



## MarinTrust Standard V2

# Whole fish Fishery Assessment Report Template

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# Table 1 Application details and summary of the assessment outcome

Application details and summary of the assessment outcome					
Name:					
Address:					
Country: Faroe Islands		Zip:	Zip:		
Tel. No.		Fax. No.			
Email address:		Applicant	Code		
Key Contact:		Title:			
Certification Body Details	S				
Name of Certification Bo	dy:	Global Tru	ıst Certificatio	n	
Assessor Name	CB Peer Reviewer	Assessme	nt Days	Initial/Sur	veillance/ Re-approval
Virginia Polonio	Geraldine Criquet		3		Re-Approval
Assessment Period	April 2021				
Scope Details			T		
Management Authority (	Country/State)				of fisheries (DoF), Faroes and European Commission
Main Species			Capelin ( <i>M</i>	allotus villo	sus)
Fishery Location		FAO 27 Atlantic Northeast. ICES in subareas 5 and 14 and Division 2.a west of 5 (Iceland and Faroes grounds, East Greenland, Jan M area)		4 and Division 2.a west of 5 $^\circ~$ W	
Gear Type(s)			Purse seine / Pelagic trawl		trawl
Outcome of Assessment					
Overall Outcome			Pass		
Clauses Failed			None		



CB Peer Review Evaluation	Agree with the assessor's determination
Fishery Assessment Peer Review Group Evaluation	Approval
Recommendation	APPROVAL



### Table 2. Assessment Determination

#### **Assessment Determination**

Capelin *Mallotus villosus* (European stock) has been assessed as a species of least concern (IUCN) and is not on the current list of CITES endangered species. Capelin *Mallotus villosus* is approved by the assessment team to produce fishmeal and fish oil under the MarinTrust v 2.0 whole fish standard.

Capelin in the Iceland East Greenland-Jan Mayen area is a separate stock for assessment purposes. The Coastal States (Iceland, Greenland, and Norway), have agreed (Anon., 2015) to use the following harvest control rule as the basis for management: an initial TAC is set for the next fishing season following the rule developed by ICES (2015), with a very low probability of the initial TAC being higher than a regression estimated final TAC. This is followed by an intermediate TAC set in the autumn and a final TAC set in winter during the fishing season, which will lead to >95% probability of SSB being greater than or equal to Blim at spawning time in the following spring. Therefore, there is a management plan for this species, and it is assessed under Category A. The fishery has achieved a **PASS** all the clauses in M1 and M2.

This initial catch advice (TAC advice) is for the period between July 2020 and March 2021. ICES is only requested to provide initial catch advice using a rule based on having a low probability that the catch advised by ICES for the initial TAC will be higher than the final TAC (ICES, 2015). The Marine and Freshwater Research Institute in Iceland is expected to provide updated catch advice which will lead to > 95% probability of SSB being greater than or equal to Blim based on acoustic survey information in autumn 2020 and winter 2021; this will form the basis for the final TAC for 2020/2021.

The spawning-stock biomass (SSB) was estimated at 127,000 tonnes at the time of spawning in March 2019, which is below Blim (150,000 t). The recruitment (the immature 1- and 2-year-old capelin) estimate from the acoustic survey in autumn 2019 is above the average of the time-series. In the last ICES stock assessment of 2020 BMGT was not above the limit with 95% probability further biomass is increasing the risk to be above Blim. However, in February 4<sup>th</sup> 2021, MFRI has published a stock report were biomass is above Blim. Consequently, clauses A1-A4 have achieved a **PASS**.

No category C or D species have been assessed herein as the total landings reported as capelin account at 99.98 % of the catches.

Regarding Impacts on the ecosystems, the seabird community in Icelandic waters is composed of relatively few but abundant species, accounting for roughly  $\frac{1}{4}$  of total number and biomass of seabirds within the ICES area. At least 12 species of cetaceans occur regularly in Icelandic waters, and an additional 10 species have been recorded more sporadically; the most abundant cetacean off the Icelandic continental shelf is the common minke whale *Balaenoptera acutorostrata* (IUCN status: "Least Concern") (ICES 2010). Two species of seals, common seal *Phoca vitulina* and grey seal *Halicoerus grypus* breed in Icelandic waters, while 5 northern species of pinnipeds are also found in the area (ICES, 2010b).

The legislation in Iceland regarding ETP species is regulated by the Icelandic legislation (557/2007) who states to complete the logbook where any interaction or catch of birds or other endangered species must be reported to the Directorate of Fisheries.



Direct and indirect effects of the fishery on ETP species are unlikely to be beyond acceptable limits according to the MSC assessment team, although there is a lack of information on how the capelin could affect the feeding patterns of whales and seabirds (SAI Global 2017).

As in other pelagic fisheries, no direct effects on the sea floor or benthic communities are known to occur in the Icelandic capelin fishery. 98% of catches are captured by purse-seines (ICES 2017).

The ecosystem where this fishery operates is relatively well described. ICES provide a detailed review of the Icelandic Waters Ecoregion including information on main oceanographic features, productivity, major regional pressures, human activities and state of the ecosystem components. The Iceland Sea Ecosystem project (Pálsson et al. 2012) analysed the principal ecosystem patterns of that area, including the life-history of capelin. However, more information regarding ecosystems needs are needed to better understand how the fishery could affect seabirds ' populations, the fishery does not harm the key ecosystem structure in the area. Therefore, Impacts on ETPs, Habitats and Ecosystems are not considered to have negative consequences on key structure. Therefore, all the clauses in F1, F2 and F3 achieve a **PASS.** 

Capelin (*Mallotus villosus*) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area) is **APPROVED** under the MarinTrust v 2.0 whole fish standard.

**Fishery Assessment Peer Review Comments** 

The assessor correctly classified this capelin stock in conformity with Marin Trust species categorisation requirements.

The fishery is managed by the Faroe Islands and Iceland management systems. There is a monitoring, surveillance and control system in place. There is a harvest strategy in place to ensure that stocks are fished at sustainable levels. There are precautionary harvest control rules in place to set the TAC in accordance with the status of the stock. Data are collected and stocks are assessed.

