high degree of uncertainty associated with them. Although there is significant uncertainty, available information suggests no declines on the North American Atlantic coast over two decades (1990s-2000s) but indications of

substantial population declines in the northeast Atlantic (COSEWIC, 2009). In fisheries in Canada with observer coverage there has been a decline in removals by fisheries since the 1980s consistent with a reduction in fishing effort (COSEWIC, 2009).

In Canada this species receives de facto protection by broad regulations that prohibit finning of any shark species. Given that there is no market for other parts of Basking Sharks in Canada, there is no directed exploitation. It is important to note that basking shark identification by fishery observers can sometimes be confused with Greenland sharks with spatial patterns of observer records more likely aligning with Greenland shark habitat distribution especially those records north of Newfoundland and those collected at the shelf edge and in water temperatures <6°C (Campana *et al.*, 2008).

Although the bycatch is small the very low productivity of the species means they are vulnerable to incidental mortality from fishing. The current understanding of population status is poor, however the available information suggests no decline in basking shark in Atlantic Canadian waters, the bycatch from the redfish bottom trawl fishery is low and there is potential mis-identification of the species with Greenland shark. The fishing operation and characteristics of the fishery act as a partial strategy that does not hinder the recovery of basking shark. Based on these conclusions, consideration of basking shark as a new main bycatch species is not considered to change the scoring of the bycatch species performance indicators.

Skates

The full assessment noted that the most recent information available on the status of skate species that are likely to be taken by the 3LN redfish bottom trawl fishery indicates that populations are relatively healthy. This situation has not changed. A stock assessment for thorny skate *Amblyraja radiata* in Divisions 3LNOPS, which is the main skate bycatch in the redfish fishery has just been published (NAFO, 2018). The assessment found survey biomass has remained stable since 2007 and concludes that the stock is currently above Blim (with >95% probability). Recruitment in 2017 was above average and fishing mortality is currently low.

Table 6. 2016 and 2017 bycatches for the 3LN redfish bottom trawl from observer records (Source: Source: DFO observer records for UoC client group vessels).

Species	2016		2017	
	Discards (t)	% of total catch	Discards (t)	% of total catch
Redfish <i>Sebastes spp.</i>	2.853	0.10	26.011	1.09
American Plaice <i>Hippoglossoides platessoides</i>	0.353	0.01	0.404	0.02
Atlantic Cod <i>Gadus morhua</i>	0.023	0	1.572	0.07
Witch flounder <i>Glyptocephalus cynoglossus</i>	0.164	0.01	0.113	0
Greenland halibut <i>Reinhardtius hippoglossoides</i>	0.956	0.03	0.743	0.03
Atlantic Halibut <i>Hippoglossus hippoglossus</i>	0.436	0.02	0.210	0.01
Skate spp. <i>Rajidae</i>	0.246	0.01	1.455	0.06
Thorny skate <i>Amblyraja radiata</i>	10.353	0.38	5.496	0.23

Soft skate <i>Malacoraja spinacidermis</i>	1.810	0.07	0	0
Spinytail skate <i>Bathyraja spinicauda</i>	0.820	0.03	0.132	0.01
Grenadiers <i>Macrouridae</i>	0	0	0.348	0.01
Rough head grenadier <i>Macrourax berglax</i>	14.527	0.53	2.674	0.11
Roundnose grenadier <i>Coryphaenoides rupestris</i>	0.975	0.04	0	0
Greenland shark <i>Somniosus microcephalus</i>	4.026	0.15	7.550	0.32
Black dogfish <i>Centroscyllium fabricii</i>	0.503	0.02	0	0
Basking shark <i>Cetorhinus maximus</i>	2.500	0.09	2.900	0.12
Porbeagle <i>Lamna nasus</i>	0.125	0	0.631	0.03
Capelin <i>Mallotus villosus</i>	0.124	0.01	0.365	0.02
Striped / Atlantic Wolffish <i>Anarhichas lupus</i>	2.866	0.10	0.998	0.04
Jellyfish	0.421	0.02	0.111	0
Sea anemone	0.447	0.02	0.104	0
A range of other species are caught in extremely low or nil quantities and consequently are not considered main or minor species, namely: yellowtail flounder, lefteye flounder, smooth skate, round skate, barndoor skate, Atlantic herring, smoothheads, argentines, viperfish, lanternfishes, barracudinas, snipe eel, blue hake, blue whiting, longfin hake, white hake, silver hake, common grenadier, eelpouts, sculpins, common alligatorfish, lumpsuckers, squid, octopus, shrimp, crabs, starfish, sponges.				

4.1.2.3. ETP species

There has been no change to the ETP legislation namely the Species at Risk Act (SARA, 2002) and the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) listings. The roundnose grenadier is assessed as endangered by COSEWIC (2008 assessment and status report) and was consulted upon under SARA in 2015 but has not been listed as yet. The roughhead grenadier was also consulted upon under SARA in 2015, following its assessment as of 'special concern' by COSEWIC (COSEWIC, 2007) and similarly has not been listed as yet.

There is no significant change in interaction with protected species. Wolffish catches are still low (less than 0.2% of catch, Table 7) and as noted in the full assessment SARA listing requires that northern and spotted wolffish are released. The Recovery Strategy for the northern wolffish and spotted wolffish has been updated in 2018 and the proposed amended version is currently out to consultation (Fisheries and Oceans Canada, 2018b). The most significant amendment is the identification of critical habitat for these species. Critical habitat is defined in SARA (2002) section 2(1) as "...the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in a recovery strategy or in an action plan for the species." Potential critical habitat has been identified for both species in the Newfoundland Region on the edge of the Grand Banks and Labrador Shelf (Figure 11 and Figure 12). Important attributes of these

areas are depths of 118-636m and a temperature range of 2.3-5.1°C for northern wolffish and depths of 82-346m and a temperature range of 0.1-4.2°C for spotted wolffish.

The proposed amended Recovery Strategy notes that further research is required to refine critical habitat features that are necessary to support recovery objectives, and to protect critical habitat from destruction. However, under SARA, critical habitat must be legally protected from destruction within 180 days of being identified in a recovery strategy or action plan. Protection is implemented through a SARA Critical Habitat Order which prohibits the destruction of the identified critical habitat. The Strategy identifies generic activities that are likely to destroy critical habitat. For these wolffish species in the Newfoundland Region examples provided are activities that i) impact the thermal habitat or ii) destroy habitat causing a change in depth that could result in alteration of thermal habitat.

No interactions with marine mammals or sea turtles have been recorded or reported. There has been no change in the impact of the fishery on these species since the full assessment. This includes in relation to North Atlantic right whale *Eubalaena glacialis*. Recent changes in the distribution of this species, classed as 'endangered' under SARA, has presented a greater risk of damaging interaction with human activity, such as ship strikes and entanglement in fixed fishing gears. This has led the DFO to introduce a range of temporary, dynamic and static closures to manage the risk posed to the whales within the Gulf of St. Lawrence, Quebec and Maritimes regions ([DFO closures 2018](#)). However, the 3LN redfish fishery occurs some distance from this, is not a critical habitat for the species and does not use a gear associated with right whale entanglement so the risk posed by the fishery on this species is unchanged.

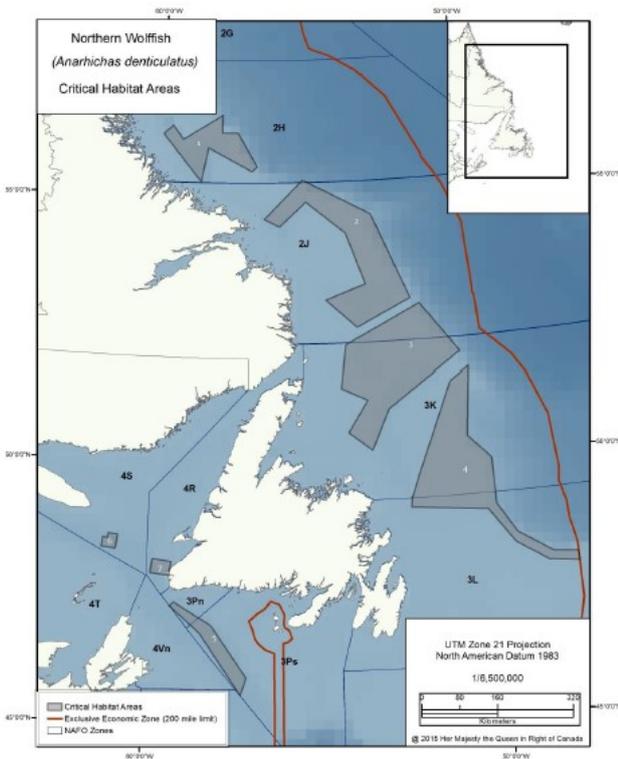


Figure 11. Map of Northern Wolffish critical habitat (Source: Fisheries and Oceans Canada, 2018b).

