

# **MSC SUSTAINABLE FISHERIES CERTIFICATION**

# **On-Site Surveillance Visit**

# Report for Barents Sea cod, haddock and saithe fishery



1<sup>st</sup> Surveillance stage

October/2017

Certificate Codes Prepared For: Prepared By: Authors:

F-ACO-0075, F-ACO-0076, F-ACO-0095, Ocean Trawlers Group / NOREBO Group

Acoura Marine Geir Hønneland, John Hambrey and Hans Lassen



# **Assessment Data Sheet**

Fishery name	Barents Sea cod, haddock and saithe			
Species and Stock	Cod ( <i>Gadus morhua</i> ) Haddock ( <i>Melanogrammus aeglefinu</i> s) Saithe ( <i>Pollachius virens</i> )			
CAB name	Acoura Marine			
CAB contact details	Address 6 Redheughs Rigg Edinburgh EH12 9DQ			
	Phone/Fax	0131 335 6662		
	Email	fisheries@acoura.com		
	Contact name(s)	Louise Allan		
Client contact details	Address	Ocean Trawlers Group / NOREBO Group Room 1905 19/F Allied Kajima Building, 138 Gloucester Road Wanchai		
		Hong Kong		
	Phone/Fax	+7 (812) 4452787		
	Email	sergey.sennikov@ocean trawlers.com		
	Contact name(s)	Sergey Sennikov		



# Contents

1	Intro	oduction4
	1.1	Scope of Surveillance
	1.2	Aims of the Surveillance4
	1.3	Certificate Holder Details
2	Surv	veillance Process6
	2.1	Findings of the original assessment
	2.2	Surveillance Activity
	2.2.1	1 Surveillance team details6
	2.2.2	2 Date & Location of surveillance audit
	2.2.3	3 Stakeholder consultation & meetings6
	2.2.4	4 What was inspected
	2.2.5	5 Stakeholder Consultation6
	2.3	Surveillance Standards
	2.3.1	1 MSC Standards, Requirements and Guidance used6
	2.3.2 have	2 Confirmation that destructive fishing practices or controversial unilateral exemptions e not been introduced
3	Upd	ated Fishery Background7
	3.1	Changes in the management system7
	3.1.1	1 Public management system7
	3.1.2	2 Industry voluntary initiatives7
	3.2	Changes in relevant regulations
	3.2.1	1 Traceability
	3.2.2	2 De facto limitations on fishing areas9
	3.3	Changes to personnel involved in science, management or industry9
	3.4	Changes to scientific base of information including stock assessments
	3.4.1	1 Northeast Arctic Cod9
	3.4.2	2 Northeast Arctic Haddock11
	3.4.3	3 Northeast Arctic Saithe11
	3.5	Changes and updates on Ecosystem issues
	3.5.1	1 Scientific research
	3.5.2	2 Observer scheme and MSC log book14
	3.5.3	3 Coordination of mapping initiatives14
	3.5.4	Research and development of environmentally sensitive/selective trawl gear15
	3.6	Harmonisation15
	3.7 segreg certifie	Any developments or changes within the fishery which impact traceability or the ability to pate between fish from the Unit of Certification (UoC) and fish from outside the UoC (non- d fish)
	3.8	TAC and catch data15
4	Res	ults17



4.1	Summary of Assessment Conditions	.17			
4.2	Recommendation 1	.17			
4.3	Recommendation 2	.17			
4.4	Recommendation 3	.18			
4.5	Recommendation 4	.18			
Con	clusion	.20			
5.1	Summary of findings	.20			
Refe	erences	.21			
Appen	dix 1 – Re-scoring evaluation tables (if necessary)	.22			
Appendix 2 - Stakeholder submissions (if any)23					
Appen	dix 3 - Surveillance audit information (if necessary)	.24			
Appen	dix 4 - Additional detail on conditions/ actions/ results (if necessary)	.25			
Appen	dix 5 - Revised Surveillance Program (if necessary)	.26			
	<ul> <li>4.1</li> <li>4.2</li> <li>4.3</li> <li>4.4</li> <li>4.5</li> <li>Con</li> <li>5.1</li> <li>Refe</li> <li>Appendic</li> <li>Appendic</li> <li>Appendic</li> <li>Appendic</li> <li>Appendic</li> </ul>	<ul> <li>4.1 Summary of Assessment Conditions</li> <li>4.2 Recommendation 1</li> <li>4.3 Recommendation 2</li> <li>4.4 Recommendation 3</li> <li>4.5 Recommendation 4</li> <li>5.1 Summary of findings</li> <li>5.1 Summary of findings</li> <li>References</li> <li>Appendix 1 – Re-scoring evaluation tables (if necessary)</li> <li>Appendix 2 - Stakeholder submissions (if any)</li> <li>Appendix 3 - Surveillance audit information (if necessary)</li> <li>Appendix 4 - Additional detail on conditions/ actions/ results (if necessary)</li> <li>Appendix 5 - Revised Surveillance Program (if necessary)</li> </ul>			