The capelin stock has a current biomass above the limit reference points.

Given the type of gears, there is no evidence that the fishery impacts significantly habitats. There is no evidence that the fishery has significant negative impacts on ETP species and the ecosystem.

Based on all the above, the fishery passes all clauses and capelin in in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area) should be approved.

**Notes for On-site Auditor** 

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### **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		99.8	A4.1	PASS
	Capelin, Mallotus villosus		A4.2	PASS
			A4.3	PASS
			A4.4	PASS
Category B	NA			
Category C	NA			
Category D	NA			



## Table 5 Species Categorisation Table

Common name	Latin name	Stock	IUCN Redlist Category <sup>1</sup>	% of landings	Management	Category
Capelin	Mallotus villosus	ICES in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)	LC	99.8	EU, Directorate of Fisheries in Iceland and Faroes	A
Species categorisation rationale						
Species categorisation is reported in the application form submitted by the client group to MT. Further, the assessor has checked the ICES advice and ISF Iceland Capelin PCR report for the MSC certification. https://fisheries.msc.org/en/fisheries/isf-iceland-capelin/@@view						

<sup>&</sup>lt;sup>1</sup> <u>https://www.iucnredlist.org/</u>

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### 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					
IVIT	M1.1	There is an organisation responsible for managing the fishery.	Yes			
	M1.2	There is an organisation responsible for collecting data and assessing the fishery.	Yes			
	M1.3 Fishery management organisations are publicly committed to sustainability.					
	M1.4	Fishery management organisations are legally empowered to take management actions.	Yes			
	M1.5	There is a consultation process through which fishery stakeholders are engaged in decision- making.	Yes			
	M1.6	The decision-making process is transparent, with processes and results publicly available.	Yes			
		Clause outcome:	PASS			

M1.1 There is an organisation responsible for managing the fishery.

The capelin stock is studied and managed primarily by Icelandic authorities. Faroese Fisheries Minister and his Icelandic counterpart have agreed terms for 2021 reciprocal fisheries access for different pelagic fisheries and Capelin is one of them. Faroes has access to Icelandic fishing grounds. However, the management of the species is basically carried out by Iceland. The Competent Authority in Iceland is the Marine and Fisheries Research Institute (MFRI). European Union with ICES advice and the Ministry of Industries and Innovation based on fisheries Management Act 1990 and the Icelandic Coast Guard who are responsible for inspection on the Iceland grounds. ICES provide annual stock assessments; MFRI provide updated advice based on acoustic surveys to form the basis for final TAC's. Norway is part of the Coastal State agreement, but the management is carried out by Icelandic authorities along with ICES.

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

Several acoustic surveys aimed at different age groups of capelin have been conducted through the history of the fishery. The main objective of the surveys is acoustic assessment of the capelin stock in the Iceland, East Greenland and Jan Mayen area, measuring mature and immature stock components at age 1 and older. The surveys are conducted by the research vessel Arni Fridriksson from MFRI and the fishing vessel Eros, rented by GINR. These surveys take place usually in late October and December each year.

MFRI publish advice each June, the basis of the TAC for summer and autumn seasons. Advice for the most important season (Jan-Mar) is based on estimates, using acoustic sonars, of the stock of mature capelin migrating to the spawning areas South-West of Iceland. These estimates are made in December-January and may be revised later.

There is a large collaboration between MFRI and the Faroe Marine Research Institute (FAMRI) i.e both organisations carried out surveys to estimate the biomass of pelagic species in which capelin is also studied.

Further, the ICES Expert Group in the assessment area is the North-Western Working Group (NWWG). This group assesses biomass, abundance, and fishing mortality of non-straddling fish stocks with information being used as a basis for providing advice to fisheries managers and other stakeholders.

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



Scientific management advice for the fishery is provided by both the ICES North-Western Working Group (NWWG) and Iceland's national fisheries scientific body MFRI. ICES Advisory Committee (ACOM) translates ICES science into advice on the sustainable use and protection of marine ecosystems. Further, Coastal Sate agreements are also available where advisory rules adopted by ICES are presented along with the agreement on the parties to form the basis of the Harvest Control Rules or any update that can affect the management of the fishery. Therefore, fishery management organisations are publically committed to sustainability.

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

The basis of advice on the capelin stock is the harvest control rule (HCR) agreed by Coastal States (2015). An Agreed Record of Conclusions of Coastal State consultations on the management of capelin stock in the Iceland–East Greenland–Jan Mayen area was published in 2015. Based on this legislation, detailed regulations are implemented governing vessel and fishing licences, area closures, gear and data requirements and other technical regulations for commercial fisheries. A new Framework Arrangement was agreed between Iceland, Greenland and Norway on the conservation and management of the Iceland, east Greenland and Jan Mayen capelin stock in June 2018. Under the framework, there are annual Coastal State consultations following which an Agreed Record for the conservation and management of the capelin stock for the next fishing season is adopted. In accordance with scientific advice which advised zero catch there has been no fishery for capelin in winter 2019/2020 (MFRI, 2019). Under the new Framework Arrangement from this year 2021 the fishing season shall stop fishing during the summer when the stock is mixed in terms of size, age and maturity. Faroese fisheries minister and the Icelandic one review the terms of the agreement annually, although, Faroes has their own mechanism to enforce fisheries, when Faroes vessels fish in Icelandic waters they have the commitment to follow the Icelandic regulation. Further, there is a tight cooperation between the Faroese Fisheries Inspection, which is responsible for monitoring and inspecting catches and landings of individual vessels and the weighing-in of catches, and the Icelandic Coast Guard

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

ICES provide annual stock assessments; MFRI provide updated advice based on acoustic surveys to form the basis for final TAC's. This process is not internationally peer reviewed prior to the release of MFRI advice. Among the reasons for using this process is the need for fast advice once survey results are available as ICES's ACOM procedure is more time consuming. The NWWG recommended that a fast track workflow based on online meetings is established if possible. The coastal states evaluated this recommendation in 2017 and concluded that the current regime for setting intermediate and final TAC should be maintained.

