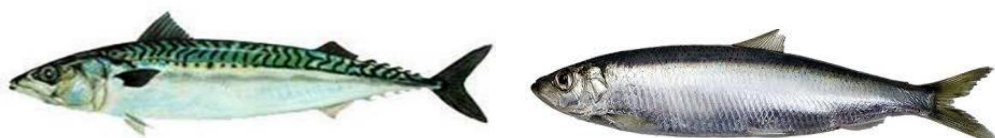


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Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea-Atlantic mackerel & North Sea herring (North Sea herring component only)



Surveillance Report

Conformity Assessment Body (CAB)	Lloyd's Register
Assessment team	Andy Hough, John Nichols, Geir Honneland
Fishery client	Northern Ireland Pelagic Sustainability Group
Assessment Type	Third Surveillance



Assessment Data Sheet

Fishery name	Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea-Atlantic mackerel & North Sea herring	
Species and Stock	Northeast Atlantic mackerel (<i>Scomber scombrus</i>) North Sea herring (<i>Clupea harengus</i>)	
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Executive Summary

1. This is the 3rd annual surveillance audit for this fishery. This fishery was initially comprised North Sea herring and NEA mackerel UoCs. The mackerel UoC is currently suspended.
2. Following harmonisation discussions, a new condition of certification has been raised on the North Sea herring UoA at this surveillance audit. This condition is in response to a change in the perception of stock status and the relationship between the harvest control rules and the TAC for this fishery. The condition aims to restore this relationship such that the annual TAC is set at a level that it consistent with the harvest control rules and that these HCRs are appropriate for the stock. Being a harmonised condition, the timeframe is also harmonised, with completion expected in 2022.
3. This audit was carried out to review progress with the condition of certification and identify whether any changes have occurred that would have a material effect on ongoing certification of the fishery. The audit was conducted off-site in February 2020 in accordance with the original surveillance program.
4. The audit was conducted by a team of three expert assessors from Lloyd's Register. The audit team was provided with information by the client group during a conference call held on 10 February 2020.
5. No other changes in the status of the fishery were identified that would have a material impact on the scoring of any other Performance Indicators.
6. We conclude that the fishery meets the requirements of the MSC Standard, and that MSC Certification should continue with annual audits according to the original surveillance schedule.

UoC 2

Species	Herring (<i>Clupea harengus</i>)
Stock	Autumn spawning stock in North Sea and Eastern Channel
Geographical area	ICES divisions IV and VIId
Harvest method	Mid-water Pelagic Trawl
Management System	Cooperative management between EU member states and Norway, advised by ICES
Client Group	NIPSG
Other Eligible fishers	Member of NIPSG and any other UK Producer Organisations, fisheries organisations, or individual fishers who have not yet signed the Certification sharing mechanism

1 Report Details

1.1 Surveillance information

Table 1. Surveillance Information

1	Fishery name	
	Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea-Atlantic mackerel & North Sea herring. Only the herring UoC is covered under this surveillance as the mackerel UoC is suspended.	
2	Surveillance level and type	
	Surveillance level 3, off-site surveillance (FCP v2.1 7.28.1 – 7.28.6)	
3	Surveillance number	
	3rd Surveillance	x
4	Proposed team leader	
	<p>MSC Principle 2 - Andrew (Andy) Hough</p> <p>Andrew Hough has been active in the development of Marine Stewardship Council certification since 1997, when involved in the pre-assessment of the Thames herring fishery. He was a founding Director of Moody Marine, led the establishment of Moody Marine fishery certification systems and has represented Moody Marine at all MSC workshops until 2011. He has also worked with MSC on several specific development projects, including those concerned with the certification of small scale/data deficient fisheries.</p> <p>He has been Lead Assessor (and often also expert team member) on many fishery assessments to date. This has included Groundfish (e.g. cod, haddock, pollock, hoki, hake, flatfish), Pelagics (e.g. tuna species, herring, mackerel, sprat, krill, sardine) and shellfish (molluscs and crustacea); included evaluation of the environmental effects of all main gear types and considered many fishery administrations including the North Atlantic, South Atlantic, Pacific, Southern Ocean and in Europe, North America, Australia and New Zealand, Japan, China, Vietnam and Pacific Islands. He has recently acted solely as an expert team member of Principle 2 inputs of European inshore fisheries and Falkland Islands Toothfish.</p> <p>He has carried out peer reviews for various CABs including fisheries for molluscs, crustacea and freshwater finfish. Other assessments include Chain of Custody assessments for merchants, processors, distributors and retailers.</p> <p>Andrew has also been involved in the development of certification schemes for individual vessels (Responsible Fishing Scheme) and evaluation of the Marine Aquarium Council standards for trade in ornamental aquarium marine species.</p> <p>Consultancy services have included policy advice to the Association of Sustainable Fisheries, particularly with regard to the implications of MSC standard development, and assistance to fisheries preparing for, or engaged in, MSC assessment.</p> <p>Andy has passed MSC training and has no Conflict of Interest in relation to this fishery. Andy has completed the MSC RBF training in the past 3 years. Full CV available upon request</p>	

Team Leader Experience	Andy has acted as Team Leader on a number of MSC fisheries assessments. Andy holds the necessary qualifications to meet the MSC requirements for TL.
5	Proposed team members
	<p>MSC Principle 1 – John Nichols</p> <p>Mr John Nichols is a retired UK government fisheries biologist with 42 years research experience in plankton ecosystems in the North Atlantic specializing in the taxonomy of North Atlantic & NW European plankton including phytoplankton, micro and meso-plankton, ichthyoplankton and young fish. He has been a member of ICES working groups on herring, mackerel, horse mackerel, sardine and anchovy assessments; and mackerel and horse mackerel egg surveys. He was also a member of ICES study groups on herring larval surveys and plankton sampling.</p> <p>He was scientist in charge of numerous research vessel surveys for fish stock assessment purposes and directly involved in the assessment of pelagic and western demersal fish stocks from 1994 to 2000.</p> <p>He has been involved in the publication of over fifty scientific papers and reports more than half of which have been in peer reviewed journals, and the publication of two fish egg and larvae identification keys.</p> <p>Since retirement from his government post he has participated in more than 27 different fisheries MSC assessments as the Principle 1 expert plus the re-assessments of many of those fisheries Those assessments include the Thames estuary herring, PFA North Sea Herring, NEA mackerel and Atlanto-Scandian herring, Hastings Fleet Dover sole, the north –east coast of England bass fishery, the SW mackerel hand line fishery, Portuguese sardine, a Newfoundland herring fishery, Canadian Pacific sablefish, various Norwegian and Swedish pelagic fisheries, Faroese and Norwegian saithe fisheries, Faroese, Russian and Norwegian Arctic cod and haddock fisheries and a North Sea plaice and sole fishery,. He has also been a peer reviewer for numerous MSC certification reports by various Certification bodies and has also carried out two MSC pre-assessments and numerous annual audits.</p> <p>In 2010 he delivered a lecture on 'The Importance of a Fisheries Interaction with the Ecosystem in the MSC Certification Process' at an international Safe Seas conference in Portugal.</p> <p>In 2014 he successfully completed the four module MSC online training course, passed the exam and was certified in the role of an MSC Fishery Assessment Team Leader.</p> <p>Elected as a Fellow of the Society of Biology in July 2014.</p> <p>John has passed MSC training and has no Conflict of Interest in relation to this fishery. Full CV available upon request</p> <p>MSC Principle 3 - Geir Hønneland</p> <p>Geir Hønneland holds a PhD in political science from the University of Oslo (2000) and has studied international fisheries management (with main emphasis on enforcement and compliance issues), international environmental politics and international politics in Polar regions. He has been affiliated with the Fridtjof Nansen Institute in Oslo for more than 20 years and has acted as director since 2015. Among his fisheries-related books are Making Fishery Agreements Work (Edward Elgar, 2012; China Ocean Press, 2016), Law and Politics in Ocean Governance: the UN Fish Stocks Agreement and Regional Fisheries Management Regimes (Martinus Nijhoff, 2006), Russian Fisheries Management: The Precautionary Approach in Theory and Practice (Martinus Nijhoff, 2004) and Coercive and Discursive Compliance Mechanisms in the Management of Natural Resources (Kluwer, 2000; Springer, 2014). Before embarking on an academic career, he worked five years for the Norwegian Coast Guard, where he was trained and certified as a fisheries inspector. Geir has been involved in MSC assessments since 2009 and has acted as P3 expert in more than 30 full assessments and re-assessments, as well as a number of pre-assessments and surveillance audits. His experience from full assessments includes a large number of demersal, pelagic and industrial fisheries in the Northeast Atlantic and Southern Ocean, as well as inland fisheries. In the Northeast Atlantic, he has covered the international management regimes in the Barents Sea, Norwegian Sea, North Sea, Skagerrak, Kattegat and the Baltic Sea, as well as national management regimes in Norway, Sweden, Denmark, Russia, Iceland, Faroe Islands, Greenland and Scotland, as well as the EU level and the enforcement component of other EU countries, such as Germany, Netherlands and the UK.</p>

	Geir has passed MSC training and has no Conflict of Interest in relation to this fishery. Full CV available upon request
Local Context	English is the official language of Northern Ireland Each of Andy, Geir and John have had assignments in the region in the last 10 years.
Traceability	Andy has completed the MSC traceability module in the last five years and Geir has completed the MSC traceability module in the last year.
RBF	Andy has completed the RBF training in the last five years.
6	Audit/review time and location
	The offsite audit will take place on 10 th February 2020, via conference calls as appropriate.
7	Assessment and review activities
	All relevant data.