# 1 Introduction

### 1.1 Scope of Surveillance

This report outlines the findings of the 1<sup>st</sup> Annual Surveillance of the Barents Sea cod, haddock and saithe fishery. The scope of the certified fishery and therefore of this surveillance is specified in the Units of Certification set out below:

UoC 1

Species:	Cod (Gadus morhua)
Stock:	Northeast Arctic Cod
Geographical area:	ICES Areas I and II, Barents & Norwegian Seas, & within Norwegian and Russian EEZ and on the high seas (under international management).
Harvest method:	Demersal Otter Trawl
Client Group:	All member vessels of Ocean Trawlers Group targeting Northeast Arctic Cod in ICES Areas I and II, Barents & Norwegian Seas, & within Norwegian and Russian EEZ and International Waters using Demersal Otter Trawl
Other Eligible Fishers:	None

#### UoC 2

Species:	Haddock (Melanogrammus aeglefinus)
Stock:	Northeast Arctic Haddock
Geographical area:	ICES Areas I and II, Barents & Norwegian Seas, & within Norwegian and Russian EEZ and on the high seas (under international management)
Harvest method:	Demersal Otter Trawl
Client Group:	All member vessels of Ocean Trawlers Group targeting Northeast Arctic Haddock in ICES Areas I and II, Barents & Norwegian Seas, & within Norwegian and Russian EEZ and International Waters using Demersal Otter Trawl
Other Eligible Fishers:	None

UoC 3

Species:	Saithe (Pollachius virens)
Stock:	Northeast Arctic Saithe
Geographical area:	ICES Areas I and II, Barents & Norwegian Seas, & within Norwegian and Russian EEZ and on the high seas (under international management)
Harvest method:	Demersal Otter Trawl
Client Group:	All member vessels of Ocean Trawlers Group targeting Northeast Arctic Saithe in ICES Areas I and II, Barents & Norwegian Seas, & within Norwegian and Russian EEZ and International Waters using Demersal Otter Trawl
Other Eligible Fishers:	None

## **1.2 Aims of the Surveillance**

The purpose of the annual Surveillance Report is fourfold:

- **1.** to establish and report on whether or not there have been any material changes to the circumstances and practices affecting the original complying assessment of the fishery;
- 2. to monitor the progress made to improve those practices that have been scored as below "good practice" (a score of 80 or above) but above "minimum acceptable practice" (a score of 60 or above) as captured in any "conditions" raised and described in the Public Report and in the corresponding Action Plan drawn up by the client;
- **3.** to monitor any actions taken in response to any (non-binding) "recommendations" made in the Public Report;

4. to re-score any Performance Indicators (PIs) where practice or circumstances have materially changed during the intervening year, focusing on those PIs that form the basis of any "conditions" raised.

**Please note:** The primary focus of this surveillance audit is assess changes made in the previous year. For a complete picture, this report should be read in conjunction with the Public Certification Report for this fishery assessment which can be found here:

https://fisheries.msc.org/en/fisheries/barents-sea-cod-haddock-and-saithe/@@assessments

## **1.3 Certificate Holder Details**

The client for this certification is the Norebo Overseas Holding (formerly Ocean Trawlers Group Ltd.), which is part of NOREBO Group ('The Group'). The Group was established in 1997 and is in the business of fishing, processing, procuring, trading, reprocessing and selling of frozen seafood, with cod and haddock as the core species and other species as secondary in the North Atlantic. In 2016-2017 the Group had some structural changes including renaming of its companies under one corporate name NOREBO. The Group is vertically integrated along the operations value chain, from fishery to procurement, processing and retail across Europe, USA, Asia and Africa. Further information on the NOREBO group is available through links provided (www.norebo.ru).

With regards to the BSCH fishing fleet, the list of suppliers includes PJSC Murmansk Trawl Fleet, JSC Karat-1, JSC Fishing Company Sogra, JSC Rybprominvest, JSC Alternativa Ltd., JSC Murmansk Region Fleet, JSC Rybflot as companies with fishing rights being a part of the Group and Agricultural Industrial Cooperative Fishing Collective Farm "ANDEG" as a third-party supplier with contract link to the Group acting under the Certificate Sharing Statement. Further details of these companies and fishing fleet can be provided through contacting the client.