ACOM translates ICES science into advice on the sustainable use and protection of marine ecosystems. ACOM responds to requests for advice from ICES member countries, international commissions and organizations, and fisheries and ecosystem management bodies. Advice is based on the precautionary principle and the ecosystem approach, conforming to the management objectives of those authorities. There is also extensive cooperation between MFRI and marine research institution in other coastal states in the North Atlantic on pelagic species, including capelin. To increase transparency and opportunities for the public and stakeholders to participate in policy making, regulation and public decision-making a webbased Consultation Portal was opened in 2018. Of relevance to this fishery, it includes a consultation on the draft Regulation on the Fisheries Consultation Committee published by the Ministry of Industries and Innovation. Therefore, there is a consultation process through which fishery stakeholders are engaged in decision-making

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

The Transparent Assessment Framework (TAF) is a new framework to organize all ICES stock assessments. TAF is an online open resource of ICES stock assessments for each assessment year. All data input and output are fully traceable and versioned. Further, ICES expert groups (e.g. NWWF), study groups, and workshops address many diverse issues of the marine ecosystem. Groups are composed of nationally nominated experts and may also include additional expertise to ensure the highest quality,



peer-reviewed science. Expert groups are assigned Terms of Reference (ToRs) for their work by their parent committee: The Science Committee (SCICOM) or Advisory Committee (ACOM).

Therefore, the decision-making process is transparent, with processes and results publicly available.

References

ICES. 2020. North Western Working Group (NWWG). Draft Report. ICES Scientific Reports. 2:51. 431 pp. http://doi.org/10.17895/ices.pub.6051 Publication of the full report is expected end 2020.

Anon. 2015. Agreed Record of Conclusions of Coastal State consultations on the management of the capelin stock in the Iceland–East Greenland–Jan Mayen area. Reykjavík, Iceland. 7–8 May 2015. ICES. 2015. Report of the Benchmark Workshop of Icelandic Stocks (WKICE), 26–30 January 2015, ICES Headquarters, Copenhagen, Denmark. ICES CM 2015/ACOM:31. 325 pp. https://doi.org/10.17895/ices.pub.5679. ICES. 2018. Advice basis. In Report of the ICES Advisory Committee, 2018. ICES Advice 2018, Book 1, Section 1.2. https://doi.org/10.17895/ices.pub.4503. ICES. 2019a. North-Western Working Group (NWWG). ICES Scientific Reports, 1:14. http://doi.org/10.17895/ices.pub.5298. ICES. 2019b. Preliminary cruise report: Acoustic assessment of the Iceland–East Greenland–Jan Mayen capelin stock in autumn 2019 (Ad hoc). ICES Scientific Reports, 1:81. 8 pp. http://doi.org/10.17895/ices.pub.5680.

Transparent Assessment Framework (ices.dk)

Links	
MARINTRUST Standard clause	1.3.1.1, 1.3.1.2
FAO CCRF	7.2, 7.3.1, 7.4.4, 12.3
GSSI	D.1.01, D.4.01, D2.01, D1.07, D1.04,

M2	Surveil	lance, Control and Enforcement - Minimum Requirements	
	M2.1	There is an organisation responsible for monitoring compliance with fishery laws and	Yes
		regulations.	
	M2.2	There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.	Yes
	M2.3	There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.	Yes
	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.	Yes
		Clause outcome:	PASS

#### Evidence

#### M2.1 There is an organisation responsible for monitoring compliance with fishery laws and regulations

Faroese vessels are issued with a fishing licence which specifies the details of fishing activities (catch & area limitations and gear requirements) in which the vessel is permitted to participate, as well as outlining requirements for reporting of catch data and information on landings or transshipments.

All vessels larger than 15 GT must maintain a daily log of their activities in an authorised catch logbook which is issued for this purpose, recording data for each set or haul, and they must also have satellite vessel monitoring systems (VMS) in both national and international waters.

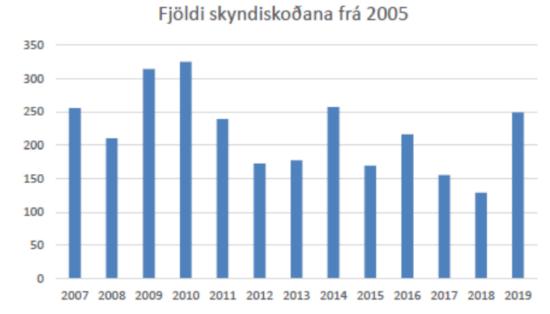


The Faroese Fisheries Inspection is responsible for monitoring and inspecting catches and landings of individual vessels and the weighing-in of catches. This includes both on board inspection, monitoring of transshipments and inspection of landings in port.

Further, Icelandic legislation states that all fishing vessels in Icelandic waters must keep a fishery logbook. Birds and mammals caught in Icelandic fishing gear are to be reported and recorded. Each Fishery logbook is returned to the Icelandic Directorate of Fisheries. Reports are then sent to MFRI where the information is used in their scientific work. In addition to the Individual Transferable Quota (ITQ) system, Icelandic fisheries management includes many other management measures such as area and fishing gear restrictions to ensure the fishery is targeting Capelin and other catches are reduced. Regulations apply for all the vessels targeting Capelin in Icelandic waters consequently it is applicable for Faroes vessels too. Therefore, there is an organisation responsible for monitoring compliance with fishery laws and regulations.

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

The Fisheries Directorate publish a comprehensive summary of suspected offenses recorded during maritime surveillance and the enforcement action subsequently taken in their Annual Report (Fiskistofa Annual Report 2019).



The Icelandic Coast Guard also provided comprehensive information to on surveillance under-taken and infringements detected. The number of inspections undertaken in 2019 were higher than 2018 (figure 1).

**Figure 1.** Number of inspections by the Coast Guard from 2005 (Source: Icelandic Coast Guard and Surveillance 2 report SAIG 2019).