1.2 Background

1.2.1 Changes in management system

Although there have been significant political changes, notably the re-establishment of a power-sharing assembly in Northern Ireland, there have not been material differences to the management of the NIPSG vessels participating in the North Sea herring fishery.

Future trading arrangements between the UK and EU are currently under negotiation. For NIPSG, the outcomes of these will be influenced by the Northern Ireland Protocol – while Northern Ireland will remain part of the customs territory of the UK, customs checks and controls will apply for goods moving from Great Britain to Northern Ireland. This is to ensure that no customs checks or controls would be required between Northern Ireland and the Republic

Further detail on the UK-EU negotiations should be available at the next surveillance audit.

1.2.2 Changes in relevant regulations

No changes are relevant.

1.2.3 Changes to personnel involved in science, management or industry

There have been no changes directly affecting the fishery.

1.2.4 Changes to scientific base of information, including stock assessments

The total catch of herring in Divisions 4a,b,c and 7d in 2018 was 603,536t an increase of 105,099t compared to the total catch in 2017 (ICES 2019a, Figure 1). The catch in the Human consumption fishery (A fleet) against which the annual TAC is set, was 602,328t which was a slight overshoot of 1,650t the TAC for the human consumption fishery of 600,588t. This marginal overshoot of the TAC has been an ongoing trend over recent years (ICES, 2019a).

The Downs component of the stock (southern North Sea and Eastern English Channel) has a sub-area TAC to provide added protection to this vulnerable spawning component. The catches in the sub-area in 2018 was 45,500t against the sub-area TAC of 66,000t. This was attributable to the additional protection measure, for this component, which permits up to 50% of the sub-area TAC to be taken in Division 4b (ICES, 2019b).

There have been no major changes in the wider fleets which target North Sea herring in recent years (ICES, 2019b).

After a substantial reduction in misreporting since 2009 this issue is now regarded as no more than a minor problem (ICES, 2019b).

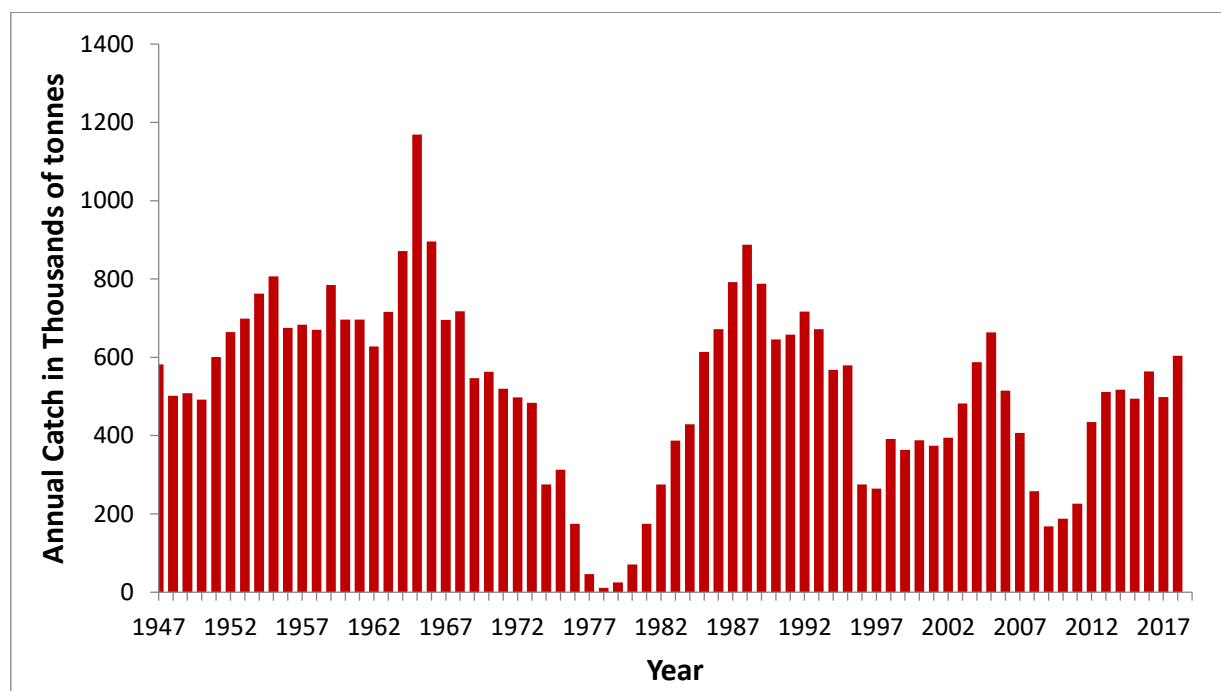


Figure 1. Annual catches of herring from Sub area 4 and divisions 3a and 7d (autumn spawners), over the period 1947 to 2018 (ICES, 2019a).

Fishing mortality

Annual fishing mortality in 2018, based on ages 2-6 winter ringers in the stock, was $F 0.21 (+ 0.27 - 0.163$: 95% probability, Figure 2). Fishing mortality has been consistently below F_{msy} (0.26) since 1996 and below F_{pa} (0.30) and F_{lim} (0.34) (ICES, 2019a).

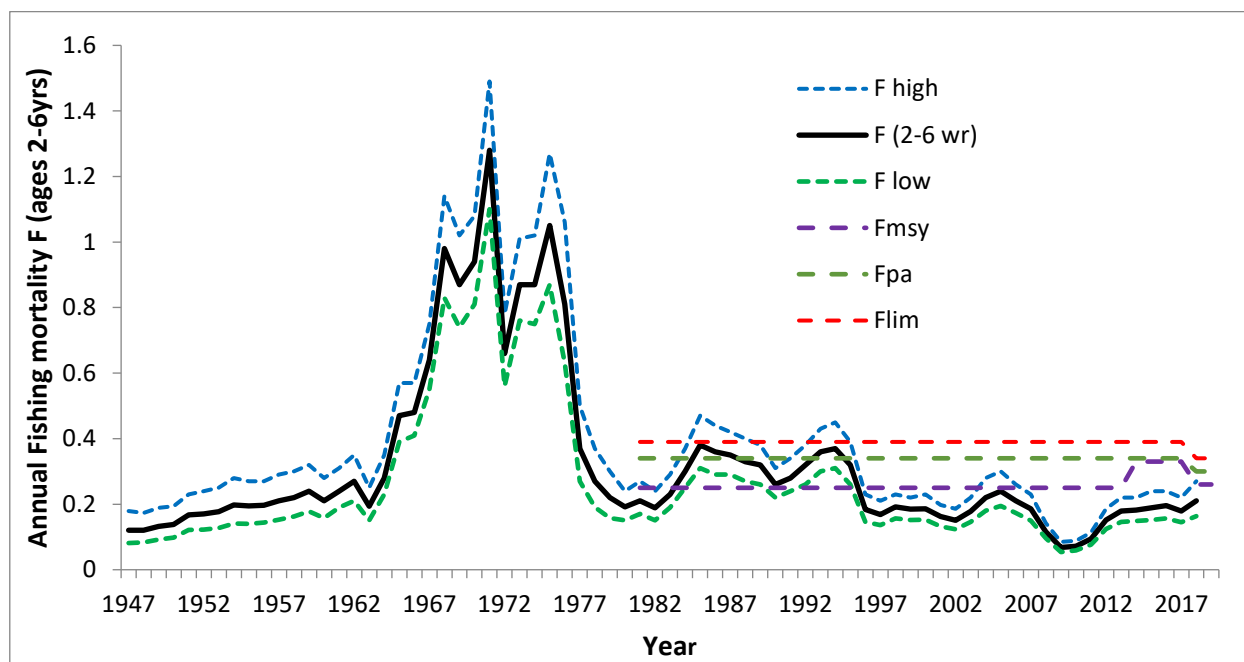


Figure 2. Annual fishing mortality on herring, ages 2-6yrs, from Sub area 4 and divisions 3a and 7d (autumn spawners), over the period 1947 to 2018. The annual fishing mortality limit, precautionary approach and MSY reference points are also shown. The high and low +/-95% confidence intervals are also shown (ICES, 2019a).

Status of the stock

After the collapse of the fishery in the 1970's the spawning stock recovered to above the biomass limit level by 1984. With the exception of a short period from 1993 to 1995, when the SSB dropped just below the biomass limit level, it has remained consistently above that level (Figure 3). Since 1994 it has been above the Bpa level (now 900,000t) and above MSY B trigger (now 1.4 million t) since 1998 (ICES, 2019a). It should be noted that reference points for MSY B trigger; Fmsy; Bpa; Flim and Fpa were all revised at the benchmark meeting on pelagic stocks (WKPELA) in February 2018 (ICES, 2018a). The revised reference points are all listed in the ICES advice sheet (ICES, 2019a) and can be compared with the previous values listed in the 2017 ICES advice sheet (ICES, 2017a)

Since 2012 the stock has been assessed using the State Space Assessment Model (FLSAM). The assessment is supported by a range of tuning indices which include acoustic surveys, bottom trawl surveys and herring larvae surveys (ICES, 2019b).

The SSB in 2018, estimated at spawning time in September, was 1,870,360t (+2,303,110t – 1,518,930t 95% probability). This is a decrease of 344,610t compared with the SSB estimate in 2017. SSB is predicted to have further decreased to 1.529 million tonnes at spawning time in September 2019. This is derived from the intermediate forecast, applying an exact biomass removed by each fleet. The 2018 assessment increased the estimate of SSB in 2016 by around 8% and the 2015 estimate of SSB by 12%. (ICES, 2018b) Table 2 below shows the estimates of SSB from 2015 to 2018 as estimates in the successive years. Where appropriate the predicted values for the following year are listed.

