



## MarinTrust Standard V2

### Whole fish Fishery Assessment

### WF31

### Denmark Herring (*Clupea harengus*) and Sprat (*Sprattus sprattus*) in ICES Division 3a and Subarea 4

**MarinTrust Programme**

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

Application details and summary of the assessment outcome			
<b>Name(s):</b> FF Skagen A/S, Thyborøn			
<b>Country:</b> Denmark			
<b>Email address:</b>		<b>Applicant Code</b>	
Certification Body Details			
<b>Name of Certification Body:</b>		NSF / Global Trust Certification Ltd.	
<b>Assessor Name</b>	<b>CB Peer Reviewer</b>	<b>Assessment Days</b>	<b>Initial/Surveillance/Re-approval</b>
Sam Peacock	Matthew Jew	2	Surveillance 1
<b>Assessment Period</b>	August 2024 – August 2025		
Scope Details			
<b>Management Authority (Country/State)</b>		EU (Denmark)	
<b>Main Species</b>		Sprat Herring	
<b>Fishery Location</b>		ICES Division 3a and Subarea 4	
<b>Gear Type(s)</b>		Small-meshed pelagic trawl	
Outcome of Assessment			
<b>Overall Outcome</b>		APPROVED	
<b>Clauses Failed</b>		NONE	
<b>CB Peer Review Evaluation</b>		APPROVED – Agree with the assessor’s determination	
<b>Fishery Assessment Peer Review Group Evaluation</b>		APPROVED – See full comments in Appendix B	
<b>Recommendation</b>		APPROVED	

## Table 2. Assessment Determination

Assessment Determination
<p>This is the first surveillance assessment for the 2023 approval of the Danish sprat fishery in Skagerrak, Kattegat, and the North Sea. Updated catch composition data were reviewed, leading to the addition of one further Type 2 species (haddock) to the assessment. This species was assessed under Category C. As previously, the other species assessed were sprat (Category A), herring (A), mackerel (C) and whiting (C).</p> <p>There have been no substantial changes in the areas of the fishery relevant to Sections M or F, and the fishery continues to meet the requirements of these sections.</p> <p>Herring in the area under assessment is divided into two stocks: North Sea Autumn Spawners (NSAS) and Western Baltic Spring Spawning (WBSS). Based on the evidence available, as previously, WBSS herring are not caught in substantial quantities by the Danish sprat fishery, and as such only NSAS herring was considered in this assessment. NSAS herring continues to be fished in line with the ICES advice, with SSB estimated to be above the target reference point level. NSAS herring therefore continues to meet the MT requirements.</p> <p>All three Category C stocks are subjected to regular stock assessments which take into account removals of the species as bycatch in the sprat fishery. Additionally, all three stocks are currently estimated to be above the target reference point level, and as such all three Category C species meet the MT requirements.</p> <p>Sprat in Division 3a and Subarea 4 continues to be managed relative to established reference points and is subjected to a robust annual stock assessment. The most recent stock assessment concluded that SSB is currently below the limit reference point level. ICES has recommended substantial landings in the 2024/25 season, and this advice has been used as the basis for the 2024/25 TAC. ICES projects that this level of fishing will lead to the recovery of SSB to a level above the target reference point by 2025. For this reason, and taking into account the biology and ecology of the species, the assessor considers the fishery remaining open to be justified and not in breach of the MT requirements.</p> <p>However, it is important to note that in 2022 the TAC was exceeded by a significant margin. Although not certain, it is possible that this is a result of the inter-year quota transfer “flex” mechanism, and could happen again. The 2025 surveillance assessment for this fishery should ensure it reflects in particular on whether the TAC has been exceeded, as this would reduce the probability of the stock recovering above the limit reference point and undermine the basis for the continuing approval of the fishery.</p> <p>As the MarinTrust whole fish fishery requirements continue to be met at the present time, the fishery should remain approved for use as a source of raw material.</p>
Fishery Assessment Peer Review Comments
<p>The report is well-written, provides good references, and follows the MT guidance. Multiple data sources verified the catch profile, and the species categories were applied appropriately.</p> <p>All species scored past the MT Whole Fishery assessment.</p> <p>The peer reviewer agrees with all of the scoring, which has been well evidenced throughout; references all appear to be up-to-date, with working links.</p>
Notes for On-site Auditor

## Table 3 General Results

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

## Table 4 Species- Specific Results

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

Category	Species	% landings	Outcome (Pass/Fail)	
Category A	Sprat	88-97%	A1	PASS
			A2	PASS
			A3	PASS
			A4	PASS
	Herring	2-7%	A1	PASS
			A2	PASS
			A3	PASS
			A4	PASS
Category B	No Category B Species			
Category C	Mackerel	<1%	PASS	
	Whiting	<2%	PASS	
	Haddock	<1%	PASS	
Category D	No Category D Species			

**Table 5 Species Categorisation Table**

Common name	Latin name	Stock	IUCN Redlist Category <sup>1</sup>	% of landings	Management	Category
Sprat	<i>Sprattus sprattus</i>	Sprat in ICES Division 3a and Subarea 4	Least Concern <sup>2</sup>	88 – 97%	Yes	A
Herring	<i>Clupea harengus</i>	NSAS herring	Least Concern <sup>3</sup>	2 – 7%	Yes	A
Mackerel	<i>Scomber scombrus</i>	Mackerel in the Northeast Atlantic and adjacent waters	Least Concern <sup>4</sup>	<1%	Yes	C
Whiting	<i>Merlangius merlangus</i>	Whiting in Subarea 4 and Division 7d	Least Concern <sup>5</sup>	<2%	Yes	C
Haddock	<i>Melanogrammus aeglefinus</i>	Haddock in Subarea 4, Division 6a and Subdivision 20	Least Concern <sup>6</sup>	<1%	Yes	C

**Species categorisation rationale**

As previously, catch composition data for the Danish sprat fishery is provided in the annual report of the Herring Assessment Working Group (HAWG) for the Area South of 62° N, the most recent of which was published in August 2024<sup>7</sup>. For the initial MT assessment, catches were available up to and including 2021, with the period 2017-2021 used as a basis for the species categorisation process. The most recent HAWG report contains catch composition data up to and including 2023; the proportions of the catch represented by each species over the period 2019-2023 can be summarised as follows:

Species	Catch ICES 4	Catch ICES 3a
Sprat	88 – 97%	81 – 92%
Herring	2 – 7%	5 – 19%
Horse mackerel	0%	0%
Whiting	1 – 2%	0 – 2%
Haddock	0 – 1%	0%
Mackerel	0 – 1%	0%
Cod	0%	0%
Sandeel	0%	0%

The large majority of catch continues to be taken in ICES Subarea 4. As in previous MT assessments, sprat and herring combined represent more than 95% of landings by weight in every recent year.

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

<sup>2</sup> <https://www.iucnredlist.org/species/198583/45077260>

<sup>3</sup> <https://www.iucnredlist.org/species/155123/45074983>

<sup>4</sup> <https://www.iucnredlist.org/species/170354/18207463>

<sup>5</sup> <https://www.iucnredlist.org/species/198585/45097610>

<sup>6</sup> <https://www.iucnredlist.org/species/13045/45097487>

<sup>7</sup> ICES (2024). Herring Assessment Working Group for the Area South of 62°N (HAWG). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.25305532.v4>

Herring caught as bycatch in the sprat fishery belongs to two stocks: North Sea Autumn Spawners (NSAS herring) and Western Baltic Spring-Spawners (WBSS herring). Herring bycatch in the sprat fishery in the North Sea (ICES Subarea 4) is thought to be exclusively NSAS herring, whereas bycatch in ICES Division 3a is a mixture of NSAS and WBSS herring<sup>8</sup>.

The initial MT assessment of this fishery analysed landings in 2022 to conclude that herring landed from Division 3a constituted 0.03% of the total landings, and therefore that WBSS herring must have represented less than 0.1% of the catch. The table below used data from the 2024 HAWG report<sup>7</sup> to update this analysis with catch data for 2023 (note that these figures are specific to the Danish component of the fishery, and do not reflect total landings across the international fleet). As in the initial assessment, herring from Division 3a are such a small proportion of the total catch that it is not possible for WBSS herring to represent more than 0.1% of the total catch.

Species	Quantity landed	Proportion of total catch
Sprat in Subarea 4 and Division 3a	78,239t	88.3%
Herring in Subarea 4 (NSAS)	6,390t	7.2%
Herring in Division 3a (NSAS & WBSS)	4t	0.005%
Other species	4,001t	4.5%
Total	88,634t	100%

Based on this updated data, catch composition is largely unchanged since the initial MT assessment of this fishery. The only exception is that haddock has consistently represented more than 0.1% of the catch in recent years, and has been added as a Type 2 species. Other species remain unchanged, as follows:

- Sprat and herring consistently represent 95% of catch or more, and are the only Type 1 species.
- Almost all herring caught in the sprat fishery is NSAS herring, therefore WBSS herring is excluded from the assessment.
- Mackerel and whiting are consistently present in the catch, and are Type 2 species.
- Horse mackerel, cod and sandeel are caught in very small quantities and are not included in the assessment.

Sprat and NSAS herring undergo annual stock assessment and are managed relative to established reference points, and therefore were both assessed under Category A.

Whiting, mackerel and haddock are similarly managed relative to reference points using regular stock assessments, and were assessed under Category C.

<sup>8</sup> ICES (2024). Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.25019285.v1>

## MANAGEMENT

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

M1	Management Framework – Minimum Requirements		
	<b>M1.1</b>	There is an organisation responsible for managing the fishery.	PASS
	<b>M1.2</b>	There is an organisation responsible for collecting data and assessing the fishery.	PASS
	<b>M1.3</b>	Fishery management organisations are publicly committed to sustainability.	PASS
	<b>M1.4</b>	Fishery management organisations are legally empowered to take management actions.	PASS
	<b>M1.5</b>	There is a consultation process through which fishery stakeholders are engaged in decision-making.	PASS
	<b>M1.6</b>	The decision-making process is transparent, with processes and results publicly available.	PASS
<b>Clause outcome:</b>			PASS
<p>There have been no substantial changes in the aspects of the fishery relevant to section M1 since the time of the initial MT assessment, conducted in May 2023. A summary of the relevant information is provided below; please refer to the initial assessment report for full details.</p> <p><b>M1.1 There is an organisation responsible for managing the fishery.</b></p> <p>Around 80-85% of sprat taken in Subarea 4 and Division 3a is caught by Danish vessels, with smaller amounts taken by Norway and Sweden, and generally very small quantities taken by the UK, Germany, the Netherlands and others (ICES 2022).</p> <p>Fisheries in Denmark and other EU countries are managed according to the Common Fisheries Policy (CFP), which was most recently updated through Regulation (EU) No. 1380/2013. Individual member states generally incorporate the requirements of the CFP into their national legislation, and are individually responsible for its implementation.</p> <p>Fisheries management in Norway is the responsibility of the Directorate of Fisheries under the Ministry of Trade, Industry and Fisheries. Within the UK, fisheries management is a devolved issue. The body with over-arching responsibility for fisheries management policy is the Department for Environment and Rural Affairs (DEFRA).</p> <p>There are organisations responsible for managing the fishery, and M1.1 is met.</p> <p><b>M1.2 There is an organisation responsible for collecting data and assessing the fishery.</b></p> <p>The primary organisation responsible for coordinating and analysing the data relevant to the management of the sprat fishery is the International Council for the Exploration of the Sea (ICES). ICES is an intergovernmental marine science organisation which provides frequent analytical and advisory services for the management of fisheries, primarily in the Atlantic but also in the Arctic, Mediterranean, Black Sea and North Pacific (ICES 2024a).</p> <p>ICES carries out annual stock assessments of the sprat and herring stocks which are Type 1 species within this MT assessment, along with periodic benchmarking exercises to ensure the stock assessment processes and their underpinning assumptions remain appropriate.</p> <p>There are organisations responsible for collecting data and assessing the fishery. Requirement M1.2 is met.</p> <p><b>M1.3 Fishery management organisations are publicly committed to sustainability.</b></p> <p>Objective 1 of the CFP, as set out in Regulation (EU) No. 1380/2013 is to “ensure that fishing and aquaculture activities are environmentally sustainable in the long-term and are managed in a way that is consistent with the objectives of achieving economic, social and employment benefits, and of contributing to the availability of food supplies”.</p> <p>Fishery management organisations are publicly committed to sustainability and M1.3 is met.</p> <p><b>M1.4 Fishery management organisations are legally empowered to take management actions.</b></p>			

In EU member states fisheries management is generally carried out under the national legislation arising from the implementation and/or transposing of EU regulations, in particular but not limited to Regulation (EU) No 1380/2013. In Denmark the key legislation implementing the CFP and guiding fisheries management is the Fisheries Act (No. 978 of 2008, as amended).

