

Public Comment Draft Report

FAROESE PELAGIC ORGANIZATION (FPO) ICELANDIC CAPELIN FISHERY

Marine Stewardship Council fisheries assessments

Conformity Assessment Body (CAB)

Assessment team

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Faroe Islands Pelagic Organization (FPO)

Public Comment Draft Report

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2 Glossary

ACOM	(ICES) Advisory Committee
CPUE	Catch per unit effort
EEZ	Exclusive Economic Zone
ETP	Endangered, threatened and protected species
FAO	Food and Agriculture Organization of the United Nations
FCR	Fisheries certification Requirements
FPO	Faroese Pelagic Organization
ICES	International Council of the Sea
IGJM	Iceland, Greenland, Jan Mayen [capelin stock]
MFRI	Marine and Freshwater Research Institute
MSC	Marine Stewardship Council
PI	Performance indicator
PISG	Performance Indicator Scoring Guidepost
SG	Scoring Guidepost
SSB	Spawning stock biomass
TAC	Total allowable catch
UOC	Unit of Certification
VME	Vulnerable marine ecosystem
VMS	Vessel monitoring system

Stock assessment reference points

B_0	The (spawning) biomass expected if there had been no fishing (assuming recruitment as estimated through stock assessment).
B_{lim}	Spawning biomass limit reference point, sometimes used as a trigger within harvest control rules, or defined as the point below which recruitment is expected to be impaired or the stock dynamics are unknown
B_{msy}	Spawning Biomass at which the maximum sustainable yield is expected (sometimes expressed as SB_{msy})
B_{targ}	Spawning biomass target reference point
F_{lim}	Exploitation rate limit reference point, often taken as F_{msy} based on UNFSA
F_{msy}	Fishing mortality rate associated with the achieving maximum sustainable yield
F_{targ}	Fishing mortality target reference point
MSY	Maximum Sustainable Yield

3 Executive summary

This report provides information on the initial assessment of the FPO Icelandic capelin fishery against Marine Stewardship Council (MSC) Fisheries Standard. The report is prepared by DNV for the Faroese Pelagic Organization.

The assessment was carried out using MSC Fisheries Certification Process v2.2. For the assessment, the default assessment tree in Annex SA from the MSC Fisheries standard v2.01, changing PI 1.1.1 to PI 1.1.1-Alternative as capelin is a low trophic level species.

The assessment covers two UoAs targeting capelin (*Mallotus villosus*) with midwater trawlers and purse seiners in waters of Iceland. The UoA is also entitled to fish for capelin in the East Greenland and Jan Mayen fishing grounds (which hosts the same capelin stock) however to date that situation is not taking place, and at present the fishery is only taking part in Icelandic waters (this may change in the future but there is no forecast to this happening in the near future). The fishing season commences in February and lasts for a month.

The assessment process was initiated by the announcement on the MSC web-side on the 14.06.2021 and the off-site initial audit was conducted on the 18th, 19th, 23rd and 24th of August 2021, using Microsoft Teams online tool.

A comprehensive programme of stakeholder consultations was carried during the initial audit as part of this assessment, complemented by a full and thorough review of relevant literature and data sources.

A rigorous assessment of the MSC Principles and Criteria was undertaken by the assessment team and detailed and fully referenced scoring rationales are provided through the assessment tree scoring tables provided in chapter 7 of this report.

The Eligibility Date for this assessment is the date of publication of the Public Comment Draft Report.

The performance indicators and the pertaining scoring systems were evaluated, and it was judged that the fishery meets the requirements for MSC certification.

This initial assessment is based on the default assessment tree in MSC Standard v 2.01 annex SA. The fisheries attained a score of 80 or more against each of the MSC Principles and did not score less than 60 against any of the individual MSC Criteria. The scores of the three Principles are given in Table 1 below. The fishery achieved a score of above 80 against all scoring indicators. There are no conditions set for the fishery.

Scope of certification is up to the point of landing and chain of custody shall commence from point of sale/landing.

3.1 Main strengths and weaknesses

3.1.1 Main Strengths

- a. Principle 1 (Target stock)
 - i. Understanding of the general biology and population dynamic of the capelin stock is good
 - ii. The stock management plan is accepted by all three coastal states and the plan is effectively implemented
 - iii. Stock assessment methods are well developed
 - iv. Stock assessment based on acoustic surveys provides an accurate estimate of the stock status and the fishable biomass
- b. Principle 2 (Ecosystem impact)
 - i. Understanding of the fishery operation and gear performance is good allowing evaluation of catch and by-catch
 - ii. The fishery does not pose a risk the habitats because it is fishing pelagically
 - iii. Non target species are monitored through the landing obligation combined with inspection at landing
- c. Principle 3 (Management)
 - i. The fishery is subject to a well-established management system under close surveillance by the Icelandic authorities

3.1.2 Main Weaknesses

- a. Principle 1
 - i. No specific weakness related to Principle 1 has been identified. The model for setting TACs should be reviewed when more experience with the model has been collected. The debate on the importance of including predation by marine mammals and sea birds in the predation model for predicting the mature biomass from the survey results should resolved
- b. Principle 2
 - i. The ongoing debate on how important knowledge of marine mammal and sea bird predation is on the management model should be addressed
 - ii. Information on lack of bird catches should be verified
- c. Principle 3
 - i. No particular weakness has been identified

3.2 Draft determination

The principle scores are summarised below:

Table 1 Principle scores

Principle	Score UoA 1 (purse seine)	Score UoA 2 (midwater trawl)
Principle 1	88.3	88.3
Principle 2	92.0	92.0
Principle 3	94.8	94.8

The FPO Icelandic capelin fishery achieved a score of 80 or more for each of the three MSC Principles and did not score under 60 for any of the set MSC criteria.

The FPO Icelandic capelin fishery achieved a score of above 80 against all scoring indicators. There are no conditions (nor recommendations) set for this fishery.

Based on the review, analysis and evaluation of available data for the fishery presented in this report the assessment team did not identify any issues that prevent the fishery from continuing with the certification of the FPO Icelandic capelin fishery and the assessment team recommends the certification of the fishery.

4 Report details

4.1 Authorship and peer review details

4.1.1 Team members:

- a. Lucia Revenga (team leader/ chain of custody responsible):

Lucia Revenga is a marine scientist, specialized in Fisheries Biology who holds degrees in Marine Sciences and in Environmental Sciences. For 5 years she worked with TRAGSA for the Spanish General Marine Secretariat, conducting research on the biology and stock status of different species, such as bluefin tunas, skipjack tunas, albacores, mackerels, sardines, eels, prawns, Norway lobsters, halibuts. She has also taken part in oceanographic surveys focused on the search of vulnerable marine ecosystems. From 2011 to 2015 she worked for IFAPA (Institute for Research and Training in Fisheries) as a Fisheries biology teacher for fishers. She also conducted research in fishery local activities with the aim of increasing community awareness of the conservation of coastal ecosystems and encouraging sustainable fishing practices. From 2015 to 2020 she worked full time as an independent consultant, covering the roles of P2 assessor and team leader for different CABs and assessments. In 2020 she joined DNV as part of DNV MSC Fishery Global Unit.

Lucia's qualifications also meet the competence criteria defined in Annex PC for the Team-Leader and Chain of custody responsible:

- She has an appropriate university degree
- She has passed the MSC team leader training
- She has passed the MSC Traceability training module
- She has passed the MSC RBF training module
- She meets ISO 19011 training requirements
- She has undertaken two fishery assessments as a team member in the last five years, and
- She has experience in applying different types of interviewing and facilitation techniques and is able to effectively communicate with clients and various stakeholder groups.
- She has no conflicts of interest in relation to the fishery under assessment.

b. Hans Lassen (Fish stock assessment and biology/ Fishing impacts on aquatic ecosystems)

Hans Lassen is an independent consultant with a M.Sc. degree from Copenhagen University and a B.Sc. from Copenhagen business School. He is the author or co-author of more than 30 scientific papers in prime peer reviewed publications of fisheries related topics. He has more than 40 years experience with fish stock assessment, formulating and communicating scientific advice for fisheries. He has worked on fish stock assessments, estimating catch composition issues in fisheries, he has worked on cetacean surveys and ecosystem modelling, topics relevant to P1 and P 2. He was involved in all parts of the Greenland fisheries management system representing Greenland Fisheries Research institute. He has been a member of Danish delegations on fisheries negotiations, he has participated in quota allocation workshops, he took part in numerous consultation meetings with the fishing industry partly as scientific advisor and as head of advisory programme at ICES. He conducted regular meetings with RACs now ACs. and worked as consultant for EFCA on management issues, all relevant to P 3. He chaired a group that contributed to the EC review of the MGP programme: provided input to the 2002 reform of the CFP and been a member of a similar group that reviewed the Danish fisheries management system. He has participated since 2009 as team member in more than 25 MSC assessments and surveillance audits of North Atlantic and Baltic Sea including shrimp, pelagic and demersal fisheries.

Hans meets the competence criteria defined in Annex PC for the Team-member with expertise in Fish stock assessment and biology and Fishing impacts on aquatic ecosystems.

- He has an appropriate university degree;
- He has a Team leader ISO 19011:2011 certificate;
- He has passed the MSC training (Team leader/Fisheries auditor for FCR v1.3, v2.0 and v2.1)
- He has over 3 years experience in stock assessment techniques comparable with techniques used by the fishery under assessment
- He has over 3 years experience in the biology and population dynamics of the species with similar biology.
- He has over 3 years experience in research in the impact of fisheries on aquatic ecosystems
- He has a knowledge of a common language spoken by clients and stakeholders (Danish and Faroese) • has over two years fishery work experience in the country in the last 15 years and has conducted over two assignments in the country in which the fishery under assessment is based in the last 10 years;
- He has 5 years or more experience as a fishery policy analyst
- He has no conflicts of interest in relation to the fishery under assessment.

c. Geir Honneland (Fishery Management and Management and Operations/country knowledge)

Geir Hønneland holds a PhD in political science from the University of Oslo and an LL.M. in the law of the sea from the Arctic University of Norway. He has studied international fisheries management (with main emphasis on enforcement and compliance issues), international environmental politics and international relations in Polar regions for more than 25 years. He has been affiliated with the Fridtjof Nansen Institute in Oslo as PhD student and research fellow (1996-

2006), research director (2006-2014), director (2015-2019) and now adjunct professor. Among his fisheries-related books is *Making Fishery Agreements Work* (Edward Elgar, 2012; China Ocean Press, 2016). Before embarking on an academic career, he worked five years for the Norwegian Coast Guard, where he was trained and certified as a fisheries inspector. Geir has been involved in MSC assessments since 2009 and has acted as P3 expert in more than 50 full assessments and re-assessments, as well as a number of pre-assessments and surveillance audits. His experience from full assessments includes a large number of demersal, pelagic and reduction fisheries in the Northeast Atlantic, the North Pacific and Southern Ocean, including crustaceans, as well as inland, bivalve and enhanced salmon fisheries. In the Northeast Atlantic, he has covered the international management regimes in the Barents Sea, Norwegian Sea, North Sea, Skagerrak, Kattegat and the Baltic Sea, and the national management regimes in Norway, Sweden, Denmark, Iceland, Faroe Islands, Greenland, Finland, Russia, Poland, the UK, the Netherlands and Germany, as well as the EU level.

Geir is qualified as an MSC Team Leader (Fisheries Standard v2.0, Fisheries Certification Process v2.2) and Chain of Custody Auditor (v2.0) and has also passed the ISO 19011-2018 course as Lead Auditor – Management Systems Auditing. Full CV is available on request. He also meets the competence criteria defined in Annex PC for the Team-member with expertise in Fishery Management and Management and Operations/country knowledge.

- He has an appropriate university degree;
- He has a Team leader ISO 19011:2018 certificate;
- He has passed the MSC training (Fisheries auditor for FCR v1.3, v2.0 and v2.1)
- He has a knowledge of a common language spoken by clients and stakeholders
- He has over two years fishery work experience in the country in the last 15 years and has conducted over two assignments in the country in which the fishery under assessment is based in the last 10 years;
- He has 5 years or more experience as a fishery policy analyst
- He has no conflicts of interest in relation to the fishery under assessment.

4.1.2 Peer reviewers

Peer reviewers shortlisted for this fishery are:

- Andrew Brierley
- Giuseppe Scarcella
- Jo Gascoigne
- Neil Campbell

The Peer reviewers were shortlisted by the MSC Peer Review college and listed on the MSC website. A summary CV for each is available in the Assessment downloads section of the fishery’s entry on the MSC website. Since the initial audit took place as an offsite activity 3 peer reviewers of those mentioned above were chosen to review the Client and Peer Review Report.

4.2 Version details

Table 2 Fisheries program documents versions

Document	Version number
MSC Fisheries Certification Process	Version 2.2
MSC Fisheries Standard	Version 2.01
MSC Fisheries Assessment tree	Default as per MSC FS v2.01 with PI 1.1.1 Alternative (for low trophic level species).
MSC General Certification Requirements	Version 2.4.1
MSC Reporting Template	Version 1.2

5 Units of Assessment and Certification and results overview

5.1 Units of Assessment and Units of Certification

5.1.1 Units of Assessment

The fishery is, to the knowledge of the assessment team, within the scope of the MSC Fisheries standard according to the following determinations:

- The target species is not an amphibian, reptile, bird or mammal.
- The fishery does not use poisons or explosives.
- The fishery is not conducted under a controversial unilateral exemption to an international agreement.
- The client or client group does not include an entity that has been successfully prosecuted for a forced or child labour violation in the last 2 years.
- The client or client group does not include an entity that has been convicted for a shark finning violation in the last 2 years.
- The fishery has mechanisms for resolving disputes and disputes do not overwhelm the fishery.
- The fishery is not enhanced or based on an introduced species.

The Units of Assessment define the full scope of what is being assessed and includes the Unit of Certification and any other eligible fishers.

The Units of Assessment includes the target stock (s), the fishing method or gear type/s, vessel type/s and/or practices, and the fishing fleets or groups of vessels, or individual fishing operators pursuing that stock, including any other eligible fishers that are outside the Unit of Certification.

The Units of Assessment for this fishery assessment are specified below and are equal to the Units of Certification.

Table 3 Units of Assessment

UoA 1	Description
Species	Capelin (<i>Mallotus villosus</i>)
Stock	Capelin (<i>Mallotus villosus</i>) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area).
Fishing gear type(s) and, if relevant, vessel type(s)	Purse seine
Client group	Faroese Pelagic Organization (FPO)
Other eligible fishers	N/A
Geographical area	FAO area: 27 Common name of the body of water: North East Atlantic Local fisheries management area: Icelandic EEZ Stock region: Iceland and Faroes grounds, East Greenland, Jan Mayen area.
Management	Faroe Islands Government and Iceland Government
UoA 2	Description
Species	Capelin (<i>Mallotus villosus</i>)
Stock	Capelin (<i>Mallotus villosus</i>) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area).

Fishing gear type(s) and, if relevant, vessel type(s)	Midwater trawl
Client group	Faroese Pelagic Organization (FPO)
Other eligible fishers	N/A
Geographical area	FAO area: 27 Common name of the body of water: North East Atlantic Local fisheries management area: Icelandic EEZ Stock region: Iceland and Faroes grounds, East Greenland, Jan Mayen area.
Management	Faroe Islands Government and Iceland Government

5.1.2 Units of Certification

The Units of certification are the units entitled to receive the MSC certificate.

The proposed Units of Certification include the target stock (s), the fishing gear type(s) and, if relevant, vessel type(s) and the fishing fleets or groups of vessels or individual fishing operators pursuing that stock including entities initially intended to be covered by the certificate.

The proposed Units of Certification are provided in the Table below.

Table 4 Unit of Certification

UoC 1	Description
Species	Capelin (<i>Mallotus villosus</i>)
Stock	Capelin (<i>Mallotus villosus</i>) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)
Fishing gear type(s) and, if relevant, vessel type(s)	Purse seine
Client group	Faroese Pelagic Organization (FPO)
Geographical area	FAO area: 27 Common name of the body of water: North East Atlantic Local fisheries management area: Iceland EEZ Stock region: Iceland and Faroes grounds, East Greenland, Jan Mayen area
Management	Faroe Islands Government and Iceland Government

UoC 2	Description
Species	Capelin (<i>Mallotus villosus</i>)
Stock	Capelin (<i>Mallotus villosus</i>) in subareas 5 and 14 and Division 2.a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen area)

Fishing gear type(s) and, if relevant, vessel type(s)	Midwater trawl
Client group	Faroese Pelagic Organization (FPO)
Geographical area	FAO area: 27 Common name of the body of water: North East Atlantic Local fisheries management area: Iceland EEZ Stock region: Iceland and Faroes grounds, East Greenland, Jan Mayen area
Management	Faroe Islands Government and Iceland Government

5.1.3 Scope of assessment in relation to enhanced or introduced fisheries

Capelin is indigenous to the North Atlantic and has not been introduced. There is no enhancement for capelin

5.2 Assessment results overview

5.2.1 Determination, formal conclusion and agreement

The FPO Icelandic capelin fishery achieved a score of 80 or more for each of the three MSC Principles and did not score under 60 for any of the set MSC criteria. All Performance Indicators achieved a score above 80. There are no conditions nor recommendations for the fishery.

Based on the evaluation of the fishery presented in this report the assessment team recommends the certification of the FPO Icelandic capelin fishery for the Faroese Pelagic Organization.

5.2.2 Principle level scores

Table 5 Principle level scores

Principle	FPO Faroe Islands capelin fishery		ISF Iceland capelin fishery	
	UoA 1 Purse seine	UoA 2 Mid water trawl	UoA 1 Purse seine	UoA 2 Mid water trawl
Principle 1 – Target species	88.3		87.5	
Principle 2 – Ecosystem impacts	92.0	92.0	92.3	92.3
Principle 3 – Management system	94.8		94.8	

5.2.3 Summary of conditions

No conditions have been identified for this fishery.

5.2.4 Recommendations

There is no proposal for a recommendation.

6 Traceability and eligibility

6.1 Eligibility date

Products from the (certified) fishery are eligible to be sold as MSC certified or bear the MSC ecolabel from the date of publication of the Public Certification Report.

The target eligibility date is set to the publication date of the Public Comment Draft Report. This date is also connected to the start of the fishing season in 2022 (February 2022). Traceability and segregation systems in the fishery are already implemented by the fishery as confirmed during initial audit.

6.2 Traceability within the fishery

UoA vessels are obliged to carry on board VMS and electronic logbooks where to record time and location of the deployment of the gear. These logbooks shall also record an estimate of the catch taken (quantity and catch species) and the information must be sent to the Directorate of Fisheries before return of the vessel.

FPO vessels, consist of six RSW (Refrigerated Sea Water) vessels and one factory vessel.

- As regards RSW vessels, capelin is not sorted on board as there is no fishing for other species on the same trip. The catch is landed whole and fresh directly for consumption. Landing points for fresh capelin in Faroe Islands are FPO factories, specifically factory Pelagos (in Fuglafirði) and factory Varðin Pelagic (in Tvøroyri). Ownership of the product changes after landing.
- Factory trawler Nordborg freezes the capelin on board which is landed whole and frozen and is ready for export when landed. Frozen capelin from Nordborg vessel is landed at Ánunum freeze store (in Klaksvík). Ownership of the product changes after landing. Nordborg has own sales company.

Capelin landed by vessels in the UoAs in Faroe Islands cannot be mixed with other capelin because the factories only receive capelin from FPO vessels. Landings in Faroe Islands are monitored by the Faroese Directorate of Fisheries (VORN) on a risk-based sampling. For 2020, 5 random inspections were conducted for FPO capelin at landing points resulting in 0 infringements, as reported by the Faroese Directorate of Fisheries at initial audit.

Capelin may at times also be landed in designated landing points in Iceland (although this has not taken place in recent past years). According to Icelandic Act no 22 (1998) on Fishing and Processing by Foreign Vessels in Iceland's Exclusive Fishing Zone, unless otherwise prescribed by international agreement, fishing by foreign vessels in the exclusive fishing zone shall be governed by the same provisions that apply to Icelandic fishing vessels and are obliged to use at all moments VMS and electronic logbooks. The regulations on the weighing of marine catch in Icelandic ports shall apply if foreign vessels land their catch in Iceland.

All fishing vessels – Icelandic and foreign vessels operating within the Icelandic EEZ – are required to keep logbooks for the recording of fishing by species, gear and area. Furthermore, all catch landed in Iceland by the fishing fleet must be reported to the Directorate of Fisheries and to Port Authorities, who are responsible for weighing (and sampling) catch on certified scales either by licensed weight-masters operators (who are municipal employees of the harbours, independent from both fishery and processors) or processing plants approved for this purpose. They register all catches in real time into the database of the Icelandic Directorate of Fisheries. The weighing note/receipt (a print-out or electronic document) with all relevant information about the catch, area and vessel accompanies the catch to auction, buyer, processor, exporter etc. Foreign vessels landing fish in Iceland are subject to the same requirements as Icelandic vessels, regardless of from which EEZ or international area the catch was taken. The Icelandic Directorate of Fisheries monitors and receives messages from foreign vessels on their fishing activities, and collects, retains and publishes on its website data on landings of the different species by year, vessel and gear type. If necessary, these records can be traced back to individual vessels. Icelandic regulation requires fish from foreign vessels to be kept and processed separate from all other fish throughout the chain of custody. The registration of catches along with the accompanying system of monitoring and inspection makes mixing of catches or their wrongful registration highly unlikely.

The Icelandic Directorate of Fisheries is also responsible for the enforcement system that ensures the compliance of UoA fishing vessels compliance with Icelandic fishing legislation while in Icelandic EEZ. Fishing inspections can occur at sea, at landing ports, or through aerial surveillance. For 2021 there were no inspections by the Icelandic Directorate of Fisheries for FPO vessels targeting capelin in Icelandic waters. There was no fishing for capelin by FPO vessels in Icelandic waters in 2019 and 2020. In 2018 there were inspections at sea by the Icelandic Directorate of Fisheries which resulted in 0 infringements

REGULATION N^{er} 21/21 (available at <https://www.reglugerd.is/reglugerdir/eftir-raduneytum/atvinnuvega--og-nyskopunarraduneyti/nr/22322>) on capelin fishing by Faroese vessels in Iceland's exclusive fishing zone in the fishing year 2020/2021 states that, although until 17th February 2021, Faroese vessels were allowed to land ¾ parts of their quota food processing outside Iceland or process the catch for human consumption on board, after February 17th, 2021 is that a maximum of 4,000 tonnes of the quota may be landed for food processing outside Iceland or processed food on board. The Faroese authorities are obliged to notify the Directorate of Fisheries of the amount of capelin caught in Iceland's exclusive fishing zone and is landed in the Faroe Islands. Each landing within 24 hours must be reported. Report shall specify how much capelin is spent on smelting, how much is processed for human consumption in the Faroe Islands and how much of the landed catch was processed for human consumption on board.

There is a good cooperation framework among Icelandic and Faroese Directorate of Fisheries. The Icelandic Directorate of Fisheries informs the Faroese Directorate of Fisheries of events related to Faroese vessels while in Icelandic waters.

For the FPO UoA's, capelin catches are landed exclusively for human consumption. Main markets for FPO capelin are China, Russia and Japan.



Figure 1 Traceability label from production on board Nordborg.

Table 6 Traceability within the fishery

Factor	Description
<p>Will the fishery use gears that are not part of the Unit of Certification (UoC)?</p> <p>If Yes, please describe:</p> <ul style="list-style-type: none"> - If this may occur on the same trip, on the same vessels, or during the same season; - How any risks are mitigated. 	<p>The fleet is technologically restricted to the use of purse seine and mid water trawls</p>
<p>Will vessels in the UoC also fish outside the UoC geographic area?</p> <p>If Yes, please describe:</p> <ul style="list-style-type: none"> - If this may occur on the same trip; - How any risks are mitigated. 	<p>The Faroese fleet has quotas on Atlanto-scandian herring, Northeast Atlantic blue whiting and NEA Mackerel. These stocks are fished on separate fishing seasons and trips and there is no risk of mixing these catches with catch of capelin.</p> <p>The UoA targets Icelandic, East Greenland and Jan Mayen capelin in waters of Icelandic EEZ (regardless of having permission to enter the fishing grounds of Jan Mayen and East Greenland).</p> <p>Note that the UoA does not catch Barents Sea capelin nor fishes at present outside Icelandic EEZ.</p>
<p>Do the fishery client members ever handle certified and non-certified products during any of the activities covered by the fishery certificate? This refers to both at-sea activities and on-land activities.</p> <ul style="list-style-type: none"> - Transport - Storage - Processing - Landing - Auction <p>If Yes, please describe how any risks are mitigated.</p>	<p>The Faroese fleet has quotas on Atlantio-scandian herring, Northeast Atlantic blue whiting and NEA mackerel. These fisheries are certified but the certificates are suspended at present.</p> <p>The fisheries take place in different fishing seasons. Therefore, these catches are handled separately from the capelin catches.</p>
<p>Does transshipment occur within the fishery?</p> <p>If Yes, please describe:</p> <ul style="list-style-type: none"> - If transshipment takes place at-sea, in port, or both; - If the transshipment vessel may handle product from outside the UoC; - How any risks are mitigated. 	<p>There is no transshipment</p>
<p>Are there any other risks of mixing or substitution between certified and non-certified fish?</p> <p>If Yes, please describe how any risks are mitigated.</p>	<p>N/A</p>

6.3 Eligibility to enter further chains of custody

Eligible fishers are Faroese pelagic vessels fishing for Icelandic, East Greenland and Jan Mayen capelin as members of the FPO fleet. Eligible fishers are allowed to sell FPO Icelandic capelin as MSC certified.

FPO capelin caught in Icelandic, East Greenland and Jan Mayen waters is eligible to be sold as MSC certified and entry certified chain of custody.

Change of ownership occurs at landing, either at FPO factories in Faroe Islands or at Icelandic landing points.

6.4 Eligibility of Inseparable or Practicably Inseparable (IPI) stocks to enter further chains of custody

Prior to 2000, most of the catches were used for fishmeal. This has changed, and in 2021 the catches are used for human consumption. Capelin is sorted when landed and bycatch species (which comprise less than 1% in global) are handled separately.

There are no IPI species to consider.

7 Scoring

7.1 Summary of Performance Indicator level scores

Table 7 Summary of scoring

Principle	Component	Wt	Performance Indicator (PI)		Wt	Score UoA1 Purse seine	Score UoA 2 Midwater trawl
One	Outcome	0,333	1.1.1 A	Stock status	1,0	80	80
	Management	0,667	1.2.1	Harvest strategy	0,25	95	95
			1.2.2	Harvest control rules & tools	0,25	85	85
			1.2.3	Information & monitoring	0,25	90	90
			1.2.4	Assessment of stock status	0,25	100	100
Two	Primary species	0,2	2.1.1	Outcome	0,333	100	100
			2.1.2	Management strategy	0,333	100	100
			2.1.3	Information/Monitoring	0,333	100	100
	Secondary species	0,2	2.2.1	Outcome	0,333	100	100
			2.2.2	Management strategy	0,333	95	95
			2.2.3	Information/Monitoring	0,333	85	85
	ETP species	0,2	2.3.1	Outcome	0,333	80	80
			2.3.2	Management strategy	0,333	80	80
			2.3.3	Information strategy	0,333	80	80
	Habitats	0,2	2.4.1	Outcome	0,333	100	100
			2.4.2	Management strategy	0,333	90	90
			2.4.3	Information	0,333	95	95
	Ecosystem	0,2	2.5.1	Outcome	0,333	100	100
			2.5.2	Management	0,333	95	95
			2.5.3	Information	0,333	80	80
Three	Governance and policy	0,5	3.1.1	Legal &/or customary framework	0,333	100	100
			3.1.2	Consultation, roles & responsibilities	0,333	95	95

			3.1.3	Long term objectives	0,333	100	100
	Fishery specific management system	0,5	3.2.1	Fishery specific objectives	0,25	90	90
			3.2.2	Decision making processes	0,25	85	85
			3.2.3	Compliance & enforcement	0,25	100	100
			3.2.4	Monitoring & management performance evaluation	0,25	90	90

Table 8 Overall weighted Principle level scores

Overall weighted Principle-level scores	Score UoA 1	Score UoA 2
Principle 1 - Target species	88.3	
Principle 2 - Ecosystem	92.0	92.0
Principle 3 - Management	94.8	

7.2 Principle 1

7.2.1 Principle 1 background

The capelin is a small forage fish of the smelt family found in the North Atlantic, North Pacific, and Arctic oceans. The distribution the North Atlantic Ocean is shown in Figure 2. The Iceland-Greenland-Jan Mayen capelin (IGJM) is the western component shown in Figure 2. For a thorough summary of IGJM capelin biology and population dynamics together with stock assessment approach see ICES 2015. Stock Annex: 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)

The capelin is possibly the most ecologically important fish in Icelandic waters, Vilhjálmsson (2002). It is a small pelagic fish, usually between 15 and 18 cm in catches and has a very short life cycle. Capelin size is normally up to maximum size of 23 cm. Males are slightly larger than females in each year class.

It spawns in late winter along the south and southwest coast of Iceland at ocean temperatures of 4°-7°C. The eggs and larvae drift north to the continental shelf of North Iceland or Greenland. It gradually migrates further north as it grows and spends the time before maturity feeding in the Iceland Sea on zooplankton, mainly copepods. Maturity is usually reached at the age of 3, but some become mature one year earlier or later. At this time, they condense into large schools and migrate around Iceland, usually clockwise to the spawning grounds in the south. During these migrations the capelin becomes the main food of many species in Icelandic waters, most importantly the cod. Spawning takes place in very shallow waters and is a very intense behaviour. After spawning all the males and most of the females die. Capelin rarely lives longer than five years.

Capelin habitat is considered marine, littoral to neritic and epibenthic on fishing banks down to 300 m. They feed almost exclusively on small planktonic crustaceans (euphausiid shrimps as well as various isopod, gammarid and copepod). Its distribution is mainly in cold waters. It is found in the North Atlantic from Newfoundland and Greenland in the west to the Barents Sea and along northern Russia in the east. It also occurs in the North Pacific.

The fisheries around Iceland are regulated based on the Icelandic fishing year 1 September – 31 August. This also applies to the capelin fishery.

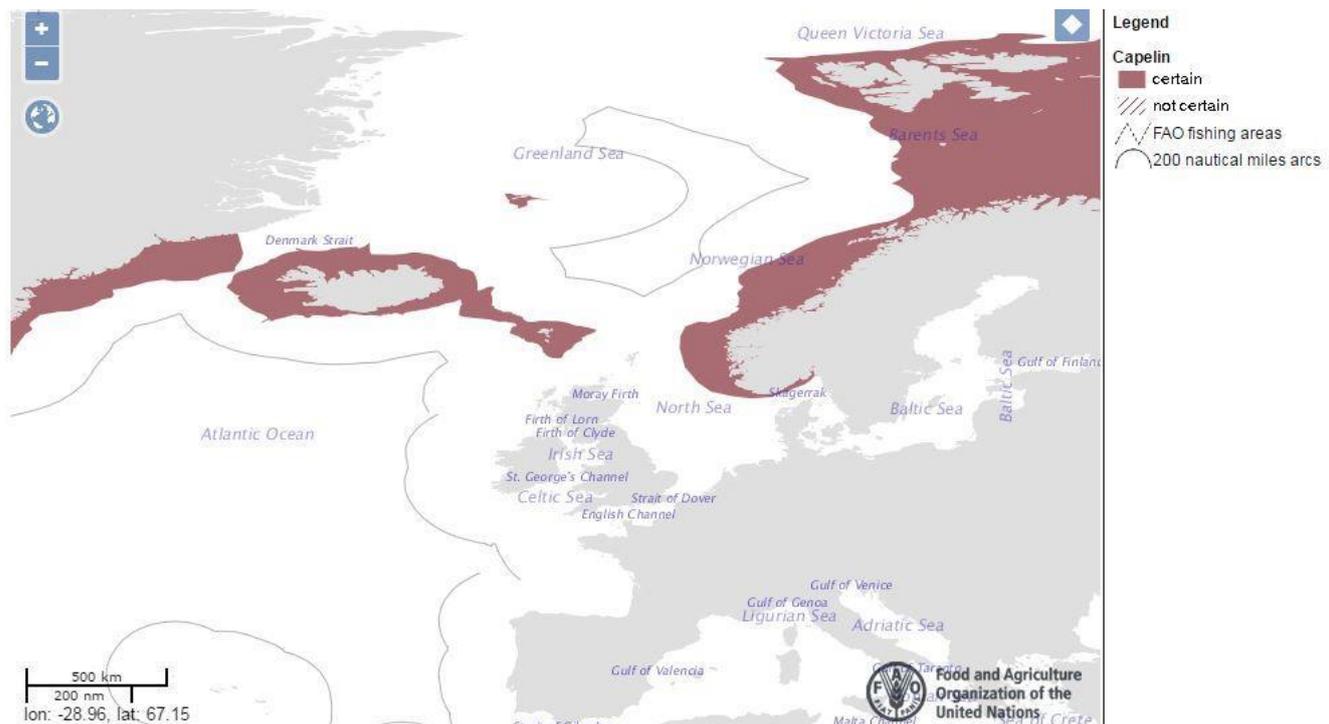


Figure 2 Distribution of Capelin. Different colours show the abundance in the different areas of Iceland. (Source: FAO).

a. Key Low Level Tropic Status

Capelin is an important forage species in the ecosystems of the Barents Sea, Greenland and Iceland, and promotes an important energy transfer into the ecosystem. Capelin has a key role in the food chain between animal plankton and larger fish. Most groundfish species feed on capelin at some stage in their life and it is estimated that capelin may be 40% of the total food of cod. Capelin is an important prey for other ETPs species such as whales, black legged kittiwake and Atlantic puffin. As the stock of capelin migrates to the southwest coast of Iceland in March for spawning it meets a large number of cod, ready for the feast. They are prey to several species of marine mammals and seabirds and are

also important as food for several other commercial fish species (Vilhjálms­son, 2002 and ICES, 2015b, ICES 2020 Fisheries overview)

Capelin is considered to be a “Key LTL species” following the criteria defined in the box SA1 of the FCR 2.01

SA2.2.9 Teams shall treat a stock under assessment against Principle 1 as a key LTL stock if:

- a. It is one of the species types listed in Box SA1 and in its adult life cycle phase the stock holds a key role in the ecosystem, such that it meets at least two of the following sub-criteria i, ii and iii.
 - i. A large proportion of the trophic connections in the ecosystem involve this stock, leading to significant predator dependency;
 - ii. A large volume of energy passing between lower and higher trophic levels passes through this stock;
 - iii. There are few other species at this trophic level through which energy can be transmitted from lower to higher trophic levels, such that a high proportion of the total energy passing between lower and higher trophic levels passes through this stock (i.e., the ecosystem is ‘wasp-waisted’).

Capelin (*Malotus villosus*) is listed in FCR v 2.0 Box SA1, therefore SA2.2.9a applies.

- Capelin is the main single item in the diet of Icelandic cod and cod growth is correlated with capelin recruitment and biomass (Frater et al, 2019). Capelin is prey to several species of marine mammals and seabirds and is also an important food source for several other commercial fish species (Vilhjálms­son, 2002 and ICES, 2020, Ecosystem overview, ICES 2020 Fisheries overview). Para i) is met.
- A major share of the energy passes through the capelin based on Para ii) is met. (Vilhjálms­son, 2002 and ICES, 2020, Ecosystem overview, ICES 2020 Fisheries overview, Sturludottir et al. (2018))
- The capelin stock is highly variable and the ecosystem functions also in periods e.g. 2019 – 2020, with very low capelin stock. Para iii) is not met as the ecosystem includes significant biomass of other species at the same trophic level (e.g. herring and in the summer mackerel).
Puffin and kittiwake prey on capelin in the northeast and north west of Iceland during the summer and capelin represents around 25% of the diet in puffin and 15 % in kittiwake (Lillindahl, K. and Solmundsson, J. 1997)

As conclusion the capelin is classified as a Key LTL species in the region in conformity with the classification made by SAI (2017). Scoring Table 1.1.1A has been applied to score the P1. More details regarding its role in the ecosystems as key LTL species are found in SAI (2017).