In their 2019 advice on the status of the stock ICES considers the stock to be in **Full Reproductive Capacity** and being **Harvested Sustainably** with fishing pressure in line with maximum sustainable yield with the stock above the MSY B trigger level of 1.4 million tonnes and well above the biomass limit level of 800,000t. (ICES, 2019a).

Table 2. Estimates of SSB from 2015 to 2018 as estimates in the successive years.

Assessment year	2016	2017	2018	2019
SSB 2015	1,803,068t	1,835,817t	2,059,980t	2,207,600t
SSB 2016	2,008,169**	2,178,180t	2,357,200t	2,596,510t
SSB 2017		2,033,511t**	1,886,840t	2,214,970t
SSB 2018			1,529,280**	1,870,360t
SSB 2019				1,529,000t**

** Predicted values

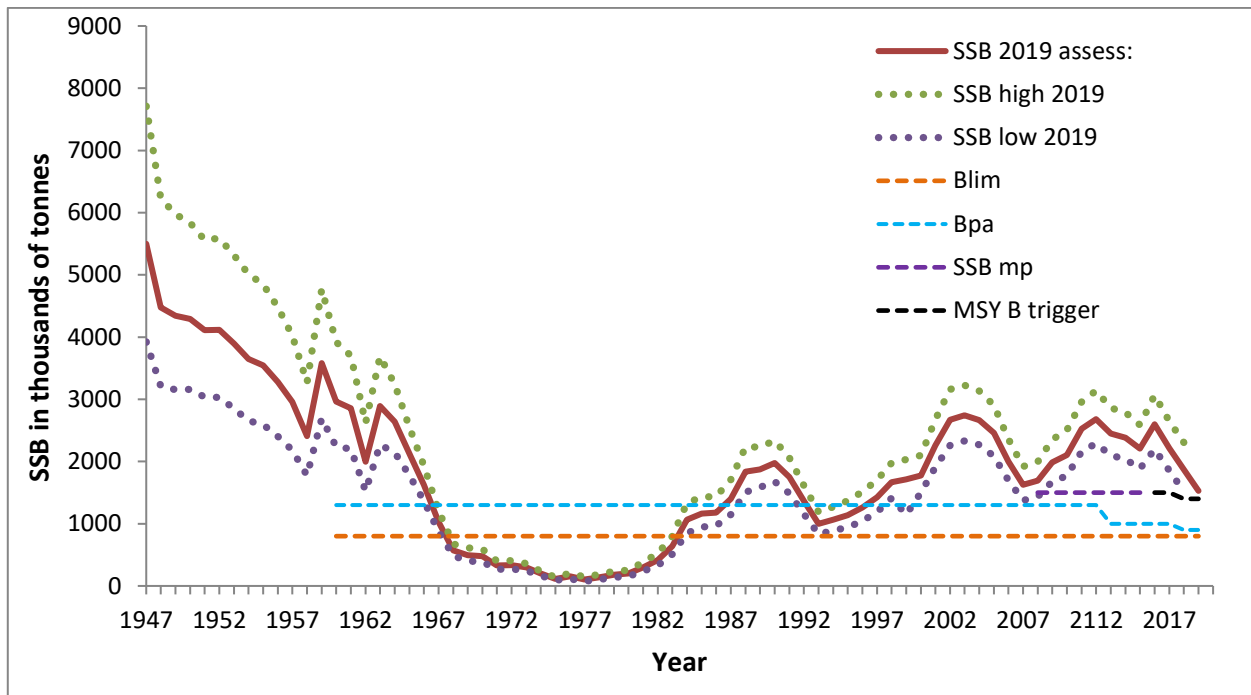


Figure 3. Annual estimates of Spawning Stock Biomass (SSB) of herring from Sub area 4 and divisions 3a and 7d (autumn spawners), over the period 1947 to 2018. The biological limit, precautionary approach and MSY B trigger reference points are also shown. The high and low +/-95% confidence intervals are also shown (ICES, 2019a).

Recruitment

Information on North Sea herring recruitment comes from estimates of the '0' winter ringers and '1' winter ringer abundance indices on the International Bottom Trawl Surveys (IBTS). The State Space assessment model (SAM) provides estimates of recruitment by incorporating these fishery independent estimates with information from the catches (ICES, 2019b).

Since 2003 recruitment at age '0' winter ringers, has been relatively low with the exception of the 2014 recruitment of the 2013-year class ('0' wr in 2014) This year class is estimated to be the strongest since 1999 although the five subsequent year classes are estimated to be considerably lower (Figure 4).

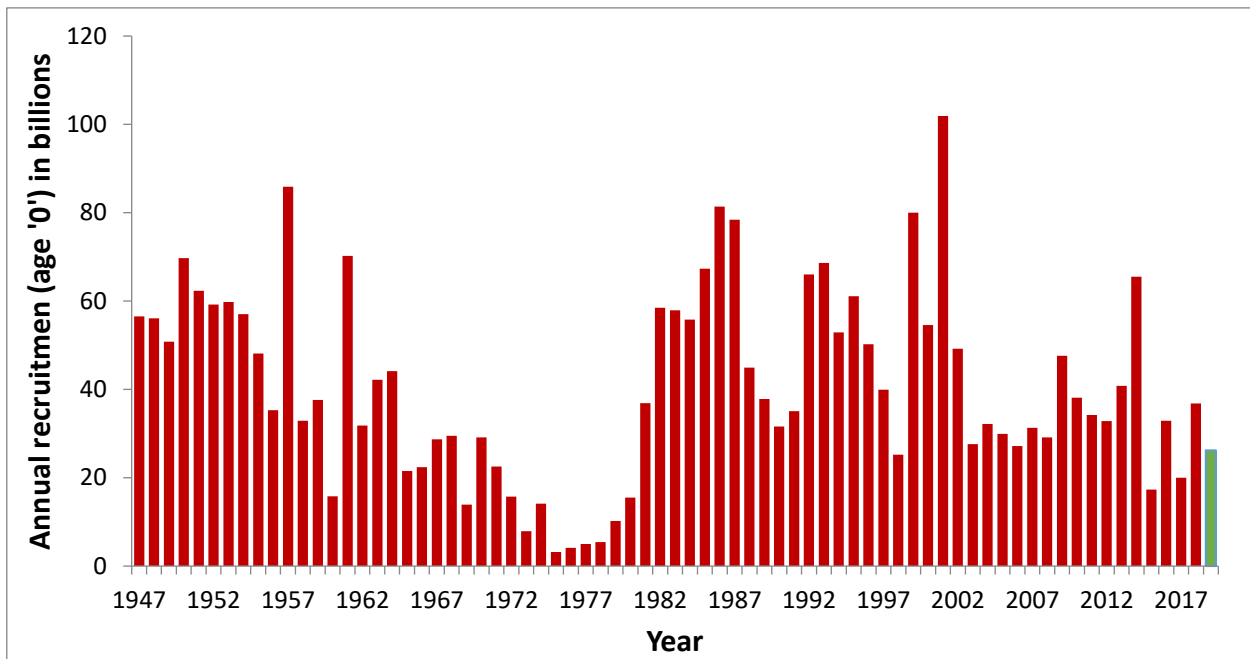


Figure 4. Annual recruitment of herring (age '0') in Sub area 4 and divisions 3a and 7d (autumn spawners), over the period 1947 to 2019. The 2019 value is predicted. The upper 95% confidence limit estimates are listed in the 2019 ICES advice sheet (ICES, 2019a).

Figure 5 shows the relationship between recruitment of '0' winter rings fish and the SSB in the year that they were spawned. It should be noted that a winter ring on the otolith is not laid down until their second winter. *For example '0' winter ring fish in 2019 were produced in the 2018 spawning.* With the exception of the poor recruitment at very low SSB the relationship is poor and cannot be used to predict annual recruitment for management purposes.

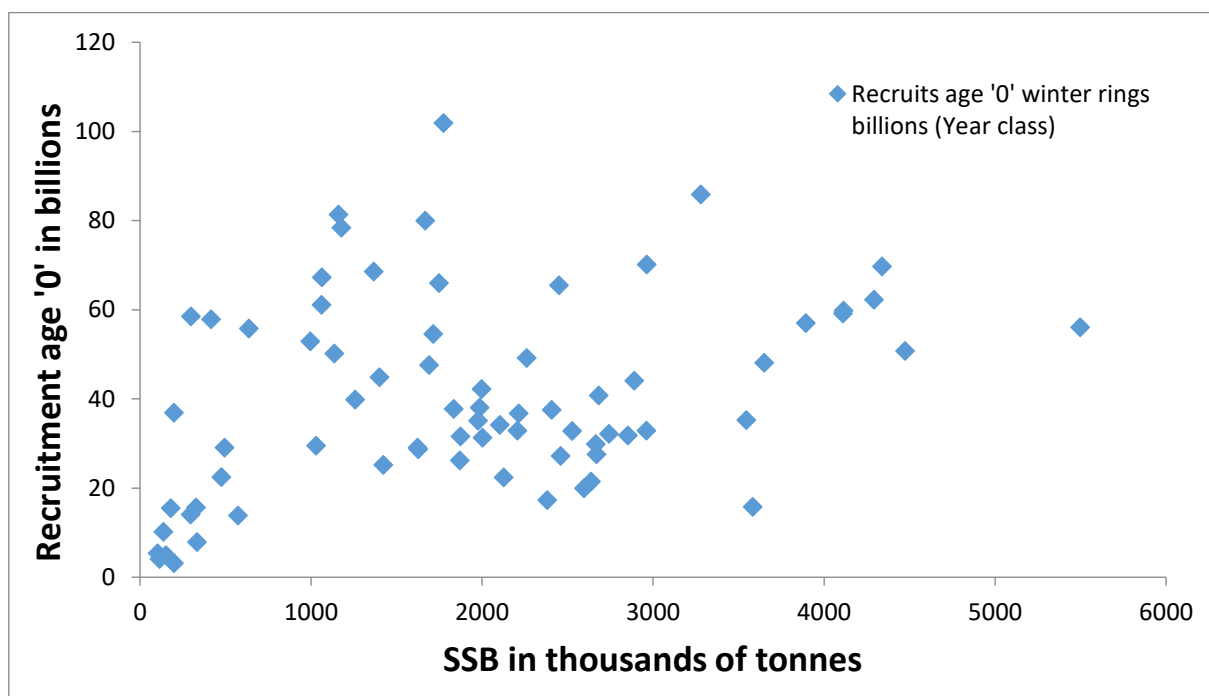


Figure 5. Recruitment in billions of fish at age '0' winter rings plotted against the spawning stock biomass which produced them.

