

## Marine Stewardship Council (MSC) Expedited Audit

SPSG, DPPO, PFA, SPFPO & KFO Atlanto-Scandian purse seine and pelagic trawl herring

On behalf of

SPSG, DPPO, PFA, SPFPO & KFO

**Prepared by** 

**ME Certification Ltd** 

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## Glossary

Term / acronym	Definition
ACOM	ICES advisory committee
ASH	Atlanto-Scandian herring
Bo	Equilibrium unexploited total biomass
BFcurrent	Equilibrium total biomass at F <sub>current</sub>
BIM - SSP	Bord Iascaigh Mhara Seafood Stewardship Programme
B <sub>init</sub>	Initial biomass at the start of the stock assessment model.
Вму	Equilibrium total biomass at MSY
САВ	Conformity Assessment Body
CCTV	Closed Circuit Television
CFP	Common Fisheries Policy
CoC	Chain of Custody
CPUE	Catch per Unit Effort
CR	MSC Certification Requirements
DCF	Data Collection Framework
DPPO	Danish Pelagic Producers Organisation
EEZ	Exclusive Economic Zone
EFF	European Fisheries Fund
EM	Electronic Monitoring
ETP	Endangered Threatened or Protected species
EU	European Union
F	Fishing mortality
Fcurrent	Average fishing mortality at age
F <sub>MSY</sub>	Fishing mortality at age resulting in MSY
HCR	Harvest Control Rule
IBWSS	International Blue Whiting Spawning Stock Survey
ICES	International Council for the Exploration of the Sea
IESNS	International Ecosystem Survey in the Nordic Seas
ITQ	Individual Transferable Quota
KFO	Killybegs Fishermen's Organisation
LRP	Limit Reference Point
LTL	Low-Trophic Level species
MBAL	Minimum biologically acceptable level
MCS	Monitoring, Control and Surveillance
MEC	ME Certification Ltd
MP	Management plan



Term / acronym	Definition
MSC	Marine Stewardship Council
MSFD	Marine Strategy Framework Directive
MSY	Maximum Sustainable Yield
NAO	North Atlantic Oscillation
NEAFC	North East Atlantic Fisheries Commission
NSSH	Norwegian spring-spawning herring (as ASH)
NVWA	Nederlandse Voedsel en Waren Autoriteit
PCDR	Public Comment Draft Report
PFA	Pelagic Freezer-trawler Association
RAC	Regional Advisory Council
RSW	Refrigerated seawater
SAM	State-space assessment model
SPFPO	Swedish Pelagic Federation Producers Organisation
SPG	Sub-polar gyre
SPSG	Scottish Pelagic Sustainability Group
SSB	Spawning stock biomass
STECF	Scientific, Technical and Economic Committee For Fisheries
TAC	Total Allowable Catch
TRP	Target Reference Point
UoC	Unit of Certification
VMS	Vessel Monitoring System
vTI	(Johann Heinrich) von Thünen-Institut
WGBYC	ICES Working Group on Bycatch of Protected Species
WGINOR	ICES Working Group on the Integrated Assessments of the Norwegian Sea
WGWIDE	ICES Working Group on Widely Distributed Stocks
WKPELA	ICES Workshop on Pelagic Stocks
XSAM	State space model and structural time-series models for fish stock assessments



## 1 General summary

Fishery name	SPSG, DPPO, PFA, SPFPO & KFO Atlanto-Scandian purse seine and pelagic trawl herring							
Unit(s) of assessment	UoC1 - SPSG							
	Species	Herring (Clupea harengus)						
	Geographical range	ICES Sub-areas I, IIa & IIb, V & XIV						
		EU waters, international waters and the EEZ of Norway and the Faroes						
	Method of capture	Pelagic trawl						
	Stock	Atlanto-Scandian herring						
	Management Systems	Cooperative management between EU member states, the Faroe Isles, Iceland, Norway and Russia						
	Client group	SPSG member vessels fishing for Atlanto-Scandian herring in ICES Sub-areas ICES Sub-areas I, IIa & IIb, V & XIV (EU waters, international waters and the EEZ of Norway) using pelagic trawl						
	UoC2 – DPPO							
	Species	Herring (Clupea harengus)						
	Geographical range	ICES Sub-areas I, IIa & IIb, V & XIV						
		EU waters, international waters and the EEZ of Norway and the Faroes						
	Method of capture	Pelagic trawl and purse seine						
	Stock	Atlanto-Scandian herring						
	Management Systems	Cooperative management between EU member states, the Faroe Isles, Iceland, Norway and Russia						
	Client group	DPPO member vessels fishing for Atlanto-Scandian herring in ICES Sub-areas ICES Sub-areas I, IIa & IIb, V & XIV (EU waters, international waters and the EEZ of Norway) using pelagic trawl						
	UoC3 - PFA							
	Species	Herring (Clupea harengus)						
	Geographical range	ICES Sub-areas I, IIa & IIb, V & XIV						
		EU waters, international waters and the EEZ of Norway and the Faroes						
	Method of capture	Pelagic trawl						



Stock	Atlanto-Scandian herring
Management Systems	Cooperative management between EU member states, the Faroe Isles, Iceland, Norway and Russia
Client group	PFA member vessels fishing for Atlanto-Scandian herring in ICES Sub-areas ICES Sub-areas I, Ila & Ilb, V & XIV (EU waters, international waters and the EEZ of Norway) using pelagic trawl

#### UoC4 – SPFPO

Species	Herring ( <i>Clupea harengus</i> )
Geographical range	ICES Sub-areas I, IIa & IIb, V & XIV
	EU waters, international waters and the EEZ of Norway and the Faroes
Method of capture	Pelagic trawl and purse seine
Stock	Atlanto-Scandian herring
Management System/s	Cooperative management between EU member
	states, the Faroe Isles, Iceland, Norway and Russia
Client group	SPFPO member vessels fishing for Atlanto-Scandian herring in ICES Sub-areas ICES Sub-areas I, IIa & IIb, V & XIV (EU waters, international waters and the EEZ of Norway) using pelagic trawl

#### UoC5 - KFO

	Species	Herring ( <i>Clupea harengus</i> )							
	Geographical range	ICES Sub-areas I, IIa & IIb, V & XIV							
		EU waters, international waters and the EEZ of Norway and the Faroes							
	Method of capture	Pela	gic trawl						
	Stock Atlanto-Scandian herring								
	Management Systems	ms Cooperative management between EU member states, the Faroe Isles, Iceland, Norway and Rus							
	Client group	KFO member vessels fishing for Atlanto-Scandian herring in ICES Sub-areas ICES Sub-areas I, IIa & IIb, V & XIV (EU waters, international waters and the EEZ of Norway) using pelagic trawl							
Date certified	03 Jan 2016		Date of expiry	02 Jan 2021					
Surveillanc e level and ype	Following the changes in the perception of NSSH stock status and the management response to these changes, the three Conformity Assessment Bodies (CABs) for the four MSC-certified Atlanto-Scandian / Norwegian Spring Spawning herring fisheries held two harmonisation discussions during December 2017 and another in January								



	2018 (these CABs are MEC, Acoura Marine and DNV-GL). These harmonisation discussions are required by the MSC.						
	The first discussion in December took place before the management meetings had been completed and focussed on the revised perception of stock status. During the second discussion on the 20 <sup>th</sup> December the CABs discussed the outcome of the Coastal States meeting and the EU Fisheries Council meeting. Between the 20 <sup>th</sup> December and 10 <sup>th</sup> January the CABs communicated with their clients highlighting the possible need for expedited assessment of Principle 1 and providing the clients with a chance to respond.						
	At the discussion on the 10 <sup>th</sup> January 2018, the three CABs reviewed the stock assessment and the management response, and considered the feedback that they had each received from their clients. It was unanimously agreed that the combination of the revised perception of stock status (SSB below MSY B <sub>trigger</sub> ) coupled with the management response during December to the most recent ICES advice constituted a "major change" in the circumstances of the four certified fisheries. This is on the basis that TACs for 2018 were set by the Coastal States above the level indicated by the agreed management plan and above the level recommended in ICES advice for this stock in 2018						
	The three CABs concluded that an "expedited audit" would therefore be required for each of these fisheries. This audit will examine whether or not the change in the perceived status of the stock and the response by the Coastal states to this change will affect the scoring and possibly the ongoing certification of the four fisheries.						
Date of surveillance audit	21 <sup>st</sup> March 2018						
Surveillanc	1st Surveillance						
e stage (tick	2nd Surveillance						
	3rd Surveillance						
	4th Surveillance						
	Other (expedited etc)	Х					
Surveillanc e team	Lead assessor: Dr Hugh Jones Assessor(s): Dr Matthew Cieri						
CAB name	MEC						
САВ	Address	Dr Hugh Jones					
contact details	Phone/Fax	ME Certification, 56 High Street.					
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	Contact name(s)	SO41 9AH United Kingdom Tel: +44 (0)1590 613007 Hugh.jones@me-cert.com					
Client	Address	Danish Pelagic Producers Organisation,					
contact details	Phone/Fax	Axeltorv 3, 6 1609 Copenhagen v.					
	Email	Denmark.					
	Contact name(s)	crs@pelagisk.dk					



## 2 Background

The Atlanto-Scandian herring stock (ASH – also referred to as Norwegian spring-spawning herring; NSSH) is the largest stock of herring (*Clupea harengus*), and the largest commercial fish stock in the NE Atlantic region. The ASH occupies an area of the NE Atlantic approximately bounded by Norway–Faroe Islands–Iceland–Svalbard (Spitzbergen). The ASH stock is seasonally migratory, making more or less a clockwise movement around the Norwegian Sea during the course of the year.

Fishing is by mid-water trawls and purse seines (mainly the former); only the Danish and Swedish fleets use seines. The vessels are modern and technologically advanced with equipment such as sonar, net and catch monitors, which have greatly improved the precision of this method of fishing. The fish are taken in the upper part of the water column, typically in deep water off the continental shelf. With the exception of the PFA vessels, all vessels are refrigerated seawater (RSW) vessels with no freezer capacity. All PFA vessels however are freezer trawlers, which process and freeze the catch on board. Effort by SPFPO and KFO vessels in the fishery is sporadic, depending on quota availability early in the year; DPPO, SPSG and PFA vessels fish ASH more consistently. It is noted that at time of certification it proved impossible for the team to separate purse seines from trawls in the scoring, because of very limited data specific to purse seines. Hence both gear types were considered in a single Unit of Certification (UoC) in this assessment. This continues in this audit and the approach has also been taken by the other MSC assessments on this stock for which both gears are used. The stock is managed via a Coastal States Agreement between the entities concerned - i.e. Norway, Iceland, Russia, the EU and the Faroe Islands, based on a TAC set following an agreed management plan and a stock assessment by ICES. All these entities accept this framework, but there remains dispute as to how the TAC should be allocated between them. This has led to a sum of individual quotas exceeding the agreed TAC in some years. The vessels in the five UoCs for this assessment fish the EU quota of the TAC (Table 1).

Year	Sum of quotas (Tonnes)	EU quota (Tonnes)
2018	435,000	28,319
2017	646,075	42,059
2016	377,000	20,629
2015	328,000	37,188

Table 1.	Atlanto-Scandian	Herring sum of	unilateral	quotas and EU	quotas betwee	n 2015-2018.
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### 2.1 Background to expedited audit

#### 2.1.1 ICES advice

ICES (2018a) presented an assessment of the Norwegian Spring Spawning Herring stock status based on "The perception of the stock has not changed since last year's assessment.". This statement was revised on 30 October 2017 and a further revised Version 3 was issued on 23 January 2018, see ICES (2018a). The corrected assessment results in a 14 % downwards revision of the SSB value in 2017 and a 15 % upwards revision of the F value in 2016 relative to the assessment used for the advice released in September 2017 (ICES, 2017a). As the target SSB and F remain unchanged both these changes result in a reduction of fishing mortality required to meet the criteria laid down in the HCR agreed in 1999 by the Coastal states, in total a 32 % downward revision of the SSB the status of the stock is considered to be worse than judged based on the September 2017 assessment. The status based on the October 2017/January 2018 ICES advice is summarised below (Figure 1).

		Fishing pressure							Stock s	size		
		2014	2015		2016	_		2015	2016		2017	
Maximum sustainable yield	F <sub>MSY</sub>	0	Ø	0	Below		MSY B <sub>trigger</sub>	8	8	8	Below trigger	
Precautionary approach	F <sub>pa</sub> ,F <sub>lim</sub>	0	$\bigcirc$	0	Harvested sustainably		B <sub>pa</sub> ,B <sub>lim</sub>	0	0	0	Increased risk	
Management plan	F <sub>MGT</sub>	0	0	0	Below		SSB <sub>MGT</sub>	8	8	8	Below	

Figure 1. Herring in subareas 1, 2,5 and in Divisions 4.a and 14.a (Atlanto-Scandian Herring, Norwegian Spring Spawning Herring). State of the stock and fishery relative to reference points- Source ICES (2018a) Table 1. Status viz-a-viz stock size for MSY Btrigger and Bpa are no longer valid.

