



## MarinTrust Standard V2

# Whole fish Fishery Assessment

## WF18 Capelin (*Mallotus villosus*)

Norway, ICES subdivisions I & II, excl. IIa West of 5W (Barents sea)

**MarinTrust Programme**

Unit C, Printworks

22 Amelia Street

London

SE17 3BZ

E: [standards@marin-trust.com](mailto:standards@marin-trust.com)

T: +44 2039 780 819

**Table 1 Application details and summary of the assessment outcome**

Application details and summary of the assessment outcome			
Name:			
Address:			
Country: Norway		Zip:	
Tel. No.		Fax. No.	
Email address:		Applicant Code	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor Name	CB Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Virginia Polonio	Conor Donnelly	3	Surveillance 1
Assessment Period	To December 2021		
Scope Details			
Management Authority (Country/State)		Ministry of Trade, Industry and Fisheries (Norway) EU (Denmark)	
Main Species		Capelin ( <i>Mallotus villosus</i> )	
Fishery Location		ICES subdivisions I & II, excl. IIa West of 5W (Barents sea)	
Gear Type(s)		Pelagic trawl, purse seine	
Outcome of Assessment			
Overall Outcome		PASS	
Clauses Failed		NA	
CB Peer Review Evaluation		Agree with recommendation to approve	
Fishery Assessment Peer Review Group Evaluation		Approve see <a href="#">Peer review report</a>	
Recommendation		APPROVE	

## Table 2. Assessment Determination

Assessment Determination
<p>If any species is categorised as Endangered or Critically Endangered on IUCN’s Red List, or if it appears in the CITES appendices, it cannot be approved for use as Marin Trust raw material. Capelin <i>Mallotus villosus</i> is neither listed as Endangered or Critically Endangered on IUCN’s Red List, nor listed in CITES appendices; therefore, Capelin is eligible for approval for use as Marin Trust by-product raw material.</p> <p>Capelin is a key species in the Barents Sea and Norwegian Sea ecosystem, as a prey item for cod. Norway and Russia jointly manage capelin and other important fish species within the framework of the Joint Norwegian-Russian Fisheries Commission (JNRFC). In 2002, the Joint Norwegian-Russian Fisheries Commission (JNRFC) adopted the following harvest control rule (HCR) for Barents Sea capelin: ‘The TAC for the following year should be set so that, with 95% probability, at least 200,000 tonnes of capelin (Blim) will be allowed to spawn’. ICES evaluated this HCR as well as alternative HCRs suggested by JNRFC in 2016 (ICES, 2016), and only the existing HCR was found to be precautionary. Following ICES evaluation, the JNRFC decided to maintain the existing HCR (JNRFC, 2016) but decided that the HCR should be evaluated again in 2022.</p> <p>Annual quotas and their distribution between both countries and third countries are agreed. Negotiations are based on ICES recommendations which are usually followed. Calculations of catch scenarios are based on a forward projection from the autumn acoustic survey. It involves that SSB for April 2022 is calculated by considering predation by immature cod and other natural mortality. A catch scenario that results in SSB greater than 200,000 tonnes with 95% probability corresponds to the JNRFC Management Plan.</p> <p>Commercial fishery removals are prohibited when the stock has been estimated to be below limit reference point or proxy, and advice for 2021 is ICES advises that when the management plan of the Joint Norwegian-Russian Fisheries Commission (JNRFC) is applied, catches in 2022 should be no more than 70,000 tonnes.</p> <p>The fishery does not have impacts on ETPs as in previous reports there are no evidences of direct impacts. Habitats are not impacted by pelagic fisheries and more studies are carried out to better understand the impact of trawling but is not area covered by this report, therefore, the fishery does not represent a harm for the habitats.</p> <p>Regarding ecosystems components, the fishery does not have a direct impact however capelin is a important prey for top predator in the ecosystem. The importance of capelin on its predator is studied and data are included in the predation models to ensure the ecosystem requirements are covered.</p> <p>Therefore, as it is the case for capelin in ICES subdivisions I &amp; II, excl. IIa West of 5W (Barents sea) all the clauses achieve a pass in this reports and consequently, capelin in the Barents sea is recommended for approval for the production of fishmeal and fish oil under the Marin Trust v 2.0 whole fish standard.</p>
Fishery Assessment Peer Review Comments
Notes for On-site Auditor

### Table 3 General Results

General Clause	Outcome (Pass/Fail)
M1 - Management Framework	PASS
M2 - Surveillance, Control and Enforcement	PASS
F1 - Impacts on ETP Species	PASS
F2 - Impacts on Habitats	PASS
F3 - Ecosystem Impacts	PASS

### Table 4 Species- Specific Results

List all Category A and B species. List approximate total percentage (%) of landings which are Category C and D species; these do not need to be individually named here

Category	Species	% landings	Outcome (Pass/Fail)	
Category A	Capelin ( <i>Mallotus villosus</i> )	99.9%	A1	PASS
			A2	PASS
			A3	PASS
			A4	PASS

**Table 5 Species Categorisation Table**

Common name	Latin name	Stock	IUCN Redlist Category <sup>1</sup>	% of landings	Management	Category
Capelin	<i>Mallotus villosus</i>	Capelin ( <i>Mallotus villosus</i> ) in subareas 1 and 2 (Northeast Arctic), excluding Division 2.a west of 5°W (Barents Sea capelin)	LC	99.9%	Joint Norwegian-Russian Fishery Commission (JNRFC)	A
<b>Species categorisation rationale</b>						
<p>The categorisation of the species has been done following the information provided by the client in the application form where just Capelin has been included in the catch. Further the assessor has checked information about the catch composition in this fishery and however, available detailed information on bycatch has been limited but is assumed as low.</p> <p>Bycatch of cod in the coastal area is however of some concern and the Norwegian fleet is already quantifying the non-target species caught (ICES, 2014b). Discards are also considered negligible (ICES, 2014a). A similar conclusion was reached for the adjacent capelin fishery (Icelandic capelin) while it was undergoing MSC certification (SAI Global 2017).</p> <p>Therefore, the assessor has assumed that Capelin fishery is very clean being Capelin the only species assessed. As reference points are defined related to Blim the stock has been assessed under category A.</p>						

<sup>1</sup> <https://www.iucnredlist.org/>

## MANAGEMENT

The two clauses in this section (M1, M2) relate to the general management regime applied to the fishery under assessment. The clauses should be completed by providing sufficient evidence to justify awarding each of the requirements a pass or fail rating. A fishery must meet all the minimum requirements in every clause before it can be recommended for approval.

M1	Management Framework – Minimum Requirements		
	<b>M1.1</b>	There is an organisation responsible for managing the fishery.	Yes
	<b>M1.2</b>	There is an organisation responsible for collecting data and assessing the fishery.	Yes
	<b>M1.3</b>	Fishery management organisations are publicly committed to sustainability.	Yes
	<b>M1.4</b>	Fishery management organisations are legally empowered to take management actions.	Yes
	<b>M1.5</b>	There is a consultation process through which fishery stakeholders are engaged in decision-making.	Yes
	<b>M1.6</b>	The decision-making process is transparent, with processes and results publicly available.	Yes
<b>Clause outcome:</b>			<b>Pass</b>
<p><b>M1.1 There is an organisation responsible for managing the fishery.</b></p> <p>The management of fisheries in Norway falls under the jurisdiction of the Ministry of Trade, Industry and Fisheries (Department of Fisheries and Aquaculture). A Directorate of Fisheries and Aquaculture acts as the Ministry’s advisory and executive body. In recent decades, Norway’s fishing industry has developed from a ‘free fishing’ activity to a fully-fledged industry complete with quotas and concessions. The Norwegian management system takes form as a “Regulatory chain”, which is an annual, interactive process based on incremental changes. The Regulatory chain incorporates stages such as gathering research data, quota negotiations with other states, as well as allocating quotas to the various vessel groups</p> <p>The Scientific research and advice take key positions within the chain, ensuring understanding of the stock and broader ecosystem are considered. The Ministry is based in Oslo, the Directorate and Institute are located in Bergen. The Department for Fisheries and Aquaculture is responsible for matters related to fisheries, the fishing fleet and the aquaculture industry. The Department manages:</p> <ul style="list-style-type: none"> <li>▪ Quota negotiations with the European Union and others.</li> <li>▪ International fisheries agreements.</li> <li>▪ Prevention of IUU fishing.</li> <li>▪ Fishing regulations and rights including licensing.</li> <li>▪ Aquaculture policy and management.</li> <li>▪ Environmental sustainability of the aquaculture industry including fish health and welfare.</li> </ul> <p>The Directorate of Fisheries and Aquaculture’s role is:</p> <p>To provide analyses, statistics and advice.</p> <ul style="list-style-type: none"> <li>▪ Implement political decisions.</li> <li>▪ Process applications and appeals.</li> <li>▪ Conduct monitoring and control.</li> <li>▪ Actively cooperate with trade and industry, the research community and other public services.</li> <li>▪ Knowledge sharing with various stakeholders and the general public.</li> </ul> <p>TAC allocation between Russia and Norway; and technical measures regulating use of fishing gears in addition to implementing systems ensuring that the fishing industry adheres to regulatory decisions. JNRFC stipulates reciprocal access to fisheries within national zones, and quota exchanges for shared and national stocks; it also decides on catch quotas for third party fisheries conducted by non-coastal states.</p>			