Air surveillance by the traditional aerial resources (aeroplanes/helicopters) was lower than previous years but in 2019, for the first time a drone was used, and overall surveillance activity was very much higher than in previous years. In relation to inspection of foreign vessels, as there was no capelin fishery in 2019, no Greenland, Faroese or Norwegian capelin fishing



vessels were inspected. However, each country is responsible to report any possible infrigment recorded by their own enforcement system.

Infringements detected by the Coast Guard in 2019 were shown in their annual report being basically infringements related to registration of the crew or related paperwork. A total of 28 potential infringements were detected which is like previous years, most relating to fishing activity, licenses and VMS.

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

Since 1997 Faroese fisheries policy has limited the size of the fishing fleet (in terms of number of vessels) to the 1996 level, although increasing capacity of individual vessels has meant that the effective fleet size has increased. Fishing effort is primarily limited by annual quotas. There is a high level of compliance in Icelandic fisheries and in general in the capelin fishery. In Iceland violations are subject to sanctions which have been demonstrated to provide an effective deterrence against future violations. Misreporting is subject to strict penalties. The relatively few cases of illegal landings, small estimated discarding and the number of violations of gear regulations and area closures demonstrate that the sanctions that are in place. The high probability of being apprehended if engaging in illegal activities do form an effective deterrence (SAI Global 2017). In Iceland where the highest removals (80%) take place, the Directorate of Fisheries (DOF, Fiskistofa) monitors all reporting of fishing areas, gear and catches, and regularly places observers on board fishing vessels. Observers from DOF frequently watch over landings and the weighing of catches. Weighing methods are checked regularly, both in Iceland and abroad where landings of capelin takes place. In 2015, inspectors from the Directorate spent 1,370 days at sea on fishing trips; the Coastguard conducted 169 boardings. There is no evidence of major non-compliance or systematic non-compliance.

Further, the North-East Atlantic Fisheries Commission (NEAFC), in which the Norway actively participate, has comprehensive port state measures to tackle IUU fishing under the NEAFC Control Scheme, monitoring IUU activity in the zones of Contracting Parties, as well as in international waters. There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.

## 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.

All vessels must maintain a daily log of their activities in an authorised catch logbook, recording data for each set or haul, and they must also have satellite vessel monitoring systems (VMS) in both national and international waters.

The Fisheries Directorate publish a comprehensive summary of suspected offenses recorded during maritime surveillance and the enforcement action subsequently taken in their Annual Report (Fiskistofa Annual Report 2019). Surveillance of the pelagic fisheries remains at same levels of enforcement and the Coast Guard takes action at any infringement reported.

Although inspection procedures do utilise warnings and can implement on the-spot fines or confiscations in practice reports are generally filed with the police and prosecutions occur through the court system. In the last report form (2019) posted by the Icelandic Coast Guard no violations were described by any vessel, independently if the flag, targeting Capelin in the Icelandic EEZ.

Therefore, as mentioned, Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS. R2, R8

References



Fiskistofa Annual Report 2019. http://www.fiskistofa.is/umfiskistofu/arsskyrsla-2016/ Surveillance Section: http://www.fiskistofa.is/media/arsskyrslur/5.-kafli-Eftirlit.pdf Enforcement Section: http://www.fiskistofa.is/media/arsskyrslur/8.-kafli-medferd-mala-.pdf

Polonio, V., Lassen H., and Donnelly, C. 2019. ISF Iceland capelin. Second Surveillance Report. SAI Global. 14 October 2019. https://fisheries.msc.org/en/fisheries/isf-iceland-capelin/@@assessments

https://www.regjeringen.no/contentassets/9d2fd327c6fc4567b6476c2a71ae24a4/2018-capelin-frameworkarrangement-london-21-june.pdf

http://www.fiskistofa.is/veidar/aflaheimildir/aflahlutdeildalisti/

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.

Species Name		Name	Capelin ( <i>Mallotus villosus</i> )	
<b>A1</b>	Data 0	Collection - M	inimum Requirements	
AT	A1.1	Landings da	ta are collected such that the fishery-wide removals of this species are known.	Yes
A1.2 Sufficient additional		Sufficient ac	ditional information is collected to enable an indication of stock status to be estimated.	Yes
			Clause outcome:	PASS

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

Data from several surveys (fishery-independent) and landings data (fishery-dependent) are available to ICES and MFRI. Information about the landings of all vessel targeting Capelin in Icelandic fishing grounds is collected by the Icelandic Directorate of Fisheries (DOF). They have access to both landings in harbours (the official landing) and registered catch in the digital logbook kept by all the vessels. Samples record length, weight, age (from scales), sex, maturation, and weight of sexual organs. Information from samples is then used along with total landings and logbook data to generate landings composition estimates. Similar data are collected by other States which prosecute the fishery, although the Icelandic catch represents the largest majority. Discards are considered negligible: there is no discarding of capelin and there are no reported cases of slippages in the capelin fishery in Iceland.

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

Apart from landings the acoustic surveys carryout every year take a wide biological sampling to understand the dynamics of Capelin stock in the area. In each acoustic survey biological information is collected. In the last report the followed information was reported:

Pelagic trawl: Total length and weight of up to 100 individual capelin fish was measured for a subsample from the catch at each of 25 pelagic trawl stations. Also, sex and maturity were estimated visually and the gonads from maturing capelin were weighted. Age was estimated from otoliths. Stomachs of 10 capelin were preserved on each station. Also tissue samples were taken from 10 induvial at each station for isotope and genetics analysis. Onboard Arni, a fat content from up to 10 individuals at size of 15 cm or more was measured with fatmeter at every trawl station.

WP2 zooplankton net: Zooplankton was sampled by WP2 nets at depths down to 50 and 200 m at 60 stations at same location as CTD measurements

Bongo nets: Macro-zooplankton was sampled by Bongo nets at tow depths of the trawl at every second trawl station where capelin was caught, and conditions allowed. Further Bongo samples were sampled diagonally down to 200 m at chosen transects and at targeted depths based on acoustic observations. In total 27 bongo samples were collected.

eDNA: Onboard Arni, eDNA samples were filtered from seawater at various depths at 29 locations to facilitate the development of methods for screening for capelin DNA in the seawater samples.