ICES advice for the fishery.

The EU Norway set the TAC for the 2018 fishery of 600,588t. This was based on Fmsy predicted catch for the A fleet only rather than on the agreed management strategy (EU – Norway 2017) Anon, 2017) which would have generated a TAC of 517,891t.

Up to 2018 ICES provided advice based on the EU / Norway Long Term Management Strategy. However, For the 2019 fishery the management strategy was not agreed by both parties and as a consequence ICES has provided their advice based on the MSY approach.

Following the ICES MSY approach (A fleet F0.22) the total catch of North Sea autumn spawners in 2019 should be no more than 311,572t. This includes a catch of 291,040t for the A fleet and 20,532t for the B fleet. This would lead to an SSB at spawning time in 2019 of 1,162,495t and 1,156,221t at spawning time in 2020. This would represent a 17.2% reduction in the SSB in 2019 compared with 2018 and a 52% reduction in the advised TAC (ICES, 2018b).

ICES advised that if the European Union (EU)–Norway management strategy (A fleet F 0.195) had been applied, the total catch of North Sea autumn spawners in 2019 should be no more than 287,026t including 266,494t tonnes for the A-fleet on which the TAC is based. This would lead to an SSB at spawning time in 2019 of 1,178,944t and 1,185,543t at spawning time in 2020. This would represent a 16% reduction in the SSB in 2019 compared with 2018 and a 56% reduction in the advised TAC (ICES, 2018b).

The eventual agreed TAC for the 2019 fishery was 385,008t for the A fleet which is the value based on the precautionary approach fishing mortality (F_{pa}).3, A fleet only). The agreed TAC for the B fleet was 13,190t the basis for which is not clear in the ICES advice but appears to be linked in some unexplained way to the 2013 TAC.

The ICES advice for the fishery in 2020 (ICES, 2019a) is again based on the ICES MSY approach of F0.24 generating a total catch of North Sea autumn spawners of 431,062t. For the A fleet the predicted catch is 418,649t and a B fleet catch of 12,413t. EU documentation dated January 2020 suggests that the agreed TAC for the 2020 fishery is 385,000t i.e. the same as the agreed TAC for 2019 (https://ec.europa.eu/fisheries/cfp/fishing_rules/tacs_en) This predicted MSY catch of North Sea autumn spawners would lead to a predicted 16% reduction in SSB because of continued poor recruitment. In their advice ICES notes that the 38.4% increase in the advised catch is the result of the updated assessment of SSB related to the new acoustic survey results. They also note that there is still some uncertainty regarding this increased value which at present cannot be fully explained.

In line with the common practice over many years ICES has provided a wide range of alternative exploitation scenarios for consideration by the EU/Norway Delegates at their December 2019 meeting.

With exception of a closed fishery, all the exploitation scenarios provided by ICES are predicted to reduce the SSB in 2020 to below the revised MSY B trigger, Of 1,400,000t for the first time since 1997 (ICES, 2019a)

ICES also advised that, under precautionary considerations, activities that have an impact on the spawning habitat of herring should not occur, unless the effects of these activities have been assessed and shown not to be detrimental. Relevant references to reports in 2003 and 2015 are provided in the 2018 advice sheet (ICES, 2018b).

Assessment Team Conclusions and Concerns.

Whilst ICES considers the stock as currently being harvested sustainably in relation to fishing pressure and at full reproductive capacity, there are worrying signs in relation to the current and future stock trajectory.

The stock is currently experiencing a long period of low recruitment with only two above average year classes since 2003. These are the 2008-year class ('0' winter rings in 2009) and the 2013 year class ('0' winter rings in 2014) (ICES, 2019b).

The management of the fishery since 2012 has been based on a long-term management plan / strategy, which firmly links advised F to SSB. The realised fishing mortality since then has been below or close to F0.2, in line with the management strategy. From 2019 ICES has provided the advice based on their MSY approach rather than the management strategy. In 2017 catches in the A fleet, on which the TAC is based, exceeded the ICES advice by 40,000t and in 2018 by 86,000t. Clearly this level of over exploitation in relation to the ICES advice coupled with poor recruitment is contributing to the continuous decline in SSB. If this trend continues SSB is predicted to fall below the revised MSY B trigger level (1.4mt) by spawning time in 2020 (ICES, 2019a).

For clarification the 'A' fleet, generally described as the human consumption fishery, consists of catches taken in sub-area 4 and Division 7d.

The Total catch of North Sea autumn spawners consists of the 'A' fleet catch plus the small meshed industrial 'B' fleet catch plus autumn spawners taken in Division 3a.

The team has noted the comments of the Pelagic Advisory Council in their communication (7 October 2019) to the European Commission in relation to the TACs for 2020 and the general state of play of the Common Fisheries Policy, In relation to North Sea Autumn spawning herring in the North Sea and Division 3a they commented:

This is a key stock in EU fisheries and secures fishing opportunities for four different fisheries in the North Sea and in 3a. The Pelagic AC recommends that ICES provide scientific advice on the basis of a Long-Term Management Strategy (LTMS) that is in accordance with the CFP and the latest scientific advice. Ongoing work on developing a sustainable LTMS should be finalized as soon as possible. For 2020 TAC-setting, the Pelagic AC recommends taking into account the latest Management Strategy Evaluation (MSE) carried out by ICES in 2019, which found that the current ICES MSY-rule, with corresponding reference points, was not precautionary in the long term under the assumptions of the simulations. In view of the MSE results, and as the ICES advice for 2020 indicates a reduction in stock size in the coming years from 2021 onwards, the Pelagic AC recommends setting the TAC for 2020 on the basis of a F-value that is below the current ICES MSY-approach rule.

In the light of the ICES evaluation of current stock status, its predicted trajectory, the management measures since 2018 and the conclusions of the Pelagic Advisory Council (PELAC), the team has concluded that Performance indicator 1.2.2 should be re-evaluated and rescored (see Appendix 3.3)

1.2.5 Any developments or changes within the fishery which impact traceability or the ability to segregate between fish from the Unit of Certification (UoC) and fish from outside the UoC (non-certified fish)

No changes identified. The fleet currently forming the UoC comprises the Voyager N905, a large (87.5m) RSW pelagic trawler (which replaced, in September 2017, the previous Voyager N905 (75m) which formed part of the original assessment), and a pair team, the Havilah N200 and the Stefanie-M N265.

It is noted that vessels regularly land to ports in the EU and Norway, as reported in the original assessment. This is seen as a positive precedent prior to any future Brexit trade arrangements.

1.3 Version Details

Table 3. Fisheries program documents versions

Document	Version number
MSC Fisheries Certification Process	Version 2.1
MSC Fisheries Standard	Version 1.3
MSC General Certification Requirements	Version 2.4.1
MSC Surveillance Reporting Template	Version 2.01

2 Results

2.1 Surveillance results overview

PI 1.2.2 has been rescored, as set out below. The effect on Principle 1 scoring is as follows:

Prin- ciple	Wt (L1)	Component	Wt (L2)	PI No.	Performance Indicator (PI)	Wt (L3)	Weight in			Score
						<u>Either</u>		<u>Or</u>		
One	1	Outcome	0.5	1.1.1	Stock status	0.5	0.25	0.333	0.1667	100
				1.1.2	Reference points	0.5	0.25	0.333	0.1667	100
				1.1.3	Stock rebuilding			0.333	0.1667	
		Management	0.5	1.2.1	Harvest strategy	0.25	0.125			100
				1.2.	Harvest control rules & tools	0.25	0.125			65
				1.2.	Information & monitoring	0.25	0.125			90
				1.2.	Assessment of stock status	0.25	0.125			100

The overall Principle 1 score is now 94.4.