Fishery management organisations are legally empowered to take management actions, and M1.4 is met.

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

The main mechanism for the consultation of stakeholders within the EU is the North Sea Advisory Council (NSAC). The NSAC “is an interdisciplinary stakeholder-led organisation that takes a regional approach to provide the European Commission and EU countries...with recommendations...on the management of North Sea fish stocks on behalf of the fisheries sector, environmental and other stakeholders” (NSAC 2024).

There is a stakeholder consultation process in place, and M1.5 is met.

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

All of the information used to produce this MarinTrust assessment report was freely available online. The fisheries management decision-making process is primarily guided by the ICES advice, the basis for and outcomes of which are made available via the ICES website. Decisions and outcomes at the EU level are published on the EC website and elsewhere.

The decision-making process is transparent, and M1.6 is met.

**References**

APPG (2020). Who’s who in UK fisheries management. <https://www.fisheriesappg.org/blog/2020/8/11/whos-who-in-uk-fisheries-management>

Danish Fisheries Act, 2008, amended to 2017. <https://faolex.fao.org/docs/pdf/den134943original.pdf>

EC (2018). Common Fisheries Policy. [https://ec.europa.eu/oceans-and-fisheries/policy/common-fisheries-policy-cfp\\_en](https://ec.europa.eu/oceans-and-fisheries/policy/common-fisheries-policy-cfp_en)

Fisheries Act (2020). <https://www.legislation.gov.uk/ukpga/2020/22/contents/enacted>

ICES (2022). Herring Assessment Working Group for the Area South of 62° N (HAWG). ICES Scientific Reports. 4:16. 745 pp. <http://doi.org/10.17895/ices.pub.10072>

ICES (2024a). Who we are. <https://www.ices.dk/about-ICES/who-we-are/Pages/Who-we-are.aspx>

Marine and Coastal Access Act (2009). <https://www.legislation.gov.uk/ukpga/2009/23/contents>

NSAC (2024). North Sea Advisory Council, “What We Do”. <https://www.nsrac.org/what-we-do/>

Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC. <https://www.legislation.gov.uk/eur/2013/1380/contents#>

**Links**

<b>MarinTrust Standard clause</b>	1.3.1.1, 1.3.1.2
<b>FAO CCRF</b>	7.2, 7.3.1, 7.4.4, 12.3
<b>GSSI</b>	D.1.01, D.4.01, D2.01, D1.07, D1.04,

<b>M2</b>	<b>Surveillance, Control and Enforcement - Minimum Requirements</b>		
	<b>M2.1</b>	There is an organisation responsible for monitoring compliance with fishery laws and regulations.	PASS
	<b>M2.2</b>	There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.	PASS



	<b>M2.3</b>	There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.	PASS
	<b>M2.4</b>	Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS.	PASS
<b>Clause outcome:</b>			PASS

There have been no substantial changes in the aspects of the fishery relevant to section M2 since the time of the initial MT assessment, conducted in May 2023. An updated version of the Danish Fisheries Agency annual report has become available, and M2.3 has been updated to reflect this. A summary of the other relevant information is provided below; please refer to the initial assessment report for full details.

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

Monitoring and enforcement of fisheries compliance in the EU is the responsibility of the individual member states. The agency responsible in Danish waters is the Danish Fisheries Agency (FA). The FA operates a small fleet of enforcement vessels and is responsible for regulating, monitoring and inspection of Danish fishing activities.

National control and enforcement activities are supported by the European Fisheries Control Agency (EFCA). The EFCA aims to “promote the highest common standards for control, inspection and surveillance under the CFP” (EFCA 2024). The EFCA works in conjunction with the European Border and Coast Guard Agency and the European Maritime Safety Agency to support the various national agencies carrying out coastguard functions.

There are organisations established with responsibility for monitoring compliance, and M2.1 is met.

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

A framework of sanctions is in place as set out in the CFP legislation and transposed into Danish national law. Sanctions potentially include suspension of fishing licence, fines, confiscation of catch and/or equipment, and imprisonment. These are set out in Chapter 23 of the Fisheries Act 2008, as amended. Additionally, as noted in M2.3 below, the CFP establishes a points-based system for serious breaches of fishery regulations, which can ultimately lead to the disqualification of individuals from eligibility for subsidies and may affect licence conditions.

There is a framework of sanctions set out in the key fisheries legislation, and M2.2 is met.

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

The most recent summary from the Danish Fisheries Agency covering control and enforcement, published in 2023 (FA 2023), reports that in 2022, 1,868 inspections were carried out on vessels or landings at ports, and 405 inspections were conducted on vessels at sea. In the industrial reduction fishery, which includes the Norway pout fishery, there were a total of 1,557 landings, of which 163 were inspected.

Throughout the compilation of this MT surveillance assessment report, no evidence was encountered suggesting widespread non-compliance in the fishery, and available evidence suggests a robust and focussed control and enforcement regime is in place. Throughout the compilation of this MT assessment report, no evidence was encountered suggesting widespread non-compliance in the fishery, and available evidence suggests a robust and focussed control and enforcement regime is in place. M2.3 is met.

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

Compliance with laws and regulations is monitored through the use of at-sea and portside inspections, e-logbooks, landings certificates, sales notes, VMS, designated ports, and inspections throughout the supply chain. (FA 2024).

Compliance is actively monitored through a wide range of measures, and M2.4 is met.

**References**

Danish Fisheries Act, 2008, amended to 2017. <https://faolex.fao.org/docs/pdf/den134943original.pdf>

EFCA (2024). Mission and Strategy. <https://www.efca.europa.eu/en/content/objectives-and-strategy>

FA (2023). Om Fiskeristyrelsen Årsrapport (Danish Fisheries Agency annual report) 2022.

[https://fiskeristyrelsen.dk/fileadmin/user\\_upload/Fiskeristyrelsen/Erhvervsfiskeri/Kontrol/AArsrapport/AArsrapport\\_2022.pdf](https://fiskeristyrelsen.dk/fileadmin/user_upload/Fiskeristyrelsen/Erhvervsfiskeri/Kontrol/AArsrapport/AArsrapport_2022.pdf)

FA (2024). Control. <https://fiskeristyrelsen.dk/erhvervsfiskeri/kontrol>

**Links**

<b>MarinTrust Standard clause</b>	1.3.1.3
<b>FAO CCRF</b>	7.7.2
<b>GSSI</b>	D1.09

## CATEGORY A SPECIES

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

Species Name		Sprat in Division 4 and Subarea 3a	
A1	Data Collection - Minimum Requirements		
	A1.1	Landings data are collected such that the fishery-wide removals of this species are known.	PASS
	A1.2	Sufficient additional information is collected to enable an indication of stock status to be estimated.	PASS
Clause outcome:			PASS

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

Catch data are available for sprat by area and country of landing. In 2023, 100% of the catch was taken by industrial trawlers and none by purse seiners (ICES 2024). The majority of catch in recent years has consistently been taken in Division 4b, with smaller amounts taken in 4c and 3a. Very little is taken in Division 4a, and in 2023 no catch was recorded there. Catch data prior to 1996 are considered unreliable due to the uncertainty of herring bycatch rates; however since that time, catch sampling has improved significantly and the proportion of herring bycatch is well understood at the fishery-wide level, but also by month and square (ICES 2024a). The majority of sprat in Division 4 and Subarea 3a (86% in 2023) is caught by Denmark (ICES 2024a).

Landings data are collected and fishery-wide removals of sprat are known, therefore A1.1 is met.

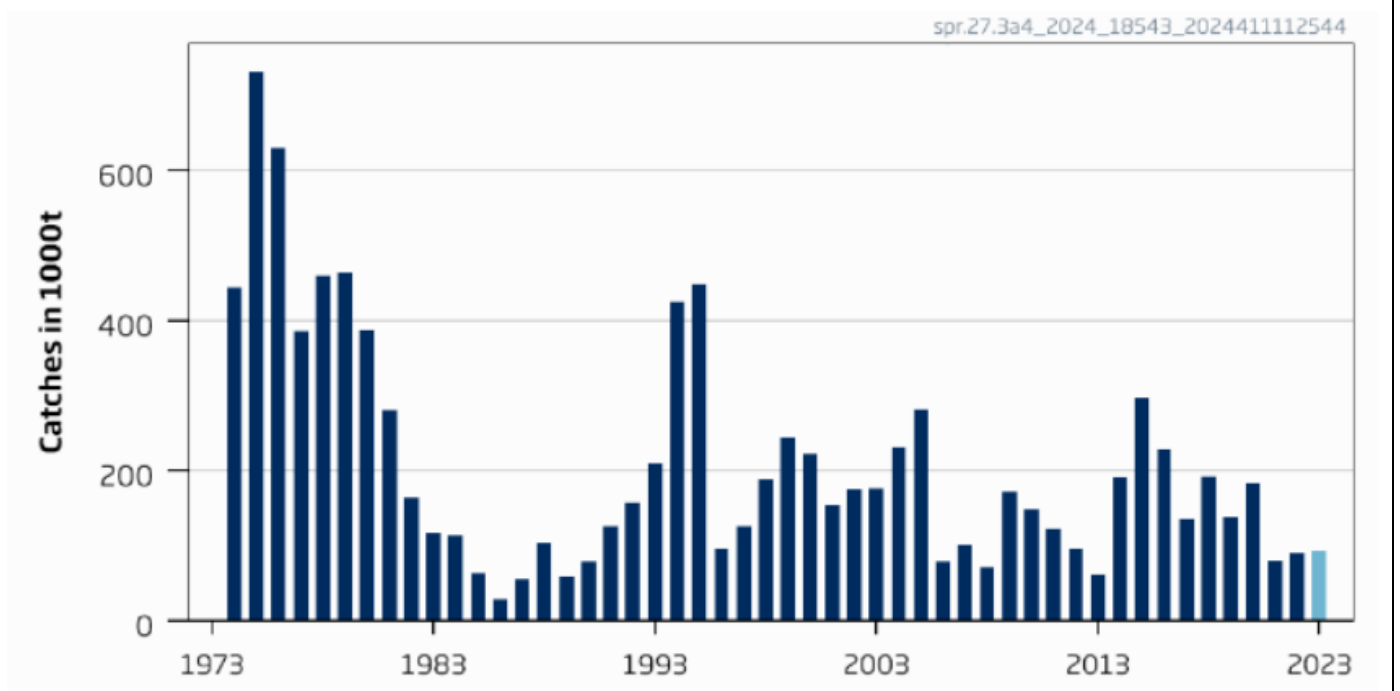


Figure A.1.1a: Sprat in Subarea 4 and Division 3a. Total international catch by year (ICES 2024)

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

A substantial quantity of supporting information is collected and informs the sprat stock assessment. As described in the 2024 HAWG report (ICES 2024a), this includes:

- Data from catch sampling, including species composition; length and age-length sampling; and the genetic analyses and otolith sampling which led to the merging of the advice for the two sprat management units in 2018.
- International Bottom Trawl Surveys (IBTS) in Quarter 1 (Q1) and Q3. The IBTS Q1 data for 1975-present and IBTS Q3 data for 1991-present provide, amongst other information, and indication of sprat recruitment rates, and are included in the stock assessment process.
- The North Sea Herring and Pelagic Ecosystem Survey (HERAS) is a hydroacoustic survey producing abundance indices for age-1, age-2 and age-3 sprat, and HERAS data for 2003-present is incorporated into the stock assessment.
- Weight-at-age and maturity-at-age data is also generated by the surveys.