- **International Management Plan:**

In 2002 the JNRFC adopted the following harvest control rule (HCR) for Barents Sea capelin: 'The TAC for the following year should be set so that, with 95% probability, at least 200, 000t of capelin (Blim) will be allowed to spawn.' ICES evaluated this HCR as well as alternative HCRs suggested by JNRFC in 2016; only the existing HCR was found to be precautionary. Following ICES evaluation, the JNRFC decided to maintain the existing HCR but decided that the harvest control rule should be re-evaluated again in 2021. There is an organisation responsible for managing the fishery and it meets the criteria M1.1.

**M1.2 There is an organisation responsible for collecting data and assessing the fishery.**

The main research body is the Institute of Marine Research (IMR). The main activities are research, advisory work and monitoring. In January 2018, the IMR was merged with NIFES (National Institute of Nutrition and Seafood Research). IMR have an office in Tromsø and research stations in Matre, Austevoll and Flødevigen. IMR have several laboratories that analyse samples taken through its monitoring and research programmes. Ecosystem research surveys are conducted by IMR and international partners. Survey activities cover a substantial part of the Nordic Seas at different seasons. Regular data collection from transects, located at the inflow and outflow regions of ocean basins serve as indicators for the biological and physical state of the basins (Gimsøy, Svinøy, Fugløy).

The following surveys are conducted (multiple vessels, several nations):

- Ecosystem survey North Sea
- Ecosystem survey Norwegian Sea
- Ecosystem survey Barents Sea
- Winter survey Barents Sea
- Strategic Initiative Arctic

The following variables are collected:

- Juveniles and larvae of commercial species.
- Abundance of commercial demersal and pelagic fish species.
- Plankton
- Benthic organisms.
- Marine mammals and birds.
- Physical conditions and pollution.

Biomass and other data collected from regular ecosystem research surveys and transects are collated and added to fishery-dependent data generated for stock assessment purposes. A precautionary approach is adopted, only a marginal percentage is allowed for the fishery.

International science: Science-based fishery management advice at the international level is provided by the International Council for the Exploration of the Sea (ICES). Scientists working through ICES gather information about the marine ecosystem. Besides filling gaps in existing knowledge, this information is developed into unbiased, non-political fishery management

advice. The 20-member countries that fund and support ICES use this advice to help them manage the North Atlantic Ocean and adjacent seas.

ICES provide annual stock assessment and management advice in relation to the Capelin fishery where it is defined in the Barents Sea as a single biological stock and managed according to an international management plan agreed between Norway and Russia in 2002. Both ICES and IMR advice are factored heavily into management decisions. There is an organisation responsible for collecting data and assessing the fishery and it meets the criteria M1.2

**M1.3 Fishery management organisations are publicly committed to sustainability.**

A 2009 Report outlined strategies in place to ensure sustainable harvesting of all marine resources. Sustainable management and harvesting are based on best available understanding and scientific advice from ICES and the IMR. Norway has committed to international agreements on sustainable management for all fish stocks under its management; entailing defined exploitation rates and minimum limit for spawning stocks. Section 1 (purpose) of the Marine Resources Act (MRA) outlines the Norwegian Government’s commitment to sustainability: The purpose of this Act is to ensure sustainable and economically profitable management of wild living marine resources and genetic material derived from them, and to promote employment and settlement in coastal communities. Section 7 (Principle for management of wild living marine resources and fundamental considerations) of the MRA gives power to the Ministry to evaluate which types of management measures are necessary to ensure sustainable management of wild living marine resources including the use of the precautionary and ecosystem approaches. This Section also ensures management measures help to maintain the material basis for Sami culture (indigenous, used to be considered a nomadic people, living above the Arctic Circle). Denmark (EU): The Common Fisheries Policy (CFP) is the primary instrument for sustainable fisheries management. As such it addresses the impacts of fishing on target stocks as well as impacts on other ecosystem components. Implementing an (Ecosystem Approach to Fisheries Management) EAFM has been set as one of the objectives of the Common Fisheries Policy (Regulation (EU) No1380/2013): “...to ensure that negative impacts of fishing activities on the marine ecosystem are minimized...” and “...that aquaculture and fisheries activities avoid the degradation of the marine environment.” (Article 2.3). The CFP, specifically after the 2013 reform, presents some specific measures which should expedite the implementation of EAFM within European Fisheries. Among these measures are a) fishing at Maximum Sustainable Yield (MSY); b) avoiding and reducing unwanted catches; and c) managing stocks by means of multi-annual plans. Specifically, for these plans, multiple stocks should be covered when those stocks are jointly exploited. Fishery management organisations are publicly committed to sustainability and it meets the requirements M1.3

**M1.4 Fishery management organisations are legally empowered to take management actions.**

In Norway the main legal instrument is the 2008 Marine Resources Act (MRA). This law details, among other things, the structure of the management system, the obligation for sustainable, science-based management, and ecosystem considerations. The Act contains overarching technical regulations for commercial and recreational fisheries and is the overarching legal document for fisheries in Norway. The “utøvelsesforskriften” is a living document where the Directorate of Fisheries may pass regulations in real time as conditions change in the fishery. However, it is still a fairly stable general document of the technical regulations. Chapter 3 of the MRA (Catch quantities and quotas) allows the Ministry to prescribe maximum permitted quantities (national quotas) of marine resources that may be harvested, expressed in terms of weight, volume, number of individuals, the number of days harvesting is permitted, or in other terms. Chapter 4 of the MRA (Conduct of harvesting operations and other utilisation of wild living marine resources) specifies that all catches of fish shall be landed (discard ban). The Ministry also may by regulations grant exemptions from the obligation to land catches and may also prohibit discarding of biological waste. Chapters 6 & 7 of the MRA specifies arrangements for control and enforcement including facilitating vessel inspections, use of logbooks to record catches and powers of the Directorate of Fisheries Inspectors to issue orders to stop a vessel, haul in gear, seal gear and obtain documents, relevant information and objects if they suspect infringements of the fisheries legislation have occurred. Representatives of the fishing industry and governmental authorities cooperate in the formulation of the regulatory chain (explained in M1.1).

Scientific research and advice take key positions within the chain, ensuring understanding of the stock and broader ecosystem are considered.

**M1.5 There is a consultation process through which fishery stakeholders are engaged in decision-making.**

There is a consultation process through which fishery stakeholders are engaged in decision-making. Fishery management organisations are legally empowered to take management actions With regards the Joint Norwegian-Russian Fisheries



Commission (JNRFC), its responsibilities include deciding: management strategies; levels of total allowable catch (TAC); TAC allocation between Russia and Norway; and technical measures regulating use of fishing gears in addition to implementing systems ensuring that the fishing industry adheres to regulatory decisions. JNRFC stipulates reciprocal access to fisheries within national zones, and quota exchanges for shared and national stocks; it also decides on catch quotas for third party fisheries conducted by non-coastal states.

The involvement of stakeholders in management decisions is achieved through the Advisory Meeting for Fisheries Regulations representing fishermen’s associations, fishing industries, trade unions, the Sami Parliament, local authorities, environmental organisations and other stakeholders. Both ICES (when available) and IMR advice are factored heavily into management decisions, and in turn direction and specifics of future research are guided by experiences within the fishery throughout the year therefore, There is a consultation process through which fishery stakeholders are engaged in decision-making and it meets M1.5

**M1.6 The decision-making process is transparent, with processes and results publicly available.**

The Directorate’s communications office is organised directly under the Directorate. This office has overall responsibility for all external and internal information, including continuous development of strategic communication within the Directorate. Other main areas of responsibility are the maintenance and development of the Directorate’s Internet and intranet pages, presentation of information material for the public and tourists visiting Norway and providing advice of a professional nature within the organisation. The Communication Office is also on the editorial board of the English-language website [www.fisheries.no](http://www.fisheries.no) through which authorities provide information about Norwegian fisheries and aquaculture management.