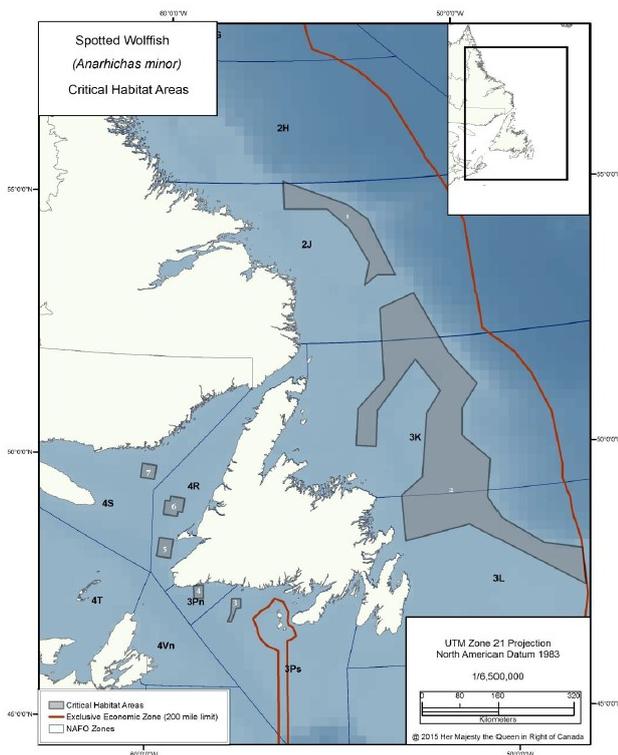


Figure 12. Map of Spotted Wolffish critical habitat (Source: Fisheries and Oceans Canada, 2018b).

Table 7. 2016 and 2017 bycatches of ETP Species for the 3LN redfish bottom trawl from observer records (Source: DFO observer records for UoC client group vessels).

Species	2016		2017	
	Discards (t)	% of total catch	Discards (t)	% of total catch
Broadhead (northern) Wolffish <i>Anarhichas denticulatus</i>	4.546	0.17	3.219	0.13
Spotted Wolffish <i>Anarhichas minor</i>	2.326	0.08	1.461	0.06

4.1.2.4. Habitats & Ecosystem

No new fishery footprint analysis has been undertaken since that which informed the full assessment (Spatial analysis 2015) but there has been no significant change in the footprint of the fishery, occurring in the same areas in 3L, mostly within 200nm. There have been no other changes in how the fishery is prosecuted that would alter its impact on ecosystem and habitat structure and function.

In Canadian waters, since the full assessment the DFO have updated their understanding of Significant Benthic Areas in Canada’s Atlantic and Eastern Arctic waters and examined their overlap with fishing activity (Fisheries and Oceans Canada, 2017b). Significant Benthic Areas are defined in DFO’s Ecological Risk Assessment Framework as “significant areas of cold-water corals and sponge dominated communities”. They contain sponges (*Porifera*), large and small gorgonian corals (*Alcyonacea*, formerly classed as *Gorgonacea*) and/or sea pens (*Pennatulacea*) as a dominant and defining feature. In the Newfoundland and Labrador Region a new

Significant Benthic Area for sea pen was identified (**Error! Reference source not found.**). DFO note that the analysis is not intended to produce hard boundaries, but rather to focus attention on the key areas for identifying significant concentrations of corals and sponges. The analysis of overlap with fishing activity (Table 8) provides a basis for developing a risk assessment of fishing impacts on Significant Benthic Areas (Fisheries and Oceans Canada, 2017b). More detailed work to investigate the risk posed to these areas by fishing activity has been published earlier this year (Koen-Alonso *et al.* 2018). Guidelines have also been produced on the level of protection required to protect Significant Benthic Areas that have been identified as vulnerable to an on-going fishing activity ('Sensitive Benthic Areas' under the Ecological Risk Assessment Framework) (Fisheries and Oceans, Canada 2017a).

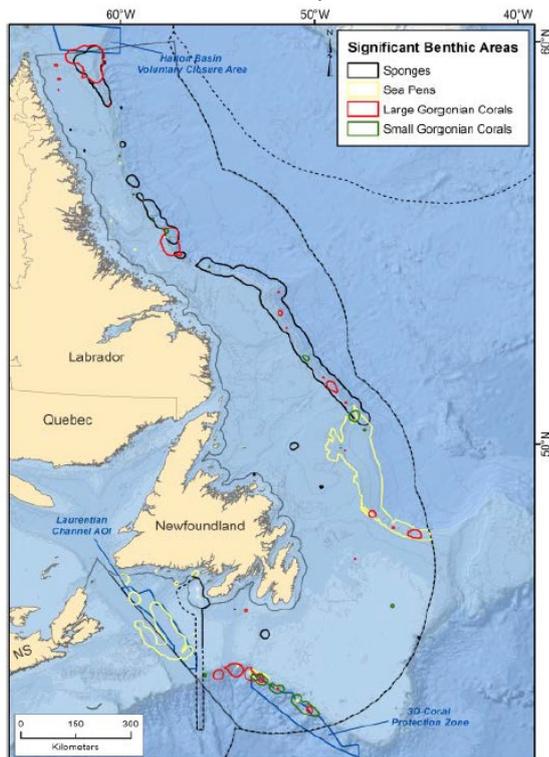


Figure 13. Significant Benthic Areas for sponges, sea pens, large and small gorgonian corals for the Newfoundland and Labrador region. All but one of the polygons were derived from the KDE analyses but a number were clipped using the RF presence-absence prevalence maps. One sea pen polygon was created from the latter along the slope east of Newfoundland. Note that there are a number of small Significant Benthic Areas that are not readily seen on this projection. Details of those can be found in Kenchington *et al.* 2016 (Source: Fisheries and Oceans Canada, 2017b).

Table 8. Overlap between fisheries class footprints and Significant Benthic Area in the Newfoundland and Labrador biogeographic unit based on positional data from merged logbooks and VMS. The areas of Significant Benthic Areas are: Large gorgonian (LGO) = 15542 km², seapen (SPN) = 37457 km², small gorgonian (SGO) = 4987 km², and sponge (SPG) = 43472 km² (Source: Fisheries and Oceans Canada, 2017b).

Fisheries Class or Aggregate	Effort with positional data (%)	Fishing footprint (km ²)	Area of overlap between fisheries class footprint and Significant Benthic Area (km ²)				Percent of fisheries class footprint that overlaps with Significant Benthic Area (%)				Percent of Significant Benthic Area that overlaps with fisheries class footprint (%)			
			LGO	SPN	SGO	SPG	LGO	SPN	SGO	SPG	LGO	SPN	SGO	SPG
Clam	100	902	0	0	0	0	0	0	0	0	0	0	0	0
Crab Inshore	0.5	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Crab Offshore	72.48	136130	411	411	37	1649	0.3	0.3	0	1.2	2.6	1.1	0.7	3.8
Echinoderm	42.66	129	0	0	0	0	0	0	0	0	0	0	0	0
Groundfish Fixed	14.54	66617	3987	16107	3436	9316	6	24.2	5.2	14	25.7	43	68.9	21.4
Groundfish Mobile	98.47	30318	1308	8298	1380	3685	4.3	27.4	4.6	12.2	8.4	22.2	27.7	8.5
Lobster	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Misc Inshore	0.2	4	0	0	0	0	0	0	0	0	0	0	0	0
Misc Offshore	99.5	1872	275	347	98	0	14.7	18.5	5.2	0	1.8	0.9	2	0
Other	11.07	673	0	42	1	1	0	6.3	0.1	0.1	0	0.1	0	0
Pelagic	25.51	20527	324	302	1656	74	1.6	1.5	8.1	0.4	2.1	0.8	33.2	0.2
Scallop	73.08	3064	0	28	0	0	0	0.9	0	0	0	0.1	0	0
Shrimp	98.82	106358	1555	3519	58	6125	1.5	3.3	0.1	5.8	10	9.4	1.2	14.1
Whelk	61.94	6281	1	35	0	0	0	0.6	0	0	0	0.1	0	0
All fisheries excl. Pelagic	42.04	282832	5986	21290	3582	16205	2.1	7.5	1.3	5.7	38.5	56.8	71.8	37.3
All Fisheries	41.26	293715	6002	21306	3726	16228	2	7.3	1.3	5.5	38.6	56.9	74.7	37.3

Canada has a policy target of closing 10% of its marine area to fishing by 2020. New closures to protect VMEs in Canadian waters in the Newfoundland and Labrador region were announced in December 2017. These do not overlap with the fishery. They include the Northeast Newfoundland Slope referred to in the PCR (Figure 14). The Northeast Newfoundland Slope marine refuge will protect corals and sponges and prohibits all bottom contacting fishing activity.