2.1.1 Summary of conditions

North Sea Herring Only

Table 4 Summary of conditions

Condition number	Condition	Performance Indicator (PI)	Status	PI original score	PI revised score
1 NEW	Well defined HCRs should be in place that ensure that the exploitation rate is reduced as the PRI is approached and that are expected to keep the stock fluctuating around a target level consistent with (or above) MSY. Evidence should be provided to demonstrate that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.	PI 1.2.2	New	80	65

2.1.2 Total Allowable Catch (TAC) and catch data

Table 5. Total Allowable Catch (TAC) and catch data – North Sea Herring

TAC	Year	2019	Amount	385,008 t
UoA share of TAC	Year	2019	Amount	5,218 t

UoC share of total TAC	Year	2019	Amount	5,706 t*
Total green weight catch by UoC	Year (most recent)	2019	Amount	5,985 t**
Total green weight catch by UoC	Year (second most recent)	2018	Amount	9,051 t

Note: * The figure 5,218 t is the original quota for the group, this has been increased to 5,706 t by allowed quota swaps to date, further swaps and an allowed borrowing of 38 t from the next TAC will account for the catch of 5,985 t

2.1.3 Recommendations

None

2.2 Conditions

One condition has been raised, as a result of the surveillance audit and subsequent harmonisation meetings, in relation to Principle 1:

Table 6. Condition 1: North Sea Herring

Performance Indicator	<p>PI 1.2.2 – There are well defined and effective harvest control rules in place</p> <p>SI a. Well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY</p> <p>SI c. Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.</p>
Score	65
Justification	See rationale for re-scoring SI a and c in section 0 below.
Condition	By 2024, well defined HCRs should be in place that ensure that the exploitation rate is reduced as the PRI is approached and that are expected to keep the stock fluctuating around a target level consistent with (or above) MSY. Evidence should be provided to demonstrate that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.
Milestones	<p>Note: This condition was raised in the third year of the current certification cycle for this fishery. Also, this is a harmonised condition with other fisheries and so is to be completed according to the harmonised timescale. Even with perfect implementation of the client action plans for each fishery, the achievement of the SG80 level of performance is likely to take longer than the period remaining in the respective certification periods. These represent 'exceptional circumstances' (FCR 7.11.1.3). The CABs have therefore agreed on a series of milestones that extend beyond this period of certification, concluding with a final milestone in 2024.</p> <p>Year 1: 2021. Lobbying, and/or other actions, should be carried out by NIPSG and/or associated organisations to promote the development and implementation of HCRs that ensure that the exploitation rate is reduced as the PRI is approached and that are expected to keep the stock fluctuating around a target level consistent with MSY. Also, for tools which</p>

	<p>are appropriate and effective in achieving the exploitation levels required under the harvest control rules.</p> <p>Expected score = 65</p> <p>Year 2: 2022. Lobbying, and/or other actions, should be carried out by NIPSG and/or associated organisations to promote the development and implementation of HCRs that ensure that the exploitation rate is reduced as the PRI is approached and that are expected to keep the stock fluctuating around a target level consistent with MSY. Also, for tools which are appropriate and effective in achieving the exploitation levels required under the harvest control rules.</p> <p>Expected score = 65</p> <p>Year 3: 2023. Lobbying, and/or other actions, should be carried out by NIPSG and/or associated organisations to promote the development and implementation of HCRs that ensure that the exploitation rate is reduced as the PRI is approached and that are expected to keep the stock fluctuating around a target level consistent with MSY. Also, for tools which are appropriate and effective in achieving the exploitation levels required under the harvest control rules.</p> <p>Expected score = 65</p> <p>Year 4: 2024. Evidence should be provided that HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached and that are expected to keep the stock fluctuating around a target level consistent with MSY. Evidence should also be provided to show that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.</p> <p>Expected score = 80.</p>
Client Action Plan	<p>Introduction</p> <p>In June 2018, EU and Norway met to discuss long term management strategies for the jointly managed stocks, including North Sea herring. An advice request was drafted and sent to ICES seeking options for revised long-term management strategies, including North Sea herring. The key component embedded in the long term-management strategy will be a precautionary harvest control rule. On receiving the request, ICES notified EU and Norway that given the extensive scope of work involved the advice could not be delivered before the first quarter of 2019. EU and Norway accepted this timeframe.</p> <p>In the meantime, the parties informed ICES to provide the 2019 TAC advice based on MSY principles.</p> <p>During 2019 EU and Norway were not able to conclude an agreement on a long-term management strategy for North Sea herring and decided to roll over the 2019 TAC level into 2020; 11% below the ICES 2020 TAC advice, based on MSY. At the same time EU and Norway agreed to set up a working group with the aim to agree on a long-term management strategy for North Sea herring before September 2020 and to apply this strategy to the TAC setting for 2021.</p> <p>Year 1 (2021): Evidence shall be presented to demonstrate that:</p> <p>a) Progress is being made to establish well-defined Harvest Control Rules for this stock that are consistent with the harvest strategy and which will ensure that exploitation rate is reduced as limit reference points are approached.</p>

b) Harvest control tools are being used to restore fishing mortality to a level that is consistent with the value determined by the harvest control rules in place.

Working with other industry representatives, the NIPSG will lobby the EU Commission, North Sea Member States and the UK, once the UK is an independent coastal state, to set the 2021 TAC based on the harvest control rule in place at the time the TAC is determined.

We support the work of industry scientists who have participated in the ICES workshop drafting the options for a new long-term management strategy. They have attended as herring experts and full members of the ICES Herring Assessment Working Group. The industry scientists are nominated by their respective national ICES delegates, or invited by the relevant Chair in consultation with the national delegates of the industry affiliated scientist country. Industry representatives will attend the EU/Norway meeting considering the ICES LTMS options. Industry scientists will participate in the Herring Assessment Working Group (HAWG), working on the North Sea herring assessment.

Industry representatives will attend the ICES Baltic Ecoregion Advice Drafting Group (BSADG). For clarity, within the ICES system the representatives have observer status at ADG's, the industry representatives are policy people and not the industry affiliated scientists. This ADG drafts the herring advice for both the North Sea and Skagerrak, Kattegat and Western Baltic herring stocks, given there is distribution overlap.

Year 2 (2022): Evidence shall be presented to demonstrate that:

a) Progress is being made to establish well-defined Harvest Control Rules for this stock that are consistent with the harvest strategy and which will ensure that exploitation rate is reduced as limit reference points are approached.

b) Harvest control tools are being used to restore fishing mortality to a level that is consistent with the value determined by the harvest control rules in place.

NIPSG representatives will continue to lobby the EU Commission, North Sea Member States and the UK, once the UK is an independent coastal state, to set the 2022 TAC based on the harvest control rule in place at the time the TAC is determined.

We will continue to support industry scientists who participate in HAWG and liaise with representatives who continue to attend the BSADG.

Year 3 (2023): Evidence shall be presented to demonstrate that:

a) Progress is being made to establish well-defined Harvest Control Rules for this stock that are consistent with the harvest strategy and which will ensure that exploitation rate is reduced as limit reference points are approached.

b) Harvest control tools are being used to restore fishing mortality to a level that is consistent with the value determined by the harvest control rules in place.

NIPSG representatives will continue to lobby the EU Commission, North Sea Member States and the UK, once the UK is an independent coastal state, to set the 2023 TAC based on the harvest control rule in place at the time the TAC is determined.

		<p>We will continue to support industry scientists who continue to participate in HAWG and the representatives will continue to attend the BSADG.</p> <p>Year 4 (2024): Evidence shall be presented to demonstrate that:</p> <ul style="list-style-type: none"> a) Well defined harvest control rules are in place that are consistent with the harvest strategy and which will ensure that exploitation rate is reduced as limit reference points are approached. b) The harvest control tools are appropriate and effective in achieving the exploitation levels required under the Harvest Control Rules in place. <p>NISPG representatives will continue to lobby the EU Commission, North Sea Member States and the UK, once the UK is an independent coastal state, to set the 2024 TAC based on the harvest control rule in place at the time the TAC is determined.</p> <p>We will continue to support industry scientists who continue to participate in HAWG and the representatives will continue to attend the BSADG.</p>
Consultation condition	on	We continue to work with other Certified North Sea Herring fisheries, as well as lobby UK Fisheries Administrations and work with the Pelagic AC as outlined in the attached letter.
Additional information		This condition and timescale is harmonised with FROM Nord and PFA, SPSG, SPFPO, DFPO and DPPO North Sea Herring fisheries.

2.3 Client Action Plan



Andy Hough
Lloyd's Register
6 Redheughs Rigg
South Gyle
Edinburgh EH12 9DQ

4th April 2020

Dear Andy

NIPSG North Sea Herring Surveillance Report

It was good to speak with you and colleagues a few weeks ago.

During 2019 the NIPSG maintained contact with a range of groups concerned with the management of our pelagic fisheries, including North Sea herring. Throughout the year in meetings regionally and nationally with UK Fisheries Administrations (DAERA, AFBI and DEFRA) we maintained our lobbying of officials and fisheries scientists to stress the importance of a Coastal States agreeing well defined and effective harvest control rules, which amongst other things would allow us to comply with the conditions relating to the MSC certification of our North Sea Herring fishery.

During the year we also maintained contact with the other groups who have MSC Certification for their North Sea Herring fisheries, principally Ian Gatt of MINSA. We have also maintained our membership of the EU's Pelagic Advisory Council, where discussion on the management of the North Sea Herring fishery is a priority.

Going forward we intend to maintain our lobbying on this matter. North Sea Herring is an important fishery for our members and it is vital that agreement on the management of the fishery is secured at the highest level and soon.

Yours sincerely,



Alan McCulla OBE (Chief Executive)

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2.4 Re-scoring Performance Indicators

REVISED SCORING – a summary of the revised scorings across harmonised fisheries can be found in Table 9.