Environmental measurements: Conductivity, Temperature and depth (CTD) measurements were made at 68 locations and on Árni surface temperature and salinity were also measured continuously during the survey.



Therefore, additional information is collected to enable an indication of stock status to be estimated.

References

Bardarson, Jonsson, Heilman and Jansen. 2020. Preliminary cruise report: Acoustic assessment of the Iceland-East Greenland-Jan Mayen capelin stock in autumn 2020 (Ad hoc). ICES Scientific Reports. 2:109. 9 pp. <u>http://doi.org/10.17895/ices.pub.7597</u>

ICES. 2020. Capelin (Mallotus villosus) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, cap.27.2a514. https://doi.org/10.17895/ices.advice.5890.

EIIIKS		
MARINTRUST Standard clause	1.3.2.1.1, 1.3.2.1.2, 1.3.2.1.4, 1.3.1.2	
FAO CCRF	7.3.1, 12.3	
GSSI	D.4.01, D.5.01, D.6.02, D.3.14	

A2	Stock A	ssessment - Minimum Requirements	
AZ	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
		Clause outcome:	PASS

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.

MFRI publish advice each June, the basis of the TAC for summer and autumn seasons. Advice for the most important season (Jan-Mar) is based on estimates, using acoustic sonars, of the stock of mature capelin migrating to the spawning areas South-West of Iceland. These estimates are made in December-January and may be revised later. The ICES Expert Group in the assessment area is the North-Western Working Group (NWWG). This group assesses biomass, abundance, and fishing mortality of non-straddling fish stocks with information being used as a basis for providing advice to fisheries managers and other stakeholders. The last benchmark assessment was undertaken in 2015 (ICES Report on the Benchmark Workshop of Icelandic Stocks (WKICE) 2015). 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.

During the benchmark assessment a Blim of 150,000 tonnes SSB was defined. No other reference points are defined for this stock. The objective of the Harvest Control Rule (HCR) for the stock is to leave at least 150,000 tonnes (= Blim) for spawning (escapement strategy). In the preliminary results of 2020, the total number of capelin amounted to 162 billions whereof the 1-



group was about 140.6 billions. The total estimate of 2 group capelin was about 20 billions. The total biomass estimate was 1,078,000 tonnes of which about 406,000 tonnes were 2 years and older. About 0.6 % in numbers of the 1-group was estimated to be maturing to spawn, about 67.5 % of the 2 year old and 99.1 % of the 3 year old capelin appeared to be maturing. This gives about 344,000 tonnes of maturing 1 - 4 year old capelin

**A2.3** The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status. In the last report of November 2020, ICES advised that when the harvest control rule agreed in 2015 by the Coastal States is applied, the initial TAC for the fishing season July 2021–March 2022 should be 400,000 tonnes. Therefore removals are considered in the stock assessment and used for defining the current situation of the stock.

A2.4 The assessment is subject to internal or external peer review.

The Transparent Assessment Framework (TAF) is a new framework to organize all ICES stock assessments. Using a standard sequence of R scripts, it makes data, analysis, and results available online, and documents how the data were pre-processed. Among the key benefits of this structured and open approach are improved quality assurance and peer review of ICES stock assessments.

Further, ICES expert groups (e.g. NWWF), study groups, and workshops address many diverse issues of the marine ecosystem. Groups are composed of nationally nominated experts and may also include additional expertise to ensure the highest quality, peer-reviewed science. Expert groups are assigned Terms of Reference (ToRs) for their work by their parent committee: The Science Committee (SCICOM) or Advisory Committee (ACOM). MFRI is a government institute under the auspices of Iceland's Ministry of Industries and Innovation.

In addition, MFRI conducts various marine and freshwater research and provides the Ministry with scientific advice based on its research. MFRI is leading in marine and freshwater research in Icelandic territories and the arctic, providing peer reviewed advice on sustainable use and protection of the environment with an ecosystem approach by monitoring marine and freshwater ecosystems. The assessment is subject to internal or external peer review

A2.5 The assessment is made publicly available.

ICES and MFRI publish their advice annually. All the information is publicly available in their websites.

References

1 to be

ICES. 2020. Capelin (*Mallotus villosus*) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, cap.27.2a514. https://doi.org/10.17895/ices.advice.5890.

Bardarson, Jonsson, Heilman and Jansen. 2020. Preliminary cruise report: Acoustic assessment of the Iceland-East Greenland-Jan Mayen capelin stock in autumn 2020 (Ad hoc). ICES Scientific Reports. 2:109. 9 pp. <u>http://doi.org/10.17895/ices.pub.7597</u>

Singh, W., Bárðarson, B., Jónsson, S.Þ., Elvarsson, B., Pampoulie, C., 2020 When logbooks show the path: Analyzing the route and timing of capelin (Mallotus villosus) migration over a quarter century using catch data. Fisheries Research. 6pp https://doi.org/10.1016/j.fishres.2020.105653

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



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169,520 tonnes.	
Therefore, there were no capelin fisheries or landings in the fishing season 2018/2019. This recommendation was in accordan	
with existing HCR and management plan between Iceland, Norway and Greenland.	
References	
Anon. 2015. Agreed Record of Conclusions of Coastal State consultations on the management of the capelin stock in the	
East Greenland–Jan Mayen area. Reykjavík, Iceland. 7–8 May 2015.	Iceland
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ICES. 2019. Capelin (Mallotus villosus) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grour	Icelan
Greenland, Jan Mayen area). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, cap.2	nds, Ea



ICES. 2020. Capelin (Mallotus villosus) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, cap.27.2a514. https://doi.org/10.17895/ices.advice.5890