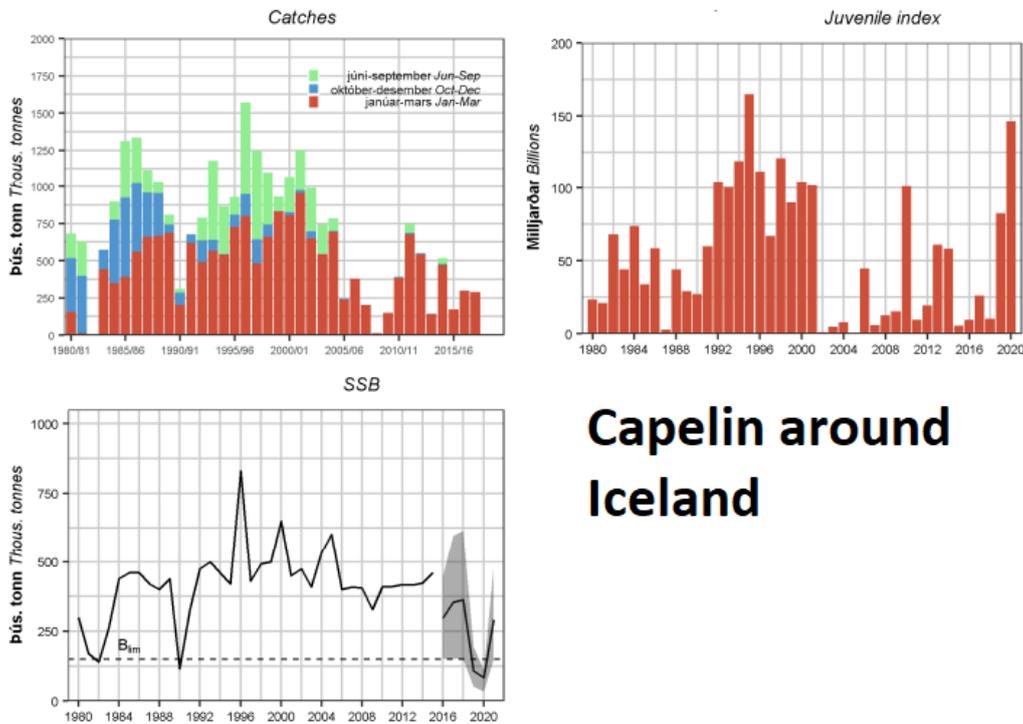
b. Stock status

The evaluation of stock status is based on acoustic surveys. 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. MFRI (2021). The surveys in January 2021 confirmed that the stock is at a fairly high level.

Table 9 Survey result (‘000 t) for January 2021 acoustic survey. Source: Preliminary cruise report: Acoustic assessment of the Iceland-East Greenland-Jan Mayen capelin stock in January 2021. Birkir Bardarson and Sigurdur Thor Jonsson 4. February 2021, (hafogvatn.is)

	Age group (years)			Total
	2	3	4	
Total Stock Biomass	84.24	602.00	59.55	745.89
Spawning Stock Biomass	9.49	580.66	59.03	649.30

Immature Stock Biomass	74.66	21.42	0.52	96.59
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Capelin around Iceland

Capelin. 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.

Figure 3 Capelin around Iceland, Stock status and Stock Trends. Source: MFRI (2021) Advice on Capelin around Iceland.

c. Harvest Strategy and Harvest Control Rule

The harvest strategy is based on securing sufficient spawning potential and is therefore based on an escapement strategy. Furthermore, the predation by e.g. cod is taken into account in the calculation of the surviving biomass. The harvest control rule for the stock is to set a final TAC which ensures, with a 95% probability, that a minimum of 150,000t (=B_{lim}) remains for spawning after the fishery. This is achieved by a series of acoustic surveys from September through to February and a three-stage process in finalising a seasonal TAC. The quantity available for the fishery also has to consider the quantity removed by predators.

The methodology for setting TAC at various stages was developed by the benchmark workshop, WKICE (ICES, 2015a). This is a stochastic (random processes with probability) harvest control rule.

This whole strategy, backed by the harvest control rules to set the TAC, is considered by ICES to be precautionary, ICES (2020) advice for capelin around Iceland. Table 10 shows how the plan has functioned since 2010/11, Figure 3 demonstrates that the stock has been fairly stable with a marked drop around 2019, small pelagics like capelin are notorious for varying recruitment.

Table 10 Capelin. Recommended TAC, national TAC, and catches (kilotons). Source MFRI (2021) capelin advice

Fishing year	Rec. initial TAC	Rec. final TAC	Final TAC	Catches Iceland	Catches others	Total
2010/11	0	390	390	322	68	390
2011/12	366	765	765	585	162	747
2012/13	0	570	570	464	87	551
2013/14	0	160	160	111	31	142
2014/15	225	580	580	354	163	517
2015/16	53.6	173	173	101	73	174
2016/17	0	299	299	197	102	299
2017/18	0	285	285	186	101	287
2018/19	0	0	0	0	0	0
2019/20	0	0	0	0	0	0
2020/21	170	127.3	127.3			

There are other measures in place in support of the harvest strategy which provide further protection for the ecological role of the stock and permit a sustainable harvest of the surplus production. These include the facility to quickly close areas where there is a high abundance of juveniles (1-2yr olds) as assessed by on board observers. There is a legal requirement to carry these inspectors when fishing in certain designated areas. There are also restricted areas where pelagic trawling is not permitted in order to avoid disturbance of capelin shoals. Furthermore, areas with known high abundances of juvenile capelin (on the shelf region off NW, N and NE Iceland) have usually been closed to the summer and autumn fisheries.

Consumption of capelin by cod, haddock and saithe are modelled using a variety of data sources to arrive at realistic estimates of consumption of IGJM capelin by these three predators. The resultant estimates of predation, which are used in the assessment and harvest control rules are based on half feeding rates in each area. The estimate for the three areas used in the modelling are: Eastern area is 300-600Kt; for the Southern area 100-200Kt and for the Western area 100-200Kt. Mean weight at age in commercial catches of cod has increased in recent years, and in 2019 it was close to the long-term average (1955–2018) suggesting that food supply is good, MFRI (2020) Cod 5a advice.

d. Stock assessment, Data and Monitoring

The capelin stock in the Icelandic, East Greenland and Jan Mayen area being a short-lived species is assessed entirely by annual acoustic surveys since 1978. The surveys have been conducted in late autumn (October–December) in 1978–2009, in early autumn (September–October) since 2010 and in winter (January–February) since 1979.

The acoustic surveys provide absolute biomass estimates of the spawning stock and numerical abundance indices of the immature element (1-2yrs old) of the stock. These estimates are fed directly into the management of the stock, see above.

Biological samples from the catch are taken at sea by the fishermen, in the ports by the Marine Research Institute in Iceland (MFRI) or inspectors from the Icelandic Directorate of Fisheries. The samples are analysed at MFRI (fish length, weight, age (from otoliths), sex, maturation, and gonad weight). The information from the samples is then used along with the total landings data and the logbook data to estimate the age and length composition and numbers of fish by age of the total landings.

The uncertainty of the assessment and forecast depends largely on the quality of the acoustic surveys in terms of coverage, conditions for acoustic measurements and the variance in the aggregation of the capelin. Figure 3 shows that the CV has been fairly low in recent years.

7.2.2 Catch profiles

Capelin is caught by large vessels using purse seine and midwater trawl. Capelin is mainly caught from January to March, during its spawning migration along the southern and western coasts of Iceland. In some years, capelin has also been caught north and east of Iceland.

The time series of total catch data are shown in Figure 3.

7.2.3 Total Allowable Catch (TAC) and catch data

Table 11 Total Allowable Catch (TAC) and catch data. The regulations are based on a fishing year 1/9-31/8

TAC	Year	2020/2021	127300	MT
UoA share of TAC	Year	2020/2021	127300	MT
UoA share of total TAC	Year	2020/2021	127300	MT
Total green weight catch by UoCs	Year (most recent)	2020/2021	6596	MT
Total green weight catch by UoCs	Year (second most recent)	2019/2020	0	MT

The Faroese fleet has not fished for capelin around Iceland since 2018 and hence there are no recent catch statistics for Faroese vessels available that might illustrate the catch composition. The fishery was reopened in the first half of 2021. The most recent catch data available are for 2014-2018. These data are shown for those vessels which did not participate in the herring or blue whiting fisheries, see Table 12. This limitation is used because of technical problems in isolating the capelin trips in the VØRN database. These data suggest that the by-catch overall is below 1%. The Icelandic fleet is very similar to the Faroese vessels and are fishing in the relevant waters and with similar gears, possibly from the same netmaker. Data presented by SAI Global (2017) Table 4 supports that the catches in the capelin fishery is with very little by-catch, these data suggests that the total by-catch is below 0.1% and with cod as the most important by-catch species. This low by-catch is also for 2021 for the Faroese fishery. In 2021 there are no reports of cod by-catch, Table 12.

Table 12 Faroe Islands purse seine and midwater trawl fishery (kg) in Icelandic fishing Zone 01-09-2014 to 31-08-2018 [Nóta- og ídnaðarskip]. Source VORN.FO downloaded 28 April 2021

1/9-2014 - 31/8-2018			Vessels that did not participate in herring/Blue whiting fisheries around Iceland (kg)	%	Total (kg)
Toskur	Cod	<i>Gadus morhua</i>	6.242	0,02%	8.125
Hýsa	Haddock	<i>Melanogrammus aeglefinus</i>	671	0,00%	671
Upsi	Saithe	<i>Pollachius virens</i>	765	0,00%	765
Kongafiskur	Redfish	<i>Sebastes spp.</i>	41	0,00%	41
Sild	Herring	<i>Clupea harengus</i>	0	0,00%	1.071.409
Svartkjaftur	Blue whiting	<i>Micromesistius poutassou</i>	0	0,00%	2.458.000
Lodna	Capelin	<i>Malotus villosus</i>	34.174.530	99,09%	63.030.065
Annað	Other fish		305.423	0,89%	305.423
	Total		34.487.672	100,00%	66.874.499
	By-catch		313.142	0.91%	

Table 13 Catch by Faroese Purse seine and midwater trawlers in Icelandic waters (Kg). 01-01-2021 to: 01-09-2021 The database was last updated 09. sep. 2021 08:23:23

	Purse seine and Midwater trawl
Herring	4.142
Capelin	6.348.473
Tils.	6.352.615

7.2.4 Principle 1 Performance Indicator scores and rationales

PI 1.1.1 –Stock status – N/A. Capelin is scored as Key LTL species under PI 1.1.1.A

PI 1.1.1A – Key Low Trophic-Level

PI 1.1.1A		The stock is at a level which has a low probability of serious ecosystem impacts		
Scoring Issue		SG 60	SG 80	SG 100
a	Stock status relative to ecosystem impairment			
	Guide post	It is likely that the stock is above the point where serious ecosystem impacts could occur.	It is highly likely that the stock is above the point where serious ecosystem impacts could occur.	There is a high degree of certainty that the stock is above the point where serious ecosystem impacts could occur.
	Met?	Yes	Yes	No
Rationale				

The lower biomass limit left for reproduction needs is in the management plan set at 150,000t. Ecosystem needs is measured a predation on the capelin stock and this is occurring in particular in the summer, i.e. before the fishery which takes place in the winter as capelin is mainly caught from January to March, during its spawning migration along the southern and western coasts of Iceland. In some years, capelin has also been caught north and east of Iceland. This indicates that the predators take what they can consume before the fishery, i.e. that together with the high spawning mortality means that the fishery will not hinder fulfilment of ecosystem needs. The value is determined based on a precautionary Bloss, based on observations that the recruitments generated around this limit level (cohorts, 1981, 1982 and 1990) were of average strength and that average recruitment did not appear to decline at low SSB over the observed range. In setting this limit level, and managing exploitation, the role of capelin as a key forage species in the Icelandic ecosystem has been taken into account through a predation model which assesses the requirements of the three main demersal predator species, cod, haddock and saithe. The SSB estimated at spawning time in 2021 was 650,000t and it is therefore highly likely (80% probability) that the stock is above a point where serious ecosystem impacts could occur and **SG60 and SG 80 are met**.

However, the basic biology of this short-lived species, the potential for variable recruitment and the unquantified predation by cetaceans and seabirds means that the more rigorous requirements of a high degree of certainty (95% probability) that the stock is above a point where serious ecosystem impacts could occur cannot be stated with a high degree of certainty. **SG 100 is not met**.

Stock status in relation to ecosystem needs				
b	Guide post		The stock is at or fluctuating around a level consistent with ecosystem needs.	There is a high degree of certainty that the stock has been fluctuating around a level consistent with ecosystem needs or has been above this level over recent years.
	Met?		Yes	No
Rationale				

Capelin being a short-lived pelagic fish is prone to high variability in recruitment. Because of the short lifespan this variability is also seen in the biomass and irrespective of any exploitation or predation, most individuals of a cohort die, after spawning once, at the age of 3 years. Their basic biology thus dictates that the exploitation has to be carefully managed throughout a fishing season.

The set minimum of 150,000t ad available to spawn and maintain a sustainable population satisfies both the ecosystem requirements and stock reproduction concerns. Modelling predation by cod, haddock and saithe, the three main predators on capelin, and a TAC that is based on residual availability of the stock, i.e. an escapement strategy to harvest the surplus. This ensures that first and foremost the ecosystem needs and also the biomass limit level have been satisfied before any exploitation can take place. That management strategy has ensured that the SSB has consistently been at over two times the biomass limit level and as high as five times that level in 1996. However, the stock has been at a low level 2019-2020 and the fishery was stopped for two seasons consistent with the management plan. It appears that the stock also in the light that it began recovering in 2021 is fluctuating around ecosystem needs. **SG80 is met.**

However, because of some uncertainty generated by the basic biology of this short-lived species and the inherent difficulty of determining unfished spawning biomass levels, or the total stock biomass, the more rigorous requirements, for a high degree of certainty, at **SG 100 is not met.**

References

MFRI (2021) Advice on Capelin around Iceland.

Stock status relative to reference points

	Type of reference point	Value of reference point	Current stock status relative to reference point
Reference point used in scoring stock relative to ecosystem impairment (S1a)	<i>Blim</i>	150,000 t	<i>Acoustic survey biomass estimates January 2021 650,000 t</i>
Reference point used in scoring stock relative to ecosystem needs (S1b)	<i>Blim</i>	150,000 t	

Draft scoring range and information gap indicator added at Announcement Comment Draft Report

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	80
Condition number (if relevant)	N/A

PI 1.1.2 – Stock rebuilding – Not scored as PI 1.1.A scored 80 or above

PI 1.2.1 – Harvest strategy

PI 1.2.1		There is a robust and precautionary harvest strategy in place		
Scoring Issue		SG 60	SG 80	SG 100
a	Harvest strategy design			
	Guide post	The harvest strategy is expected to achieve stock management objectives reflected in PI 1.1.1 SG80.	The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80.	The harvest strategy is responsive to the state of the stock and is designed to achieve stock management objectives reflected in PI 1.1.1 SG80.
	Met?	Yes	Yes	Yes
Rationale				

The harvest strategy is based on a three level annual TAC, first a preliminary TAC followed by an intermediate in the autumn and then a final TAC the following January. The major part of the fishery takes place in January-April. The harvest strategy is built on assuring sufficient reproduction material (survival of spawners) and to assure sufficient food for ecosystem needs. The main predators on the capelin stock are the cod (ICES (2020) ecosystem overview and ICES (2015) stock Annex), haddock, and saithe.

The demands by sea birds and marine mammals (whales) in the winter period are small. The final TAC is based on survey results obtained shortly before the fishery - therefore short projection period - and at low predation pressure - many birds and whales have left Icelandic waters. Also the growth season is the summer rather than winter.

The assessment model is based on understanding the population dynamic of the capelin population and its role in the ecosystem, see ICES (2015) stock Annex for 5+14 Capelin. The model however, is primarily used for setting up the initial and the intermediate TAC while the final TAC is this close to the fishery survey is in December-January and the fishery is in January-April. Therefore, the final TAC is essentially determined by survey results rather than projection modelling and therefore research interest driven by management needs are focusing on survey technology rather than ecosystem modelling. There is a debate on the importance of sea bird and marine mammal predation and how the wellbeing of these predators are linked to the size of the capelin population. The conclusion at this time by MFRI is 1) the major predators are the fish and 2) that money is better spent on improving surveys than a major and cost project on the interaction between capelin and sea bird and marine mammal predators, particularly as the there is an understanding of the importance of the major fish predators, cod, haddock, saithe. This argument is further strengthened by the timing of the fishery (Jan-April), the high spawning mortality linked to the short-lived nature of the capelin (very high spawning mortality) leading to that so to speak the predators take their share before the fishery gulps the rest which would be dead from spawning anyway. A major and unsolved issue is to get a handle on the dramatic variations from year to year, leading to the closure of the fishery in some years last 2018/19 and 2019/20. The plan is designed for the capelin management strategy/HCR. Entire ecosystem needs are mainly served by the seasonality of the fishery combined with protection of immature capelin and the high spawning mortality.

The management plan for this stock is laid down in the 2018 agreement between the coastal states Faroe Islands, Greenland, Norway and Iceland. The approach has been in use for more than two decades and experience indicates that the strategy is working well as also the main predator stocks (cod, haddock saithe) have been increasing in this period. **SG60 is met.**

For IGJM capelin the most important element underpinning the harvest strategy is to leave enough mature fish to ensure adequate spawning potential for subsequent years. The strategy has to take into account not only the impact of the fishery but also predation on all age groups. This is achieved by the use of a complex predation model to estimate the requirements of the three main demersal predators on capelin, cod, haddock and saithe. The status of the stock is assessed acoustically with up to four surveys throughout the autumn and winter every year. The results of each assessment are analysed and used to determine initial, intermediate and final TACs once the ecosystem and minimum

spawning biomass levels have been satisfied. In that way the strategy is responsive to stock status and clearly designed to achieve the stock management objectives for a key lower trophic level species. The precautionary TAC setting procedure is clearly designed to only harvest the surplus once the ecosystem and subsequent spawning stock needs have been satisfied. Therefore, the harvest strategy is responsive to the state of the stock and is **designed** to achieve stock management objectives reflected in PI 1.1.1 SG80 and **SG80 and SG 100 are met**.

Harvest strategy evaluation				
b	Guide post	The harvest strategy is likely to work based on prior experience or plausible argument.	The harvest strategy may not have been fully tested but evidence exists that it is achieving its objectives.	The performance of the harvest strategy has been fully evaluated and evidence exists to show that it is achieving its objectives including being clearly able to maintain stocks at target levels.
	Met?	Yes	Yes	No
Rationale				

This harvest strategy is considered by ICES to be precautionary. The permitted exploitation level is determined annually and adjusted throughout the fishing season with initial, intermediate and final TACs. Harvesting the surplus in this way is clearly secondary to the ecosystem needs for capelin as an important forage species. The objective of ecosystem needs is achieved through the predation model and acoustic monitoring of stock status before any exploitation is sanctioned. The capelin as a short-lived pelagic is prone to variable recruitment due to environmental variations and the recent low level 2019-2020 after a period with SSB at over two times a biomass limit level. The closure of the fishery and the recovery in 2021 provides evidence that the strategy is achieving its objectives. Some elements of the harvest strategy, including defining a biomass limit level, have only been operational for a short time and are not yet fully evaluated. Once the new harvest control rule has been operational for a few years ICES recommends that assumptions and practical operation should be re-evaluated. Even so, evidence exists that it is achieving its objectives and **SG60 and SG 80 are met**.

There is an unquantified degree of predation on capelin by whales and sea birds. This is seasonal and it is debated whether it is important to have precise estimates of this component of the natural mortality and its contribution to ecosystem needs it would nevertheless be useful if this element of predation could be further investigated and if necessary incorporated into the existing predation model as an additional element of natural mortality. Therefore, the harvest strategy has not been fully **tested**. **SG 100 is not met**.

Harvest strategy monitoring				
c	Guide post	Monitoring is in place that is expected to determine whether the harvest strategy is working.		
	Met?	Yes		
Rationale				

The status of the stock is monitored acoustically by a series of annual surveys to determine the abundance and biomass of the immature and mature elements of the stock. These surveys, which determine the level of permitted exploitation, are designed to maintain an adequate abundance of spawners after ecosystem needs have been satisfied. Therefore, Monitoring is in place that is expected to determine whether the harvest strategy is working and **SG 60 is met**.

d Harvest strategy review

	Guide post	The harvest strategy is periodically reviewed and improved as necessary.		
	Met?			Yes
Rationale				

The most recent benchmark workshop on Icelandic stocks, in 2015, reviewed the harvest strategy for this stock and introduced some changes in the way that initial and final TACs are determined. The success of the strategy is also kept under annual review at the ICES assessment working group dealing with all the stocks in this area. Therefore, the harvest strategy is periodically reviewed and improved as necessary and **SG 100 is met.**

Shark finning				
e	Guide post	It is likely that shark finning is not taking place.	It is highly likely that shark finning is not taking place.	There is a high degree of certainty that shark finning is not taking place.
	Met?	NA	NA	NA
Rationale				

Not relevant. Capelin is not a shark.

Review of alternative measures				
f	Guide post	There has been a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of the target stock.	There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of the target stock and they are implemented as appropriate.	There is a biennial review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of the target stock, and they are implemented, as appropriate.
	Met?	NA	NA	NA
Rationale				

There are not unwanted catches in the fishery neither of capelin nor of other species. Following the FCR SA2.4.8 this issue should not need be scored because of the landing obligation and discard ban in the fishery around Iceland.

References

- ICES (2020) Advice on Capelin
- Framework agreement on capelin (2018)
- MFRI (2021) Advice on Capelin

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	95
Condition number (if relevant)	N/A

PI 1.2.2 – Harvest control rules and tools

PI 1.2.2		There are well defined and effective harvest control rules (HCRs) in place		
Scoring Issue		SG 60	SG 80	SG 100
a	HCRs design and application			
	Guide post	Generally understood HCRs are in place or available that are expected to reduce the exploitation rate as the point of recruitment impairment (PRI) is approached.	Well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY, or for key LTL species a level consistent with ecosystem needs.	The HCRs are expected to keep the stock fluctuating at or above a target level consistent with MSY, or another more appropriate level taking into account the ecological role of the stock, most of the time.
	Met?	Yes	Yes	No
Rationale				

The eventual surplus fishable biomass for the season is based on the January acoustic survey taking into account catches taken before that survey, subtracting the biomass limit (the minimum biomass to be left to spawn) and also subtracting 150Kt for predation. This final TAC is set at the catch which will generate a SSB which has a 95% probability of being above the biomass limit level of 150Kt.

There are other harvest control rules in place to further protect the ecological role of the stock and permit a sustainable harvest of the surplus production. These include the facility to quickly close areas where there is a high abundance of juveniles (1-2yrs old) as assessed by on board observers. There is a legal requirement to carry these inspectors when fishing in certain designated areas. There are also restricted areas where pelagic trawling is not permitted in order to avoid disturbance of capelin shoals.

This whole strategy, backed by the harvest control rules to set the TAC, is considered by ICES to be precautionary. The PRI point is set at 150,000 t SSB, see PI 1.1.1A.

The management plan agreed between the three Coastal States are in place. The plan reduces the exploitation rate most drastically in low capelin stock situation by simply closing the fishery, e.g. 2018/19 and 2019/20. **SG60 is met.**

The HCR is well-defined based on acoustic survey results. As noted above the plan implies that there is no fishing if a SSB > 150,000 t cannot be foreseen, i.e., surviving until spawning. Experience with the capelin stock over the most recent 2 decades suggests that the stock is generally maintained at a high level. These well-defined and practised rules are expected to keep the stock fluctuating around a target level consistent with ecosystem needs subject to environmental introduced variations. Therefore, **well defined HCRs are in place** that **ensure** that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock **fluctuating around** a target level consistent with (or above) MSY, or for key LTL species a level consistent with ecosystem needs. **SG80 is met.**

There is no intention to maintain the stock at levels above what is required by ecosystem needs. The erratic nature of recruitment in small short-lived pelagic fish stocks (including capelin) makes it impossible to device a management plan that will maintain the stock above ecosystem needs levels most of the time, the system is sensitive to changes in the environment. However, the HCR attempts to avoid that low biomass events are not caused by fisheries. **SG100 is not met.**

b	HCRs robustness to uncertainty		
	Guide post	The HCRs are likely to be robust to the main uncertainties.	The HCRs take account of a wide range of uncertainties including the ecological role of the stock, and there is

			evidence that the HCRs are robust to the main uncertainties.
	Met?	Yes	No
Rationale			

The main uncertainty in relation to the harvest control rules is the reliability of the acoustic surveys which dictate the level of surplus production available for the fishery. These surveys, in particular the winter surveys, are carried out in a hostile environment and survey coverage can often be affected by adverse weather and ice conditions. Such conditions affect the reliability of the acoustic measurements through reduction in survey coverage and dispersal of capelin aggregations. All these important parameters are measured with coefficients of variation and are evaluated and used accordingly. **SG 80 is met.**

Because the management is built on several acoustics surveys the system includes a degree of robustness against a survey failure.

However, the current practice does not take account of a wide range of uncertainty (SG 100). For example, the ecosystem role of cetaceans and sea birds could be impacting on the surplus production available for harvesting and more data is needed on the seasonal coincidence of their distributions with capelin aggregations. **SG100 is not met.**

HCRs evaluation				
C	Guide post	There is some evidence that tools used or available to implement HCRs are appropriate and effective in controlling exploitation.	Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.	Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the HCRs.
	Met?	Yes	Yes	Yes
Rationale				

The predation model used to quantify the ecosystem requirements in relation to capelin as an important forage species is well established. SG60 is met.

Available evidence, in the form of the status of dependent demersal stocks; cod, haddock and saithe, suggest that this ecological measure is effective. For the five gadoid stocks, all are above MSY Btrigger, but haddock is the only one fished above HRMSY. Saithe and ling are almost four times MSY Btrigger, and cod is almost three times MSY Btrigger. Greenland halibut and golden redfish are also above MSY Btrigger but are fished above FMSY. Also, as a side remark mean fishing mortality for demersal and benthic fish stock groups has shown a declining trend since the mid-1990s ICES (2020) Fisheries overview. The HCR seems appropriate and is implemented effectively. **SG60 is met.**

The incorporation of the predation model into the management of the fishery and the overarching requirement to leave a minimum abundance of mature fish for spawning, results in a fishable quantity of surplus production. The fishery is then very strictly controlled by in season TAC adjustments to ensure that the resource is not over exploited. Examination of TAC compliance over the past thirty years shows that the final agreed TAC is never exceeded and in many years the landings are below the TAC. The success of this element of the harvest control rules is the result of rigorous enforcement of on-board log books, designated landings ports, on board fisheries inspectors and inspection of actual landings. For an example in 2015 an inspector was present at 19.8% of all pelagic landings. This provides sufficient evidence that the requirements at **SG 80 is met.**

SAI Global (2017) for the Icelandic capelin fishery scored that SG100 is not met. Experience that has been gained since SAI Global (2017) scored the status of the Icelandic fishery, particular the drop in stock biomass 2019- 2020 and the consequent closure of the fishery following the recovery seen in 2021 suggests that there is now clear evidence that the tools are effective in achieving the desired stock status. **SG 100 is met.**

The SAI Global (2017) scoring is based on:

“However, some elements of the harvest control rules are new in particular the model used to set the initial TAC which is heavily dependent on a reliable autumn acoustic survey estimate of the abundance of immature fish. In the meantime

*the team considers that the more rigorous requirements at SG 100 for all the evidence to ‘clearly show’ is not met. Therefore, **available evidence indicates** that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs and **SG 80 is met.**”*

References

Framework agreement (2018)
 ICES (2020) Ecosystem overview
 ICES (2020) Fisheries overview.
 SAI Global (2017)

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	85
Condition number (if relevant)	N/A

PI 1.2.3 – Information and monitoring

PI 1.2.3		Relevant information is collected to support the harvest strategy		
Scoring Issue		SG 60	SG 80	SG 100
a	Range of information			
	Guide post	Some relevant information related to stock structure, stock productivity and fleet composition is available to support the harvest strategy.	Sufficient relevant information related to stock structure, stock productivity, fleet composition and other data are available to support the harvest strategy.	A comprehensive range of information (on stock structure, stock productivity, fleet composition, stock abundance, UoA removals and other information such as environmental information), including some that may not be directly related to the current harvest strategy, is available.
	Met?	Yes	Yes	Yes
Rationale				

The basic biology of capelin over its wide distribution range in the cold arctic and subarctic waters of the North Atlantic and North Pacific is well described. The capelin which are the subject of this assessment occur in the Iceland, East Greenland and Jan Mayen area and are clearly identified as a separate stock (IGJM stock). **SG60 is met.**

The basic biology of the species in this area is well known and described providing a raft of fundamental knowledge which is used in support of the harvest strategy. The species is known to be short lived with a high natural mortality after spawning at 3-4 yrs old, with close to 100% of the males dying and most of the females as well. This is vital information in support of the harvest strategy which, as a priority, addresses the ecological role of this important forage species.

Knowledge of the seasonal distribution, feeding and spawning migrations is well documented and significant changes in migration routes have been noted in recent years. This fundamental knowledge base firmly underpins all the regulations to provide a sustainable fishery whilst successfully addressing the important ecological role of the capelin stock in this area. **SG80 is met.**

There is also a wide range of environmental data collected over many years by the Marine Research Institute Reykjavik, and by other countries, related to the oceanography of the Icelandic coastal and the Iceland Greenland shelf areas. Some but not all of these data are directly related to fisheries. The information data base for this area and for this species is considered to be comprehensive. **SG100 is met.**

Monitoring				
b	Guide post	Stock abundance and UoA removals are monitored and at least one indicator is available and monitored with sufficient frequency to support the harvest control rule.	Stock abundance and UoA removals are regularly monitored at a level of accuracy and coverage consistent with the harvest control rule , and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule.	All information required by the harvest control rule is monitored with high frequency and a high degree of certainty, and there is a good understanding of inherent uncertainties in the information [data] and the robustness of assessment and management to this uncertainty.
	Met?	Yes	Yes	No

Rationale

Stock abundance is as noted above monitored annually with up to four acoustic surveys.

Total catch and landings data are closely monitored and controlled through designated landing port legislation. No vessels are permitted to take part in the fishery without a licence and available quota. Discarding is banned in Icelandic waters and there are arrangements in place in the purse seine fishery for occasional excess catch to be transferred to a neighbouring vessel.

The Icelandic fisheries monitoring system includes a 24 hours screen monitored surveillance of all fishing activities. These data are sufficient to support the HCR. Therefore, stock abundance and UoA removals are regularly monitored at a level of accuracy and coverage consistent with the harvest control rule, and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule. **SG60 and SG 80 are met.**

Information on the dependence of cetaceans and sea birds on capelin and their seasonal coincidence is an area of uncertainty in relation to the management of this fishery and the lower trophic level status of capelin. The ICES working group (NWWG) particularly identified the need for further information on predator/prey relationships and how SSB estimates from autumn and winter surveys should be weighted when the final TAC is defined. **SG 100 is not fully met.**

Comprehensiveness of information		
C	Guide post	There is good information on all other fishery removals from the stock.
	Met?	Yes
Rationale		

Catch of capelin may occur in some other pelagic fisheries such as the herring and mackerel fisheries. If and when they do occur the catches must be landed and are recorded against the species TAC. All discarding is banned in Icelandic waters and the penalties for non-compliance are severe. As there is good compliance with the fisheries regulations, there is good information on all other fishery removals from the stock. **SG80 is met.**

References

- SAI Global 2017
- ICES. 2015. WKICE
- ICES. 2020a. NWWG

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	90
Condition number (if relevant)	N/A

PI 1.2.4 – Assessment of stock status

PI 1.2.4		There is an adequate assessment of the stock status		
Scoring Issue		SG 60	SG 80	SG 100
a	Appropriateness of assessment to stock under consideration			
	Guide post		The assessment is appropriate for the stock and for the harvest control rule.	The assessment takes into account the major features relevant to the biology of the species and the nature of the UoA.
	Met?		Yes	Yes
Rationale				

The capelin stock in the Iceland, East Greenland and Jan Mayen area has been assessed entirely by annual acoustic surveys since 1978. The Framework agreement (2018) stipulates at least three annual surveys to allow setting an initial, an intermediate and a final TAC. These surveys produce abundance estimates of immature (1-2yr olds) and maturing and mature fish (3-4 yrs old). The surveys are the responsibility of the MFRI in Iceland.

The results of the acoustic surveys are available very quickly and are then fed directly into the management of the stock. **SG 80 is met.**

The assessment is built on a species predation model involving capelin/cod/haddock/saithe. The biomasses of capelin are measured directly. The assessment therefore accounts for the major features (growth, maturity and predation) for the capelin stock.

Therefore, the assessment takes into account the major features relevant to the biology of the species and the nature of the UoAs. **SG 100 is met.**

Assessment approach				
b	Guide post	The assessment estimates stock status relative to generic reference points appropriate to the species category.	The assessment estimates stock status relative to reference points that are appropriate to the stock and can be estimated.	
	Met?	Yes	Yes	
Rationale				

There are two types of reference points defined for the capelin stock: an upper cap on the initial TAC and an escapement target for spawning biomass after the fishery, see Framework agreement (2018) for details. These reference points are appropriate for the short-lived species such as capelin, ICES (2020) ICES Advice basis

The stock assessment produces abundance estimates in two formats essential for the management of the stock. The immature portion of the stock, assessed in the autumn surveys is presented as a numerical abundance. This information is then used directly via a regression to determine an initial TAC for the fishing season 15 to 18 months later. The mature stock abundance (SSB) is a biomass estimate which is used to determine stock status in relation to a biomass limit level (150,000t).

This is the minimum SSB level which must be left to spawn taking into account the ecosystem requirements of predation by cod, haddock and saithe. The biomass limit level has been appropriately estimated as B_{loss} based on observations that the recruitments generated around this value (cohorts, 1981, 1982 and 1990) were of average strength and that average recruitment did not appear to decline at low SSB over the observed range.

