

MSC SUSTAINABLE FISHERIES CERTIFICATION

Reduced Surveillance – Review of Information for Barents Sea cod, haddock and saithe



2nd Surveillance stage

November 2018

Certificate CodesF-ACO-0075, F-ACO-0076, F-ACO-0095,Prepared For:Ocean Trawlers Group / NOREBO GroupPrepared By:Acoura MarineAuthors: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>)				
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1. Introduction

The purpose of the Review of Information is to:

- 1. Determine if there have been any changes in the certified fishery's management systems
- 2. Determine whether any changes or additions/deletions require a full off-site surveillance
- **3.** Determine whether there have been any personnel changes in science, management or industry that would require the team to evaluate impact on the management of the fishery
- 4. Determine whether any potential changes to the scientific bases of information which will warrant a full off-site surveillance audit

2. Scope of Certification

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 Eigherer	None



3. Review of Information

3.1 Information reviewed in relation to Principle 1

The following has been reviewed under Principle 1:

- 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 Benchmark Workshop on Roundfish and Pelagic Stocks (WKBENCH 2011), 24–31 January 2011, Lisbon, Portugal. ICES CM 2011/ACOM:38. 418 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. 9 pp.
- ICES. 2016. Advice basis. In Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2. ICES 2018. Report of the Arctic Fisheries Working Group (AFWG), 18–24 April 2018, JRC, Ispra, Italy. ICES CM 2018/ACOM:06.
- 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, Section 3.4.1. 12 pp.
- 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.
- ICES. 2018a. Report of the Arctic Fisheries Working Group (AFWG), 18–24 April 2018, JRC, Ispra, Italy. ICES CM 2018/ACOM:06.
- ICES. 2018b. Cod (Gadus morhua) in subareas 1 and 2 (Northeast Arctic). ICES Advice on fishing opportunities, catch, and effort Arctic Ocean, Barents Sea, Faroes, Greenland Sea, Published 13 June 2018 Icelandic Waters, and Norwegian Sea ecoregions https://doi.org/10.17895/ices.pub.4412 cod.27.1-2. ICES Advice 2018
- ICES. 2018c. Haddock (Melanogrammus aeglefinus) in subareas 1 and 2 (Northeast Arctic). ICES Advice on fishing opportunities, catch, and effort Arctic Ocean, Barents Sea, Faroes, Greenland Sea, Published 13 June 2018 Iceland Sea, and Norwegian Sea ecoregions https://doi.org/10.17895/ices.pub.4410 had.27.1-2 ICES Advice 2018
- ICES. 2018d. Saithe (Pollachius virens) in subareas 1 and 2 (Northeast Arctic). ICES Advice on fishing opportunities, catch, and effort Arctic Ocean, Barents Sea, Faroes, Greenland Sea, Published 13 June 2018 Iceland Sea and Norwegian Sea Ecoregions https:// doi.org/10.17895/ices.pub.4409 pok.27.1-2 ICES Advice 2018

Findings

Catch composition

ICES Scientific Advice on the cod, haddock and saithe was updated in June 2018, ICES 2017b-d. This update was based on the 2018 report of the ICES Arctic Fisheries Working Group (AFWG), ICES 2018a. The analytical and data framework used in the assessment was unchanged compared to the benchmark assessments in 2012 and in 2015 (ICES 2015). The assessments were based on data updated for 2017.

No significant changes in stock status or particular problems with the assessments were identified. ICES (2017b-c) re-iterates concern over the decrease in the sampling intensity of commercial catches. Further, ICES (2017b-c) notes that, with the recent expansion of the cod distribution, the joint winter trawl and acoustic surveys do not presently cover the whole stock distribution area. As in previous advice, ICES emphasizes that fisheries targeting Northeast Arctic (NEA) cod have as a bycatch a considerable part of the total golden redfish (Sebastes norvegicus) catch, and the bycatch of this species is still far above any sustainable catch level. There is no significant direct fishery for golden redfish, and measures have been taken (via area closures and by-catch limitation) to reduce the bycatch mortality.



The harvest control rules for cod and haddock were reviewed by ICES in 2016 based on proposals made by JNRFC. The HCRs were revised in autumn 2016 for 2017 and subsequent years. The overall aims of the HCR remained unchanged. The revision was among the proposals that ICES had evaluated and found to be precautionary. No changes were introduced in 2017. For NEA saithe no changes were reported.

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, It remained below FMSY until 2017 when it became equal to FMSY. There has been no strong recruitment since the 2004 and 2005 year classes.

The stock assessment is 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. The stock assessment approach was benchmarked in 2016, ICES (2016). 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.

The cod stock assessment is not rescored.