Figure 2 compares the abundance estimates used in the original stock assessment, (ICES, 2017a) and the corrected data. The report of the WKADVNSSH, ICES (2018a) provides a detailed description of the background for the correction and a presentation of the effects the correction of the input data has on the assessment results. The effects in the assessment are complicated, the model uses the survey results as indices and include an internal weighting of the different data series based on estimated CVs. Furthermore, the error affects the survey indices differently between years. The results are counterintuitive to the short description given in the ICES advice. Even so, the Assessment Team accepted the results presented in Anon (2018) and ICES (2018a).





Figure 2. Abundance acoustic survey results (Fleet 1'). Old and incorrect results (yellow) and corrected values (blue). Source: IMR WD for (ICES, 2018b).

### 2.1.2 MSC standard

The expedited audit concerns Principle 1 (stock status). FCR 7.23.22 and requires that "The CAB shall undertake an "expedited audit", including as it determines necessary review of documents and an on-site audit if:

7.23.22.1 The CAB becomes aware of major changes in relation to the circumstances of the fishery, or of significant new information that may cause a major change.

a. A 'major change' is one that is likely to be material to the certification status. A change in scope, a PI score falling below 60 or outcome PI score falling below 80, or a change that could bring about a Principle Level aggregate score to drop below 80, shall be considered material to the certification status.

b. To avoid unnecessary expedited audits, CABs shall ensure that an expedited audit is only triggered when the information available supports the conclusion that an actual material change has taken place in the status or management of the fishery.

c. Significant new information becomes available in relation to the circumstances of the fishery including during the period between the original assessment and the issue of a certificate which is likely to be material to the certification status.

7.23.22.2 An expedited audit can be a review of information, off-site audit or on-site audit, based on what the CAB determines necessary."

The major change is ICES's revision of the stock status between 29 September and 30 October 2017. The need for the expedited audit of the stock was based on the 30 October 2017 revision considered to be below MSY  $B_{trigger}$ , see Figure 1. Principle 1 was rescored on individual Performance Indicators (PI) based on Table 2. Prior to site visits and scoring



meetings and following a Coastal State request there was additional changes in the stock assessment and estimation of reference points, these changes are detailed in section 4.

#### Table 2. Principle 1 rescoring.

PI	Description	Findings
1.1.1	Stock status in relation to recruitment impairment and MSY	Status based on advice October 2017: Stock status is at risk of recruitment impairment and well below MSY Status based on revised reference points ICES (ICES, 2018c): Stock is above MSY B <sub>trigger</sub> , Fishing mortality is below F <sub>MSY</sub>
1.1.2	Reference points	Updated ICES (2018c)
1.1.3	Stock rebuilding	Management is not following the agreed management plan deemed precautionary No recovery plan has been presented However, stock status based on ICES reference points does not require scoring of this PI (ICES, 2018c).
1.2.1	Harvest strategy	The harvest strategy is not effective and management decisions are inconsistent with PI 1.1.1 objectives
1.2.2	Harvest Control Rule	Harvest Control Rules are in place but not effective. Under the current management, exploitation rates are not expected to be reduced if the stock is below MSY B <sub>trigger</sub> )
1.2.3	Information	No change
1.2.4	Assessment	No change except that the assessment methodology has been updated from XSA to XSAM and hence confidence limits for stock indicators are now available



## **3** Assessment Process

The SPSG, DPPO, PFA, SPFPO & KFO Atlanto-Scandian purse seine and pelagic trawl herring was certified on 3<sup>rd</sup> Jan 2016 by MEC (Table 3).

UoC	Client	Certificate Number
1	SPSGG	MEC-F-036
2	DPPO	MEC-F-029
3	PFA	MEC-F-035
4	SPFPO	MEC-F-037
5	KFO	MEC-F-038

 Table 3. Certificate number for the Atlanto-Scandian Herring fishery.

FCR version: The fishery is assessed under scoring version 1.3 but using the process requirements set out in FCR version 2.0.

Template: This report follows the 'MSC Surveillance Reporting Template FCR v2.0, V 1.0 (8<sup>th</sup> October 2014).

Stakeholders were informed of the expedited audit by email on 16<sup>th</sup> February 2018 following the announcement on the MSC website. They were invited to submit comments prior to the 30 day deadline (17<sup>th</sup> March 2018 at 5pm GMT). No stakeholder comments were received prior to the audit.

The off-site audit took place via video conference on 20<sup>th</sup> March 2018. Those present were Dr Hugh Jones (Team Leader), Dr Matthew Cieri (Principle 1 expert) and Dr Claus Reedtz Sparrevohn (client representative).

The material considered at this 2018 expedited assessment is the ICES assessment reports ICES (2018a, 2018b and 2018c), the working document Anon (2018) documenting the error in the processing of the abundance survey data and the influence on the assessment and projections for 2018. Furthermore, the shift from XSA to XSAM is documented.

The purpose of the expedited audit was to assess the change in Principle 1 status against the new stock interpretation and discuss the suitability of the current conditions (Table 4).

#### **Table 4. Summary of Existing Conditions**

Condition number	Condition	Performance Indicator
1	'Available evidence' may be any relevant evidence, provided through ICES or other verifiable means, that shows the implications of all available management actions (e.g. by coastal states and/or agreements with other relevant states in controlling fishing mortality) in achieving exploitation levels consistent with appropriate harvest control rules and the requirements of PI 1.1.1. This condition is closely aligned to Condition 2.	1.2.2



Condition number	Condition	Performance Indicator
2	There is a mechanism in place for international cooperation in the fishery (the Coastal States Agreement) but it is not apparently completely effective, since it is currently not working properly due to the withdrawal of the Faroes, and as of 2015 a failure of the coastal states in general to agree a TAC. The dispute has now lasted more than a year, with no sign of formal resolution as yet (although the issue has been mitigated by negotiation) – hence it is not clear that the dispute resolution framework is effective. The fishery should work with the EU, the Pelagic Advisory Council, other certified or suspended UoCs in the fishery and/or other parties as appropriate to support the resolution of the dispute between the coastal states and to re-establish an effective international cooperation mechanism for the fishery.	3.1.1



### 3.1 Harmonisation

The fishery is harmonised against three other fisheries for Principle 1 (Table 5).

#### Table 5. Principle 1 harmonised fisheries for the ASH/NSSH stock.

Fishery	Gear types	MSC status	Expiry	CAB/Experts
SPSG, DPPO, PFA, SPFPO & KFO Atlanto-Scandian purse seine and pelagic trawl herring	Surrounding Nets - With purse lines (purse seines)	Certified	2 Jan 2021	MEC Hugh Jones Matt Cieri
ISF Norwegian & Icelandic herring trawl and seine	Seine Nets Trawls - Midwater trawls	Certified with component(s) in assessment	28 May 2019	ACOURA Jim Andrews John Nichols
Faroese Pelagic Organisation Atlanto- Scandian herring	Surrounding Nets - With purse lines (purse seines)	Certified	14 June 2021	DNV GL Stefan Midteide Hans Lassen
Norway spring spawning herring	Surrounding Nets - With purse lines (purse seines)	Certified with component(s) in assessment	29 July 2019	DNV GL Sandya Chaudhury Hans Lassen

Following the announcement of the change in perception of stock status against reference points the three CABs responsible for the certified fisheries resolved to harmonise all aspects of the expedited Principle 1 assessment. A timeline of the harmonisation process and outcomes is provided in Table 6. CAB joint statements released as a result of the harmonisation process are provided in the Appendices.

#### Table 6. Timeline of expedited audit harmonisation process

Date	Event	CAB action
29 <sup>th</sup> September 2017	The perception of the stock has not changed since last year's assessment	None required
30 <sup>th</sup> October 2017	ICES release version 2 of the NSSH advice for 2017, with a downwards revision of SSB and catch advice for 2018	CABs made aware of new advice by MSC on 9 <sup>th</sup> November 2017 and begin arrangements for harmonisation and discussions of need to expedite assessment.
1 <sup>st</sup> December 2017	CABs formal discussions on expedited audit	CABs agree that the outcome of the Coastal States (CS) meeting on 7 <sup>th</sup> Dec is paramount to P1 scoring. MSC advised of meeting and decision via email to E. Mcgregor.
7 <sup>th</sup> December 2017	Coastal states meeting and sharing arrangements take place	CABs await feedback from the CS meetings to understand the management actions taken to change in stock status. Advised there may be request for reference point review.
11 <sup>th</sup> December 2017	The EU Fisheries Council meeting took place on the 11th December 2017.	EU TACs for 2018.



Date	Event	CAB action
20 <sup>th</sup> December 2017	CAB harmonisation discussion	<ul> <li>CABs agreed:</li> <li>1. It is necessary to carry out an expedited audit for our MSC-Certified Atlanto-Scandian / Norwegian Spring Spawning herring fisheries.</li> <li>2. The expedited audit should be harmonised between the four certified fisheries in terms of both its timescale and outcome.</li> <li>3. With regard to timescale, we agreed provisionally that:-</li> <li>a. We will hold a further Skype meeting on 10th January 2018 at 1400 GMT to agree the logistics for the audit.</li> <li>b. We will aim to announce the expedited audit on the 16th January 2018, with the audit taking place 30 days later.</li> <li>c. We will conduct the audit remotely (there is no advantage to be gained from a site visit).</li> <li>d. We will submit our surveillance audit report so that the findings are identical for each fishery.</li> <li>e. We will submit our surveillance report to our clients as early as possible in the surveillance timetable to give them as much time as possible to formulate their client action plan.</li> </ul>
21 <sup>st</sup> December 2017	CABs advice MSC and Clients of the need to expedite and begin contract talks.	See Appendix 1 below
10 <sup>th</sup> January 2018	Harmonisation of Announcements and site visits	See appendix 2 below, joint CAB statement sent to clients and MSC 12 <sup>th</sup> January 2018.
15 <sup>th</sup> February 2018	All CABs announce expedited audit	See relevant fisheries pages on MSC website.
21 <sup>st</sup> March to 4 <sup>th</sup> April 2018	CABs hold independent remote audits	
10 <sup>th</sup> April 2018	CABs hold joint P1 scoring meeting.	Joint statement made by CABs to MSC clients and stakeholders
26 <sup>th</sup> April 2018	ICES release - Coastal States request for ICES to re-evaluate the reference points for Norwegian spring-spawning herring	
27 <sup>th</sup> April 2018	CAB P1 scoring meeting based on new ICES advice	Draft Scoring proposed and CABs given time to review and reflect
9 <sup>th</sup> May 2018	CABs confirm scoring to each other via email.	Draft Reports prepared.



The parties involved throughout the harmonisation and scoring process are given in Table 7.

Table 7. CAE	harmonisation	personal.
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Name	САВ	
Hugh Jones	MEC	
Matthew Cieri	MEC	
Billy Hines		
John Nicholls	Acoura	
Polly Burns		
Jim Andrews		
Hans Lassen		
Stefan Midteide	DNV-GI	
Sandhya Chaudhury		



## 4 Results

### 4.1 Stock Status

The data sources for evaluating stock status is unchanged against the assessment that took place in 2015 (Gascoigne et al., 2015). These data include for the assessment period 1988–2017:

- Basic biological information on the herring population dynamics
- Commercial catches-at-age (stock weight-at-age from surveys and since 2009 from catch sampling).
- Three survey indices: Norwegian acoustic survey on spawning grounds in February/March (NASF, 1994–2005, 2015–2017); International Ecosystem Survey in the Nordic Seas (IESNS) covering the adult stock in the Nordic seas (1996–2017) and the juvenile stock in the Barents Sea (1991–2017).
- Maturity ogive variable by year-class strength.
- Natural mortalities are fixed values from historical analyses (age 2 = 0.9, ages greater than 3 = 0.15).

The stock assessment methodology was changed at the benchmark in 2016 (ICES, 2016a) and is now XSAM. XSAM It is an independent model developed at "Norges regnesentral" used widely for ICES assessment that is fitted to the NSSH herring population dynamic. The model framework has been given the name XSAM to reflect that this is another version (X) of a statistical assessment model. XSAM uses catches abundance indices in the model and in the forecast and also includes error structures in catches and abundance indices (ICES, 2016a, 2017b). The output results are provided with confidence limits.