The ICES documentation does not include any indication that gaps in information are the cause of significant uncertainty, and A1.2 is met.

**References**

ICES (2024). Sprat (*Sprattus sprattus*) in Division 3.a and Subarea 4 (Skagerrak, Kattegat, and North Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.25019690.v1>

ICES (2024a). Herring Assessment Working Group for the Area South of 62°N (HAWG). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.25305532.v4>

**Links**

<b>MarinTrust Standard clause</b>	1.3.2.1.1, 1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
<b>FAO CCRF</b>	7.3.1, 12.3
<b>GSSI</b>	D.4.01, D.5.01, D.6.02, D.3.14

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

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

A stock assessment is conducted annually by the ICES Herring Assessment Working Group for the Area South of 62°N (HAWG). The most recent assessment was conducted in 2024, and produced catch advice which was published in April 2024 (ICES 2024). The stock assessment was an age-based analytical assessment with quarterly time-steps. The input data for the model included commercial catch data, age and length frequencies from catch sampling, three survey indices (see A1.2), maturity estimated from one of the surveys, and natural mortalities from the multispecies model which accounts for the role of sprat as an important prey species (ICES 2024).

A stock assessment which incorporates all landings data and takes into account sprat biology and ecology is conducted annually, and A2.1 is met.

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

Biomass-based target and limit reference points have been established for the stock, and an indication of the size of the sprat population relative to these reference points is provided in the ICES catch advice. The reference points were updated in 2024

and are shown in the table below; the target reference points  $MSY B_{escapement}$  and  $B_{pa}$  are now set at 135,952t, and the limit reference point  $B_{lim}$  is set at 107,598t.

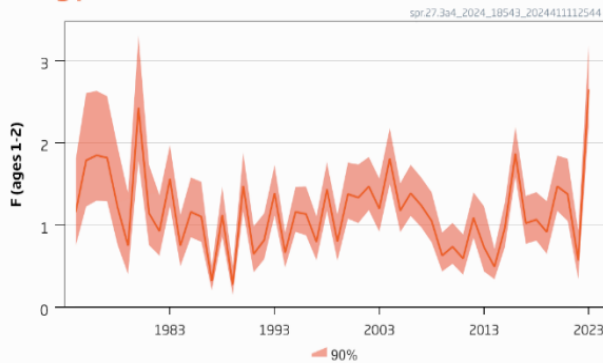
**Table A2.2a:** Sprat in Subarea 4 and Division 3a. Reference points, values, and their technical basis. All weights in tonnes (ICES 2024).

Framework	Reference point	Value	Technical basis	Source
MSY approach	$MSY B_{escapement}$	135 952	$B_{pa}$ ; in tonnes	ICES (2024b)
	$F_{cap}^*$	1.01	$F_{cap}$ is the upper limit on exploitation rates when biomass is greater than $MSY B_{escapement}$ that has a less than 5% risk of causing the stock to decline below $B_{lim}$ in the long term	ICES (2024b)
	$MSY B_{trigger}$	Not defined		
	$F_{MSY}$	Not defined		
Precautionary approach	$B_{lim}$	107 598	The breakpoint of the hockey stick relationship; in tonnes	ICES (2024b)
	$B_{pa}$	135 952	$B_{pa} = B_{lim} * e^{(\sigma * 1.645)}$ , where $\sigma = 0.142$ is estimated from assessment uncertainty in the terminal year; in tonnes	ICES (2024b)
	$F_{lim}$	Not defined		
	$F_{pa}$	Not defined		
Management plan	$SSB_{MGT}$			
	$F_{MGT}$			

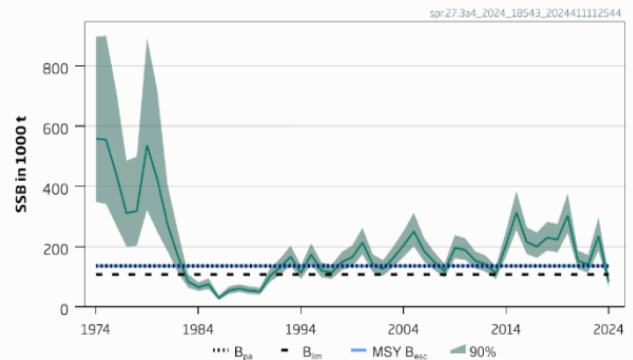
\* Not used as a reference point but used in ICES MSY approach for stocks of short-lived species.

The 2024 stock assessment projected SSB in 2024 to be 83,754t, which is below the limit reference point. The 2024 catch advice states “spawning stock size is below  $MSY B_{escapement}$ ,  $B_{pa}$ , and  $B_{lim}$ ” (ICES 2024).

### Fishing pressure



### SSB



**Figure A2.2a:** Sprat in Subarea 4 and Division 3a. Estimated fishing mortality (left) and estimated SSB (right). SSB is show relative to current reference points; there are currently no fishing mortality reference points established for the stock (ICES 2024).

The annual stock assessment produces an estimate of the current status of the stock relative to established target and limit reference points, and A2.2 is met.

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

The annual stock assessment produces a recommendation for the maximum appropriate quantity of fishery removals each year, as published in the catch advice. The 2023 catch advice states that “ICES advises that when the MSY approach is applied, catches in the period from 1 July 2024 to 30 June 2025 should be no more than 75,321t” (ICES 2024). The catch advice also provides a summary of alternative potential catch scenarios and their likely outcomes, as shown in the table below.

**Table A2.3a:** Sprat in Subarea 4 and Division 3a, annual catch scenarios. All weights are in tonnes (ICES 2024).

Basis	Total catch	F <sub>1-2</sub>	SSB (2025)	% SSB change*	% TAC change**	% advice change
	(July 2024–June 2025)	(July 2024–June 2025)				
ICES advice basis						
SSB <sub>2025</sub> ≥ MSY B <sub>escapement</sub> with F <sub>cap</sub>	75 321	1.01	158 851	90%	-48%	-48%
Other scenarios						
F = 0	0	0	187 012	123%	-100%	-100%
F = 0.4	35 884	0.4	173 192	107%	-75%	-75%
F = 0.8	63 367	0.8	163 084	95%	-56%	-56%
F = 1.0	74 784	1.00	159 039	90%	-48%	-48%
SSB <sub>2025</sub> = B <sub>pa</sub>	149 495	3.275	135 952	62%	4.1%	4.1%

\* SSB in July 2025 relative to SSB in July 2024.

\*\* The advice value (July 2024–June 2025) relative to the sum of the TACs (143 598 tonnes) for July 2023–June 2024 in Subarea 4 and Division 3.a.

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

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

ICES advice is produced according to ten Advice Principles. Principle 7 is that “To ensure that the best available, credible science has been used and to confirm that the analysis provides a sound basis for advice, all analyses and methods are peer reviewed by at least two independent reviewers. For recurrent advice, the review is conducted through a benchmark process; for special requests through one-off reviews” (ICES 2024b). In practice, this means that individual ICES documents are subjected to peer review, but also that recurrent advice, such as the stock assessments and catch recommendations for sprat, are subjected to periodic benchmarking to ensure the methodologies underpinning them remain appropriate.

Stock assessments are subject to peer review, and A2.4 is met.

**A2.5 The assessment is made publicly available.**

The stock assessment process and outcomes are made publicly available on the ICES website, including input data, Working Group meeting reports, and the results of the analyses. All of the information required to complete this assessment was freely available online, with the exception of the 2022 catch composition data provided by the applicant which would have been available from the Danish Fisheries Agency upon request.

Key sources of information on the sprat stock assessment process include the Herring Assessment Working Group report (ICES 2024a), and the sprat stock annex (ICES 2019). Additionally, stock assessment graphs and raw data can be obtained in database format from the ICES data portal (ICES 2024c).

Stock assessments and their input data and results are made publicly available, and A2.5 is met.

**References**

ICES (2019). Stock Annex: Sprat (*Sprattus sprattus*) in Division 3.a and Subarea 4 (Skagerrak, Kattegat and North Sea). ICES Stock Annexes. Report. <https://doi.org/10.17895/ices.pub.18623360.v1>

ICES (2024). Sprat (*Sprattus sprattus*) in Division 3.a and Subarea 4 (Skagerrak, Kattegat, and North Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.25019690.v1>

ICES (2024a). Herring Assessment Working Group for the Area South of 62°N (HAWG). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.25305532.v4>

ICES (2024b). Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, section 1.1. <https://doi.org/10.17895/ices.advice.22116890>

ICES (2024c). Stock assessment graphs & data. <a href="http://standardgraphs.ices.dk/stockList.aspx">http://standardgraphs.ices.dk/stockList.aspx</a>	
Links	
MarinTrust Standard clause	1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
FAO CCRF	12.3
GSSI	D.5.01, D.6.02, D.3.14

<b>A3</b>	<b>Harvest Strategy - Minimum Requirements</b>		
	<b>A3.1</b>	There is a mechanism in place by which total fishing mortality of this species is restricted.	PASS
	<b>A3.2</b>	Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.	PASS
	<b>A3.3</b>	Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).	PASS
		<b>Clause outcome:</b>	PASS
<p><b>A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.</b></p> <p>Fishing mortality of sprat is restricted through the use of separate TACs for Subarea 4 and Division 3a. Based on a historical approach, the ICES-recommended total TAC is divided between the two regions by apportioning 18.3% to Division 3a and the remainder to Subarea 4. The final TACs are agreed during an international consultation between the UK, EU and Norway prior to the start of the sprat fishing season. The most recent of these occurred on the 22<sup>nd</sup>-24<sup>th</sup> May 2024 (Scottish Government 2024), as a result of which the 2024 combined TAC was set in line with ICES advice at 75,321t.</p> <p>With the exception of 2022 (see Table A3.2a), the TAC system is generally effective at restricting total fishery removals of sprat to the level recommended by ICES. A3.1 is met.</p> <p><b>A3.2 Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.</b></p> <p>Catch advice for sprat in Subarea 4 and Division 3a has been provided for a single stock since 2019. Separate TACs are set for sprat in Subarea 4 and sprat in Division 3a; however, since 2020 the total of the two TACs has been in line with the ICES advice for the combined stock. In most years, total catch is below the TAC; the only exception to this since 2019 was in 2022, when total catch was 90,105t against a TAC of 68,690t.</p> <p>Quota can be transferred between years, and although this does not appear to have resulted in excess catch frequently, it may be the reason for 2022 catches exceeding the ICES advice. In other fisheries (e.g. sandeel) this “quota flex” has sometimes been the cause of catches substantially exceeding the ICES advice.</p> <p><b>Table A3.2a:</b> Sprat in Subarea 4 and Division 3a, ICES advice, TAC, and catches for each fishing season. Prior to 2019 sprat in this area was managed as two separate stocks. Note that Official Catches are for the calendar year, whereas the ICES Advice, Agreed TAC, and ICES Catches are for the period 1 July – 30 June; therefore it is most appropriate to compare these latter three values when considering whether the advice has been followed (ICES 2023).</p>			

Year	ICES advice	Predicted catch corresponding to advice*	Agreed TAC*	Official catches^	ICES catches*
2019	MSY approach, $F_{cap}$ (catch)	≤ 138 726	151 940***	151 492	146 468
2020	MSY approach, $F_{cap}$ (catch)	≤ 207 807	207 807	183 401	182 654
2021	MSY approach, $F_{cap}$ (catch)	≤ 106 715	106 715	82 134	80 761
2022	MSY approach, $F_{cap}$ (catch)	≤ 68 690	68 690	91 031**	90 105
2023	MSY approach, $F_{cap}$ (catch)	≤ 143 598	143 598	96 188**	92 379^^
2024	MSY approach, $F_{cap}$ (catch)	≤ 75 321			

\* For 1 July to 30 June. Catches in coastal areas of Norway are excluded.