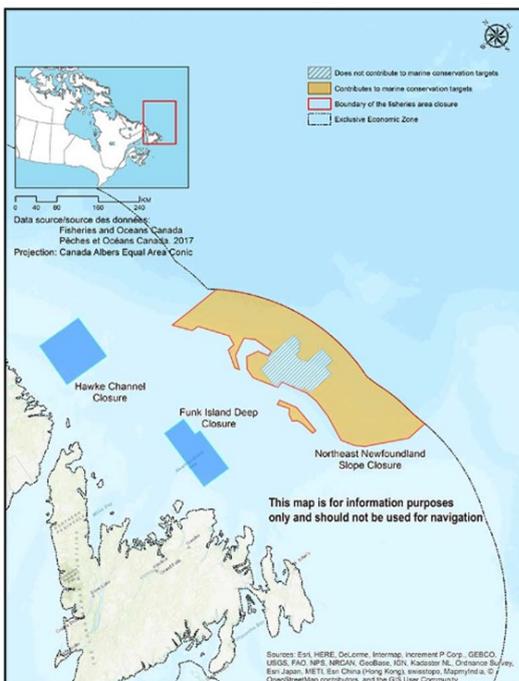


Figure 14. (Source: [Fisheries and Ocean Canada](#)).

No new closures have been identified in the NAFO Regulatory assessment since the full assessment. However, NAFO have been undertaking the following work, as reported at the last Scientific Council meeting (NAFO, 2018), which is relevant to understanding the impacts of fishing on habitats and ecosystem:

- Assessment of the overlap of NAFO fisheries with VME through an analysis of haul-by-haul log-book data in combination with VMS data. The analysis significantly improves the spatial definition of specific fishing areas within the NAFO footprint.
- Progress has been made in developing models and methodological approaches which assess the functional significance of VMEs and the estimation of recovery rates of different VME indicator species.
- Updated analysis (including new data) has been performed on non-coral and non-sponge VME indicator species (sea squirts and bryozoans) and further work is planned on defining non-coral and non-sponge VME ahead of the re-assessment of VME fishery closures in 2020.
- Developing approaches to implementation of an ecosystem approach and application of the Ecosystem Roadmap. Total Catch Ceilings (TCCs) aim to provide information for ecosystem-level strategic management advice that can complement stock-level tactical advice. In principle, once TCCs can be estimated with sufficient reliability and precision, these should provide an ecosystem context to evaluate the recommendations that emerge across stocks, and could serve to address questions not considered as part of single species assessments (e.g., tradeoffs).

4.1.3. Principle 3

4.1.3.1. Compliance Update

Enforcement measures that continue to be employed in the Canadian 3LN Redfish fishery (which takes place almost exclusively inside 200 miles) include:

- Air surveillance.
- Operational inspections by fishery patrol vessels of gear and vessel licence authorizations, catch on board.
- Random checks on landings by land-based DFO fisheries officers.
- Comprehensive Fishery Officer audit of data from all sources.
- Dockside monitoring of all landings.
- At-sea observers.
- Electronic Vessel Monitoring System (VMS).
- Daily reporting of position, catch and other information.
- Hail-in/out is a requirement for the start and ending of a fishing trip.

These various licensing, conservation, protection and compliance measures are contained in license conditions attached to the groundfish licence issued to eligible operators. This licence must be on board the vessel at all times.

Table 9 shows the amount of Total Hours of Enforcement Effort, Total Fishery Officer Patrol Hours and number of Vessel Inspections for the years 2015, 2016 and 2017 from the Fisheries Enforcement Tracking System in NL Region. It shows all hours reported for Redfish enforcement because the system tracks by species, but not by stock area. Also, the Total hours of Effort numbers includes Air Surveillance hours directed at Redfish: 2015 = 76.92 Hrs, 2016 = 134.83 Hrs and 2017 = 191.56 Hrs.

Table 9. Selected Enforcement Data, NL Region Redfish, 2015 to 2017

Year	Total Hrs Effort	Total FO Patrol Hrs	Vessel checks
2015	919	596	59
2016	732	415.5	65
2017	1043	658.5	84

Source: DFO, NL Region

The data show an upward trend in redfish enforcement effort since 2015, likely a result of the increasing fishing taking place on the re-opened 3LN redfish stock.

Table 10 outlines the Canadian Sea Going Observer trip data by Division for the 3LMNO Redfish fishery for the years 2015, 2016 and 2017. By 2017, most of the redfish trips are taking place in 3L where almost all of the fishing effort by the Canadian fleet is expended inside the 200 mile limit.

Table 10. Observer Coverage of the Canadian Grand Banks Redfish Fishery, 2015 to 2017

Area	2015	2016	2017	3 Year Totals
3L	0	3	9	12
Total 3N	0	0	0	0
Total 3LMNO	7	4	2	13
Totals	7	7	11	25

Source: DFO, NL Region

In 2015, 2 redfish trips in the overall 3LMNO area did not carry an observer. In 2017, 1 trip in 3L did not have an observer. These are in addition to the number of observed trips shown in the above table. In 2015, overall observer coverage of the Grand Banks Redfish fishery was at 77.8%; in 2016 it was 100 percent and in 2017 coverage it was 91.7%. These levels include the three of the 28 redfish trips from 2015 to 2017 did not have observer coverage.

Enforcement of NAFO's annual Conservation and Enforcement Measures (CEM)³ are the responsibility of each Contracting Party in respect of their vessels authorized to fish in the NAFO Convention Area (NRA). These annual voluminous CEMs details the regulations, reporting and enforcement procedures etc that Contracting Parties, Flag States and Port States are required to observe. The retained avenue for enforcement in the NRA is through the Joint Inspection and Surveillance Scheme. This permits NAFO Inspectors from contracting parties to board and inspect vessels under the protocols contained in the Conservation and Enforcement Measures. Only two contracting parties, Canada and the European Union (EU), deploy enforcement platforms in the NRA. Canada utilizes surface patrol vessels and surveillance aircraft continuously on a 12 month basis. The EU usually deploys one vessel for a part of each fishing year.

NAFO's latest Annual Compliance Review (of all NRA fisheries) in 2017⁴ noted: "There is no general change in the behavior of the fisheries compared to the previous year (see FC Doc 16-19)." The overall conclusions of the Review (for fishing year 2016) were:

³ <https://www.nafo.int/Fisheries/Conservation>

⁴ <https://www.nafo.int/Fisheries/Compliance>

“The recent increase in the detection of apparent infringements is of concern, especially as many of them are considered serious. The majority of those infringements relate to the mis-recording of catch. Nonetheless, it is evident that the inspection services are conducting thorough and effective inspections to be able to detect such infringements. This works towards promoting a culture of compliance and demonstrates that the control system is robust. STACTIC (Standing Committee on International Control) recognizes that some vessel positions recorded at speeds associated with fishing activity within the VME closures give the appearance that fishing activity could be occurring in these protected marine environments, however surveillance and sea-patrol activity has confirmed that this is unlikely to be the case.

4.1.3.2. Consultations and Outcomes Update

At the Canadian domestic level, the arrangements for consultation and engagement on 3LN Redfish remain essentially the same as at the time of the full assessment. The main consultative body for groundfish in 2+3KLMNO remains the Newfoundland Region’s Groundfish Advisory Committee for species in those stock areas. This Committee, consisting of various processing, harvesting and provincial government interests, usually meets once a year to discuss any management issues that exist for groundfish stocks in 2+3KLMNO. A mechanism exists whereby non-industry members (NGO’s) are permitted to participate.

In addition to the annual advisory committee process, all harvesting fleets are required to maintain current Conservation Harvesting Plans (CHPs) for all stocks in which they possess a quota allocation. The Groundfish Enterprise Allocation Council (GEAC) maintains an “evergreen CHP” for all groundfish allocations held by its members. This creates an ongoing bi-lateral consultation process with DFO in respect of GEAC’s groundfish fishing operations.

Domestic Canadian consultations on annual NAFO issues continue to be held several times a year by the Head of the Canadian Delegation to NAFO. The first such consultative session continues to be held in the first half of the year, the second after the June Scientific Council (SC) meeting and a third prior to the annual NAFO meeting in September. At the annual NAFO meeting Canadian delegation meetings are held as often as deemed necessary. The Canadian NAFO Commissioners consist of a senior National HQ official and two industry representatives, usually from the NL fishing industry.