The results are summarised in Figure 2 demonstrating that the fishing mortality is below  $F_{MSY}$  while the SSB is declining but still above MSY  $B_{trigger}$ .





Figure 3. Atlanto-Scandian Herring stock status summary. The figure shows the revised MSY  $B_{trigger}$ ,  $F_{lim}$  and  $F_{MSY}$ . Broken lines are the old Pa values. Original figure source ICES (2018a), Figure 1, modified to include new RPs from ICES (2018c).

### 4.2 Reference Points

There are reference points available, Table 4. Following the release of the revised advice which triggered the expedited audit in October 2017, a re-evaluation of reference points and the current management plan was presented in April 2018 by ICES (2018c). ICES advises, based on revised precautionary and MSY reference points, that the current B<sub>lim</sub> value of 2.5 million tonnes for the Norwegian spring-spawning herring (NSSH) should be retained while  $B_{pa}$  and MSY  $B_{trigger}$  should be revised to 3.184 million tonnes from 5.0 millions tonnes . ICES furthermore advises that  $F_{MSY}$  should be set to 0.102 not previously defined, with  $F_{lim}$  revised to 0.234 and  $F_{pa}$  revised to 0.182 from 0.15.

Framework	Reference point	Value	Technical basis	Source
MSY Approach	MSY B <sub>trigger</sub>	3.184 million t	Set as the maximum value of $B_{pa}$ and the 5 <sup>th</sup> percentile of SSB when fishing at the F that maximizes annual yield, taking into consideration assessment/prediction error.	ICES (2018c)
	Fmsy	0.102	The value of F that maximizes the median long-term yield, without including any MSY $B_{trigger}$ (i.e. constant F exploitation) but including assessment error, was F = 0.152. However, this F resulted in long-term $P(SSB < B_{lim}) > 5$ %. Therefore, in	ICES (2018c)

Table 8. Reference points for Herring in subareas 1,2,5 and in Divisions 4.a and 14.a. Source ICES (2018a, 2018c).



Framework	Reference point	Value	Technical basis	Source
			accordance with ICES guidelines, $F_{MSY}$ was set at the value of F that resulted in long-term P(SSB < B <sub>lim</sub> ) = 5 % when that F was applied in combination with MSY B <sub>trigger</sub> = 3.184 million t; Fp05 = F <sub>MSY</sub> = 0.102.	
Precautionary approach	B <sub>lim</sub>	2.500 million t	MBAL (accepted in 1998). Reconsidered in 2018 and still found appropriate	ICES (2018c)
	B <sub>pa</sub>	3.184 million t	Derived from $B_{lim}$ , using the model- estimated CV for SSB in the assessment year and averaged over the period 2002–2017, i.e. $B_{pa} = B_{lim}$ × exp(1.645 × $\sigma$ ), where $\sigma$ = 0.147.	ICES (2018c)
	Flim	0.234	Calculated as the value that results in $P(SSB < B_{lim}) = 50 \%$ in long-term equilibrium, assuming $B_{lim} = 2.5$ million tonnes, and without including any MSY $B_{trigger}$ (i.e. constant F exploitation) or any assessment error.	ICES (2018c)
	F <sub>pa</sub>	0.182	Based on medium-term simulations	ICES (2018c)
EU-Faroes-	SSB <sub>mgt_lower</sub>	2.5 million t	Medium-term simulations conducted	ICES
Iceland– Norway–Russia long-term	SSB <sub>mgt</sub>	5.0 million t	in 2001 and 2014	(2018a)
	Fmgt_lower	0.05		
strategy	F <sub>mgt</sub>	0.125		

### 4.3 Stock management

A long-term management plan including as a central element a Harvest control rule, was agreed by the EU, Faroe Islands, Iceland, Norway, and Russia, constituting the Coastal States, in 1999. The plan (reproduced below) is based on the ICES Precautionary approach and maximum sustainable yield reference points for biomass and fishing mortality. The management plan is designed to be responsive to the current status of the stock and to maintain fishing mortality and SSB at levels which constrain harvesting within safe biological limits and support the maximum sustainable yield in the long term. ICES has evaluated the plan and concluded that it is consistent with the precautionary approach. However, with the revision of the reference points presented in ICES (2018c) this plan (or at least central elements of the plan) is now defunct.

The long-term Management plan has four basic elements:

1. Every effort shall be made to maintain a level of Spawning Stock Biomass (SSB) greater than the critical level ( $B_{lim}$ ) of 2 500 000 t.

2. For the year 2001 and subsequent years, the Parties agreed to restrict their fishing on the basis of a TAC consistent with a fishing mortality rate of less than 0.125 for appropriate



age groups as defined by ICES, unless future scientific advice requires modification of this fishing mortality rate.

3. Should the SSB fall below a reference point of 5 000 000 t ( $B_{pa}$ ), the fishing mortality rate referred to under paragraph 2, shall be adapted in the light of scientific estimates of the conditions to ensure a safe and rapid recovery of the SSB to a level in excess of 5 000 000 t. The basis for such an adaptation should be at least a linear reduction in the fishing mortality rate from 0.125 at  $B_{pa}$  (5 000 000 t) to 0.05 at  $B_{lim}$  (2 500 000 t).

4. The Parties shall, as appropriate, review and revise these management measures and strategies on the basis of any new advice provided by ICES.

The Coastal State HCR is currently not effective due to controversy over the sharing of the pelagic resources in the Northeast Atlantic (mackerel, blue whiting and herring), in 2017 the summed TACs were 20 % - 30 % above the TAC suggested by the Management Plan (805,142 t vs 646,075 t as advised September 2016). The Coastal State meeting in December 2017 agreed that the overall TAC should be below 435,000 t. However, the ICES advice is for 384,197 t and the stock status is now 'at increased risk'. Hence the Harvest strategy and the HCR (PI 1.2.1 and PI 1.2.2) do no longer seem to meet the SG80 criteria, see Appendices for rescoring.

The sharing of the advised TAC between participating countries in this fishery was agreed and established in 2007. The agreement is based on an annual share of available quota of 60.55 % to Norway, 14.51 % to Iceland, 12.82 % to the Russian Federation, 6.51 % to the EU and 5.61 % to the Faroe Islands (Table 9). Based on client information and assumptions on TAC setting by different Coastal States, the total TAC for 2018 is likely to be around 25 % above the target (435,000 t) that the Coastal States have agreed to (Agreed Record of fisheries Consultations for 2018) and 35 % above the TAC advised by ICES. Using the ICES MSY framework the overshoot is about 6 % (Table 9).

State	TAC 2018 (t)	% of 435,000 t (Coastal states)	2007 agreement (%)
EU	28,319 t	6.51	6.51
Faroe Islands	88,000 t	20.2	5.61
Iceland	~70,000 t	16.1 (2007 agreement corrected with the Norwegian overshoot (70/60.55)	14.51
Norway	304,500 t	70.0	60.55
Russia	55,768 t (Not confirmed)	12.82 (2007 agreement)	12.82
Total	~540,000 t	~125	100
Coastal State Agreement December 2017	435,000 t		

Table 9. TACs set for 2018 for Atlanto-Scandian Herring. Iceland has not yet set its TA	С
running on a fishing year 1/9-31/8.	



State	TAC 2018 (t)	% of 435,000 t (Coastal states)	2007 agreement (%)
ICES advice based on Coastal State Management Plan	384,179 t		
ICES MSY Approach	489,022 t		

## 5 Conclusion

The main findings are

- The assessment teams accepted the corrections of the abundance acoustic survey and the consequent revision of the stock assessment and scientific advice; ICES (2018a);
- The Assessment teams accepted the revised reference points as advised by ICES (2018c);
- The Atlanto Scandian herring stock is declining but SSB remains above PRI reference and MSY B<sub>trigger</sub> points;
- Currently, stock management is not effective and the assessment teams defined new conditions against 1.2.1 (Harvest Strategy) (see Appendix 2.);
- The existing condition against PI 3.1.1 remains effective. There are now three conditions for this fishery against 3.1.1 (Management), 1.2.2 (Harvest Control Rule) and 1.2.1 (Harvest Strategy);
- PI 1.2.4c was rescored to take account of the change of the stock assessment methodology from XSA to XSAM
- The three CABs affected by the Expedited Audit (DNV GL, MEC and ACOURA) harmonized the scoring and conditions;
- The Coastal States have called a meeting on 14<sup>th</sup> May 2018 with the intention of agreeing a revised management plan taking the ICES advice into account. Possible changes in the HCR will be accounted for at the annual surveillance audits.



## 6 Evaluation Results

Table 10 summarises the history of the assessment scores and presents the overall results of the present expedited audit. Table 9 summarised the individual PI scores. The rescoring is detailed in Appendices - Principle 1 scoring rationales.

Component	PI No.	Performance Indicator (PI)	Score	Expedited Audit.
Outcome	1.1.1	Stock status	90	Rescored
	1.1.2	Reference points	90	Rescored
	1.1.3	Stock rebuilding		N/A
Management 1.2.1		Harvest strategy	70	Rescored
	1.2.2	Harvest control rules & tools	75	Rescored
Information 1.2.3		Information & monitoring	90	Not Scored
	1.2.4	4 Assessment of stock status		1.2.4c Rescored based on the change in assessment methodology
Overall score at	Expedited	audit 2018	86.9	
Scored at SA1 2	2017		88.7 - 1.	2.2 rescored at SA1
Scored at reass	essment 20	14	90.6	

Table 10. Rescoring of Principle 1 and history of the fishery assessment for Principle 1

### 6.1 Principle Level Scores

The final principal scores are provided in Table 11.

#### Table 11. Final Principle Scores

Final Principle Scores			
Principle	Score		
Principle 1 – Target Species	86.9		
Principle 2 – Ecosystem	83		
Principle 3 – Management System	88.9		

### 6.2 Summary of PI Level Scores

Grey scores remain as per the PCR Gascoigne et al. (2015) and are unassessed as part of this expedited audit.

Principle	Component	Weighting	PI number	Performance Indicator	Score
1	Outcome	0.5	1.1.1	Stock status	90
			1.1.2	Reference points	90
			1.1.3	Stock rebuilding	N/A
	Management	0.5	1.2.1	Harvest Strategy	70
			1.2.2	Harvest control rules and tools	75
			1.2.3	Information and monitoring	90
			1.2.4	Assessment of stock status	100



Principle	Component	Weighting	PI number	Performance Indicator	Score
2	Retained	0.2	2.1.1	Outcome	80
	species		2.1.2	Management	80
			2.1.3	Information	85
	Bycatch	0.2	2.2.1	Outcome	80
	species		2.2.2	Management	85
			2.2.3	Information	80
	ETP species	0.2	2.3.1	Outcome	80
			2.3.2	Management	80
			2.3.3	Information	80
	Habitats	0.2	2.4.1	Outcome	90
			2.4.2	Management	90
			2.4.3	Information	95
	Ecosystem	0.2	2.5.1	Outcome	80
			2.5.2	Management	80
			2.5.3	Information	80
3	Governance	0.5	3.1.1	Legal and customary framework	65
	and Policy		3.1.2	Consultation, roles and responsibilities	100
			3.1.3	Long term objectives	100
			3.1.4	Incentives for sustainability	90
	Fishery-	0.5	3.2.1	Fishery specific objectives	90
	specific		3.2.2	Decision making processes	85
	management		3.2.3	Compliance and enforcement	100
	System		3.2.4	Research plan	90
			3.2.5	Management performance evaluation	80



### 6.3 Conditions

#### Table 12. Conditions

Condition number	Condition	Performance Indicator
1	The SG80 requirement for SI c) above must be met. 'Available evidence' may be any relevant evidence, provided through ICES or other verifiable means, that shows the implications of all available management actions (e.g. by coastal states and/or agreements with other relevant states in controlling fishing mortality) in achieving exploitation levels consistent with appropriate harvest control rules and the requirements of PI 1.1.1. This condition is closely aligned to Condition 2.	1.2.2 Raised at PCR.
2	There is a mechanism in place for international cooperation in the fishery (the Coastal States Agreement) but it is not apparently completely effective, since it is currently not working properly due to the withdrawal of the Faroes, and as of 2015 a failure of the coastal states in general to agree a TAC. The dispute has now lasted more than a year, with no sign of formal resolution as yet (although the issue has been mitigated by negotiation) – hence it is not clear that the dispute resolution framework is effective. The fishery should work with the EU, the Pelagic Advisory Council, other certified or suspended UoCs in the fishery and/or other parties as appropriate to support the resolution of the dispute between the coastal states and to re-establish an effective international cooperation mechanism for the fishery.	3.1.1 raised at PCR
3	The prospects of halting stock decline within the next five years are uncertain in the absence of higher levels of recruitment but also because the fishery is not under full control as the quota allocation agreement has broken down. It is therefore not demonstrated that the plan is able to maintain a stock, which is so dependent on sporadic strong recruitment, at or above the management plan target level during such periods of low recruitment. The fishery shall demonstrate that the harvest strategy is achieving its objectives and that overall quotas are within sustainable limits.	1.2.1 Raised as part of this expedited audit



## 7 References

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   2, and 5, and in divisions 4.a and 14.a, (Northeast Atlantic) (Norwegian Spring Spawning) due to an error in the estimates from the spawning survey. Working paper for WKADVNSSH December 2017. ICES.
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NEAFC, 2016b. 35th Annual Meeting of the North-East Atlantic Fisheries Commission. North East Atlantic Fisheries Commission, Marylebone, London, UK.