\*\* Catches are preliminary.

\*\*\* The sum of the TACs for July 2019–June 2020 in Subarea 4 and from January 2019 to June 2020 in Division 3.a.

^ Calendar year.

^^ Catches are preliminary and include data until 1 March 2024.

Since the merging of sprat in Subarea 4 and Division 3a into a single stock, total catches have only exceeded the ICES advice in one year (2022). Although this was substantial, it is not “regular” as per the requirement of A3.2, and this clause is met.

**A3.3 Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).**

Sprat biomass is currently estimated to be below the limit reference point (see A2.2) (ICES 2024). ICES has recommended a maximum catch of 75,321t for the 2024/25 season, and this has been adopted as the international TAC (Scottish government 2024).

In setting the advice, ICES states that the procedure is as follows: “The advice is based on the MSY escapement strategy with an  $F_{cap}$  that relies on a prediction of SSB after the fishery has taken place. A high proportion of the predicted SSB consists of recruits from the previous year for which the abundance and proportion of mature fish at spawning time are unknown. This contributes to the uncertainty in the forecast, which is mitigated by the  $F_{cap}$ ” (ICES 2024). ICES estimates that if the full TAC is taken in the 2024/25 season, SSB in 2025 will be 158,851t, which is above the target reference point level ( $MSY_{B_{escapement}} = 135,952t$ ).

Taking into account the biology of the species, the escapement management strategy is an appropriate approach for a stock which consists primarily of recruits from the previous year. The MT guidance states that “Management measures should specify the actions to be taken in the event that the status of the stock under consideration drops below levels consistent with achieving management objectives that allow for the restoration of the stock to such levels within a reasonable timeframe”. Given that the recommended catch levels will allow for the restoration of the stock to levels consistent with management objectives within one year, the assessor considers that the fishery meets the requirements of this clause.

Although the stock is estimated to be below the limit reference point and the fishery has not been closed, the biology of the species and the projected recovery of biomass under the recommended catch level means that the fishery meets the requirements of A3.3.

**References**

ICES (2024). Sprat (*Sprattus sprattus*) in Division 3.a and Subarea 4 (Skagerrak, Kattegat, and North Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.25019690.v1>

Scottish Government (2024). United Kingdom, European Union and Norway – North Sea sprat fisheries consultations: agreed record for 2024. <https://www.gov.scot/publications/united-kingdom-european-union-and-norway-north-sea-sprat-fisheries-consultations-agreed-record-for-2024/>

Standard clause 1.3.2.1.3

**Links**

<b>MarinTrust Standard clause</b>	1.3.2.1.3, 1.3.2.1.4
<b>FAO CCRF</b>	7.2.1, 7.22 (e), 7.5.3
<b>GSSI</b>	D3.04, D6.01



<b>A4</b>	<b>Stock Status - Minimum Requirements</b>							
	<b>A4.1</b>	<p>The stock is at or above the target reference point, OR IF NOT:</p> <p>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</p> <p>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</p>						
<b>Clause outcome:</b>		PASS						
<p><b>A4.1 The stock is at or above the target reference point, OR IF NOT:</b></p> <p><b>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</b></p> <p><b>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</b></p> <p>As noted in A2.3, in the most recent stock assessment, conducted in 2023, sprat SSB was estimated to be below the limit reference point level (ICES 2024).</p> <p>The MT guidance for this clause states that “A Fail is awarded if the stock is below the limit reference point and fishing is occurring with no evidence of stock rebuilding within a specified timeframe.</p> <p>The assessor will consider the biology of the species and the scale and intensity of the fishing and the management system and other relevant issues over which to judge fluctuations”.</p> <p>Taking into account the projection from ICES that SSB will be above the target reference point level in 2025 under the recommended level of fishing; that the escapement-based management approach has been judged precautionary; and that the ecological characteristics of sprat make population fluctuations likely; the assessor considers the fishery to meet the requirements of this clause.</p> <p>Clause A4.1 is met.</p>								
<p><b>References</b></p> <p>ICES (2024). Sprat (<i>Sprattus sprattus</i>) in Division 3.a and Subarea 4 (Skagerrak, Kattegat, and North Sea). ICES Advice: Recurrent Advice. Report. <a href="https://doi.org/10.17895/ices.advice.25019690.v1">https://doi.org/10.17895/ices.advice.25019690.v1</a></p>								
<p><b>Links</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>MarinTrust Standard clause</b></td> <td><b>1.3.2.1.4</b></td> </tr> <tr> <td><b>FAO CCRF</b></td> <td><b>7.2.1, 7.2.2 (e)</b></td> </tr> <tr> <td><b>GSSI</b></td> <td><b>D6 01</b></td> </tr> </table>			<b>MarinTrust Standard clause</b>	<b>1.3.2.1.4</b>	<b>FAO CCRF</b>	<b>7.2.1, 7.2.2 (e)</b>	<b>GSSI</b>	<b>D6 01</b>
<b>MarinTrust Standard clause</b>	<b>1.3.2.1.4</b>							
<b>FAO CCRF</b>	<b>7.2.1, 7.2.2 (e)</b>							
<b>GSSI</b>	<b>D6 01</b>							

<b>Species Name</b>	<b>Herring in Subarea 4 and Divisions 3a and 7d, Autumn Spawners (NSAS herring)</b>
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<b>A1</b>	<b>Data Collection - Minimum Requirements</b>		
	<b>A1.1</b>	Landings data are collected such that the fishery-wide removals of this species are known.	PASS
	<b>A1.2</b>	Sufficient additional information is collected to enable an indication of stock status to be estimated.	PASS
<b>Clause outcome:</b>			PASS

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

Landings data are available for herring caught throughout the ICES area. Management of NSAS herring is complicated by the number of different fisheries in which it is caught, and also by the coexistence of several other partially overlapping herring stocks. Most significant of these is the Western Baltic Spring-Spawning (WBSS) herring stock. During the NSAS stock assessment, the Herring Assessment Working Group (HAWG) simultaneously considers four fleets across the NSAS distribution (ICES 2024):

- Fleet A: The directed herring fishery for human consumption in the Subarea 4 and Division 7d, plus herring bycatch in the Norwegian reduction fishery. This fleet almost exclusively catches NSAS herring, but takes some WBSS herring as bycatch in the eastern part of Subarea 4.
- Fleet B: Herring bycatch by the industrial reduction fleet operating in Subarea 4. This bycatch is assumed to be exclusively NSAS herring. This fleet represents part of the fishery covered by this MT assessment.
- Fleet C: The directed herring fishery for human consumption in Division 3a, including the small meshed Swedish fishery. The catch by Fleet C is a mixture of NSAS and WBSS herring.
- Fleet D: Bycatch of herring in the Danish small-meshed fisheries targeting sprat, Norway pout, and sandeel. The catch by Fleet D is a mixture of NSAS and WBSS herring, in a ratio of roughly 3:1 NSAS to WBSS.

The table below shows the estimated proportion of NSAS herring catch taken by each of these Fleets in 2023. Bycatch in the sprat, Norway pout and sandeel fisheries represented around 1.9% of the total NSAS landings, and therefore while the quantity of herring taken in the sprat fishery is significant relative to the amount of sprat taken, it is quite small compared to the scale of the targeted herring fishery.

**Table A1.1a:** NSAS herring, catch distribution by fleet and area in 2023 as estimated by ICES (ICES 2024)

Area where NSAS are caught	Fleet*	NSAS 2023 catches (tonnes)
North Sea fisheries (Subarea 4, Division 7.d)	A	411 324
	B	7 718
Division 3.a	C	563
	D	169

\* Fleet definitions are given in the section "Issues relevant for the advice"

Herring catches throughout Subarea 4 and Divisions 3a and 7d are summarised by fleet, area and stock in a table dubbed the "Wonderful Table", which is published in the ICES catch advice (ICES 2024).

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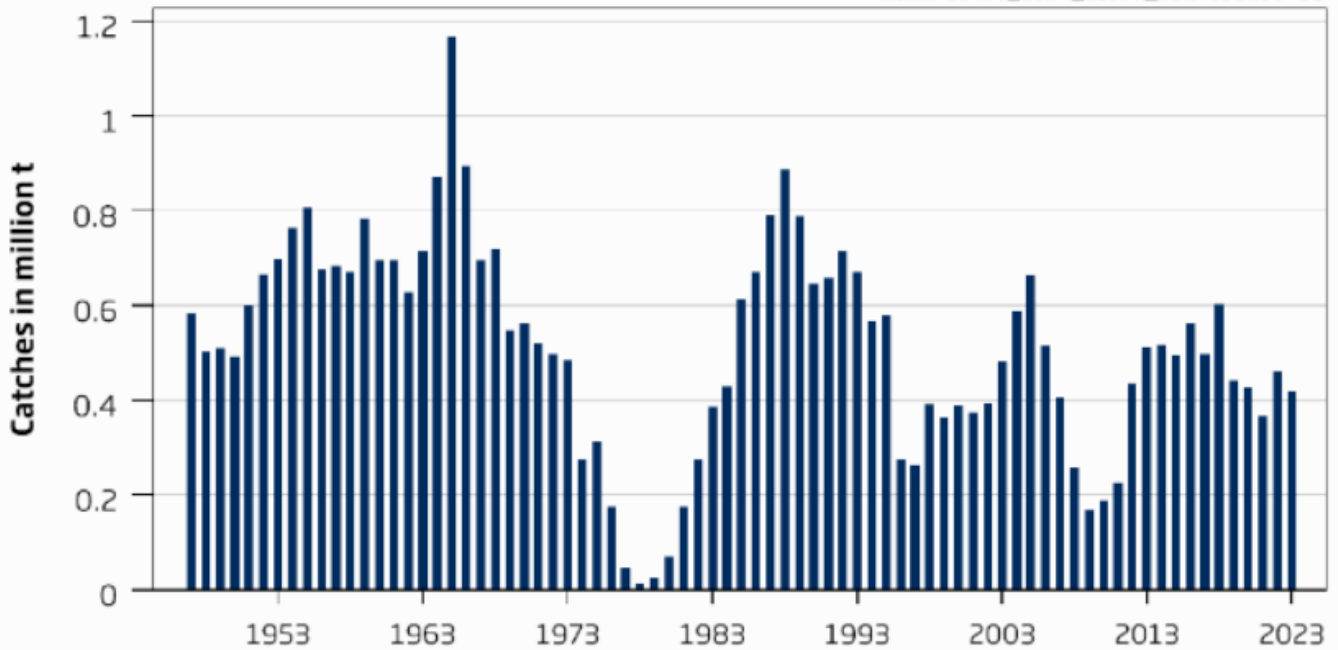


Figure A1.1a: NSAS herring, total annual catches (ICES 2024)

Landings data are collected such that fishery-wide removals of the species are known, and A1.1 is met.