The assessment estimates stock status relative to reference points that are appropriate to the stock and can be estimated and **SG60 and SG 80 are met.**

Uncertainty in the assessment				
c	Guide post	The assessment identifies major sources of uncertainty.	The assessment takes uncertainty into account .	The assessment takes into account uncertainty and is evaluating stock status relative to reference points in a probabilistic way.
	Met?	Yes	Yes	Yes
Rationale				

The main uncertainty in the assessment is the reliability of the acoustic surveys. Uncertainty is generated when survey coverage is reduced, which can occur for a variety of reasons. Most commonly adverse weather affects coverage but vessel operational problems have also affected coverage in some seasons. In erring on the side of precaution no attempt is made to interpolate statistically for unsampled areas and the actual acoustic survey results area accepted. **SG60 is met.**

The assessment takes uncertainty into account, this is done most dramatically by ignoring survey results that e.g. because of technical problems or bad weather are not considered reliable. The estimates are provided with confidence limits and these are included in the decision rules for setting TACs. The estimate of the mature biomass left to spawn (the biomass limit level of 150,000t) is estimated with 95% probability of not being below that level. **SG80 is met.**

As noted above the account of uncertainty involves a probabilistic evaluation of the assessment results i.e., the assessment takes into account uncertainty and is evaluating stock status relative to reference points in a probabilistic way and **SG 100 is met.**

Evaluation of assessment				
d	Guide post	The assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored.		
	Met?			Yes
Rationale				

The only real test for this assessment is the ongoing status of the spawning stock in relation to supporting ecosystem needs and a viable fishery. The acoustic survey method has been used for the IGJM capelin stock since 1978 and the assessment method has been subject to an ICES benchmark ICES (2015). ICES had external advisors to review the work during the process of making that report before approved by ACOM. Furthermore, ICES review the assessment annually by the NWWG group, advisory drafting group and thereafter it is approved by ACOM and there appears to be the assessment has been tested and shown to be robust. Alternative hypotheses and assessment approaches have been rigorously explored and **SG 100 is met.**

Peer review of assessment				
e	Guide post	The assessment of stock status is subject to peer review.		
	Met?		Yes	Yes
Rationale				

Before the results of the assessment by the ICES assessment working group (NWWG) are released into the public domain, they are reviewed by an independent group of scientists appointed by ICES to form the Advisory Committee on Management (ACOM). Only when endorsed by ACOM are the results of the assessment released in the form of advice on stock status and the future management of the fishery. A similar process is followed for the periodic

Benchmark Workshops which examine all the data inputs and methodology and endorse any proposed changes in either the assessment to TAC setting procedures. Furthermore, ICES review the assessment annually by the NWWG group, advisory drafting group and thereafter it is approved by ACOM. Therefore, the assessment has been internally and externally peer reviewed. **SG80 and SG 100 are met.**

References

- ICES (2020) NWWG
- ICES (2015) WKICES
- ICES (2020) Advice on Capelin 5

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	100
Condition number (if relevant)	N/A

7.3 Principle 2

7.3.1 Principle 2 background

Table 12 shows that overall there is very little bycatch and therefore midwater trawl and purse seine are assessed in combination. The detailed list of species found in the capelin fishery (midwater trawl and purse seine combined), Table 15 does not include threaten species. The list includes cod, haddock, saithe, Blue whiting, redfish (*S. norvegicus* and *S. mentella*), and Greenland halibut for which there are ICES stock assessments available, see ICES.dk (Latest advice) and none of these are seriously affected by the catch levels implied by the by-catch data, the larger is cod with an average catch of less than 40 t annually. Other species on the list are surveyed regularly by MFRI and advice on the fishery and the status of the stock is found on <https://www.hafogvatn.is/en/harvesting-advice>. This includes lumpfish, plaice and Atlantic wolffish. The more rare species for which there is no regular assessment catches are neglectable less than 100 kg annually.

The scoring elements identified in the catch composition (see Table 12) are given in Table 14. Classification is based on primary species, i.e. under management based on reference points and secondary, i.e. out of scope species and in-scope species for which there is no management-based reference points and are not ETP species. 'Main'/'Minor' is classified based on a 5% of the total catch criterion. For vulnerable species (longevity, low reproduction capacity, slow growth, etc) the criterion is 2%.

Table 14 Scoring elements

Component	Scoring elements	Designation	Data-deficient
Target species (Principle 1)	Lodna/Capelin	N/A	No
Primary	Toskur/cod	Minor	No
Primary	Hýsa/Haddock	Minor	No
Primary	Upsi/saithe	Minor	No
Primary	Kongafiskur/Redfish	Minor	No
Secondary	Annað/Other fish	Minor	Yes

7.3.2 Primary species

The capelin fishery is with very little by-catch (see Table 12 and SAI (2017) PCR for ISF Icelandic capelin). There are four primary species identified in the catch composition (cod, haddock, saithe, redfish). For each of the three gadoids there is a management plan based on biological reference points. A range of fish appears under 'Other fish' these are scored as secondary species. All species are 'minor' below 2% for vulnerable species (redfish) and below 5% for other fish species.

Icelandic law explicitly prohibits discards of bycatch, i.e. unwanted species or undersized fish. There are certain incentives for compliance incorporated into the system. For example, the master of a vessel can decide that a certain amount of all landed catch will not be deducted from the vessel catch quota, on the condition that this catch is sold at an auction market. The proceeds from these sales are directed to a special fund that is used to fund marine research. The crews of the fishing vessels get paid a minimum, fixed handling fee for bringing the bycatch ashore. This rule encourages vessels to bring all catches to port.

Status of the species is discussed in the scoring table justification for PI 2.1.1.

7.3.3 Secondary species

The only group of species that are classified as 'secondary' are the 'Other fish' group. It is not clear which species are found in this group (by definition) and whether the group would include primary species. SAI Global (2017) Table 4 for the Icelandic fishery provides the following list of species found in the Icelandic fishery. The data confirm that only very rarely other species than capelin are found and that all species that potentially would be found in the catches are 'minor'.

Table 15 Species identified in the Icelandic capelin fishery 2011-2016, From SAI Global (2017) Table 4.

Species		Catches (kg) 2011-2016	% Total
Capelin	<i>Mallotus villosus</i>	1,948,686,000	99.9870%
Dealfish	<i>Trachipterus arcticus</i>	2	0.0000%
Common Skate	<i>Dipturus batis</i>	77	0.0000%
Turbot	<i>Scophthalmus maximus</i>	2	0.0000%
Greenland Halibut	<i>Reinhardtius hippoglossoides</i>	6	0.0000%
Monkfish	<i>Lophius spp</i>	14	0.0000%
Atlantic wolffish	<i>Anarchichas lupus</i>	19	0.0000%
Blue Whiting	<i>Micromesistius poutassou</i>	71	0.0000%
Redfish	<i>Sebastes spp</i>	116	0.0000%
Plaice	<i>Pleuronectes platessa</i>	140	0.0000%
Lumpfish	<i>Cyclopterus lumpus</i>	1,335	0.0001%
Herring	<i>Clupea harengus</i>	403	0.0000%
Saithe	<i>Pollachius virens</i>	5,782	0.0003%
Haddock	<i>Melanogrammus aeglefinus</i>	8,310	0.0004%
Cod	<i>Gadus morhua</i>	236,403	0.0121%
Total retained catches		1,948,938,605	100.0000%
Total retained non-target		252,605	0.0130%

Incidental catch of seabirds and marine mammals is monitored by mandatory recordings in electronic logbooks

7.3.4 ETP Species

ETPs species are defined by MSC as “Species recognised by national legislation and/or binding international agreements to which the jurisdictions controlling the fishery under assessment are party. Species listed under Appendix I of CITES shall be considered ETP species for the purposes of the MSC assessment, unless it can be shown that the particular stock of the CITES listed species impacted by the fishery under assessment is not endangered”

The CITES appendices I, II and III can be consulted in this link, where all the species that might be considered ETP are listed.

Also, FCR V2.0 shall consider ETP species, those species listed under Convention on Migratory Species (CMS) or species classified as “out of scope” (amphibians, reptiles, birds and mammals) that are listed in the IUCN list as Vulnerable (VU), Endangered (EN) or Critically Endangered (CE).

Table 16 presents a list of relevant species that occur in the area where the fishery takes place and the relevant determining convention or legislation.

Table 16 ETP species identified by SAI Global (2017). DD – Data Deficient, LC – Least Concern, NT – Near Threatened, VU – Vulnerable, and CR – Critically Endangered and EN - Endangered Species.

Species	Class	CITES	CMS	IUCN status
Belugas (<i>Delphinapterus leucas</i>)	Mammals	X (appex.II)	X	NT
Blainville’s beaked whale (<i>Mesoplodon densirostris</i>)	Mammals	X (appex.II)	X	DD
Blue whale (<i>Balaenoptera musculus</i>)	Mammals	X (appex.I)	X	EN
Bottlenose whale (<i>Hyperoodon ampullatus</i>)	Mammals	X (appex.I)	X	DD
Bowhead whales (<i>Balaena mysticetus</i>)	Mammals	X (appex.I)	X	LC
Common or harbour seals (<i>Phoca vitulina</i>)	Mammals	NO	X	LC
Cuvier’s beaked whales (<i>Ziphius cavirostris</i>)	Mammals	X (appex.I)	X	EN
Fin whale (<i>Balaenopterus physalus</i>)	Mammals	X (appex.I)	X	EN
Grey seals (<i>Halichoerus grypus</i>)	Mammals	NO	X	LC
Grey whale (<i>Eschrichtius robustus</i>)	Mammals	X (appex.I)	X	LC
Harbour porpoises (<i>Phocoena phocoena</i>)	Mammals	X (appex.II)	X	LC
Humpback whale (<i>Megaptera novaeangliae</i>)	Mammals	X (appex.I)	X	LC
Killer whale (<i>Orcinus orca</i>)	Mammals	X (appex.II)	X	DD

Species	Class	CITES	CMS	IUCN status
Long- finned pilot whale (<i>Globicephala melas</i>)	Mammals	NO	X	DD
Minke whale (<i>Balaenoptera acutorostrata</i>)	Mammals	X (appenx.I & II)	X	LC
Northern right whale (<i>Eubalaena glacialis</i>)	Mammals	X (appenx.I & II)	X	EN
Sei whale (<i>Balaenoptera borealis</i>)	Mammals	X	X	EN
Sowerby’s beaked whale (<i>Mesoplodon bidens</i>)	Mammals	X	X	VU
Sperm whales (<i>Physeter macrocephalus</i>)	Mammals	NO	X	DD
White-beaked dolphin (<i>Lagenorhynchus albirostris</i>)	Mammals	X (appenx.II)	X	DD
Atlantic Puffin (<i>Fratercula arctica</i>)	Bird	NO	X	VU
Kittiwake (<i>Rissa tridactyla</i>)	Bird	NO	X	VU
Brunnich Guillemot (<i>Uria lomvia</i>)	Bird	NO	X	LC
Common Guillemot (<i>Uria aalge</i>)	Bird	NO	X	LC

International whaling commission <https://iwc.int/status> judges that currently the major threat to baleen whales is by-catch in fisheries. NAMMCO website, <https://nammco.no/marinemammals/whales/> provides an overview of abundance surveys for the whales available in the North Atlantic. None of these species in Table 16 has been reported from the Faroese capelin fishery.

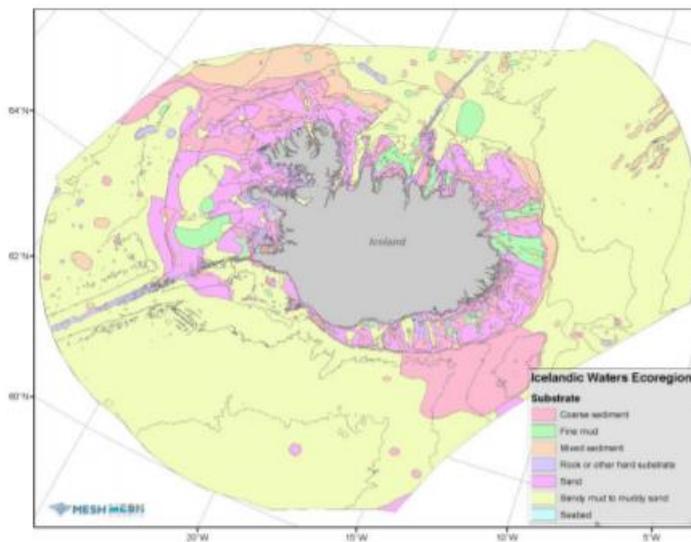
Stock status is based on IWC and summarised below (see Table 17).

Table 17 Status of large whales in the North Atlantic. Source IWC

Species	IWC Status
Common Minke Whales North Atlantic	These stocks are in a healthy state. Recent reliable abundance estimates for the northeastern and central North Atlantic, and off West Greenland total around 180,000 animals.
Humpback Whales North Atlantic	In central and western areas, populations have recovered to perhaps pre-whaling levels and number over 12,000 animals. Less is known about the abundance in eastern regions but almost 5,000 animals are estimated in the Norwegian and Barents Seas. They have been increasing off West Greenland. They are vulnerable to entanglement.
Sei Whales North Atlantic	Insufficient data exists to assess present status. Surveys show little sign of increase in the northeastern Atlantic. There were around 10,500 whales in 1989 in the central region where less hunting took place. No recent abundance estimates are available off Canada where they were heavily exploited in the past.
North Atlantic Right Whales	One of the most endangered species with little sign of recovery in most areas. In the east, sightings are extremely rare. In the west, the population numbers around 500 animals with some signs of slow increase. The main threats are entanglement and ship strikes
Blue Whales North Atlantic	Present status has not been fully assessed but encouragingly, evidence suggests they are increasing, at least in the central area. There are some 1,000 animals off Iceland and several hundred in the Gulf of St Lawrence. They remain rare in the northeastern Atlantic where they were once common.
Fin Whales North Atlantic	Present total abundance is over 75,000 whales although not all areas have been surveyed. Assessments show the Central and West Greenland populations to be in a healthy state. Their status in other areas has not been fully assessed.

7.3.5 Habitat Impact

The major habitats around Iceland are presented in Figure 4. However, the Faroese capelin fishery is conducted with midwater trawl and with purse seine. None of these gears have bottom contact. Hence there are no impact on bottom habitats.



Major substrates in the Icelandic Waters ecoregion (compiled by EMODnet Seabed Habitats; www.emodnet-seabedhabitats.eu).

Figure 4 Major substrates in Icelandic waters. Source: Ecosystem overview. MFRI.is

7.3.6 Ecosystem impact

The ecosystem around Iceland is described in MFRI (2020) Ecosystem overview MFRI.is and ICES (2020) Ecosystem Overview

Environment: Since 1970 the Marine Research Institute has carried out extensive environmental surveys up to four times per year in relation to oceanography and primary- and secondary production. The variable location of the fronts between the colder and fresher waters of Arctic origin and the warmer and more saline waters of Atlantic origin result in variable local conditions, especially on the northern part of the shelf. During the last two decades, the Atlantic water mass has been dominating, in contrast to the Arctic domination in the previous three decades. Zooplankton biomass on the northern shelf has fluctuated in the past, cycling on a five- to ten-year periodicity, with a period of generally low biomass from the 1960s to the 1990s.

Fish: From the mid-2000s, Atlantic mackerel *Scomber scombrus* extended its feeding grounds from the Norwegian Sea to Icelandic Waters ecoregion, while the summer feeding grounds of capelin *Mallotus villosus* moved westwards from the Icelandic Waters into Greenland waters. Norwegian spring-spawning herring *Clupea harengus* has, since the early 2000s, reappeared at its traditional feeding grounds east and north of Iceland. These major changes in migration patterns have been linked to prey availability, oceanographic conditions, and stock density.

Increased temperature in the lower water column on the western and northern part of the Icelandic shelf has resulted in changes in spatial distribution for a number of demersal species. Species like haddock *Melanogrammus aeglefinus*, anglerfish *Lophius piscatorius*, ling *Molva molva*, tusk *Brosme brosme*, dab *Limanda limanda*, and witch *Glyptocephalus cynoglossus* that have previously had Icelandic waters as their northern boundary of distribution and have mainly been recorded in the warm waters south and west of Iceland, are now showing a northward clockwise trend in their distribution along the shelf, and in some cases a distributional shift. Warming waters has led to a decline in the stock abundance and distribution of many cold-water species, while the previously rare occurrence of warm-water species in the ecoregion has increased in recent years

Sea Birds Twenty-two species of seabirds (30–50 million individuals) are found in the area. Food consumption in the summer is estimated for the six most common species at 171 thous. tons of capelin, 184 thous. tonnes of sandeel and 24 thous. tons of other food items. The population of breeding birds of the main species has decreased. Declining food supply is considered the most likely explanation for this decrease. Stefánsson et al. (1997) studied the interactions between cetaceans and some fish species (mainly capelin and krill) in Icelandic waters. The results indicate that both minke and humpback whales may have significant direct impact on the status of the capelin stock. The effects of fin

whale predation on the capelin stock seems less significant unless such consumption occurs outside the sampled area, which is considered quite possible.

Studies show that the decrease in the seabird population are due to several causes and population shift and range changes can rarely be attributed to a single source (Gaston et.al, 2011).

Marine mammals: Six species of **seals** have been found in Iceland, but only two species, harbour seals (*Phoca vitulina*) and grey seals (*Halichoerus grypus*), are stationary in Iceland. The population sizes of both seals have been steadily declining since 1980. Seals were counted at the end of 2017 and the number was estimated at 6,300 animals.

Twenty-three species of **whales** have been found off Iceland, and at least 12 whale species occur regularly. Whale counts have been carried out at regular intervals in the years 1987–2016 and show a large variability. The population size of longliners and humpback whales has been increasing over the past two to three decades and the number of longliners in 2015 was the highest since counts began. The number of Common minke whales (*Balaenoptera acutorostrata*) in Icelandic has decreased significantly the continental shelf in recent years, probably due to changes in the distribution of important food items, e.g. herring and capelin.

Management: The ecoregion lies within the Icelandic EEZ and the fisheries are mainly managed by the Icelandic Government, with the fisheries of some stocks being managed by NEAFC and by coastal state agreements. Environmental policy is managed by national agencies, with advice being provided by national agencies, OSPAR, and ICES. The International Whaling Commission (IWC) has regulations for the conservation and harvest of whales. Marine mammal issues are also considered in cooperation with the North Atlantic Marine Mammal Commission (NAMMCO).

The capelin fishery will be conducted within the overall harvest strategy and HCR as described under Principle 1

7.3.7 Principle 2 Performance Indicator scores and rationales

PI 2.1.1 – Primary species outcome

PI 2.1.1		The UoA aims to maintain primary species above the point where recruitment would be impaired (PRI) and does not hinder recovery of primary species if they are below the PRI		
Scoring Issue		SG 60	SG 80	SG 100
a	Main primary species stock status			
	Guide post	Main primary species are likely to be above the PRI. OR If the species is below the PRI, the UoA has measures in place that are expected to ensure that the UoA does not hinder recovery and rebuilding.	Main primary species are highly likely to be above the PRI. OR If the species is below the PRI, there is either evidence of recovery or a demonstrably effective strategy in place between all MSC UoAs which categorise this species as main , to ensure that they collectively do not hinder recovery and rebuilding.	There is a high degree of certainty that main primary species are above the PRI and are fluctuating around a level consistent with MSY.
	Met?	Yes (default)	Yes (default)	Yes (default)
Rationale				

Capelin fishery is very clean, see Table 12. The two UoAs (purse seine and midwater trawl) show almost the same catch composition, all species identified in the fishery are retained by both gears and the % of catches does not show differences. Scoring is therefore done for the two gears combined.

The percentage of catches of all of them are less than 5% as it shown in the table to distinguish ‘main’ from ‘minor’ species; for redfish the limit is 2% because of the low productivity and long-levity of these species.

No main primary species are identified in the fishery and hence default scoring of SG100 is met.

‘Other fish’ are dealt with under PI 2.2 below.

Table 18 Catch composition in Faroese fleet 2014-2018 (1/9-2014 - 31/8-2018) and classification with respect to MSC v2.01 PI2.1 (primary) and PI2.2 (secondary)

Species			Faroese Vessels UoC-2 (kg)	%	Classification	
Toskur	Cod	<i>Gadus morhua</i>	6.242	0,02%	Primary	Minor
Hýsa	Haddock	<i>Melanogrammus aeglefinus</i>	671	0,00%	Primary	Minor
Upsi	Saithe	<i>Pollachius virens</i>	765	0,00%	Primary	Minor
Kongafiskur	Redfish	<i>Sebastes spp.</i>	41	0,00%	Primary	Minor
Lodna	Capelin	<i>Malotus villosus</i>	34.174.530	99,09%	Target	
Annað	Other fish		305.423	0,89%	Secondary	Minor
Total			34.487.672	100,00 %		
By-catch			313.142	0.91%		

Minor primary species stock status			
b	Guide post		Minor primary species are highly likely to be above the PRI. OR If below the PRI, there is evidence that the UoA does not hinder the recovery and rebuilding of minor primary species.
	Met?		Yes
Rationale			

The minor primary species are dealt with below.

Cod in 5a: The management plan is based on TAC's set as the average of last year's TAC and 20 % of reference biomass. The spawning-stock biomass (SSB) shows an increasing trend and is well above MSY Btrigger. Fishing pressure (F) has declined in the last two decades and is currently at a historical low and close to HR_{MSY}. Recruitment (R) has been relatively stable since 1988, The total catch from this stock is around 50,000 t. Catches in the Faroese capelin fishery are minimal below 10 t. MFRI (2020) Advice ÞORSKUR (hafogvatn.is). **SG100 is met for cod.**

Haddock in 5a: The management plan is based on setting the TAC as 35% of reference biomass in advisory year. This plan was revised in 2018 and is considered precautionary by ICES. The spawning-stock biomass (SSB) has decreased since 2008, but stabilized above MSY Btrigger in recent years. The harvest rate is currently estimated above HR_{MGT} = HR_{MSY}. Recruitment is highly variable and has increased since 2015. The total catch from this stock is around 40,000 t. Catches in the Faroese capelin fishery are minimal below 1 t. MFRI (2020) Advice 02-haddock1206937.pdf (hafogvatn.is). **SG100 is met for haddock.**

Saithe in 5a: The management plan is based on setting TAC as the average of last year's TAC and 20% of reference biomass. The stock was benchmarked in 2019 and the management strategy evaluated which resulted in minor changes in reference points (ICES 2019). ICES concluded that the HCR used from 2013–2018 was consistent with both the Precautionary Approach and ICES MSY approach. The HCR has been adopted by the Icelandic Ministry of Industries and Innovation and will be in effect until fishing year 2023/2024. The spawning-stock biomass (SSB) is currently at the time-series maximum. The harvest rate has declined from 2009 and is presently estimated below HR_{MGT}. Recruitment in the last decade has been high. The reference biomass has increased since 2015 due to the large 2012 yearclass. Yearclasses 2013 and 2014 are estimated to be above average but yearclass 2015 small. The total catch from this stock is around 50-60,000 t, higher in recent years. Catches in the Faroese capelin fishery are minimal, below 1 t. MFRI (2020) Advice 03-saithe-11206960.pdf (hafogvatn.is). **SG100 is met for saithe.**

Redfish: This is assessed as *Sebastes norvegicus*. The management plan is to set TAC at the FMSY when the stock is above MSYBtrigger. Spawning-stock biomass (SSB) steadily increased from 2002–2015 and then showed a decreasing trend but remains well above MSY Btrigger. Fishing mortality has decreased in the past two decades but is above FMSY. The 2009–2013 year classes are estimated to be record lows in the time series. The total catch from this stock is around 40,000 t. Catches in the Faroese capelin fishery are minimal below 1 ton. MFRI (2020) Advice 05-goldenredfish_tr1206856.pdf (hafogvatn.is). **SG100 is met for redfish.**

Other fish: These are assessed based on data from the Icelandic fishery, see Table 13. The Icelandic fishery takes place in the same area as do the Faroese and the operational practices are identical. In the list of 'other fish' one finds three primary species (Greenland halibut, Herring and Blue whiting) all with by-catch percentages below 0.001 %

- **Greenland halibut:**
ICES assesses that fishing pressure on the stock is below FMSY and Flim, and spawning stock size is above MSY Btrigger and Blim.
- **Herring (Atlanto-scandian herring):**
Fishing mortality has increased since 2015 but is estimated to be below FMSY in 2018 and above in 2019. The spawning-stock biomass (SSB) has been declining since 2008 but is estimated to be above MSY Btrigger in 2020. Recruitment is estimated to be average or low since 2007 (2005 year-class).

- Blue whiting:
Fishing mortality (F) is estimated to be above FMSY since 2014. Spawning-stock biomass (SSB) has been decreasing since 2018; however, it is estimated to remain above MSY Btrigger. Recruitment (R) from 2017 to 2020 is estimated to be low, following a three-year period of high recruitment.

In summary: the primary species are above PRI level (Blim) and the catch in the capelin fishery is small and is not hindering any recovery should that be required. **SG100 is met for all scoring elements.**

References

MFRI advice

ICES (2020) advice for Cod 5a, Haddock 5a, Saithe 5a and Golden redfish (*Sebastes norvegicus*) in ICES division 5.a (Iceland), 5.b (Faroe Islands) and subarea 14,

ICES. 2020. Herring (*Clupea harengus*) in subareas 1, 2, and 5, and in divisions 4.a and 14.a, Norwegian spring-spawning herring (the Northeast Atlantic and the Arctic Ocean). In Report of the ICES Advisory Committee, 2020.

ICES Advice 2020, her.27.1-24a514a. <https://doi.org/10.17895/ices.advice.5876>.

ICES. 2020. Blue whiting (*Micromesistius poutassou*) in subareas 1–9, 12, and 14 (Northeast Atlantic and adjacent waters). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, whb.27.1-91214.

<https://doi.org/10.17895/ices.advice.5881>.

ICES. 2021. Greenland halibut (*Reinhardtius hippoglossoides*) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland). In Report of the ICES Advisory Committee, 2021.

ICES Advice 2021, ghl.27.561214, <https://doi.org/10.17895/ices.advice.7756>.

MFRI (2020) Advice | Marine and Freshwater Research Institute (hafogvatn.is)

Draft scoring range	≥80
Information gap indicator	More Information is sought to score PI [documentation of the ‘Other fish’ group]

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	100
Condition number (if relevant)	N/A

PI 2.1.2 – Primary species management strategy

PI 2.1.2		There is a strategy in place that is designed to maintain or to not hinder rebuilding of primary species, and the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of unwanted catch		
Scoring Issue		SG 60	SG 80	SG 100
a	Management strategy in place			
	Guide post	There are measures in place for the UoA, if necessary, that are expected to maintain or to not hinder rebuilding of the main primary species at/to levels which are likely to be above the PRI.	There is a partial strategy in place for the UoA, if necessary, that is expected to maintain or to not hinder rebuilding of the main primary species at/to levels which are highly likely to be above the PRI.	There is a strategy in place for the UoA for managing main and minor primary species.
	Met?	Yes	Yes	Yes
Rationale				

There are no main primary species in the fishery therefore **by default the fishery meets SG 80.**

Each vessel targeting capelin need quota to land other retained species (non-target), therefore all the non target species must be recorded, landed and reported to DoF. All the species landing must be reported and a landing obligation is implemented in the fishery.

The catch limitation system is based on the catch share allocated to individual vessels. The catch limit of each vessel during the fishing year is thus determined on basis of the TAC of the relevant species – the Faroese share - and the vessel's share in the total catch. In addition, Icelandic fisheries management which the Faroese fisheries is subject to includes many other management measures such as area restrictions and fishing gear restrictions to ensure the fishery is targeting capelin and other catches are reduced. These measures together form a strategy to target capelin and capelin alone and maintain other by-catch species at a minimum. **SG100 is met.**

Management strategy evaluation				
b	Guide post	The measures are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species).	There is some objective basis for confidence that the measures/partial strategy will work, based on some information directly about the fishery and/or species involved.	Testing supports high confidence that the partial strategy/strategy will work, based on information directly about the fishery and/or species involved.
	Met?	Yes	Yes	Yes
Rationale				

For all the primary species retained by the fishery, the management system implementation is working. The obligation of landing all catches and the control by TAC is supervised by the Directorate of Fisheries (DoF). All the catches landed are reported and the catches in port are weighted and all the species landed are checked. This applies independent of whether landing takes place in Iceland or on the Faroe Islands.

Effective control and enforcement are inseparable part of the responsible fisheries management.

Scientific research is essential for successful management. The Marine Research Institute carries out wide ranging and extensive research on the status and productivity of the commercial stocks, and long-term research on the marine environment and the ecosystem around Iceland. The results of this research are the foundations of the advice on sustainable catch level of the fish stocks then every year the MFRI gives advices to the Minister to establish the quotas and to report the status of each species and if the strategy implemented for its management is working successfully. Also, the stock assessments are a type of testing support and therefore, overfished and overfishing is not happening in any primary species.

The Faroese fishery as it is working presently supports high confidence that the partial strategy/strategy will work, based on information directly about the fishery and/or species involved and **SG60, SG80 and SG100 are met** for all the primary species identified in the capelin fishery.

Management strategy implementation				
c	Guide post		There is some evidence that the measures/partial strategy is being implemented successfully .	There is clear evidence that the partial strategy/strategy is being implemented successfully and is achieving its overall objective as set out in scoring issue (a) .
	Met?		Yes	Yes
Rationale				

The capelin fishery is a clean fishery. The percentage of catches of other non-target species is very low. That is consequence of the strategy implemented in the fishery to avoid other species, it can be confirmed the strategy is working.

The system established, allows to reduce the catches of primary species because the fleet needs to have a quota to landing non-target species and some measures for the fulfilment of the obligations of landing are in place. **SG80 is met**. The experience with the Icelandic fishery provides additional evidence that the strategy is working well SAI Global (2017).

There is a clear evidence that the partial strategy/strategy is being implemented successfully and is achieving its overall objective as set out in scoring issue a) and **SG 100 is met** for all the primary species identified in the capelin fishery.

Shark finning				
d	Guide post	It is likely that shark finning is not taking place.	It is highly likely that shark finning is not taking place.	There is a high degree of certainty that shark finning is not taking place.
	Met?	NA	NA	NA
Rationale				

There are no sharks reported in the catch compositions.

Review of alternative measures				
e	Guide post	There is a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of main primary species.	There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of main primary species and they are implemented as appropriate.	There is a biennial review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of all primary species, and they are implemented, as appropriate.
	Met?	NA	NA	NA
Rationale				

Unwanted catches do not occur in the fishery under assessment. The fishery is very clean and the primary species are negligible.

Furthermore, the discard ban presents unwanted catch as everything is landed and processed. Therefore, this issue is not scored in the fishery under assessment.

References

Framework agreement Faroe Islands - Iceland

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI
Overall Performance Indicator scores added from Client and Peer Review Draft Report	
Overall Performance Indicator score	100
Condition number (if relevant)	N/A

PI 2.1.3 – Primary species information

PI 2.1.3		Information on the nature and extent of primary species is adequate to determine the risk posed by the UoA and the effectiveness of the strategy to manage primary species		
Scoring Issue		SG 60	SG 80	SG 100
a	Information adequacy for assessment of impact on main primary species			
	Guide post	Qualitative information is adequate to estimate the impact of the UoA on the main primary species with respect to status. OR If RBF is used to score PI 2.1.1 for the UoA: Qualitative information is adequate to estimate productivity and susceptibility attributes for main primary species.	Some quantitative information is available and is adequate to assess the impact of the UoA on the main primary species with respect to status. OR If RBF is used to score PI 2.1.1 for the UoA: Some quantitative information is adequate to assess productivity and susceptibility attributes for main primary species.	Quantitative information is available and is adequate to assess with a high degree of certainty the impact of the UoA on main primary species with respect to status.
	Met?	Yes	Yes	Yes
Rationale				

There are no primary main species in the fishery. **SG60, SG80 and SG100 are met by default.**

b	Information adequacy for assessment of impact on minor primary species			
	Guide post			Some quantitative information is adequate to estimate the impact of the UoA on minor primary species with respect to status.
	Met?			Yes
Rationale				

The minor primary species reported herein are 7 species. As explained above, the catches of these species are minimal and no higher than 0.3 % in any case. These percentage of catches is negligible and doesn't hinder the status of the stock of the species listed in the assessment of this fishery.

Catch data are available in the VØRN (VORN.FO Hagtøl). Therefore, some quantitative information is adequate to estimate the impact of the UoA on minor primary species with respect to status and **SG 100 is met** for all the minor primary species defined in the fishery.

c	Information adequacy for management strategy			
	Guide post	Information is adequate to support measures to manage main primary species.	Information is adequate to support a partial strategy to manage main primary species.	Information is adequate to support a strategy to manage all primary species, and evaluate with a high degree of certainty whether the strategy is achieving its objective.
	Met?	Yes	Yes	Yes

Rationale

There is enough quantitative information to evaluate the effect of the capelin fishery in the stock of all non-target primary species, e.g. annual survey results and annual stock assessments. The catches are well documented and the impact well known.

There is information from ICES stock assessment, the report and advice from MFRI and the data available in the Directorate of Fisheries and Ministry. The Icelandic coast guard supervises that these strategies are in place and the vessels are complying with them. The roles of Coast Guard can be consulted in this document Act on the Icelandic Coast Guard No. 52, June 14th 2006 and it is explained how the Coast guard is involved in the fishery law enforcement. Therefore, the strategy implemented in the assessment for all the primary species achieve the objective and the fishery doesn't hinder the management of these species. Therefore, information is adequate to support a **strategy** to manage **all** primary species and evaluate with a **high degree of certainty** whether the strategy is achieving its objectives. **SG60, SG80 and SG100 are met.**

References

Framework agreement between Faroe Islands and Denmark

Draft scoring range	≥80
Information gap indicator	More Information is sought to score PI [verification that there is no catch of sea birds]

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	100
Condition number (if relevant)	N/A

PI 2.2.1 – Secondary species outcome

PI 2.2.1		The UoA aims to maintain secondary species above a biologically based limit and does not hinder recovery of secondary species if they are below a biological based limit		
Scoring Issue		SG 60	SG 80	SG 100
a	Main secondary species stock status			
	Guide post	Main secondary species are likely to be above biologically based limits. OR If below biologically based limits, there are measures in place expected to ensure that the UoA does not hinder recovery and rebuilding.	Main secondary species are highly likely to be above biologically based limits. OR If below biologically based limits, there is either evidence of recovery or a demonstrably effective partial strategy in place such that the UoA does not hinder recovery and rebuilding. AND Where catches of a main secondary species outside of biological limits are considerable , there is either evidence of recovery or a, demonstrably effective strategy in place between those MSC UoAs that have considerable catches of the species , to ensure that they collectively do not hinder recovery and rebuilding.	There is a high degree of certainty that main secondary species are above biologically based limits.
	Met?	Yes (Default)	Yes (Default)	Yes (Default)
Rationale				

See FCR v2.0 SA3.7.1.2: “For species that are defined as ‘out of scope’ (amphibians, reptiles, birds, mammals) that are not classified as ETP, all species impacted by the UoA shall be considered ‘main’”.

There are no reports of interactions with sea birds or marine mammals or other out of scope species.

The list of ‘other fish’ that are not primary is extracted from Table 13. None of the by-catches classifies as ‘main’.

That there are no catch of sea birds or marine mammals was confirmed at the site visit August 2021

Hence, there are no main secondary fish species reported for this fishery.

Minor secondary species stock status	
b	Guide post Minor secondary species are highly likely to be above biologically based limits. OR If below biologically based limits’, there is evidence that the UoA does not hinder the recovery and rebuilding of secondary species

	Met?		Yes
Rationale			

None of the ‘minor’ secondary fish identified as potential by-catch or less than 0.001 % of the total catch on the capelin fishery. The secondary fish catch is reported as ‘other fish’ and it is not highly likely that all these are above biologically based limits. The detailed list of species found in the capelin fishery (midwater trawl and purse seine combined), Table 15 does not include threaten species. Other species on the list are surveyed regularly by MFRI and advice on the fishery and the status of the stock is found on <https://www.hafogvatn.is/en/harvesting-advice>. This includes lumpfish, plaice and Atlantic wolffish and none of these are classified threaten. The rarer species in the catch e.g. skates and ray, deal fish, as listed in Table 15 for which there is no regular assessment, for these catches are neglectable less than 100 kg annually.