# Appendices



### Appendix 1. Rescoring evaluation tables

## Principle 1 scoring rationales

#### Evaluation Table for PI 1.1.1

PI 1.1.1		The stock is at a level which maintains high productivity and has a low probability of recruitment overfishing					
Scoring Issue		SG 60	SG 80 SG 100				
a Guide post		It is highly likely that the stock is above the point where recruitment would be impaired. It is highly likely that the stock is above the point where recruitment would be impaired. There is a high degree of certainty that the stock is above the point where recruitment would be impaired.					
	Met?	Y	Y	Y			
	Justifi cation	The scoring refers to Figure 3. The stock is currently above its biomass limit reference point of 2.5 million tonnes which is the minimum biologically acceptable level (MBAL) set in 1998 and below which impaired recruitment has been observed. The SSB is estimated to be above B <sub>lim</sub> . SG60 is met The most recent estimate of SSB at spawning time in 2016 was 4.266 million tonnes (+5.07 / - 3.46) 95 % confidence interval. The lower 95 % confidence interval estimate of 3.46 million tonnes provides a high degree of certainty that the stock is currently above the point where recruitment would be impaired with a high degree of certainty, i.e. above B <sub>lim</sub> (2.5 mill. t. The confidence limit of the low estimate for SSB (95 %) is estimated to be above B <sub>lim</sub> . SG80 and SG100 are met.					
b	Guide post	ide stThe stock is at or fluctuating around its target reference point.There is a high degree of certainty that has been fluctuating around its target point, or has been above its target point, over recent years.					
	Met?		Y	Ν			



Justifi cation	See Figure 3 and Table 8 for current status. The B <sub>MSY</sub> is not defined. The revised MSY B <sub>trigger</sub> is set at 3.184 mill. t and SSB along with the lower 95 % confidence interval of SSB is above this value. The retrospective estimates of the SSB show that it fell below the management level (SSB <sub>mgt</sub> ) of 5.0 million tonnes in 2014. This was the first time that SSB had fallen below 5.0 million tonnes since 2003. The MSC v1.3 standard does not imply that SSB > Btarget at all times; the requirement is "The stock is at or fluctuating around its target reference point". A lowering in SSB cannot on its own be interpreted as 'overfishing'. Fluctuations around a target reference point (e.g. B <sub>MSY</sub> ) implies that SSB will be below its target for around 50% of the time. As noted in the ICES advice (April 2018) it is well known for this stock for recruitment to be very variable and that the fishery is normally, even under very low fishing pressure, only based on a few strong year classes. This means that the SSB will show large fluctuations dependent on the frequency and occurrences of these strong year classes. The period between 2003-2018 show this large fluctuation, with increasing SSB between 2003-2009 and decline 2010- 2018 which approximate each other in terms of SSB range. The current SSB is the lowest in the time series since 2003 with only five of the 15 years since then below the SSB target reference point (5.0 million tonnes). Based on this information the assessment team are confident that there is sufficient evidence that the stock is fluctuating around its target reference point.
	However, the MSC require in scenarios where $B_{MSY}$ is undefined to use $F_{MSY}$ as proxy for MSY (CB2.2.4). $F_{MSY}$ is not a management target as per the requirements of CB2.2.4 for this fishery, therefore the validity of this clause is questionable. Rather $F_{MGT}$ at 0.125 is the F target reference point. However in order to provide certainty the assessment team evaluated the fishery against $F_{MSY}$ , which ICES has revised a number of times since the issuing of the 2017 Advice (ICES 2017).
	$F_{MSY}$ was revised downwards as of April 2018 to 0.102. The reference point for $F_{MSY}$ cited in the January 2018 report was 0.15 with a downward version to 0.102 in April 2018. The $F_{pa}$ is found to be 0.182 and $F_{lim}$ higher at 0.23. The overall 1988-2016 average of F(4-11) is 0.137.
	The unusual large difference between Fpa and new $F_{MSY}$ is not well explained in the WHNSSH REF 2018 report. The $F_{pa}$ is derived from Fpa = Flim*exp(-CV) leading to Fpa = 0.182 while the $F_{MSY}$ without consideration of the precautionary criterion (SSB < Blim at most 5 % of the times) is 0.15. To meet the precautionary criterion F is found to be 0.102 under MSYB <sub>trigger</sub> = 3,184 suggesting that the CV applied for the derivation $F_{pa}$ is too small. The advice on reference values (ICES 2018a) explains the calculation of $F_{MSY}$ as follows:
	"The value of F that maximizes the median long-term yield, without including any $MSYB_{trigger}$ (i.e. constant F exploitation) but including assessment error, was $F = 0.152$ . However, this F resulted in long-term $P(SSB < B_{lim}) > 5\%$ . Therefore, in accordance with ICES guidelines, $F_{MSY}$ was set at the value of F that resulted in long-term $P(SSB < B_{lim}) = 5\%$ when that F was applied in combination with $MSYB_{trigger} = 3.184$ million t; Fp05 = $F_{MSY} = 0.102$ .
	In September 2018 ICES released the following statement as part of the 2018 Advice (ICES 2018c):
	During the 2018 evaluation 'it became apparent that the fishing mortality reference points published in April (ICES, 2018a) were estimated incorrectly. These were re-estimated; $F_{MSY}$ was revised from 0.108 to 0.157, $F_{pa}$ was revised from 0.182 to 0.227, and $F_{lim}$ was revised from 0.234 to 0.291.'



	According to the MSC interpretation log 'MSC recommends that to achieve an assumed status of $B_{MSY}$ , <i>F</i> should have been at or below $F_{MSY}$ for at least 1 Generation Time (GT) from a starting point close to $B_{pa}$ or $B_{trigger}$ , and 2 generation times from a starting point close to $B_{lim}$ (Carruthers and Agnew 2016), GT is assumed to be given by the proxy $GT = AM50 + 1/M$ , where $AM50$ is the age at 50% maturity, and <i>M</i> is natural mortality.' Given the above the assessment team took the $F_{MSY}$ which maximizes the medium long-term yield (0.157) as the intended proxy for MSY of the MSC standard, where $F_{MSY}$ is defined as 'the fishing mortality that would deliver maximum sustainable yield'. GT for NSSH can be calculated as 5.8 years (GT = 4 + 1/0.55) where 'M' is the mean mortality for fish of all ages between 0 – 11 years (0-2 years M = 0.9, 3-1' years M = 0.375). F has been below 0.157 since 2012 therefore > than 5.8 years.					
References	On this basis SG80 is met. Fluctuations in SSB are influenced by the biology of the species and Atlanto Scandian herring are characterized by fluctuating patterns of recruitment as described above. The ongoing scoring of this PI will therefore be strongly influenced by ongoing trends in recruitment. In the absence of improved recruitment, then consideration will need to be given to appropriate stock rebuilding/recovery measures. The stock has not been above its target reference point in recent years therefore SG100 is not met.					
Stock Status re	elative to Reference Points					
	Type of reference point	Value of reference point	Current stock status relative to reference point			
Target reference point	B <sub>pa</sub> F <sub>MSY</sub> F <sub>pa</sub> F <sub>mgt</sub>	$\begin{array}{l} MSY \; B_{trigger} = B_{pa} = 3.184 \; mill \; t \\ F_{MSY} = 0.157 \\ F_{pa} = 0.227 \\ F_{mgt} = 0.125 \end{array}$	SSB(2017) 4.131 mill. t Confidence limits (2.5 %-97.5 %) [3.3;4.9 mill. t]			
Limit reference point	Blim	B <sub>lim =</sub> 2.5 mill t	F (2016) =0.084 Confidence limits (2.5 %-97.5 %) [0.058;0.110]			



OVERALL PERFORMANCE INDICATOR SCORE:	90
CONDITION NUMBER (if relevant):	NA



PI 1.1.2		Limit and target reference points are appropriate for the stock			
Scorir	ng Issue	SG 60	SG 80	SG 100	
a Guide post		Generic limit and target reference points are based on justifiable and reasonable practice appropriate for the species category.	Reference points are appropriate for the stock and can be estimated.		
	Met?	Y	Y		
Justifi cationFollowing a request by the Coastal States to ICES in December 2017 to continue with their re-evaluation of reference p revised reference points in April 2018. The reference points meet internationally agreed standards and have been eval by ICES as consistent with a precautionary approach to managing the stock.			eir re-evaluation of reference points ICES provided standards and have been evaluated and endorsed		
		A raft of appropriate biological reference points, for biomass and fishing mortality have been defined and agreed within a Co agreement and embedded in a management plan developed by ICES. SG60 and SG80 are met.			
		The Coastal States agreed to meet (before	15 May 2018) to consider a possible revision	of the long-term management strategy.	
b	Guide post       The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity.       The limit reference which there is an appreciable risk of impairing reproductive capacity.		The limit reference point is set above the level at which there is an appreciable risk of impairing reproductive capacity following consideration of precautionary issues.		
	Met?		Y	Υ	



	Justifi cation	ICES reviewed the reference points of Norwegian spring spawning herring in 2013 and again in 2018. In the period 1950 – 2017 the stock size shows a wide dynamic range, with clear signs of impaired recruitment at low stock sizes. With a fitted segmented regression the estimates of B <sub>lim</sub> are distributed around the current B <sub>lim</sub> value of 2.5 million tonnes. Thus, ICES considers that the current B <sub>lim</sub> remains appropriate and remain unchanged at 2.5 million tonnes. ICES considers B <sub>lim</sub> to be consistent with the precautionary approach and set at a level which should maintain full reproductive capacity for the stock. SG80 is met. Defining the biomass limit reference point in terms of the stock and recruitment relationship has been rigorously investigated. The B <sub>lim</sub> is discussed above while the MSY B <sub>trigger</sub> is set as the maximum value of B <sub>pa</sub> and the 5 <sup>th</sup> percentile of SSB when fishing at the F that maximizes annual yield, taking into consideration assessment/prediction error. SG100 is met.				
C	Guide post		The target reference point is such that the stock is maintained at a level consistent with $B_{MSY}$ or some measure or surrogate with similar intent or outcome.	The target reference point is such that the stock is maintained at a level consistent with $B_{MSY}$ or some measure or surrogate with similar intent or outcome, or a higher level, and takes into account relevant precautionary issues such as the ecological role of the stock with a high degree of certainty.		
	Met?		Y	Ν		
	Justifi cation	The SSB precautionary approach reference point and F <sub>MSY</sub> are set firmly based on the stock recruitment relationship. Simulation studies demonstrate that these are appropriate for the NSSH stock, see Table 8. The management plan aims to constrain harvesting within safe biological limits and is designed to provide a sustainable fishery in the long term. SG80 is met. Whilst the current management plan / harvest control rule is clearly consistent with MSY reference points for both biomass and fishing mortality it is not entirely clear that precautionary issues such as the ecological role of the stock are taken into account within that management plan with a high degree of certainty. Environmental data, both physical and biological, are quite clearly collected and analysed on the ecosystem surveys which support the stock assessment. However, the way in which these data are incorporated into the stock modelling, procedures and how they are utilised in the whole management strategy, is not clear. SG 100 is not met.				
d	Guide post		For key low trophic level stocks, the target reference point takes into account the ecological role of the stock.			