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

The stock assessment process is supported by the collection and analysis of a range of additional information, as detailed in the HAWG report (ICES 2024a). This includes:

- Data from commercial catch sampling, including numbers, weight and catch at age, and relative age composition, by area and by quarter. Catch sampling covers 81% of the total catch, and 31 of the 108 reported métiers.
- Results from two acoustic surveys: the North Sea Herring and Pelagic Ecosystem Survey (HERAS) and the MSHAS survey in the West of Scotland and the Malin Shelf. The results of these surveys provide spatial distributions of herring, abundance by number and biomass-at-age by strata, and distributions of mean weigh- and proportion mature-at-age.
- Results of the International Herring Larvae Surveys in the North Sea (IHLS), which monitor larval abundance and distribution in key regions. The 2021 inter-benchmarking resulted in the direct incorporation of the Larvae Abundance Index (LAI) produced by these surveys into the stock assessment model.
- The International Bottom Trawl Survey in Quarter 1 (IBTS-Q1), which provides abundance estimates for herring larvae and also a time series for adult herring abundance in the North Sea.

There does not appear to be any indication in the ICES documentation to suggest that information gaps are the cause of any significant uncertainty in assessment outcomes. Sufficient additional information is collected to support an estimation of stock status, and A1.2 is met.

**References**

ICES (2024). Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.25019285.v1>

ICES (2024a). Herring Assessment Working Group for the Area South of 62°N (HAWG). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.25305532.v4>

**Links**

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

GSSI	D.4.01, D.5.01, D.6.02, D.3.14
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<b>A2</b>	<b>Stock Assessment - Minimum Requirements</b>		
	<b>A2.1</b>	A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.	PASS
	<b>A2.2</b>	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.	PASS
	<b>A2.3</b>	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.	PASS
	<b>A2.4</b>	The assessment is subject to internal or external peer review.	PASS
<b>A2.5</b>	The assessment is made publicly available.	PASS	
<b>Clause outcome:</b>			PASS

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

A stock assessment is conducted annually by the ICES HAWG, most recently in 2024 (ICES 2024). The HAWG uses an age-based analytical assessment which incorporates catch data in the model and forecast. The input for the model included commercial catches disaggregated by fleets and split between NSAS herring and WBSS herring, as discussed elsewhere in this MT assessment. The stock assessment also incorporated five survey indices, annual maturity data from the HERAS survey (described in A1.2), and natural mortality estimates from the SMS North Sea multispecies model. The stock assessment was inter-benchmarked in 2021, with reference points most recently updated in 2024.

A stock assessment is conducted every year, and takes into account all fishery removals and the characteristics of the species, and A2.1 is met.

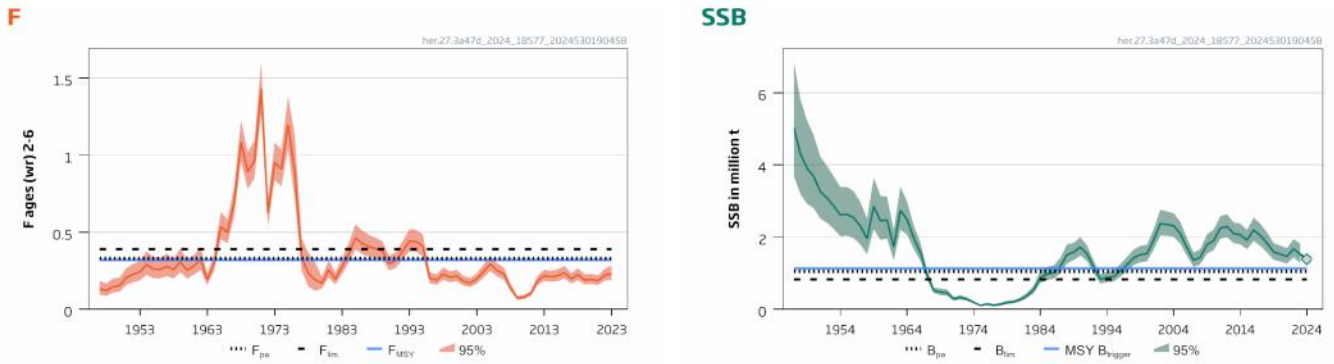
**A2.2 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.**

Biomass- and fishing mortality-based reference points have been established for the stock, and were updated in 2024 (ICES 2024). Two sets of reference points have been established: target reference points based on the MSY approach, and target and limit reference points based on the precautionary approach. ICES catch advice is provided based on the MSY approach. A table summarising the reference points is provided below.

**Table A2.2a:** NSAS herring, reference points and their technical bases. Weights in tonnes (ICES 2024).

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	1 130 747	5th percentile of biomass when fished at $F_{MSY}$	ICES (2024a)
	$F_{MSY}$	0.32	Stochastic simulations (EqSim) with a segmented regression stock–recruitment curve fitted to data from the low productivity period (2002–2023)	ICES (2024a)
Precautionary approach	$B_{lim}$	828 874	Breakpoint in the segmented regression of the stock–recruitment time-series (1947–2023, excluding the recovery period 1979–1990)	ICES (2024a)
	$B_{pa}$	1 049 521	$B_{pa} = B_{lim} \times \exp(1.645 \times \sigma)$ with $\sigma \approx 0.14$ , based on the $\sigma$ from the terminal assessment year	ICES (2024a)
	$F_{lim}$	0.39	The F that, on average, leads to $B_{lim}$	ICES (2024a)
	$F_{pa}$	0.33	The maximum F that provides a 95% probability for SSB to be above $B_{lim}$ ( $F_{P05}$ with advice rule [AR])	ICES (2024a)

The 2024 catch advice included an estimation of SSB in 2024, at 1,386,241t. Fishing mortality (F) in 2024 was estimated to be 0.332, based on total assumed catches. This places SSB above the target reference point, and F at the target reference point. The graphs below show the current and historical fishing mortality and stock biomass; however, the reference points marked on these graphs are those established in 2024.



**Figure A2.2a:** NSAS herring, fishing mortality and SSB relative to current reference points. The grey diamond in the SSB graph is the projected SSB at spawning time 2024 (ICES 2024).

The stock assessment provides an indication of the status of the stock relative to target and limit reference points, and A2.2 is met.

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

ICES produces annual catch advice for the NSAS stock which is based on the results of the stock assessment. The most recent advice was published in May 2024 (ICES 2022). The headline recommendation of the advice was for catches in 2025 to be no more than 412,383t, in line with the MSY approach. This recommendation included a breakdown of the anticipated share of the catch between the four fleets described in A1.1. Additionally, the ICES catch advice provides a range of other potential catch scenarios and their likely impacts on stock biomass should they be implemented. The range of scenarios, including the final recommendation, is provided in the table below.

**Table A2.3a:** NSAS herring, annual catch scenarios. All weights in tonnes (ICES 2024)

Basis	F values by fleet and total						NSAS catches by fleet				Total stock catch	Biomass*				% advice change <sup>†</sup>
	A-fleet F <sub>ages (wr) 2-6</sub>	B-fleet F <sub>ages (wr) 0-1</sub>	C-fleet F <sub>ages (wr) 1-3</sub>	D-fleet F <sub>ages (wr) 0-1</sub>	Total F <sub>ages (wr) 2-6</sub>	Total F <sub>ages (wr) 0-1</sub>	A-fleet	B-fleet	C-fleet <sup>‡</sup>	D-fleet <sup>‡</sup>		SSB 2025	SSB 2026 <sup>**</sup>	%SSB change <sup>***</sup>	A-fleet %TAC change <sup>****</sup>	
ICES advice basis																
MSY approach (F <sub>MSY</sub> X SSB <sub>2025</sub> / MSY <sub>trigger</sub> )	0.313	0.056	0	0	0.313	0.062	400909	11474	0	0	412383	1106378	923708	-20.2	-21.4	-22.5
Other scenarios																
F = 0	0	0	0	0	0	0	0	0	0	0	0	1384953	1506455	-0.1	-100	-100
F = F <sub>2023</sub>	0.332	0.06	0	0	0.332	0.066	421401	12154	0	0	433555	1091402	897940	-21.3	-17.4	-18.5
F <sub>pa</sub>	0.33	0.059	0	0	0.33	0.065	418892	12070	0	0	430962	1093240	901075	-21.1	-17.9	-19
F <sub>lim</sub>	0.389	0.07	0	0	0.39	0.077	480196	14168	0	0	494364	1047981	826137	-24.4	-5.9	-7.1
SSB <sub>2025</sub> = B <sub>pa</sub>	0.387	0.07	0	0	0.388	0.077	478127	14096	0	0	492223	1049521	828610	-24.3	-6.3	-7.5
SSB <sub>2025</sub> = B <sub>lim</sub>	0.727	0.131	0	0	0.728	0.144	762724	25491	0	0	788215	828874	524474	-40.2	49.5	48.1
SSB <sub>2025</sub> = MSY B <sub>trigger</sub>	0.282	0.051	0	0	0.282	0.056	367331	10383	0	0	377714	1130747	966766	-18.4	-28	-29
MSY approach with F <sub>ages 0-1</sub> = 0.05 target <sup>##</sup>	0.313	0.044	0	0	0.313	0.05	401027	9082	0	0	410109	1106363	924716	-20.2	-21.4	-22.9
MSY approach with C-fleet catches and C- and D-fleet TAC transfer <sup>###</sup>	0.312 <sup>***</sup>	0.084	0.0004	0.002	0.313	0.092	400344 <sup>*</sup>	16830 <sup>**</sup>	256	438	417868	1106451	921141	-20.2	-21.6	-21.5
MSY approach with C- and D-fleet catches and no C- and D-fleet TAC transfer <sup>###</sup>	0.301	0.055	0.02	0.026	0.314	0.095	387092	11031	12717	5225	416065	1108250	917457	-20.1	-24.1	-21.8

\* For autumn-spawning stocks, the SSB is influenced by fisheries and natural mortality between 1 January and spawning.  
 \*\* Assuming same fishing mortality in 2026 as in 2025.  
 \*\*\* SSB (2025) relative to SSB (2024).  
 \*\*\*\* A-fleet catches (2025) relative to TAC 2024 for the A-fleet (510 323 tonnes).  
 † Advice value 2025 relative to advice value 2024, using catches for all fleets (532 166 tonnes).  
 ‡ Includes a transfer of 97.9% of the C-fleet TAC in 2025 (22 229 t).  
 ‡ Includes a transfer of 91.6% of the D-fleet TAC in 2025 (6 659 t).  
 ‡ Fishing pressure inclusive of catches induced by C- fleet transfer.  
 # The catch for C- and D-fleets in Division 3.a are set to zero because of the zero catch advice given for 2025 for the western Baltic spring-spawning (WBSS) herring stock, except for the last two scenarios.  
 ## B-fleet fishing pressure set independently from the A-fleet fishing pressure (ICES, 2024a).  
 ### Fishing pressure inclusive of catches induced by D- fleet transfer.

ICES provides a clear indication of the maximum level of fishery removals appropriate for the current and projected future stock status, and A2.3 is met.

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

ICES advice is produced according to ten Advice Principles. Principle 7 is that “To ensure that the best available, credible science has been used and to confirm that the analysis provides a sound basis for advice, all analyses and methods are peer reviewed by at least two independent reviewers. For recurrent advice, the review is conducted through a benchmark process; for special requests through one-off reviews” (ICES 2024b). In practice, this means that individual ICES documents are subjected to peer review, but also that recurrent advice, such as the stock assessments and catch recommendations for NSAS herring, are subjected to periodic benchmarking to ensure the methodologies underpinning them remain appropriate. The stock assessment for NSAS herring was most recently inter-benchmarked in 2021 (ICES 2021).