During the surveillance year, the following changes were made in the list of vessels approved to supply MSC fish from this fishery:

- X-0522 'Mys Chikhacheva was included from 14 November 2016;
- X-0517 'Mys Slepikovskogo' was included from 14 February 2017;
- NM-0024 'PECHORA' was included from 21 June 2017;
- AK-0729 'Vulkan Ksudach' was removed from 3 July 2017.

Fishing takes place all year using demersal otter trawl of cod-end mesh size 130mm. Cod and haddock stocks are managed bilaterally by Norway and Russia through the Joint Norwegian-Russian Fishery Commission (the Commission) which regulates fishing, determining management measures and setting quotas. The saithe stock is managed by Norway and Russian quota for direct fishing of saithe in area under Norwegian jurisdiction is allocated in the Commission.

**Certificate holder**: Norebo Overseas Holding Ltd/NOREBO Group Address: Room 1905, 19/F, Allied Kajima Building, 138 Gloucester Road, Wanchai, Hong Kong SAR

**Contact Name**: Mr. Sergey Sennikov Management Company NOREBO LLC

**Tel**: +7 (8152) 637 637

Email: <u>sennikov-sa@norebo.ru</u>



# 2 Surveillance Process

# 2.1 Findings of the original assessment

No conditions were raised by the assessment team. Four recommendations were made, which, whilst not obligatory, the client is encouraged to act upon within the spirit of the certification.

# 2.2 Surveillance Activity

### 2.2.1 Surveillance team details

This on-site surveillance visit was carried out by Geir Hønneland (Team Leader and P3 expert) and John Hambrey (P2 expert). Hans Lassen acted as P1 expert off-site.

### 2.2.2 Date & Location of surveillance audit

The audit took place in Tromsø, Norway, 26 September 2017.

### 2.2.3 Stakeholder consultation & meetings

20 stakeholders identified at the original site visit and throughout the certification period were directly contacted by Acoura and invited to participate in the audit. A notification was also posted on the MSC website.

At the site visit, the assessment team met with client representative Sergey Sennikov.

### 2.2.4 What was inspected

The audit team inspected the scientific base of information and stock assessment, changes to the fishery and its management, e.g. legislation and regulations, personnel changes within the science and management structure and within the industry, traceability within the fishery and progress against the conditions of certification.

### 2.2.5 Stakeholder Consultation

A total of 20 stakeholder organisations and individuals having relevant interest in the assessment were identified and consulted during this surveillance audit. The interest of others not appearing on this list was solicited through the postings on the MSC website.

### Documents referred to

See Appendix 4.

### 2.3 Surveillance Standards

### 2.3.1 MSC Standards, Requirements and Guidance used

This surveillance audit was carried out according to the MSC Fisheries Certification Requirements v1.3 and v2.0 process requirements.

# 2.3.2 Confirmation that destructive fishing practices or controversial unilateral exemptions have not been introduced

No indication was given or suggested during the surveillance audit to suggest that either of these practices is in evidence for this fishery.



# 3 Updated Fishery Background

# 3.1 Changes in the management system

### 3.1.1 Public management system

The quotas for the main commercial species in Russia will be redistributed in 2018 and allocated among the fishing companies for a 15-year period starting from the 1<sup>st</sup> of January 2019 (when the current 10-year scheme for quota shares expires). Under the new system, up to 20 % of the TAC of certain species can be withheld and redistributed to companies that intend to invest in the building of new fishing vessels and processing plants in Russia (the so-called 'investment quota').

Another change will be that the current distinction between 'industrial' and 'coastal' quotas will be removed. If a company wants to utilize its quota (or part of it) in coastal fisheries, its quota share can be increased by 20 %.

### 3.1.2 Industry voluntary initiatives

There are two related industry voluntary management initiatives that have been strengthened since reassessment:

- An *Industry Group* signed the *Industry Group Agreement to Cod fishery* in the northern part of North-East Atlantic (attached). This agreement covers only the area around Spitsbergen.
- A Coordination Council for Development of Sustainable Fishery in the North Atlantic (the Council) that includes only Russian fishing companies. The Council was established under agreement signed in March 2016.

The Industry Group meets regularly to discuss the execution of the Agreement and measures to ensure compliance in the fishery. The Council meets when demanded by one of the parties. Usually meetings are organized though skype or e-mail exchange. The parties consult on measures and initiatives to increase the sustainability of cod and haddock fishery. The Council consists of 4 parties with one representative each (NOREBO, FIUN, FEST and ATF). The group is led by NOREBO's representative.