Met?	N						
Justifi cation	Herring play an important role in the North East Atlantic and Arctic ecosystem as prey species for larger fish, birds and marine mammals and as a predator on capelin and zooplankton. This provides clear evidence of their role as a lower trophic level species. However in the North East Atlantic and Arctic ecosystem herring cannot be considered to be a key LTL species because it does not meet at least two of the three sub- criteria in CB2.3.13 in Certification requirements v1.3 as cited in italics below.						
	i) A large proportion of the trophic connections in the ecosystem invo	olve this stock, leadi	ng to significant predator dependency.				
	In the North East Atlantic and Arctic there are numerous other spec and mammals. There are mackerel, horse mackerel, capelin, polar juvenile saithe and cod.	ies which form impo cod, Norway pout, s	ortant sources of prey for piscivorous fish sea birds candeels, blue whiting, Argentines, Maurolicus and				
	According to the connectance score (=0.0005) calculated by Essington and Pláganyi (2013), the proportion of the trophic connections in the ecosystem involving this stock are not large as it falls below the required 4 % threshold level defined in the MSC certification requirements CR v1.3.						
	ii) A large volume of energy passing between lower and higher troph	ic levels passes thre	ough this stock.				
	There are numerous other species of planktivores, most of which production through zooplankton to fish. In the Arctic ecosystem eve in certain areas at certain times of the year and haddock have been	are listed above in adult cod are know recorded feeding or	n (i), through which energy passes from primary wn to feed on dense concentrations of euphausids a zooplankton.				
	iii) There are few other species at this trophic level through which en high proportion of the total energy passing between lower and high waisted'	ergy can be transmi er trophic levels pas	itted from lower to higher trophic levels, such that a sses through this stock (ie the ecosystem is 'wasp				
	As noted above there are numerous other species of planktivores through which energy is passed to the top predators. Quite clearly the	which are abundant ese ecosystems are	in the North East Atlantic and Arctic ecosystems on to 'wasp waisted'				
	Further, historical, evidence for herring not meeting the requisite criteria for a key LTL species can be seen when the NSS herring stock was close to extinction in the late 1980s, there was no evidence of other stocks or species being placed at risk as the trophic role of herring was probably replaced by other species, such as capelin and young gadoids.						
	Within the North East Atlantic and Arctic fish ecosystem there is no e on herring as a source of food	evidence that any sp	becies of fish bird or mammal is entirely dependent				
ences	Anon (2018) and ICES (2018c), ICES (2013, 2014), Essington and Pláganyi (2013).						



OVERALL PERFORMANCE INDICATOR SCORE:	90
CONDITION NUMBER (if relevant):	NA



PI 1.2.1		There is a robust and precautionary harvest strategy in place					
Scoring Issue		SG 60	SG 80	SG 100			
a	Guidepost	The harvest strategy is expected to achieve stock management objectives reflected in the target and limit reference points.	The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving management objectives reflected in the target and limit reference points.	The harvest strategy is responsive to the state of the stock and is designed to achieve stock management objectives reflected in the target and limit reference points.			
Met?		Y	Y	Ν			
	Justification	JustificationThe elements of the long term management plan as agreed by the Coastal States are designed to be responsive to the state of the stock insofar as it effectively reduces the advised annual TAC if SSB is estimated to have fallen below the management plan upper target of 5 Mt. That reduction, in the advised catch level, is achieved through successive reductions in the fishing mortality, used to calculate it. That reduction is at least linearly linked from the management plan target F=0.125 at B <sub>pa</sub> to effectively zero at the biomass limit level. ICES confirms that the management plan is aimed at constraining the harvest within safe biological limits and is designed to provide sustainable fisheries in the long term. The annual ICES advice to the Coastal States has been based on the harvest control rule and management plan since 1998. The advice is in the form of the predicted catch corresponding to the advice which is the basis on which to set the total TAC. The strategy is therefore expected to achieve stock management objectives reflected in the target and limit reference points. SG60 is met.The management plan has been used as the basis for the provision of advice by ICES and setting an annual TAC, through the Coastal States agreement, since 1999. The plan has remained unchanged since 1999 and is currently partly achieving its objectives as evidenced by the current levels of F while the SSB is dropping below the MSY B <sub>trigger</sub> level. TAC levels have been reduced over recent years as SSB has now fallen below the Management plan and MSY biomass trigger level of 5.0 million tonnes. SG 80 is met.					
		However, there is an inevitable time la advised fishing mortality is determined In the current situation, where SSB is	ag in the way that the plan reacts to changes d, are reliable the impact of the time lag, on the consistently overestimated, the management	in SSB. Whilst the estimates of SSB, on which the effectiveness of the management plan, is minimal. plan cannot respond quickly enough to falling SSB			



		levels. Therefore, the plan, which underpins the harvest strategy, cannot be said to be designed to achieve stock management objectives reflected in the target and limit reference points. The requirements at SG 100 are therefore not fully met.							
		The update of the acoustic survey d XSAM model may have better perfor scoring could be increased in the cert	The update of the acoustic survey data may influence the performance of the assessment model and also the introduction of the XSAM model may have better performance than previous assessment models. It may therefore be possible or even likely that the scoring could be increased in the certification period when information on the performance of the assessment is available.						
b	Guidepost	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?	Y	Ν	Ν					
	Justification	The fishing mortality rate remains bel since 2009. Historically the stock has	ow target values and catch levels have decre been rebuilt from very low levels. SG60 is me	eased in line with the continuing reductions in SSB et.					
		The harvest strategy in the form of compliance with the management pla approach level of 5 million tonnes and	the management plan has been fully tested in. However, In 2013 the SSB fell below the c d has continued to decline since that time.	and in general, the stock has been managed in surrent management plan target and precautionary					
		By 2018 the SSB is still above B <sub>lim</sub> of 2.5 million tonnes and above the MSY B <sub>trigger</sub> of 3.184 mill tonnes. Safeguards are in place within the strategy to ensure that there is a low probability that SSB will fall below that biomass limit level. Whilst those safeguards appear to be responding satisfactorily in relation to the biomass limit level the prospects of halting stock decline and returning to above the management target level within the next five years are uncertain in the absence of higher levels of recruitment but also because the fishery is not under full control as the quota allocation agreement has broken down. It is therefore not demonstrated that the plan is able to maintain a stock, which is so dependent on sporadic strong recruitment, at or above the management plan target level during such periods of low recruitment. The current decline in SSB is an additional factor suggesting that the current harvest strategy is ineffective in achieving stock at target levels. SG 80 is not met.							
C	Guidepost	Monitoring is in place that is expected to determine whether the harvest strategy is working.							



	Met?	Y						
	Justification	There is a comprehensive stock monitoring and assessment programme in place leading to an annual evaluation of the success of the harvest strategy. This is based on accurate catch statistics and an appropriate level of biological sampling of catches and landings. Whilst it is accepted that there may be some unaccounted mortality in this fishery related to the fishing operation, slippage and discarding, careful monitoring and observation shows that the level is very low and does not affect the annual assessment of the status of the stock on which the harvest strategy is based. ICES regards the current level of unaccounted mortality to be negligible in the context of the stock assessment. SG60 is met.						
d	Guidepost			The harvest strategy is improved as necessary.	periodically reviewed and			
	Met?			Y				
	Justification	The plan was re-evaluated, ICES (2014) following a request from the Coastal States. As a result of the thorough investigation of the plan and the related reference points ICES recommended that the plan remained unchanged. The Coastal states have committed themselves to an evaluation of the harvest strategy and the HCR in 2018. This process is ongoing. SG100 is met						
e	Guidepost	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 finning is not taking place	e of certainty that shark ce.			
	Met?	Not relevant	Not relevant	Not relevant				
	Justification	Scoring issue need not be scored if sharks are not a target species. Herring is not a shark.						
Refere	ences	ICES (2014, 2018a, 2018c)						
OVER	ALL PERFORM	ANCE INDICATOR SCORE:			70			
COND	CONDITION NUMBER (if relevant): 3							



PI 1.2.2		There are well defined and effective harvest control rules in place					
Scoring Issue		SG 60	SG 80	SG 100			
а	Guide post	Generally understood harvest rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached.	Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.				
	Met?	Y	Y				
	Justifi cation	The current strategy is to set an annual TAG is supported by technical and conservation implementation of the harvest strategy is th national quota shares in the fishery. The ha annual TAC, if the SSB falls below the Man the SSB falls to the biomass limit level. Her to reduce the exploitation rate as limit refere The rules are well-defined, section 4.3. The nationally and by area, through the Coastal in the quota to individual fishing enterprises strategy are common and well understood.	C in accordance with the management plan a measures such as the ban on discarding and e responsibility of the Coastal States group, v rvest strategy has clear rules which effectivel agement plan trigger level of 5.0 million tonne ice the harvest strategy includes a HCR cons ence points are approached. SG60 is met. management plan governing the subsequen States Agreement, are also well defined and at the national level are generally understoor This clearly meets the requirements at SG 80	greed by the Coastal States in 1999. This strategy I the minimum landing size. The annual who meet at least annually to agree on the ly reduce the fishing effort, and thus the resultant es. Fishing effort is effectively reduced to zero if istent with the strategy and include an obligation t allocation of the TAC in this fishery, both understood. Similarly, the rules allocating shares d. The rules governing this type of harvest b is met			
b	Guide post		The selection of the harvest control rules takes into account the main uncertainties.	The design of the harvest control rules takes into account a wide range of uncertainties.			
	Met?		Y	Ν			



	Justifi cation	The main uncertainty affecting the harvest of fishing mortality. In the past there have been small discrepan working group. This is related to the problem these although not included in the assessm assessment working group. Biological sampling of the landings by all co the catch is sampled in recent years). This I The main uncertainties which affect the harv The annual stock assessment, underpins th States dispute. The dispute has led to annu uncertainty in the determination of catch lew The recent revision of the survey data and t overestimations in the assessment have be	<ul> <li>main uncertainty affecting the harvest control rule is the reliability of the annual stock assessment in estimating current SSB and ing mortality.</li> <li>ne past there have been small discrepancies in the official reported catch and the estimates of that catch by the ICES assessment king group. This is related to the problem of underreporting, slippage, discarding and the fishing operation. ICES (2018a) notes that se although not included in the assessment are negligible. This area of potential uncertainty is kept under regular review by the essment working group.</li> <li>logical sampling of the landings by all countries except Greenland ensures an adequate coverage of all the landings (around 90 % of catch is sampled in recent years). This level of coverage is supported by sampling the catch at sea on the Norwegian reference fleet.</li> <li>e main uncertainties which affect the harvest control rules are therefore taken into account. SG 80 is met.</li> <li>e annual stock assessment, underpins the ICES advice which does take into account the uncertainty generated by the current Coastal tes dispute. The dispute has led to annual catches exceeding the advised TAC by more than 10 %. Predicted catches include this certainty in the determination of catch levels in the subsequent fishing year.</li> <li>e recent revision of the survey data and the introduction of the XSAM model leaves some doubt if the known uncertainties related to the survey data and the introduction of the XSAM model leaves some doubt if the known uncertainties related to the survey data and the introduction of the XSAM model leaves some doubt if the known uncertainties related to the survey data and the introduction of the XSAM model leaves some doubt if the known uncertainties related to the survey data and the introduction of the XSAM model leaves some doubt if the known uncertainties related to the survey data and the introduction of the XSAM model leaves some doubt if the known uncertainties related to the survey data and the introd</li></ul>						
С	Guide post	There is some evidence that tools used to implement harvest control rules 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 harvest control rules.	Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the harvest control rules.					
	Met?								
	Justifi cation	At the generic level, setting an annual TAC, based on a reliable annual estimate of stock status, backed by a precautionary long term Management plan, together with technical measures, does have a reliable track record for many stocks in the Northeast Atlantic. The management of the Norwegian Spring Spawning herring stock has all these elements in place supported by rigorous surveillance, monitoring and enforcement of the national quotas and technical measures. The problem of slippage, discarding and underreporting of landings is not considered to be a problem in relation to the annual stock assessment and subsequent advice. Although the SSB fell below the Management plan level in 2013 for the first time since 2003, the harvest control rules have ensured an appropriate reduction in fishing effort to safeguard the stock from falling to the critical biomass limit level. This provides some evidence from past performance, that the harvest control rules and tools, currently in place, are effective and are appropriate methods to control exploitation SG60 is met. In the past the Management Plan has been effective and has worked successfully to control exploitation and even to-day exploitation has remained within the desired bounds. Responsibility for the allocation of the annual TAC is administered by a Coastal States Agreement which for this fishery involves the European Union, the Faroe Islands, Iceland, Norway and the Russian Federation. There are currently internal issues in relation to that agreement and the agreement has not been successful since 2013.All participating countries have declared their intention to set autonomous quotas. Hence, the HCR is not effectively implemented as the quota allocation among the Coastal states is disputed, see Table 9 and the table below							