The very low by-catch rate suggests that the capelin fishery is not hindering any potential recovery. **SG100 is met.**

References

Landing records

Draft scoring range	≥80
Information gap indicator	More information sought [more detailed catch composition, explicit information on interaction with sea birds and marine mammals]

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	100
Condition number (if relevant)	N/A

PI 2.2.2 – Secondary species management strategy

PI 2.2.2		There is a strategy in place for managing secondary species that is designed to maintain or to not hinder rebuilding of secondary species and the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of unwanted catch		
Scoring Issue		SG 60	SG 80	SG 100
a	Management strategy in place			
	Guide post	There are measures in place, if necessary, which are expected to maintain or not hinder rebuilding of main secondary species at/to levels which are highly likely to be above biologically based limits or to ensure that the UoA does not hinder their recovery.	There is a partial strategy in place, if necessary, for the UoA that is expected to maintain or not hinder rebuilding of main secondary species at/to levels which are highly likely to be above biologically based limits or to ensure that the UoA does not hinder their recovery.	There is a strategy in place for the UoA for managing main and minor secondary species.
	Met?	Yes	Yes	Yes
Rationale				

There are no main secondary species identified in the capelin fishery. This includes by-catch of sea birds and marine mammals. There is a discard ban effective for this fishery. Icelandic fishing law defines potential measures (e.g. by-catch limitations) that are expected to be effective to assure that the capelin fishery is not hindering any recovery of by-catch species. **SG60 and SG80 are met.**

There is a strategy in place to manage the fisheries in such a way that by-catches are at a minimum. This strategy is supported with a range of measures. The coast guard checks any illegal activity at sea, such as discarding. Landings are controlled at ports with inspections to verify the logbook and the final landing sample. All catches are reported to the DoF. As an example of management measures introduced in response to stock status, the fisheries targeting Grey Skate (which is identified as a secondary, minor species in the Icelandic capelin fishery) are closed and the catches has been decreasing over the years. Therefore, there is a strategy in place for the UoA for managing main and minor secondary species and **SG 100 is met.**

b	Management strategy evaluation			
	Guide post	The measures are considered likely to work, based on plausible argument (e.g. general experience, theory or comparison with similar UoAs/species).	There is some objective basis for confidence that the measures/partial strategy will work, based on some information directly about the UoA and/or species involved.	Testing supports high confidence that the partial strategy/strategy will work, based on information directly about the UoA and/or species involved.
	Met?	Yes	Yes	Yes
Rationale				

The management setup is considered likely to work based on experience with the Icelandic fishery, SAI Global (2017). Furthermore, there is a general attitude for compliance within the Faroese fleet. **SG60 is met.**

Information from the Icelandic authorities SAI Global (2017) and subsequent surveillance audits is that there is good compliance with the measures introduced in the capelin fishery. The Faroese fleet operates on identical conditions and are from almost identical cultures all this together provides some objective basis for confidence that the measures will work. **SG80 is met.**

The fishery has not been active over the last two years 2019-2020, the recent fishery in 2021 confirmed that the high confidence on compliance for this fishery. **SG100 is met.**

c	Management strategy implementation		
	Guide post	There is some evidence that the measures/partial strategy is being implemented successfully.	There is clear evidence that the partial strategy/strategy is being implemented successfully and is

			achieving its objective as set out in scoring issue (a).
	Met?	Yes	No

Rationale

As explained above, there is some evidence that the strategy of landing and control the catches works to minimize the retained species which are not the target species. **SG80 is met.**
 However, as the Faroese fishery has not operated in 2019-2020 and only a very small fishery operated in 2021 there is no clear evidence from the UoAs that the partial strategy/strategy is being implemented successfully and is achieving its objective as set out in scoring issue (a) although this is highly probable in the light of the expected very small by-catches. **SG100 is not met.**

Shark finning				
d	Guide post	It is likely that shark finning is not taking place.	It is highly likely that shark finning is not taking place.	There is a high degree of certainty that shark finning is not taking place.
	Met?	NA	NA	NA

Rationale

Scoring issue is not scored as no Secondary species are sharks.

Review of alternative measures to minimise mortality of unwanted catch				
e	Guide post	There is a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of main secondary species.	There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of main secondary species and they are implemented as appropriate.	There is a biennial review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of all secondary species, and they are implemented, as appropriate.
	Met?	NA	NA	NA

Rationale

Scoring issue is not scored as there is no unwanted catch. All catch is processed, the fishery is very clean and the minor secondary species are negligible. Therefore, this issue is not relevant to this fishery.

References

SAI Global (2017)
 Information collected at the site visit August 2021

Draft scoring range	≥80
Information gap indicator	More information sought [details on species listed under ‘Other species’ in the Faroese catch statistics and how these species are regulated]

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	95
Condition number (if relevant)	N/A

PI 2.2.3 – Secondary species information

PI 2.2.3		Information on the nature and amount of secondary species taken is adequate to determine the risk posed by the UoA and the effectiveness of the strategy to manage secondary species		
Scoring Issue		SG 60	SG 80	SG 100
a	Information adequacy for assessment of impacts on main secondary species			
	Guide post	Qualitative information is adequate to estimate the impact of the UoA on the main secondary species with respect to status.	Some quantitative information is available and adequate to assess the impact of the UoA on main secondary species with respect to status.	Quantitative information is available and adequate to assess with a high degree of certainty the impact of the UoA on main secondary species with respect to status.
		OR	OR	
		If RBF is used to score PI 2.2.1 for the UoA:	If RBF is used to score PI 2.2.1 for the UoA:	
	Qualitative information is adequate to estimate productivity and susceptibility attributes for main secondary species.	Some quantitative information is adequate to assess productivity and susceptibility attributes for main secondary species.		
Met?	Yes	Yes	Yes	
Rationale				

No main secondary species in the fishery were identified and there is quantitative information (i.e. catch data) to evaluate the effect of the fishery. **SG 100 is met** by default.

Information adequacy for assessment of impacts on minor secondary species				
b	Guide post			Some quantitative information is adequate to estimate the impact of the UoA on minor secondary species with respect to status.
	Met?			No
Rationale				

The available statistics do not identify any minor secondary species but a group of unidentified catch under ‘Other fish’ The amount is however, small < 1% of the total catch. However, without some information about the species composition the information is not adequate to estimate the impact on these by-catch species although the very small by-catch rates suggest that the impact is insignificant. **SG100 is not met.**

Information adequacy for management strategy				
c	Guide post	Information is adequate to support measures to manage main secondary species.	Information is adequate to support a partial strategy to manage main secondary species.	Information is adequate to support a strategy to manage all secondary species, and evaluate with a high degree of certainty whether the strategy is achieving its objective .
	Met?	Yes	Yes	No
Rationale				

There are no main secondary species identified. **SG 60 is met.**

The catch statistics available including the information that there are no 'main' species in the catch is adequate to support the strategy to restrict by-catch. **SG80 is met.**

While information is adequate to support a **strategy** to manage **all** secondary species, because of the 'other fish' group in the statistics, there is not a **high degree of certainty** whether the strategy is achieving its objective. **SG 100 is not met.**

References

SAI GLOBAL (2017) informs on the Icelandic capelin fishery
 Information collected at the site visit August 2021

Draft scoring range	≥80
Information gap indicator	More information sought [detailed information on the 'Other fish group in the catch statistics]

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	85
Condition number (if relevant)	N/A

PI 2.3.1 – ETP species outcome

PI 2.3.1		The UoA meets national and international requirements for the protection of ETP species The UoA does not hinder recovery of ETP species		
Scoring Issue		SG 60	SG 80	SG 100
a	Effects of the UoA on population/stock within national or international limits, where applicable			
	Guide post	Where national and/or international requirements set limits for ETP species, the effects of the UoA on the population/ stock are known and likely to be within these limits.	Where national and/or international requirements set limits for ETP species, the combined effects of the MSC UoAs on the population /stock are known and highly likely to be within these limits.	Where national and/or international requirements set limits for ETP species, there is a high degree of certainty that the combined effects of the MSC UoAs are within these limits.
	Met?	Yes	Yes	No

Rationale

There are national and international limits set for the large whales through IWC, Minke whales are regulated by Iceland. NAMMCO provides an overview of abundance survey results. Limits are not set for sea birds. The Minke whale is scored in PI 2.3.1a.

The only scoring element that would present a potential impact is the minke whale. Other whales are far too big for the being caught by the gears used for fishing capelin,

For whales other than Minke whales IWC science committee evaluates the acceptable impact and there is a moratorium on hunting the larger whales with some exception under special permits.

The minke whales are common around Iceland and there is an established national limit. MFRI advised annual catches of no more than 224 common minke whales on the Icelandic continental shelf in 2016–2018. According to a regulation issued in 2019, sustainable catch limits for common minke whales and fin whales follow the advice given by the Marine Research and Freshwater Institute of Iceland. The advice for the 2019-2023 season is for maximum annual catch of 217 common minke whales and 161 fin whales, respectively. However, commercial interests are decreasing. Hunting ETPs species is regulated by the Icelandic legislation (557/2007) who requires a logbook report where any interaction or catch of birds or other endangered species is encountered. On the other hand, mammals are regulated by the Fisheries Management Act and Nature Conservation Act. no. 47/1971. Further, in Iceland, whaling is regulated by agreements ion the International Whaling Commission (IWC) and the North-Atlantic Marine Mammal Commission (NAMMCO).

The obligations to land all the catches and report of these catches at the first point of land provides quantitative data. All these data are reported to DoF and are publicly available at the DoF website. MFRI presents every year a stock assessment of Minke whales.

The abundance of common minke whales increased up to 2001, but decreased thereafter. This change likely represents changes in distribution within the Central North Atlantic stock area as a result of changed distribution of important prey species such as sandeel and capelin on the Northeast Atlantic scale and climate change. The Icelandic capelin stock has been fairly stable over the most recent two decades expect for the collapse 2018-2020.

The International Whaling Commission (IWC) has reported the whaling from Iceland but not catches from the capelin fishery, neither by the Icelandic nor the Faroese fleets.

The effect of the UoA is known to be very small, there are no reported catch. **SG60 is met.** The combined effect of take by MSC certified fisheries is also known to be very small. **SG80 is met.**

Although there are no ETP catches from Capelin fishery, the cumulative impact in other UoAs such as: ISF Norwegian & Icelandic herring trawl and seine, ISF Iceland Cod, ISF Iceland golden redfish, ISF Iceland haddock, ISF Iceland saithe and ling, ISF Iceland mackerel, and ISF Greenland halibut, must be considered. The **combined effects of the MSC UoAs** on the population/stock are known and **highly likely** to be within nationally set limits. **SG60 and SG80 are met.** However, the statistics does not provide a detailed breakdown of the reported catches, nor does the statistics report on interactions and therefore **SG 100 is not met**

In summary: **SG60 and SG80 are met** for all species for which there are national or international limits set, i.e. the whales. **SG100 is not met** because there is no breakdown of the statistics by fleet and because interactions may not be reported. Therefore, there is no high degree of certainty that the impact is within limits.

Direct effects				
b	Guide post	Known direct effects of the UoA are likely to not hinder recovery of ETP species.	Direct effects of the UoA are highly likely to not hinder recovery of ETP species.	There is a high degree of confidence that there are no significant detrimental direct effects of the UoA on ETP species.
	Met?	Yes	Yes	No
Rationale				

The rest of the ETP species are evaluated in this scoring issue because there are no catches reported from Capelin fishery. The list of species evaluated is given in Table 16.

Through ongoing observer programmes in pelagic trawl, ONGs programmes and diverse research, there is a growing body of evidence to support that pelagic trawl fisheries have few encounters with protected species that result in direct mortality of protected species. In addition, Icelandic legislation (557/2007) states that all fishing vessels must keep a fishery logbook. Birds and Mammals that are caught in fishing gear are to be reported and recorded in the fishery logbook. That report is returned to the DoF once a month. These reports are then sent onto the MFRI where the information is used for scientific work.

Accordingly, the fishery is highly unlikely to create unacceptable impacts for any ETP populations. This is corroborated by the MFRI, DoF and material published by ICES (SGBYC, WGMME) as well as general understanding of the ETP species footprint of pelagic trawl and purse seine fisheries.

Evidence supplied by the Icelandic Authorities have no reports of seabirds being captured - and suggest that it is highly unlikely that they get captured in the purse seine or midwater trawl. Captains have informed the authorities that this type of bird capture has never occurred and it was mentioned above.

As it is reported by NGOs such as AWI, interactions may occur but these do not necessarily always lead to mortality of affected individuals. The interactions with humpback and the purse seine are identified by the skypers and other research or sighting programmes. The populations of humpback is increased in the last years, consequently the interactions with humpback have also increased in last fishing season. Studies are carried out to know the relationship between the increasement in the number of humpback specimens and the interactions (Barsan, 2014).

The known direct effects are that there are no such effects and the fishery is therefore not likely to hinder recovery of the ETP species. **SG60 and SG80 are met.**

The fleets are known to be compliant with the regulations – here reporting catches.

Although information available suggests that catches of ETPs species in the Capelin fishery are negligible, the almost complete lack of reports of catches seems unlikely to reflect the full picture; the interactions should be reported and more effort to know how these interactions could affect the specimens entangled and how they could avoid the presence of whales are needed.

Also, more information regarding seabird interaction with the fishing gears would be useful to reduce the lack of information in the models. There is not a **high degree of confidence** that there are no **significant detrimental direct effects** of the UoA on ETP species. **SG 100 is not met.**

Indirect effects				
c	Guide post		Indirect effects have been considered for the UoA and are thought to be highly likely to not create unacceptable impacts.	There is a high degree of confidence that there are no significant detrimental indirect effects of the UoA on ETP species.
	Met?		Yes	No
Rationale				

Indirect effects could be depletion of the target species leading to shortage of food for some ETP species or through physical disturbance when the whales or other ETPs are entangled in the nets. There are studies describing the entanglement of whales, and other countries as USA, Australia or New Zealand have management plans to address and reduce entanglement.

Regarding the role of Capelin as LTL species and its relationship with the feeding habit of whales and seabirds, it is highly unlikely that the fisheries reduce the capelin stocks to a point where it would adversely affect ETP populations. Stefánsson et al. (1997) studied the interactions between cetaceans and some fish species (mainly capelin and krill) in Icelandic waters. The results indicate that both minke and humpback whales may have significant direct impact on the status of the capelin stock. The effects of fin whale predation on the capelin stock seems less significant unless such consumption occurs outside the sampled area, which is considered quite possible.

SAI Global (2017) expressed concerns regarding the need to include predation by whales and seabirds on capelin in the prediction models. This however, points to indirect effects for the most common species rather than ETP species. Indirect effects, including feeding habits, have been considered and are thought to be **highly likely** to be within acceptable limits and **SG 80 is met**.

Therefore, even if the direct impacts are negligible and also the indirect impacts cannot confirm to have high impacts in ETPs populations, there is a lack of information regarding how the capelin could affect the feeding patterns of whales and seabird such as kittiwake or puffin. At the same time, more effort to know how humpbacks are affected by the interactions with the nets in the purse seine fishery when the specimens try to avoid or get away from the gears should be carried out.

Therefore, there is not a high degree of confidence that there are no significant detrimental indirect effects of the fishery on ETPs species and **SG 100 is not met**.

References

Stefánsson et al. 1997
 Pike et al. (2007, 2009a & 2010)
 Basran, C. 2014
 Bertulli, C.G et al. 2011
 Víkingsson et al. 2009
 Icelandic Fisheries Report 2007. (www.fisheriesiceland.is)
 NAMMCO North Atlantic Marine Mammal Commission. 2004. Report of the Working Group on minke and fin whales. In: NAMMCO Annual Report 2003, NAMMCO, Tromsø, pp.197- 229.
 NAMMCO 2015. Report of the 22nd meeting of the Scientific Committee. North Atlantic Marine Mammal Commission. 194 bls.
 IWC 2015. Report of the Scientific Committee. San Diego, California 22. May – 3. June, 2015. 115 bls.
 Gaston, A. J. 2011. Arctic seabirds: Diversity, populations, trends, and causes. Pages 147–160 in R. T. Watson, T. J. Cade, M. Fuller, G. Hunt, and E. Potapov (Eds.). Gyrfalcons and Ptarmigan in a Changing World, Volume I.

Draft scoring range	≥80
Information gap indicator	More information sought [Investigate if there data on marine mammal and sea bird interactions]

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	80
Condition number (if relevant)	N/A

PI 2.3.2 – ETP species management strategy

PI 2.3.2		The UoA has in place precautionary management strategies designed to: <ul style="list-style-type: none"> - meet national and international requirements; - ensure the UoA does not hinder recovery of ETP species. Also, the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of ETP species		
Scoring Issue		SG 60	SG 80	SG 100
Management strategy in place (national and international requirements)				
a	Guide post	There are measures in place that minimise the UoA-related mortality of ETP species, and are expected to be highly likely to achieve national and international requirements for the protection of ETP species.	There is a strategy in place for managing the UoA's impact on ETP species, including measures to minimise mortality, which is designed to be highly likely to achieve national and international requirements for the protection of ETP species.	There is a comprehensive strategy in place for managing the UoA's impact on ETP species, including measures to minimise mortality, which is designed to achieve above national and international requirements for the protection of ETP species.
	Met?	Yes	Yes	No
Rationale				

The impact that the pelagic fisheries, both purse seine and midwater pelagic trawl, have on ETP species is negligible. The fishing operation itself can be considered as a strategy to minimize impact on whales and it shown in the DoF database the catches of minke whales and skate are insignificant. However, where limited information is available the assessment needs to be more precautionary.

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

In addition to the above, Iceland has an active programme of cetacean stock assessment carried out by MFRI to improve the awareness of mammal populations within Icelandic waters. Iceland is a member of NAMMCO - the North Atlantic Marine Mammal Commission, an international body for cooperation on the conservation, management and study of marine mammals in the North Atlantic, as the assessment team mentioned above and It has been involved in some decision-making process to establish protected areas. Through regional cooperation, the member countries of NAMMCO aim to strengthen and further develop effective conservation and management measures for marine mammals. These measures can be considered as strategies to minimize the mortality of ETPs.

SAI Global (2017) reports from personal communications with the skippers that the bycatch of seabirds is also negligible. The operational characteristic of fishery itself is a measure to avoid the catches of seabirds.

The assessment team, following the MSC guideline considers that to determinate a comprehensive strategy in place the fishery needs more effort in respect of getting data from observer programmes or other technologies and independent research programmes. Some research projects are in place, but it would be necessary a higher level of involvement from the fishery under assessment to report any type of interactions with ETPs even they are infrequent.

Therefore, for all the species reported herein as ETPs, the fishery **does not fully meet SG 100**, because it does not have a comprehensive strategy in place, as it defined by the FCR of MSC and needs more effort in getting data with a higher level of verifiability. The estimation models should include the predation of seabirds and mammals to develop a well management plan with an ecosystem approach.

To get SG 80, there are agreements in place to protect ETPs species. The mortality, coming from the activities of the fleet under assessment, is negligible.

To conclude, there is a **strategy** in place for managing the UoA's impact on ETP species, including measures to minimise mortality, which is designed to be **highly likely to achieve** national and international requirements for the protection of ETP species and **SG60 and SG 80 is met. SG100 is not met.**

b Management strategy in place (alternative)				
	Guide post	There are measures in place that are expected to ensure	There is a strategy in place that is expected to ensure the	There is a comprehensive strategy in place for managing ETP species, to

		the UoA does not hinder the recovery of ETP species.	UoA does not hinder the recovery of ETP species.	ensure the UoA does not hinder the recovery of ETP species.
	Met?	NA	NA	NA
Rationale				

Scoring issue need not be scored if there are no requirements for protection or rebuilding provided through national ETP legislation or international agreements. There are no national or international agreements in place for protection of ETPs, therefore the issue was scored above for all the ETPs species.

Management strategy evaluation				
C	Guide post	The measures are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar fisheries/species).	There is an objective basis for confidence that the measures/strategy will work, based on information directly about the fishery and/or the species involved.	The strategy/comprehensive strategy is mainly based on information directly about the fishery and/or species involved, and a quantitative analysis supports high confidence that the strategy will work.
	Met?	Yes	Yes	No
Rationale				

The low level of interactions that the pelagic fisheries have with the ETPs species listed herein is well established based on catch reports and sampling.

Pike et al. (2010) and Barsan, C. (2014) show that the humpback populations are increasing in the recent years. Measures in place are considered an appropriate strategy in conjunction with Iceland’s participation in overall cetacean management through NAMMCO and commitment to monitoring status of some key marine mammal populations in Icelandic waters.

The indirect impacts that the fishery could have in the seabird populations are studied. E.g. Birdlige, 2015 report has shown that over the past 20 years, the feeding habit of puffin has changed and it is not just for one causes. The fishery can affect the availability of preys but in most cases the changes in the seabird population are due to different reasons. The relationship between summer feeding seabirds and the fishery is further complicated by the fact that only small quantities of capelin are fished during the summer and some of the capelin stock may be out of reach for breeding Icelandic seabirds (Vilhjalmsson, 1994).

However, there are enough data available to meet SG 80 and there is an **objective basis for confidence** that the measures/strategy will work, based on **information** directly about the fishery and/or the species involved and **SG 80 is met**.

However, as there is no data from the fishery, because the fishery has reported that there is no catch, and no quantitative analysis is available, **SG100 is not met**.

Management strategy implementation				
d	Guide post		There is some evidence that the measures/strategy is being implemented successfully.	There is clear evidence that the strategy/comprehensive strategy is being implemented successfully and is achieving its objective as set out in scoring issue (a) or (b) .
	Met?		Yes	No
Rationale				

There is evidence that the strategy is implemented and there are patterns in how the fleet manages the interactions with the whales, the fleet avoids the interactions and when an entanglement happens the mortality of the whales is very rare, almost negligible. IFFO RS Iceland Capelin Assessment 2014 report has shown that 1 or 2 humpback whales are captured per year by the entire capelin fishery, for that reason the fishery is not a risk for the recovery of the whales.

Populations of several marine mammals are stable or increasing in Icelandic waters MFRI, Pike et al., (2010) and Barsan, C., (2014). However, there are few reports (mainly anecdotal) of encounters with ETP species in the capelin fishery. Capture in purse seine gear is possible, but it is considered unlikely that this will result in mortality, although scar studies (Barsan, C. 2014) have been carried out to know more about the impact of these interactions. The methods of fishing allow release animals which are not in immediate danger of drowning.

Furthermore, regarding the possible risk to seabird populations, it's noted that the fishery takes place during the winter when capelin is adult. A study carried out by Lilliendahl, K. & Solmundsson, J., 1997, has reported that the seabirds prey on capelin when they are juveniles and the percentage of capelin in diet are higher during the summer, that suggests the overlapping with the fishery is not frequent.

There is evidence that the measures/strategy is being implemented successfully and **SG 80 is met.**

Because of occasional reports of interactions with marine mammals there is not **clear** evidence, for all the ETPs reported in this fishery, that the strategy/comprehensive strategy is being implemented successfully and is achieving its objective as set out in scoring issue (a) or (b) and **SG 100 is not met.**

Review of alternative measures to minimize mortality of ETP species				
e	Guide post	There is a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species.	There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate.	There is a biennial review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality ETP species, and they are implemented, as appropriate.
	Met?	Yes	Yes	No

Rationale

MFRI carries out the stock status analysis of the whales, this is a regular review. At the international level the International Whaling Commission, the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR convention) and the NAMMCO commission provides regular reviews of the status and strategy implemented to protect the ETPs species, each within the competence of the organization. These reviews are looking on the appropriateness and effectiveness of the measures with a view to minimize ETYP species by-catch. **SG60 and SG80 are met.**

However, there is not an established regular biannual review programme for the UoAs. **SG100 is not met.**

References

Birdlife website
Lilliendahl, K. and Solmundsson, J. 1997.

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	80
Condition number (if relevant)	N/A

PI 2.3.3 – ETP species information

PI 2.3.3	Relevant information is collected to support the management of UoA impacts on ETP species, including: <ul style="list-style-type: none"> - Information for the development of the management strategy; - Information to assess the effectiveness of the management strategy; and - Information to determine the outcome status of ETP species 			
Scoring Issue	SG 60	SG 80	SG 100	
a	Information adequacy for assessment of impacts			
	Guide post	Qualitative information is adequate to estimate the UoA related mortality on ETP species. OR If RBF is used to score PI 2.3.1 for the UoA: Qualitative information is adequate to estimate productivity and susceptibility attributes for ETP species.	Some quantitative information is adequate to assess the UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of the ETP species. OR If RBF is used to score PI 2.3.1 for the UoA: Some quantitative information is adequate to assess productivity and susceptibility attributes for ETP species.	Quantitative information is available to assess with a high degree of certainty the magnitude of UoA-related impacts, mortalities and injuries and the consequences for the status of ETP species.
	Met?	Yes	Yes	No
Rationale				

The impacts that the pelagic fisheries, either purse seine or midwater pelagic trawl, have on ETP species are negligible. This is based on interviews with skippers (SAI Global (2017), qualitative information), reported catch data (quantitative information), gear operative characteristics (qualitative information) and for some species (e.g. sea birds) studies of overlap between the seasonal occurrences of the species and the fishery. There is sufficient information available to allow the fishery, related mortality, to be quantitatively assessed for all affected species reported in this assessment. Catches data are routinely reported whilst, reporting of interactions with ETPs is not mandatory. However, there is sufficient understanding of the species involved, their distribution, population status and susceptibility to bycatch in purse seine and midwater trawl gears to make a quantitative estimation of mortality within capelin fishery. **SG 60 and SG80 are met.**

However, there is also, main anecdotal information that there are encounters that are not reported and this prevent a judgement that there is a high degree of certainty in the assessment of the magnitude of mortality. **SG 100 is not met.**

b	Information adequacy for management strategy			
	Guide post	Information is adequate to support measures to manage the impacts on ETP species.	Information is adequate to measure trends and support a strategy to manage impacts on ETP species.	Information is adequate to support a comprehensive strategy to manage impacts, minimize mortality and injury of ETP species, and evaluate with a high degree of certainty whether a strategy is achieving its objectives.
	Met?	Yes	Yes	No
Rationale				

NAMMCO is a forum for the presentation of diverse and useful data from all signatory parties (Iceland included) and the reports of the annual meeting provide useful information that supports the management of ETPs species in the North Atlantic.

Hoyt et al. 2011, suggested for the protection of the Northeast Atlantic marine environment which requires signatories to identify marine species and areas in need of protection; OSPAR convention needs countries signed and Iceland is one of them which has been involved in the decision making process.

Population status of some ETPs species are regularly monitored and periodic abundance estimates are made by MFRI and reported through NAMMCO. Research on population structure and behaviour by the aid of photoidentification and skin biopsy sampling are also in developing. At the MFRI these techniques have been applied in research on killer whales since 1981 and humpback whales and blue whales since 1990. Research on harbour porpoises and white-beaked dolphins that have drowned in fishing gear (bycatch). This includes studies on feeding ecology, reproduction, age composition, population genetics and energetics. Monitoring and biological sampling of cetaceans that have stranded or beached on the coast of Iceland and the Coast Guard onto the surveillance programme is in charge to control any capture or damage occurring by the fleet.

Information is scarce on feeding ecology of most of the species regularly occurring in Icelandic waters, information on biomass and residence time gives indications of total consumption by cetaceans and seabirds in Icelandic waters, and possible effects on the yield of commercially important fish species. However, the timing of the fishery after the growth period for whales in the summer makes these deficiencies of less importance for management decisions as the system is left to its own device.

Some studies such as Víkingsson et al.1994, suggests seasonal variation in the distribution of marine mammals in coastal Icelandic waters and shift in the distribution patterns caused by changes in the distribution of prey fish and other environmental factors are hard to explain.

In summary:

The landing obligation of all catches provides information directly from the fleet and this together with other measures and studies detailed above are adequate to measure trends and support a **strategy** to manage impacts on ETP, **SG 80 is met.**

Detailed data on marine mammal and sea bird predation on capelin is only available to a limited degree and this prevent an evaluation with a high degree of certainty whether a strategy is achieving its objectives. To establish a comprehensive strategy that also involves an account of injuries from encounters between the fishery and the ETP specimen requires more quantitative information than what is available. **SG 100 is not met.**

References

Hoyt et al. 2011
<http://www.fisheries.is/main-species/marine-mammals/>
 Anon, 2008. Report of the meeting of the management committee for cetaceans. North Atlantic Marine Mammal Commission (NAMMCO).
<http://www.nammco.no/webcronize/images/Nammco/927.pdf>
 Marine Research Institute. Cetacean web pages
http://www.hafro.is/undir_eng.php?ID=15&REF=2 Stefánsson, G.,
 Víkingsson et al.2009
 Lilliendahl, K. and Solmundsson, J. 1997
 Cury, P.M., et al. 2011

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	80
Condition number (if relevant)	N/A

PI 2.4.1 – Habitats outcome

PI 2.4.1		The UoA does not cause serious or irreversible harm to habitat structure and function, considered on the basis of the area covered by the governance body(s) responsible for fisheries management in the area(s) where the UoA operates		
Scoring Issue		SG 60	SG 80	SG 100
a	Commonly encountered habitat status			
	Guide post	The UoA is unlikely to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm.	The UoA is highly unlikely to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm.	There is evidence that the UoA is highly unlikely to reduce structure and function of the commonly encountered habitats to a point where there would be serious or irreversible harm.
	Met?	Yes	Yes	Yes
Rationale				

Pelagic trawl gear and purse seine gears do not contact the seabed and thus these gears do not impact the bottom habitats. Any interaction happening with the seafloor is exceptional. **SG60 and SG80 are met.**

Capelin has a pelagic distribution and it aggregated in shoals between 0-700 meters but usually is located up to 200 m (<http://www.fishbase.org/summary/252>), Vilhjálmsson et al. (2002), the fishing activity is localized at some point in the water column above the seabed.

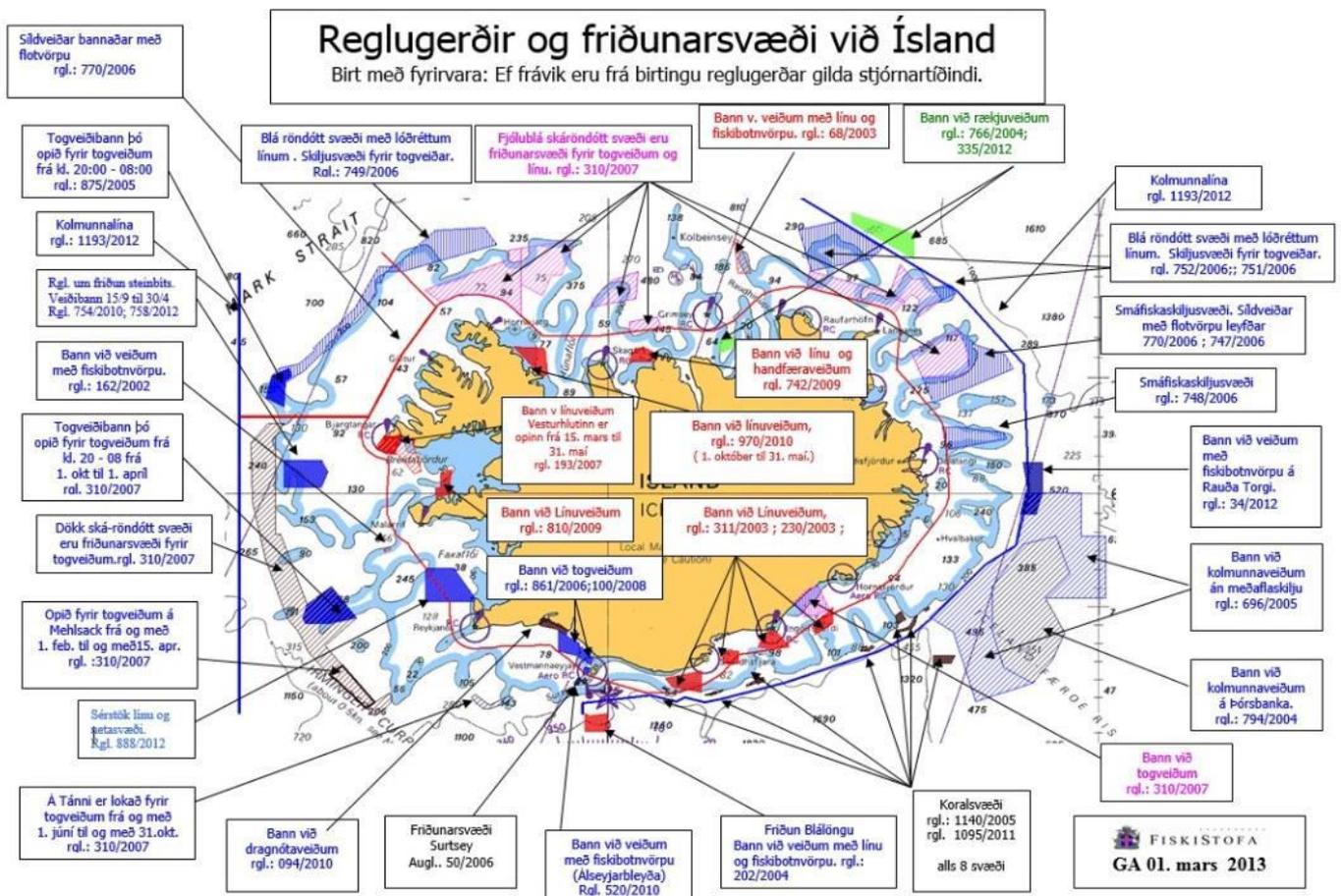
Capelin when maturing move inshore in large schools to spawn. In the spring large spawning shoals migrate toward the coasts and during its lifecycle has migrations to north areas but normally is above the seabed where they feed on a variety of copepods and carry out large migrations in pursuit of zooplankton aggregations.

In summary, Capelin largely occur in open water as a pelagic species, Capelin is most efficiently caught using mid-water trawls or purse seines, which are used to fish the upper layers of the water column. Then, there is evidence that the fishery is highly unlikely to reduce habitat structure and function to a point where there would be serious or irreversible harm and **SG 100 is met.**

		VME habitat status		
b	Guide post	The UoA is unlikely to reduce structure and function of the VME habitats to a point where there would be serious or irreversible harm.	The UoA is highly unlikely to reduce structure and function of the VME habitats to a point where there would be serious or irreversible harm.	There is evidence that the UoA is highly unlikely to reduce structure and function of the VME habitats to a point where there would be serious or irreversible harm.
	Met?	Yes	Yes	Yes
Rationale				

There is no bottom contact for the purse seine and the midwater trawl. **SG60 and SG80 are met.**

The fishery does not have any interactions with VMEs. Furthermore, protected areas in Iceland are identified and represented in a map for easy localization. The Coast Guard takes into account these areas in their control programme and they monitor any activity in these areas to comply with the law. The map below represents the different areas classified in Icelandic waters. No overlapping between fishing grounds and VMEs is noted. Therefore **SG 100 is met.**



Minor habitat status

C	Guide post	There is evidence that the UoA is highly unlikely to reduce structure and function of the minor habitats to a point where there would be serious or irreversible harm.
	Met?	Yes

Rationale

As it was explained above no VMEs are affected and also no minor habitats are damaged. The pelagic fisheries, either purse seine and midwater trawl, operate in the water column and many studies show how the pelagic fisheries do not affect the habitat. **SG 100 is met.**

References

Vilhjálmsón, H. and Sigurjónsson, J. 2002. Capelin of the Iceland-East Greenland-Jan Mayen area: biology, exploitation and management. Marine Research Institute, P. O. Box 121 Reykjavik, Iceland.

Vilhjálmsón, H. 2002. Capelin (*Mallotus villosus*) in the Iceland-East Greenland-Jan Mayen ecosystem. ICES Journal of Marine Science 59: 870-883

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI
Overall Performance Indicator scores added from Client and Peer Review Draft Report	
Overall Performance Indicator score	100
Condition number (if relevant)	N/A

PI 2.4.2 – Habitats management strategy

PI 2.4.2		There is a strategy in place that is designed to ensure the UoA does not pose a risk of serious or irreversible harm to the habitats		
Scoring Issue		SG 60	SG 80	SG 100
a	Management strategy in place			
	Guide post	There are measures in place, if necessary, that are expected to achieve the Habitat Outcome 80 level of performance.	There is a partial strategy in place, if necessary, that is expected to achieve the Habitat Outcome 80 level of performance or above.	There is a strategy in place for managing the impact of all MSC UoAs/non-MSC fisheries on habitats.
	Met?	Yes	Yes	Yes
Rationale				

Capelin lives in mid-water during its whole lifecycle. Fishing operations target the discrete shoals in mid-water, normally well above the seabed. The midwater pelagic trawl fishery seeks to actively avoid contact with the seabed in order not to damage expensive fishing gear. In fact, many instruments that minimise fishing gear/seabed interaction are used onboard such as: depth sounders, sonar and trawl position monitoring systems to control the position of the gear and how gear is operating.