### Restriction of fishing within the existing footprint

The industry voluntary agreement requires the parties 'not to expand activities with trawl gear into those areas where regular fishing has not taken place before'. This applies to an area extending north from the Norwegian Sea and Barents Sea around the islands of Svalbard to the North Pole, other than for approved experimental fishing operated under specific regulations. It was developed by NOREBO and Fiskebåt from the fishing sector, Espersen, Icelandic Seachill and Nomad Foods from processing sector and retailers (Tesco etc.). FIUN, FEST (Eurofish/Russian Federation) and Archangelsk Trawl Fleet (ATF) have since also joined this agreement, and now all Russian and Norwegian MSC certified cod and haddock fisheries are bound by this agreement. The status of the agreement is such that anyone fishing in these waters cannot sell their catch to the signatories to the agreement, which includes not only the fishing companies listed above, but also frozen food producers such as Birds Eye, Findus, Iglo and Young's Seafood; the Danish company Espersen (Europe's largest processor of frozen fish); McDonald's; Icelandic Seachill, a leading supplier of chilled fish to the UK retail market; and the British supermarket chains Asda, Marks & Spencer, Morrisons, Sainsbury's and Tesco.

The voluntary agreement is monitored and validated by a 3<sup>rd</sup> Party – OceanMind – commissioned by the group. Using AIS data OceanMind have mapped likely fishing activity, by vessel, around Spitzbergen and submitted a first report to the parties to the Industry Agreement. Possible infringements are identified in the report, compared with industry commercial VMS data, and raised for discussion and action where appropriate within the group. This initiative is largely a response to the Greenpeace Campaign.



In recognition of the agreement and associated initiatives, The Industry Group was awarded the *Responsible Business Award* by Ocean Awards.<sup>1</sup>

The Industry Group has also been successful in gaining agreement to have an action orientated *High-Level Roundtable*. The Roundtable will include the Norwegian Government Fisheries Management agencies and institutions, and welcomes other stakeholders to participate. The objectives of the High-Level Roundtable will be to establish a transparent process that will continue to enable cod to be caught in the area in fisheries meeting the MSC independent sustainable fishery standard for activities beyond 2016.

### Progressing VME protocols

In parallel with the High-Level Roundtable, the Industry Group is seeking to accelerate and coordinate work to meet the MSC conditions and recommendations regarding Vulnerable Marine Ecosystems (VME's). The Group will work with scientists from the Norwegian Institute of Marine Research (IMR) and Russian institutions, using existing information to:

- define areas that may be vulnerable to trawling; and
- develop effective and proportional measures to prevent environmental degradation in such areas.

The Group is committed to a voluntary agreement to avoid fishing in such areas on a precautionary basis, whilst the appropriate measures are under development. NOREBO has been an active player in the Industry Group developing this agreement and implementing measures under the agreement to protect vulnerable marine ecosystems.

The immediate need is clearer definition of VME specific to the Barents Sea fisheries, and the Industry Group is pushing for joint (PINRO/IMR) research on this issue.

### Code of Conduct

NOREBO fishing vessels abide by their own Code of Conduct on Sustainable and Responsible Fisheries, which includes an ETP list, and an associated guide produced by WWF. This has been in place for several years but there are now new initiatives to engage the director of each fishing company; the human resources and training staff; and to run some workshops. It is anticipated that these initiatives will be reinforced through random internal audits tagged onto already comprehensive quality audits (daily data on quality; electronic systems etc.). The code also includes provision to not catch more than 15-20t of fish per trawl haul. Catches in excess of this have major negative impact on quality, and in the past may have been associated with slipping and discarding. However, this is now less of an issue since the exceptional catches from a few years back have becomes less frequent.

### Sustainability/compliance reporting

It is intended that implementation of all these measures will be reported on an annual basis through a compliance, or sustainability report.

## 3.2 Changes in relevant regulations

### 3.2.1 Traceability

Traceability data has greatly improved on the back of health/quality control measures in recent years, and it is now near impossible to trans-ship illegally. An electronic **health certificate** will be introduced in January 2018, under the Act on Veterinary Control from 1993 (amended in 2016). A special software 'Mercury' developed by the Federal Food Safety Service in Russia will register all data on fish from the catch data received from the vessels to landing and all steps through the supply chain, either to the moment the product is sold to the final customer, or exported. This system shall cover all operations at sea including the transshipment and delivery of products to the ports.

<sup>&</sup>lt;sup>1</sup>Ocean awards is co-sponsored by Y.co, Boat International and Blue Marine Foundation and celebrates projects that have made outstanding contributions to the health of the oceans.