	Year	Advice (t)	Agreed TACs (t)	ICES Catch (t)										
	2007	1,280,000	1,280,000	1,266993	3									
	2008	1,518,000	1,518,000	1,545,656	6									
	2009	1,643,000	1,643,000	1,6873.371	1									
	2010	1,483,000	1,483,000	1,457,015	5									
	2011	988,00 - 1,170,000	988,000	992,997	7									
	2012	833,000	833,000	826.000	C									
	2013	619,000	692,000	684,743	3									
	2014	418,487	436,893	461.306	6									
	2015	283,013	328,206	328,740	C									
	2016	316,876	376,612	383,174	4									
	2017	437,364	805,142											
	2018	384,179	~570,000											
	Evidence TAC are	e over recent years clea not effective in achievi	arly shows that on ng the exploitati	current manage on levels requi	agement quired u	t actions nder the	(tools i harves	in use) it contr	used to ol rules	o share . SG 8	e the so 0 is no	cientific t met.	cally advis	sed annual
References	Agreed I (ICES, 2	Record of consultations 018a)	s 2007 – 2018.											
OVERALL PER	FORMAN		RE:									7	<i>"</i> 5	
CONDITION NU	JMBER (if	relevant):										2	2 - existir	ng



PI 1.2.3		Relevant information is collected to support the harvest strategy					
Scoring Issue		SG 60	SG 80	SG 100			
а	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 is available to support the harvest strategy.	A comprehensive range of information (on stock structure, stock productivity, fleet composition, stock abundance, fishery removals and other information such as environmental information), including some that may not be directly related to the current harvest strategy, is available.			
	Met?	Y	Y	Υ			
Met?         Y         Y         Y           Justification         The Norwegian spring spawning herring stock is a widely migratory stock which has shown large to large recruitment variability and a dependency on the irregular occurrence of very strong year or changes have been reflected in the fishery which, for a period from the late 1960s to the late-1980 and turbulent history of this stock has resulted in intense biological research targeted at an undersunderlying dynamics of the stock.           Those research programmes have provided valuable information on seasonal distribution and migor its geographic range.         The harvest control rules, applicable to this stock, operate over the whole of its geographic range Research programmes in Norway have also clarified the mix, at certain times of the year betweer populations of coastal and fjord herring.           Through the well monitored biological sampling programme adequate data are collected on densis status of the stock, growth rates and natural mortality. These all strongly support the annual stock has also been deployed into attempts to understand the underlying processes affecting the huge relationship between spawning stock size and recruitment. Such information is important in terms lack of a complete understanding does generate a degree of uncertainty in that respect. Through the individual knowledge and contributions of the ICES assessment working group there structure of the fleets exploiting the resource both past and present. This includes knowledge of generation of the protomation is one provided were provided when one provided were provided were provided work in each uncertaint in terms of the provide the notice but past and present. This includes knowledge of generations of the provide stock is a complete understanding uncertain teaterns thereacher and the ore previded the provided there are an				wn large fluctuations in stock abundance, related ong year classes, over the past 60 years. These late-1980s, completely collapsed. The importance an understanding of the fundamental biology and n and migration of the stock throughout the whole nic range through the Coastal States agreement. between the spring spawning stock and local on density dependent changes in the maturity hual stock assessment process. Research effort the huge recruitment variability and the t in terms of the prediction of stock trends and the oup there is a comprehensive data base on the edge of gear types, numbers and sizes of vessels in annual basis. This database is regularly			



		<ul> <li>Information on age, growth and sex is routinely collected as part of the scientific sampling programmes by all participating countries except Greenland. This programme currently covers 95 % of the total landings. In addition to the onshore scientific sampling programme sampling of the catch at sea is carried out on Norwegian reference fleet fishing vessels.</li> <li>In addition to the data collected as a statutory requirement for direct input to the annual stock assessment there is a now a body of supporting environmental data.</li> <li>Information on the physical environment, abundance of zooplankton and other prey species is collected on the two annual ecosystem surveys covering the Norwegian and Barents Seas. This represents a movement towards the vision of a more ecosystem / multi species based approach to fish stock management in the future.</li> <li>Most of the basic research is carried out by Norwegian scientists but there is support from research programmes in some of the other countries, who have an interest in this fishery. The requirements at SG 100 are fully met.</li> </ul>						
b	Guide post	Stock abundance and fishery removals are monitored and at least one indicator is available and monitored with sufficient frequency to support the harvest control rule.	Stock abundance and fishery 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?	Y	Y	Ν				
	Justifi cation	Y       Y       N         The total landings data are adequately monitored and most uncertainty related to their validity is removed through national monitoring and surveillance programmes. These include inspections at sea, surveillance by fisheries patrol aircraft and at sea monitoring on reference fleet vessels. In these ways earlier concerns of the assessment working group regarding discarding at sea, slippage and underreporting have been satisfactorily addressed. Whilst they accept that there is still likely to be an element of unrecorded mortality the assessment working group are satisfied that the quantities involved are trivial compared with the total landings.         Basic biological data from the Norwegian spring spawning herring fishery is routinely collected by all countries participating in the fishery with the exception of Greenland. The Greenland catch in 2011 was only 3,426 tonnes and failure to sample this is not considered to be a problem. This sampling programme has covered over 90 % of the landings (95 % in 2011) and provides strong support for the age based analytical stock assessment process The annual stock assessment which underpins the harvest control rule is further supported by a number of fishery independent surveys which provide indices of the abundance of various year classes in the stock. The most important of these fishery independent surveys is the international Nordic Seas ecosystem survey. This uninterrupted time series dates back to 1991 and provides a fishery independent estimate on the abundance of age groups 1 and 2 and 4 – 15+ years old in the stock. The use of the fishery independent estimate on the abundance of age groups 1 and 2 and 4 – 15+ years old in the stock. The use of the fishery independent awas reviewed in the last benchmark assessment and a store of age groups 1 and 2 and 4 – 15+ years old in the stock. The use of the fishery independent awas reviewed in the l						



		longer carried out. These series continue to be used in the assessment but the working group now consider that their influence on the assessment and the need to continue using them should be further investigated at the next benchmark assessment Thus, all the relevant information required for carrying out an annual stock assessment, which provides the basic information on the status of the stock on which the harvest control rules are based, is appropriately monitored. Monitoring of landings in support of the TAC control is carried out contemporaneously with the fishery and enforcement action can be introduced quickly. Whilst there are some minor uncertainties in the data sources which are not serious enough to affect the robustness of the assessment the fishery does not meet the high standard required at SG 100 level of this performance indicator.					
С	Guide post       There is good information on all other fishery removals from the stock.						
	Met?		Y				
	Justifi cation	There is a requirement that by-catches of NSS herring in other fisheries (e.g. mackerel and blue whiting) are landed, recorded and counted against NSSH quota. ICES notes that with the more northerly distribution of the NEA mackerel fishery and overlap with the NSSH fishery in summer. This implies potential discarding in international waters resulting in the potential for some unaccounted herring mortality. However, the Coastguard vessels maintain a close watch on the pelagic fleet and IMR also has information from the reference fleet which would include recording any accidental losses of herring through gear damage and slippage. The working group has considered this potential and concluded that it does not represent a significant problem. Consequently, the					
Refere	ences	ICES (2018a)					
OVER	ALL PER	FORMANCE INDICATOR SCORE:			90		
COND	ONDITION NUMBER (if relevant):						



PI 1.2.4		There is an adequate assessment of the stock status					
Scoring Issue		SG 60	SG 80	SG 100			
а	Guide post		The assessment is appropriate for the stock and for the harvest control rule.	The assessment is appropriate for the stock and for the harvest control rule and takes into account the major features relevant to the biology of the species and the nature of the fishery.			
	Met?		Y	Y			
	Justifi cation	The assessment is an age based statistical forecast and also includes error structures i	analytical assessment model (XSAM; ICES n catches and abundance indices.	(2017b)) that uses catches in the model and in the			
		Input data used in the assessment model include data for the period 1988 - 2017. These data include Commercial catches-at-age (stock weight-at-age from surveys and since 2009 from catch sampling). Three survey indices: Norwegian acoustic survey on spawning grounds in February/March (NASF, 1994 – 2005, 2015 – 2017); International Ecosystem Survey in the Nordic Seas (IESNS) covering the adult stock in the Nordic seas (1996 – 2017) and the juvenile stock in the Barents Sea (1991 – 2017). Maturity ogive variable by year-class strength. Natural mortalities are fixed values from bistorical analyses (age 2 – 0.9, ages greater than 3 years M = 0.15).					
		The stock assessment is based on a database of catch statistics and basic supporting biological information, such as age composition and maturity, dating back to 1988. All countries participating in the fishery, with the exception of Greenland which only supplies catch data, are contributors to the scientific sampling database. Their national representatives, with the exception of Greenland, attend and take part in the annual evaluation of those data at the ICES stock assessment working group.					
		Most of these surveys are acoustic surveys as is appropriate for a pelagic shoaling species. Commercial catch per unit of effort (CPUE) data are notably unreliable in large scale pelagic fisheries and no commercial cpue series are used in the assessment process. SG 80 and SG 100 are fully met.					
b	Guide post	The assessment estimates stock status relative to reference points.					
	Met?	Y					



	Justifi cation	Stock status is evaluated based on reference points cf, status table PI 1.1.1. SG60 is met.			
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?	Y	Y	Y	
	Justifi cation The main uncertainties in relation to the assessment are the potential for unaccounted mortality, consistency are data, estimates of natural mortality and recruitment, and changes in catchability at age. These sources of uncertained by the assessment Working Group and their potential effect, on the estimation of stock status, evaluated annually			mortality, consistency and reliability of the survey These sources of uncertainty are clearly identified tatus, evaluated annually.	
		<ul> <li>The potential problem of unaccounted mortality is kept under constant review, its effect on the assessment is currently considered negligible by the WGWIDE.</li> <li>SG 60 is met.</li> <li>A wide range of fishery independent surveys which provide separate windows on the abundance of various age groups. Change behaviour of herring in particular changes in migration and seasonal distribution can have a negative effect on the reliability of these data. This area of potential uncertainty is evaluated every year and the impact on the assessment of any one survey, or age group a survey, can be reduced by down-weighting its effect on the assessment or rejecting the survey completely.</li> <li>All these potential sources of uncertainty are carefully considered during the exploratory phases of the annual assessment and tal account before a final assessment is produced. The current status of the stock in relation to SSB, the MSY biomass trigger level and mortality indicates that the assessment, which underpins the harvest strategy and TAC controls, is both appropriate and robust. S met.</li> </ul>			
		The XSAM model that replaced the former used XSA model deals with uncertain in the data and provides confidence limits on the estimates, cf PI 1.1.1. Hence the assessment process takes into account a wide range of relevant uncertainties and provide stock status in a probabilistic way. SG 100 is met.			



d	Guide post			The assessment has be be robust. Alternat assessment approache explored.	een tested and shown to ive hypotheses and is have been rigorously
	Met?			Y	
	Justifi cation	Data are under constant review and the reco scrutiny in the benchmark process but also compare the results with the established mo It is an important and robust element of the procedures, input data (including the fishery workshop before they can be accepted for u	ent amendment of the acoustic survey data il data are under review. The Benchmark proce odelling procedure. ICES stock assessment process that any ma rindependent surveys), have to be evaluated use in an assessment.	lustrates that not only are ess explores other assess jor changes, to either a m and endorsed by an inde	the models under sment models and nodel, modelling ependent benchmark
е	Guide post		The assessment of stock status is subject to peer review.	The assessment has externally peer reviewed	been internally and d.
	Met?		Y	Y	
	Justifi cation	<b>itifi</b> The assessment is subject to peer review within Coastal States agreement, by the WGWIDE and the ICES Advisory Committe Management (ACOM) The Coastal States annual meeting reviews the assessment independently of ICES, even though many or scientists involved are also members of the Working group. This process satisfies the minimum requirements at SG 80. The assessment of the stock is also subject to rigorous annual review at a number of other levels. An integral part of the ICES peer reprocess is to commission occasional external reviews of specific stock assessments. These external reviews involve specialists from a countries, either not directly involved with that specific stock or completely outside the ICES stock assessment system. Assessment methods, management procedures and advice are also subject to frequent scrutiny by a range of third parties from the fit industry itself to a variety of environmental NGOs. This rigorous independent process fully satisfies the requirements at SG 100			Advisory Committee on ven though many of the G 80 t of the ICES peer review lve specialists from other nt system. Assessments, d parties from the fishing nts at SG 100
References ICES (2017a, 2017b)					
OVER	ALL PER	FORMANCE INDICATOR SCORE:			100
COND	CONDITION NUMBER (if relevant):				NA