There is a widely information and mapping regarding the closed areas and the kind of substrate in each grounds to allow fishing activities without damage the gears. Other measure is the prohibition on fishing with trawls within 12nm of the coast in many areas of Iceland where the most vulnerable areas of seabed (deep sea coral reefs) are.

There are different types of closed areas to fishing activity, some of them are close to avoid the catch of juveniles or because the habitat might be damaged or both. The information is review by MFRI and DoF and the updates on the mapping are shared with the fishermen and they are monitored by the Coast Guard, then they have enough information for preventing harm on habitats. Therefore, there is a **strategy** in place for managing the impact of all MSC UoAs/non-MSC fisheries on habitats and **SG60, SG 80 and SG 100 are met.**

Management strategy evaluation				
b	Guide post	The measures are considered likely to work, based on plausible argument (e.g. general experience, theory or comparison with similar UoAs/habitats).	There is some objective basis for confidence that the measures/partial strategy will work, based on information directly about the UoA and/or habitats involved.	Testing supports high confidence that the partial strategy/strategy will work, based on information directly about the UoA and/or habitats involved.
	Met?	Yes	Yes	No
Rationale				

The gears evaluated are well-known, and because there is no bottom contact there is no effect on bottom habitats.

Information regarding benthic habitats is available through on-going research in Icelandic waters carried out by MFRI as well as through OSPAR. Therefore, there is some **objective basis for confidence** that the measures/partial strategy will work, based on **information directly about the UoA and/or habitats** involved and **SG 80 is met.**

However, because a priory no bottom effects are expected research have not been carried out to verify this particularly as the instrumentation on the fishing vessels provides a good picture of the where the gear is in the water column. Testing is not carried out by the UoAs or on the other hand they are developed by national or international bodies and **SG 100 is not met.**

c	Management strategy implementation			
	Guide post		There is some quantitative evidence that the	There is clear quantitative evidence that the partial

		measures/partial strategy is being implemented successfully.	strategy/strategy is being implemented successfully and is achieving its objective, as outlined in scoring issue (a).
	Met?	Yes	Yes
Rationale			

The gears employed in the UoAs are well defined and both are pelagic gears. The fishing gear used in this fishery is not suitable for situations where the gear would routinely touch the seabed and then it is almost negligible that the fishery impacts the habitats. Quantitative data are available with the track record. Every set come from Capelin fishery might be checked in the DoF, the coast guard is in charge in the to control the fleet is not fishing in a vulnerable or closed area. Therefore, there is **clear quantitative evidence** that the partial strategy/strategy is being implemented successfully and is achieving its objective, as outlined in scoring issue a and **SG 80 and SG100 are met.**

Compliance with management requirements and other MSC UoAs'/non-MSC fisheries' measures to protect VMEs				
d	Guide post	There is qualitative evidence that the UoA complies with its management requirements to protect VMEs.	There is some quantitative evidence that the UoA complies with both its management requirements and with protection measures afforded to VMEs by other MSC UoAs/non-MSC fisheries, where relevant.	There is clear quantitative evidence that the UoA complies with both its management requirements and with protection measures afforded to VMEs by other MSC UoAs/non-MSC fisheries, where relevant.
	Met?	Yes	Yes	No
Rationale				

There are VMEs in the Icelandic waters. Capelin fishery has no impact in VMEs because as it is a pelagic fishery with no contact with the seabed and there are measures to control the fishing grounds and the vessels activities. **SG60 and SG80 is met.** However, whilst there is full VMS coverage, there is not clear quantitative evidence that this, or any other similar MSC UoAs (ISF Norwegian & Icelandic herring trawl and seine, ISF Iceland Cod, ISF Iceland golden redfish, ISF Iceland haddock, ISF Iceland saithe and ling, ISF Iceland mackerel, and ISF Greenland halibut), fully complies with both its management requirements and with protection measures afforded to VMEs, and therefore **SG 100 is not met.**

References

ICES (2020) Fisheries overview
www.fisheries.is
<http://www.fao.org/fishery/geartype/search/en>

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI
Overall Performance Indicator scores added from Client and Peer Review Draft Report	
Overall Performance Indicator score	90
Condition number (if relevant)	N/A

PI 2.4.3 – Habitats information

PI 2.4.3		Information is adequate to determine the risk posed to the habitat by the UoA and the effectiveness of the strategy to manage impacts on the habitat		
Scoring Issue		SG 60	SG 80	SG 100
a	Information quality			
	Guide post	<p>The types and distribution of the main habitats are broadly understood.</p> <p>OR</p> <p>If CSA is used to score PI 2.4.1 for the UoA: Qualitative information is adequate to estimate the types and distribution of the main habitats.</p>	<p>The nature, distribution and vulnerability of the main habitats in the UoA area are known at a level of detail relevant to the scale and intensity of the UoA.</p> <p>OR</p> <p>If CSA is used to score PI 2.4.1 for the UoA: Some quantitative information is available and is adequate to estimate the types and distribution of the main habitats.</p>	<p>The distribution of all habitats is known over their range, with particular attention to the occurrence of vulnerable habitats.</p>
	Met?	Yes	Yes	Yes
Rationale				

The distribution of habitat types is available from various surveys and studies (OSPAR, MFRI and BioICE) - and the information is improved upon with on-going research (Ocean 2025). Mapping for the area in which the fishery operates is available in the DoF and different areas are classified and identify in the maps which also are available for the fleet as it's shown in the figure below.

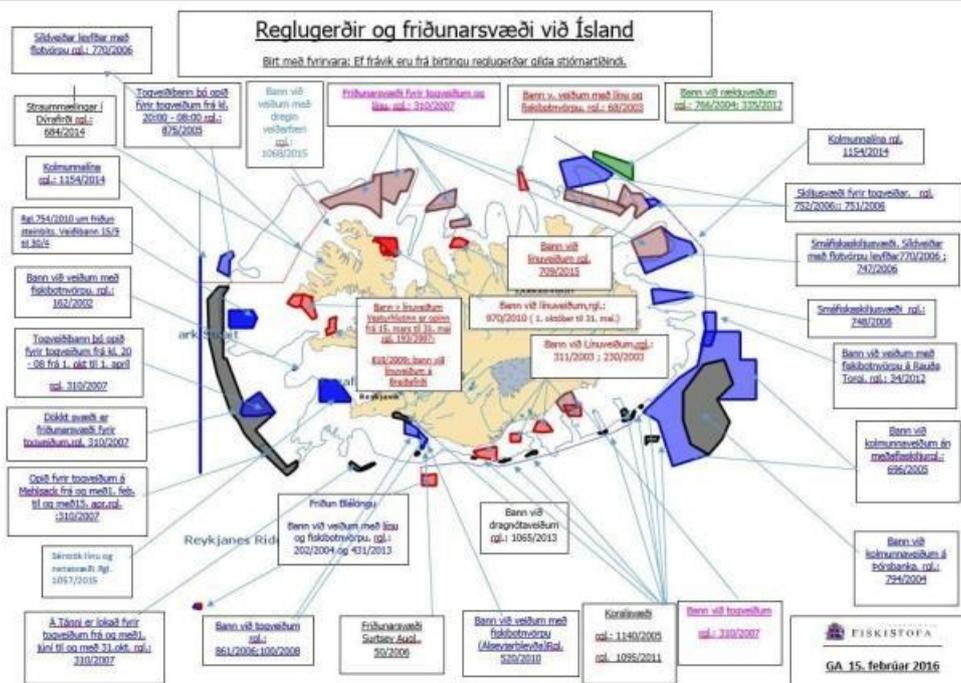


Figure 5. Mapping of the different areas around the grounds in Icelandic waters.

Mapping of vulnerable seabed habitats, such as Lophelia pertusa reefs, carbonate mounds and burrowing megafauna can be accessed on <http://www.ospar.org>.

Therefore, the distribution of all habitats is known over their range, with particular attention to the occurrence of vulnerable habitats and **SG60, SG80 and SG 100 are met.**

Information adequacy for assessment of impacts				
b	Guide post	Information is adequate to broadly understand the nature of the main impacts of gear use on the main habitats, including spatial overlap of habitat with fishing gear.	Information is adequate to allow for identification of the main impacts of the UoA on the main habitats, and there is reliable information on the spatial extent of interaction and on the timing and location of use of the fishing gear.	The physical impacts of the gear on all habitats have been quantified fully.
		OR	OR	
		If CSA is used to score PI 2.4.1 for the UoA: Qualitative information is adequate to estimate the consequence and spatial attributes of the main habitats.	If CSA is used to score PI 2.4.1 for the UoA: Some quantitative information is available and is adequate to estimate the consequence and spatial attributes of the main habitats.	
	Met?	Yes	Yes	Yes
Rationale				

The pelagic gears do not physically impact the habitats, the gears operate in the water column, therefore, physical impacts are not identified in these UoAs. There are no known impacts of the fishing gear on the pelagic habitat. Further, the vessels have different devices to avoid the interactions with the seabed because it would involve a high cost to repair the gears and also lost time at sea. In short skippers make certain that contact with the sea floor doesn't happen. Therefore, the physical impacts of the gear on all habitats have been quantified fully and **SG60, SG80 and SG100 are met.**

Monitoring				
c	Guide post		Adequate information continues to be collected to detect any increase in risk to the main habitats.	Changes in all habitat distributions over time are measured.
	Met?		Yes	No
Rationale				

Sufficient data continue to be collected to detect any increase in risk to habitat, through ongoing stock status monitoring, catch recording and spatial and temporal operation of the fishery and **SG 80 is met.**

The information is reviewed by DoF and some surveys that the MFRI carried out but they are not targeting at the benthic habitat level. Therefore, the information is not specific enough to identify the changes. OSPAR carried out studies to improve the knowledge and the distribution of sensitive areas but more studies aimed at habitat and environmental factor that could affect the grounds fishing should be carried out. **SG100 is not met.**

References

www.ospar.org
www.fisheries.is

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	95
Condition number (if relevant)	N/A

PI 2.5.1 – Ecosystem outcome

PI 2.5.1		The UoA does not cause serious or irreversible harm to the key elements of ecosystem structure and function		
Scoring Issue		SG 60	SG 80	SG 100
a	Ecosystem status			
	Guide post	The UoA is unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.	The UoA is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.	There is evidence that the UoA is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm.
	Met?	Yes	Yes	Yes
Rationale				

The ecosystem around Iceland is well studied and the main environmental characteristics of the area including where capelin fishery takes place is known, ICES (2020) ecosystem overview, Gudmundsdottir et al., (2013); Pálsson et al. (2012); Vilhjálmsson et al., (2002). Adult capelin undertake extensive feeding migrations.

There are changes in the environmental conditions the available data suggest some warming in recent years. This has generated shifts in migration and distribution of capelin (Pálsson et al., 2012). However, not all changes in the patterns of distribution can be explained by environment changes. These changes however, are not ascribed to the influence of the capelin fishery.

One of the most important interaction that the fishery has in the ecosystems is the removal of capelin. As is implied by nominating capelin as an LTL species which serves as a prey for a wide range of fish, mammals and birds. Capelin is important in the diet of cod as well as capelin is a prey for a number of other fish stocks, marine mammals, and seabirds.

However, none of the currently available studies provide any evidence that the capelin fishery causes irreversible harm to the ecosystem and indeed the system continued to function in 2019-2020 when the capelin stock was at a very low level. Also, in the early 1980's when the Capelin stock was fluctuating around Blim, the population of species which prey on capelin showed a good stock status and higher biomass. Since the early 2000s, while some seabird populations have decreased (Birdlife 2015), the capelin stock has remained relatively stable (ICES 2020), the stock only dropped in 2019-2020.

The current timing of the capelin fishery in combination with the high spawning mortality is also a factor that diminish ecosystem impact. Further management through a system of area closures for high densities of immature capelin reduce the ecosystem impacts. So to speak the ecosystem needs are served before the fishery takes place as predation is particular high during summer.

The above **evidence suggests** that the capelin fishery is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm; therefore **SG60, SG80 and SG 100 are met.**

References

ICES (2020) ecosystem overview
 Gudmundsdottir et al., (2013)
 Pálsson et al. (2012)
 Vilhjálmsson et al., (2002).
 Birdlife (2015)

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	100
Condition number (if relevant)	N/A

PI 2.5.2 – Ecosystem management strategy

PI 2.5.2		There are measures in place to ensure the UoA does not pose a risk of serious or irreversible harm to ecosystem structure and function		
Scoring Issue		SG 60	SG 80	SG 100
a	Management strategy in place			
	Guide post	There are measures in place, if necessary, which take into account the potential impacts of the UoA on key elements of the ecosystem.	There is a partial strategy in place, if necessary, which takes into account available information and is expected to restrain impacts of the UoA on the ecosystem so as to achieve the Ecosystem Outcome 80 level of performance.	There is a strategy that consists of a plan , in place which contains measures to address all main impacts of the UoA on the ecosystem, and at least some of these measures are in place.
	Met?	Yes	Yes	Yes
Rationale				

As discussed in relevant sections on non-target species and ETPs the fishery does not have significant direct impacts on any of these species. The main impact of the capelin fishery on the ecosystem is the removal of a portion of the potential prey resource. The strategy is to allow ecosystem needs to be served through the timing of the fishery allowing predation to take place before the fishery and area closures to protect immature capelin. The survival of the spawning component is very low.

A broad range of regulatory measures in place within Iceland and which aim to limit adverse effects of fishing on the marine ecosystem. Collectively, these measures form a strategy based on well-understood functional relationships between the capelin fishery and relevant components and elements of the ecosystem. This strategy includes management measures discussed *ad nauseum* throughout this report including; ITQs systems, monitoring control and surveillance systems, landing obligations, control size, spatial and temporal closures, scientific stock assessment surveys, collaboration of the industry with research project, scientific advice, etc.

Furthermore, current assessments of the capelin stock explicitly consider predation by the three main fish species that consume Iceland capelin (cod, haddock and saithe) meaning this component of overall predation is accounted for when recommending TACs. Other measures include environmental studies, possible effects of climate changes in the distribution of Capelin. All these measures are in place. Indeed, all these measures in combination with the timing of the fishery constitute a plan in place to control the impact of the fishery in the ecosystem. Therefore, it's well-known that the fishery has not impact in key structure or function in the Icelandic ecosystems.

All information is public and can be consulted in the web.

Therefore, there is a **strategy** that consists of a **plan** in place, which is based on well-understood functional relationships between the capelin fishery and relevant components and elements of the ecosystem, which contains measures to **address all main impacts of the UoA** on the ecosystem, and at least some of these measures are in place; therefore **SG60, SG80 and SG 100 are met.**

Management strategy evaluation				
b	Guide post	The measures are considered likely to work, based on plausible argument (e.g., general experience, theory or comparison with similar UoAs/ ecosystems).	There is some objective basis for confidence that the measures/ partial strategy will work, based on some information directly about the UoA and/or the ecosystem involved.	Testing supports high confidence that the partial strategy/ strategy will work, based on information directly about the UoA and/or ecosystem involved.
	Met?	Yes	Yes	No
Rationale				

The strategy in place has relevant information regarding the stock status, fleet composition, catches composition, sensible areas for fishing and all these data are available and many research studies (cited above PI 2.5.1) are carried out to

improve the knowledge about role of capelin in the Icelandic ecosystems. The results of these studies have shown that the strategy works and the precautionary approach is in place to protect the ecosystem. There is **some objective basis for confidence** that the measures/partial strategy will work, based on some information directly about the UoA and/or the ecosystem involved and SG60 and **SG 80 are met**.

However more data of the interactions with the ETPs species should be reported to support that the fishery doesn't hinder the stock status of these species, therefore **SG 100 is not met**.

Management strategy implementation				
C	Guide post		There is some evidence that the measures/partial strategy is being implemented successfully .	There is clear evidence that the partial strategy/strategy is being implemented successfully and is achieving its objective as set out in scoring issue (a) .
	Met?		Yes	Yes
Rationale				

While the stock will most likely collapse occasionally – based on experience with other capelin stock – because of other factors the experience with two collapses in the 1990s and 2019-2020 indicates that the ecosystem will continue to function. This is also the experience from the Barents Sea where there have also been periods with virtually no capelin. Within these limits the management plan and the implied strategy is implemented successfully and the complete stop of the fishery 2019-2020 is evidence that the strategy is implemented effectively. The fishery complies with the measures as the coast guard reported that no infringements came from capelin fishery. Therefore, there is clear evidence that the partial strategy/strategy is being implemented successfully and is achieving its objective as set out in scoring issue (a) and **SG80 and SG 100 are met**.

References

Palsson, Ó. K., Gislason, A., Guðfinnsson, H. G., Gunnarsson, B., Ólafsdóttir, S. R., Petursdóttir, H., Sveinbjörnsson, S., Thorisson, K., and Valdimarsson, H. 2012. Ecosystem structure in the Iceland Sea and recent changes to the capelin (*Mallotus villosus*) population. – ICES Journal of Marine Science, 69: 1242–1254.

H. Vilhjálmsson and J. Sigurjónsson: Capelin of the Iceland-East Greenland-Jan Mayen area: biology, exploitation and management. 2002. Marine Research Institute, P. O. Box 121 Reykjavik, Iceland.

www.fisheries.is

www.MFRI.is

www.fiskistofa.is

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	95
Condition number (if relevant)	N/A

PI 2.5.3 – Ecosystem information

PI 2.5.3		There is adequate knowledge of the impacts of the UoA on the ecosystem		
Scoring Issue		SG 60	SG 80	SG 100
a	Information quality			
	Guide post	Information is adequate to identify the key elements of the ecosystem.	Information is adequate to broadly understand the key elements of the ecosystem.	
	Met?	Yes	Yes	
Rationale				

There is adequate information available that allows for a broad understanding of the key elements of the marine ecosystem (including phytoplankton, zooplankton fish, seabirds, marine mammals and environmental elements such as ocean temperature, currents, salinity), as described above.

All the information cited is open access and can be consulted by any stakeholder. The information is enough to understand the fishery and its interactions with the key elements of the ecosystem. Even though more effort to include the mortality that the whales and seabirds cause with preying on capelin must be realized. Therefore, information is adequate to **broadly understand** the key elements of the ecosystem and **SG60 and SG 80 is met**.

Investigation of UoA impacts				
b	Guide post	Main impacts of the UoA on these key ecosystem elements can be inferred from existing information, but have not been investigated in detail.	Main impacts of the UoA on these key ecosystem elements can be inferred from existing information, and some have been investigated in detail .	Main interactions between the UoA and these ecosystem elements can be inferred from existing information, and have been investigated in detail .
	Met?	Yes	Yes	No
Rationale				

The main impacts that the fishery may have on the ecosystems are well described if it referred to environmental factors or physical harms. **SG60 is met**.

Studies regarding the ecosystem structure and its recent changes are carried out. Therefore, main impacts of the UoA on these key ecosystem elements can be inferred from existing information, and **some have been investigated in detail** e.g. feeding habit of some fish species have been studied in detail and the results incorporated into the management model. **SG80 is met**.

A range of other interactions have not been studied in detail, e.g. predation by of seabirds and mammals. Also, estimates of the ecosystem trophic levels for a range of species are missing or only known with substantial uncertainty. **SG 100 is not met**.

Understanding of component functions				
c	Guide post		The main functions of the components (i.e., P1 target species, primary, secondary and ETP species and Habitats) in the ecosystem are known .	The impacts of the UoA on P1 target species, primary, secondary and ETP species and Habitats are identified and the main functions of these components in the ecosystem are understood .
	Met?		Yes	No
Rationale				

The fishery is understood and its direct impacts are well known. The capelin biology is well studied. Extensive acoustic surveys were conducted in the Iceland Sea in the 1980s and 1990s through Icelandic and Norwegian research efforts, with the aim of analysing the life history and catch potential of capelin, as well as linkages to hydrographic conditions (Vilhjalmsson, 1994, 2002). The main patterns in capelin behaviour and migrations were well described in the 1980s and early 1990s, and it was shown that environmental factors are important factors in interannual variability of life-history traits, and fluctuating, though largely predictable, stock trends (Vilhjalmsson, 1994).

Then, comprehensive research results are available and main functions of the ecosystem and its components are understood together with the impacts of the UoA on P1 target species, primary, secondary and ETP species and Habitats, **SG80 is met**.

The lack of information in prediction models regarding the feeding habits of some marine mammals and sea bird species shows that more accuracy is needed in the models. Therefore, although main functions of the ecosystem are **understood**, there are other functions for which this is not the case and **SG100 is not met**.

Information relevance				
d	Guide post		Adequate information is available on the impacts of the UoA on these components to allow some of the main consequences for the ecosystem to be inferred.	Adequate information is available on the impacts of the UoA on the components and elements to allow the main consequences for the ecosystem to be inferred.
	Met?		Yes	No
Rationale				

As it mentioned above comprehensive research results on capelin are available, adequate information and understanding regarding retained species, ETPs and impacts of the fishery can be consulted and most of them are open access. The information and the transparency in the fishery is in place and easy to get. Adequate information is available on the impacts of the UoAs on these components to allow some of the main consequences for the ecosystem to be inferred and **SG 80 is met**.

There is a debate ongoing whether the information available is adequate or whether further elements of the ecosystems should be brought more directly into the modelling. The latter would require that additional data be collected. Due to this uncertainty reflected in the debate, it is not clear if all the main consequences of the capelin fishery have been inferred. **SG 100 is not met**.

Monitoring				
e	Guide post		Adequate data continue to be collected to detect any increase in risk level.	Information is adequate to support the development of strategies to manage ecosystem impacts.
	Met?		Yes	No
Rationale				

The surveillance programme reviews all the information regarding the capelin fishery. There are monthly al catch reports and any violations of the law is reported by the coast guard to DoF. There are several inspection programmes which controlling the obligations that the fleet targeting capelin has.

Data are regularly presented, reviewed and considered in a variety of ICES working groups, as well as within more specific research projects. All the information is also available for MFRI advice. The information collected makes a good background of the fishery and the data collection and data analysis are expected to continue into the future.

Therefore, current quantities and quality of data available are sufficient to allow for detection of an increase in risk to any ecosystem components but effort to gather information with an ecosystem approach is needed and **SG 100 is not fully met**, however, adequate data continue to be collected to detect any increase in risk level and **SG 80 is met**.

References

Palsson, O. K., Gislason, A., Guðfinnsson, H. G., Gunnarsson, B., Ólafsdóttir, S. R., Petursdóttir, H., Sveinbjörnsson, S., Thorisson, K., and Valdimarsson, H. 2012. Ecosystem structure in the Iceland Sea and recent changes to the capelin (*Mallotus villosus*) population. – ICES Journal of Marine Science, 69: 1242–1254.

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Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report

Overall Performance Indicator score	80
Condition number (if relevant)	N/A

7.4 Principle 3

Jurisdiction

The fishery is conducted by vessels under Faroese flags (flag state in the fishery) fishing in the Icelandic EEZ (coastal state in the fishery) landing their fish in both these countries (port states in the fishery). The TAC for the fishery is set trilaterally between Iceland, Norway and Greenland in accordance with a framework agreement between the parties from 2018 (based on effective cooperation since 2003), with 78 % to Iceland and 11 % to Greenland and Norway each. 5 % of the Icelandic quota is normally transferred to the Faroe Islands in bilateral quota exchange. In this assessment, the Faroese and Icelandic management systems will be assessed throughout P3. Part of the client fishery has in the past taken place in waters under Greenlandic and Norwegian jurisdiction, which are also covered by the certificate (hence also coastal states in the fishery). The fishery in Norwegian waters is in the Fishing Zone around Jan Mayen, not in the Norwegian EEZ as such. All regulations relating to fisheries apply in the Fishing Zone; it is only the non-fishery provisions of the EEZ that do not apply there. Since Greenland and Norway have no regulatory jurisdiction over the UoA fishery beyond monitoring, surveillance and control (MCS) in their respective waters, the Greenlandic and Norwegian management systems will only be assessed for PI 3.1.1 on the legal and customary framework, as part of the overarching management structure of the fishery, and PI 3.2.3 on enforcement and compliance.

Legislation and management system

The Faroe Islands is part of the Kingdom of Denmark, but has had home rule since 1948, including full autonomy in all matters related to fisheries management. It has a well-established system for fisheries management in place, codified in the 1994 Commercial Fisheries Act and a plethora of supporting legislation. Under the Government of the Faroe Islands (Landsstýri), the Ministry of Fisheries (Fiskimálaráðið) has the power to issue executive orders to regulate the fisheries, while scientific advice is produced by the Faroe Marine Research Institute (Havstovan) and enforcement taken care of by the national Fisheries Inspection Service (Vørn – Fiskiveiðieftirlitið), both subordinate to the Ministry. The authority to decide the number of fishing days each season rests with the Faroese Parliament (Løgtingið – in Danish: Lagting), which, of course, also is the state organ authorized to issue formal law.

In Iceland, the system for fisheries management is codified in the 1990 Act on Fisheries Management, amended in 2006 (Fisheries Management Act). The Act details procedures for the determination of TAC and allocation of harvest rights, including permits and catch quotas. It also lays out the system for individual transferable quotas in some detail, as well as procedures for monitoring, control and surveillance and the application of sanctions. The Ministry of Industries and Innovation (Atvinnuvega- og nýsköpunarráðuneytið) – which has two ministers: one for Tourism, Industry and Innovation and one for Fisheries and Agriculture – is the policy-making body in Icelandic fisheries management and sets annual TAC based on scientific recommendations from the Marine Research Institute (Hafrannsóknastofnun). The Minister of Fisheries and Agriculture, in turn, is responsible for two departments: one for fisheries and aquaculture and one for food and agriculture. The Directorate of Fisheries (Fiskistofa) is the implementing body within the management system, formally subordinate to the Ministry of Industries and Innovation as an agency. It issues fishing licenses, allocates annual vessel quotas and oversees the daily operation of the individual transferable quota system. The Directorate is also responsible for monitoring, control and surveillance, in cooperation with the Coast Guard (Landhelgisgæsla Íslands), which is a civilian law enforcement agency under the Ministry of the Interior.

In Norway, fisheries management is governed by the 2008 Marine Resources Act. The executive body at governmental level is the Ministry of Trade, Industry and Fisheries, while the practical regulation of fisheries is delegated to the Directorate of Fisheries. Enforcement at sea is taken care of by the Coast Guard, which is part of the Royal Norwegian Navy, but performs tasks on behalf of several ministries, including the Ministry of Trade, Industry and Fisheries. Scientific research is performed by the Institute of Marine Research. Fisheries management authorities coordinate their regulatory work with that of other bodies of governance, for instance the Ministry of Climate and Environment and the Norwegian Environmental Agency, which are responsible for the implementation of the integrated management plans for different marine areas.

Greenland is an autonomous constituent country within the Kingdom of Denmark, with full autonomy in all matters related to fisheries management. The basic legal instrument is the Fisheries Act from 1996. Under the Government of Greenland (Naalakkersuisut – in Danish: Landsstyre), the responsibility for fisheries management lies with the Ministry of Fisheries and Hunting, while formal laws are issued by the Parliament (Inatsisartut – in Danish: Landsting). Enforcement is taken care of by Greenland Fishery Licence Control (GFLK).

Objectives

The objectives of Faroese and Icelandic fisheries management, as stated in their respective fisheries acts, are to ensure conservation and efficient utilization of marine living resources. The precautionary approach is not mentioned explicitly in either act, but the requirement to protect marine resources and take the best scientific knowledge into account, among

other things, equals the requirements of the precautionary approach, as laid out in the FAO Code of Conduct and its technical guidelines. Since these principles are codified in formal law, their application is required by management policy. Iceland is also signatory to, and has ratified, the UN Fish Stocks Agreement, which requires the use of the precautionary approach.

Among the objectives in the Faroese Commercial Fisheries Act is to ensure economic sustainability and secure optimal socio-economic benefits from fisheries. The Faroe Islands is highly dependent on fisheries, and the rights of traditional users are reflected in the current distribution of quota shares, which is based on historical fishing. Fishing vessels under Faroese flag must be at least two-thirds Faroese owned and subject to taxation in the Faroe Islands.

One of the main objectives of Icelandic fisheries management, in addition to conservation and efficient utilization of marine living resources, is to ensure stable employment and settlement throughout Iceland. According to the Fisheries Management Act, the Minister of Fisheries each fishing year shall have available harvest rights amounting to up to 12,000 tonnes which he or she may use to offset major economic or social disturbances that may occur in times of sizeable fluctuations in catch quotas, or for regional support to smaller communities that have experienced significant reduction in employment as a result of unexpected cutbacks in quotas. Such additional quotas can be allocated for up to three years at a time. The Act further grants all citizens the right to fish in Icelandic waters provided the catch is for their own consumption. Overall, distribution of harvest rights is considered to be consistent with the social and cultural context of Icelandic fisheries.

Consultation mechanisms

The Faroe Islands has a long tradition of continuous consultation and close cooperation between government agencies and user-group organizations, now codified in the Commercial Fisheries Act and supplementary legislation. Consultations take place both through a number of formal standing advisory committees, including one overarching Advisory Board, and in focused consultative meetings on specific issues. Fishermen can be represented at an individual, company or production organization (PO) level, or through the Faroese Fishermen's Association. There is also a written hearing process before regulations are revised or new regulations introduced, a procedure required by law. The Marine Research Institute interacts with both management authorities and stakeholders. They are consulted by the Ministry of Fisheries on a regular basis, and they also seek advice from the fishing industry in connection with their quota recommendations, traveling around the country to explain the rationale for their recommendations. There are no NGOs in the Faroes that engage themselves in fisheries.

Likewise, Iceland also has a long tradition of consultation and cooperation between government agencies and user-group organizations. Lines of communication are short in Iceland and much consultation takes place informally, in direct and often spontaneous contact between representatives of user groups and authorities. At a more formal level, all major interest organizations in the fishing industry are regularly invited to sit on committees established to review changes in legislation and management, and they meet for regular consultations with the Ministry, the Directorate and the Parliament's (Alþingi) Permanent Committee for Fisheries and Agriculture. These include, but are not restricted to, Fisheries Iceland (Samtök fyrirtækja í sjávarútvegi – SFS), which was established in 2014 as the result of a merger between two of the most influential user-groups in Icelandic fisheries: the Federation of Icelandic Fishing Vessel Owners and the Federation of Icelandic Fish Processing Plants. Other stakeholders include the National Association of Small Boat Owners and the Icelandic Seamen's Federation. Local authorities also engage actively in fisheries issues and have easy access to the management system. All new legislation and major management initiatives are subject to public hearing, with drafts available online. The public consultations portal Samráðsgátt ensures transparency and opportunities for the public and stakeholders to participate in policy formulation, establishing regulatory frameworks and the decision making of the authorities. The portal contains planned legislation, drafts of legislative bills and regulations, documents on policy formulation and more. In addition to open consultation on the Internet, there may be other forms of consultation processes, such as the participation of principal stakeholders in committee work or special invitations for their opinion.

There are no environmental NGOs in Iceland that target fisheries specifically at the moment. Major international NGOs that usually engage actively in discussions about fisheries management, such as Greenpeace and WWF, do not have offices in Iceland. Local NGOs tend to prioritize nature protection on land. One exception is BirdLife Iceland (Fuglavernd), which is, among other things, concerned with bird interaction in gillnet fisheries. Also, more generally oriented NGOs such as Icelandic Environmental Association (Landvernd) and Iceland Nature Conservation Association (Náttúruverndarsamtök Íslands) are engaged in marine issues more widely, such as marine protected areas and integrated and integrated ocean management.

Consultation processes cover policies and regulatory issues and include discussions of the annual scientific recommendations by the Marine Research Institute. Shortly after presenting the recommendations to the Ministry, representatives of the Institute enter into dialogue with the fishing industry regarding the status of the stocks and the nature of the recommendations. The Ministry also consults with the industry before setting the final TACs.

Monitoring, Control and Surveillance

Monitoring, control and surveillance (MCS) in the fishery is primarily taken care of by the coastal state Iceland, as the fishery primarily takes place in the Icelandic EEZ, and by the Faroe Islands as flag state. Iceland and the Faroe Islands are also port states in the fishery, as the fish is landed there. AS mentioned above, Greenland and Norway are also coastal states in the fishery as part of the catch is taken in waters under their jurisdiction, including the Fishing Zone around Jan Mayen (Norway). Hence, the at-sea inspection services of these two countries must also be assessed.

The MCS system includes reports from the vessels, physical inspections at sea and in harbour, as well as information exchange between the various countries' enforcement authorities. In the Faroe Islands, fishing vessels are required to keep a logbook and report catches to the Fisheries Inspection Service on a daily basis. Electronical logbooks have been introduced for all vessels above 15 BT (in practice all vessels that do not deliver their catch every day), and VMS is obligatory. The Fisheries Inspection Service carries out 300-350 inspections per year in the Faroese Economic Zone. It has two inspection vessels at its disposal, and there is at any time a vessel from the Royal Danish Navy present in Faroese waters, which also enforces Faroese fisheries regulations. One of the Faroese inspection vessels has a helicopter on board, which enables inspectors to conduct impromptu inspections. The Ministry of Fisheries also has its own helicopter, which can be used for fishery inspections. At-sea inspections include control of the catch from the last haul, the fishing gear and fish in the holds. The inspectors have the possibility to close an area with too much juvenile or bycatch for a period of up to two weeks (real-time closure). All landings have to be reported 12 hours in advance in order to give the inspectors the possibility to check the landed catch. Both landing and at-sea control is conducted using a risk-based framework aimed at utilizing resources to optimize compliance at any given moment.

In Iceland, MCS is taken care of by the Directorate of Fisheries, in collaboration with the Coast Guard, the Marine Research Institute and coastal municipalities. The enforcement system is based on reports from the vessels, physical inspections at sea and weighing in harbour, as well as information exchange with other states' enforcement authorities. The structure and procedures of the enforcement system are codified in the Fisheries Management Act, while requirements to the weighing system are laid out in the Act concerning the Treatment of Commercial Marine Stocks and in the Regulation on Weighing and Recording of Catch. Electronic logbook and mandatory, and vessels report catches to the Directorate of Fisheries using Electronic Reporting Systems (ERS). VMS is obligatory for all vessels regardless of size, also inshore. Inspectors from the Directorate may accompany fishing vessels on trips or operate from Coast Guard vessels. The Coast Guard has three offshore patrol vessels, as well as a number of smaller boats, helicopters and a surveillance aircraft. At-sea inspections include control of the logbook, catch and gear. If a certain amount of the catch is found to be below size limit, the inspector can initiate a short-term close (usually two weeks) for the fishery of that particular species, vetted by the Marine Research Institute and confirmed by the Directorate of Fisheries. Inspections are conducted using a risk-based framework ('business intelligence software') aimed at utilizing resources to optimize compliance. Most importantly, 100 % of the landed fish is weighed by an authorised 'weighmaster', employed by the municipality and hence independent of both buyer and seller. Landing data are immediately added to the Directorate of Fisheries' catch database. The Directorate operates a dynamic and interactive website, where stakeholders at all times can monitor the precise quota status for each species and observe the performance of individual vessels, their catch from each fishing trip and vessel quota status. The fact that the vast majority of catch is exported provides a further control mechanism enabling a mass balance comparison of fish in (i.e. landing declarations) with fish out (i.e. production or export volumes). In 2019, the Directorate started to publish data on their website on individual vessels' catch composition on trips with and without inspectors on board. This gives an indication of discarding in the fishery and also provides deterrence in itself ('social shaming').