ICES is a network of more than 1,600 scientists from 200 institutes, linked by an intergovernmental agreement (the ICES Convention) to add value to national research efforts. Scientists working through ICES gather information about marine ecosystems. ICES provide annual stock assessment and management advice in relation to the Barents Sea and Norwegian Sea capelin fishery. Results are published annually.

Joint Norwegian-Russian Fisheries Commission (JNRFC): A website is maintained. Agreements on fishing quotas and access rights, citing ICES assessments, are published regularly.

The decision-making process is transparent, with processes and results publicly available and it meets M1.6

**References**

[https://www.fishsource.org/stock\\_page/1830](https://www.fishsource.org/stock_page/1830)

<https://fiskerforum.com/norway-and-russia-agree-2021-quotas/>

<https://www.regjeringen.no/en/topics/food-fisheries-and-agriculture/fishing-and-aquaculture/id1277/>

Gjøsæter, H., Bogstad, B., and Tjelmeland, S. 2002. Assessment methodology for Barents Sea capelin, *Mallotus villosus* (Müller). *ICES Journal of Marine Science*, 59(5): 1086–1095. <https://doi.org/10.1006/jmsc.2002.1238>. ICES. 2001. Barents Sea capelin (Subareas I and II, excluding Division IIa west of 5°W). In Report of the Advisory Committee on Fishery Management, 2001, Part 1, Section 3.1.8, pp. 65–70. ICES Cooperative Research Report No. 246. 921 pp. <https://doi.org/10.17895/ices.pub.5383>.

ICES. 2015. Report of the Benchmark Workshop on Arctic Stocks (WKARCT), 26–30 January 2015, Copenhagen, Denmark. ICES CM 2015/ACOM:31. 126 pp. <https://doi.org/10.17895/ices.pub.5295>.

ICES. 2016. Report of the second Workshop on Management Plan Evaluation on Northeast Arctic cod and haddock and Barents Sea capelin, 25–28 January 2016, Kirkenes, Norway. ICES CM 2016/ACOM:47. 76 pp. <https://doi.org/10.17895/ices.pub.5296>. ICES. 2019. Advice basis. In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, Book 1, Section 1.2. <https://doi.org/10.17895/ices.advice.5757>.

ICES Advice on fishing opportunities, catch, and effort Published 12 October 2021 cap.27.1-2 ICES Advice 2021 9

<p>ICES. 2021a. Arctic Fisheries Working Group (AFWG). ICES Scientific Reports. 3:58. <a href="https://doi.org/10.17895/ices.pub.8196">https://doi.org/10.17895/ices.pub.8196</a>.          ICES. 2021b. Advice on fishing opportunities. In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, section 1.1.1. <a href="https://doi.org/10.17895/ices.advice.7720">https://doi.org/10.17895/ices.advice.7720</a>.</p> <p>JNRFC. 2016. Protocol of the 46th Session of the Joint Norwegian–Russian Fisheries Commission, Annex 12. Translated from Norwegian to English. For an accurate interpretation, please consult the text in the official languages of the Commission (Norwegian and Russian) at <a href="https://www.jointfish.com/content/download/501/6352/file/46-norsk.pdf">https://www.jointfish.com/content/download/501/6352/file/46-norsk.pdf</a> (Norwegian) and <a href="https://www.jointfish.com/rus/content/download/502/6357/file/46-russisk.pdf">https://www.jointfish.com/rus/content/download/502/6357/file/46-russisk.pdf</a> (Russian)</p>	
<b>Links</b>	
<b>MARINTRUST Standard clause</b>	1.3.1.1, 1.3.1.2
<b>FAO CCRF</b>	7.2, 7.3.1, 7.4.4, 12.3
<b>GSSI</b>	D.1.01, D.4.01, D2.01, D1.07, D1.04,

<b>M2</b>	<b>Surveillance, Control and Enforcement - Minimum Requirements</b>		
	<b>M2.1</b>	There is an organisation responsible for monitoring compliance with fishery laws and regulations.	Yes
	<b>M2.2</b>	There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.	Yes
	<b>M2.3</b>	There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.	Yes
	<b>M2.4</b>	Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS.	Yes
		<b>Clause outcome:</b>	<b>PASS</b>
<p><b>M2.1 There is an organisation responsible for monitoring compliance with fishery laws and regulations.</b></p> <p>Enforcement is split into three branches:</p> <ul style="list-style-type: none"> <li>• The Directorate of Fisheries (Control Section): monitors and controls the entire value chain through quayside controls, sales inspections, post landing audits and inspections at sea. Quota control and compliance to regulations are the main focus areas. Controls are conducted within Norwegian Economical Zone (NEZ) and the Fisheries Zones surrounding Svalbard and Jan Mayen . A Fisheries Monitoring Centre (FMC) ensures 24/7 monitoring of fishing activities. Inspectors may board vessels at any time when at sea.</li> <li>• The Coast Guard (Ministry of Defence) conducts control of both Norwegian and foreign flagged vessels, performing more than 1,800 vessel inspections annually. Main areas of control are for resource, quota, and customs violations and to verify adherence to technical fishery regulations.</li> <li>• Sales organisations (e.g. Norges Sildesalgslag, a pelagic sales organization) is a legal intermediary for settlement between buyer and seller for all first-hand landings. These organisations also perform landing controls, compile statistics and cooperate closely with the Directorate.</li> </ul> <p>JNRFC: During the 33rd session in 2004, the JNRFC concluded that there was a significant level of unregistered cod fishing in the Barents Sea, and that all possible measures should be taken to detect and prevent such illegal fishing. This resulted in several initiatives being introduced to tighten requirements regarding reporting and control for transshipment at sea, such as an obligation to report all transshipment operations, an obligation for receiving vessels to carry satellite tracking equipment, a prohibition on transshipment for vessels sailing under a flag of convenience and the establishment of mobile inspection groups from both countries. The JNRFC contains a Working Group which assesses information regarding overfishing and violations of</p>			

individual vessels of fisheries regulations. There is an organisation responsible for monitoring compliance with fishery laws and regulations and it meets the M2.1 requirement.

**M2.2 There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.**

Norway has a landing obligation and to avoid discarding, small quota overshoots are landed. The value of the catch is then administratively withdrawn from the vessel and counted against the TAC. If more serious quota infractions occur, the Directorate can administer fines, withdraw quota or submit a police report, which will hand the issue over to the criminal system. Fishing license and a license to purchase fish may also be withdrawn as can the value of the catch. Chapter 11 (Coercive and infringement fines) of the MRA empowers the Ministry to impose fines to ensure compliance with provisions made in or under the Act. A coercive fine is a continuous fine that becomes effective from a specified deadline for complying with an order. The Ministry may in special cases reduce or waive a coercive fine that has accrued. The Ministry may order any person that wilfully or through negligence contravenes provisions made in or under this Act to pay an infringement fine. Chapter 12 of the MRA (Criminal Liability) notes that any person that wilfully or through negligence contravenes provisions laid down in specific Sections of the Act are liable to fines or to a term of imprisonment not exceeding one year, unless more severe penal provisions apply. Norway adopted a black list of vessels engaged in IUU activities in Northeast Atlantic waters in 1994 and banned such vessels from fishing in Norwegian waters. The concept of a black list was later adopted by several Regional Fisheries Management Organizations (RFMO's).

**M2.3 There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.**

The FMC (Fisheries Monitoring Centre) is the Norwegian Directorate of Fisheries' 24/7 office for monitoring Norwegian and foreign fishing vessels' activities. The centre is responsible for processing various reporting schemes imposed on the Norwegian fishing fleet while at sea and foreign vessels operating in Norwegian waters.

The centre is a hub in the effort to combat illegal, unreported and unregulated fishing (IUU fishing) through close contact with national and international monitoring authorities. There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.

**M2.4 Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS.**

Chapter 7 (Control and enforcement) Section 47 (Placing inspectors and observers on board vessels) of the MRA obliges vessel owners, when requested, to provide board and lodging at the vessel's expense and use of communication equipment without charge. The Ministry may adopt regulations relating to:

- The duties of an observer.
- Which vessel groups and how many vessels are to carry an inspector or observer on board.
- How these vessels are to be selected.