## 3.2.2 De facto limitations on fishing areas

In addition to formally designated protected areas as described in the re-assessment report, significant areas of Barents Sea are closed for Ministry of Defence military operations on a regular basis. Information on closures is communicated to vessels and shipowners as special messages for seafarers several days before the area is closed (reason for closure, period and coordinates of the area to be closed). In 2016, there were more than 70 such closures.

### 3.3 Changes to personnel involved in science, management or industry

No changes were identified.

### 3.4 Changes to scientific base of information including stock assessments

Overall all three stocks (NEA cod, NEA haddock and NEA saithe) remain in good health and the status is largely unchanged compared to the status on which the original assessment was made.

### 3.4.1 Northeast Arctic Cod

The stock development is shown in Figure 1. The spawning–stock biomass (SSB) has been above MSY Btrigger since 2002. The SSB reached a peak in 2013 and now shows a downward trend. Fishing mortality (F) was reduced from well above Flim in 1997 to below FMSY in 2008, and the most recent estimate is likely to be below FMSY. There has been no strong recruitment since the 2004 and 2005 year classes.

The stock assessment is now based on the ICES standard SAM approach. This means that confidence limits are available for the stock estimates and that uncertainties in catch and surveys are both taken into account in the estimates. This change in methodology did not affect the overall understanding of the stock dynamics and stock trends. The stock assessment approach was benchmarked in 2016, ICES (2016).

Stock status remains as in previous years, Stock size is above target and the fishing mortality below target (FMSY). The standard database was updated as planned with catch statistics and survey information.

The NEA cod stock status was benchmarked in 2017. Reference points were confirmed.

At the 46th meeting of the Joint Russian–Norwegian Fisheries Commission (JRNFC) in October 2016, the previously used management plan was amended, and the current plan is as follows: The TAC is calculated as the average catch predicted for the coming 3 years using the target level of exploitation (Ftr). The target level of exploitation is calculated according to the spawning-stock biomass (SSB) in the first year of the forecast as follows: - if SSB < Bpa, then Ftr = SSB / Bpa × Fmsy; - if Bpa ≤ SSB ≤  $2 \times Bpa$ , then Ftr = Fmsy; - if  $2 \times Bpa < SSB < 3 \times Bpa$ , then Ftr = Fmsy × (1 + 0.5 × (SSB -  $2 \times Bpa$ ) / Bpa); - if SSB ≥  $3 \times Bpa$ , then Ftr = 1.5 × Fmsy; where Fmsy=0.40 and Bpa=460 000 tonnes. If the spawning–stock biomass in the present year, the previous year, and each of the three years of prediction is above Bpa, the TAC should not be changed by more than +/- 20% compared with the previous year's TAC. In this case, Ftr should however not be below 0.30. In 2014, JNRFC decided that from 2015 onwards, Norway and Russia can transfer to or borrow from the following year up to 10% of the country's quota. ICES evaluated this harvest control rule in 2016 (ICES, 2016a) and concluded that it is precautionary.

There is no incentive to rescore the cod stock assessment.



Precautionary Approach

Management plan

Flim

FMGT



# Northeast Arctic Cod

Figure 1. NEA Cod. Stock status and stock trends. Source: ICES (2017) NEA cod advice Figure 1 and Table

sustainably

Below

В B

BMGT

~

capacity

Above



## 3.4.2 Northeast Arctic Haddock

The stock development is shown in Figure 2. The spawning–stock biomass (SSB) has been above MSY Btrigger since 1989. The exceptionally strong year classes of 2004–2006 have contributed to the strong increase in all-time high levels of SSB seen in later years; however, the SSB in 2017 is declining. Fishing mortality has been below FMSY since 2008. Recruitment at age 3 in 2016 was slightly below average.

Stock status remains as in previous years, Stock size is above target and the fishing mortality below target (FMSY).



# Northeast Arctic Haddock

Figure 2. NEA Haddock. Stock status and stock trends. Source: ICES (2017) NEA haddock advice Figure 1 and Table 1

BMGT

Harvested

Below

sustainably

The stock assessment approach (ICES standard assessment SAM) and the available data remained as in previous years. The standard database was updated as planned with catch statistics and survey information.

The NEA haddock stock was benchmarked in 2016. Reference points were confirmed.

There is no incentive to rescore the cod stock assessment.

FMGT

### 3.4.3 Northeast Arctic Saithe

Precautionary Approach

Management plan

The stock development is shown in Figure 3. The spawning–stock biomass (SSB) has been above Bpa since 1996, but declined considerably from 2007 to 2011, then increased again and is presently (2017)

Full reproductive

capacity

Above

estimated to be well above Bpa. The fishing pressure (F) has been below Fpa since 1997, with the exception of 2010 and 2011. Recruitment (R) has been close to the long-term geometric mean level since 2005.