Northeast Arctic Cod

Figure 1 NEA Cod. Stock status and stock trends. Source: ICES (2018b) NEA cod advice Figure 1 and Table 1

BMGT

sustainably

Below

FMGT

Precautionary approach

Management plan

capacity

Above



Northeast Arctic Haddock

The stock development is shown in Figure 2Figure . The spawning-stock biomass (SSB) has been above MSY°Btrigger since 1989. Due to the strong recruitment-at-age 3 in 2007–2009 (2004–2006 year classes) the stock reached an all-time high level around 2013. SSB is now decreasing, but remains well above MSY°Btrigger. Fishing mortality has increased in recent years and is now above FMSY = Ftarget, but below Fpa.



Northeast Arctic Haddock

Figure 2 NEA Haddock. Stock status and stock trends. Source: ICES (2018c) NEA haddock advice Figure 1 and Table 1

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.

The Haddock stock assessment is not rescored.

Northeast Arctic Saithe

The spawning-stock biomass (SSB) has been above Bpa since 1996, but declined considerably from 2007 to 2011, then increased again and is presently (2018) 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 after 2005.





Northeast Arctic Saithe

Figure 3 NEA Saithe. Stock status and stock trends. Source: ICES (2018d) 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. MSY reference points are not defined. The reference points were revisited at ICES (2014) and confirmed.

The saithe stock assessment is not rescored.



3.2 Information reviewed in relation to Principle 2

The following has been reviewed under Principle 2:

- ICES 2017. Greenland halibut (Reinhardtius hippoglossoides) in subareas 1 and 2 (Northeast Arctic). Advice on fishing opportunities, catch, and effort Arctic Ocean, Barents Sea, Faroes, Greenland Sea, Published 13 June 2017 Iceland Sea and Norwegian Sea Ecoregions Version 2: 26 September 2017 ghl.27.1-2
- Information on catch composition (data for 2017) supplied by PINRO
- Information on location and nature of fishing activity by the fleet (data for 2017) supplied by PINRO
- Latest information on the status of golden redfish (source ICES) and wolfish
- Mapping and protection of benthic habitat sensitive to trawling activity report by Zoological Institute of the Russian Academy of Science for WWF Russia
- PINRO 2017. Report on scientific research project. The analysis of the activities of the fishing vessels certified to MSC sustainable fisheries standard and impact of the cod, haddock and saithe bottom trawl fishery on seabed communities as well as wolfish and redfish stocks. Contract No 33/2017 with Norebo Management LLC

Findings

Catch composition

Catch composition remains similar to that described in the 2016 assessment. The concerns in terms of possible vulnerable species remain the same and relate to golden redfish and wolfish.

Recommendation 3 of the 2016 assessment proposes that the client continues to support careful monitoring and more robust survey and stock assessment of three **wolffish** species. The current assessment of wolfish stocks by both PINRO and skippers suggests that these stocks are relatively healthy and probably increasing.

Recommendation 4 proposes that 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. The latest ICES advice (ICES 2017) suggests that the stock is currently in a relatively stable state, and if fishing intensity does not increase, the stock is forecast to remain above Bpa over the next five-year period.

The situation for **Golden redfish** remains a significant cause for concern, and this species is now listed on the Norwegian redlist as endangered (ETP). According to ICES (2018) the spawning-stock biomass is currently at the lowest in the timeseries. Recruitment in 2006 (the 2003 yearclass) is now entering the SSB and fishery but the SSB has not yet ceased declining. The large recruitment estimates for 2011 and 2012 have high uncertainty. ICES assesses that the spawning stock size is below Bpa and Blim. The current exploitation rate is above the FMSY proxy and is now rising again. ICES therefore recommends that a further bycatch reduction is needed to minimize all sources of fishing mortality, and it is imperative to minimize catches on both the remaining mature fish and to protect incoming recruits. ICES recommends that when a precautionary approach is applied there should be zero catch of Golden redfish in 2019/20. Unfortunately there is no agreed precautionary management plan for golden redfish in this area.

Golden redfish comprised only 0.2% of the UoC catch in 2017, but nonetheless amounted to 323 tonnes, which corresponded to 7% of the total golden redfish catch in SA1&2 for 2016. Taken together with other MSC fisheries operating in the region, this is not insignificant. ICES estimate that 64% of the total catch of Golden redfish is by trawl fisheries, mostly in the Norwegian zone. Furthermore, the proportion taken by the trawl fleet as bycatch has increased in recent years. It is therefore recommended that the catch of golden redfish by the Norebo fleet be mapped, and the feasibility of developing a more effective avoidance strategy be developed. This will be important if the fishery is to be certified under MSC version 2.0