VMS transmitters on Norwegian vessels have to be approved by the Directorate and installed only by those authorized by the Directorate. Norwegian vessels involved in fishing operations 15m and above are required to comply with position reporting. This also includes vessels of 12m (Norway and EU) when operating in the Skagerrak area. Foreign vessels of 24m or more (15m

or more in the case of EU vessels) are subject to position reporting when operating in Norwegian waters outside Skagerrak. By January 2014 approximately 575 Norwegian vessels were subject to position reporting.

Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS.

**References**

ICES. 2021a. Arctic Fisheries Working Group (AFWG). ICES Scientific Reports. 3:58. <https://doi.org/10.17895/ices.pub.8196>.  
 ICES. 2021b. Advice on fishing opportunities. In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, section 1.1.1. <https://doi.org/10.17895/ices.advice.7720>.

ICES. 2021. Capelin (*Mallotus villosus*) in subareas 1 and 2 (Northeast Arctic), excluding Division 2.a west of 5°W (Barents Sea capelin). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, cap.27.1-2, <https://doi.org/10.17895/ices.advice.7736>

JNRFC. 2016. Protocol of the 46th Session of the Joint Norwegian–Russian Fisheries Commission, Annex 12. Translated from Norwegian to English. For an accurate interpretation, please consult the text in the official languages of the Commission (Norwegian and Russian) at <https://www.jointfish.com/content/download/501/6352/file/46-norsk.pdf> (Norwegian) and <https://www.jointfish.com/rus/content/download/502/6357/file/46-russisk.pdf> (Russian)

Links	
MARINTRUST Standard clause	1.3.1.3
FAO CCRF	7.7.2
GSSI	D1.09

## CATEGORY A SPECIES

The four clauses in this section apply to Category A species. Clauses A1 - A4 should be completed for **each** Category A species. If there are no Category A species in the fishery under assessment, this section can be deleted. A Category A species must meet the minimum requirements of all four clauses before it can be recommended for approval. The clauses should be completed by providing sufficient evidence to justify awarding each of the requirements a pass or fail rating. The species must achieve a pass rating against all requirements to be awarded a pass overall. **If the species fails any of these clauses it should be re-assessed as a Category B species.**

<b>Species Name</b>		Capelin	
<b>A1</b>	<b>Data Collection - Minimum Requirements</b>		
	<b>A1.1</b>	Landings data are collected such that the fishery-wide removals of this species are known.	Yes
	<b>A1.2</b>	Sufficient additional information is collected to enable an indication of stock status to be estimated.	Yes
<b>Clause outcome:</b>			Pass

### A1.1 Landings data are collected such that the fishery-wide removals of this species are known.

All catches are assumed to be landed. The amount of bycaught capelin in other fisheries is very low. Norway has a landing obligation and to avoid discarding, small quota overshoots are landed, although, The Joint Russian-Norwegian Fishery Commission set a zero TAC both for 2019, 2020 and 2021 as there was no commercial fishery, some minor catches were taken. With that in mind, Norway total catches (Winter and Summer-Autumn) have been very low accounting to less than 10 tonnes. The value of the catch is then administratively withdrawn from the vessel and counted against the TAC. The figure below (figure 1) shows the catches in million t reported by ICES in the last stock assessment.

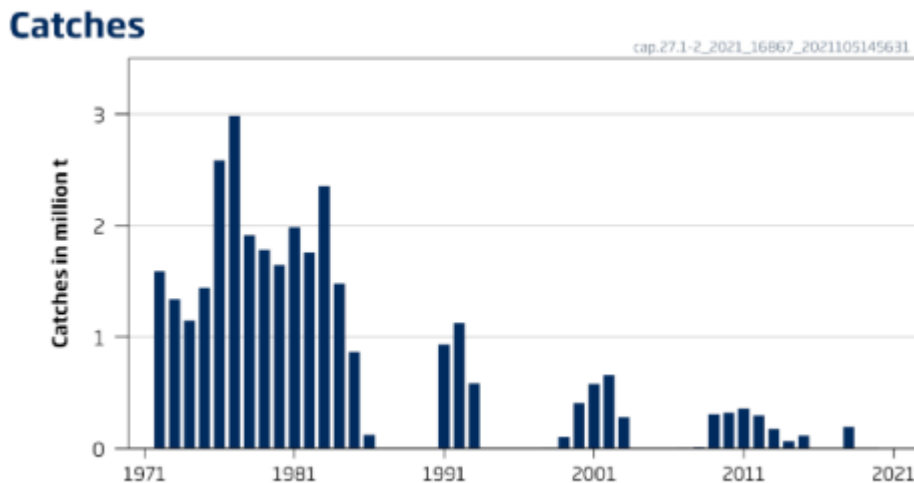


Figure 1. Capelin in subareas 1 and 2, excluding Division 2.a west of 5°W. Summary of the stock assessment. Trend of catches. Source ICES 2021.

### A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.

A joint Russian-Norwegian trawl-acoustic survey has been conducted in September annually since 1972. The survey coverage in autumn 2021 was considered to be close to complete and no adjustments for incomplete spatial coverage were required (Figure 2). This is a multi-purpose survey termed an “ecosystem survey” because most of the ecosystem is covered.

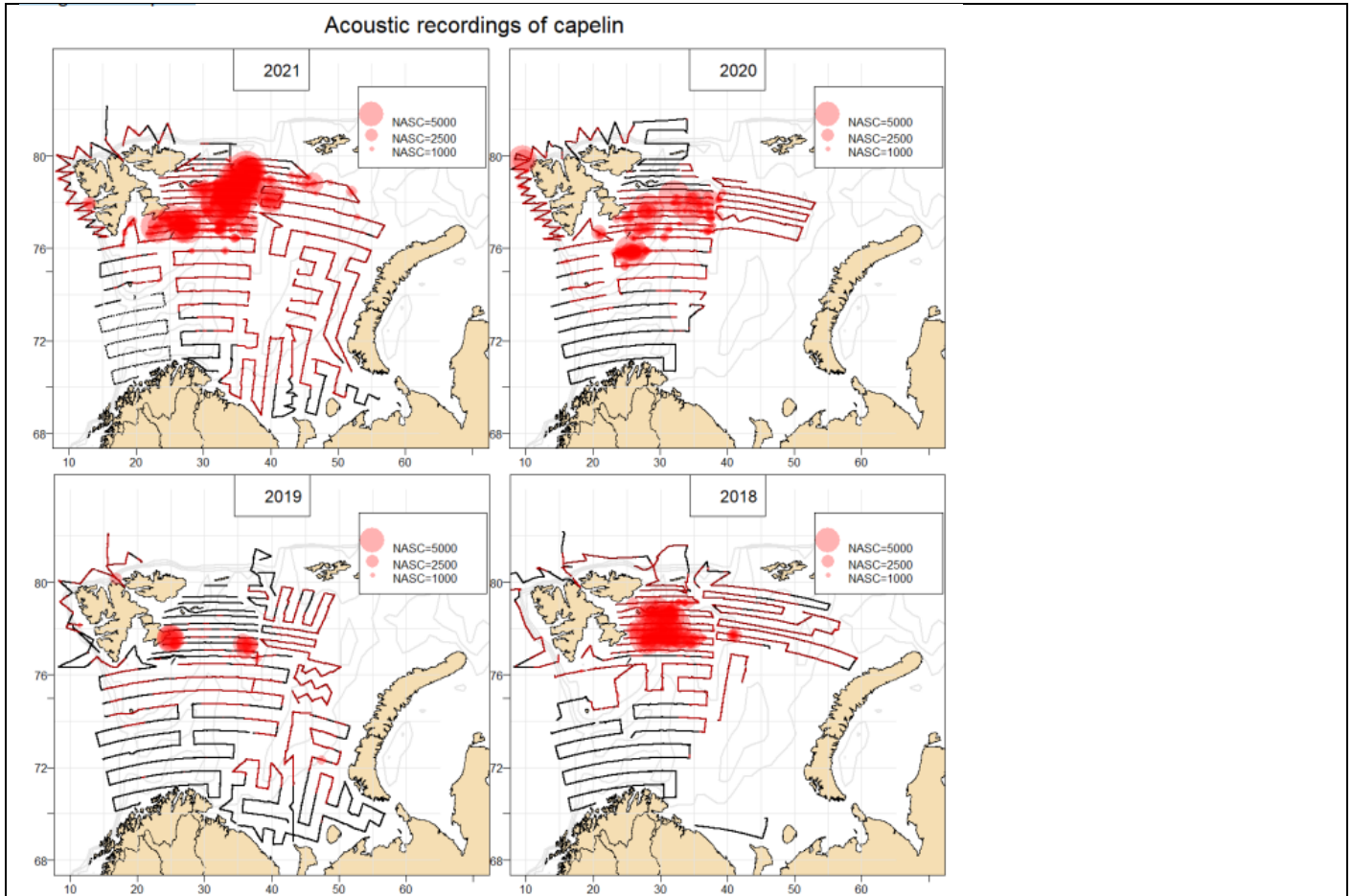


Figure 2. Capelin in subareas 1 and 2, excluding Division 2.a west of 5°W. Geographical distribution of capelin from autumn 2018 to 2021, as observed in the acoustic survey used to provide advice.