# Northeast Arctic Saithe

**Figure 3**. NEA Saithe. Stock status and stock trends. Source: ICES (2017) NEA saithe advice Figure 1 and Table 1

Stock status remains as in previous years, Stock size is above target and the fishing mortality below target (FMSY).

The stock assessment approach (ICES standard assessment SAM) and the available data remained as in previous years. The standard database was updated as planned with catch statistics and survey information.

The harvest control rule is unchanged, the most recent revision is based on the ICES benchmark, ICES (2014).

The original assessment raises concerns about the reference points for the NEA saithe. These issues have been resolved ICES provides reference points, see Table 1 below. MSY reference points are not defined. The reference points were revisited at ICES (2014) and confirmed.

Framework	Reference point	Value	Technical basis	Reference
MSY approach	MSY Btrigger	Not defined		



	FMSY	Not defined		
Precautionary	Blim	136 000 t	Change point regression	ICES (2005)
арргоаст	Вра	220 000 t	Blim × exp(1.645 × $\sigma$ ), where $\sigma$ = 0.3	ICES (2005)
	Flim	0.58	F corresponding to an equilibrium stock = Blim	ICES (2005)
	Fpa	0.35	Flim × exp( $-1.645 \times \sigma$ ), where $\sigma$ = 0.3This value is considered to have a 95% probability of avoiding the Flim	ICES (2005)
Management plan	SSBMGT	220 000 t	Bpa; F is linearly reduced from Fpa at SSB = Bpa to zero at SSB = 0	ICES (2011)
	FMP	0.32	Average TAC for the coming three years based on FMP	ICES (2011)

**Table 1**. NEA Saithe Reference points and their technical basis. Source: ICES (2017) NEA Saithe advice, Table 5. Saithe in subareas 1 and 2.

There is no incentive to rescore the cod stock assessment.

### 3.5 Changes and updates on Ecosystem issues

### 3.5.1 Scientific research

The Joint Russian–Norwegian Scientific Research Program on Living Marine Resources will continue to be active in 2018 with a wide range of surveys including:

- Cod spawning stock
- Fjord and coastal ecosystem survey
- Multispecies trawl-acoustic survey for estimation of juveniles and stock assessment of demersal fish in the Barents Sea and adjacent waters
- Joint Russian-Norwegian multispecies trawl-acoustic survey for demersal fish stock assessment (Winter Survey)
- International ecosystem survey in the Nordic Seas
- Joint Russian-Norwegian ecosystem survey (BESS).
- Southern Deepwater Slope Survey (Egga-Sør)
- Fishing technology and selectivity of fishing gears
- Status and role of Red King Crab and Snow crab
- Marine mammals
  - Abundance estimation of harp and hooded seals
  - Monitoring of biological parameters, harp seals
  - Multispectral aerial surveys of harp seal whelping patches
  - o Harp seal tagging in the White Sea in the frames of marine mammal coastal research
  - Boat based survey of harbour seal abundance





- Boat based survey of grey seal abundance
- Telemetric tagging of minke whales
- Studies, ecology and hunting methods of minke whales
- Line transect surveys of minke whales
- $\circ$  Marine mammal coastal research and observations including collection of biological samples
- Investigations on age determination of fish
- Investigations on survey methodology, index calculations and assessment methods
- Coordination of joint surveys in the Barents Sea
- Revision of Greenland halibut assessment methodology
- Research and long term monitoring on benthic organisms
- Development of genetic database for fish species
- Monitoring of pollution levels in the Barents Sea
- Monitoring of the hydrochemical conditions in the Barents Sea
- Exchange program of scientific personnel and data exchange

The Joint Russian-Norwegian ecosystem survey remains the main source of scientific data on benthos, ETP, and other species associated with the fishery.

The status of commercial bycatch that continue to raise some concerns is being assessed under the benthic fish stock assessments listed above. The status of Greenland halibut (200t bycatch for the whole fleet; 400t caught by one vessel that spends a part of the year targeting this species as a separate fishery) appears stable, and the 2015 benchmark report remains the most recent available. Wolffish stock assessment continues through ecosystem survey. Neither of these is reported in the PINRO (MSC) annual report.

### 3.5.2 Observer scheme and MSC log book

Norebo continues to support PINRO scientific observers (1/2m roubles/yr). PINRO receives a great deal of information from observers, but this is not analyzed or summarized, and is regarded as partially funded under federal budget and therefore not available. However, some of these data (in particular size composition of the catch) are used to supplement the more rigorous data collected in the scientific ecosystem surveys.