Stock assessments are subject to peer review, and A2.4 is met.

**A2.5 The assessment is made publicly available.**

The stock assessment process and outcomes are made publicly available on the ICES website, including input data, Working Group meeting reports, and the results of the analyses. All of the information required to complete this assessment was freely available online.

Key sources of information on the NSAS herring stock assessment process include the North Sea herring inter-benchmarking report (ICES 2021) and the Herring Assessment Working Group report (ICES 2024a). Additionally, stock assessment graphs and raw data can be obtained in database format from the ICES data portal (ICES 2024c).

Stock assessments and their input data and results are made publicly available, and A2.5 is met.

**References**

ICES (2017). Stock Annex: Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel). ICES Stock Annexes. Report.

<https://doi.org/10.17895/ices.pub.18622589.v2>

ICES (2021). Inter-Benchmark Protocol of North Sea Herring (IBPNSHerring). ICES Scientific Reports. 3:98.

<http://doi.org/10.17895/ices.pub.8398>

ICES (2024). Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.25019285.v1>

ICES (2024a). Herring Assessment Working Group for the Area South of 62°N (HAWG). ICES Scientific Reports. Report.

<https://doi.org/10.17895/ices.pub.25305532.v4>

ICES (2024b). Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, section 1.1. <https://doi.org/10.17895/ices.advice.22116890>

ICES (2024c). Stock assessment graphs & data. <http://standardgraphs.ices.dk/stockList.aspx>

**Links**

<b>MarinTrust Standard clause</b>	1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
<b>FAO CCRF</b>	12.3
<b>GSSI</b>	D.5.01, D.6.02, D.3.14

<b>A3</b>	<b>Harvest Strategy - Minimum Requirements</b>		
	<b>A3.1</b>	There is a mechanism in place by which total fishing mortality of this species is restricted.	PASS
	<b>A3.2</b>	Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.	PASS

	<b>A3.3</b>	Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).	PASS
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**Clause outcome:** PASS

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

Total fishing mortality of NSAS herring is restricted through the use of a series of quotas. These include separate TACs for Divisions 4a-b; Divisions 4c & 7d; and Division 3a. Additionally, there is a limit on the total allowable quantity of bycatch in the small-meshed fisheries, which includes the Danish sprat-targeting fishery which is the subject of this MT assessment (ICES 2024). The international TACs are discussed and agreed between the EU, UK and Norway during fisheries consultations, the most recent of which occurred in late 2023. At these consultations, it was agreed that the 2024 TAC for the A-fleet would be 510,323t; for the B-Fleet 7,716t; the C-Fleet 29,735t; and the D-Fleet 6,659t (EC 2023).

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

The ICES catch advice includes a summary of quotas recommendations, quotas, and actual catches of NSAS herring since 1987. Since 2020, catches have not exceeded the ICES recommendation by a substantial amount; the only year where this occurred was 2023, where catch was 419,77t against a recommendation of 414,886t (ICES 2024). Thus, the recommendation was exceeded, but by less than 10%. As SSB is currently estimated to be above the limit reference point, these catches fall within the range allowed by A3.2. As a final note, it is also relevant that the sprat-targeting fishery which is the subject of this MT assessment is responsible for a relatively small proportion of the total NSAS herring catch.

Overall, fishery removals do not regularly exceed the advice by more than 10%, and stock biomass is estimated to be above the target reference point. A3.2 is met.

**Table A3.2a:** NSAS herring, ICES advice, TACs, official landings, and ICES catch estimates. All weights are in tonnes. Note that the values to compare when considering whether catches were in line with the ICES advice are “Predicted catch corresponding to advice” and “ICES catch of autumn spawners in 3a, 4, 7d” (ICES 2024)

Year	ICES advice	Predicted catch corresponding to advice	Agreed TAC*	B-fleet###	ICES landings in 4, 7.d#	ICES catch in 4, 7.d##	ICES catch of autumn spawners in 3.a, 4, 7.d
2017	2014 management strategy	458 926	481 608	11 375	491 693	491 693	498 662
2018	2014 management strategy	517 891	600 588	9 669	602 328	602 328	603 536
2019	ICES MSY approach	311 572	385 008	13 190	444 001	445 631	442 886
2020	ICES MSY approach	431 062	385 008	8 954	424 799	427 321	426 928
2021	ICES MSY approach	365 792	356 357	7 750	364 453	364 616	365 351
2022	ICES MSY approach	532 183	427 628	8 174	465 957	467 134	462 246
2023	ICES MSY approach	414 886	396 556	7 716	420 699	421 404	419 774
2024	ICES MSY approach	532 166	510 323	7 716			
2025	ICES MSY approach	412 383					

\* Catch in directed fishery in Subarea 4 and Division 7.d (A-fleet).

\*\* Revision of advice given in 1995.

\*\*\* Revised in June 1996, down from 263 000 tonnes.

# Landings are provided by ICES and do not in all cases correspond to official statistics.

## ICES catch includes unallocated and misreported landings, discards, and slipping. Includes catches for western Baltic spring-spawning (WBSS) herring in the North Sea.

### Bycatch ceiling up to 2012 and TAC from 2013.

**A3.3 Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).**

NSAS biomass has not been estimated to be below the limit reference point for over 20 years. Catch reflects the ICES advice, which itself is the result of applying the MSY approach. Therefore, the advised catch (and therefore actual catches) is reduced when SSB is lower. In other fisheries where SSB is not projected to remain above the limit reference point should any fishing occur, ICES has recommended that fishery removals be reduced to zero (e.g. Sandeel in Divisions 4b-c, Sandeel Area 1r, in 2022 (ICES 2022a)). There is no evidence to suggest this would not also occur in the NSAS herring fishery, and further there is no evidence to suggest the TAC would not continue to be set in line with the advice. Therefore A3.3 is met.

**References**

EC (2023). Agreed record of fisheries consultations between the European Union, Norway and the United Kingdom for 2024. 8<sup>th</sup> December 2023. [https://oceans-and-fisheries.ec.europa.eu/document/download/8049fad9-a262-414b-93c7-32f86390e366\\_en?filename=2023-12-08-EU-NO-UK-Agreed-Record-2024.pdf](https://oceans-and-fisheries.ec.europa.eu/document/download/8049fad9-a262-414b-93c7-32f86390e366_en?filename=2023-12-08-EU-NO-UK-Agreed-Record-2024.pdf)

ICES (2024). Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.25019285.v1>

Standard clause 1.3.2.1.3

**Links**

<b>MarinTrust Standard clause</b>	1.3.2.1.3, 1.3.2.1.4
<b>FAO CCRF</b>	7.2.1, 7.22 (e), 7.5.3
<b>GSSI</b>	D3.04, D6.01

<b>A4</b>	<b>Stock Status - Minimum Requirements</b>	
	<b>A4.1</b>	<p>The stock is at or above the target reference point, OR IF NOT:</p> <p>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</p> <p>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</p>
<b>Clause outcome:</b>		PASS
<p><b>A4.1 The stock is at or above the target reference point, OR IF NOT:</b></p> <p><b>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</b></p> <p><b>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</b></p> <p>SSB in 2024 was estimated in the most recent stock assessment to be 1,386,241t, which is larger than the MSY-based target reference point (MSY <math>B_{trigger}</math>, 1,130,747t) and the precautionary approach-based target reference point (<math>B_{pa}</math>, 1,049,521t). Additionally, the 2022 catch advice states that “fishing pressure on the stock is below <math>F_{MSY}</math> and the spawning-stock size is above MSY <math>B_{trigger}</math>, <math>B_{pa}</math>, and <math>B_{lim}</math>” (ICES 2024). Therefore, the stock is above the target reference point, and the first requirement of this clause is met.</p>		
<b>References</b>		
<p>ICES (2024). Herring (<i>Clupea harengus</i>) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel). ICES Advice: Recurrent Advice. Report. <a href="https://doi.org/10.17895/ices.advice.25019285.v1">https://doi.org/10.17895/ices.advice.25019285.v1</a></p>		
<b>Links</b>		
<b>MarinTrust Standard clause</b>	1.3.2.1.4	



FAO CCRF	7.2.1, 7.2.2 (e)
GSSI	D6 01

## CATEGORY B SPECIES

Category B species are those which make up greater than 5% of landings in the applicant raw material, but which are not subject to a species-specific research and management regime sufficient to pass all Category A clauses. If there are no Category B species in the fishery under assessment, this section can be deleted.

Category B species are assessed using a risk-based approach. The following process should be completed once for each Category B species.

### If there are estimates of biomass (B), fishing mortality (F), and reference points

It is possible for a Category B species to have some biomass and fishing mortality data available. When sufficient information is present, the assessment team should use the following risk matrix to determine whether the species should be recommended for approval.

TABLE B(A) - F, B AND REFERENCE POINTS ARE AVAILABLE

<b>Biomass is above MSY / target reference point</b>	Pass	Pass	Pass	Fail	Fail
<b>Biomass is below MSY / target reference point, but above limit reference point</b>	Pass, but re-assess when fishery removals resume	Pass	Fail	Fail	Fail
<b>Biomass is below limit reference point (stock is overfished)</b>	Pass, but re-assess when fishery removals resume	Fail	Fail	Fail	Fail
<b>Biomass is significantly below limit reference point (Recruitment impaired)</b>	Fail	Fail	Fail	Fail	Fail
	<b>Fishery removals are prohibited</b>	<b>Fishing mortality is below MSY or target reference point</b>	<b>Fishing mortality is around MSY or target reference point, or below the long-term average</b>	<b>Fishing mortality is above the MSY or target reference point, or around the long-term average</b>	<b>Fishing mortality is above the limit reference point or above the long-term average (Stock is subject to overfishing)</b>

## If the biomass / fishing pressure risk assessment is not possible

Initially, the resilience of each Category B species to fishing pressure should be estimated using the American Fisheries Society procedure described in Musick, J.A. (1999). This approach is used as the resilience values for many species and stocks have been estimated by FishBase and are already available online. For details of the approach, please refer to Appendix A. Determining the resilience provides a basis for estimating the risk that fishing may pose to the long-term sustainability of the stock. Table B(b) should be used to determine whether the species should be recommended for approval.