Standard clause 1.3.2.1.3	
Links	
MARINTRUST Standard clause	1.3.2.1.3, 1.3.2.1.4
FAO CCRF	7.2.1, 7.22 (e), 7.5.3
GSSI	D3.04, D6.01

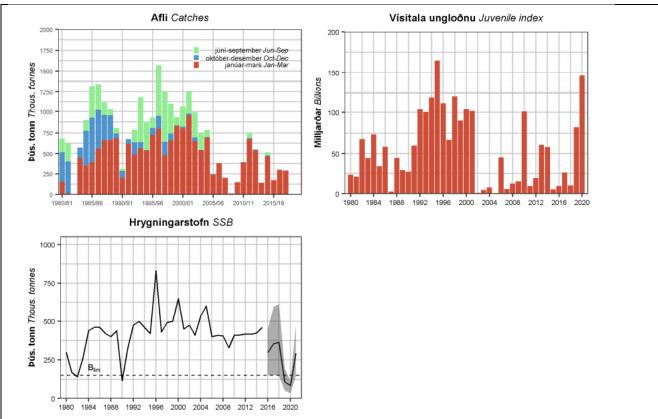
A4	Stock Status - Minimum Requirements		
~~	A4.1	The stock is at or above the target reference point, OR IF NOT:	Yes
		The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT: The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.	
		Clause outcome:	PASS
A4.1 Th	ne stock	is at or above the target reference point, OR IF NOT:	

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:

The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.

According to an acoustic survey in latter half of January 2020, the SSB was estimated 650,000 tonnes, combined. The harvest control rule (HCR) aims at leaving with 95% probability at least 150,000 tonnes (Blim) of mature capelin at the time of spawning in March when accounting for predation. Model projections show that with maximum catch of 127, 300 tonnes the HCR expectations will be achieved. Therefore, in the report of February 2021, MFRI advises that when the agreed management plan is applied, catches in 2020/2021 should be no more than 127,300 tonnes. (figure 2).





**Figure 2.** Catches, acoustic index for immatures from autumn surveys, and SSB at spawning time after harvesting (with 90% confidence limits since 2016). The SSB value for 2016 and onwards is not directly comparable to historical values because it is based on different assumptions about natural mortality. Source MRFI2021.

Therefore, because ICES and MFRI have not advised zero catch as in previous years and following the more current MFRI advise the stock is above Blim.

References

ICES. 2020. Capelin (Mallotus villosus) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, cap.27.2a514. https://doi.org/10.17895/ices.advice.5890.

Singh, W., Bárðarson, B., Jónsson, S.Þ., Elvarsson, B., Pampoulie, C., 2020 When logbooks show the path: Analyzing the route and timing of capelin (Mallotus villosus) migration over a quarter century using catch data. Fisheries Research. 6pp https://doi.org/10.1016/j.fishres.2020.105653

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.

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

#### Evidence

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

According to the MSC assessment team (SAI Global 2017) several ETP species have the potential to interact with this fishery in the assessment area including Belugas (*Delphinapterus leucas*), Blue whale (*Balaenoptera musculus*), Northern right whale (*Eubalaena glacialis*), White-beaked dolphin (*Lagenorhynchus albirostris*), Atlantic Puffin (*Fratercula arctica*), Kittiwake (*Rissa tridactyla*), Brunnich Guillemot (*Uria lomvia*) and the Common Guillemot (*Uria aalge*). Legislation in Iceland regarding ETP species is guided by Legislation No. 557/2007; obliging fishers to complete the logbook with record of any interaction or catch of birds or other endangered species. Each Fishery Logbook is returned to the Directory of Fisheries (DOF) periodically. Reports are then sent to MFRI where the information is used in their scientific work. There are no official reports of impacts of the Icelandic capelin fishery on ETP species. MFRI are not aware of any interactions resulting in serious injury or mortality to humpback whales. Interaction between fishers and mammals are regulated by the Icelandic Fisheries Management and Nature Conservation Act. No. 47/1971. Whaling is controlled by the International Whaling Commission (IWC) and the North-Atlantic Marine Mammal Commission (NAMMCO).

The indirect effects of the fishery on ETP species are unlikely to be beyond acceptable limits according to the information presented in the MSC report (SAI Global 2017), although there is a lack of information on how capelin could affect the feeding patterns of seabirds. Whales feeding needs have been included in the predation models, however, seabirds are still not formally included.

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

Icelandic legislation states that all fishing vessels must keep a fishery logbook. Birds and mammals caught in Icelandic water by vessels operating with all fishing gears are to be reported and recorded in the fishery logbook. The information provided in the logbook along with the expedition surveys carried out by MFRI are used to provided scientific work related to the impacts on ETPs populations. There is no substantial evidence that the fishery has a significant negative effect on ETP species. The impact that the pelagic fisheries, either purse seine or midwater pelagic trawl, have on ETP species are negligible. The fishing operation itself can be considered as a strategy to minimize impact on whales and it shown in the DoF databsse where reported catches are insignificant. Information available from different sources such as: expert opinion and results of research project from scientific institutions in Iceland (MFRI); published literature in relation to Capelin fishery and ETPs species in the area; direct information from the fishery (skippers); information from ENGOs and information from different committees (UNEP, DoF, CMS and NAMMCO) show that the interactions are negligible. NAMMCO reports of marine mammals coming from the Icelandic fleets, it can be seen that there are no catches from the Capelin fleet.



The NGO AWI has some quantitative data from sightings and an University Research project has been undertaken with short term eyewitness from skippers in Icelandic waters and data have shown the number of interactions within the fishery was very low, therefore the mortality was reported negligible by this fishery.

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

Although interactions with ETPs are considered nearly nill, there are measures in place to protect these species as protected areas, seasonal closure of the fisheries, release of fish species, mandatory report of all landings, discard ban, observer programme to further understand possible interactions, control and monitoring that may enforce any infringement of the regulations in place.

#### References

Valdimarsson, H., Astthorsson, O. S., and Palsson, J. 2012. Hydrographic variability in Icelandic waters during recent decades and related changes in distribution of some fish species. ICES Journal of Marine Science, doi:10.1093/icesjms/fss027.