The abundance estimate resulting from this survey cruise is considered by ICES to be an absolute estimate of the size of the stock. However, it is recognised that migration during the survey may introduce uncertainty into the results. Natural mortality is estimated using a multi-species model and historical survey estimates. The level of uncertainty in the outputs of the stock assessment appear to be well understood by ICES, which does not report any specific, urgent improvements to data collection efforts that are required. Sufficient additional information is collected to enable an indication of stock status to be estimated.

**References**

ICES. 2021. Arctic Fisheries Working Group (AFWG). ICES Scientific Reports. 3:58. 817 pp. <https://doi.org/10.17895/ices.pub.8196>

ICES. 2021. Capelin (*Mallotus villosus*) in subareas 1 and 2 (Northeast Arctic), excluding Division 2.a west of 5°W (Barents Sea capelin). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, cap.27.1-2, <https://doi.org/10.17895/ices.advice.7736>

<b>Links</b>	
<b>MARINTRUST Standard clause</b>	1.3.2.1.1, 1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
<b>FAO CCRF</b>	7.3.1, 12.3



GSSI	D.4.01, D.5.01, D.6.02, D.3.14
------	--------------------------------

A2 Stock Assessment - Minimum Requirements		
A2.1	A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.	Yes
A2.2	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.	Yes
A2.3	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.	Yes
A2.4	The assessment is subject to internal or external peer review.	Yes
A2.5	The assessment is made publicly available.	Yes
<b>Clause outcome:</b>		<b>PASS</b>

**A2.1 A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.**

Stock assessments are carried out both by IMR and the AFWG which produce annual capelin advice. As decided at the Arctic Fisheries Working Group at its 2021 meeting, the assessment of Barents Sea capelin was left to the parties responsible for the autumn survey, i.e. IMR in Bergen and VNIRO Polar Branch in Murmansk. In accordance with this, the assessment was done during a virtual meeting 4–5 October 2021. The assessment is an update assessment, without changes to the methodology. The assessment is based on an annual acoustic survey, and according to ICES the survey coverage in 2020 was good and considered to include almost the entire distribution of the stock. . A stock assessment is conducted at least once every 3 years

**A2.2 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.**

The geographical survey coverage of the Barents Sea capelin stock during the BESS in 2021 was almost complete. However, as last year, an area in the central part of the Barents Sea (“Loophole”) was not covered. Blim is considered as a reference point and there is no estimation of any reference point related to fishing pressure for this stock. Calculations of catch scenarios are based on a forward projection from the autumn acoustic survey. It involves that SSB for April 2022 is calculated by taking into account predation by immature cod and other natural mortality. A catch scenario that results in SSB greater than 200000 tonnes with 95% probability corresponds to the JNRF Management Plan.

**A2.3 The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.**

A Blim (SSBlim) management approach has been suggested for this stock (Gjøsæter et al., 2002). In 2002, the JNRF agreed to adopt a management strategy based on the rule that, with 95% probability, at least 200,000 tonnes of capelin should be allowed to spawn. Consequently, 200,000 tonnes were used as a Blim. Alternative harvest control rules of 80, 85, and 90% probability of SSB > Blim were suggested by JNRF and evaluated by ICES (WKNEAMP-2, ICES C. M. 2016/ACOM:47). ICES considers these rules not to be precautionary. At its 2016 meeting, JNRF decided not to change the adopted management strategy.

**A2.4 The assessment is subject to internal or external peer review & A2.5 The assessment is made publicly available.**

Science-based fishery management advice at the international level is provided by ICES, a network of more than 1,600 scientists from 200 institutes linked by an intergovernmental agreement (the ICES Convention) to add value to national research efforts. All ICES assessments are subject to peer review. Scientific research and advice take key positions within the chain, ensuring understanding of the stock and broader ecosystem are considered. The involvement of stakeholders in management decisions in Norway is achieved through the Advisory Meeting for Fisheries Regulations representing fishermen’s associations, fishing industries, trade unions, the Sami Parliament, local authorities, environmental organisations and other stakeholders. Assessments are subject to internal or external peer review and are made publicly available.

**References**

ICES. 2021. Arctic Fisheries Working Group (AFWG). ICES Scientific Reports. 3:58. 817 pp. <https://doi.org/10.17895/ices.pub.8196>

ICES. 2021. Capelin (*Mallotus villosus*) in subareas 1 and 2 (Northeast Arctic), excluding Division 2.a west of 5°W (Barents Sea capelin). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, cap.27.1-2, <https://doi.org/10.17895/ices.advice.7736>

Links	
MARINTRUST Standard clause	1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
FAO CCRF	12.3
GSSI	D.5.01, D.6.02, D.3.14

A3	Harvest Strategy - Minimum Requirements		
	A3.1	There is a mechanism in place by which total fishing mortality of this species is restricted.	Yes
	A3.2	Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.	Yes
	A3.3	Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).	Yes

**Clause outcome:** PASS

**A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.**

The Joint Russian-Norwegian Fishery Commission set a zero TAC both for 2019, 2020 and 2021. For all three years, the quotas were in accordance with the ICES advice. There was no commercial fishery in 2021, but some minor catches were taken – 2.3 tonnes in the capelin spawning survey by Norway and 7.3 tonnes in scientific surveys and as bycatch in the northern shrimp trawl fishery by Russia. Capelin will be benchmarked in 2022 along with the stock in Iceland, at the moment the harvest control rules used are considered precautionary by ICES, therefore there is a mechanism in place by which total fishing mortality of the stock is restricted.

**A3.2 Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.**

Since 1979, the Barents Sea capelin fishery has been regulated by a bilateral fishery management agreement between Russia (former USSR) and Norway. A TAC has been set separately for the winter fishery and for the autumn fishery. | Removals from



<p>both countries have been reported to ICCEs annually and catches have been following the ICES advices with several closure in recent years due to the poor status of the stock (Table 6 ICES 2021 Advice).</p> <p><b>A3.3 Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).</b></p> <p>There have been four major downturns and resulting closures of the fishery since the mid-1980s. The last stock collapse came in 2015-2016. Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy.</p>	
<p><b>References</b></p> <p>ICES. 2021. Capelin (<i>Mallotus villosus</i>) in subareas 1 and 2 (Northeast Arctic), excluding Division 2.a west of 5°W (Barents Sea capelin). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, cap.27.1-2, <a href="https://doi.org/10.17895/ices.advice.7736">https://doi.org/10.17895/ices.advice.7736</a></p> <p>ICES. 2021. Arctic Fisheries Working Group (AFWG). ICES Scientific Reports. 3:58. 817 pp. <a href="https://doi.org/10.17895/ices.pub.8196">https://doi.org/10.17895/ices.pub.8196</a></p> <p><i>Standard clause 1.3.2.1.3</i></p>	
<p><b>Links</b></p>	
<b>MARINTRUST Standard clause</b>	1.3.2.1.3, 1.3.2.1.4
<b>FAO CCRF</b>	7.2.1, 7.22 (e), 7.5.3
<b>GSSI</b>	D3.04, D6.01

<b>A4</b>	<b>Stock Status - Minimum Requirements</b>	
	<b>A4.1</b>	The stock is at or above the target reference point, OR IF NOT:
	<p>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</p> <p>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</p>	Yes
		<b>Clause outcome:</b>
<p><b>A4.1 The stock is at or above the target reference point, OR IF NOT:</b></p> <p><b>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</b></p> <p><b>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</b></p> <p>Spawning-stock size is above Blim. No reference points for fishing pressure have been defined for this stock (Figure 3). When biomass is below limits the fishery is closed as it happened in between 2018 to 2020, so commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy.</p>		