**TABLE B(B) - NO REFERENCE POINTS AVAILABLE. B = CURRENT BIOMASS; B<sub>av</sub> = LONG-TERM AVERAGE BIOMASS; F = CURRENT FISHING MORTALITY; F<sub>av</sub> = LONG-TERM AVERAGE FISHING MORTALITY.**

<b>B &gt; B<sub>av</sub> and F &lt; F<sub>av</sub></b>	Pass	Pass	Pass	Fail
<b>B &gt; B<sub>av</sub> and F or F<sub>av</sub> unknown</b>	Pass	Pass	Fail	Fail
<b>B = B<sub>av</sub> and F &lt; F<sub>av</sub></b>	Pass	Pass	Fail	Fail
<b>B = B<sub>av</sub> and F or F<sub>av</sub> unknown</b>	Pass	Fail	Fail	Fail
<b>B &gt; B<sub>av</sub> and F &gt; F<sub>av</sub></b>	Pass	Fail	Fail	Fail
<b>B &lt; B<sub>av</sub></b>	Fail	Fail	Fail	Fail
<b>B unknown</b>	Fail	Fail	Fail	Fail
<b>Resilience</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>Very Low</b>

## Assessment Results

<b>Species Name</b>		n/a
<b>B1</b>	Species Name	
	Table used (Ba, Bb)	
	Outcome	
<b>References</b>		
<b>Links</b>		
<b>MarinTrust Standard clause</b>		<b>1.3.2.2, 4.1.4</b>
<b>FAO CCRF</b>		<b>7.5.1</b>
<b>GSSI</b>		<b>D.5.01</b>

## CATEGORY C SPECIES

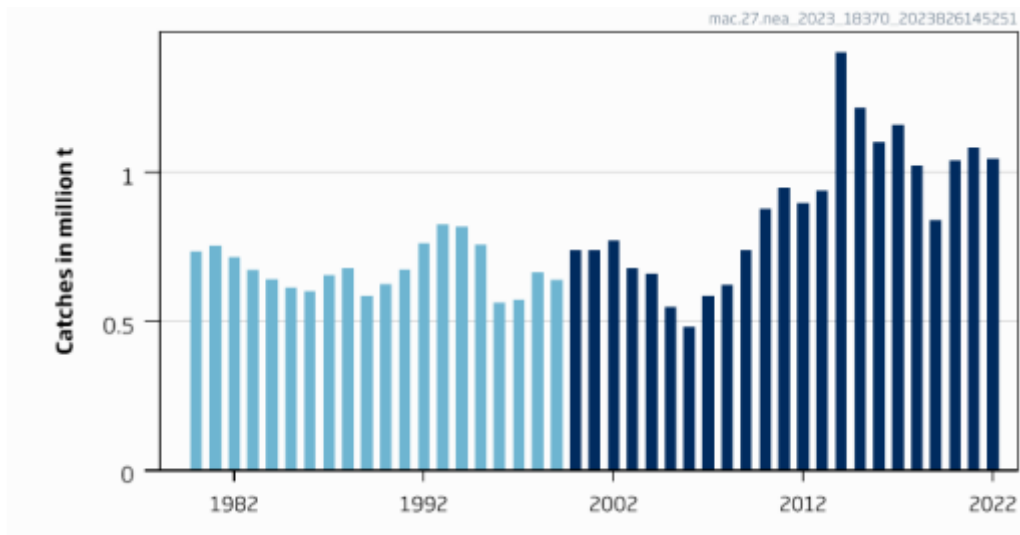
In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

Clause C1 should be completed for **each** Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

Species Name		Mackerel in the Northeast Atlantic and Adjacent Waters	
C1	Category C Stock Status - Minimum Requirements		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	PASS
	C1.2	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	PASS
<b>Clause outcome:</b>			PASS

**C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.**

Mackerel in Subareas 1-8 and 14, and Division 9a (Mackerel in the Northeast Atlantic and Adjacent Waters) is subject to annual stock assessment by the ICES Working Group on Widely Distributed Stocks (WGWIDE). The most recent stock assessment was conducted in 2023 using an age-based analytical model incorporating catches in the model and forecast. Bycatch of mackerel in other fisheries, including the sprat fishery, is incorporated into the assessment process. The most recent ICES catch advice, published in September 2023 (ICES 2023), notes the existence of three spawning components within the stock, and discusses the management measures which are currently in place to protect specific components. However, while the total of international TACs is consistently higher than the level of catches recommended by ICES, there is no indication that the current stock assessment is unreliable and C1.1 is met.

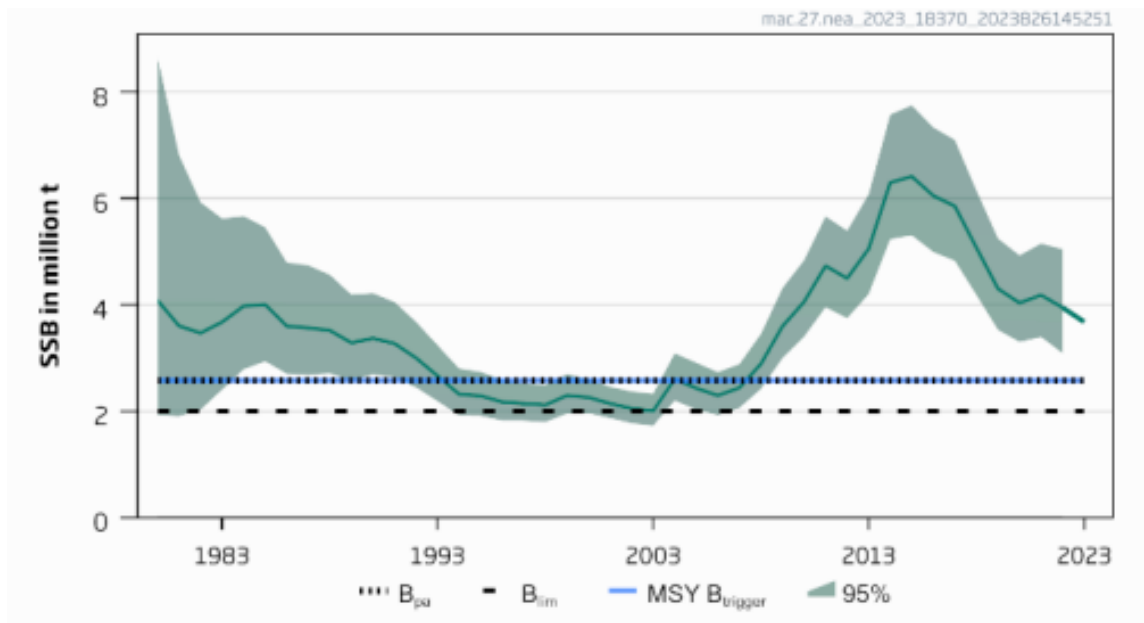


**Figure C1.1a:** Mackerel in Subareas 1-8 and 14, and Division 9a, total international catches (ICES 2023).

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.**

The 2023 catch advice provides an indication of the current status of the stock relative to established reference points. As previously, the target reference points  $MSY B_{trigger}$  and  $B_{pa}$  have been set at 2,580,000t and the limit reference point  $B_{lim}$  has been

set at 2,000,000t. The catch advice included a forecast for SSB at spawning time in 2023 of 3,681,064t, substantially larger than the target and limit reference points. The advice also states that “spawning-stock size is above MSY  $B_{trigger}$ ,  $B_{pa}$ , and  $B_{lim}$ ” (ICES 2023). Biomass is estimated by the most recent stock assessment to be above the limit reference point, and C1.2 is met.



**Figure C1.2a:** Mackerel in Subareas 1-8 and 14, and Division 9a. Estimated SSB relative to current reference points (ICES 2023).

**References**

ICES (2023). Mackerel (*Scomber scombrus*) in subareas 1–8 and 14, and in Division 9.a (Northeast Atlantic and adjacent waters). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.21856533.v1>

**Links**

MarinTrust Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01

Species Name		Whiting in Subarea 4 and Division 7d	
<b>C1</b>	<b>Category C Stock Status - Minimum Requirements</b>		
	<b>C1.1</b>	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	PASS
	<b>C1.2</b>	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	PASS
<b>Clause outcome:</b>			<b>PASS</b>
<b>C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.</b>			
<p>Bycatch of whiting in the sprat fishery are recorded and incorporated into the regular stock assessment conducted by the ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK), most recently in 2024. The June 2024 catch advice (ICES 2024) states that the 2024 stock assessment was an age-based analytical assessment which used catches in the model and forecast. The ICES catch advice notes that management units do not currently reflect the biological stocks of whiting in this region; however, there is no indication that the stock assessment includes a significant degree of uncertainty and the assessor considers C1.1 to be met.</p>			

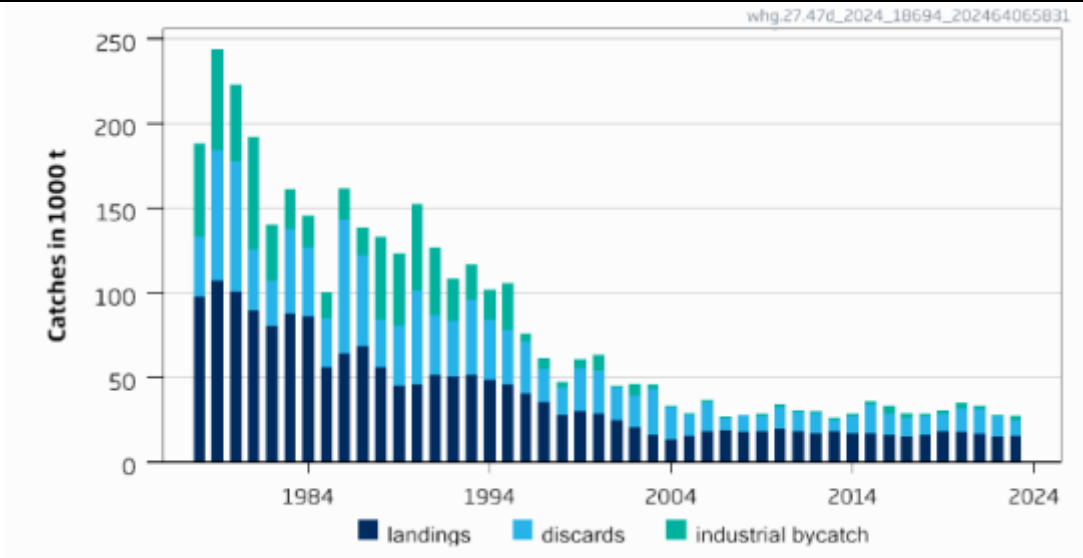


Figure C1.1a: Whiting in Subarea 4 and Division 7d, total international catches (ICES 2024)

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.**

The 2024 ICES catch advice includes an indication of the current status of the stock relative to reference points, which have been updated since the initial MT assessment for this fishery. Target reference points  $MSY B_{trigger}$ ,  $B_{pa}$  and  $MAP MSY B_{trigger}$  are now set at 167,419t. Limit reference points  $B_{lim}$  and  $MAP B_{lim}$  are set at 119,585t. The 2024 catch advice projected an SSB in 2025 of 363,356t, substantially above both the target and limit reference points. The advice also states that “spawning-stock size is above  $MSY B_{trigger}$ ,  $B_{pa}$ , and  $B_{lim}$ ” (ICES 2024). Biomass was estimated in the most recent stock assessment to be substantially larger than the limit reference point, and C1.2 is met.

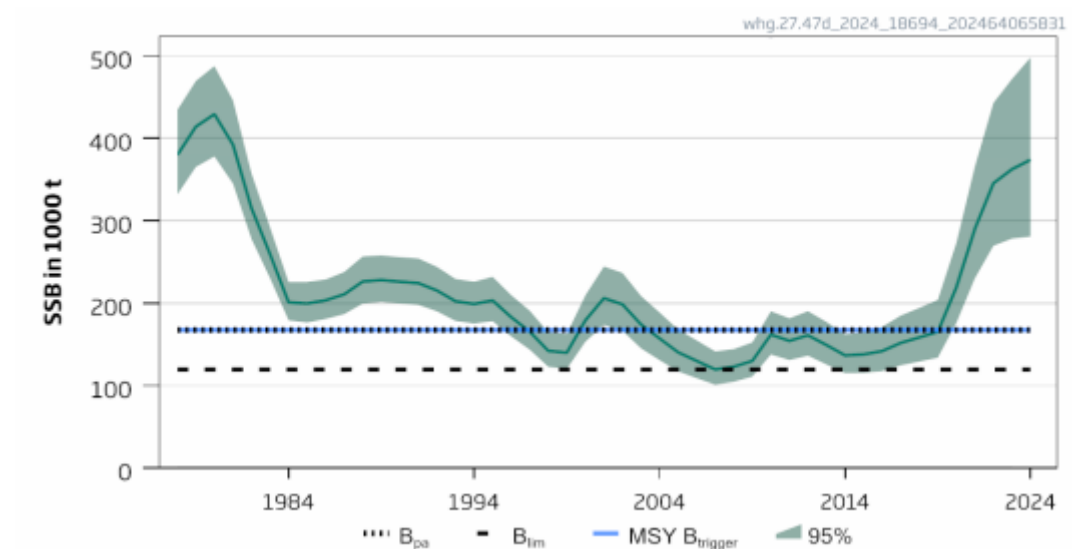


Figure C1.2a: Whiting in Subarea 4 and Division 7d, estimated SSB relative to current reference points (ICES 2024)

**References**

ICES (2024). Whiting (*Merlangius merlangus*) in Subarea 4 and Division 7.d (North Sea and eastern English Channel). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.25019720.v1>

**Links**

MarinTrust Standard clause

1.3.2.2

FAO CCRF	7.5.3
GSSI	D.3.04, D5.01

Species Name		Haddock in Subarea 4, Division 6a and Subdivision 20	
C1	Category C Stock Status - Minimum Requirements		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	PASS
	C1.2	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	PASS

Clause outcome: PASS

**C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.**

Bycatch of haddock in the sprat fishery are recorded and incorporated into the regular stock assessment conducted by the ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK), most recently in 2024. The June 2024 catch advice (ICES 2024) states that the 2024 stock assessment was an age-based analytical assessment which used catches in the model and forecast. C1.1 is met.