Evaluation Table for PI 1.2.2 – Harvest control rules and tools

PI 1.2.2		There are well defined and effective harvest control rules (HCRs) in place		
Scoring Issue		SG 60	SG 80	SG 100
a	HCRs design and application			
	Guide post	Generally understood HCRs are in place or available that are expected to reduce the exploitation rate as the point of recruitment impairment (PRI) is approached.	Well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY, or for key LTL species a level consistent with ecosystem needs.	The HCRs are expected to keep the stock fluctuating at or above a target level consistent with MSY, or another more appropriate level taking into account the ecological role of the stock, most of the time.
	Met?	Y	N	N
	Justification	<p>The current strategy is to set an annual TAC, based on managing the stock in accordance with the agreed (LTMS) management plan between the EU and Norway. The resultant annual TACs are firmly based on the predicted catch corresponding to the ICES advice for adult and juvenile mortality. This management strategy is based on managing the stock according to the agreed fishing mortality reference points and the stock status in relation to the management plan upper biomass trigger level and the biomass limit level. The strategy is supported by a raft of technical and conservation measures applied to both the adult fishery and fisheries which take juvenile herring. These include minimum landing size, discarding and slippage bans, a regulation permitting a proportion of TAC to be moved from Division IIIa to the North Sea, some seasonal area closures and a restriction on the by-catch levels of herring in all other fisheries. There are also special measures in place to protect the vulnerable Downs component of the stock.</p> <p>ICES continued to provide advice on the management of the stock in line with the agreed long-term management strategy up to and including the 2018. However, since 2018 the EU and Norway have failed to agree on the implementation of the agreed strategy and have not yet agreed on a specific replacement strategy. As a result, ICES has provided their advice on the proposed catch based on Fmsy.</p> <p>Managing a fishery based on MSY has a reasonable track record in other fisheries and when rigidly enforced can be expected to keep the stock at management target level of Bmsy. The Fmsy strategy should reduce the exploitation rate in the event of the SSB falling towards the biomass limit level.</p> <p>Therefore, generally understood HCRs are available that are expected to reduce the exploitation rate as the point of recruitment impairment (PRI) is approached. SG 60 is fully met</p> <p>As noted above the EU and Norway have failed to agree on the implementation of the previously agreed strategy since 2018 and have not yet agreed on a specific replacement strategy. Whilst ICES have provided advised catches based on the MSY approach this advice has not been followed by management in setting annual agreed TACs</p> <p>In their advice for any fishery ICES regularly provide a series of alternative scenarios and the predicted result of those scenarios in terms of the catch and resultant SSB. For the 2018 fishery ICES did provide advice based on the LTMS. However, the advice was not followed and the agreed TAC, of 600,588t, was based on Fmsy but for the A fleet only. The agreed TAC was 16% above the ICES advised catch based on the LTMS.</p>		

PI 1.2.2		There are well defined and effective harvest control rules (HCRs) in place	
		<p>Similarly, ICES provided advice for the fishery in 2019 based on Fmsy but the resultant agreed TAC of 385,008t, for the A fleet only, was 24% above the ICES advised TAC of 311,572.</p> <p>The situation for the 2020 fishery is complicated by a revision, by ICES, in the perception of the SSB at spawning time in 2019. The resultant advised catch, based on Fmsy, is for an increase of 38.4% over the advised catch for the 2019 fishery.</p> <p>The effect on stock status of the current management impasse is plain to see in spite of ICES currently considering the stock as being harvested sustainably and in full reproductive capacity. The SSB has been steadily declining since 2016 and is predicted to continue to decline with continued below average recruitment. It is important to note that in their 2019 advice on stock status ICES states that - the SSB at spawning time in 2020 is expected to fall below MSY B trigger (1.4million t) as a consequence of fishing at Fmsy.</p> <p>In the absence of an effective EU / Norway agreed LTMS since 2017 and the effect on stock status of the failed attempts to manage the fishery based on Fmsy, the team are unable to conclude that well defined and effective Harvest Control Rules are in place. The current strategy of managing the fishery based on Fmsy but with agreed TACs being set well above this level is resulting in a rapidly declining SSB set to fall below MSY B trigger in 2020. The current evidence in relation to SSB clearly shows that this harvest control rule, based on Fmsy, is not expected to keep the stock fluctuating around a target level consistent with (or above) MSY.</p> <p>Further confirmation of this conclusion comes from the deliberations of the Pelagic Advisory Committee. They have recommended that setting the 2020 TAC should take into account the latest Management Strategy Evaluation (MSE) carried out by ICES in 2019, which found that the current ICES MSY-rule, with corresponding reference points, was not precautionary in the long term under the assumptions of the simulations. In view of the MSE results, and as the ICES advice for 2020 indicates a reduction in stock size in the coming years from 2021 onwards, the Pelagic AC recommends setting the TAC for 2020 on the basis of an F-value that is below the current ICES MSY-approach rule.</p> <p>All the evidence presented above clearly shows that the requirements at SG 80 and SG 100 are not met</p>	
b	HCRs robustness to uncertainty		
	Guide post	The HCRs are likely to be robust to the main uncertainties.	The HCRs take account of a wide range of uncertainties including the ecological role of the stock, and there is evidence that the HCRs are robust to the main uncertainties.
	Met?	Y	N
	Justification	<p>The main uncertainty affecting the harvest control rule is the reliability of the annual stock assessment in estimating current SSB and fishing mortality. These estimates underpin all the advice provided by the ICES advisory committee on managing the stock. That stock assessment is heavily dependent on the reliability of the input data. In that context the major uncertainty is the reliability of the landings data in relation to the actual catch taken at sea.</p> <p>The major uncertainty in the fishery in the past has been the regular overshooting of the TAC related to area misreporting and underreporting of landings, discarding, high grading and slippage. As recently as 2008 the ICES working group's estimate of landings exceeded the official estimate by 16% and exceeded the TAC by 17%. Through better enforcement and monitoring the problem has been dramatically reduced since 2008 to the point where the assessment working group now consider it to be a minor issue relative to current stock status and total catch levels. The assessment working group accepts that there may still be some unaccounted mortality through, for example shipboard operations, but this uncertainty is not considered to affect the reliability of the assessment of stock status. The assessment working group keeps all these issues under regular review and where verifiable information is available from observer trips and reference fleets then the most reliable data is used for the stock assessment.</p>	

PI 1.2.2		There are well defined and effective harvest control rules (HCRs) in place		
		<p>For the 2019 assessment the working group considered the input data to be of good quality and the resultant estimates of SSB and F were reliable. The data used within the assessment, the assessment methods and settings were carefully scrutinized during the 2018 benchmark (ICES WKPELA, 2018)</p> <p>This provides sufficient evidence that the requirement that the harvest control rules are robust to the main uncertainties and SG80 is fully met</p> <p>There are areas of uncertainty which are revealed retrospectively and which impact on the implementation of the harvest control rules. In particular the estimates of recruitment which impact on the future stock trajectory. For an example the 2019 stock assessment has increased the estimates of the 2016–2018 recruitments by 4.6% compared to the 2018 assessment. As a result, the SSB has been increased by 33% for 2018 and the fishing mortality is estimated to be lower by around 44.7%</p> <p>There are also areas of uncertainty in relation to the mix of North Sea autumn spawners and western Baltic spring spawners in the North Sea and in the Skagerrak and Kattegat and the precision of the methods for differentiating between them.</p> <p>There is some evidence now that the ecological role of the stock is being afforded more attention. For example, one of the improvements of the 2012 benchmark of the North Sea herring stock (ICES WKPELA, 2012) was the integration of fundamental links between the North Sea ecosystem and the NSAS stock dynamics. As a result, the assessment does now include variable estimates of natural mortality at age derived directly from a multispecies stock assessment model. This does represent some progress in relation to including the ecological role of the stock in the stock assessment process.</p> <p>From the evidence presented the Team have concluded that, whilst the harvest control rules do take into account the main uncertainties, and there has been some progress in relation to the ecological role of the stock, the range of uncertainty considered cannot be regarded as ‘wide’ and the more rigorous requirements at SG 100 are therefore not met.</p>		
c	HCRs evaluation			
	Guide post	There is some evidence that tools used or available to implement HCRs are appropriate and effective in controlling exploitation.	Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs.	Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the HCRs.
	Met?	Y	N	N
	Justification	Monitoring of the catches and landings has been working effectively in this fishery for many years. This has been achieved not only via the official records but also by the vigilance and local knowledge of the working group members. In that way the assessment working group has been able to use their own estimates of actual catches. In recent years the problem of slippage, discarding and underreporting of landings is no longer considered to be a problem in relation to the annual stock assessment and subsequent advice. Since 2009 the working group’s estimate of landings has been very close to the official landings. Accurate landings data are vital in the stock assessment process on which the annual ICES advice on the TAC is based. In spite of the areas of uncertainty the annual assessment of stock status is considered to be robust and is now presented with 95% confidence intervals to take account of uncertainty. There is strong evidence that the resultant TACs over recent years, coupled with the technical measures, have been effective tools in achieving the levels of exploitation required under the harvest control rule (management plan). The evidence is based on the current status of the stock in relation to both fishing mortality and SSB Reference Points. The ICES stock assessment in 2019 confirms the current SSB at 1.53 million t which is above ICES reference points MSY B trigger of 1.4 million		

PI 1.2.2		There are well defined and effective harvest control rules (HCRs) in place
		<p>t, The precautionary biomass level of 900,000t and the biomass limit level of 800,000t It is worth noting that this success has been achieved against a sustained period of low productivity and poor recruitment. The requirements at SG 60 are fully met.</p> <p>However whilst the most recent assessment shows that the stock is being harvested sustainably and is in full reproductive capacity there are warning signs which clearly indicate that in the absence of an agreed long term management strategy the current harvest control rule based on Fmsy is not appropriate and effective in controlling exploitation. The strong evidence for this conclusion comes from the ICES assessment working group and from the comments of the ICES advisory committee (ACOM). They state that in 2019 SSB is expected to decrease to ~1.5 million tonnes under all management scenarios. Furthermore, SSB is predicted to continue to decrease in 2020 to approx. 1.3 million tonnes and continue to decrease in 2021 to around 1.1 million tonnes. SSB is expected to be above Bpa in 2020 and 2021.</p> <p>Further evidence in relation to this scoring guidepost comes from the ICES assessment Working Group in 2019 They have noted that the recent management strategy evaluations (MSE) found that the ICES MSY advice rule with current FMSY and MSY Btrigger was found not to be precautionary (probability of SSB < Blim higher than 5%) under the assumptions of those simulations (ICES, 2019c). This can be explained by technical differences in the evaluation approach use for the MSE compared to the standard approach to estimate MSY reference points. Further investigation is now required to establish if the current reference points need to be re-defined. In the interim HCRs.</p> <p>In the light of the evidence presented above the team concludes that the requirements at SG 80 and SG 100 are not met</p>
References		ICES, 2011, 2012, 2017, 2018, 2018a, 2018b, 2018c, 2018d, Norwegian Government and European Union Delegation 2017, Norwegian Delegation and European Union Delegation 2018a.
OVERALL PERFORMANCE INDICATOR SCORE:		65
CONDITION NUMBER (if relevant):		1