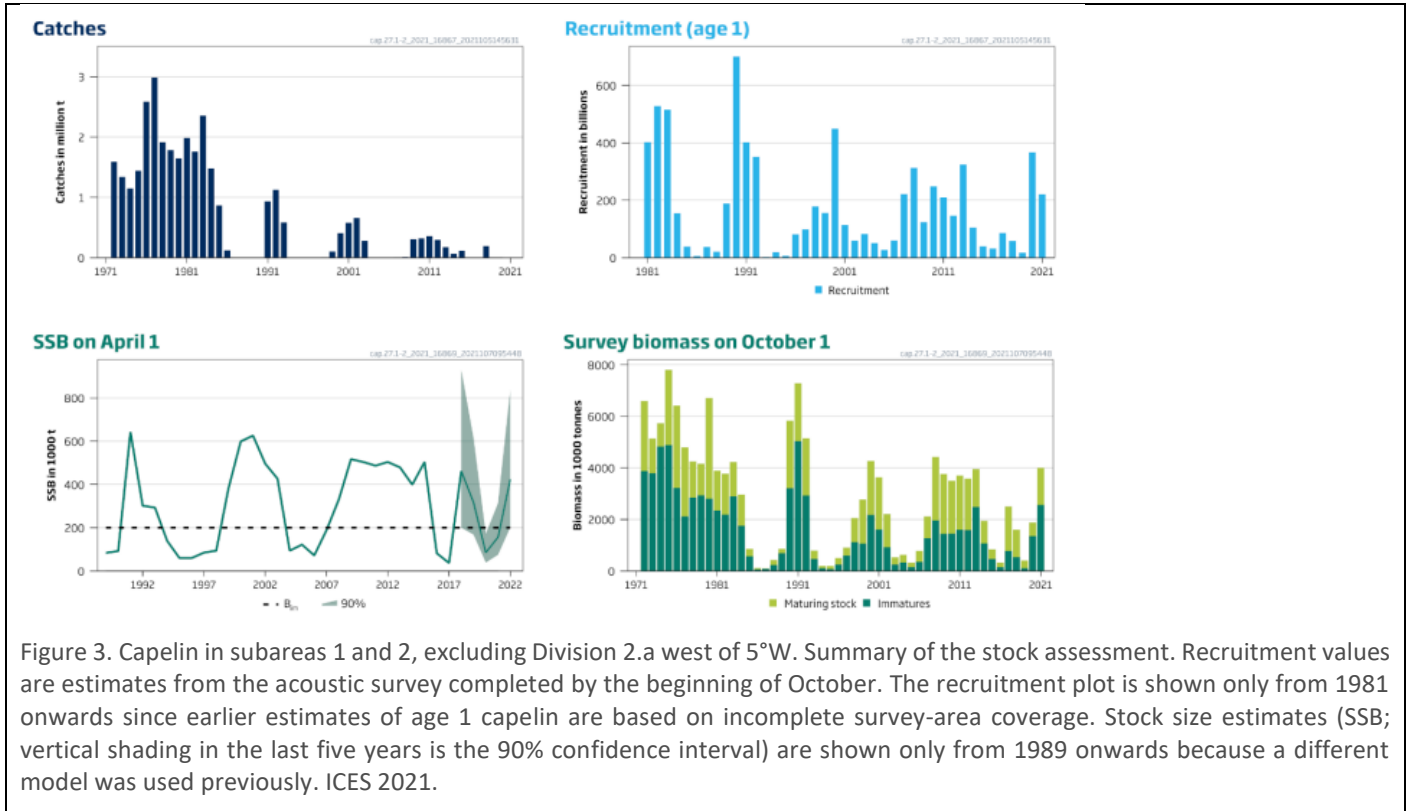


Figure 3. Capelin in subareas 1 and 2, excluding Division 2.a west of 5°W. Summary of the stock assessment. Recruitment values are estimates from the acoustic survey completed by the beginning of October. The recruitment plot is shown only from 1981 onwards since earlier estimates of age 1 capelin are based on incomplete survey-area coverage. Stock size estimates (SSB; vertical shading in the last five years is the 90% confidence interval) are shown only from 1989 onwards because a different model was used previously. ICES 2021.

**References**

ICES. 2021. Capelin (*Mallotus villosus*) in subareas 1 and 2 (Northeast Arctic), excluding Division 2.a west of 5°W (Barents Sea capelin). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, cap.27.1-2, <https://doi.org/10.17895/ices.advice.7736>

Links	
MARINTRUST Standard clause	1.3.2.1.4
FAO CCRF	7.2.1, 7.2.2 (e)
GSSI	D6 01

## FURTHER IMPACTS

The three clauses in this section relate to impacts the fishery may have in other areas. A fishery must meet the minimum requirements of all three clauses before it can be recommended for approval.

<b>F1</b>	<b>Impacts on ETP Species - Minimum Requirements</b>		
	<b>F1.1</b>	Interactions with ETP species are recorded.	Yes
	<b>F1.2</b>	There is no substantial evidence that the fishery has a significant negative effect on ETP species.	Yes
	<b>F1.3</b>	If the fishery is known to interact with ETP species, measures are in place to minimise mortality.	Yes
<b>Clause outcome:</b>			PASS

### **F1.1 Interactions with ETP species are recorded.**

The most relevant data are presented in the WGIBAR (Working Group on the Integrated Assessments of the Barents Sea). ICES Scientific Reports. In the report posted in 2021, during the Barents Sea ecosystem survey in August-October 2020 marine mammal observers were onboard all vessels. However, the Russian vessel started later than usual which influences both the comparability of the results with previous years as well as synoptic considerations. In total, 4,159 individuals of 12 species of marine mammals were observed, of these 169 individuals were not identified to species. About six million pairs from 36 seabird species breed regularly in the Barents Sea (Barrett et al. (2002). Allowing for immature birds and non-breeders, the total number of seabirds in the area during spring and summer is about 20 million individuals. 90% of the birds belong to only 5 species: Brünnich's guillemot, little auk, Atlantic puffin, northern fulmar and 155 black-legged kittiwake

### **F1.2 There is no substantial evidence that the fishery has a significant negative effect on ETP species.**

Many top predators are important capelin feeders. Some species such as, harp seal and seabird populations have in the past been affected by low capelin abundances (ICES, 2014a,b). There is however no reported evidence of significant direct impacts of the capelin fishery on any protected species.

### **F1.3 If the fishery is known to interact with ETP species, measures are in place to minimise mortality.**

Interactions with seabirds or marine mammals are collected in onboard observer program to provide with information to ICES Ecosystem Overviews in the Barents Sea Ecoregion. The last report posted in 2019 showed the information below regarding seabirds and marine mammals in the Barents sea:

**Seabirds:** The Barents Sea supports at least 20 million seabirds, divided between 40 species and 1600 colonies, in summer. Numbers are lower in winter when most species move southwards. The commonest species are Brünnich's guillemot *Uria lomvia* and the black-legged kittiwake *Rissa tridactyla*. Numbers of little auk *Alle alle* may be of the same order, but colonies are very difficult to count. In Norway (and Svalbard) numbers of Brünnich's guillemots and black-legged kittiwakes have approximately halved in the past 25 years, with the same trend being seen in several other species.

**Marine mammals:** The Barents Sea is inhabited by 21 species of marine mammals and is an important feeding ground for a range of large whales, including fin whale *Balaenoptera physalus*, minke whale *Balaenoptera acutorostrata*, humpback whale *Megaptera novaeangliae*, and sperm whale *Physeter macrocephalus*. Among the smaller whales and dolphins, the Barents Sea is important for northern bottlenose whale *Hyperoodon ampullatus*, killer whale *Orcinus orca*, white-beaked dolphin *Lagenorhynchus albirostris*, narwhal *Monodon monoceros*, and beluga whale *Delphinapterus leucas*.

Among other marine mammals, grey seal *Halichoerus grypus*, harp seal *Pagophilus groenlandicus*, walrus *Odobenus rosmarus*, and polar bear *Ursus maritimus* are present in globally important numbers.

There is limited information on the trends in cetaceans, though humpbacks at least are believed to be recovering from past overexploitation. Numbers of both grey seals and walruses were reduced by past hunting; recent evidence shows that grey seal is recovering. Numbers of polar bears increased in the last quarter of the 20th century, but trends since 2000 are unclear.