Víkingsson. G. A., Elvarsson, B. Þ., Ólafsdóttir, D., Sigurjónsson, J., Chosson, V., and Galan, A. 2014. Recent changes in the diet composition of common minke whales (Balaenoptera acutorostrata) in Icelandic waters. A consequence of climate change? Marine Biology Research, 10: 138–152.

Polonio, V., Lassen H., and Donnelly, C. 2019. ISF Iceland capelin. Second Surveillance Report. SAI Global. 14 October 2019. https://fisheries.msc.org/en/fisheries/isf-iceland-capelin/@@assessments

Polonio, V., Nichols. J., Danielsson, A. 2017. ISF Iceland Capelin. Public Certification Report. <u>https://fisheries.msc.org/en/fisheries/isf-iceland-capelin/@@assessments</u>

ICES Ecosystem Overviews Icelandic Waters Ecoregion. 2017. DOI: 10.17895/ices.pub.3107

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

E2 Impacts on Habitats - Minimum Requirements			
12	<b>F2.1</b> Potential habitat interactions are considered in the management decision-making process. Yes		Yes
	F2.2	There is no substantial evidence that the fishery has a significant negative impact on physical	Yes
		habitats.	
	F2.3	If the fishery is known to interact with physical habitats, there are measures in place to minimise	Yes
		and mitigate negative impacts.	
		Clause outcome:	PASS

#### Evidence

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

Detailed maps of the seabed of the areas where this fishery operates are available through the EMODnet sea habitats project. The sea bottom topography around Iceland is generally irregular, with hard rocky bottom prevailing in most areas; in some cases, the shelf around Iceland is cut by many sub-sea canyons. At present large coral areas exist on the Reykjanes Ridge and off SE-Iceland. Other known coral areas are small. Many of the cold-water coral areas that have been surveyed have already been destroyed by bottom trawls. Currently five areas with relatively undisturbed cold-water corals have received full protection; several other areas are under consideration for further protection. As in other pelagic fisheries, no direct effects on the sea floor or benthic communities are known to occur in the Icelandic capelin fishery; 98% of pelagic catches are



captured by purse-seines. Threatened and declining species in the Icelandic Waters ecoregion, according to OSPAR are analysed periodically in the ICES ecosystem overview. Therefore, potential habitat interactions are considered in the management decision-making process.

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

In Iceland where the highest removals take place, the Directorate of Fisheries Monitor all reporting of fishing areas, gear and catches, and regularly places observers on board fishing vessels. Compliance with laws and regulations is actively monitored, through a regime which includes observer programmes and VMS analyses to ensure no fishing is undertaken in closed or protected areas. As in other pelagic fisheries, no direct effects on the sea floor or benthic communities are known to occur in the Icelandic capelin fishery. 98% of catches are captured by purse-seines (ICES 2017). There is no evidence of major non-compliance or systematic non-compliance. There is no substantial evidence that the fishery has a significant negative impact on physical habitats.

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

Iceland maintain three different types of area closures in its fishing grounds applied for all the vessels targeting commercial species: Real Time, Permanent, and Temporary.

• Real Time and Temporary area closure: A quick closure system has been in force since 1976 to protect juvenile fish. Fishing is prohibited for at least two weeks in areas where the number of small fish (< 14 cm) measured exceeds 20% of the catch. If, in a given area, there are several consecutive quick closures the Minister can close the area for a longer time.

• Permanent area closure: Some closures are temporary; others have been closed for fishery for decades. Seven designated Nature Reserves and one Conservation Area exist along the Icelandic coast and off Surtsey Island totalling 3,507 km2 Iceland has 39 Marine Protected Areas (OSPAR definition) which are closed yearround or seasonally or have restricted access. If the fishery is known to interact with physical habitats, there are measures in place to minimise and mitigate negative impacts.

References

ICES. 2017. Capelin (Mallotus villosus) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area). ICES Advice on fishing opportunities, catch, and effort. Arctic Ocean, Barents Sea, Celtic Seas, Faroes, Greenland Sea, Icelandic Waters, Norwegian Sea and Oceanic Northeast Atlantic Ecoregions. http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/cap.27.2a514.pdf

Polonio, V., Nichols. J., Danielsson, A. 2017. ISF Iceland Capelin. Public Certification Report. https://fisheries.msc.org/en/fisheries/isf-iceland-capelin/@@assessments

ICES Ecosystem Overviews Icelandic Waters Ecoregion. 2017. DOI: 10.17895/ices.pub.3107

#### EMODnet Central Portal: http://www.emodnet.eu/

Links	
MARINTRUST Standard clause	1.3.3.2
FAO CCRF	6.8
GSSI	D.2.07, D.6.07, D3.09



<b>F3</b>	Ecosystem Impacts - Minimum Requirements		
гэ	<b>F3.1</b> The broader ecosystem within which the fishery occurs is considered during the management		Yes
		decision-making process.	
	F3.2	There is no substantial evidence that the fishery has a significant negative impact on the marine	Yes
		ecosystem.	
	F3.3	If one or more of the species identified during species categorisation plays a key role in the marine	Yes
		ecosystem, additional precaution is included in recommendations relating to the total permissible	
		fishery removals.	
		Clause outcome:	PASS

#### Evidence

## F3.1 The broader ecosystem within which the fishery occurs is considered during the management decision-making process.

The design of management measures takes extensive account of the biology of the species. For example, as a precautionary measure to protect juveniles, all fishing with pelagic trawl has been banned in the Icelandic waters where juveniles are generally found, either separately or mixed with the adults. From 2021 the fishing season will begin on October 15th (instead of June 20th) to stop fishing when capelin is mixed in terms of size, age and maturity. As before the season will end on April 15th. This agreement allows for the protection of recruitment and is designed to guarantee Bescapement at the beginning of the followed fishing season. Capelin stock has a precautionary management plan in place; implementing appropriate reference points to manage the exploitation rate in the fishery. The fishery management plan considers the uncertainty in the assessment model and remaining tonnes of spawning stock. Final TAC's (when allocated), which consider uncertainty in surveys and predation from cod, haddock, and saithe on capelin, are set at a level that will generate an SSB which has a 95% probability of being above Blim. Also, ecosystem needs uncertainties are considered when models are run. This whole strategy has been reviewed by ICES and it is considered to be precautionary. The broader ecosystem within which the fishery occurs is considered during the management decision-making process.