In Norway, MCS is the shared responsibility of the Directorate of Fisheries, the Coast Guard and the regional sales organizations. The Directorate of Fisheries keeps track of how much fish is taken of the quotas of individual vessels, different vessel groups and other states at any given time, based on reports from the fishing fleet. Norwegian vessels are required to have electronic logbooks, or more specifically ERS. This implies that real-time data are forwarded to the Directorate of Fisheries, with the possibility to make corrections of data submitted each day within 12 hours into the next day. Norway has agreements in place with a number of other countries about exchange of ERS data, including the Faroe Islands and Iceland. The self-reported catch data can be checked at sales operations through the sales organizations, which have monopoly on first-hand sale of fish in Norway, and through physical checks performed by the sales organizations, the Directorate of Fisheries and the Coast Guard. The Norwegian Coast Guard operates 15 vessels, of which five patrol the coastal area and ten the wider EEZ – four of the latter have a helicopter on board. These Coast Guard vessels are the largest in the entire Royal Norwegian Navy. The Coast Guard vessels perform spot checks at sea, including from helicopters during fishing activities and inspections at check points that foreign vessels have to pass through when entering or leaving the NEZ and in connection with transshipments in Norwegian waters, which have to be reported in advance. Coast Guard inspectors board fishing vessels and control the catch from last haul (e.g. catch composition and fish size) and fishing gear (e.g. mesh size) on deck and the volume of fish in the holds. Using the established conversion factors for the relevant fish product, the inspectors calculate the volume of the fish in round weight and compare this with the catches reported to the Directorate of Fisheries through the mandatory electronic logbooks. Inspectors have the authority to close an area with too much juvenile or bycatch (real-time closure). Both landing and at-sea control is conducted using a risk-based framework. At-sea controls also include having inspectors on board fishing vessels for entire trips; this is routinely done in the UoA fishery.

In Greenland, MCS is the remit of GFLK. Vessels are required to have VMS and report to the Greenlandic FMC at GFLK on an hourly basis. Landings have to be reported 12 hours in advance in order to give the inspectors the possibility to check the landed catch. At-sea inspections outside the territorial waters (but within the EEZ) are conducted by the Danish Navy, in cooperation with the enforcement authorities in other EU countries. Controls are carried out using a risk-based framework aimed at utilizing resources to optimize compliance at any given moment. The inspections include checks of documents, last-haul catch, fishing gear and fish in the holds.

The enforcement agencies in the different countries involved in the fishery cooperate tightly, e.g. with exchange of all catch information. Landing controls are carried out according to the NEAFC Port State Control Scheme, according to which a port state is obliged to ensure with the relevant flag state ahead of every landing that the catch is covered by a national quota, and to physically check at least 15 % of all landings. In Iceland, 30 % of all landings by foreign vessels have been controlled physically in recent years.

Reviews of the fishery-specific management system

In the Faroe Islands, the main management bodies, such as the Ministry of Fisheries, the Fishery Inspection Service and the Marine Research Institute, review their achievements the preceding year when they produce plans and targets for the coming year. Especially for the Inspection Service, running self-review is implicit in the continuous risk analysis that takes place in deciding where to put enforcement efforts at any given time. The Parliament also conducts its own reviews of how the fisheries management system works on a year-to-year basis. Regulations are evaluated by the Fisheries Advisory Board every time a new regulatory measure is introduced. The Auditor General reviews the effectiveness of management bodies in financial terms. The Fisheries Inspection Service is certified according to the ISO 9001 quality management system standard.

In Iceland, there is a constant process of internal review and consultation, including of scientific advice within the Ministry of Industries and Innovation and the Fisheries Directorate, and there is a patchwork review of technical regulations and enforcement measures. Regulatory measures taken by the Ministry and Directorate are continuously reviewed by the Icelandic Parliament, in committee hearings but more often at ad hoc meetings, which reflects that Iceland is a small and fishery-dependent country, with short lines of communication. The National Audit Office (Ríkisendurskoðun) is an independent body operating under the auspices of the Parliament, as part of the legislature's monitoring of the executive branch. In addition to traditional financial audits, the office conducts so-called performance reviews, aimed at evaluating the effectiveness of the executive's implementation of parliamentary decisions, including within fisheries management.

7.4.1 Principle 3 Performance Indicator scores and rationales

PI 3.1.1 – Legal and/or customary framework

PI 3.1.1	The management system exists within an appropriate legal and/or customary framework which ensures that it: <ul style="list-style-type: none"> - Is capable of delivering sustainability in the UoA(s); - Observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and - Incorporates an appropriate dispute resolution framework 			
Scoring Issue				
Compatibility of laws or standards with effective management				
a	Guide post	There is an effective national legal system and a framework for cooperation with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2	There is an effective national legal system and organised and effective cooperation with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2.	There is an effective national legal system and binding procedures governing cooperation with other parties which delivers management outcomes consistent with MSC Principles 1 and 2.
	Met?	Yes	Yes	Yes
Rationale				

The fishery is conducted by vessels under Faroese flags (flag state in the fishery) fishing in the Icelandic EEZ (coastal state in the fishery) landing their fish in both these countries (port states in the fishery). The TAC for the fishery is set trilaterally between Iceland, Norway and Greenland in accordance with a framework agreement between the parties from 2018 (based on effective cooperation since 2003), with 78 % to Iceland and 11 % to Greenland and Norway each. 5 % of the Icelandic quota is normally transferred to the Faroe Islands in bilateral quota exchange. The Faroese and Icelandic management systems will be assessed throughout P3. Part of the client fishery has in the past taken place in waters under Greenlandic and Norwegian jurisdiction, which are also covered by the certificate (hence also coastal states in the fishery). The fishery in Norwegian waters is in the Fishing Zone around Jan Mayen, not in the Norwegian EEZ as such. All regulations relating to fisheries apply in the Fishing Zone; it is only the non-fishery provisions of the EEZ that do not apply there. Since Greenland and Norway have no regulatory jurisdiction over the UoA fishery beyond monitoring, surveillance and control (MCS) in their respective waters, the Greenlandic and Norwegian management systems will only be assessed for PI 3.1.1 on the legal and customary framework, as part of the overarching management structure of the fishery, and PI 3.2.3 on enforcement and compliance.

The Faroe Islands is part of the Kingdom of Denmark, but has had home rule since 1948, including full autonomy in all matters related to fisheries management. It has a well-established system for fisheries management in place, codified in the 1994 Commercial Fisheries Act and a plethora of supporting legislation. Under the Government of the Faroe Islands (Landsstýri), the Ministry of Fisheries (Fiskimálaráðið) has the power to issue executive orders to regulate the fisheries, while scientific advice is produced by the Faroe Marine Research Institute (Havstovan) and enforcement taken care of by the national Fisheries Inspection Service (Vørn – Fiskiveiðieftirlitið), both subordinate to the Ministry. The authority to decide the number of fishing days each season rests with the Faroese Parliament (Løgtingið – in Danish: Lagting), which, of course, also is the state organ authorized to issue formal law.

In Iceland, the system for fisheries management is codified in the 1990 Act on Fisheries Management, amended in 2006 (Fisheries Management Act). The Act details procedures for the determination of TAC and allocation of harvest rights, including permits and catch quotas. It also lays out the system for individual transferable quotas in some detail, as well as procedures for monitoring, control and surveillance and the application of sanctions. The Ministry of Industries and Innovation (Atvinnuvega- og nýsköpunarráðuneytið) – which has two ministers: one for Tourism, Industry and Innovation and one for Fisheries and Agriculture – is the policy-making body in Icelandic fisheries management and sets annual TAC based on scientific recommendations from the Marine Research Institute (Hafrannsóknastofnun). The Minister of Fisheries and Agriculture, in turn, is responsible for two departments: one for fisheries and aquaculture and one for food and agriculture. The Directorate of Fisheries (Fiskistofa) is the implementing body within the management system, formally subordinate to the Ministry of Industries and Innovation as an agency. It issues fishing licenses, allocates annual vessel quotas and oversees the daily operation of the individual transferable quota system. The Directorate is also

responsible for monitoring, control and surveillance, in cooperation with the Coast Guard (Landhelgisgæsla Íslands), which is a civilian law enforcement agency under the Ministry of the Interior.

In Norway, fisheries management is governed by the 2008 Marine Resources Act. The executive body at governmental level is the Ministry of Trade, Industry and Fisheries, while the practical regulation of fisheries is delegated to the Directorate of Fisheries. Enforcement at sea is taken care of by the Coast Guard, which is part of the Royal Norwegian Navy, but performs tasks on behalf of several ministries, including the Ministry of Trade, Industry and Fisheries. Scientific research is performed by the Institute of Marine Research. Fisheries management authorities coordinate their regulatory work with that of other bodies of governance, for instance the Ministry of Climate and Environment and the Norwegian Environmental Agency, which are responsible for the implementation of the integrated management plans for different marine areas.

Greenland is an autonomous constituent country within the Kingdom of Denmark, with full autonomy in all matters related to fisheries management. The basic legal instrument is the Fisheries Act from 1996. Under the Government of Greenland (Naalakkersuisut – in Danish: Landsstyre), the responsibility for fisheries management lies with the Ministry of Fisheries and Hunting, while formal laws are issued by the Parliament (Inatsisartut – in Danish: Landsting). Enforcement is taken care of by Greenland Fishery Licence Control (GFLK).

Through the respective national fisheries acts, other relevant acts and regulations issued by the respective ministries and directorates of fisheries, organized and effective cooperation takes place between the different governmental agencies involved, able to provide management outcomes that are consistent with MSC Principles 1 and 2. **SG60 is met.** There is an organized and effective cooperation between the coastal state Iceland and the other states that are given quota in the fishery. **SG80 is met.** The 2018 agreement between the parties is binding. **SG100 is met.**

Resolution of disputes				
b	Guide post	The management system incorporates or is subject by law to a mechanism for the resolution of legal disputes arising within the system.	The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes which is considered to be effective in dealing with most issues and that is appropriate to the context of the UoA.	The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes that is appropriate to the context of the fishery and has been tested and proven to be effective.
	Met?	Yes	Yes	Yes
Rationale				

There is an effective, transparent dispute resolution mechanism in place in the countries involved in the management of the fishery, as fishers can take their case to court if they do not accept the rationale behind an infringement accusation by enforcement authorities or the fees levied against them. Verdicts at the lower court levels can be appealed to higher levels. The proceedings of the courts are open to the public and the rulings are easily accessible on the internet. Although rare, there have been examples of fishers taking their case to court, and the system has proven effective in resolving disputes in a timely manner. In practice, however, the vast majority of disputes are resolved within the management system, which incorporates ample formal and informal opportunities for fishers and other stakeholders to interact with the authorities (see SI 3.1.2b below), e.g. to clear out disagreement and conflict among users and between users and authorities.

The annual consultations between the Faroe Islands, Greenland, Iceland and Norway have been an arena for resolution of disputes between the parties, and the 2018 framework agreement provides mechanisms for dispute resolution.

Hence, the management system incorporates or is subject by law to a mechanism for the resolution of legal disputes. **SG60 is met.** These mechanisms are transparent and considered to be effective in dealing with most issues and are appropriate to the context of the UoA. **SG80 is met.** As the mechanisms have for many years been sufficient to solve disputes in the fishery, to the extent that there have been any, it can be concluded that they have been tested and proven to be effective. **SG100 is met.**

Respect for rights				
c	Guide post	The management system has a mechanism to generally respect the legal rights created explicitly or established by custom of people dependent on fishing	The management system has a mechanism to observe the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a	The management system has a mechanism to formally commit to the legal rights created explicitly or established by custom of people dependent on fishing
	Met?	Yes	Yes	Yes

		for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.	manner consistent with the objectives of MSC Principles 1 and 2.	for food and livelihood in a manner consistent with the objectives of MSC Principles 1 and 2.
	Met?	Yes	Yes	Yes
Rationale				

Among the objectives in the Faroese Commercial Fisheries Act is to ensure economic sustainability and secure optimal socio-economic benefits from fisheries. The Faroe Islands is highly dependent on fisheries, and the rights of traditional users are reflected in the current distribution of quota shares, which is based on historical fishing. Fishing vessels under Faroese flag must be at least two-thirds Faroese owned and subject to taxation in the Faroe Islands.

One of the main objectives of Icelandic fisheries management, in addition to conservation and efficient utilization of marine living resources (see PI 3.1.3 below), is to ensure stable employment and settlement throughout Iceland. According to the Fisheries Management Act, the Minister of Fisheries each fishing year shall have available harvest rights amounting to up to 12,000 tonnes which he or she may use to offset major economic or social disturbances that may occur in times of sizeable fluctuations in catch quotas, or for regional support to smaller communities that have experienced significant reduction in employment as a result of unexpected cutbacks in quotas. Such additional quotas can be allocated for up to three years at a time. The Act further grants all citizens the right to fish in Icelandic waters provided the catch is for their own consumption. Overall, distribution of harvest rights is considered to be consistent with the social and cultural context of Icelandic fisheries.

In Norway, the fisheries management system includes various mechanisms that generally respect and observe the rights of the coastal population along the country’s northern, western and southern coastline. For the most important species, significantly and proportionately larger quota shares are allotted to coastal fisheries than to the ocean going fleet, with particular attention to the traditional fisheries of the indigenous Sami population in the northernmost part of the country. The Sami Parliament, which is a consultative body for the Sami population on Norwegian territory, is consulted on all management measures, including the distribution of quotas of stocks that are of particular historic importance to the Sami. The Government has formally committed to this through the 2005 Royal Decree on Consultations with the Sami Parliament.

The Greenlandic Fisheries Act lists as its objectives economic and employment considerations within the fishing and processing industries. Fishing vessels must be Greenlandic-owned and fishers must have permanent residence in Greenland in order to get a fishing licence. Quota shares are based on historical fishing and are inheritable.

Hence, the management system has a mechanism to generally respect the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood in a manner consistent with the objectives of MSC Principles 1 and 2. **SG60 is met.** The system has a mechanism to observe such rights, so **SG80 is also met.** Since it is founded in law, the mechanism formally commits to these rights, and **SG100 is met.**

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Act on Fishing in Iceland’s Exclusive Fishing Zone No. 79/1997

Act on Fisheries Management No. 38/1999, amended as Act No. 116/2006 (Iceland)

Act on Fishing and Processing by Foreign Vessels in Iceland’s Exclusive Economic Zone No. 28/1998

Act on the Management of Wild Marine Resources (Marine Resources Act) (Norway), LOV-2008-06-06-37, 2008

Act on the Treatment of Commercial Marine Stocks No. 57/1996 (Faroe Islands)

Commercial Fisheries Act, No. 28/1994 (Faroe Islands)

Faroe Islands Fisheries & Aquaculture: Responsible Management for a Sustainable Future, Ministry of Fisheries (undated)

Parliamentarian Act No. 18 of 31 October 1996 on Fisheries (Greenland)

Regulation on Capelin Fishery by Faroese Vessels in the Icelandic Exclusive Economic Zone in the Fishing Year 2020/2021, 15 January 2021 (Iceland)

Regulation on the Establishment of a Fishing Zone around Jan Mayen, Regulation 1980-05-23 No. 0004 (Norway)

Websites of the Faroese Ministry of Fisheries (www.fisk.fo), the Faroese Fisheries Inspection Service (www.vorn.fo), the Icelandic Directorate of Fisheries (www.fiskistofa.is) and the Icelandic Ministry of Industries and Innovation (www.stjornarradid.is)

Draft scoring range and information gap indicator added at Announcement Comment Draft Report stage

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report stage

Overall Performance Indicator score	100
Condition number (if relevant)	N/A

PI 3.1.2 – Consultation, roles and responsibilities

PI 3.1.2		The management system has effective consultation processes that are open to interested and affected parties The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties		
Scoring Issue		SG 60	SG 80	SG 100
Roles and responsibilities				
a	Guide post	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are generally understood.	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for key areas of responsibility and interaction.	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for all areas of responsibility and interaction.
	Met?	Yes	Yes	Yes
Rationale				

As laid out under SI 3.1.1a above, governance functions are split between the Parliament, the Ministry of Fisheries, the Marine Research Institute and the Fisheries Inspection Service in the Faroe Islands; and the Ministry of Industries and Innovation, the Directorate of Fisheries, the Marine Research Institute and the Coast Guard in Iceland. Different user groups are well integrated in the management process and generally understand the functions, roles and responsibilities of the various actors involved in the management process; see SI 3.1.2b below. **SG60 is met.** These functions, roles and responsibilities are explicitly defined in the respective fisheries acts and supporting legislation and well understood for key areas of responsibility and interaction. **SG80 is met.** Based on the interviews at the site visit, roles and responsibilities are well understood for all areas of responsibility and interaction. **SG100 is met.**

Consultation processes				
b	Guide post	The management system includes consultation processes that obtain relevant information from the main affected parties, including local knowledge, to inform the management system.	The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information obtained.	The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information and explains how it is used or not used.
	Met?	Yes	Yes	Yes
Rationale				

The Faroe Islands has a long tradition of continuous consultation and close cooperation between government agencies and user-group organizations, now codified in the Commercial Fisheries Act and supplementary legislation. Consultations take place both through a number of formal standing advisory committees, including one overarching Advisory Board, and in focused consultative meetings on specific issues. Fishermen can be represented at an individual, company or production organization (PO) level, or through the Faroese Fishermen’s Association. There is also a written hearing process before regulations are revised or new regulations introduced, a procedure required by law. The Marine Research Institute interacts with both management authorities and stakeholders. They are consulted by the Ministry of Fisheries on a regular basis, and they also seek advice from the fishing industry in connection with their quota recommendations, traveling around the country to explain the rationale for their recommendations. There are no NGOs in the Faroes that engage themselves in fisheries.

Likewise, Iceland also has a long tradition of consultation and cooperation between government agencies and user-group organizations. Lines of communication are short in Iceland and much consultation takes place informally, in direct and often spontaneous contact between representatives of user groups and authorities. At a more formal level, all major

interest organizations in the fishing industry are regularly invited to sit on committees established to review changes in legislation and management, and they meet for regular consultations with the Ministry, the Directorate and the Parliament's (Alþingi) Permanent Committee for Fisheries and Agriculture. These include, but are not restricted to, Fisheries Iceland (Samtök fyrirtækja í sjávarútvegi – SFS), which was established in 2014 as the result of a merger between two of the most influential user-groups in Icelandic fisheries: the Federation of Icelandic Fishing Vessel Owners and the Federation of Icelandic Fish Processing Plants. Other stakeholders include the National Association of Small Boat Owners and the Icelandic Seamen's Federation. Local authorities also engage actively in fisheries issues and have easy access to the management system. All new legislation and major management initiatives are subject to public hearing, with drafts available online. The public consultations portal Samráðsgátt ensures transparency and opportunities for the public and stakeholders to participate in policy formulation, establishing regulatory frameworks and the decision making of the authorities. The portal contains planned legislation, drafts of legislative bills and regulations, documents on policy formulation and more. In addition to open consultation on the Internet, there may be other forms of consultation processes, such as the participation of principal stakeholders in committee work or special invitations for their opinion.

There are no environmental NGOs in Iceland that target fisheries specifically at the moment. Major international NGOs that usually engage actively in discussions about fisheries management, such as Greenpeace and WWF, do not have offices in Iceland. Local NGOs tend to prioritize nature protection on land. One exception is BirdLife Iceland (Fuglavernd), which is, among other things, concerned with bird interaction in gillnet fisheries. Also, more generally oriented NGOs such as Icelandic Environmental Association (Landvernd) and Iceland Nature Conservation Association (Náttúruverndarsamtök Íslands) are engaged in marine issues more widely, such as marine protected areas and integrated and integrated ocean management.

Consultation processes cover policies and regulatory issues and include discussions of the annual scientific recommendations by the Marine Research Institute. Shortly after presenting the recommendations to the Ministry, representatives of the Institute enter into dialogue with the fishing industry regarding the status of the stocks and the nature of the recommendations. The Ministry also consults with the industry before setting the final TACs.

Hence, the management system includes consultation processes that regularly seek and accept relevant information, including local knowledge, and demonstrates consideration of the information obtained. **SG60 and SG80 are met.** According to the interviews at the site visit, the authorities explain how this information is used or not used. **SG100 is met.**

Participation			
C	Guide post	The consultation process provides opportunity for all interested and affected parties to be involved.	The consultation process provides opportunity and encouragement for all interested and affected parties to be involved, and facilitates their effective engagement.
	Met?	Yes	No
Rationale			

As follows from SI 3.1.2b above, the consultation processes provide opportunity for all interested and affected parties to be involved in discussions about fisheries management in Iceland, e.g. through public hearings. **SG 80 is met.** Authorities invite relevant stakeholders associated with the fishing industry to meetings and seminars and actively seek their opinion on management measures. Hence, they do not only provide opportunity but also encouragement for their participation and actively facilitate their effective engagement. The SG 100 requirement is met as far as user groups are concerned. However, it is unclear whether this is the case with environmental NGOs, so **SG 100 is not met.**

References

Act on Fishing in Iceland's Exclusive Fishing Zone No. 79/1997
 Act on Fisheries Management No. 38/1999, amended as Act No. 116/2006 (Iceland).
 Commercial Fisheries Act, No. 28/1994 (Faroe Islands)
 Faroe Islands Fisheries & Aquaculture: Responsible Management for a Sustainable Future, Ministry of Fisheries (undated)
 Websites of the Faroese Ministry of Fisheries (www.fisk.fo), the Faroese Fisheries Inspection Service (www.vorn.fo), the Icelandic Directorate of Fisheries (www.fiskistofa.is), the Icelandic Ministry of Industries and Innovation (www.stjornarradid.is) and the Icelandic public consultations portal Samráðsgátt (<https://samradsgatt.island.is>)

Draft scoring range and information gap indicator added at Announcement Comment Draft Report stage

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report stage

Overall Performance Indicator score	95
Condition number (if relevant)	N/A

PI 3.1.3 – Long term objectives

PI 3.1.3		The management policy has clear long-term objectives to guide decision-making that are consistent with MSC Fisheries Standard, and incorporates the precautionary approach		
Scoring Issue		SG 60	SG 80	SG 100
a	Objectives			
	Guide post	Long-term objectives to guide decision-making, consistent with the MSC Fisheries Standard and the precautionary approach, are implicit within management policy.	Clear long-term objectives that guide decision-making, consistent with MSC Fisheries Standard and the precautionary approach are explicit within management policy.	Clear long-term objectives that guide decision-making, consistent with MSC Fisheries Standard and the precautionary approach, are explicit within and required by management policy.
	Met?	Yes	Yes	Yes
Rationale				

The objectives of Faroese and Icelandic fisheries management, as stated in their respective fisheries acts, are to ensure conservation and efficient utilization of marine living resources. The precautionary approach is not mentioned explicitly in either act, but the requirement to protect marine resources and take the best scientific knowledge into account, among other things, equals the requirements of the precautionary approach, as laid out in the FAO Code of Conduct and its technical guidelines. Since these principles are codified in formal law, their application is required by management policy. Iceland is also signatory to, and has ratified, the UN Fish Stocks Agreement, which requires the use of the precautionary approach. **SG60, SG80 and SG100 are met.**

References

- Act on Fishing in Iceland’s Exclusive Fishing Zone No. 79/1997
- Act on Fisheries Management No. 38/1999, amended as Act No. 116/2006 (Iceland)
- Act on Fishing and Processing by Foreign Vessels in Iceland’s Exclusive Economic Zone No. 28/1998
- Act on the Treatment of Commercial Marine Stocks No. 57/1996 (Faroe Islands).
- Commercial Fisheries Act, No. 28/1994 (Faroe Islands)
- Faroe Islands Fisheries & Aquaculture: Responsible Management for a Sustainable Future, Ministry of Fisheries (undated)
- Websites of the Faroese Ministry of Fisheries (www.fisk.fo), the Faroese Fisheries Inspection Service (www.vorn.fo), the Icelandic Directorate of Fisheries (www.fiskistofa.is) and the Icelandic Ministry of Industries and Innovation (www.stjornarradid.is)

Draft scoring range and information gap indicator added at Announcement Comment Draft Report stage

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report stage

Overall Performance Indicator score	100
Condition number (if relevant)	N/A

PI 3.2.1 – Fishery-specific objectives

PI 3.2.1		The fishery-specific management system has clear, specific objectives designed to achieve the outcomes expressed by MSC’s Principles 1 and 2		
Scoring Issue		SG 60	SG 80	SG 100
a	Objectives			
	Guide post	Objectives, which are broadly consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2, are implicit within the fishery-specific management system.	Short and long-term objectives, which are consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2, are explicit within the fishery-specific management system.	Well defined and measurable short and long-term objectives, which are demonstrably consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2, are explicit within the fishery-specific management system.
	Met?	Yes	Yes	Partial
Rationale				

Objectives which are broadly consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2 are in place in the fishery-specific management system in Iceland, which is the regulatory coastal state in the fishery, e.g. the Fisheries Management Act and supporting legislation relating to the capelin fishery. **SG60 is met.** This includes objectives to maintain fish stocks at sustainable levels (here: both target stocks and other retained species) and protect other parts of the ecosystem, such as habitats. These objectives are short- and long-term and measurable, in the sense that performance against them can be measured through the enforcement bodies’ recording and inspection routines (see PI 3.2.3). **SG80 is met.** P1 objectives are well defined, but P2 objectives appear to be less so, warranting a **partial score at SG100.**

References

- Act on Fishing in Iceland’s Exclusive Fishing Zone No. 79/1997
- Act on Fisheries Management No. 38/1999, amended as Act No. 116/2006 (Iceland)
- Act on Fishing and Processing by Foreign Vessels in Iceland’s Exclusive Economic Zone No. 28/1998
- Act on the Treatment of Commercial Marine Stocks No. 57/1996 (Faroe Islands)
- Commercial Fisheries Act, No. 28/1994 (Faroe Islands)
- Faroe Islands Fisheries & Aquaculture: Responsible Management for a Sustainable Future, Ministry of Fisheries (undated)
- Websites of the Faroese Ministry of Fisheries (www.fisk.fo), the Faroese Fisheries Inspection Service (www.vorn.fo), the Icelandic Directorate of Fisheries (www.fiskistofa.is) and the Icelandic Ministry of Industries and Innovation (www.stjornarradid.is)

Draft scoring range and information gap indicator added at Announcement Comment Draft Report stage

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report stage

Overall Performance Indicator score	90
Condition number (if relevant)	N/A

PI 3.2.2 – Decision-making processes

PI 3.2.2		The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery		
Scoring Issue		SG 60	SG 80	SG 100
a	Decision-making processes			
	Guide post	There are some decision-making processes in place that result in measures and strategies to achieve the fishery-specific objectives.	There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives.	
	Met?	Yes	Yes	
Rationale				

Established decision-making procedures in the Faroese and Icelandic fisheries management systems – evolved over several decades and now codified in the two countries’ respective fisheries acts and supporting legislation – ensure that strategies are produced and measures taken to achieve the fishery-specific objectives. This applies to the capelin fisheries as it does to Faroese and Icelandic fisheries in general; see PIs 3.1.1 and 3.1.2 above. Measures include, among other things, the establishment of TACs on the basis of scientific advice, technical regulation of the fisheries (such as gear regulations) and closure of areas; cf. P1 and P2 above. **SG60 and SG80 are met.**

Responsiveness of decision-making processes				
b	Guide post	Decision-making processes respond to serious issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take some account of the wider implications of decisions.	Decision-making processes respond to serious and other important issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.	Decision-making processes respond to all issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions.
	Met?	Yes	Yes	No
Rationale				

Evidence from a number of previous MSC assessments of Faroese and Icelandic fisheries indicates that the established decision-making procedures respond to serious and other important issues identified in research, monitoring, evaluation or by groups with an interest in the fishery. This is ensured through the formal and informal arenas for regular and ad hoc consultations between governmental agencies and the industry; cf. SIs 3.1.2a and 3.1.2b above. In addition, there is close contact between authorities and scientific research institutions. This includes how enforcement practices are adapted according to specific compliance challenges, how regulations have been revised when new documentation of the fishery’s impact on the ecosystem have become available (see under P2 above), and how challenges highlighted in the Icelandic National Audit Office’s 2018 report (see PI 3.2.4 below) was responded to in a timely manner. **SG60 and SG80 are met.** It is a principal question whether it can be documented that *all* issues are responded to by the management system. A precautionary scoring warrants the conclusion that **SG100 is not met.**

Use of precautionary approach				
c	Guide post	Decision-making processes use the precautionary approach and are based on best available information.		
	Met?		Yes	

Rationale

Decision-making processes are based on relevant scientific research by the marine research institutes in the Faroe Islands and Iceland, and national legislating requires the use of the precautionary approach, as operationalized in the FAO Code of Conduct for Responsible Fisheries and its technical guidelines (see PI 3.1.3 above). **SG80 is met.**

Accountability and transparency of management system and decision-making process

d	Guide post	Some information on the fishery’s performance and management action is generally available on request to stakeholders.	Information on the fishery’s performance and management action is available on request, and explanations are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.	Formal reporting to all interested stakeholders provides comprehensive information on the fishery’s performance and management actions and describes how the management system responded to findings and relevant recommendations emerging from research, monitoring, evaluation and review activity.
	Met?	Yes	Yes	No

Rationale

The ministries, directorates and marine research institutes in the Faroe Islands and Iceland involved in the management of the fishery produce annual reports that are available to the public on request and via their websites. In these reports, actions taken or not taken by the relevant authority are accounted for, including those proposed on the basis of information from research, monitoring, evaluation and review activity. This information is also conveyed at the frequent meetings between authorities and all interested stakeholders and, not least, on the website of the relevant governance bodies. For instance, the website of the Icelandic Directorate of Fisheries contains detailed and updated information on quotas and catches broken down to individual vessels, species and gear, among other things. **SG60 and SG80 are met.**

In order to achieve a 100 score on this SI, the information must be provided through ‘formal reporting’, and it must be ‘comprehensive’. In the opinion of the assessment team, availability on the respective management authorities’ websites counts as formal reporting appropriate to the context of the fishery, as much as written letters to stakeholders would have done. However, the reporting focuses less on by-catch and other ecosystem elements than on commercial species, so it is debatable whether it can be characterized as sufficiently comprehensive. **SG100 is not met.**

Approach to disputes

e	Guide post	Although the management authority or fishery may be subject to continuing court challenges, it is not indicating a disrespect or defiance of the law by repeatedly violating the same law or regulation necessary for the sustainability for the fishery.	The management system or fishery is attempting to comply in a timely fashion with judicial decisions arising from any legal challenges.	The management system or fishery acts proactively to avoid legal disputes or rapidly implements judicial decisions arising from legal challenges.
	Met?	Yes	Yes	Yes

Rationale

The national management authorities in the Faroe Islands and Iceland are not subject to continuing court challenges or indicating a disrespect or defiance of the law by repeatedly violating the same law or regulation necessary for the sustainability for the fishery. **SG60 is met.** When occasionally taken to court by fishing companies, the management authority complies with the judicial decision in a timely manner. **SG80 is met.** The management authority works proactively to avoid legal disputes through the tight cooperation with user-groups at the regulatory level, ensuring as high legitimacy as possible for regulations and other management decisions; see SI 3.1.2b above. Regulatory and enforcement authorities offer advice to the fleet on how to avoid infringements. Only the most serious cases go to prosecution by the police and possible transfer to the court system. **SG100 is met.**

References

Act on Fishing in Iceland’s Exclusive Fishing Zone No. 79/1997

Act on Fisheries Management No. 38/1999, amended as Act No. 116/2006 (Iceland).

Act on Fishing and Processing by Foreign Vessels in Iceland’s Exclusive Economic Zone No. 28/1998

Act on the Treatment of Commercial Marine Stocks No. 57/1996 (Faroe Islands)

Commercial Fisheries Act, No. 28/1994 (Faroe Islands)

Faroe Islands Fisheries & Aquaculture: Responsible Management for a Sustainable Future, Ministry of Fisheries (undated)

Regulation on Capelin Fishery by Faroese Vessels in the Icelandic Exclusive Economic Zone in the Fishing Year 2020/2021, 15 January 2021 (Iceland)

Websites of the Faroese Ministry of Fisheries (www.fisk.fo), the Faroese Fisheries Inspection Service (www.vorn.fo), the Icelandic Directorate of Fisheries (www.fiskistofa.is) and the Icelandic Ministry of Industries and Innovation (www.stjornarradid.is)

Draft scoring range and information gap indicator added at Announcement Comment Draft Report stage

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report stage

Overall Performance Indicator score	85
Condition number (if relevant)	N/A

PI 3.2.3 – Compliance and enforcement

PI 3.2.3		Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with		
Scoring Issue				
MCS implementation				
a	Guide post	Monitoring, control and surveillance mechanisms exist, and are implemented in the fishery and there is a reasonable expectation that they are effective.	A monitoring, control and surveillance system has been implemented in the fishery and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.	A comprehensive monitoring, control and surveillance system has been implemented in the fishery and has demonstrated a consistent ability to enforce relevant management measures, strategies and/or rules.
	Met?	Yes	Yes	Yes
Rationale				

The fishery for IGJM capelin occurs in the coastal zones of primarily Iceland, and some in Greenland and Norwegian (Jan Mayen) zones. Therefore, monitoring, control and surveillance (MCS) in the fishery is primarily taken care of by the coastal state Iceland, as the fishery primarily takes place in the Icelandic EEZ, and by the Faroe Islands as flag state. Iceland and the Faroe Islands are also port states in the fishery, as the fish is landed there. As mentioned under SI 3.1.1a above, Greenland and Norway are also coastal states in the fishery as part of the catch is taken in their EEZs, including the Fishing Zone around Jan Mayen. Hence, the at-sea inspection services of these two countries must also be assessed under this PI.

Faroe Islands: The relevant parts of the MCS system includes reports from the vessels, physical inspections in harbour, as well as information exchange between the various countries’ enforcement authorities. In the Faroe Islands, fishing vessels are required to keep a logbook and report catches to the Fisheries Inspection Service on a daily basis. Electronical logbooks have been introduced for all vessels above 15 BT (in practice all vessels that do not deliver their catch every day), and VMS is obligatory. All landings have to be reported 12 hours in advance in order to give the inspectors the possibility to check the landed catch. Both landing and at-sea control is conducted using a risk-based framework aimed at utilizing resources to optimize compliance at any given moment.

Iceland: MCS is taken care of by the Directorate of Fisheries, in collaboration with the Coast Guard, the Marine Research Institute and coastal municipalities. The enforcement system is based on reports from the vessels, physical inspections at sea and weighing in harbour, as well as information exchange with other states’ enforcement authorities. The structure and procedures of the enforcement system are codified in the Fisheries Management Act, while requirements to the weighing system are laid out in the Act concerning the Treatment of Commercial Marine Stocks and in the Regulation on Weighing and Recording of Catch. Electronic logbook and mandatory, and vessels report catches to the Directorate of Fisheries using Electronic Reporting Systems (ERS). VMS is obligatory for all vessels regardless of size, also inshore. Inspectors from the Directorate may accompany fishing vessels on trips or operate from Coast Guard vessels. The Coast Guard has three offshore patrol vessels, as well as a number of smaller boats, helicopters and a surveillance aircraft. At-sea inspections include control of the logbook, catch and gear. If a certain amount of the catch is found to be below size limit, the inspector can initiate a short-term close (usually two weeks) for the fishery of that particular species, vetted by the Marine Research Institute and confirmed by the Directorate of Fisheries. Inspections are conducted using a risk-based framework (‘business intelligence software’) aimed at utilizing resources to optimize compliance. Most importantly, 100 % of the landed fish is weighed by an authorized ‘weighmaster’, employed by the municipality and hence independent of both buyer and seller. Landing data are immediately added to the Directorate of Fisheries’ catch database. The Directorate operates a dynamic and interactive website, where stakeholders at all times can monitor the precise quota status for each species and observe the performance of individual vessels, their catch from each fishing trip and vessel quota status. The fact that the vast majority of catch is exported provides a further control mechanism enabling a mass balance comparison of fish in (i.e. landing declarations) with fish out (i.e. production or export volumes). In 2019, the Directorate started to publish data on their website on individual vessels’ catch composition on trips with and without inspectors on board. This gives an indication of discarding in the fishery and also provides deterrence in itself (‘social shaming’).