The IMR now takes a holistic approach to marine ecology, using modern research vessels and facilities to monitor and study the whole marine ecosystem. There are no direct interactions reported from Capelin fishery as the nature of this fishery makes difficult the harm on these species. This pelagic fishery has very low impact on ETPS species as it happens with the Capelin fishery in Iceland. There is however no reported evidence of significant direct impacts of the capelin fishery on any protected species, but available information is limited.

**References**

SAI Global. 2017. Marine Stewardship Council Full Assessment Final Report For The ISF Iceland Capelin Fishery. 252 pp. SAI Global.

ICES. 2021. Arctic Fisheries Working Group (AFWG). ICES Scientific Reports. 3:58. 817 pp. <https://doi.org/10.17895/ices.pub.8196>

ICES. 2021. Working Group on the Integrated Assessments of the Barents Sea (WGIBAR). ICES Scientific Reports. 3:77. 236 pp. <https://doi.org/10.17895/ices.pub.8241>

Links	
<b>MARINTRUST Standard clause</b>	1.3.3.1
<b>FAO CCRF</b>	7.2.2 (d)
<b>GSSI</b>	D4.04, D.3.08

F2 Impacts on Habitats - Minimum Requirements			
F2	<b>F2.1</b>	Potential habitat interactions are considered in the management decision-making process.	Yes
	<b>F2.2</b>	There is no substantial evidence that the fishery has a significant negative impact on physical habitats.	Yes
	<b>PASS</b>	If the fishery is known to interact with physical habitats, there are measures in place to minimise and mitigate negative impacts.	Yes
<b>Clause outcome:</b>			<b>PASS</b>

**F2.1 Potential habitat interactions are considered in the management decision-making process.**

Norway has agreed to a goal of conserving 10% of the coastal and marine areas by 2020, in the form of marine protected areas or other effective area-based management measures. The CBD is now discussing an ambition that 30% of the world's coastal and sea areas should be preserved by 2030. Today, around 5% of the sea areas in Norway are marine protected areas, while around half of the sea areas are protected through other effective area-based management measures in fisheries management. There are plans for marine protected areas for a further 12,000 km<sup>2</sup> along the coast.

A sea area's uniqueness and representativeness, vulnerability and threat picture, ecological significance and ability to re-establish itself after human impact, as well as red list status for biotopes, are important elements in the conservation measures. Mapping of marine ecosystems is the basis for monitoring, management and research in protected and protected areas.

Reference areas for monitoring and research are useful and provide an opportunity to study the effect of conservation measures on populations and species. The geographical extent of such areas should also safeguard the ecosystem's function and resilience in a changing climate.

More monitoring and research are needed on the overall impact of various activities and management measures to provide a holistic perspective on the conservation effect related to bottom trawling, therefore the gear types assessed in this report are not a main concern in relation to habitats conservation.

Norway has registered marine protected areas (MPA) with IUCN category «IA» and «II». Based on the IUCN's guide for MPA, this corresponds to strict protection without harvesting activity. Expansion of marine conservation measures in Norway requires cooperation between relevant administrative authorities and industries but is a hot topic in the fisheries management plans. The institute of Marine Research in Norway has worked in several projects to ensure the protection of the marine habitats accordantly to the EU regulations,

**F2.2 There is no substantial evidence that the fishery has a significant negative impact on physical habitats.**

The Advisory Committee (Skjoldal et al. 2004) recommended that a thorough survey of the individual areas should be carried out as soon as possible after a decision on protection. Such mapping will include detailed bottom mapping and systematic biological inventory and will form an important basis for monitoring and management of the areas. The committee further recommended that a plan should be made for the survey, which should be given priority and funding, and implemented over a 5-year period (IMR). However, the concern is not focus on pelagic fisheries, but it is in trawling, there is no evidence that pelagic fisheries can damage the bottom surface where the Vulnerable ecosystems are placed. That conclusion was also reached in the Iceland capelin fishery (SAI Global 2017).

**F2.3 If the fishery is known to interact with physical habitats, there are measures in place to minimise and mitigate negative impacts.**

Given that this fishery uses pelagic gear (purse seines and midwater trawls) bottom interactions are not thought to be problematic. A similar finding for the adjacent capelin fishery in Iceland has been made (SAI Global 2017). Detailed habitat and biotope maps are readily available. Some management measures are in effect for both Norway and the EU. Trawling has been banned in grounds of pre-spawning Capelin aggregations (ICES, 2009a). Areas may further be closed based on increased bycatch of herring or cod. Several Norwegian marine protected areas exist in the area of capelin's distribution, notably Forlandet National Park and Bjørnøya and Hopen Nature Reserves, but it is unknown if any special fishing regulations are in place.

Thirty-six areas are proposed for protection under Norway's marine conservation plan, and other areas where the environment and natural resources are considered valuable or vulnerable are part of a proposed Integrated Management Plan for the Barents Sea–Lofoten Area. These are selected based on the importance of their biological production and biodiversity, in terms of endangered, vulnerable or important species or habitats.

Key spawning and egg and larval drift areas for important fish stocks; breeding, moulting and wintering areas for important seabirds and critical benthic fauna habitats are included. To date, eight cold-water reef marine protected areas off the Norwegian coast have been created, in order to mitigate the impact of fisheries on the seabed habitats in the Barents Sea. Eighty seven percent of the territorial waters around Svalbard are protected through under the Svalbard Environmental Protection Act (UNESCO, 2014).

References	
<p>Lis lindal Jørgensen , Even Moland , Vivian Husa , Tina Kutti , Alf Ring Kleiven and Gro van der Meeren (HI). The Institute of Marine Research's expert assessment of challenges and status for work with marine protection and protection in Norway. Report series: Report from marine research 2021-9 ISSN: 1893-4536 Published: 15.03.2021 Updated : 23.04.2021 SAI Global. 2017. Marine Stewardship Council Full Assessment Final Report For The ISF Iceland Capelin Fishery. 252 pp. SAI Global.</p> <p>ICES. 2021. Arctic Fisheries Working Group (AFWG). ICES Scientific Reports. 3:58. 817 pp.  <a href="https://doi.org/10.17895/ices.pub.8196">https://doi.org/10.17895/ices.pub.8196</a></p> <p>ICES. 2021. Working Group on the Integrated Assessments of the Barents Sea (WGIBAR). ICES Scientific Reports. 3:77. 236 pp. <a href="https://doi.org/10.17895/ices.pub.8241">https://doi.org/10.17895/ices.pub.8241</a></p>	
Links	
<b>MARINTRUST Standard clause</b>	1.3.3.2
<b>FAO CCRF</b>	6.8
<b>GSSI</b>	D.2.07, D.6.07, D3.09

F3 Ecosystem Impacts - Minimum Requirements		
<b>F3.1</b>	The broader ecosystem within which the fishery occurs is considered during the management decision-making process.	Yes?
<b>F3.2</b>	There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.	
<b>F3.3</b>	If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals.	
<b>Clause outcome:</b>		
<p><b>F3.1 The broader ecosystem within which the fishery occurs is considered during the management decision-making process.</b></p> <p>Oscillations in the Barents Sea ecosystem are mainly driven by changes in the ocean climate (ICES, 2014b). Capelin is an important prey of distinct top predators (Hopkins and Nilssen, 1991) and was recently identified as the most important prey for Atlantic cod which is in an historical high of abundance (Durant et al., 2014). Atlantic herring is also an important prey on capelin larvae, influencing recruitment. All these dynamics and interactions should be clearly understood and included in the ecosystem-approach to properly manage all the Barents Sea important species (Gjøsaeter et al., 2012).</p> <p>Despite the importance of capelin to cod and other predators, managers have yet to account directly for the effects of predation on removals; though the assessment does adjust the natural mortality rate based on cod removals of mature capelin (ICES 2017). Further research is suggested in particular on the removal of immature capelin by cod and other predators.</p> <p><b>F3.2 There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.</b></p> <p>In the last AFWG report the ecological considerations showed that the amount of other food than capelin for cod and other predators may also have changed in recent years. This may also indirectly have affected the predation pressure on capelin. A more detailed discussion of interactions between capelin and other species is given in the 2016–2021 ICES WGIBAR reports which showed that after a period of overfishing in the 1980s, fish stocks there are now harvested sustainably. The abundance of 2-year-olds observed is the highest in 30 years and the high abundance corresponds to low length-at-age. This is likely a result of high internal competition for food and reduced growth. This tendency is likely enhanced by a strong 2020-year class at least partly competing for the same food. The implication is that the majority of this year class had not reached a length of 14 cm and is not expected to migrate to the coast and spawn before winter 2023. Therefore, there is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.</p>		

**F3.3 If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals.**

The 2020-year classes of capelin, redfish and polar cod were strong, while those of cod, haddock and herring seem to be weak. In 2020, the total biomass of pelagic fish increased due to strong recruitment of 1-year old capelin and polar cod. Most of the main demersal fish stocks (cod, haddock, Greenland halibut, beaked redfish, long rough dab, saithe) in the Barents Sea are in a healthy state and at a level at or above the long-term mean. Cod food consumption in 2020 was close to the level of 2019.