NAFO remains a highly structured regional fishery management organization (RFMO) that serves as a forum for consultation and decision-making on harvest levels and other management measures for stocks under its purview. Consultation among Contracting Parties takes place under a formal set of rules and procedures within NAFO’s various constituent bodies. The Commission (formerly the Fisheries Commission, see footnote 5 below) remains the major consultative and decision-making forum for management and conservation decisions on the fisheries resources managed by NAFO. It is composed of a maximum of 3 representatives of each contracting party (in Canada’s case these are the Delegation Head and the two Commissioners) as well as alternates, experts and advisors. Decisions on management issues are taken in the Commission by formal vote in those now infrequent cases where consensus cannot be reached.

The NAFO Rules of Procedure continue to enable the Executive Secretary to invite to the annual meetings of the General Council, Fisheries Commission⁵ and Scientific Council any intergovernmental organizations that have regular contacts with NAFO on fisheries matters or whose work is of interest to NAFO as well as any non-Contracting Parties identified as harvesting fishery resources in the Regulatory Area. Non-government organizations (NGO) may attend unrestricted sessions of the annual meeting as observers upon application to the Secretariat 100 days in advance of the meeting. Such NGOs must support the general objectives of NAFO

⁵ The General Council and Fisheries Commission are now combined as the Commission under the new Convention which came into force on May 18, 2017.

and have a demonstrated interest in the species under the purview of NAFO. If one or more contracting parties object to an applicant the matter will be put to a written vote. There are also restrictions on the activities such as observers can conduct at the annual meeting. Accreditation is good for a five year period.

Observers at the 2017 annual meeting included Conseil de Bande de la Nation Innue de Nutashkuan; Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR); the Ecology Action Centre (EAC), Dalhousie University – Environment Information: Use & Influence Research Initiative (EIUI); Sierra Club of Canada (SCC); Food and Agriculture Organization of the United Nations (FAO) and Secretariat of the Convention on Biological Diversity (CBD).

4.2. Relevant Changes to Legislation and Regulations

No substantial changes in domestic legislation or regulations pertaining to 3LN redfish since the full assessment were identified by DFO. There are some minor changes in the CHP requirements that have occurred domestically but have no adverse effect on management of the certified fishery. At the NAFO level, a HCR is now in place and the 3LN Conservation Plan continues apace. The fishery appears on track to achieve the target TAC of 18,100 mt by 2019/20.

4.3. Relevant Changes to the Management Regime

No substantial changes in domestic legislation or regulations pertaining to 3LN redfish since the full assessment were identified by DFO. There are some minor changes in the CHP requirements that have occurred domestically but have no adverse effect on management of the certified fishery. At the NAFO level, a HCR is now in place and the 3LN Conservation Plan continues apace. The fishery appears on track to achieve the target TAC of 18,100 mt by 2019/20.

4.4. Changes in Key Personnel

There were no reported changes that could potentially affect the ability of DFO to continue to effectively manage the fishery or affect the relationship with the fishing industry.

4.5. Traceability Within the Fishery

There were no reported changes or developments within the fishery which impact traceability or the ability to segregate between fish from the UoCs and fish from outside the UoC (non-certified fish).

4.6. Harmonisation

MSC CR v2.0 Guidance states that, *“The aim of harmonisation is to avoid the perversity that two essentially similar fisheries receiving materially different scores (materially in the number, and text, of conditions, or in the overall outcome, whether a pass or a fail). Fisheries that are identical should receive identical scores.”* MSC have also confirmed that harmonisation of similar fisheries using different versions of the default assessment tree, i.e. v1.3 and v2.0, should still take place where they are materially unchanged (MSC Interpretations webpage).

Therefore, in this instance, it is concluded that harmonisation is required for those fisheries that:

1. Target the same Principle 1 stock and have been assessed using v1.3, i.e. the same version used for the Canada 3LN Redfish Fishery; and,
2. Operate under the same overarching governance and policy framework (PIs prefixed with 3.1.1-3.13).
3. Have 2 UoAs that are identical in scope even if the UoCs are different (ie different client).

Rationale for harmonization decisions

The two US Acadian redfish, pollock and haddock certified fisheries and the Canada 3LN redfish are not considered as overlapping fisheries, and harmonization is not required in any of the 3 Principles. The redfish population in 3LN is genetically distinct from the redfish population in the Gulf of Maine. Genetics studies show population structure of *S. fasciatus* characterized by 3 groups that belong to three geographic areas (Valentin 2006, Valentin et al 2014); (1) Gulf of St. Lawrence – Laurentian Channel, (2) the slope of the Grand Banks (3LNO) to the southern margin of Unit 2 (southern tip of St. Pierre Bank), (3) Gulf of Maine and Nova Scotia Shelf. Overall, this southern group tends to be genetically differentiated from the northern group and from that of the Gulf of St. Lawrence – Laurentian Channel. Also The redfish fisheries operates in different ecosystems under different management system.

Other Canadian Newfoundland and Labrador groundfish fisheries are certified (Table 11). Harmonization should be considered between the 3LN redfish fishery and the other Canadian fisheries with respect to performance indicators PI-3.1-3.14 from Principle 3 . For Principle 2, it was considered that harmonization should be done only with the OCI Grand Bank yellowtail flounder as redfish UoC 1 bottom trawl and yellowtail flounder are fished in the same area by the same fishing vessels using the same fishing gear .

Table 11 lists the MSC certified or in-assessment fisheries that overlap with the Canada 3LN Redfish Fishery. The fisheries that are coloured are those that meet points 1 and 2 above and need to be harmonised:

Table 11. MSC certified and in-assessment fisheries that overlap with the Canada 3LN Redfish Fishery.

MSC Fishery	MSC Link	MSC CR version		Comment
		1.3	2.0	
US Acadian Redfish, haddock and Pollock Otter Trawl	https://fisheries.msc.org/en/fisheries/us-acadian-redfish-haddock-and-pollock-otter-trawl-fishery	✓		Not the same P1 stock or overarching governance and policy framework
US Gulf of Maine and George’s Bank Haddock, Pollock and Redfish trawl	https://fisheries.msc.org/en/fisheries/us-gulf-of-maine-and-georges-bank-haddock-pollock-and-redfish-trawl		✓	Not the same P1 stock or overarching governance and policy framework
Canada Atlantic Halibut	https://fisheries.msc.org/en/fisheries/canada-atlantic-halibut	✓		Harmonisation required for PIs pre-fixed with 3.1
Canada/Newfoundland 3Ps cod	https://fisheries.msc.org/en/fisheries/canada-newfoundland-3ps-cod/@@view	✓		Certified March 2016 Suspended 12th May 2017
OCI Grand Bank (GB) Yellowtail flounder	https://fisheries.msc.org/en/fisheries/oci-grand-bank-yellowtail-flounder-trawl/@@view		✓	Harmonisation required for P2 and PIs pre-fixed with 3.1
Canada OAB 2+ 3KLMN- Greenland-halibut-bottom-trawl-and-gillnet/	https://fisheries.msc.org/en/fisheries/canada-Oab-2-3klmno-greenland-halibut-bottom-trawl-and-gillnet/		✓	In assessment. No scores yet

Differences in PI 2.1.3 scores

There are differences on interpretations on scoring guiding post 2.1.3 80d (Table 12) where it says *Sufficient data continue to be collected to detect any increase in risk level (e.g. due to changes in the outcome indicator score or the operation of the fishery or the effectiveness of the strategy).*

The P2 assessor for the 3LN redfish wrote on the rationale

Sufficient data continue to be collected to detect any increase in risk level to all main retained species except for deep-water redfish.

Monitoring of retained species is conducted in sufficient detail to assess ongoing mortalities to all retained species except for deep-water redfish species.

The redfish species-specific monitoring is now in place in the DFO fall survey and in sampling of commercial catches. However, given its recent implementation (autumn 2015) it cannot said that sufficient data continue to be collected to detect any increase in risk level

The P2 assessor for YTFF wrote on the rationale

Data on the retained catch of all species are recorded in logbooks, and information is corroborated through observer records (48% of all YTFF fishing days were observed in 2011-2014) and a 100% dockside monitoring programme. It is therefore considered that monitoring of retained species is conducted in sufficient detail to assess ongoing mortalities to all retained species, and the YTFF scores 100, here.

The discrepancies from the 2 CABS on 2.1.3 stems that the proportion of redfish as retained catch on the YTFF is zero (please see Table 4 Retained and discarded catches for the YTFF for 2013, as recorded in logbooks on YTFF PCR and Table 3.1-1: Catch data for the OCI Grand Bank yellowtail flounder trawl fishery, 1/11/2015 –31/10/2016 YTFF 1st surveillance report) whereas the proportion of *S. Mentella* on the 3LN redfish fishery is approximately 10% (Criquet et al 2017).

Differences in 2.4.1 scores

Differences are based on operations of distinct fishing gear (3LN redfish UoC2= Midwater trawl operates water column while YTFF UoC demersal trawl operates on substrate bottoms).