Norway: MCS is the shared responsibility of the Directorate of Fisheries, the Coast Guard and the regional sales organizations. The Directorate of Fisheries keeps track of how much fish is taken of the quotas of individual vessels,

different vessel groups and other states at any given time, based on reports from the fishing fleet. Faroese vessels are required to have electronic logbooks, or more specifically ERS. This implies that real-time data are forwarded to the Directorate of Fisheries, with the possibility to make corrections of data submitted each day within 12 hours into the next day. Norway has agreements in place with a number of other countries about exchange of ERS data, including the Faroe Islands and Iceland. At present there is no landing of capelin by Faroese vessels in Norway and that part landing control in Norway is therefore not relevant for the Faroese IGJM capelin fishery. The self-reported catch data can be checked at sales operations through the sales organizations, which have monopoly on first-hand sale of fish in Norway, and through physical checks performed by the sales organizations, the Directorate of Fisheries and the Coast Guard. The Norwegian Coast Guard operates 15 vessels, of which five patrol the coastal area and ten the wider EEZ – four of the latter have a helicopter on board. These Coast Guard vessels are the largest in the entire Royal Norwegian Navy. The Coast Guard vessels perform spot checks at sea, including from helicopters during fishing activities and inspections at check points that foreign vessel have to pass through when entering or leaving the NEZ and in connection with transshipments in Norwegian waters, which have to be reported in advance. Coast Guard inspectors board fishing vessels and control the catch from last haul (e.g. catch composition and fish size) and fishing gear (e.g. mesh size) on deck and the volume of fish in the holds. Using the established conversion factors for the relevant fish product, the inspectors calculate the volume of the fish in round weight and compare this with the catches reported to the Directorate of Fisheries through the mandatory electronic logbooks. Inspectors have the authority to close an area with too much juvenile or bycatch (real-time closure). Both landing and at-sea control is conducted using a risk-based framework. At-sea controls also include having inspectors on board fishing vessels for entire trips; this is routinely done in the UoA fishery.

Greenland: MCS is the remit of GFLK. Vessels are required to have VMS and report to the Greenlandic FMC at GFLK on an hourly basis. Landings have to be reported 12 hours in advance in order to give the inspectors the possibility to check the landed catch. At-sea inspections outside the territorial waters (but within the EEZ) are conducted by the Danish Navy, in cooperation with the enforcement authorities in other EU countries. Controls are carried out using a risk-based framework aimed at utilizing resources to optimize compliance at any given moment. The inspections include checks of documents, last-haul catch, fishing gear and fish in the holds.

The enforcement agencies in the different countries involved in the fishery cooperate tightly, e.g. with exchange of all catch information. Landing controls are carried out according to the NEAFC Port State Control Scheme, according to which a port state is obliged to ensure with the relevant flag state ahead of every landing that the catch is covered by a national quota, and to physically check at least 15 % of all landings. In Iceland, 30 % of all landings by foreign vessels have been controlled physically in recent years.

Hence, monitoring, control and surveillance mechanisms exist and are implemented in the fishery, and there is reasonable expectation that they are effective. **SG60 is met.** These measures qualify as a system and have demonstrated an ability to enforce relevant management measures; see SI 3.2.3c on compliance below. **SG80 is met.** The system is comprehensive and has demonstrated a consistent ability to enforce relevant management measures; see SI 3.2.3c on compliance below. **SG100 is met.**

Sanctions				
b	Guide post	Sanctions to deal with non-compliance exist and there is some evidence that they are applied.	Sanctions to deal with non-compliance exist, are consistently applied and thought to provide effective deterrence.	Sanctions to deal with non-compliance exist, are consistently applied and demonstrably provide effective deterrence.
	Met?	Yes	Yes	Yes
Rationale				

The Faroese enforcement system uses a graduated sanctioning system, with sanctions ranging from temporary withdrawal of license, confiscation of gear and fines to formal prosecution and possibly permanent withdrawal of license. If the fishers do not accept the fines issued by the enforcement or prosecution authority, they can take the case to court. The decision of a lower-level court can then be appealed to higher-level courts.

For a first-time offence, a warning is given if the infringement is not of a very serious nature. If it is repeated, the license will normally be withdrawn and/or the fishing gear will be confiscated. The duration of the withdrawal depends on the seriousness of the infringement, but typically the license will be withdrawn for a two-week period. If the offence is repeated again, a fine will be introduced in addition to the withdrawal of the license or the case will be brought to court.

The sanctioning system in Icelandic fisheries is codified in the Fisheries Management Act and the Act concerning the Treatment of Commercial Marine Stocks. A system for graduated sanctions is applied. For a first-time offence, a warning ('reprimand') is given if the infringement is of a less serious nature (Fisheries Management Act, Art. 24). In the other end of the spectrum, serious or repeated deliberate violations can be liable to imprisonment of up to six years (Art. 25).

Fines for first offences shall not exceed ISK 4,000,000,-, depending upon the nature and scope of the violation. Repeated offences shall be fined by a minimum of ISK 400,000 and a maximum of ISK 8,000,000,- (Art. 25). Withdrawal of fishing permit can be applied in a number of situations. As an example (cf. the Act concerning the Treatment of Commercial Marine Stocks, Art. 14), if information of the Directorate of Fisheries suggests that a vessel has caught in excess of its catch quotas for any species, the Directorate must notify this to the vessel operator and master of the vessel concerned, stating in addition that the vessel's commercial fishing permit is suspended on the fourth working day thereafter unless sufficient catch quotas have been transferred to the vessel within that time. If the recipient of the notification is of the opinion that the information of the Directorate of Fisheries concerning the vessel's catch is incorrect and that the vessel has not caught in excess of its catch quotas, he/she must convey such objections to the Directorate of Fisheries within three days. If a permit is suspended for the second time during the same fishing year due to catch exceeding catch quotas, the Directorate of Fisheries shall suspend a vessel's commercial fishing permit for two weeks in addition to the time resulting from the suspension provided for in the first paragraph, for six weeks if it occurs for the third time and for twelve weeks if it occurs more often. As another example (Fisheries Management Act, Art. 17), the Directorate of Fisheries shall suspend the commercial fishing permits of vessels failing to submit catch logbooks; such suspensions shall remain in force until submissions are received or explanations provided for the reasons for failure to submit. In the first instance of a violation which is liable to suspension of fishing permit, the suspension shall apply for at least one week and no longer than 12 weeks, depending upon the nature and scope of the violation. In the case of repeated violations, a suspension shall apply for at least four weeks and not longer than one year (Act concerning the Treatment of Commercial Marine Stocks, Art. 15). If a vessel's commercial fishing permit has repeatedly been suspended, as provided for in Articles 14 and 15 of this Act, the Directorate of Fisheries may decide that a fishing inspector shall be stationed aboard the vessel at the expense of the vessel operator for a specific period of up to two months. The vessel operation must then pay all cost arising from the presence of the fishing inspector aboard, including salary cost (Art. 16). If there is suspicion of more serious infringements, the case may be transferred to the Ministry (Art. 18) or to a court (Art. 20). All decisions on the suspension of harvest rights are to be made publicly available (Art. 21).

In Norway, statutory authority for the use of sanctions in the event of infringements of fisheries regulations is given in Chapters 11 and 12 of the Marine Resources Act. Intentional or negligent violations are punished with fines or prison (not applicable to foreign citizens) up to one year, while infringements committed with gross intent or negligence may be punished with prison up to six years. In the judgement of the seriousness of the infringement, the economic gain of the violation, among other things, is to be taken into consideration. Alternatively, catch, gear, vessels or other properties can be confiscated. The Norwegian enforcement agencies use a graduated sanctioning system, with sanctions ranging from oral warnings, written warnings and administrative fines to formal prosecution. If the fishers do not accept the fines issued by the enforcement or prosecution authority, the case goes to court. The decision of a lower-level court can be appealed to higher-level courts.

The Greenlandic enforcement system also uses a graduated sanctioning system, with sanctions ranging from temporary withdrawal of license, confiscation of gear and fines to formal prosecution and possibly permanent withdrawal of license. If the fishers do not accept the fines issued by the enforcement or prosecution authority, they can take the case to court. The decision of a lower-level court can then be appealed to higher-level courts. For a first-time offence, a warning is given if the infringement is not of a very serious nature. If it is repeated, the license will normally be withdrawn and/or the fishing gear will be confiscated. The duration of the withdrawal depends on the seriousness of the infringement, but typically the license will be withdrawn for a shorter period. If the offence is repeated again, a fine will be introduced in addition to the withdrawal of the license, or the case will be brought to court.

Hence, sanctions to deal with non-compliance exist and there is evidence that they are applied. **SG60 is met.** Sanctions are consistently applied and thought to provide effective deterrence; see SI 3.2.3c on compliance below. **SG80 is met.** They demonstrably provide effective deterrence; see 3.2.3c on compliance below. **SG100 is met.**

Compliance				
C	Guide post	Fishers are generally thought to comply with the management system for the fishery under assessment, including, when required, providing information of importance to the effective management of the fishery.	Some evidence exists to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery.	There is a high degree of confidence that fishers comply with the management system under assessment, including, providing information of importance to the effective management of the fishery.
	Met?	Yes	Yes	Yes
Rationale				

In Iceland, a total of 47,000 landings of fish were carried out in 2020, comprising nearly 1 mill. tonnes of fish. All catches are weighed by independent 'weighmasters'; see SI 3.2.3a above. Inspectors from the Coast Guard were on board

fishing vessels a total of 571 days, which is less than half the average over the preceding years, due to Covid 19-restrictions. A total of 164 infringements were suspected during the year from land- and sea-based control taken together. That cannot be characterized as grave in a country with a large fishing industry and a comprehensive and transparent MCS authority (i.e. with an enforcement authority that is competent to discover infringements and willing to inform about them).

The Norwegian Coast Guard carried out 1139 inspections in waters under Norwegian jurisdiction in 2019. 52 inspections (4.6 %) resulted in a fine or prosecution. In 2020, 1155 inspections were carried out, of which 49 (4.2 %) resulted in fine or prosecution.

At interviews during the site visit, both Faroese and Icelandic enforcement authorities confirmed that there have been no infringements in the UoA fishery in recent years.

Hence, fishers are generally thought to comply with regulations and provide information to national authorities. **SG60 is met.** Some information exists that fishers comply. **SG80 is met.** With a clear confirmation from both Faroese and Icelandic enforcement authorities that compliance is high in the fishery, it can be concluded that there is a high degree of confidence that fishers comply. **SG100 is met.**

Systematic non-compliance			
d	Guide post		There is no evidence of systematic non-compliance.
	Met?	Yes	
Rationale			

The assessment team has not come across information indicating that there is systematic non-compliance in the fishery. **SG80 is met.**

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Regulation on the Establishment of a Fishing Zone around Jan Mayen, Regulation 1980-05-23 No. 0004 (Norway)

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Draft scoring range and information gap indicator added at Announcement Comment Draft Report stage

Draft scoring range	≥80
Information gap indicator	More information sought <i>More information sought on inspections and compliance in the Russian EEZ, verified by Russian enforcement authorities</i>

Overall Performance Indicator scores added from Client and Peer Review Draft Report stage

Overall Performance Indicator score	100
Condition number (if relevant)	N/A

PI 3.2.4 – Monitoring and management performance evaluation

PI 3.2.4		There is a system of monitoring and evaluating the performance of the fishery-specific management system against its objectives There is effective and timely review of the fishery-specific management system		
Scoring Issue				
a	Evaluation coverage			
	Guide post	There are mechanisms in place to evaluate some parts of the fishery-specific management system.	There are mechanisms in place to evaluate key parts of the fishery-specific management system.	There are mechanisms in place to evaluate all parts of the fishery-specific management system.
	Met?	Yes	Yes	No
Rationale				

In the Faroe Islands, the main management bodies, such as the Ministry of Fisheries, the Fishery Inspection Service and the Marine Research Institute, review their achievements the preceding year when they produce plans and targets for the coming year. Especially for the Inspection Service, running self-review is implicit in the continuous risk analysis that takes place in deciding where to put enforcement efforts at any given time. The Parliament also conducts its own reviews of how the fisheries management system works on a year-to-year basis. Regulations are evaluated by the Fisheries Advisory Board every time a new regulatory measure is introduced. The Auditor General reviews the effectiveness of management bodies in financial terms. The Fisheries Inspection Service is certified according to the ISO 9001 quality management system standard.

In Iceland, there is a constant process of internal review and consultation, including of scientific advice within the Ministry of Industries and Innovation and the Fisheries Directorate, and there is a patchwork review of technical regulations and enforcement measures. Regulatory measures taken by the Ministry and Directorate are continuously reviewed by the Icelandic Parliament, in committee hearings but more often at ad hoc meetings, which reflects that Iceland is a small and fishery-dependent country, with short lines of communication. The National Audit Office (Ríkisendurskoðun) is an independent body operating under the auspices of the Parliament, as part of the legislature’s monitoring of the executive branch. In addition to traditional financial audits, the office conducts so-called performance reviews, aimed at evaluating the effectiveness of the executive’s implementation of parliamentary decisions, including within fisheries management.

Hence, key parts of the management system are subject to review, so **SG60 and SG80 are met**. It is a principal challenge to claim that ‘all’ parts of a fisheries management system are subject to review, but it seems reasonable to expect some sort of a formal and holistic evaluation of the system as such to be in place, which does not seem to be the case here. **SG100 is not met**.

Internal and/or external review				
b	Guide post	The fishery-specific management system is subject to occasional internal review.	The fishery-specific management system is subject to regular internal and occasional external review.	The fishery-specific management system is subject to regular internal and external review.
	Met?	Yes	Yes	Yes
Rationale				

The fishery-specific management system is subject to various forms of internal self-evaluation within the Faroese and Icelandic bodies of governance (see SI 3.2.4a above); these take place on a regular basis. **SG60 is met**, and the requirement for an SG100 score is met as far as *internal* reviews are concerned. To achieve a score above SG60, some level of external review must also be in place, on an occasional (SG80) or regular (SG100) basis.

According to the MSC Fisheries Standard, ‘external’ does not mean ‘international’, but ‘external to the fisheries management system’ (SA4.10.1). In the Guidance, it is specified that reviews conducted by another department within an agency or another agency or organization within the country count as external. In both the Faroe Islands and Iceland, the ministries of fisheries report to their respective national parliaments, and they are subject to review by the offices of the Auditor General. More comprehensive external reviews were performed in connection with a general reform in the Faroese management system in 2016/2017, and the Icelandic National Audit Office carried out a major review of the work of the Ministry of Industries of Innovation (so-called performance review, as opposed to financial reviews) in 2018.

Hence, there are regular internal and external reviews of the fishery-specific management system. **SG80 and SG100 are met.**

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Draft scoring range and information gap indicator added at Announcement Comment Draft Report stage

Draft scoring range	≥80
Information gap indicator	Information sufficient to score PI

Overall Performance Indicator scores added from Client and Peer Review Draft Report stage

Overall Performance Indicator score	90
Condition number (if relevant)	N/A

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9 Appendices

9.1 Assessment information

9.1.1 Small-scale fisheries

This fishery is not considered to be a small-scale fishery.

Table 19: Small scale fisheries

Unit of Assessment (UoA)	Percentage of vessels with length <15m	Percentage of fishing activity completed within 12 nautical miles of shore
UoA-1	0%	0%
UoA-2	0%	0%

9.2 Evaluation processes and techniques

9.2.1 Site visits

The ACDR was produced as a desk study based on public available information and input from the client.

Off-site initial audit was held on August 2021, and interviews with different stakeholders were held on days 18th, 19th, 23rd and 24th. These interviews served to prepare CPRDR. Stakeholders were informed 60 days before the site visit and given the opportunity to provide information in advance. No comments nor information was provided by the stakeholders following this consultation period. Information from the client was reviewed by the assessment team before the initial audit.

All members of the assessment team were present at all stakeholder meetings.

Table 20 Participants at the initial audit

Date	Institution	Staff
18 th August 2021 11.30 CET-12.30 CET	Faroese Ministry of Fisheries and Faroese Directorate of Fisheries	Ulla Svarrer Wang Meinhard Gaardlykke
19 th August 2021 15.00 CET- 16.30 CET	FPO	Jógvan Jespersen (manager) Arni Hansen (captain)
23 rd August 2021 12.30 CET- 13.30 CET.	Icelandic Marine and Freshwater Research Institute	Guðmundur J. Óskarsson Birkir Bárðarson Höskuldur Björnsson
24 th August 2021 14.30 CET-16.00 CET	Icelandic Directorate of Fisheries	Erna Jónsdóttir Elín Ragnarsdóttir Vidar Olason

9.2.2 Stakeholder participation

There was no stakeholder participation for the ACDR.

Sixty days prior to the site visit, all stakeholders were informed of the visit and the opportunity to provide advance information to the auditors or to meet with the team during the site visit. DNV received no request for participation at the site visit, and no written submissions regarding the FPO Icelandic capelin fishery.

The participants present at the different stakeholder meetings are given in the table above.

9.2.3 Evaluation techniques

The ACDR was based on a desk-top study with information from the client on request, and the client document checklist.

Information on the assessment process was made publicly available through www.msc.org at given stages of the assessment. DNV published the assessment announcement along with the Announcement Comment Draft report on June 14th, 2021. These were published on the MSC website and followed by stakeholder notifications by direct emails.

In addition, all relevant stakeholders identified at the beginning of the assessment were reached through direct e-mails and given a possibility to monitor the assessment process and provide feedback to the assessment team. Relevant main stakeholders were interviewed on (date) as outlined in sections 9.2.1 above.

Information gathered is presented in this report and in the enclosed scoring tables. As no stakeholder comments were submitted during the stakeholder consultancy period prior to the initial audit, information gathered during the initial audit formed the main basis of the stakeholder consultancy for this assessment. The interviews were based on audit agenda sent to all involved stakeholders.

The default assessment tree from the MSC Fisheries standard v 2.01 Annex SA was used for the scoring of the reassessment.

Information was reviewed by the assessment team at the scoring meetings held on 6th October 2021 via Microsoft teams as well as by email communication.

After all relevant information was compiled and analysed, the assessment team scored the Unit of Assessment against the Performance Indicator Scoring Guideposts (PISGs) in the final tree. The team discussed evidence together, weighed up the balance of evidence and used their judgement to agree on a final score following MSC FCP v2.2 process and based on consensus. Each scoring issue was scored and then averaged to principle scores.

Individual Performance indicators were scored. Scores for individual PIs were assigned in increments of five points. Any divisions of less than five points were justified in the relevant scoring table. Scores for each of the three Principles were reported to the nearest one decimal.

Some scoring issues do not have a scoring guidepost at each of the 60, 80 and 100 levels. The scoring issues and scoring guideposts are cumulative; this means that a PI is scored first at the SG60 levels. If not all of the SG scoring issues meet the 60 requirements, the fishery fails, and no further scoring occurs.

If all of the SG60 scoring issues are met, the fishery meets the 60 level, and the scoring moves to SG80 scoring issues. If no scoring issues meet the requirements at the SG80 level, the fishery receives a score of 60. As the fishery meets increasing numbers of SG80 scoring issues, the score increases above 60 in proportion to the number of scoring issues met; PI scoring occurs at 5-point intervals. If the fishery meets half the scoring issues at the 80 level, the PI would score 70; if it meets a quarter, then it would score 65; and it would score 75 by meeting three-quarters of the scoring issues. If the fishery meets all of the SG80 scoring issues, the scoring moves to the SG100 level. Scoring at the SG100 level follows the same pattern as for SG80.

MSC do not require the SG100s to be assessed (or rationales provided) when all of the scoring issues within the SG80 level are not met, as per FCP v2.2 § 7.17.7.4, except in cases where obtaining a combined scoring element PI score require it (7.10.7). However, if the assessment team judge that it would be useful to assess the SG100s they may do so – ref. interpretation log <https://mscportal.force.com/interpret/s/article/Scoring-SG100-if-not-all-SG80-met-7-10-5-3-1527262010218>. The assessment has followed the interpretation log and scored all SG100s.

The final scores are based on group consensus within the assessment team. During the scoring process the assessment team discussed the information available for evaluating PIs with the intention to develop a broad opinion of performance of the fishery against each PI thus assuring that the assessment team was aware of the issues for each PI. Subsequently, the assessment team member responsible for each principle discussed the relevant scoring tables and provided provisional scores. The assessment team members reviewed the rationales and scores, and recommended modifications as necessary, including possible changes in scores. PI scores were entered into MSC's Fishery Assessment Scoring Worksheet (Table 7) to arrive at Principle-level scores.

The assessment team recommends the assessment certification as the weighted average score is 80 or more for all the three Principles and all individual scoring issues are met at the SG60 level.

Conditions are set where the fishery fails to achieve a score of 80 to any Performance Indicators.

Conditions with milestones are generally set to result in improved performance to at least the 80 level within a period set by the assessment team. The client is then required to provide a client action plan to be accepted by the assessment team and may use MSC Client Action Plan template v1.0. The client action plan shall detail:

- how conditions and milestones will be addressed
- who will address the conditions
- the specified time- period within which the conditions and milestones will be addressed
- how the action(s) is expected to improve the performance of the UoA
- how the CAB will assess outcomes and milestones in each subsequent surveillance or assessment
- how progress to meeting conditions will be shown to CABs.

For the FPO Icelandic capelin fishery there are no conditions set.

Principle scores result from averaging the scores within each component, and then from averaging the component scores within each Principle. If a Principle averages less than 80, the fishery fails.

Based on the evaluation of the fishery presented in this report the assessment team recommends the certification of the FPO Icelandic capelin fishery with no conditions nor recommendations for the client FPO (Faroese Pelagic Organization).

9.3 Peer Review reports

Peer Reviewer A:

Peer Reviewer (A/B/C)	Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
PR A	Is the scoring of the fishery consistent with the MSC standard, and clearly based on the evidence presented in the assessment report?	Yes	Yes, the scoring in the report is fully consistent with the MSC standard, clearly evidenced throughout the assessment report, and based on the all the available information.	Thank you.
PR A	Are the condition(s) raised appropriately written to achieve the SG80 outcome within the specified timeframe? [Reference: FCP v2.2, 7.18.1 and sub-clauses]	NA	There are no conditions raised in this assessment.	N/A
PR A	Is the client action plan clear and sufficient to close the conditions raised? [Reference FCR v2.0, 7.11.2-7.11.3 and sub-clauses]	NA	Note: Include this row for assessments completed against FCR v1.3 and v2.0, but not for FCP v2.1/v2.2 (in which the client action plan is only prepared at the same time as the peer review). Delete this text from the cell for FCR v1.3/v2.0 reviews or delete the whole row if FCP v2.1/v2.2.	N/A
PR A	Enhanced fisheries only: Does the report clearly evaluate any additional impacts that might arise from enhancement activities?	NA	This is not an enhanced fishery.	N/A

Peer Reviewer (A/B/C)	Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
PRA	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary). Add extra rows if needed below, including the codes in Columns A-C.	NA	The report is clearly written and makes its point without excessive repetition, and the authors are to be congratulated. My only concern about the adequacy of the background information considered is that the approach and method used for stock assessment was last benchmarked by ICES in 2015 (as distinct from the individual applications of this method, which as the CAB note, are reviewed by ACOM annually). There is certainly potential for methods to move on, errors to be discovered etc. in this time, therefore this available information may not reflect latest thinking or any technological advances. I looked for an ICES issue list to see whether this was considered a problem, but one does not appear to exist for this stock. Are the CAB able to offer any thoughts on the timeliness of the information supporting the assessment method?	The assessment model and in particular the projection module is based on an understanding of the population dynamic of the capelin population and its role in the ecosystem, see ICES (2015) stock Annex for 5+14 Capelin. The model however, is primarily used for setting up the initial and the intermediate TAC while the final TAC is this close to the fishery survey is in December-January and the fishery is in January-April. Therefore the final TAC is essentially determined by survey results rather than projection modelling and therefore research interest driven by management needs are focusing on survey technology rather than ecosystem modelling. There is a debate on the importance of sea bird and marine mammal predation and how the wellbeing of these predators are linked to the size of the capelin population. The conclusion at this time by MFRI is that money are better spent on improving surveys than a major and cost project on the interaction between capelin and sea bird and marine mammal predators, particularly as there is an understanding of the importance of the major fish predators, cod, haddock, saithe. This argument is further strengthened by the timing of the fishery (Jan-April), the high spawning mortality linked to the shortlived nature of the capelin (very high spawning mortality) leading to that so to speak the predators take their share before the fishery gulps the rest which would be dead from spawning anyway. A major and unsolved issue is to get a handle on the dramatic variations from year to year, leading to the closure of the fishery in some years last 2018/19 and 2019/20.

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res-ponse Code
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	1.1.1	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	1.1.2	NA (PI not scored)	NA (PI not scored)	NA	Not scored as P1.1.1.A above 80	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	1.2.1	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res-ponse Code
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	1.2.2	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	1.2.3	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	1.2.4	Yes	Yes	NA	Scoring Agreed, but note general comment on timeliness of assessment method and issue lists.	Thank you, comment noted, see reflections under General comments	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.1.1	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.1.2	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.1.3	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.2.1	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.2.2	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.2.3	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.3.1	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.3.2	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.3.3	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.4.1	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res-ponse Code
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.4.2	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.4.3	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.5.1	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.5.2	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	2.5.3	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	3.1.1	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	3.1.2	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	3.1.3	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	3.2.1	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	3.2.2	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	3.2.3	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin	Purse Seine/Midwater Trawl	PR A	3.2.4	Yes	Yes	NA	Scoring Agreed	Thank you	NA (No response needed)

Peer Reviewer B

Fishery	Assessment Start Year	Peer Reviewer (A/B/C)	Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
FPO Icelandic capelin	2021	PR B	Is the scoring of the fishery consistent with the MSC standard, and clearly based on the evidence presented in the assessment report?	No	Scoring appears to have been done largely in line with most favorable interpretation of data (with the exception of 3.2.2b, which I applaud), and seems somewhat blinkered to very large recent fluctuations in SSB and ongoing uncertainty around distribution changes and causes thereof.	The assessment team does not accept the accusation of a biased evaluation of the data available. There are answers to the specific questions under each PI comment.
FPO Icelandic capelin	2021	PR B	Are the condition(s) raised appropriately written to achieve the SG80 outcome within the specified timeframe? [Reference: FCP v2.2, 7.18.1 and sub-clauses]	NA		N/A
FPO Icelandic capelin	2021	PR B	Is the client action plan clear and sufficient to close the conditions raised? [Reference FCR v2.0, 7.11.2-7.11.3 and sub-clauses]	NA	Note: Include this row for assessments completed against FCR v1.3 and v2.0, but not for FCP v2.1/v2.2 (in which the client action plan is only prepared at the same time as the peer review). Delete this text from the cell for FCR v1.3/v2.0 reviews or delete the whole row if FCP v2.1/v2.2.	N/A
FPO Icelandic capelin	2021	PR B	Enhanced fisheries only: Does the report clearly evaluate any additional impacts that might arise from enhancement activities?	NA		N/A

Fishery	Assessment Start Year	Peer Reviewer (A/B/C)	Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
FPO Icelandic capelin	2021	PR B	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary). Add extra rows if needed below, including the codes in Columns A-C.	NA	The CAB present two UoAs (Purse Seine and Pelagic Trawl) but do not split bycatch or indirect impact by gear type. On page 58 the CAB state "there is a growing body of evidence to support that pelagic trawl fisheries have few encounters with protected species that result in direct mortality of protected species", but no such general statement is given for Purse seiners: the possibility remains therefore that Purse seiners DO impact, and it would have been appropriate to score each UoA seperately.	Thank you for the comment. There are no report of encounters by protected species for either gears. For the combined effects by MSC certified fisheries these are known for the entire Icelandic fisheries and also the combined effects of the MSC UoAs on the population/stock are known. These are highly likely to be within nationally set limits. As long as the combined effect overall are within limits there is little impetus to look for a detailed breakdown. If measures are required then it would be appropriate to find those fisheries which are most detrimental and establish appropriate measures to mitigate these effects.

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.1.1	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	SlA: There have been large and unexpected changes in biomass and distribution of Capelin in previous years. See for example Singh et al. Fisheries Research (2020) and Carscadden et al. Progress in Oceanography (2013). The fishery was closed in the last 2 years. The SSB panel in Fig 3 suggests that the lower 95% CI of the most recent estimate is below Blim. The CAB notes that forage fish are subject to large interannual fluctuations in recruitment. The biomass requirements of seabirds and mammals are not well known.	Thank you for the comments. Forage fish are subject to large variations, as noted by the references kindly provided by Pr B. Management shall within the MSC standard respond appropriate to these variations firstly fishery shall not cause collapse and secondly when the collapse do occur fishery shall be appropriately reduced or in this case stopped. The current status of the IGJM is well above Blim as indicated by the Final TAC for 2020/21 and the survey result of 650,000 t. Note also that SG100 is not met; it is for this guidepost the 95% scoring guide post is relevant.	Not accepted (no change)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.1.1	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	Slb: Predatory demands by some fish (cod, haddock, saithe) are considered, but little regard is given to demand by mammals/birds. The CAB assert that "management strategy has ensured that the SSB has consistently been at over two times the biomass limit level and as high as five times that level in 1996", yet the legend to Fig 3 makes it clear that pre 2016 assessment methods were different to now: since 2016 lower confidence limits of SSB estimates have been at or below Blim. It is not logical to make assertions on present SSB levels in the context of data from outdated methods that have now been superseded.	Thank you for the comment. The need for information on the predation pressure on the capelin or alternatively the ecosystem needs for marine mammals and sea birds have been thoroughly discussed with MFRI in the context of the MSC certificate for ISF capelin. The shift in 2016 relates a noted in the report to the surveys and not to the projection methods.	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.1.2	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	The CAB did not score 1.1.2 on the basis of their 1.1.1. Their Fig 3, however, shows a highly variable SSB with very large confidence limits. LTL species are notoriously variable, and previous data suggest that Capelin accord with this. Furthermore, the spatial distribution of the Icelandic Capelin stock as been highly variable in recent years, and it may not be possible to disentangle spatial and temporal variability with the available survey data.	Thank you for the comment. Current stock status (2021) suggests that SG80 for PI 1.1.1 is met.	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.1	Yes	No (material score reduction expected to <80)	NA	<p>Sla: Management takes demand by fish predators in to account, but does not give much consideration to demand by mammals and birds. Thus the plan has NOT been "designed to only harvest the surplus once the" ENTIRE "ecosystem needs have been satisfied"</p>	<p>Thank you for the comment. The demands by sea birds and marine mammals (whales) in the winter period are small and the dominating predator is cod. The final TAC is based on survey results obtained shortly before the fishery - therefore short projection period - and at low predation pressure - many birds and whales have left Icelandic waters. Also the growth season is the summer rather than winter. The assessment model is based on understanding the population dynamic of the capelin population and its role in the ecosystem, see ICES (2015) stock Annex for 5+14 Capelin. The model however, is primarily used for setting up the initial and the intermediate TAC while the final TAC is this close to the fishery survey is in December-January and the fishery is in January-April. Therefore the final TAC is essentially determined by survey results rather than projection modelling and therefore research interest driven by management needs are focusing on survey technology rather than ecosystem modelling. There is a debate on the importance of sea bird and marine mammal predation and how the wellbeing of these predators are linked to the size of the capelin population. The conclusion at this time by MFRI is 1) the major predators are the fish and 2) that money are better spent on improving surveys than a major and cost project on the interaction between capelin and sea bird and marine mammal predators, particularly as there is an understanding of the importance of the major fish predators, cod, haddock, saithe. This argument is further strengthened by the timing of the fishery (Jan-April), the high spawning mortality linked to the shortlived nature of the capelin (very high spawning mortality) leading to that so to speak the predators take their share before the fishery gulps the rest which would be dead from spawning anyway. A major and unsolved issue is to get a handle on the dramatic variations from year to year, leading to the closure of the fishery in some years last 2018/19 and 2019/20. The plan is designed for the capelin management strategy/HCR. Entire ecosystem needs are mainly served by the seasonality of the fishery combined with protection of immature capelin and the high spawning mortality.</p>	Accepted (no score change, change to rationale)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.1	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	Slb: The fact that closures have been required in the previous 2 years is evidence that the harvest strategy has not met its objectives of keeping SSB above Blim (see Fig 3). The impact of harvest on seabirds and mammals is essentially unknown.	Thank you for the comment. The high variability is probably an inherent feature of the capelin population and the variability cannot be avoided through fishery management actions. The assessment model and in particular the projection module is based on an understanding of the population dynamic of the capelin population and its role in the ecosystem, see ICES (2015) stock Annex for 5+14 Capelin. The model however, is primarily used for setting up the initial and the intermediate TAC while the final TAC is this close to the fishery survey is in December-January and the main fishery is in January-April. Therefore the final TAC is essentially determined by survey results rather than projection modelling and therefore research interest driven by management needs are focusing on survey technology rather than ecosystem modelling. There is a debate on the importance of sea bird and marine mammal predation and how the wellbeing of these predators are linked to the size of the capelin population. The conclusion at this time by MFRI is that money are better spent on improving surveys than a major and cost project on the interaction between capelin and sea bird and marine mammal predators, particularly as there is an understanding of the importance of the major fish predators, cod, haddock, saithe. This argument is further strengthened by the timing of the fishery (Jan-April), the high spawning mortality linked to the shortlived nature of the capelin (very high spawning mortality) leading to that so to speak the predators take their share before the fishery gulps the rest which would be dead from spawning anyway. A major and unsolved issue is to get a handle on the dramatic variations from year to year, leading to the closure of the fishery in some years, last 2018/19 and 2019/20.	Not accepted (no change)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.1	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	Slc: The CAB assert that the acoustic surveys yield "absolute" biomass estimates: I doubt seriously that this is the case given uncertainty around acoustic Target Strength etc. The surveys will give a relative index at best, but note the 2016 method change that renders comparison of pre and post 2016 data questionable. The "ecosystem needs" of mammals and birds are not considered in the predation model.	Thank you for the comment. Your expressed doubt suggest that you find that the method embeds bias, rather than uncertainty. You point to the 2016 method change, i.e. the introduction of the predation model for setting TACs. Such model must be built on finding the most important effects in this case the predation by cod, because cod is the most important predator on capelin.	
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.1	Yes	Yes	NA	Slid: Score appropriate. It is to be hoped that the benchmark due in 2022 will include considerations of stock migration and direct fuller attention to predation demands of birds and mammals.	Thank you for the comment.	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.1	No (score increase expected)	No (score increase expected)	NA	Slie: SG100 probably met given the geographic distribution of the fishery.	Thank you for the comment. However, the reference to 1.2.1e on shark finning seems confusing	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.1	Yes	Yes	NA	Slif: NA categorisation seems appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.2	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	Slia: History (Fig 3) shows that HCRs do not ensure that exploitation rates are reduced as PRI is approached. The CAB's statement "Experience with the capelin stock over the most recent 2 decades suggests that the stock is generally maintained at a high level" ignores the very low SSBs in the past 2 years	Thank you for the comment. Figure 3 demonstrates that the fishery was closed during the most recent stock collapse 2018-2020. Closing the fishery is about the most drastical reduction of the exploitation possible. The high variability inherent with capelin stock probably caused by environmental factors is a fundamental feature of the stock dynamics and likely cannot be regulated through fisheries management.	Not accepted (no change)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
									(although rules meant that no fishing occurred in those years).		
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.2	Yes	Yes	NA	Slb: Score appropriate. It is good to see here that the CAB acknowledge the uncertainty around predation requirements of birds and mammals.	Thank you for the comment.	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.2	No (non-material score reduction expected)	No (non-material score reduction expected)	NA	Slc: Fig 3 shows clearly that HCRs have enabled exploitation at levels above those appropriate to maintain SSB above Blim: SG100 is not met.	Thank you fro the comment. The assessment team does not read figure 3 in this way. There is an example around 1990 about 30 years ago and the experience with the HCR has generally been good in recent years. For stocks like the capelin it cannot be expected that variations around MSY or similar levels are small.	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.3	Yes	No (material score reduction expected to <80)	NA	SlA: The CAB acknowledge that significant changes in migration routes have been noted recently, but not that distributions and entire presence/absence have changed: reasons for these changes are unknown, so it is not correct to state that a complete, fundamental knowledge base underpins management - there are some very major gaps in the knowledge base in the rapidly-changing geographic region.	Thank you for the comment. Actually there is a knowlegde base that allows your statement on changes of migration routes to be made. The point is rather that these changes cannot be predicted and secondly that the changes are documented and survey coverage modified accordingly. The requirement for 1.2.3a is "A comprehensive range of information (on stock structure, stock productivity, fleet composition, stock abundance, UoA removals and other information such as environmental information), including some that may not be directly related to the current harvest strategy, is available." not there is a "complete fundamental knowlegde base" available	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.3	Yes	Yes	NA	Slb: Score appropriate.	Thank you	
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.3	Yes	Yes	NA	Slc: Score appropriate.	Thank you	