Capelin is still the most important food item for cod. Importance of euphausiids, hyperiids, polar cod and snow crab has increased in cod diet, while importance of haddock, shrimp and herring has decreased. The amount of other food than capelin for cod and other predators may also have changed in recent years. This may also indirectly have affected predation pressure on capelin. Oscillations in the Barents Sea ecosystem are mainly driven by changes in the ocean climate. All these dynamics and interactions should be clearly understood and included in the ecosystem-approach to properly manage all Barents Sea important species. Cod predation is included in the models and there is a biomass limit to keep that would like the ecosystem needs, that along with the results in the last WGIBAR 2021 where Capelin extend their distribution with high stock size, it can be assumed that there is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.

**References**

ICES. 2021. Working Group on the Integrated Assessments of the Barents Sea (WGIBAR). ICES Scientific Reports. 3:77. 236 pp. <https://doi.org/10.17895/ices.pub.8241>.

<b>Links</b>	
<b>MARINTRUST Standard clause</b>	1.3.3.3
<b>FAO CCRF</b>	7.2.2 (d)
<b>GSSI</b>	D.2.09, D3.10, D.6.09



## SOCIAL CRITERION

In addition to the scored criteria listed above, applicants must commit to ensuring that vessels operating in the fishery adhere to internationally recognised guidance on human rights. They must also commit to ensuring there is no use of enforced or unpaid labour in the fleet(s) operating upon the resource.

## Glossary

**Non-target:** Species for which the gear is not specifically set, although they may have immediate commercial value and be a desirable component of the catch. OECD (1996), Synthesis report for the study on the economic aspects of the management of marine living resources. AGR/FI(96)12

**Target:** In the context of fishery certification, the target catch is the catch of stock under consideration by the unit of certification – i.e. the fish that are being assessed for certification and ecolabelling. (GSSI)

## MarinTrust Fishery Assessment Peer Review Template

This section comprises a summary of the fishery being assessed against version 2 of the MarinTrust Standard.

Fishery under assessment	Capelin ( <i>Mallotus villosus</i> )
Management authority (Country/State)	Ministry of Trade, Industry and Fisheries (Norway) EU (Denmark)
Main species	Capelin
Fishery location	ICES subdivisions I & II, excl. IIa West of 5W (Barents sea)
Gear type(s)	Pelagic trawl, purse seine
Overall recommendation. (Approve/ Fail)	Approve

Summary: in this section, provide any additional information about the fishery that the reviewers feel is significant to their decision.



In despite of fluctuations in the recruitment of several commercial species -including- capelin- the fishery management of them has strongly improved during last decades. There are uncertainties however, but the least that can be done is to take advantage of fishing trips to observe the interactions with ETP species and to collect oceanographic and biological data. This is an aspect that still need to be improved. An observers' program is mentioned in the report, but no information is included. Nevertheless, the fishery deserves the approval of the assessment, but enhancements must be made for the next assessment.

CB response: Noted. Information on marine mammals and other ETPs species are recorded in the logbook app, further the inspectors collect information about these interactions.

#### General Comments on the Draft Report provided to the peer reviewer

- Table 2: assessment determination: (1) It is not so clear why the only existing HCR was found to be precautionary, supposedly the HCR was going to be reviewed during 2021, but there is no evidence of that review. (2) It would be convenient to summarize what were the ICES recommendations which were usually followed regarding the distribution of quotas by countries. (3) what are reasons to affirm that purse seine fishing does not impact on ETP species if it is recognized that capelin is an important prey for top predators ? (4) is there a document to support the calculations of catch scenarios based on a forward projection from the autumn acoustic survey ?

•  
CB response: 1&2)The HCR are precautionary because they follow the management plan which states: In 2002, the Joint Norwegian–Russian Fisheries Commission (JNRFC) adopted the following harvest control rule (HCR) for Barents Sea capelin: 'The TAC for the following year should be set so that, with 95% probability, at least 200 000 tonnes of capelin (Blim) will be allowed to spawn'. ICES evaluated this HCR as well as alternative HCRs suggested by JNRFC in 2016 (ICES, 2016), and only the existing HCR was found to be precautionary. Following ICES evaluation, the JNRFC decided to maintain the existing HCR (JNRFC, 2016) but decided that the HCR should be evaluated again in 2021.

The quota by countries followed the coastal state countries and normally is agreed with no issues following the Ices advice.

3) Purse seine does not register interactions with marine mammals or seabirds. The ecosystem needs are included in the HCR and the prediction models so indirect impacts on ETPs species are considered in the models and management plan.

4) Yes, following the information in the last ICES advice, Calculations of catch scenarios are based on a forward projection from the autumn acoustic survey. It involves that SSB for April 2022 is calculated by taking into account predation by immature cod and other natural mortality. A catch scenario that results in SSB greater than 200 000 tonnes with 95% probability corresponds to the JNRFC Management Plan.

## Summary of Peer Review Outcomes

Peer reviewers should review the fishery assessment report with the primary objective of answering the key questions listed in the table below. Where the situation is more complicated, reviewers may instead answer “See Notes”.

	YES	NO	See Notes
<b>A – Fishery Assessment</b>			
1. Has the fishery assessment been fully completed, using the recognised MarinTrust fishery assessment methodology and associated guidance?	X		
2. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?	X		
3. Are the scores in the following sections accurate (i.e. do the scores reflect the evidence provided)?			
Section M - Management	X		
Category A Species	X		
Category B Species			
Category C Species			
Category D Species			
Section F – Further Impacts	X		

## Detailed Peer Review Justification

Peer reviewers should provide support for their answers in the boxes provided, by referring to specific scoring issues and any relevant documentation as appropriate.

Detailed justifications are only required where answers given are one of the ‘No’ options. In other (Yes) cases, either confirm ‘scoring agreed’ or identify any places where weak rationales could be strengthened (without any implications for the scores).

Boxes may be extended if more space is required.

1. Is the scoring of the fishery consistent with the MarinTrust standard, and clearly based on the evidence presented in the assessment report?
Yes
Certification body response

2. Has the fishery assessment been fully completed, using the recognised MARINTRUST fishery assessment methodology and associated guidance?
Yes
Certification body response

--

**3. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?**

Yes

**Certification body response**

--

**3M. Are the scores in "Section M – Management" clearly justified?**

M1.1 There is an organisation responsible for managing the fishery.	Yes
There is an organisation responsible for collecting data and assessing the fishery.	Yes
Fishery management organisations are publicly committed to sustainability.	Yes
Fishery management organisations are legally empowered to take management actions.	Yes
There is a consultation process through which fishery stakeholders are engaged in decision-making.	Yes
The decision-making process is transparent, with processes and results publicly available.	Yes

**Certification body response**

--

**3A. Are the "Category A Species" scores clearly justified?**

Yes

**Certification body response**

--

**3B. Are the "Category B Species" scores clearly justified?**

n.a.

**Certification body response**

--

--

3C. Are the “Category C Species” scores clearly justified?

n.a.

Certification body response

3D. Are the “Category D Species” scores clearly justified?

n.a.

Certification body response

3F. Are the scores in “Section F – Further Impacts” clearly justified?

Yes

Certification body response

Optional: General comments on the Peer Review Draft Report

In section F1.3 states that “There is however no reported evidence of significant direct impacts of the capelin fishery on any protected species, but available information is limited”. However, it is mentioned that there is an observers’ program, also a description of diversity of ETP species is included, but specific results are not shown. In a next assessment that kind of supporting information should be included. It is highly possible that the fishery is not impacting ETP species seriously or moderately, possibly the impact is negligible, but need to be documented.

CB response: Covid -19 has had impacts on the observer coverage for that reason the information is limited for this surveillance audit. However, it is well known that Capelin fishery has minimal interactions with ETP, also it is similar as Capelin fishery in Iceland where the results on ETPs interactions showed the same results as in this one. Although, the comment is noted for the next surveillance audit.

Certification body response