Differences in 2.5.1 scores

Differences are based on operations of distinct fishing gear (3LN redfish UoC2= Midwater trawl operates water column while YTFF UoC demersal trawl operates on substrate bottoms)

Table 12. Certified and in assessment Overlapping fisheries with the same Principle 2. Orange highlighted cells indicate where there was a difference in score of 15 or more.

MSC Fishery	Canada 3LN Redfish UoC1 Demersal Trawl	Canada 3LN Redfish UoC2 Midwater Trawl	OCI 3LKNO Yellowtail flounder
2.1.1	80	80	80
2.1.2	95	95	100
2.1.3	75	75	95
2.2.1	80	100	95
2.2.2	80	80	80
2.2.3	80	80	80
2.3.1	90	90	80
2.3.2	95	95	90
2.3.3	80	80	80
2.4.1	80	100	80
2.4.2	85	95	85
2.4.3	85	85	90

2.5.1	80	100	80
2.5.2	80	80	80
2.5.3	85	85	85

Differences in PI 3.1.1 scores

3LN redfish

At the time of the full 3LN Redfish assessment there was no formal dispute settlement mechanism available in NAFO for directly resolving such objections (Table 13). The PI was scored originally as 80 on the PCR . However, the new NAFO convention that came into force in May 2017 has a dispute settlement mechanism. Because of the new information, the PI 3.1.1b. was rescored to 85.

3Ps cod

The management system is subject to an open, transparent mechanism provided through federal legislation in open, public courts and has been tested numerous times and proven to be effective. The Canadian constitution and subsequent SCC judgements provide a tested and proven mechanism to formally commit to the legal rights of aboriginal peoples to fish for food and livelihood.

Differences in PI 3.1.2 scores

3LN redfish

The structure, purpose and operation of the NAFO scientific and management committees are clearly outlined in the NAFO Convention and website.

On the Canadian domestic groundfish management scene, the main affected parties in the NL Region groundfish fishery have been variously identified since the early 1980s and participate in the DFO Newfoundland Region's Groundfish Advisory Committees.

3Ps cod

Around the time that the PCR for this fishery was published there were no terms of reference for the 3Ps GAC, or description of its function, roles and responsibilities. The current IFMP came in effect in June 2016 after the Certification Report was published for this fishery

Differences in PI 3.1.3 scores

3LN redfish

While the department's long-term objectives are consistent with MSC Principles and Criteria and the precautionary approach, Canada is subject to the type of precautionary approach for setting the 3LN Redfish TAC that is implemented by majority vote or consensus of the Fisheries Commission. Domestically it is still unclear as to the extent the PA will restrict the Minister's absolute powers under the Fisheries Act.

3Ps cod

Precautionary approach in the Ocean Act and the Sustainable Fisheries Framework clearly focuses on the incorporation of the precautionary ecosystem approaches to fishery management.

Table 13. Certified and in assessment Overlapping fisheries with the same Principle 3 governance and policy framework PIs3.1.1-3.1.3. Orange highlighted cells indicate where there was a difference in score of 15 or more.

MSC Fishery	3.1.1	3.1.2	3.1.3
Canada 3LN Redfish	85	95	80
Canada/Newfoundland 3Ps cod	95	70	100

MSC Fishery	3.1.1	3.1.2	3.1.3
OCI Grand Bank (GB) Yellowtail flounder	90	90	80
Canada OAB 2+ 3KLMN-Greenland-halibut-bottom-trawl-and-gillnet/	NA	NA	NA
Canada Atlantic Halibut	90	80	85

The audit team can confirm that the Canada 3LN Redfish Fishery is harmonised with each of the overlapping certified / in-assessment fisheries, see Table 11, Table 12 and Table 13.

4.7. The General Conditions of Certification

The general 'Conditions' set out for the GEAC as the certificate holder are 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 re-certification, the Client fulfilled the requirement to document an 'Action Plan' for meeting the conditions for continued certification, and this was approved by SAI Global; and,
- The Client must provide a list of all the entities eligible for certification as well as a list of active vessels fishing under the one 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 Canada 3LN Redfish Fishery and actions undertaken against the milestones of each Condition in the intervening period are reported upon in the next sections.
- An up-dated list of members of the client group has been provided and a list of active vessels during the 2017 fishery.

4.8. The Specific Conditions of Certification

During the assessment of the Canada 3LN Redfish Fishery, conditional scores were allocated for two PIs (Table 14, PI 2.1.3 Retained Species Information/Monitoring , PI 3.2.1 Fishery Specific Objectives).

Table 14. Summary of Assessment Conditions.

Condition number	Performance Indicator (PI)	Status	PI original score	PI revised score
1	2.1.3	Open - On Target	75	Not revised
2	3.2.1	Open 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).

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

The surveillance audit was conducted as a normal onsite audit (Table 15).

The Surveillance Audit was comprised in general of:

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 Main 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 Canada 3LN Redfish Fishery. Through this process, a stakeholder consultation plan was developed as part of the on-site assessment.

Table 15. Fishery Surveillance Program.

Surveillance Level	Year 1	Year 2	Year 3	Year 4
Level 6	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit	On-site surveillance audit & re-certification site visit.

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 Canada 3LN Redfish Fishery, and the geographic location of the respective clients and stakeholders, the on-site audit meeting was proposed to be in St. John's, Newfoundland, Canada.

- The on site Surveillance Audit took place on June 28th 2018.
- On-site audits were performed by Dr. Ivan Mateo (Lead Assesor), Conor Donnelly (Assesor) and Eric Dunne (Assesor).

The 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 the site visit meetings.

5.1. Summary of stakeholder and client meetings

Arising out of the stakeholder consultation plan preparation stakeholders were contacted directly by e-mail and a final direct consultation plan for the audit was prepared. Table 16 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.

Table 16. Consultation Meetings during the On Site Surveillance Assessment of the the Canada 3LN Redfish Fishery.

Location	Courtyard Marriott St. John's, Newfoundland, Canada	
Venue	Central Library	
Date	28 th June 2018	
Time	8:30 – 9:00 AM	
Purpose	Status of conditions updates on fisheries management activities and performance.	
Representative	Organisation	Position
Ivan Mateo	SAIGlobal	Lead Assesor & P1 specialist
Conor Donnelly	SAIGlobal	Assesor & P2 specialist
Eric Dunne	On behalf of SAIGlobal	Assesor& P3 specialist
Sam Dignan (observer)	SAIGlobal	Fisheries Scheme Manager
Kris Vascotto	GEAC	Executive Director
Steve Devitt	GEAC	Director of Sustainability
Sergio Cansado	ASI	ASI auditor

Location	DFO, St. John's, Newfoundland, Canada	
Venue	DFO- NFL Headquarters	
Date	28 th June 2018	
Time	9:30 – 11:30 AM	
Purpose	Current stock status, enforcement activities, and research activities.	
Representative	Organisation	Position
Ivan Mateo	SAIGlobal	Lead Assesor & P1 specialist
Conor Donnelly	SAIGlobal	Assesor & P2 specialist
Eric Dunne	On behalf of SAIGlobal	Assesor& P3 specialist
Samuel Dignan (Observer)	SAIGlobal	Fisheries Scheme Manager
Kris Vascotto	GEAC	Executive Director
Steve Devitt	GEAC	Director of Sustainability
Sergio Cansado	ASI	ASI auditor
Gillian Janes	DFO	Policy and Economics Analyst
Danny Ings	DFO	Biologist
Chelsea Tricco	DFO	Fisheries Management Officer
Daryl Walsh	DFO	F/O Enforcement Operations
Stefanie Gardiner	DFO	Regional Staff Officer Enforcement Operations
Dawn Mercer	DFO	Oceans Biologist
Nadine Wells	DFO	Aquatic Scientist Biologist
David Coffin	DFO	Resource Manager
Paul Glavine	DFO	Senior Policy and Economics Analyst

Location	Teleconference to NAFO Official –	
Date	28 th June 2018	
Time	1:00 – 3:00 PM	
Purpose	Discussion on fisheries management and regulations.	
Representative	Organisation	Position
Ivan Mateo	SAIGlobal	Lead Assesor & P1 specialist
Conor Donnelly	SAIGlobal	Assesor & P2 specialist
Eric Dunne	On behalf of SAIGlobal	Assesor& P3 specialist
Samuel Dignan (observer)	SAIGlobal	Fisheries Scheme Manager
Kris Vascotto	GEAC	Executive Director
Steve Devitt	GEAC	Director of Sustainability
Sergio Cansado	ASI	ASI auditor
Tom Blasdale	NAFO	Scientific Council Coordinator

Location	Courtyard Marriott St Johns, Newfoundland, Canada	
Venue	Meeting Room	
Date	28 th June 2018	
Time	3:00 – 4:00 PM	
Purpose	Discussion of stakeholders view point on the performance of the fishery.	
Representative	Organisation	Position
Ivan Mateo	SAIGlobal	Lead Assesor & P1 specialist
Conor Donnelly	SAIGlobal	Assesor & P2 specialist
Eric Dunne	On behalf of SAIGlobal	Assesor& P3 specialist
Samuel Dignan (observer)	SAIGlobal	Fisheries Scheme Manager
Sergio Cansado	ASI	ASI auditor
Erin Carruthers	FFAW	Fisheries Scientist

6. Results

6.1. Evaluation tables for Conditions during the 1st Surveillance Audit 2018.

As indicated in Section 4.7 (Table 14), during the initial assessment of the Canada 3LN Redfish Fishery, a total of 2 conditions were raised, all of which relate to Principles 2 and 3. Details including the evidence collected during this are presented below. The details from this year's audit are also included to show where incremental progress has been made.