Table 1: Catch quantity and composition by fishing area 2017

	Norway	Spitzbergen	Russia			
	EEZ	MA	EEZ	NEAFC	total	percentage
Northeast Atlantic Cod	36293	30548	53451	70	120362	78%
Northeast Atlantic Haddock	8134	7709	14130		29973	19.3%
Northeast Atlantic Saithe	1685	103	9		1797	1.2%
Greenland Halibut	95	98	133		326	0.2%
Deepwater redfish (Sebastes mentella)	490	28	3		521	0.3%
Golden Redfish (S. norvegicus)	230	89	4		323	0.2%
Spotted Wolfish (Anarhichas minor)	27	260	376	0	663	0.4%
Northern Wolfish (A. denticulatus)	10	212	165		387	0.2%
Atlantic Wolfish (A lupus)	0	65	67		132	0.1%
European plaice (Pleuronectes platessa)			148		148	0.1%
Long Rough Dab (Hippoglossoides						
platessoides	1	305	103	0	409	0.3%
Total all species	46965	39417	68589	70	155041	100.0%

Source: PINRO annual report on Norebo fleet activity)

Distribution of fishing activity

The Norebo fleet continues to fish largely within its previous footprint. There is no evidence for significant incursion into relatively pristine (previously untrawled) areas to the North of Svalbard, although there appears to be a significant increase in fishing activity in the second half of the year in the area just outside the protected coastal zone to the Northwest of Svalbard. This appears to be an area dominated by *Strongylocentrotus* spp (sea urchin) and *Ophiopholis aculeate* (brittle star) (Jakobsen and Ozhigin 2011) but benthic information for this area is extremely limited. This will need to be monitored carefully and particular attention should be paid by the company to recording and mapping encounters with VME and ETP when vessels are fishing in this area. It is unclear at this point whether this infringes the industry voluntary agreement that requires the parties 'not to expand activities with trawl gear into those areas where regular fishing has not taken place before, other than for approved experimental fishing operated under specific regulations.



Figure 4. The activities of the vessels approved to supply MSC fish in the 1st half of 2017 (Source PINRO 2017).



Figure 5. The activities of the vessels approved to supply MSC fish in the 2nd half of 2017. (Source PINRO report)





Mapping and protection of benthic habitat and VME

In line with previous conditions and recommendations 1 and 2 of the 2016 assessment, an industry group agreed to 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 to develop effective and proportionate measures to prevent environmental degradation in such areas. In the last year the group has supported a report by the Zoological Institute of the Russian Academy of Science for WWF Russia: "Mapping of the areas in the Barents Sea sensitive to bottom trawling and in need of protection from intensive fishing activities". This provides evidence of the on-going commitment of Norebo to support more effective management systems for the protection of VME and other sensitive habitats in the Barents Sea. The report proposes several areas to be avoided by the bottom trawlers, and will be used as the basis for discussions between fishing companies and WWF about possible voluntary closures for the protection of these habitats.

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3.3 Information reviewed in relation to Principle 3

The following has been reviewed under Principle 3:

- Information of changes in the Russian management system provided by the client and corroborated by information on the website of the Russian Federal Fisheries Agency
- Overview of inspections of client vessels by Norwegian and Russian enforcement authorities
- Protocols from sessions in the Joint Norwegian-Russian Fisheries Commission, available in Norwegian and Russian on jointfish.org.

Findings

Management structure and legislation

Russian fishery regulations were amended in 2017. The amendments will allow allocated up to 20 % of TAC (cod and haddock) though investment quotas, which includes obligations to build a fishing vessel in Russia (75 % of the investment quotas) and a processing plant (25 % of the investment quotas). The majority of the investment quotas of cod and haddock were allocated in 2017-2018 (investment agreements are signed between the companies and Russian Federation). Norebo has signed six investment agreements to build six vessels for cod and haddock fishery and one agreement to build a processing plant in Murmansk county.

The changes in the fishery law and regulations in Russia make management measures more stringent. The fishing right will be deprived if a company does not catch at least 70 % of its annual quota in two successive years. The ability to use charted vessels was also limited to 30 % of the annual quota, unless the charted vessel belongs to the same group of companies as the holder of the quota.

The fishing rights for cod and haddock are re-allocated for a new 15-year period from the 1st of January 2019.

Compliance

The client vessels were inspected 75 times during the surveillance year, i.e. four times per vessel on average. Inspections are thorough and include a full physical check of all catch on board. 56 of the inspections were by Norwegian authorities and 19 by Russian authorities.



4. Results, Conclusions and Recommendations

The assessment team has reviewed the fishery and found that the fishery remains within the scope of the MSC fisheries certificate. Stock status, catch composition, ecosystem impacts and management framework generally remain as in previous years.

The fleet continues to operate within the boundaries of the assessment and is making good progress against the recommendations on mapping and avoidance of benthic habitat. The concerns about both wolfish species and Greenland halibut have if anything declined, and stocks of these species are stable or increasing. There is however increasing concern over the status of Golden redfish which continues to decline, and fishing pressure has increased rather than decreased in recent years. Russian trawlers now make a significant contribution to the overall fishing pressure on this species, despite the low proportion of redfish in the catch of individual vessels. The situation will need to be monitored carefully, and steps taken by the fleet, if possible, to avoid areas where this species is likely to be caught.



Appendix 1 – Written Submissions from Stakeholders

None.