#### F3.2 There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.

There is a high level of compliance in Icelandic fisheries and in general in the capelin fishery. Capelin is an important forage fish and its dynamics are expected to have implications on the productivity of their predators. The importance of capelin in East Greenlandic waters is well documented; effort has also been increased considerably during autumn surveys towards evaluation of capelin role in the ecosystem e.g. by research on feeding of capelin, estimates of prey availability, predator distributions and environmental monitoring. In Icelandic waters, capelin is the main single item in the diet of Icelandic cod, a key prey to several species of marine mammals and seabirds and important as food for several other commercial fish species. However, there is no evidence that Capelin fishery with the current HCRs affect the populations of these species.



To prevent the removal of juvenile and spawning fish Iceland implements various technical measures such as mesh size regulation, realtime, temporary and permanent area closures. ICES (2017) states: 'In the (Icelandic) pelagic fisheries catch other than the targeted species is considered rare.' There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.

## 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 ecosystem where this fishery operates is relatively well described. ICES provide a detailed review of the Icelandic Waters Ecoregion including information on main oceanographic features, productivity, major regional pressures, human activities and state of the ecosystem components.

A gadget model (a type of multispecies model) has been developed to understand the interactions between capelin, cod and shrimp in Icelandic waters. Capelin's lifecycle and migration pattern is an important energy transfer in the ecosystem. Capelin feed mainly on copepods and euphausiids in waters north of Iceland and then move to Icelandic waters where it is one of the most important prey for many species, e.g. cod, haddock, saithe, Greenland halibut, seabirds, and marine mammals. The key role of capelin as food for many predator fish is reflected for instance by the high correlation between mean weight of cod in Icelandic waters and biomass of adult capelin. The combined annual removal of capelin by all its natural predators might range between roughly 2 and 3.8 million tonnes. These direct effects are likely to cascade through the ecosystem, although the extent of these changes is beyond our predictive abilities.

The HCR incorporates uncertainty in stock size estimates and model estimation of predation by cod, haddock and saithe on capelin. Ecosystem impacts of capelin removals are factored into scientific advice and management decisions through this harvest strategy. Due to these ecosystems needs and the role of capelin as a Low Trophic Level (LTL) species more effort is being realised to reduce uncertainties in models and to include as much as variation as possible to reduce the impact in keys structures of the ecosystems. This is achieved using a complex model to estimate the requirements of the three main demersal predators on capelin: cod, haddock and saithe. Predation by seabirds are not included as MFRI have defined that they do not overlap with the fishery. The extent of mammal interaction in the fishery is uncertain; a research program with tagged humpback whales is underway.

Therefore, it can be said that 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 total permissible fishery removals.

References

ICES, 2010b. Report of the North-Western Working Group (NWWG), 27 April - 4 May 2010, ICES Headquarters, Copenhagen (ICES CM 2010/ACOM:07). 751 pp

ICES 2010. Capelin in Subareas V and XIV and Division IIa west of 5°W (Iceland–East Greenland–Jan Mayen area), 4 pp

Links	
MARINTRUST Standard clause	1.3.3.3
FAO CCRF	7.2.2 (d)
GSSI	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)	Icelandic Directorate of fisheries (DoF), Faroes Ministry of Fisheries and European Commission (EU)
Main species	Capelin ( <i>Mallotus villosus</i> )
Fishery location	FAO 27 Atlantic Northeast. ICES in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)
Gear type(s)	Purse seine / Pelagic trawl

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

The capelin fishery is well reputed and based on robust scientific advice from ICES and national marine research institutes. Besides, the precautionary management is demonstrated by the zero catch for the 2019/20 fishing seasons, and for several restrictions to fishing given for by catch of juvenile fish, spawners and ETP species. Some other regulations exist to punish illegal activities. There is also a consultation process that includes stakeholders in decision making.

It is important to notice that there is an obligation of recording interactions with ETP species, the data is submitted to the authorities and scientific entities. However, there is no evidence of its use to study the possible impacts of the fishery on ETP species via by catch. Based upon evidence and consults to experts it is highly possible that effectively there is no significant negative impact of the fishery on these species, but this need to be demonstrated



based on the bulk of available information; this can be a goal to achieve in next assessments. Another aspect to clarify in coming years is the possible impact of the fishery on the feeding patterns of whales and seabirds.

Regarding the latter, in clause F1.2 there is two apparent contradictory sentences that are evidence of the uncertainty of the impact of the fishery on ETP species: "There is no substantial evidence that the fishery has a significant negative effect on ETP species. The impact that the pelagic fisheries, either purse seine or midwater pelagic trawl, have on ETP species are negligible".

CB response: The PR has stated that one sentence in F1.2 ETP can be contradictory but I do not believe so as it is basically the same meaning. That the fishery does not have any evidence of negative impacts on ETPs species.

#### **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
A – Fishery Assessment			
1. Has the fishery assessment been fully completed, using the recognised MarinTrust fishery assessment methodology and associated guidance?	Х		
2. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?	Х		
3. Are the scores in the following sections accurate (i.e. do the scores reflect the evidence provided)?			
Section M - Management	Х		
Category A Species	Х		
Category B Species			
Category C Species			
Category D Species			
Section F – Further Impacts	Х		

#### **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?

Scoring agreed

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

Scoring agreed

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

Scoring agreed

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



Scoring agreed

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

Scoring agreed

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

N.A.

3C. Are the "Category C Species" scores clearly justified?

N.A.

3D. Are the "Category D Species" scores clearly justified?

N.A.

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

Scoring agreed

Optional: General comments on the Peer Review Draft Report