6.1.1. Condition 1

Performance Indicator and score	PI number	Scoring issue / scoring guidepost	Score
	PI 2.1.3 Retained species Information	Sufficient data continue to be collected to detect any increase in risk level to main retained species	75
Condition 1	<p>The client must provide evidence that sufficient data continue to be collected to detect any increase in risk level to deep-water redfish <i>S. mentella</i>.</p> <p>Rationale: Sufficient data continue to be collected to detect any increase in risk level to all main retained species except for deep-water redfish. Monitoring of retained species is conducted in sufficient detail to assess ongoing mortalities to all retained species except for deep-water redfish species.</p> <p>The redfish species-specific monitoring is now in place in the DFO fall survey and in sampling of commercial catches. However, given its recent implementation (autumn 2015) it cannot be said that sufficient data continue to be collected to detect any increase in risk level.</p>		
Milestones	<p>By Year 1: The Assessment team shall be provided with documentary evidence that redfish species-specific monitoring was carried out and results shall be presented. Meeting this milestone would likely not result in a change in score at this surveillance audit.</p> <p>By Year 2: The Assessment team shall be provided with documentary evidence that redfish species-specific monitoring was carried out and results shall be presented. Meeting this milestone would likely not result in a change in score at this surveillance audit.</p> <p>By Year 3: The Assessment team shall be provided with documentary evidence that redfish species-specific monitoring was carried out and results shall be presented. Meeting this milestone would likely not result in a change in score at this surveillance audit.</p> <p>By Year 4: The client shall provide evidence that sufficient data continue to be collected to detect any increase in risk to the deep-water redfish. Meeting this milestone will demonstrate that all scoring issues of the SG 80 have been met and would result in a score of 80 for this performance indicator.</p>		
Client Action Plan	<p>GEAC and DFO have agreed on methods to sample and test Anal Fin ray Counts (AFC) as a proxy for species identification of redfish caught in DFO's Fall Survey and the commercial fishery, and analysis of results for 2015 was provided to the Assessment Team.</p> <p>By Year 1: Evidence will be presented that an update report on results has been produced.</p>		
Evidence for Year 1	<p>The client produced a report (GEAC, 2018) updating on ongoing species identification work using AFC to distinguish the two species of redfish <i>S. fasciatus</i> and <i>S. mentella</i>.</p>		

The work involves examination of samples collected from the fall DFO research vessel survey and also weekly samples from commercial vessels during the fishery. The samples comprise 30 individual fish, combined into a single sample, labelled and frozen before transport to the Eastern Shore Science Society. The Society undertakes the counts using DFO trained staff experienced in meristic assessments of redfish species and partitioned to 100m depth bin to support assessment of species structure and exposure to fishing activity.

It should be noted that some research vessel tows had slightly fewer redfish taken – averaging 28 per sample with a minimum of 25 and maximum of 30 individuals. Also samples were not taken by DFO in 2016 and logistic constraints (vessel issues) prevented complete sampling of deep water stratum of 3L in 2017 so that AFC data is absent below 500m depth. The deep water strata are expected to be full sampled in the 2018 survey.

In the commercial fishery, additional samples are taken if fishing location or depth changes significantly over the course of the week and the sampling protocol has recently been revised such that there has been an increase in sampling to 2 per week (Kris Vascotto, GEAC, surveillance site visit).

AFC are used to distinguish the two species. Individual redfish with AFC less than 8 are assigned as *S. fasciatus* and samples with AFC > 8 are *S. mentella*. Previous work undertaken by GEAC (2011) suggests that where the samples are dominated (over two thirds) by either AFC of < 8 or > 8, the ambiguous samples (AFC = 8) generally follow the dominant species in the sample

The results of this sampling programme to date have been discussed in section 4. Findings are consistent with those of the fall 2015 DFO survey used to inform the full assessment. In the 2016 and 2017 3LN redfish fishery nearly 90% of effort occurred at depths between 300 and 500m (figure 1). Analysis of AFC from DFO research vessel and commercial samples in 2017 indicates *S. fasciatus* dominates the catch with *S. mentella* comprising less than 10% of the samples in the depths where virtually all the fishing occurs (figure 2 and 3).

It should be noted that some of the NAFO scientific reports appear to suggest separate species-specific monitoring of 3LN redfish has already been occurring. For example, the Portuguese research report for 2016 (NAFO, 2017b) refers specifically to 'redfish (*S. mentella*)' in its reporting of their biological sampling from two trawlers fishing in 3LMNO. However, where this occurs no further explanation is provided as to how this species identification is undertaken - in the Portuguese report the only information gathered seems to be length and weight measurements and no species differentiation is described or referred to. The client has followed this up with the NAFO redfish stock assessment lead who confirmed that no species-specific monitoring is currently undertaken by the research surveys or in any of the commercial catch from any NAFO contracting party (Appendix 3). It would seem likely that these reports are relying on the historic work describing depth distribution of the two redfish species (Ni, 1982, discussed in the PCR) which has been used by stock assessment biologists since to provide an assessment of the relative status of the two stocks. The current AFC work is updating this understanding.

Conclusion at 1st surveillance audit	<p>On-going species-specific monitoring is collecting data that can detect any increase in risk level to <i>S. mentella</i> and an update report on that monitoring has been produced. The year 1 milestone has been met.</p> <p>The results of the monitoring to date support the supposition that the fishery is focused on <i>S. fasciatus</i> with catches of <i>S. mentella</i> comprising less than 10% of total catch. There are gaps in research vessel sampling (no data collected in 2016 and deeper water strata not sampled in 2017) but full sampling is expected in 2018. Progress in delivering the condition is on target. As noted above it is not possible to change the score at this surveillance as the time series of data is still short.</p>
Status of condition	<p>Open – On target</p>

6.1.2. Condition 2

Performance Indicator and score	PI number	Scoring issue / scoring guidepost	Score
	PI 3.2.1 Fishery Specific Objectives	Short and long-term objectives, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are implicit within the overall 3LN Redfish fishery's management system.	70
Condition 1	The client must provide documented evidence that short and long-term objectives for the 3LN Redfish fishery have been adopted which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2 and are explicit within the fishery's management system.		
Milestones	<p>By Year 1: The client is required to provide evidence of progress toward a commitment by the management agencies to incorporate short and long term objectives, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, within the fishery's management system. Meeting this milestone would likely not result in a change in score at this surveillance audit.</p> <p>By Year 2: The client will provide evidence that short and long term objectives, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery's management system. Meeting this milestone will demonstrate that all scoring issues of the SG 80 have been met and would result in a score of 80 for this performance indicator.</p>		
Client Action Plan	<p>By Year 1: The Client will provide evidence that DFO has circulated a draft IFMP applicable to the 3LN Redfish fishery, with short and long-term objectives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2.</p> <p>By Year 2: The Client will provide evidence that DFO has adopted an IFMP applicable to the 3LN Redfish fishery, with short and long-term objectives that are consistent with achieving the outcomes expressed by MSC Principles 1 and 2.</p>		
Evidence for Year 1	<p>DFO advised the Client in a letter dated June 26, 2018 that it had intended to have an Integrated Fisheries Management Plan (IFMP) for 2+3KLMNO groundfish completed by the spring of 2018, but the audit of the Office of the Commissioner of the Environment and Sustainable Development (CESD) required the Department to adjust priorities which changed that timing. This was confirmed by DFO officials at the Site Visit. They also confirmed an additional staff officer has been hired for this task.</p> <p>It was also confirmed that the target now is to circulate the draft IFMP for industry review in the fall 2018, and to have this document adopted at the 2+3KLMNO Groundfish Advisory Committee Meeting in the spring of 2019.</p>		
Conclusion at 1st surveillance audit	Given the evidence presented, the fishery is on target as meeting the requirements of Year 1 milestones set during the full assessment		
Status of condition	Open – On target		

6.2. Recommendations Update

Recommendations are included 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 fishery. Recommendations do not impose a mandatory requirement nor are they auditable, however, they do act as a marker for future audits and assessments and may highlight actions that will ensure information or evidence of good management remain current and continue to meet MSC requirements. A number of recommendations were made at the assessment. These are repeated below along with client and/or DFO responses to each recommendation.