## **Appendix 2. Conditions**

Performance Indicator	PI 1.2.2 There are well defined and effective harvest control rules in place
Score	75
Rationale	SI: 1.2.2 c (60). Conclusion: Available evidence over recent years shows that current management actions (tools in use) used to share the scientifically advised annual TAC cannot be considered appropriate nor effective in achieving the exploitation levels required under the current harvest control rules. As a consequence, the fishery does not meet the SG 80 scoring guideposts. SG80: Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.
Condition	The SG80 requirement for SI c) above must be met. 'Available evidence' may be any relevant evidence, provided through ICES or other verifiable means, that shows the implications of all available management actions (e.g. by coastal states and/or agreements with other relevant states in controlling fishing mortality) in achieving exploitation levels consistent with appropriate harvest control rules and the requirements of PI 1.1.1. This condition is closely aligned to Condition 2.
Milestone	Year 1: Communication should be begun or continued with Coastal State representatives to promote delivery of exploitation levels consistent with meeting the requirements of Principle 1. Evidence should also be provided of any other actions or analyses undertaken in relation to prevailing exploitation levels and/or the implications of these for the stock. The client shall provide documented evidence of all related correspondence, analyses, actions, meetings, representations etc. Year 2 and Year 3: It is understood that the condition could be closed at any time during the certification. Year 2 and 3 should therefore provide updated information on the issues set out in Yr 1. Year 4: The SG80 requirements should be met. At the time this is achieved, this PI will be rescored at 80.
Client Action Plan	Action year 1: During negotiations for 2016 TACs and sharing arrangements, arrange meetings with other UoCs in the fishery and European Commission to encourage a management solution for 2016. Outcome year 1. By March 2016, all Coastal States have formally agreed on management and sharing arrangements for 2016 and beyond.
Observations at Year 1 SA	Outcome year 1 has not been met. The actions for year 1 has grosso modo taken place, but the result was not an overall agreement between coastal states on sharing and management for this stock. What has been achieved is Coastal States agreement on the scientific basis for the advice and continued respect for the long term management plan in place. A bilateral understanding of management decisions and reciprocal access agreement has been developed between EU and Norway for the ASH fishery in 2017. Lobbying

### Table 13. Condition 1 – unchanged from Surveillance Year 1.



	EU industry lobbied hard in 2015 to encourage the EU/member states and the Norwegian industry to reach at least a bilateral agreement on the ASH fishery. In 2016, the EU industry again lobbied for the EU/member states and Norway to reach a bilateral agreement if an agreement between the coastal states could not be reached. During 2014, 2015 and 2016 the EU industry has had numerous contacts with the EC, member states administrations on the sharing and management of ASH. The ASH management has also been discussed in the Pelagic Advisory Council (where the relevant NGO's on pelagic fisheries in the N E A are active). Here the accent has been mostly on the scientific underpinning of the management of this stock.
	Industry liaison The EU industry and Norwegian industry have met several times to discuss the management of the ASH fisheries. This was also the case during 2014, 2015 and 2016. Over the years a close working relationship has developed between the EU and Norwegian pelagic industries. Apart from these bilateral discussions, in 2014 and 2015 meetings have also been held among the industries of the 4 coastal states (EU, Norway, Faroe Islands and Iceland) on the management of the pelagic stocks in the N E A, including ASH. The character of these meetings were rather exploratory as the industries of the coastal states had grown apart following the strong disagreement on mackerel fisheries. In fact the bilateral collaboration between the EU and Norwegian industry has resulted in a joint MSC trajectory for mackerel (under the MINSA collaboration). Also for the blue whiting certification process – initiated by the EU industry – the Norwegian industry has been invited to join. In first instance the Norwegian industry decided not to join this certification. Recently however they have decided to be certified and to join our blue whiting certification. This process is now on- going. For ASH no initiatives in relation to joint MSC certificates outside the EU have been initiated yet.
	Science The client group, led by chief scientists from DPPO Claus Sparrevohn (WGWIDE, WGPELA) and Martin Pastoors from PFA (WGWIDE), actively contributed to ICES scientific work in 2015 and 2016. The industry is also taking part in an ongoing process to evaluate the reference points for the ASH stock. This work is not finished yet and so no report is available at this point.
References / evidence	List of participants and contents (ICES, 2015, 2016a, 2016b).
Status of condition	Behind target – Formally agreed management and sharing arrangements for 2016 have not been achieved although significant progress has been made by the fishery to achieve this. Monitoring required of this condition in the next audit.

#### Table 14. Condition 2 – Not evaluated in this audit as relates to Principle 3.

	PI 3.1.1. The management system exists within an appropriate legal and/or customary framework which ensures that it:
Performance Indicator	Is capable of delivering sustainable fisheries in accordance with MSC Principles 1 and 2; and 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.



Score	65
Rationale	There is a mechanism in place for international cooperation in the fishery (the Coastal States Agreement) but it is not apparently completely effective, since it is currently not working properly due to the withdrawal of the Faroes, and as of 2015 a failure of the coastal states in general to agree a TAC. The dispute has now lasted more than a year, with no sign of formal resolution as yet (although the issue has been mitigated by negotiation) – hence it is not clear that the dispute resolution framework is effective.
Condition	The fishery should work with the EU, the Pelagic Advisory Council, other certified or suspended UoCs in the fishery and/or other parties as appropriate to support the resolution of the dispute between the coastal states and to re-establish an effective international cooperation and dispute-resolution mechanism for the fishery.
Milestones	Year 1 – Make contact with other interested parties and lobby the European Commission to initiate negotiations for a mechanism, for cooperation and dispute resolution between the Coastal States which is effective in agreeing an appropriate management mechanism consistent with the management plan. Score 80 if dispute resolved, 65 if not. Year 2 – If the dispute is not resolved, continue to lobby. Demonstrate that discussions have taken place and progress has been made towards agreeing an appropriate cooperation and dispute resolution system within the Coastal States Agreement. If it appears that the coastal states, cannot agree, evaluate options for development of an agreement at the level of the various fleets involved in the fishery to ensure that the TAC is not overshot to an unsustainable level in the future, directly or via the Pelagic AC or other bodies as appropriate. Note: this approach should be subject to harmonisation with other MSC UoCs in the fishery, as appropriate. Score 80 if dispute resolved, 65 if not. Year 3 – Demonstrate that an appropriate system for coastal states cooperation and dispute resolution is agreed. Alternatively, develop a fleet level management plan to ensure sustainable management in the absence of international agreement, in agreement with other MSC UoCs and CABs. Score 80 if dispute resolution system is in place and operational. Alternatively, validate and implement the fleet-level plan, in agreement with other MSC UoCs and CABs. Score 80.
Client Action Plan	Action year 1: During negotiations for 2016 TACs and sharing arrangements, arrange meetings with other UoCs in the fishery and European Commission to gather information and evidence. Participate in ICES advice drafting group on widely distributed stocks and the ICES preparatory meetings for the stock benchmark in January 2016. Lobby all parties all parties in seeking a joint solution within the framework of a long term management plan. Outcome year 1. By March 2016, all Coastal States have formally agreed on management and sharing arrangements for 2016 and beyond.
Observations at Year 1 SA	Numerous actions have taken place, led by the Client Group of EU fishing industry representatives. (see condition 1) During 2015 and 2016 the EU industry had numerous contacts with their member state administrations, with the EC, and liaised directly with the Norwegian, Faroese and Iceland fishing industry representatives on the margin of Coastal States meetings and at NEAFC meetings There is still no overall agreement on TAC shares to reduce fishing mortality to FMSY. Sustainable management for the stock has not yet been achieved. The condition remains open. A new long-term management plan is scheduled to be



	developed in 2017, and there is still no formal agreement regarding sharing arrangements between Coastal States for the ASH fishery. The expected outcome hasn't been reached and the condition remains
References / evidence	List of participants and contents: (NEAFC, 2016a, 2016b)
Condition status	Behind target – Formally agreed management and sharing arrangements for 2016 have not been achieved although significant progress has been made by the fishery to achieve this. Monitoring required of this condition in the next audit.

#### Table 15. Condition 3 – new at this audit

	PI	Scoring issue/scoring guidepost text	Score
Performance Indicator(s) & Score(s)	1.2.1- There is a robust and precautionary harvest strategy in place	1.2.1.b: SG 80: The harvest strategy may not have been fully tested but evidence exists that it is achieving its objectives.	70
Condition	The prospects of halting stock decline within the next five years are uncertain in the absence of higher levels of recruitment but also because the fishery is not under full control as the quota allocation agreement has broken down. It is therefore not demonstrated that the plan is able to maintain a stock, which is so dependent on sporadic strong recruitment, at or above the management plan target level during such periods of low recruitment. The fishery shall demonstrate that the harvest strategy is achieving its objectives and that overall guotas are within sustainable limits.		
Milestones       As per Condition 1:         Year 1:       Communication should be begun or continued with Coastal State representatives to promote delivery of exploitation levels consistent wir meeting the requirements of Principle 1. Evidence should also be prov any other actions or analyses undertaken in relation to prevailing exploitevels and/or the implications of these for the stock. The client shall prodocumented evidence of all related correspondence, analyses, actions meetings, representations etc.         Year 2 and Year 3:       It is understood that the condition could be closed at any time during the issues set out in Yr 1. Year 4:         The SG80 requirements should be met. At the time this is achieved, the state of		h Coastal State levels consistent with should also be provided of on to prevailing exploitation k. The client shall provide ce, analyses, actions, at any time during the e updated information on e this is achieved, this PI	
Client Action Plan	As per Condition 1		
Progress on Condition	N/A		
Status on Condition	N/A		





#### Appendix 3. Client action plan (reproduced from PCR)

DPPO, SPSG, PFA, SPFPO & KFO Atlanto-Scandian purse seine and pelagic trawl herring fishery

DPPO, SPSG, PFA, SPFPO & KFO Atlanto-Scandian purse seine and pelagic trawl herring fishery

November 25. 2015

Client Action Plan on securing evidence that indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules for Atlanto-Scandian Herring (Condition: 1.2.2, raised through the MSC harmonisation process with other CABs)

A condition of acceptance for achieving MSC certification for the Atlanto-Scandian purse seine and pelagic trawl herring fishery is that the client group will work to secure available evidence that indicates that the management tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules for the Atlanto-Scandian Herring fishery.

The Client group has agreed to formulate an action plan describing new initiatives and the continuation of ongoing activities in securing available evidence that indicates that the management tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules for the Atlanto-Scandian Herring fishery.

Although no formal agreement has been reached between all Coastal States on the management of the Atlanto-Scandian Herring fishery, it must be acknowledged that parties have made significant progress over the last year and negotiations are ongoing in November 2015.

The parties within the client group strongly believe in the principle of well-managed and sustainable fisheries and have demonstrated their commitment to that by re-entering their respective herring fisheries for assessment against MSC principles and criteria. All members of the client group have worked diligently to address conditions and recommendations placed on their respective fisheries and to date have made excellent progress. It's therefore hugely disappointing and disheartening through no fault of their own to be in a position where conditions of acceptance have been placed on their fisheries.

The parties are however committed to independent fisheries certification and between them have many additional fisheries accredited to MSC standard. Therefore, the parties believe that working jointly on the following plan is a real commitment to resolving the current herring management challenge and return to a framework of a Coastal States Agreement.

The client group views the plan as an adaptive process aiming at facilitating sustainable and science based management of the ASH stock.

The plan will be reviewed and revised following the end of the Coastal States quota and sharing negotiations for the following year. For 2016 negotiations are expected to be finalised by end of 2015. Should Coastal States not have resolved management issues by the end of the negotiations; the client group will review and revise the action plan. The plan is linked to the Corrective Action Plan submitted in May 2015.



#### **Milestones:**

#### Milestone year 1:

Make contact with representatives from other Coastal States, EU-Commission, NEAFC and ICES in order to secure information on management, fishing activities and scientific analysis in the respective states and transnational governing bodies. Encourage all parties to seek a joint solution within the framework of a management plan.

#### Action year 1:

During negotiations for 2016 TACs and sharing arrangements, arrange meetings with other UoCs in the fishery and European Commission to gather information and evidence.

Participate in ICES advice drafting group on widely distributed stocks and the ICES preparatory meetings for the stock benchmark in January 2016. Lobby all parties all parties in seeking a joint solution within the framework of a long term management plan.

#### Outcome year 1.

By March 2016, all Coastal States have formally agreed on management and sharing arrangements for 2016 and beyond.

#### Milestone year 2:

If the dispute is not resolved, continue to lobby and gather information.

Provide updated information on the management actions of Coastal States, EU-Commission, NEAFC and ICES in order to secure information on management, fishing activities and scientific analysis in the respective states and transnational governing bodies.

Demonstrate that discussions have taken place and progress has been made towards agreeing on a long-term management plan encompassing all relevant fishing nations.

#### Action year 2:

During negotiations for 2017 TACs and sharing arrangements, arrange meetings with other UoCs in the fishery and European Commission to gather information and evidence.