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.4	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	SlA: The acoustic survey is not sufficiently wide-ranging to encompass sudden and unexpected shifts in the distribution of the stock. There was a large increase in biomass this September (c. 900,000 T) cf. previous several years, and the reasons for this are not fully understood. There is also some inconsistency between survey operations (some conducted by Iceland, some on Icelandic boats chartered to Greenland) and survey biomass determined.	Thank you for the comment. The surveys are conducted based on best available practise. The acoustic instruments are calibrated in absolute term to avoid problems with differences in vessel performance. The assessment measures stock abundance understanding why is another issue that affect the ability to project stock abundance.	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.4	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	SlB: The minimum SSB to be left does not account for demands by mammals or birds: SG80 is not met.	Thank you for the comment. The fishery mainly takes place January-April when the predation by marine mammals and sea birds are at their lowest seasonal point. The major predation by sea birds and marine mammals in the summer period before the fishery and before the winter survey used to set the final TAC. The minimum SSB is intended for reproduction needs for the capelin stock. Ecosystem needs are regulated primarily by minimizing catches of immature and but timing of the fishery so it occurs after the major predation has taken place.	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.4	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	SlC: The acoustic survey design does not account for shifts in stock distribution: such shifts have been quite major in recent years, and may be ongoing.	Thank you for the comment. The design covers the stock area and there are changes in the coverage over time to reflect the changes in the geographical distribution. There are examples of additional surveys to the regular program to adjust for possible changes in the geographical distribution.	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.4	Yes	Yes	NA	SlD: Score appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	1.2.4	Yes	Yes	NA	SlE: Score appropriate.	Thank you	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.1.1	Yes	Yes	NA	NB THE PRCRDR IDENTIFIES 2 UoAs, BUT (with the exception of a comment under 2.3.1b) DOES NOT SPLIT PRINCIPLE 2 SCORING BY UoA. ALL OF MY COMMENTS IN ROWS FOR P2 IN COLUMN K REFER TO UoAs COMBINED SINCE INSUFFICIENT DATA HAVE BEEN PRESENTED BY THE CAB TO ENABLE SEPARATION BY GEAR TYPE [HENCE 'See above' IN EVERY SECOND ROW throughout 2.x.x]. Sla: Score appropriate.	Thank you for the comment. Effect on the by-catch species are judged on the combined by-catch and if the combined impact is inside permissible boundaries so will the individual effects be.	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.1.1				See above	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.1.1	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	Slb: Although bycatch of minor primary species is low, Capelin are important food items for many of these species. The management approach considers demand by 3 of the species (on page 22 the CAB state 'Consumption of capelin by cod, haddock and saithe are modelled using a variety of data sources to arrive at realistic estimates of consumption of IGJM capelin by these three predators'), but not all (the CAB state on page 19 'Most groundfish species feed on capelin at some stage in their life'). There does not seem to be any explicit consideration of how food availability (i.e. Capelin) to these species interacts with their catch	Thank you for the comment. The available data suggest that the three species are dominating interactions with capelin in the Icelandic ecosystem. Clearly not all interactions are modelled. This is accounted for together with the uncertainties associated with the projection in setting conservative initial and intermediate TACs. The final TAC set in January is close to the fishery and after the main growth season for the predators.	Not accepted (no change)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
									levels to influence their stocks.		
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.1.1				See above	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.1.2	Yes	Yes	NA	Slsa-e: All scores appropriate.	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.1.2				See above	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.1.3	Yes	Yes	NA	Sla: Score appropriate.	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.1.3				See above	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.1.3	Yes	Yes	NA	Slb: Score appropriate.	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.1.3				See above	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.1.3	Yes	Yes	NA	Slc: Score appropriate.	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.1.3				See above	N/A	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.2.1	No (scoring implications unknown)	No (scoring implications unknown)	NA	S1a and b: The CAB note "More information sought [more detailed catch composition, explicit information on interaction with sea birds and marine mammals]". This seems to draw in to question the value of the previous statement that "Incidental catch of seabirds and marine mammals is monitored by mandatory recordings in electronic logbooks. These measures are meant to maintain the delicate balance between effective harvesting and good environmental health so as to support sustainable fisheries."	Thank you for the comment. You are right that there is no direct evidence provided by stating what the intention of the data collection is. The sentence is deleted.	Accepted (no score change, additional evidence presented)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.2.1				See above	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.2.2	Yes	Yes	NA	S1sa-e: All scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.2.2				See above	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.2.3	Yes	Yes	NA	S1sa-c: All scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.2.3				See above	Thank you	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.3.1	Yes	No (material score reduction expected to <80)	NA	SlA: As the CAB acknowledge, the abundance of Minke whales off Iceland has been decreasing since 2001, probably due to reductions in availability of Capelin. Furthermore, the CAB state that the number of "whales killed by Capelin fleet are negligible", yet acknowledge "whether catches come from capelin fishery are not registered". It thus seems that there is the potential for direct impact by the fishery on Minke whales. SG80 is not met.	Thank you for the comment. The abundance of capelin seen over the last two decades is without trend, Figure 3 and the link suggested is not obvious not least taking into account the climate changes seen in the Northeast Atlantic and the consequences e.g. for the mackerel distribution. The sentence that you point to is regrettably garbled and have hopefully been clarified	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.3.1				See above	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.3.1	Yes	Yes	NA	SlB: Score appropriate.	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.3.1				See above	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.3.1	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	SlC: There is only incomplete knowledge on the role that Capelin play in the diet of many of the bird and mammal species in the region, and of the role in the diet of squid and other fish. The CAB acknowledge the pivotal role that Capelin (an LTL species) play in the ecosystem. There is insufficient evidence to be able to conclude that indirect effects (via foodwebs) are "highly likely to not create unacceptable impacts", so SG80 is not met.	Thank you for the comment. As noted above the fishery largely takes place after the sea birds and marine mammals have had their share.	Not accepted (no change)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.3.1				See above		NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.3.2	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	Sl-a: The statement "The fishing operation itself can be considered as a strategy to minimize impact on whales" is unclear (what strategy?), and - in the context of my remarks under 2.3.1a - unconvincing. SG80 not met.	Thank you for the comment. Any skipper will avoid getting whales in their nets because of the damage such an incident will cause.	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.3.2				See above	As for purse seine above	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.3.2	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	Sl-b-e: The statement "The fishing operation itself can be considered as a strategy to minimize impact on whales" is unclear (what strategy?), and - in the context of my remarks under 2.3.1a - unconvincing. SG80 appears not to be met.	See comment on 2.3.2 above	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.3.2				See above	See comment on 2.3.2 above	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.3.3	Yes	Yes	NA	Sl-a and b: Scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.3.3				See above	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.4.1	Yes	Yes	NA	Sl-a-c: Scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.4.1				See above	Thank you	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.4.2	No (non-material score reduction expected)	No (non-material score reduction expected)	NA	SlA: The CAB do not present a case to endorse that "There is a strategy in place for managing the impact of all MSC UoAs/non-MSC fisheries on habitats", so SG100 is not met.	The strategy is to avoid excessive damage and avoid VMEs all by restricting access to fishing grounds, the issue is mainly relevant for demersal fisheries using trawls, e.g. Targeting cod, haddock and saithe	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.4.2				See above	See above	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.4.2	Yes	Yes	NA	Slb-d: Scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.4.2				See above	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.4.3	Yes	Yes	NA	SlA-c: Scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.4.3				See above	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.5.1	No (non-material score reduction expected)	No (non-material score reduction expected)	NA	SlA: There is insufficient evidence to conclude that fishing on Capelin does not disrupt the ecosystem to the point where there may be serious harm. A scenario can be envisaged where fishing precedes reduction on SSB below Blim, with knock-on consequences via the foodweb for predators that depend on Capelin. A full ecosystem assessment across a range of Capelin biomasses would be required to reach such a conclusion. SG100 is not met.	Thank you for the comment. There is no evidence that fishing of capelin has cause serious harm to the Icelandic ecosystem. Here we are discussing the burden of proof and rather than establishing a theoretical model it might be better to study the ecosystem under very low capelin abundance, the available data does not indicate serious harm to the system.	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.5.1				See above	See above	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.5.2	No (non-material score reduction expected)	No (non-material score reduction expected)	NA	SIa: The CAB acknowledge that impacts of Capelin fishing, via foodwebs, on seabirds and mammals are not fully known. There is NOT a plan for "all main impacts of the UoA". SG100 is not met.	Thank you for the comment. 'All main impacts of the UoA' may be known without the system is 'fully known' Because of the timing/operation of the fishery it may be possible to avoid serious ecosystem impacts by letting predators taking their share before the fishery sets in.	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.5.2				See above		NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.5.2	Yes	Yes	NA	SIb: Score appropriate.		NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.5.2				See above		NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.5.2	No (non-material score reduction expected)	No (non-material score reduction expected)	NA	SIc: The CAB note that "the stock will most likely collapse occasionally" but suggest that "the ecosystem will continue to function". Unfortunately the evidence is not available to be confident that all the intricate interlinked elements carry on as normal. It seems an illogical conclusion since dependent species will either have to switch prey or perish, and a conclusion not well-founded on the ecosystem-approach. SG100 is not met.	Thank you for the comment. Collapses of capelin have occurred in the past and the ecosystem seems to survive these collapses. A well functioning ecosystem is robust to changes and responding to varying prey abundance is a part of such ecosystem functioning. The Icelandic ecosystem seems to be well functioning	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.5.2				See above	See comment above	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.5.3	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	SlA: The previous unexpected "collapses" (CAB's term; see 2.5.2c) and recent shifts in distribution provide strong evidence that information is inadequate to broadly understand the key elements of the ecosystem that impact Capelin. We do not seem to know all of where they go, when, or why. If we did we would be able to design acoustic surveys every year that surveyed the full stock. SG80 is not met.	Thank you for the comment. The term 'unexpected' is used in the sense that there is no prediction of these collapses. There are also major changes in the geographical distributions. On that basis SG100 is not met. The requirements for SG80 are more vague and require (a) 'broadly understand', (b) 'some have been investigated in detail', (c) 'The main functions are known' (d) 'to allow some of the main consequences' and (e) 'Adequate data continue to be collected to detect any increase in risk level.' The requirement is not a full understanding. Prediction of the detailed geographical distributions is not on the requirement table but would be extremely helpful in designing efficient surveys.	Not accepted (no change)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.5.3				See above	See above	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine (1)	PR B	2.5.3	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	Slb-e: Scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Midwater trawl (2)	PR B	2.5.3				See above	Thank you, see above	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	3.1.1	Yes	Yes	NA	SlA-c: Scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	3.1.2	Yes	Yes	NA	SlA-c: Scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	3.1.3	Yes	Yes	NA	SlA: Score appropriate.	Thank you	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Response Code
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	3.2.1	Yes	Yes	NA	Sla: Score appropriate,	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	3.2.2	Yes	Yes	NA	Sla-e: Scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	3.2.3	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	Sla: The CAB acknowledge that more data, and enhanced monitoring, are required around cetacean and seabird interactions. Thus a "comprehensive monitoring and surveillance system" is not in place and has not been implemented. SG100 is not met.	Thank you for the comment. The requirement for more data is noted under 2.3.1. The team upholds the conclusion that there is a comprehensive enforcement system in place in the fishery. 'Comprehensive' does not mean 'perfect', and by all comparison these enforcement systems are among the most comprehensive found.	Accepted (no score change, change to rationale)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	3.2.3	Yes	Yes	NA	Slb-d: Scores appropriate.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Icelandic Capelin	Purse seine and Midwater trawl	PR B	3.2.4	Yes	Yes	NA	Slb-d: Scores appropriate.	Thank you	NA (No response needed)

Peer Reviewer C

Fishery	Assessment Start Year	Peer Reviewer (A/B/C)	Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
FPO Icelandic capelin	2021	PR C	Is the scoring of the fishery consistent with the MSC standard, and clearly based on the evidence presented in the assessment report?	No	The report is well structured and provide general background information on the fishery. However, there are some specific issues in Principle 1 that need to be solved both in the scoring rationales and in background section, which needs to be improved, as the information presented are quite scarce. In relation to Principle 2 it is not clear the reason for considering the 2 UoAs as one. Also principle 2 refers only to Icelandic EEZ, while in the executive summary it is stated: "The assessment covers two UoAs targeting capelin (<i>Mallotus villosus</i>) with midwater trawlers and purse seiners in waters of Iceland, East Greenland and Jan Mayen...". So if the fishery that is going to be certified is active also outside the Icelandic EEZ, P2 should take into account, clarification is needed by the team. Principle 3 is very well organized and provide good background information and clear rationales to justify the scoring.	Thank you for your comments. Specific answers have been given to the different comments. The summary has been amended to reflect that at present the fishery is only active in Icelandic EEZ.
FPO Icelandic capelin	2021	PR C	Are the condition(s) raised appropriately written to achieve the SG80 outcome within the specified timeframe? [Reference: FCP v2.2, 7.18.1 and sub-clauses]	NA	No conditions were raised.	N/A
FPO Icelandic capelin	2021	PR C	Is the client action plan clear and sufficient to close the conditions raised? [Reference FCR v2.0, 7.11.2-7.11.3 and sub-clauses]		Note: Include this row for assessments completed against FCR v1.3 and v2.0, but not for FCP v2.1/v2.2 (in which the client action plan is only prepared at the same time as the peer review). Delete this text from the cell for FCR v1.3/v2.0 reviews or delete the whole row if FCP v2.1/v2.2.	N/A

Fishery	Assessment Start Year	Peer Reviewer (A/B/C)	Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
FPO Icelandic capelin	2021	PR C	Enhanced fisheries only: Does the report clearly evaluate any additional impacts that might arise from enhancement activities?	NA	It is not an enhanced fishery.	N/A
FPO Icelandic capelin	2021	PR C	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary). Add extra rows if needed below, including the codes in Columns A-C.	NA	Page 7: One of the main weakness in P1 could be also the status of the stock in the previous years.	Thank you for the comment. The assessment team finds it difficult to classify a inherent feature of small pelagics - the high interannual variability in stock size - as a weakness in relation to the status of the stock.
FPO Icelandic capelin	2021	PR C	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary).	NA	Table 6 Traceability. Clarify if the fishery is active also in the Barents Sea. If this is the case it can be a problem because capelin there is considered to be another stock. Also clarify if the fishery is active outside the Icelandic EEZ.	This section has been clarified in the report. The fishery does not take place in the Barents Sea. At present the fishery only takes place in Icelandic waters, however it is entitled (should the client wish so) to fish also in the regions of East Greenland and Jan Mayen (targeting the same capelin stock).

Fishery	Assessment Start Year	Peer Reviewer (A/B/C)	Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
			Add extra rows if needed below, including the codes in Columns A-C.			
FPO Icelandic capelin	2021	PR C	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary). Add extra rows if needed below, including the codes in Columns A-C.	NA	Table 7 divide by UoA	Thank you. Headings are clarified
FPO Icelandic capelin	2021	PR C	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary). Add extra rows if needed	NA	Page 19 Figure 2 not mentioned in the text.	Thank you, a sentence has been inserted at the beginning of section 7.2.1

Fishery	Assessment Start Year	Peer Reviewer (A/B/C)	Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
			below, including the codes in Columns A-C.			
FPO Icelandic capelin	2021	PR C	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary). Add extra rows if needed below, including the codes in Columns A-C.	NA	Page 19 no evidence is provided about stock configuration (Barents Sea Capelin is considered a different stock).	Thank you, a sentence has been inserted at the beginning of section 7.2.1
FPO Icelandic capelin	2021	PR C	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary).	NA	Page 20 : provide references about this conclusion: A major share of the energy passes through the capelin based on Para ii	Thank you for the comment. References have been inserted

Fishery	Assessment Start Year	Peer Reviewer (A/B/C)	Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
			Add extra rows if needed below, including the codes in Columns A-C.			
FPO Icelandic capelin	2021	PR C	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary). Add extra rows if needed below, including the codes in Columns A-C.	NA	Page 21 :Figure it is not the most updated assessment. I suggest to use this: https://www.hafogvatn.is/static/extras/images/lodnahaust20211278547.pdf	Thank you for the comment. The draft report that you kindly reviewed was finished (mid September) before the most recent advice came out (1 Oct 2021). Identifying the peer review process took about 1½ month before the report actually reached your desk. Fortunately the survey results as you are aware suggested an even more optionistic view on the status than the present assessment is based upon.
FPO Icelandic capelin	2021	PR C	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary).	NA	All P2 background needs to make reference also to other areas than Icelandic EEZ.	The assessment team regrets to disagree. There is significant knowlegde on the population dynamics of the IGJM capelin and Icelandic waters ecosystem not least thanks to Icelandic research. Judging the capelin fishery's impact on this ecosystem should be specific rather than based on generalities and analogies wherever possible. Fortunately there is this bulk of information available for the Iceland waters ecosystem.

Fishery	Assessment Start Year	Peer Reviewer (A/B/C)	Question	Yes/No	Peer Reviewer Justification (as given at initial Peer Review stage). Peer Reviewers should provide brief explanations for their 'Yes' or 'No' answers in this table, summarising the detailed comments made in the PI and RBF tables.	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)
			Add extra rows if needed below, including the codes in Columns A-C.			
FPO Icelandic capelin	2021	PR C	Optional: General Comments on the Peer Review Draft Report (including comments on the adequacy of the background information if necessary). Add extra rows if needed below, including the codes in Columns A-C.	NA	The assessment covers two UoAs targeting capelin (<i>Mallotus villosus</i>) with midwater trawlers and purse seiners in waters of Iceland, East Greenland and Jan Mayen. The fishing season commences in February and lasts for a month.	Thank you for the information

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res-ponse Code
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	1.1.1	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	<p>PI 1.1.1a. The assessment outputs reported in Figure 3 are not the most updated and provide different results than the number reported in rationale of 1.1.1a ("The SSB estimated at spawning time in 2021 was 650,000t"). Also the point where serious ecosystem impacts could occur is defined as Blim (=Bloss). According to SA2.2.12, the point where serious ecosystem impacts could occur shall be interpreted as being substantially higher than the point at which recruitment is impaired (PRI), as determined for the target species in a single species context. Such point may be analytically determined from ecosystem models, but in any case shall not be less than 20% of the spawning stock level that would be expected in the absence of fishing. The biomass in absence of fishery is not reported. The team justifies the use of Blim=Bloss as point where serious ecosystem impacts could occur stating that this limit level has been taken into account through a predation model, which assesses the requirements of the three main demersal predator species, cod, haddock and saithe. However, the predation model is not presented in the rationale nor in the background. Therefore it is not clear how the team justifies Blim as PRI and a score of 80 here.</p>	<p>The report is written August 2021 and was ready for peer review by mid September. The updated advice from MFRI based on survey results were published 1 October. It took about 1½ month to set up the peer review process, the situation is most regrettable. The guidance given for the a highly variable stock such as the capelin is difficult to apply as the stock can be virtually at zero level even with no or very little fishery. Even so, MSC cannot allow fish from a depleted stock on the market and therefore management close the fishery as demonstrated 2018-2020. The Blim is primarily set based on concerns for capelin reproduction while ecosystem needs are served based on protection of the immature component e.g. through area closures when density of immature are high. Spawning mortality is high and there will be very little of the spawning biomass for ecosystem needs the following year whether being fished or not. Predation is peaking during the growth period in the summer and the fishery is after this period in January-April and based on winter surveys which estimates the population after the ecosystem has taken its share.</p>	Not accepted (no change)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res-ponse Code
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	1.1.1	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	<p>PI 1.1.1b. The team concludes the stock is fluctuating around ecosystem needs. However, again the ecosystem needs are not clearly defined. The team stated that modelling predation and a TAC that is based on residual availability of the stock ensure the ecosystem needs. According to SA2.2.13, the expectations for key LTL species shall be as given below:</p> <p>a. The default biomass target level consistent with ecosystem needs shall be 75% of the spawning stock level that would be expected in the absence of fishing.</p> <p>b. A higher or lower target level, down to a minimum allowed 40% of the spawning stock level that would be expected in the absence of fishing, may still achieve an 80 level score if it can be demonstrated, through the use of credible ecosystem models or robust empirical data for the UoA/ecosystem being assessed, that the level adopted:</p> <p>i. Does not impact the abundance levels of more than 15% of the other species and trophic groups by more than 40% (compared to their state in the absence of fishing on the target LTL species); and ii Does not reduce the abundance level of any other species or trophic group by more than 70%.</p> <p>However, from the rationales is not clear if the limit level of 150 kt is in accordance with the points i and ii and a score of 80 is not justified.</p>	<p>Thank you for the comment. The judgement for this stock is based on the high variability of the stock with its occasional collapses. On that basis the default guidance for the scoring are not appropriate. Even for an unfished system small pelagics such as capelin will collapse and as is the case for the Icelandic capelin fishery ceases, thus there is no capelin on the market from a stock below Blim. To ensure that The assessment model and in particular the projection module is based on an understanding of the population dynamic of the capelin population and its role in the ecosystem, see ICES (2015) stock Annex for 5+14 Capelin. The model however, is primarily used for setting up the initial and the intermediate TAC while the final TAC is this close to the fishery survey is in December-January and the fishery is in January-April. Therefore the final TAC is essentially determined by survey results rather than projection modelling and therefore research interest driven by management needs are focusing on survey technology rather than ecosystem modelling. There is a debate on the importance of sea bird and marine mammal predation and how the wellbeing of these predators are linked to the size of the capelin population. The conclusion at this time by MFRI is that money are better spent on improving surveys than a major and cost project on the interaction between capelin and sea bird and marine mammal predators, particularly as there is an understanding of the importance of the major fish predators, cod, haddock, saithe. This argument is further strengthened by the timing of the fishery (Jan-April), the high spawning mortality linked to the shortlived nature of the capelin (very high spawning mortality) leading to that so to speak the predators take their share before the fishery gulps the rest which would be dead from spawning anyway. A major and unsolved issue is to get a handle on the dramatic variations from year to year, leading to the closure of the fishery in some years last 2018/19 and 2019/20.</p>	Not accepted (no change)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res-ponse Code
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	1.1.2	NA (PI not scored)	NA (PI not scored)	NA	N/A	N/A	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	1.2.1	No (scoring implications unknown)	No (scoring implications unknown)	NA	In 1.2.1a the team stated that a strategy is achieved by the use of a complex predation model to estimate the requirements of the three main demersal predators on capelin, cod, haddock and saithe. However, this complex predation model is not presented and is not clear if the HS designed to keep the stock above 150 kt is consistent with ecosystem needs.	Thank you for the comment. The justification has been expanded with a reference to the ICES (2015) Stock annex giving details of the assessment model.	Accepted (no score change, change to rationale)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	1.2.2	No (material score reduction expected to <80)	No (material score reduction expected to <80)	NA	In 1.2.2a it is not demonstrated or justified that the HCRs keeping the stock above 150kt is consistent with ecosystem needs. Again a score of 80 needs the team providing evidence that 150kt is both PRI and target level consistent with ecosystem needs.	Thank you for the comment. As you hint the 150 kt spawning stock limit is relevant to reproduction of capelin. Ecosystem needs are met through the timing of the fishery combined with protection of the immature component (closed areas). The high spawning mortality makkes the 150 kt limit virtually irrelevant in the context of ecosystem needs as these fish will be dead anyway at the coming summer.	Not accepted (no change)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	1.2.3	No (non-material score reduction expected)	No (non-material score reduction expected)	NA	In 1.2.3a a score of 100 would request a comprehensive range of information. However, the rationale is not so specific and, for example, some information on stock structure is not available or presented. Therefore a score of 80 would be more correct here.	Thank you for the comment. The requirement is not for all information but for a comprehensive package. Compared to knowlegde for other small pelagics the knowlegde is 'comprehensive' but as you point out not complete. If a rescore should be considered then the assessment team would appreciate how the lack of knowlegde on stock structure affect the harvest strategy.	Not accepted (no change)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	1.2.4	No (non-material score reduction expected)	No (non-material score reduction expected)	NA	1.2.4c assumes at 100 score that stock status relative to reference points is available in a probabilistic way. However, from the information available in the rationale and in the background this is not presented.	Thank you for the comment. Figure 3 demonstrates the assessment results including confidence limits demonstrating that the results and hence the advice is probabilistic. You are raising an important problem on what is meant by 'probabilistic way' the term in itself being imprecise.	Not accepted (no change)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res-ponse Code
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	1.2.4	No (non-material score reduction expected)	No (non-material score reduction expected)	NA	1.2.4d requests that alternative hypotheses and assessment approaches have been rigorously explored. From the rationale is only stated that ICES has a review process but alternative hypotheses and assessment approaches are not presented.	Thank you for the comment. Background documents for the 2015 benchmark demonstrate the ICES review process. Please see the stock annex in the Benchmark report for details. The background text has been updated with an explicit reference to the Stock Annex in ICES (2015) Benchmark report.	Accepted (no score change, additional evidence presented)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.1.1	No (scoring implications unknown)	No (scoring implications unknown)	NA	In 2.1.2a it is stated that "the two UoAs (purse seine and midwater trawl) show almost the same catch composition, all species identified in the fishery are retained by both gears and the % of catches does not show differences". However, no evidence is presented to justify this conclusion.	Thank you for the comment. This is based on a) skipper information collected at the initial assessment, b) overall there is very little bycatch and therefore this applies to both midwater trawl as well as purse seine. The justification has been updated	Accepted (no score change, change to rationale)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.1.2	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.1.3	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.2.1	No (scoring implications unknown)	No (scoring implications unknown)	NA	In 2.2.1b it is stated that "secondary fish catch is reported as 'other fish' and it is not highly likely that all these are above biologically based limits". However, no evidence is presented to justify this conclusion.	Thank you for the comment. The report text has been expanded together with the justification.	Accepted (no score change, additional evidence presented)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.2.2	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.2.3	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res-ponse Code
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.3.1	No (scoring implications unknown)	No (scoring implications unknown)	NA	Scores and rationales should be provided by scoring element.	Thank you for the comment. However, there are no ETP species reported and therefore all scoring elements will be equally scored. There is no direct impact. Rational has been updated	Accepted (no score change, change to rationale)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.3.2	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.3.3	Yes	No (material score reduction expected to <80)	NA	In 2.3.3b it is clearly stated: " <i>Information is scarce on feeding ecology of most of the species regularly occurring in Icelandic waters, information on biomass and residence time gives indications of total consumption by cetaceans and seabirds in Icelandic waters, and possible effects on the yield of commercially important fish species</i> ". Therefore, taking into account the importance of potential fishery impact in decreasing the availability of prey a score of 80 is not considered precautionary and a condition is going to improve the system not only in relation to Principle 2.	Thank you for the comment. PI 2.3.3 concerns Information required for appropriate management of ETP species. Although Information is scarce on feeding ecology of most of the species regularly occurring in Icelandic waters, information on biomass and residence time gives indications of total consumption by cetaceans and seabirds in Icelandic waters, and possible effects on the yield of commercially important fish species, the timing of the fishery after the growth period for whales in the summer makes these deficiencies of less importance for management decisions as the system is left to its own device.	Accepted (no score change, change to rationale)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.4.1	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.4.2	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.4.3	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res-ponse Code
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.5.1	No (scoring implications unknown)	No (scoring implications unknown)	NA	In PI 2.5.1a the rationale does not fully support the score, considering that the ecosystem models cited are not presented and it is not completely clear that the capelin fishery causes irreversible harm to the ecosystem.	Thank you for the comment. The rationale has been expanded	Accepted (no score change, additional evidence presented)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.5.2	No (scoring implications unknown)	No (scoring implications unknown)	NA	In PI 2.5.2a the rationale does not fully support the score. It is not clear if the strategy consists of a plan also in relation to indirect effects to ETP species or marine birds and mammals.	Thank you for the comment. The rationale has been expanded	Accepted (no score change, additional evidence presented)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	2.5.3	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	3.1.1	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	3.1.2	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	3.1.3	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	3.2.1	Yes	No (non-material score reduction expected)	NA	Probably, taking into account that the ecosystem needs are not clearly specified in the HS also in P1 (see 1.2.1) a score of 80 is more appropriate here.	We understand the reasoning, but uphold that P1 objectives are in the main clearly formulated.	Not accepted (no change)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	3.2.2	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)

Fishery	Year	UoA stock	UoA gear	PR (A/B/C)	PI	PI Information	PI Scoring	PI Condition	Peer Reviewer Justification (as given at initial Peer Review stage)	CAB Response to Peer Reviewer's comments (as included in the Public Comment Draft Report - PCDR)	CAB Res-ponse Code
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	3.2.3	Yes	Yes	NA	I agree with score and rationales.	Thank you	NA (No response needed)
FPO Icelandic capelin	2021	Capelin (Mallotus villosus)	Midwater trawl/Purse seine	PR C	3.2.4	Yes	Yes	NA	I agree with score and rationales. Probably the reference to in the Faroese management system in 2016/2016 is 2016/2017.	Thanks for noticing this - corrected.	Accepted (no score change, change to rationale)

9.4 Stakeholder input

Apart from information gathered at meetings during initial audit as specified in Section 9.2.1, there is no other stakeholder input to consider.

9.5 Conditions – delete if not applicable

There are no conditions for the fishery.

9.6 Client Action Plan

There are no conditions for the fishery and therefore no Client Action Plan associated.

9.7 Surveillance

There are no conditions or recommendations for the FPO Icelandic capelin fishery. Therefore, a reduced surveillance level 1 is allowed as described in MSC FCP v2.2 7.28.4.1.a. Since this is an initial assessment, 2 auditors will be needed at each surveillance audit.

Table 21 Fishery surveillance program

Surveillance level	Year 1	Year 2	Year 3	Year 4
Level 1	Review of information	Off-site surveillance audit	Review of information	On-site audit and recertification site visit.

Table 22 Timing of surveillance audit

Year	Anniversary date of certificate	Proposed date of surveillance audit	Rationale
1	TBD	April	Final advice by MFRI on capelin is given after winter survey (February). Fishing season runs from February to March.
2			
3			
4			

Table 23 Surveillance level rationale

Year	Surveillance activity	Number of auditors	Rationale
1	Review of information	2 auditors, since this would be the 1 st certification period for the fishery.	There are no conditions for the fishery. Updated information can be verified remotely as in initial audit.
2	Off-site audit	2 auditors, since this would be the 1 st	There are no conditions for the fishery.

		certification period for the fishery.	Updated information can be verified remotely as in initial audit.
3	Review of information	2 auditors, since this would be the 1 st certification period for the fishery.	There are no conditions for the fishery. Updated information can be verified remotely as in initial audit.
4	On-site audit and recertification site visit	2 auditors, since this would be the 1 st certification period for the fishery.	There are no conditions for the fishery. Updated information can be verified remotely as in initial audit.

9.8 Risk-Based Framework outputs

RBF has not been used for this assessment.

9.9 Harmonised fishery assessments

The FPO Icelandic capelin fishery overlaps with the ISF Iceland capelin fishery. The assessment team took into consideration the rationales and results given in ISF Icelandic capelin fishery before drafting ACDR, reaching similar results.

Table 24 Overlapping fisheries

Fishery name	Certification status and date	Performance Indicators to harmonise
ISF Iceland capelin (<i>Mallotus villosus</i>)	Certified 18 April 2017 – 17 October 2022	P1, P2, PI 3.1
Supporting information		
The FPO Iceland capelin fishery takes place in the same waters as the ISF Iceland capelin fishery, with similar fishing gears and targeting the same stock.		
Was either FCP v2.2 Annex PB1.3.3.4 or PB1.3.4.5 applied when harmonising?		No
Date of harmonisation meeting		N/A
If applicable, describe the meeting outcome		
The team decided that since scores are similar and all above 80 there is no need of harmonization meeting with the assessment team of ISF Iceland capelin.		

Table 25 Principle level scores for the Icelandic capelin fishery. Source: SAI Global (2017)

Principle	UoA 1	UoA 2
	Purse seine	Mid water trawl
Principle 1 – Target species	87.5	
Principle 2 – Ecosystem impacts	92.3	92.3
Principle 3 – Management system	92.9	

Table 26 Scoring differences

Principle	ISF Iceland Capelin	FPO Capelin Fishery name	Comment
Principle 1	87.5	88.3	Scoring for PI 1.2.2c was slightly increased because of experience with the fishery 2019-2020 and 2021
Principle 2	92.3	92.0	Catch compositions are slightly different
Principle 3	92.9	94.8	The Faroese management system is now also considered.

Table 27 Explanation for scoring differences

PI 1.2.2c: SAI Global (2017) for the Icelandic capelin fishery scored that SG100 is not met. Experience that has been gained since SAI Global (2017) scored the status of the Icelandic fishery, particular the drop in stock biomass 2019- 2020 and the consequent closure of the fishery following the recovery seen in 2021 suggests that there is now clear evidence that the tools are effective in achieving the desired stock status. **SG 100 is met.**

If exceptional circumstances apply, outline the situation and whether there is agreement between or among teams on this determination

No exception circumstances are found.

9.10 Objection Procedure – delete if not applicable

To be added at Public Certification Report stage

The report shall include all written decisions arising from a ‘Notice of Objection’, if received and accepted by the Independent Adjudicator.

Reference(s): FCP v2.1 Annex PD

10 Vessel list

Table 28 Vessel list. Source: Client.

Vessel name	Norðborg	Chr. í Grótinum	Fagraberg	Høgaberg	Finnur Friðri	Gitte Henning	Tróndur í Gøtu
Registration number	FO-000346	FO-001531	FO-000042	FO-014125	FO-000045	FO 021506	FO 001176
Vessel owner	P/F Hvalnes	P/F Chr. í Grótinum	Sp/f Framherji	Sp/f Framherji	P/F Krossbrekka	P/F Desin	P/F Hvamm

11 Template information and copyright.

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A controlled document list of MSC program documents is available on the MSC website (msc.org)

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