Recommendation 1

“A species-specific sampling of redfish has been recently added in the DFO trawl surveys (Autumn 2015). The assessment team recommends that analytical effort now be directed to using these data to monitor trends of each redfish species to help ensure that managing to the level of complex does not place the individual redfish species at risk.”

1st surveillance audit: In progress - the monitoring work reported in condition 1 is providing the data that will enable this analysis to be undertaken.

Recommendation 2

“The assessment team recommends that the client provides up-to-date target species, retained and bycatch species catches and ETP species information if the mid-water trawl starts to be used again”

1st surveillance audit: There has been no resumption of mid-water trawling so no need to address this recommendation at present.

7. Conclusion

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

The Canada 3LN Redfish 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. The audit team recommends that continued certification of the fisheries.

7.1. Outcome of SAI Global Decision

SAI Global determines that:

- **The Canada 3LN Redfish 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.**

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9. Appendices

9.1. Appendix 1. Re-scoring evaluation tables

9.1.1. Rescoring of Evaluation Table for PI 3.1.1

PI3.1.1 scoring has been revised to reflect changes in the new NAFO Convention that came into force in May 2017.

Changes made to the original rationales are identified by using a different coloured font, blue.

For both UoAs

PI 3.1.1		The management system exists within an appropriate legal and/or customary framework which ensures that it: <ul style="list-style-type: none"> • Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; and • Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and • Incorporates an appropriate dispute resolution framework. 		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	There is an effective national legal system and a framework for cooperation with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2.	There is an effective national legal system and <u>organised and effective</u> cooperation with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2.	There is an effective national legal system and binding procedures governing cooperation with other parties which delivers management outcomes consistent with MSC Principles 1 and 2.
	Met?	Y	Y	N
	Justification	<p>There is an effective national legal system and organised and effective cooperation with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2.</p> <p>The Canadian fisheries management system is based on an effective national legal system that includes the powerful Acts (Fisheries Act, Oceans Act and Coastal Fisheries Protection Act) that give the Minister authority to manage both fisheries and the oceans, to implement a precautionary approach to management and to regulate foreign vessels fishing in or around Canadian waters. These Acts and the Regulations made under them enable the administration of Canadian fisheries laws at the national and regional level and Canada's participation in numerous multi-lateral and bi-lateral fisheries management arrangements with other countries. In particular, Canada is a signatory to LOS and UNFA and a member of several RFMOs worldwide, including NAFO which establishes the TAC and provides the National Allocations of 3LN Redfish. Canada then uses its domestic fisheries management system to manage the fishing of its allocation by licensed Canadian vessels. Canada is obliged by the Article XI (Consistency of Measure/Proposals) of the NAFO Convention to ensure consistency between its management measures for fishing inside Canadian waters and those measures established by NAFO.</p> <p>NAFO is the internationally established Regional Management Fisheries Organization (RFMO) that is responsible for fisheries management measures for those fisheries that overlap with, or are completely outside, the Exclusive Economic Zone (EEZ) of the four coastal states (USA, Canada, France (in respect of St. Pierre et Miquelon), and Denmark (in respect of Faroe Islands and Greenland) in the Northwest Atlantic. NAFO's overall objective is to contribute through consultation and cooperation to the optimum utilization, rational management and conservation of the fishery resources of the NAFO Convention Area.</p>		

PI 3.1.1	<p>The management system exists within an appropriate legal and/or customary framework which ensures that it:</p> <ul style="list-style-type: none"> • Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; and • Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and • Incorporates an appropriate dispute resolution framework. 			
	<p>NAFO establishes the TAC for 3LN Redfish (which is a straddling stock) and provides the National Allocations to Contracting Parties. The TAC is set through decision/consensus of its Fisheries Commission after consideration of advice from the Scientific Council. National Allocations are decided on the basis of longstanding allocation keys that reflect past fishing history and more recent coastal states priority.</p> <p>Both NAFO and Canada’s management regime provide an effective legal system and some binding procedures for cooperation with other parties. While there is a constitutionally binding requirement to consult with Indigenous peoples and provinces on some issues, there is no general domestic requirement governing cooperation with other parties preventing the fishery from meeting SG100.</p>			
b	Guidepost	<p>The management system incorporates or is subject by law to a mechanism for the resolution of legal disputes arising within the system.</p>	<p>The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes which is considered to be effective in dealing with most issues and that is appropriate to the context of the fishery.</p>	<p>The management system incorporates or subject by law to a transparent mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been tested and proven to be effective.</p>
	Met?	<p>Y</p>	<p>Y</p>	<p>NY</p>
	Justification	<p>The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes which is considered to be effective in dealing with most issues and that is appropriate to the context of the fishery.</p> <p>The management system incorporates or subject by law to a transparent mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been tested and proven to be effective.</p> <p>The Canadian fisheries management authority is not continually facing court challenges. Unresolved disputes within the Canadian fisheries management system can be, and have been, taken to the Canadian judicial system for a final decision. The most notable of these over the last two decades have been the “Sparrow”, “Marshall” and “Larocque” decisions. There are provisions for appeal of licensing decision to Atlantic area appeal boards. Except for the Larocque case, challenges of the Minister’s right to allocate as he see fit have not been successful.</p> <p>The Fisheries Commission is the main forum for resolving disputes at the NAFO level. After discussion of proposed management or conservation measures decisions on them are taken by vote or are adopted by consensus. In keeping with the rights of sovereign states under LOS; any contracting Party can object to a fishery management or conservation decision of the Fisheries Commission and thereby not be bound by it. At the time of the full 3LN Redfish assessment there was no formal dispute settlement mechanism available in NAFO for directly resolving such objections. However, the new NAFO convention that came into force in May 2017 has a dispute settlement mechanism that should lessen the conservation impact of objections. The number of Objections has declined in recent years from the past.</p> <p>However, few legal disputes were brought to the Canadian legal courts. That was the case in the past with native population claims about marine resources. In this case DFO adapts the objectives and rules to court decision and generates a large negotiation with natives groups involved to integrate them to the fishery.</p>		

PI 3.1.1	The management system exists within an appropriate legal and/or customary framework which ensures that it: <ul style="list-style-type: none"> • Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; and • Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and • Incorporates an appropriate dispute resolution framework. 			
d	Guidepost	The management system has a mechanism to generally respect the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.	The management system has a mechanism to observe the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.	The management system has a mechanism to formally commit to the legal rights created explicitly or established by custom of people dependent on fishing for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.
	Met?	Y	Y	N
	Justification	<p>The management system has a mechanism to observe the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2</p> <p>Canada Ongoing development of Canadian domestic quota allocation policies has provided access to various user groups in different fisheries. These arrangements are reflected in licensing policies and quota allocation arrangements that are now usually spelled out in Integrated Fishery Management Plans or in the annual fisheries management decisions posted on the Departmental website. The Canadian system does not commit formally to some rights until they have been legally proven or established and then they are implemented in a manner and timeframe consistent with the Minister’s resource conservation mandate. In other instances, fishing rights have been worked out or formalized in the context of land claims agreements which is a negotiated process headed by the Department of Indigeneous and Northern Affairs Canada.</p> <p>NAFO The individual Contracting Parties’ domestic policies on fishing rights would determine by whom their individual National Allocation in the NRA is fished. The individual National Allocations are based on longstanding allocation keys which past fishing history and more current coastal priority of Contracting Parties. This is not a matter that NAFO needs to concern itself with.</p> <p>While the management system respects and observes the legal rights, it does not formally commit to such rights until they have been legally proven or established by law, preventing the fishery from meeting SG100.</p>		
	References	NAFO 200. “The NAFO Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries. NAFO 2007. “Amendment to the Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries”. Canada Fisheries Act: http://laws-lois.justice.gc.ca/eng/acts/F-14/ Fishery (General) Regulations: http://laws-lois.justice.gc.ca/eng/regulations/SOR-93-53/index.html		
OVERALL PERFORMANCE INDICATOR SCORE:				85
CONDITION NUMBER (if relevant):				NA

9.1.2. Updated Principle 3 scoring sheet

Principle	Component	PI No	PI	UoAs 1 and 2 initial score	UoAs 1 and 2 revised score
Three	Governance and policy	3.1.1	Legal & customary framework	80	85
		3.1.2	Consultation, roles & responsibilities	95	95
		3.1.3	Long term objectives	80	80
		3.1.4	Incentives for sustainable fishing	90	90
	Fishery specific management system	3.2.1	Fishery specific objectives	70	70
		3.2.2	Decision making processes	85	85
		3.2.3	Compliance & enforcement	85	85
		3.2.4	Research plan	80	80
		3.2.5	Management performance evaluation	80	80

9.1.3. Revised Principle 3 overall score

For both UoAs

Principle 3	
Initial score	Revised score
83.1	83.8

9.2. Appendix 2. Stakeholder submissions

Stakeholder submissions have not been received.