ORIGINAL SCORING

Evaluation Table for PI 1.2.2

PI 1.2.2		There are well defined and effective harvest control rules in place		
Scoring Issue		SG 60	SG 80	SG 100
a	Guidepost	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)	

PI 1.2.2		There are well defined and effective harvest control rules in place		
	Justification	<p>The current strategy is to set an annual TAC, based on managing the stock in accordance with the agreed management plan. The annual TAC is firmly based on the predicted catch corresponding to the ICES advice for adult and juvenile mortality. This is firmly based on managing the stock according to the agreed fishing mortality reference points and the stock status in relation to the management plan upper biomass trigger level and the biomass limit level. The strategy is supported by a raft of technical and conservation measures applied to both the adult fishery and fisheries which take juvenile herring. These include minimum landing size, discarding and slippage bans, a regulation permitting a proportion of TAC to be moved from one area to another, some seasonal area closures and a restriction on the by-catch levels of herring in all other fisheries.</p> <p>These well-defined rules have been well tried and tested in the past and have been seen to be effective in recovering the stock from low levels historically. In recent years the rules have helped maintain the stock at levels above the Management plan trigger and fishing mortalities below precautionary and management plan levels for both adults and juveniles.</p> <p>The harvest strategy has clear rules which effectively reduce the annual TAC by reducing the fishing mortality, on adults and juveniles, if the SSB falls below the management plan upper biomass trigger level of 1.5 million tonnes. The reduction in fishing mortality is linearly linked to the estimate of SSB and is designed to recover the stock to above the management plan trigger level. If the SSB falls below the biomass limit point then fishing mortality on adults and juveniles is reduced to near zero. The revised biomass precautionary approach reference point of 1.0 million tonnes is based on a less than 5% risk of SSB falling below Blim.</p>		
b	Guidepost		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)	(N)

PI 1.2.2		There are well defined and effective harvest control rules in place		
	Justification	<p>The main uncertainty affecting the harvest control rule is the reliability of the annual stock assessment in estimating current SSB and fishing mortality. These estimates underpin all the advice provided by the ICES advisory committee on managing the stock. That stock assessment is heavily dependent on the reliability of the input data. In that context the major uncertainty is the reliability of the landings data in relation to the actual catch taken at sea.</p> <p>The major uncertainty in the fishery in the past has been the regular overshooting of the TAC related to area misreporting and underreporting of landings, discarding, high grading and slippage. As recently as 2008 the ICES working group's estimate of landings exceeded the official estimate by 16% and exceeded the TAC by 17%. Through better enforcement and monitoring the problem has been dramatically reduced since 2008 to the point where the assessment working group now consider it to be a minor issue relative to current stock status and total catch levels. The assessment working group accepts that there may still be some unaccounted mortality through, for example shipboard operations, but this uncertainty is not considered to affect the reliability of the assessment of stock status. The assessment working group keeps all these issues under regular review and where verifiable information is available from observer trips and reference fleets then the most reliable data is used for the stock assessment. For the 2013 assessment the working group considered the input data to be of good quality and the resultant estimates of SSB and F were reliable. However ICES did express some concern about the lack of information on unallocated removals from all herring fisheries and noted that observer coverage across the main fleets should be maintained or improved. They also commented that the introduction of the EU landings obligation may change the situation.</p> <p>The sampling of commercial landings increased slightly in 2013 and covers 85% of the total landings (2012: 80%). However, the number of herring aged is lower than in 2012 (-17%), while those measured have increased by roughly 60%. This level of sampling coverage by area and gear type was considered adequate by ICES in support of the stock assessment and harvest control rules which are based on it.</p> <p>There are also areas of uncertainty in relation to the mix of North Sea autumn spawners and western Baltic spring spawners in the North Sea and in the Skagerrak and Kattegat and the precision of the methods for differentiating between them. These issues are more appropriately addressed under scoring issue c.</p> <p>From the evidence presented the Team have concluded that, whilst the harvest control rules do take into account the main uncertainties, the range of uncertainty considered cannot be regarded as 'wide'.</p>		
c	Guidepost	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?	(Y)	(Y)	(N)

PI 1.2.2		There are well defined and effective harvest control rules in place
	Justification	<p>Monitoring of the catches and landings has been working effectively in this fishery for many years. This has been achieved not only via the official records but also by the vigilance and local knowledge of the working group members. In that way the assessment working group has been able to use their own estimates of actual catches. In recent years the problem of slippage, discarding and underreporting of landings is no longer considered to be a problem in relation to the annual stock assessment and subsequent advice. Since 2009 the working group's estimate of landings has been very close to the official landings. Accurate landings data are vital in the stock assessment process on which the annual ICES advice on the TAC is based. In spite of the areas of uncertainty the annual assessment of stock status is considered to be robust and is now presented with 95% confidence intervals to take account of uncertainty. There is strong evidence that the resultant TACs over recent years, coupled with the technical measures, have been effective tools in achieving the levels of exploitation required under the harvest control rule (management plan). The evidence is based on the current status of the stock in relation to both fishing mortality and SSB targets within the management plan. It is worth noting that this success has been achieved against a sustained period of low productivity and poor recruitment</p> <p>However whilst the tools in use are very effective in controlling the exploitation rate on the North Sea autumn spawning stock there is no clear evidence that they achieve an effective exploitation rate on the vulnerable Western Baltic spring spawning component. Management of this component is strongly linked to the management of the autumn spawners in ICES Division IIIa and the eastern North Sea. There are serious concerns about the effect that catches of Western Baltic spring spawning herring in the targeted autumn spawning fishery has on the state of that stock. The western Baltic spring spawning stock is currently in a period of low productivity and there is no management plan for the entire stock. Although SSB has increased slightly since reaching an historic low in 2011 it is still below the precautionary approach and MSY trigger levels. Fishing mortality is also well above F_{msy}. These concerns have been partially addressed in the harvest control rules by permitting part of the TAC for Division IIIa to be taken in a transfer area in the eastern North Sea in an attempt to protect the more vulnerable Western Baltic spring spawners. However there is little evidence that the regulation is effective. This topic is subject to frequent scientific and administrative review, e.g. EU / Norway working group meeting of managers and scientists June 2013, who were asked to develop and recommend alternative methods to set a TAC for herring in ICES division IIIa.</p>
References		ICES, 2005, 2008, 2011b, 2011c, 2012a, 2012c, 2012d, 2013a,.2014a, 2014b.
OVERALL PERFORMANCE INDICATOR SCORE:		80
CONDITION NUMBER (if relevant):		

3 Appendices

3.1 Evaluation processes and techniques

3.1.1 Site visits

The audit was carried out off-site, according to the surveillance schedule, on 10th February 2020. As a new condition was required, subsequent discussions with the client took place on 19th March 2020.

The off-site audit was carried out by the full assessment team and Alan McCulla representing NIPSG. Alan is Chief Executive Officer of ANIFPO with responsibility for overseeing and implementing the decisions of the ANIFPO board as well as for representing ANIFPO member's interests at National and European level.

3.1.2 Stakeholder Participation

A total of 197 stakeholder organisations and individuals having relevant interest in the assessment were identified and consulted during this surveillance audit. The interest of others not appearing on this list was solicited through the postings on the MSC website.

3.2 Stakeholder input

No stakeholder input was received, other than information provided by the client. All relevant information provided is included within this surveillance report.

3.3 Revised surveillance program

No changes are required to the existing surveillance programme.

3.4 Harmonised fishery assessments

The MSC Fisheries Certification Process v2.1 (FCP) sets out procedures for ensuring consistency of outcomes in overlapping fisheries (see Annex PB of the FCP). The intention of this process is to maintain the integrity of MSC fishery assessments.

The audit team have consulted the guidance issued on the MSC's interpretation log to identify the harmonisation requirements for this fishery (see <https://mscportal.force.com/interpret/s/article/What-are-the-MSC-requirements-on-harmonisation-multiple-questions-1527586957701>). For each overlapping fishery, LR have considered harmonisation requirements for each PI using the table below.

Table 7: MSC directions for harmonisation between overlapping MSC fisheries

PIs / SIs	Harmonise?	Comments
All P1 PIs	Yes	P1 always considers the impacts of all fisheries on a stock, so any fisheries which have the same P1 species (stocks) should be harmonised.
PI 2.1.1a	Partially	For stocks that are 'main' in both UoAs, harmonise status relative to PRI (at SG60, 80 and 100), and if below PRI, harmonise cumulative impacts at SG80 (not at SG60).
PI 2.2.1a	Partially	For stocks that are 'main' in both UoAs, harmonise status relative to BBL (at SG60, 80 and 100), and if below BBL, harmonise cumulative impacts at SG80 (not at SG60).
PI 2.3.1a	Partially	Harmonise recognition of any limits applicable to both UoAs (at SG60, 80 and 100), and cumulative effects of the UoAs at SG80 and SG100 (not at SG60).
PI 2.4.1b	Partially	Harmonise recognition of VMEs where both UoAs operate in the same 'managed area/s' (as in SA3.13.5).
PI 2.4.2a,c	Partially	Harmonise scoring at SG100, since all fishery impacts are considered (not at SG60 or 80).
All P2 PIs	Yes, if ->	Two UoAs are identical in scope, even if the UoCs are different (e.g. separate clients).
PIs 3.1.1-3	Yes, if ->	Both UoAs are part of the same larger fishery or fleet, or have stocks in either P1 or P2 which are at least partially managed by the same jurisdiction/s (nation states, RFMOs or others) or under the same agreements. Harmonisation may sometimes be possible for those management arrangements that apply to both UoAs (noting the limitations accepted in GPB3).
PIs 3.2.1-4	Yes, if ->	Both UoAs have stocks within either P1 or P2 which are at least partially managed by the same jurisdiction/s (nation states, RFMOs or others) or under the same agreements. Harmonisation is needed for those management arrangements that apply to both UoAs, e.g. at the RFMO level but not the national level in the case of two separate national fleets both fishing the same regional stock.