There are 4 elements to voluntary data collection by vessels and scientific observers: fish; marine mammals, seabirds and benthic. It should be noted that the original focus of observer support was to collect additional data on redfish, wolfish and ETP – not benthic organisms – and it is unclear that fishermen have the capacity or responsibility to collect such data. To date there has been very little useful summary or analysis of this dataset, and its utility remains in question. WWF has developed electronic and printed fish/benthic organism guides for fishermen. PINRO remains doubtful about the scientific quality of this dataset in relation to benthic organisms and ETP encounters – although it is still working up protocols for scientists and fishers. By way of example, an abundance scale has been developed to avoid the need for weighing of specimens which is deemed both impractical and inaccurate. The FIUN company is now testing software with a dropdown menu for use as unified software across certified fisheries. Data will be sent directly to Marine Informatics for first level data cleaning/summary – then to PINRO. The system will be implemented and data collection commenced on 1 January 2018.

### 3.5.3 Coordination of mapping initiatives

Strengthening and coordinating with the Norwegian Mareano database remains very limited. This database was produced primarily for mapping impact by oil and gas exploration and production, and is extremely expensive to populate.



### 3.5.4 Research and development of environmentally sensitive/selective trawl gear

Modified trawl gear to improve selectivity and reduce benthic impact (reduced contact area; better rollers; reduced effective weight using lift trawl doors) continues to be tested by PINRO in association with Moscow State University in the White Sea, and preliminary results appear promising. However, progress is relatively slow and government approval will be required, so it will be some time before adoption of gear modifications. The project is supported by the parties in the Council (4 equal shares of total financial support) with a total amount for 2 years of 6 million RUB (2016-2017). Neither WWF nor Government have provided any financial support to this project although WWF provides active support in kind assisting PINRO with experiments. The financing of the next steps will be defined later this year.

PINRO has collected data and is currently working on estimating the actual proportion of seabed affected by trawling.

### 3.6 Harmonisation

The fishery was completely harmonised with all other Russian Barents Sea cod and haddock fisheries at re-certification. Comprehensive harmonisation tables are found in the re-assessment report. No new similar fisheries have been certified since.

### 3.7 Any developments or changes within the fishery which impact traceability or the ability to segregate between fish from the Unit of Certification (UoC) and fish from outside the UoC (non-certified fish)

No changes within the fishery were reported that would impact the traceability or ability to segregate between fish from within or outside the UoC.

### 3.8 TAC and catch data

TAC and catch data are provided in Tables 2-4.

Table 2 TAC and Catch Data Cod

TAC	Year	2016	Amount	894,000 mt
UoA share of TAC	Year	2016	Amount	105,622 mt
UoC share of TAC	Year	2016	Amount	105,622 mt
Total green weight catch by UoC	Year (most recent)	2016	Amount	105,622 mt
	Year (second most recent)	2015	Amount	101,356 mt

#### Table 3 TAC and Catch Data Haddock

TAC	Year	2016	Amount	244,000 mt
UoA share of TAC	Year	2016	Amount	28,492 mt
UoC share of TAC	Year	2016	Amount	28,492 mt
Total green weight catch by UoC	Year (most recent)	2016	Amount	28,492 mt
	Year (second most recent)	2015	Amount	20,874 mt



### Table 4 TAC and Catch Data Saithe

TAC	Year	2016	Amount	140,000 mt
UoA share of TAC	Year	2016	Amount	2609 mt
UoC share of TAC	Year	2016	Amount	2609 mt
Total green weight catch by UoC	Year (most recent)	2016	Amount	1381 mt
	Year (second most recent)	2015	Amount	1751 mt



# 4 Results

# 4.1 Summary of Assessment Conditions

There are no open conditions for this fishery

# 4.2 Recommendation 1

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score		
Performance Indicator(s) & Score(s)	2.4.3	The client improves analysis and presentation of existing data on fleet interaction with VMEs and other sensitive habitats.			
Milestones					
Client action plan					
Progress on Recommendation [Year 2017]	<ul> <li>The vessels are implementing current regulations and protocols relating to VME encounters.</li> <li>The industry group and the Council are actively seeking better definition of VMEs so that progress can be made in mapping and avoiding VME areas.</li> </ul>				
Status of Recommendation	The main constraint to progress with this issue is the definition and mapping of VMEs, and this will require joint activity by the JRNC, scientists and fishing companies. Norebo is taking an active lead in this area. The protocols for feeding existing VME (corals and sponges) encounter data into an industry mapping and avoidance system remain unclear. On target.				

# 4.3 Recommendation 2

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score
Performance Indicator(s) & Score(s)	2.4.3	The client continues and strengthens its engagement with PINRO, other research institutions, fishing companies and NGOs to map seabed habitat and develop sensitive habitat (VME) avoidance and/or protection protocols.	
Milestones			



Client action plan	
Progress on Recommendation [Year 2017]	See recommendation 1.
Status of Recommendation	See recommendation 1. On target.