9.3. Appendix 3. Surveillance audit information

Correspondances between GEAC and Dr Avila de Melo regarding 3LN Redfish Stock Identification

From: amelo <amelo@ipma.pt>

Date: July 12, 2018 at 11:46:09 AM NDT

To: Steven Devitt <sdevitt@bioresourcestewardship.ca>

Cc: "Healey, Brian" <Brian.Healey@dfo-mpo.gc.ca>, "Dwyer, Karen" <Karen.Dwyer@dfo-mpo.gc.ca>

Subject: Re: 1st surveillance MSC 3LN redfish certification under MSC criteria

Dear Sir,

*Further information on *Sebastes spp* distribution and density spots on Div. 3L and Div. 3N can be found on the NAFO SCR's dealing with the Canadian and Spanish surveys. Anyway let me remind you three facts:*

- 1. Redfish is not separated by species on either Canadian or Spanish series nor on the commercial catch of any NAFO Contracting Party.*
- 2. Despite their different depth distribution these redfish species are very similar in terms of morphology and growth at least during their first 20 years life time*
- 3. The 3LN redfish management unit is assessed not by age structured models but by a stock surplus production model and, taking into account that redfish ageing routines have been discontinued in Atlantic Canada for quite a long time, most likely the assessment will continue to rely on weight based models.*

So, in terms of assessment and management of this unit the differences on the biology of these two redfish is not a crucial matter for a consistent and realistic output. But the quality of the ongoing survey data and the realism of the commercial catch figures, that will allow the proper maintenance of long time series from which these type of models depend.

For the moment that is all I have to say.

Regards

António Ávila de Melo

Às 12:28 de 12/07/2018, Steven Devitt escreveu:

Good morning Dr. Ávila de Melo,

My name is Steve Devitt, I work with the Groundfish Enterprise Allocation Council, the client for the Canadian 3LN redfish fishery for which Dr. Mateo is conducting an annual MSC surveillance audit. Dr. Mateo forwarded your response to the client group as part of the communications relative to this year's surveillance audit process.

In your response below, I noted the following phrase for which I am seeking clarification:

*On 2011-2015 most of Canadian spring and autumn surveys found larger redfish concentrations more frequent on Div. 3N, despite the major proportion of the catch being annually taken from Div. 3L *S. mentella* dominates the commercial catch on either division.*

*I am wondering if your comment regarding *S. mentella* dominating the commercial catch was a misnomer or if you have additional information which we haven't reviewed that suggests that Canadian catch composition has changed.*

As described in Section 4.3.1.1 of the 3LN Redfish Fishery MSC Public Certification Report (PCR), the depth distribution of the two redfish species in 3LN was first described by Ni (1982). The depth distributions described by that work has been used by stock assessment biologists since to provide an assessment of the relative status of the two stocks. As was highlighted during the MSC assessment, species distribution and composition requires verification to ensure that the fishery is not impacting the *S. mentella* stock in 3LN.

To summarize, Ni (1982) demonstrated through meristic analysis that *S. mentella* was dominant at deeper depths and *S. fasciatus* inhabited shallower depths:

	<183 m	184 to 274 m	275 to 365 m	366 m to 548 m	> 549 m
<i>Fasciatus</i>	0.983	0.931	0.982	0.275	0.094
<i>Mentella</i>	0.017	0.069	0.018	0.725	0.906

In previous examination of AFC by depth in 3LN, as presented in the MSC PCR report, it was apparent that the Canadian fishery focused on shallower depths that were likely *S. fasciatus*. The information that I have available is that the majority of Canadian effort is occurring in less than 400 m.

Could you please clarify your opinion on the commercial catch composition, particularly, I'm wondering if the position on the work completed by Ni (1982) is no longer considered valid.

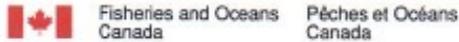
Thank you very much for any further clarification you are able to provide.

Sincerely,

Steve Devitt

Director of Sustainability and Certification
 Groundfish Enterprise Allocation Council
 Phone: (902) 497 4586
 Email: sdevitt@bioresourcestewardship.ca
 Skype: [stevedevitt](#) (Dartmouth, Nova Scotia, Canada)

Letter from Acting Regional Director from DFO-Newfoundland and Labrador to GEAC dated On June 25 2018



P.O. Box 5667
St. John's, NL A1C 5X1

June 25, 2018

Mr. Kris Vascotto
Executive Director
Groundfish Enterprise Allocation Council
PO Box 28
Clementsvalle, NS B0S 1G0
vascotto@vrsi.ca

Dear Mr. Vascotto:

Re: 3LN Redfish Marine Stewardship Council Certification – First Annual Surveillance Audit and Support for the Client Action Plan

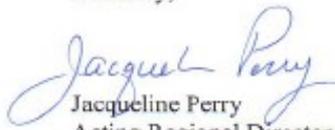
This is in response to your request for a material change letter, which is required for your upcoming first annual surveillance audit of the 3LN Redfish fishery. We can report that there have been no material changes to the management of this fishery in the past 12 months.

Fisheries and Oceans Canada (DFO) recognizes your commitment to meeting the stated conditions within the Client Action Plan. DFO supports the Plan with the understanding that our contributions must align with the Department's annual work plan priorities and activities.

I would like to take this opportunity to commend the Groundfish Enterprise Allocation Council for its commitment to a sustainable fishery. Should you require anything further, please contact Paul Glavine in the Policy and Economics Branch at (709) 772-4568.

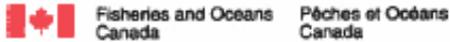
We wish you all the best in seeking recertification with the Marine Stewardship Council.

Sincerely,


Jacqueline Perry
Acting Regional Director General
Newfoundland and Labrador Region



Letter from Acting Regional Director from DFO-Maritimes to GEAC dated On June 26 2018



June 26th, 2018

Dr. Kris Vascotto
Executive Director
Groundfish Enterprise Allocation Council
1362 Revell Road,
Manotick, ON K4M 1K8

Dear Dr. Vascotto:

In response to your email (June 12, 2018) regarding the conditions that have to be met to maintain 3LN redfish Marine Stewardship Council (MSC) certification.

Fisheries and Oceans Canada supports industries efforts to receive and maintain MSC certification. We understand that the development and acceptance of an Integrated Fisheries Management Plan (IFMP) for 2+3KLMNO groundfish is required to maintain certification and assure you it remains a priority for the Department. We had anticipated having this document completed by the spring of 2018, but following the audit of the Office of the Commissioner of the Environment and Sustainable Development (CESD) we had to adjust priorities and this shifted the timeline. We have hired additional staff to allow the Department to move forward with the task. Staff is actively working on compiling all the necessary information.

We have a target date of fall 2018 to circulate the draft IFMP for industry review, and are aiming to have this document adopted at the 2+3KLMNO Groundfish Advisory Committee Meeting in spring 2019.

We look forward to sharing this document with you this fall for review and comment.

Regards,



Robert Lambert

cc Ray Walsh
David Coffin



Should you require anything further, please contact the Eco-certification Coordinator in the Maritimes Region, Laura Hussey-Bondt, either by phone: 902-426-6384 or by email: Laura.Hussey-Bondt@dfp-mpo.gc.ca. I wish you all the best with your upcoming surveillance audit.

Yours sincerely,

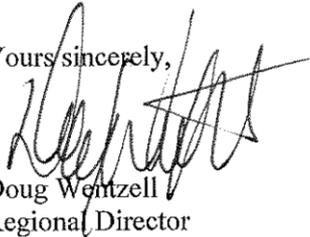


Mary-Ellen Valkenier
Regional Director General
Maritimes Region

-2-

If you see any dead, injured or entangled whale, contact the Marine Animal Response Society's toll-free line at 1-866-567-6277.

Yours sincerely,



Doug Wentzell
Regional Director
Fisheries Management
Maritimes Region

*If you are an Association or Port Representative, we ask that you relay this information to those individuals that you represent.

9.4. Appendix 4. Additional detail on conditions/ actions/ results

Not necessary

9.5. Appendix 5. Revised Surveillance Program

It is not proposed to change the surveillance program. It will continue as described in Table 15, Section 5 and it is proposed that the 2nd surveillance audit takes place at a similar time of year in 2019.