At the time of writing, three MSC assessments had already been completed on this stock (detailed below in Table 8) and findings presented in published assessment reports. The scores awarded for the MSC-certified fisheries were analysed during this surveillance audit (see Table 9 **Error! Reference source not found.**).

Table 8. Overlapping fisheries

Fishery name	Certification status and date	Conformity Assessment Body	Performance Indicators to harmonise
Northern Ireland Pelagic Sustainability Group (NIPSG) Irish Sea-Atlantic mackerel & North Sea herring	Certified until 4 th December 2021	Lloyd's Register	Principle 1: All PIs Principle 3: 3.1.1-4
PFA & SPSG & DFPO & DPPO & SPFPO North Sea Herring	Certified until 16 April 2022	Lloyd's Register	Principle 1: All PIs Principle 3: 3.1.1-4

Norway North Sea and Skagerrak herring	Certified until 29 th July 2024	DNV-GL	Principle 1: All PIs Principle 3: 3.1.1-4
FROM Nord North Sea and Eastern Channel pelagic trawl herring	Reassessed 2020; Final Report issued at time of writing. Expected to be certified until 2025.	Control Union Pesca	Principle 1: All PIs Principle 3: 3.1.1-4

Table 9: Comparison of current scores awarded for MSC-certified North Sea herring fisheries. Green shading indicates scores of more than 80; yellow shading shows scores of less than 80 for which there is a condition of certification.

Principle	PI No.	Performance Indicator (PI)	CR Version 1.3							2.0		
			NIPSG Mackerel & Herring		PFA & SPSG North Sea Herring Trawl					Norway North Sea and Skagerrak Herring		FROM NORD North Sea & Eastern Channel Pelagic Trawl Herring
			Trawl	Trawl	PFA Trawl	SPSG Trawl	PFA Trawl	SPSG Trawl	Other eligible fishers	Purse seine	Trawl	Trawl
			2019	2020	2019		2020			2019		March 2020
One	1.1.1	Stock status	100	100	100	100	100	100	100	100		80
	1.1.2	Reference points	100	100	100	100	100	100	100			
	1.1.3	Stock rebuilding	NA	NA	NA	NA	NA	NA	NA	NA		NA
	1.2.1	Harvest strategy	100	100	100	100	100	100	100	100		80
	1.2.2	Harvest control rules & tools	70	65	70	70	65	65	65	70		65
	1.2.3	Information & monitoring	90	90	85	85	85	85	85	90		90
	1.2.4	Assessment of stock status	100	100	100	100	100	100	100	100		90
Two	2.1.1	Outcome	80	80	80	80	80	80	80	100	100	100
	2.1.2	Management	100	100	95	95	95	95	95	90	90	85
	2.1.3	Information	100	100	95	95	95	95	95	100	100	100
	2.2.1	Outcome	100	100	100	100	100	100	100	100	100	80
	2.2.2	Management	100	100	95	95	95	95	95	100	95	80
	2.2.3	Information	100	100	85	85	85	85	85	85	85	85
	2.3.1	Outcome	100	100	85	85	85	85	85	80	80	80
	2.3.2	Management	90	90	90	90	90	90	90	95	95	80
	2.3.3	Information	95	95	85	85	85	85	85	80	80	80
	2.4.1	Outcome	100	100	100	100	100	100	100	100	100	80
	2.4.2	Management	80	80	95	95	95	95	95	100	100	80
	2.4.3	Information	95	95	90	90	90	90	90	85	85	85
	2.5.1	Outcome	100	100	100	100	100	100	100	90	90	100
	2.5.2	Management	100	100	95	95	95	95	95	100	100	95
	2.5.3	Information	95	95	85	85	85	85	85	90	90	100
Three	3.1.1	Legal & customary framework	85	85	100	100	100	100	100	100		85
	3.1.2	Consultation, roles & responsibilities	90	90	95	95	95	95	95	100		100
	3.1.3	Long term objectives	100	100	100	100	100	100	100	100		100
	3.1.4	Incentives for sustainable fishing	80	80	80	80	80	80	80			
	3.2.1	Fishery specific objectives	90	90	90	90	90	90	90	90		90
	3.2.2	Decision making processes	85	85	85	85	85	85	85	100		85
	3.2.3	Compliance & enforcement	100	100	100	100	100	100	100	100		95
	3.2.4	Research plan	80	80	80	80	80	80	80			
	3.2.5	Management performance evaluation	90	90	90	90	90	90	90	100		80
			Trawl	Trawl	PFA Trawl	SPSG Trawl	PFA Trawl	SPSG Trawl	Other eligible fi	Purse seine	Trawl	Trawl
P1		Rebuilding not scored	95.0	94.4	94.4	94.4	93.8	93.8	93.8	93.3		80.8
		Rebuilding scored	NA	NA	NA	NA	NA	NA	NA	NA		NA
P2			95.7	95.7	91.7	91.7	91.7	91.7	91.7	93.0	92.7	87.3
P3			88.9	88.9	91.4	91.4	91.4	91.4	91.4	98.8		91.3

Table 10. Overlapping fisheries supporting information

Supporting information	
<p>A harmonisation discussion took place on 16th September 2019 between all assessment teams for North Sea herring. The focus of the discussion was the scoring of PI 1.2.2. The teams had previously agreed in 2018 to reduce the score for this PI to 70.</p> <p>The 2019 harmonisation discussions were triggered by the CU-Pesca reassessment of the FROM NORD North Sea and Eastern Channel pelagic trawl herring fishery at which the team concluded that a further reduction of the score for PI 1.2.2 was appropriate.</p>	
Was either FCP v2.1 Annex PB1.3.3.4 or PB1.3.4.5 applied when harmonising?	No
Date of harmonisation meeting	16th September 2019
If applicable, describe the meeting outcome	
Harmonisation concluded in October 2019 with all teams agreeing to score PI 1.2.2 at 65 at the next opportunity (i.e. the next surveillance audit or reassessment).	

Table 11. Rationale for scoring differences

If applicable, explain and justify any difference in scoring and rationale for the relevant Performance Indicators (FCP v2.1 Annex PB1.3.6)
<p>There are some scoring differences within Principle 1 (see Table 9). None of the differences affect the scoring outcome or the conditions of certification.</p> <p>Most of the scoring differences between the fisheries that take place in both the North Sea and Eastern Channel (this fishery, the NIPSG fishery and the Norway North Sea fishery) are very minor (two of the fisheries score 90 for PI1.2.3, and the other scores 85).</p> <p>There are some larger differences between these 3 fisheries and the FROM NORD fishery which largely takes place in the Eastern Channel. The scoring differences in this case result from the approach to the status and management of the Downs subcomponent of the stock complex that the assessment team for the FROM NORD adopted in their assessment, which is different from the approach that had previously been adopted by the other three fisheries.</p>
If exceptional circumstances apply, outline the situation and whether there is agreement between or among teams on this determination
The teams agree that exceptional circumstances apply, since the FROM NORD fishery UoA is confined to ICES Divisions 4c and 7d, whilst the other UoAs extent over the entire range of the stock.

3.5 References

ICES, 2012a. Report of the Benchmark Workshop on Pelagic Stocks (WKPELA, 2012). 13-17 February. Copenhagen. ICES CM 2012/ACOM:47. (522pp)

Anon. 2017. Agreed record of conclusions of fisheries consultations between Norway, the European Union and the Faroe Islands on the management of mackerel in the northeast Atlantic for 2018, London, 11 October 2017. 8 pp. <http://www.ices.dk/community/groups/Documents/EU-Nor-Faroe%20Agreed%20Record%20for%20Mackerel%20Oct%202017.pdf>

ICES. 2017a. ICES Advice on fishing opportunities, catch, and effort. In Report of the ICES Advisory Committee, 2017. her.27.3a47d. DOI: 10.17895/ices.pub.3130 Published 31 May 2017

ICES. 2018a. Report of the Benchmark Workshop on Pelagic Stocks (WKPELA), 12–16 February ICES HQ Copenhagen, Denmark. ICES CM 2018/ACOM:32. 297 pp.

ICES. 2018b: Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners. Section 2 in Report of the Herring Assessment Working Group for the Area South of 62°N (HAWG), 29–31 January 2018 and 12–20 March 2018, ICES Headquarters, Copenhagen, Denmark. ICES CM 2017/ACOM:07. 955pp.

ICES 2019a. ICES Advice on fishing opportunities, catch, and effort Greater North Sea Ecoregion for Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel) In Report of the ICES Advisory Committee, 2019. her.27.3a47d Published 29 May 2019. 11pp.

ICES 2019b. ICES. 2019. Herring Assessment Working Group for the Area South of 62° N (HAWG). ICES Scientific Reports. 1:2. 971 pp. <http://doi.org/10.17895/ices.pub.5460>

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