Participate in ICES advice drafting group on widely distributed stocks and the ICES benchmark in January 2016. Lobby all parties all parties in seeking a joint solution within the framework of a long term management plan.

**Outcome year 2:** By March 2017, all Coastal States have formally agreed on management and sharing arrangements for 2017 and beyond. Alternatively options for an "industry" level management arrangement have been analysed.

#### Milestone year 3:

If the dispute is not resolved, continue to lobby and gather information.

Provide updated information on the management actions of Coastal States, EU-Commission, NEAFC and ICES in order to secure information on management, fishing activities and scientific analysis in the respective states and transnational governing bodies.

Demonstrate that discussions have taken place and progress has been made towards agreeing on a long term management plan encompassing all relevant fishing nations.



#### Action year 3:

If no agreement has been reached, the client group will continue to further develop an industry level management arrangement. The work will be done in agreement with other UoCs and CABs.

Participate in ICES advice drafting group on widely distributed stocks.

#### Outcome year 3:

By March 2018, all Coastal States have formally agreed on management and sharing arrangements for 2018 and beyond. Alternatively the framework for an "industry" level management arrangement has been developed.

#### Milestone year 4:

Demonstrate that the effective coastal states cooperation/dispute resolution system is in place and operational. Alternatively, validate and implement the fleet-level plan, in agreement with other MSC UoCs and CABs.

#### Action year 4:

If no agreement has been reached, the client group together with other UoCs and CABs will implement the industry level management arrangement.

#### Outcome year 4:

By March 2019, all Coastal States have formally agreed on management and sharing arrangements for 2019 and beyond. Alternatively an "industry" level management arrangement has been agreed among UoCs and CABs and implemented.

Yours sincerely

Esben Sverdrup-Jensen

On behalf of Denmark: DPPO, Scotland: SPSG, The Netherlands, Germany, France, England, Lithuania: PFA, Sweden: SPFPO and Ireland: KFO

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## Appendix 4. Harmonisation P1 expedited audit – Timeline 2017 and 2018.

#### Harmonised Fisheries

Fishery	Principle	MSC status expire	САВ	stage
FaroesePelagicOrganization(FPO)Atlanto-Scandianherring	1 and 3	14 <sup>th</sup> Jun 2021	DNV	SA 2
ISF Norwegian & Icelandic herring trawl and seine	1 and 3	28 <sup>th</sup> May 2019	Acoura	SA 4
Norway spring spawning herring	1 and 3	29 <sup>th</sup> Jul 2019	DNV	SA 4
SPSG, DPPO, PFA, SPFPO & KFO Atlanto-Scandian purse seine and pelagic trawl herring	1 and 3	02 <sup>nd</sup> Jan 2021	MEC	SA 2

#### Timeline of harmonisation:

Date	Event	CAB action
29 <sup>th</sup> September 2017	The perception of the stock has not changed since last year's assessment	None required
30 <sup>th</sup> October 2017	ICES release version 2 of the NSSH advice for 2017, with a downwards revision of SSB and catch advice for 2018	CABs made aware of new advice by MSC on 9 <sup>th</sup> November 2017 and begin arrangements for Harmonisation and discussions of need to expedite assessment.
1 <sup>st</sup> December 2017	CABs formal discussions on expedited audit	CABs agree that the outcome of the CS meeting on 7 <sup>th</sup> Dec is paramount to P1 scoring. MSC advised of meeting and decision via email to E. Mcgregor.
7 <sup>th</sup> December 2017	Coastal states meeting and sharing arrangements take place	CABs await feedback from the CS meetings to understand the management actions taken to change in stock status. Advised there may be request for reference point review.
11 <sup>th</sup> December 2017	The EU Fisheries Council meeting took place on the 11th December 2017.	EU TACs for 2018.
20 <sup>th</sup> December 2017	CAB harmonisation discussion	<ul> <li>CABs agree:</li> <li>1. It is necessary to carry out an expedited audit for our MSC-Certified Atlanto-Scandian / Norwegian Spring Spawning herring fisheries.</li> <li>2. The expedited audit should be harmonised between the four certified fisheries in terms of both its timescale and outcome.</li> <li>3. With regard to timescale, we agreed provisionally that:-</li> <li>a. We will hold a further Skype meeting on 10th January 2018 at 1400GMT to agree the logistics for the audit.</li> <li>b. We will aim to announce the expedited audit on the 16th January 2018, with the audit taking place 30 days later.</li> <li>c. We will conduct the audit remotely (there is no advantage to be gained from a site visit).</li> </ul>



Date	Event	CAB action
		<ul> <li>d. We will coordinate the surveillance audit report so that the findings are identical for each fishery.</li> <li>e. We will submit our surveillance report to our clients as early as possible in the surveillance timetable to give them as much time as possible to formulate their client action plan.</li> </ul>
21 <sup>st</sup> December 2017	CABs advice MSC and Clients of the need to expedite and begin contract talks.	See Appendix 3a below
10 <sup>th</sup> January 2018	Harmonisation of Announcements and site visits	See appendix 3b below, joint CAB statement sent to clients and MSC 12 <sup>th</sup> January 2018.
15 <sup>th</sup> February 2018	All CABs announce expedited audit	See relevant fisheries pages on MSC website.
21 <sup>st</sup> March to 4 <sup>th</sup> April 2018	CABs hold independent site visits	
10 <sup>th</sup> April 2018	CABs hold joint P1 scoring meeting.	Joint statement made by CABs to MSC clients and stakeholders appendix 3c
26 <sup>th</sup> April 2018	ICES release - Coastal States request for ICES to re-evaluate the reference points for Norwegian spring-spawning herring	
27 <sup>th</sup> April 2018	CAB P1 scoring meeting based on new ICES advice	



#### Appendix 3a

#### Joint statement to MSC and clients 20th Dec 2017

Dear <Client / MSC>

I am writing in connection with your/the MSC-certified <XXXX> fishery/ies. There have been some recent changes in the perception of stock status and the management response to these changes which mean that <name of CAB> now need to carry out an "expedited audit" of the fishery during the early part of 2018. I have set out some background to this below.

In late October 2017 ICES issued revised advice on the status of the Atlanto-Scandian / Norwegian Spring Spawning herring stock (Clupea harengus in subareas 1, 2, and 5, and in divisions 4.a and 14.a). This advice indicated that the current perception of the stock is that the Spawning Stock Biomass (SSB) is below the target reference point set out in the management plan.

On 7th December 2017, a meeting of the Coastal States responsible for management of the stock took place. The EU Fisheries Council meeting took place on the 11<sup>th</sup> December 2017.

The three Conformity Assessment Bodies (CABs) for the four MSC-certified Atlanto-Scandian / Norwegian Spring Spawning herring fisheries held two harmonisation discussions during December 2017 (these CABs are MEC, Acoura Marine and DNV). The first discussion took place before the management meetings had been completed and focussed on the current perception of stock status. At the second discussion on the 20<sup>th</sup> December the CABs had available to them the outcome of the Coastal States meeting and the EU Fisheries Council meeting as well as the most recent ICES advice.

The three CABs unanimously agreed on the 20<sup>th</sup> December that the management response during December to the most recent ICES advice may constitute what the MSC consider is a "major change" in the circumstances of the four certified fisheries which together with the response by the Coastal states to the change in stock perception triggered the need for an "expedited audit". The three CABs concluded that an "expedited audit" would therefore be required. This expedited audit would examine whether or not the change in the fishery and the response by the Coastal states to this change would affect the scoring and ongoing certification of the four fisheries.

The CABs have agreed to work closely together to harmonise the expedited audit. We have agreed that our first step will be to inform the client fisheries and the MSC of the decision to trigger the procedure for an expedited audit. We will hold a further discussion in early January 2018 to harmonise the announcement of the expedited audits and to harmonise the timetable for conducting these audits.

We appreciate that you may have some queries about this matter. Please do not hesitate to contact me if you wish to discuss this further.



#### Appendix 3b

#### CAB joint statement 12<sup>th</sup> January 18 – NSSH / ASH stock.

Following the changes in the perception of NSSH stock status<sup>1</sup> and the management response to these changes<sup>2</sup>, the three Conformity Assessment Bodies (CABs) for the four MSC-certified Atlanto-Scandian / Norwegian Spring Spawning herring fisheries held two harmonisation discussions during December 2017 and another in January 2018 (these CABs are MEC, Acoura Marine and DNV-GL). These harmonisation discussions are required by the MSC.

The first discussion in December took place before the management meetings had been completed and focussed on the revised perception of stock status. During the second discussion on the 20<sup>th</sup> December the CABs discussed the outcome of the Coastal States meeting and the EU Fisheries Council meeting. Between the 20<sup>th</sup> December and 10<sup>th</sup> January the CABs communicated with their clients highlighting the possible need for expedited assessment of Principle 1 and providing the clients with a chance to respond.

At the discussion on the 10<sup>th</sup> January 2018, the three CABs reviewed the stock assessment and the management response, and considered the feedback that they had each received from their clients. It was unanimously agreed that the combination of the revised perception of stock status (SSB below MSYBtrigger) coupled with the management response during December to the most recent ICES advice constituted a "major change" in the circumstances of the four certified fisheries. This is on the basis that TACs for 2018 were set by the Coastal States above the level indicated by the agreed management plan and above the level recommended in ICES advice for this stock in 2018.

The three CABs concluded that an "expedited surveillance audit" would therefore be required for each of these fisheries. This audit will examine whether or not the change in the perceived status of the stock and the response by the Coastal states to this change will affect the scoring and possibly the ongoing certification of the four fisheries.

The CABs have agreed to work closely together to harmonise the expedited audit. It is the intention of the CABs to now organise contracts with clients and assessors and we expect to announce expedited audits by the middle of February 2018.

<sup>&</sup>lt;sup>1</sup> ICES. 2017. 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). Pages 1–9. ICES, Copenhagen. <u>http://ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/her.27.1-24a514a.pdf</u>.

<sup>&</sup>lt;sup>2</sup> Agreed Record of conclusions of fisheries consultations between the Russian Federation, the European Union the Faroe Islands, Iceland and Norway on the management of the Norwegian Spring-Spawning (Atlanto-Scandian) herring stock in the North-East Atlantic in 2018. Copenhagen, 7<sup>th</sup> December 2017.



#### Appendix 3c

#### CAB joint statement 10 April 2018 – NSSH / ASH stock.

Following the changes in the perception of NSSH stock status<sup>3</sup> and the management response to these changes, the three Conformity Assessment Bodies (CABs) for the four MSC-certified Atlanto-Scandian / Norwegian Spring Spawning herring fisheries met to discuss a harmonised scoring approach on 10<sup>th</sup> April 2018. This meeting was convened following the announcement of the expedited audits for Principle 1 for all four certificates on the 15<sup>th</sup> February 2018.

However, since the expedited audit announcements there have been two important developments in relation to the stock.

Firstly, ICES announced that there would be a workshop on the determination of reference points for Norwegian Spring Spawning Herring (WKNSSHREF) on the  $10^{th} - 11^{th}$  April with the release of the advice and workshop report on the 25<sup>th</sup> April 2018.

Secondly, in response to WKNSSHREF the Coastal States will meet on the 14<sup>th</sup> May 2018 to produce new HCRs and send them to ICES for evaluation.

Based on these developments, the CABs concluded that scoring the fishery based on the information available to date ( $10^{th}$  April) would result in scores which could likely change by the time of the expedited audit report publication ( $15^{th}$  May at the latest), and therefore resolved to reconvene the scoring meeting after the release of the ICES report. This aligns with MSC FCR 2.0 7.23.22.1b and guidance G7.23.22.1 regarding the avoidance of unnecessary expedited audits for temporary changes in status and when stock models are not fully validated. The CABs note that as this is an autumn winter fishery this delay has no implications on the 2018 – 2019 fishing season.

Should the advice from ICES released on 25<sup>th</sup> April 2018 not result in any meaningful change in stock reference points against current stock status, the fishery will be scored by the CABs at a meeting on the 27<sup>th</sup> April 2018. If there is a significant change in the reference points resultant from the workshop, then the CABs may be required to consider whether there is a need to wait on the outcome of the Coastal States agreement on 14<sup>th</sup> May before scoring. If this second option is taken a further joint statement will be provided by the CABs as well as a request for a short extension to the May 15<sup>th</sup> 2018 deadline.

The CABs agreed that the outcome of the Coastal States meeting on 14<sup>th</sup> May 2018 would be considered the cut off point for this expedited audit and no new information for scoring would be included beyond this time.

<sup>&</sup>lt;sup>3</sup> ICES. 2017. 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). Pages 1–9. ICES, Copenhagen. <u>http://ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/her.27.1-24a514a.pdf</u>.