# 4.4 Recommendation 3

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score
Performance Indicator(s) & Score(s)	2.2.3	The client continues to support careful monitoring and more robust survey and stock assessment of all wolfish species.	
Milestones			
Client action plan			
Progress on Recommendation [Year 2017]	Basic research on wolfish population dynamics and stock status continues under the Joint Russian Norwegian research programme. Client funded observers feed data on size composition of bycatch to PINRO and IMR.		
Status of Recommendation	On target.		

# 4.5 Recommendation 4

	Insert relevant PI number(s)	Insert relevant scoring issue/ scoring guidepost text	Score
Performance Indicator(s) & Score(s)	2.1.3	The client continues to support annual reporting by PINRO on status of Greenland halibut stocks, and seeks to avoid this species should the recent downturn in estimated biomass continue.	
Milestones			
Client action plan			





Progress on Recommendation [Year 2017]	Greenland halibut stocks appear to be stable and evidence for continued downturn limited. Bycatch by the fleet at 200t represents a very small proportion of the stock.
Status of Recommendation	On target.



# 5 Conclusion

# 5.1 Summary of findings

The fishery remains certified.



# 6 References

- ICES. 2005. Report of the Arctic Fisheries Working Group (AFWG), 19–28 April 2005, Murmansk, Russia. ICES CM 2005/ACFM:20. 564 pp.
- ICES. 2011. Report of the Arctic Fisheries Working Group (AFWG), 28 April–4 May 2011, Hamburg, Germany. ICES CM 2011/ACOM:05. 659 pp.
- ICES. 2014. Report of the Inter-Benchmark Protocol on Northeast Arctic Saithe in Subareas I and II (IBP NEAsaithe), March/April 2014, by correspondence. ICES CM 2014/ACOM:53. 94 pp.
- ICES. 2015a. Report of the Benchmark Workshop on Arctic Stocks (WKARCT), 26–30 January 2015, ICES Headquarters, Denmark. ICES CM 2015/ACOM:30. 126 pp.
- ICES. 2015b. Norway and Russia request to ICES for revised advice for Haddock in Subareas I and II. In Report of the ICES Advisory Committee, 2015. ICES Advice 2015, Book 3, Section 3.2.3.1.
- ICES. 2016a. Norway/Russia request for evaluation of harvest control rules for Northeast Arctic cod and haddock and for Barents Sea capelin. In Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 3
- ICES. 2017. Cod (*Gadus morhua*) in subareas 1 and 2 (Northeast Arctic). Advice on fishing opportunities, catch, and effort Arctic Ocean, Barents Sea , Faroes , Greenland Sea , Icelandic Waters and Norwegian Sea Ecoregions ICES Advice 2017/ cod.27.1-2 June 2017
- ICES. 2017. Haddock (Melanogrammus aeglefinus) in subareas 1 and 2 (Northeast Arctic) Advice on fishing opportunities, catch, and effort Arctic Ocean, Barents Sea , Faroes , Greenland Sea, Iceland Sea and Norwegian Sea Ecoregions ICES Advice 2017/ had.27.1-2 June 2017
- ICES. 2017. Saithe (Pollachius virens) in subareas 1 and 2 (Northeast Arctic) Advice on fishing opportunities, catch, and effort Arctic Ocean, Barents Sea, Faroes, Greenland Sea, Iceland Sea and Norwegian Sea Ecoregions ICES Advice 2017/pok.27.1-2. June 2017
- ICES. 2017. Report of the Inter-Benchmark Protocol on Northeast Arctic cod (IBPArcticCod), 4–6 April 2017, ICES HQ, Copenhagen, Denmark. ICES CM 2017/ACOM:29.



# Appendix 1 – Re-scoring evaluation tables (if necessary)

None.

### Appendix 2 - Stakeholder submissions (if any)

#### [Only complete if stakeholder submissions, written or verbal, are received]

The report shall include all written and verbal submissions made by stakeholders during the annual surveillance audit process in full, together with the explicit responses of the team that identify:

- a. Specifically what (if any) changes to scoring, rationales, or conditions have been made as a result of the information submitted.
- b. Where the need for changes is suggested but no change is made, a substantiated justification.

[Reference: FCR 7.23.19]

# Appendix 3 - Surveillance audit information (if necessary)

N/a.

# Appendix 4 - Additional detail on conditions/ actions/ results (if necessary)

N/A

# Appendix 5 - Revised Surveillance Program (if necessary)

N/A