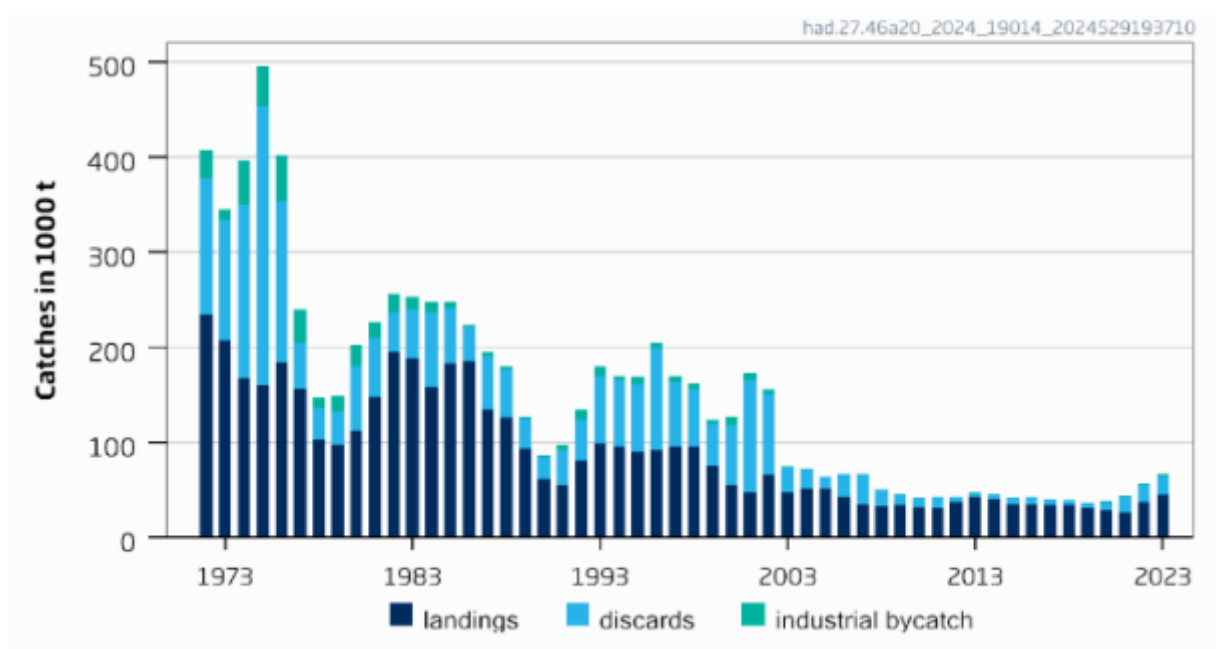
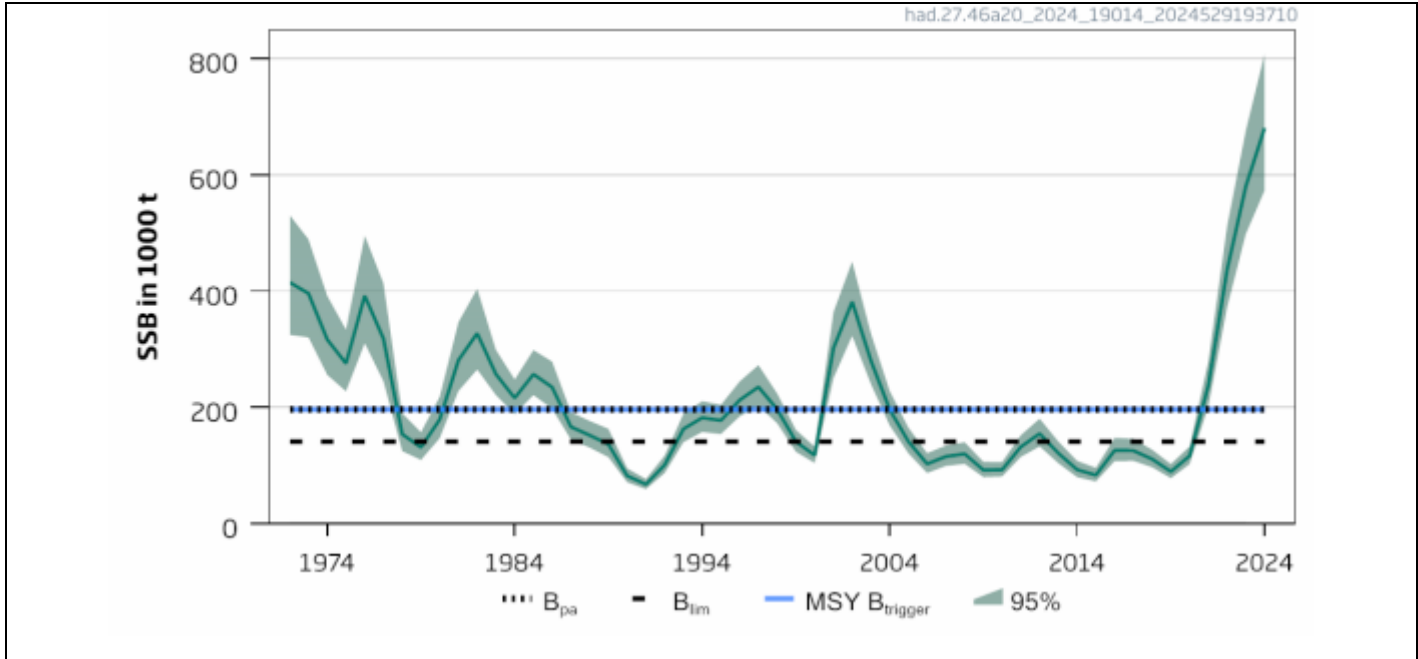


Figure C1.1a: Haddock in Subarea 4, Division 6a, and Subdivision 20, total international catches (ICES 2024)

**C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.**

The 2024 ICES catch advice includes an indication of the current status of the stock relative to reference points. The target reference points  $MSY B_{trigger}$ ,  $B_{pa}$ , and  $MAP MSY B_{trigger}$  have been set at 196,402t. The limit reference points  $B_{lim}$  and  $MAP B_{lim}$  have been set at 141,339t. The 2024 catch advice projected an SSB in 2025 of 535,682t, several times larger than both the target and limit reference points. The advice also states that “spawning-stock size is above  $MSY B_{trigger}$ ,  $B_{pa}$ , and  $B_{lim}$ ” (ICES 2024). Biomass was estimated in the most recent stock assessment to be substantially larger than the limit reference point, and C1.2 is met.





**Figure C1.2a:** Haddock in Subarea 4, Division 6a, and Subdivision 20, estimated SSB relative to current reference points (ICES 2024)

**References**

ICES (2024). Haddock (*Melanogrammus aeglefinus*) in Subarea 4, Division 6.a, and Subdivision 20 (North Sea, West of Scotland, Skagerrak). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.25019252.v1>

**Links**

<b>MarinTrust Standard clause</b>	1.3.2.2
<b>FAO CCRF</b>	7.5.3
<b>GSSI</b>	D.3.04, D5.01

## CATEGORY D SPECIES

Category D species are those which make up less than 5% of landings and are not subject to a species-specific management regime. In the case of mixed trawl fisheries, Category D species may make up the majority of landings. The comparative lack of scientific information on the status of the population of the species means that a risk-assessment style approach must be taken.

<b>D1</b>	<b>Species Name</b>	<b>n/a</b>	
	<b>Productivity Attribute</b>	<b>Value</b>	<b>Score</b>
	Average age at maturity (years)		
	Average maximum age (years)		
	Fecundity (eggs/spawning)		
	Average maximum size (cm)		
	Average size at maturity (cm)		
	Reproductive strategy		
	Mean trophic level		
	<b>Average Productivity Score</b>		
	<b>Susceptibility Attribute</b>	<b>Value</b>	<b>Score</b>
	Availability (area overlap)		
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)		
	Selectivity of gear type		
	Post-capture mortality		
	<b>Average Susceptibility Score</b>		
	<b>PSA Risk Rating (From Table D3)</b>		
	<b>Compliance rating</b>		
	<b>Further justification for susceptibility scoring (where relevant)</b>		
	<i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i>		
<b>References</b>			
<i>Standard clauses 1.3.2.2</i>			

**Table D2 - Productivity / Susceptibility attributes and scores.**

<b>Productivity attributes</b>	<b>High productivity (Low risk, score = 1)</b>	<b>Medium productivity (medium risk, score = 2)</b>	<b>Low productivity (high risk, score = 3)</b>
Average age at maturity	<5 years	5-15 years	>15 years
Average maximum age	<10 years	10-25 years	>25 years
Fecundity	>20,000 eggs per year	100-20,000 eggs per year	<100 eggs per year
Average maximum size	<100 cm	100-300 cm	>300 cm
Average size at maturity	<40 cm	40-200 cm	>200 cm
Reproductive strategy	Broadcast spawner	Demersal egg layer	Live bearer
Mean Trophic Level	<2.75	2.75-3.25	>3.25

<b>Susceptibility attributes</b>	<b>Low susceptibility (Low risk, score = 1)</b>	<b>Medium susceptibility (medium risk, score = 2)</b>	<b>High susceptibility (high risk, score = 3)</b>
Areal overlap (availability) Overlap of the fishing effort with the species range	<10% overlap	10-30% overlap	>30% overlap
Encounterability The position of the stock/species within the water column relative to the fishing gear, and the position of the stock/species within the habitat relative to the position of the gear	Low overlap with fishing gear (low encounterability).	Medium overlap with fishing gear.	High overlap with fishing gear (high encounterability). Default score for target species
Selectivity of gear type Potential of the gear to retain species	a Individuals < size at maturity are rarely caught	a Individuals < size at maturity are regularly caught.	a Individuals < size at maturity are frequently caught
	b Individuals < size at maturity can escape or avoid gear.	b Individuals < half the size at maturity can escape or avoid gear.	b Individuals < half the size at maturity are retained by gear.
Post-capture mortality (PCM) The chance that, if captured, a species would be released and that it would be in a condition permitting subsequent survival	Evidence of majority released post-capture and survival.	Evidence of some released post-capture and survival.	Retained species or majority dead when released.

D3		Average Susceptibility Score		
		1 - 1.75	1.76 - 2.24	2.25 - 3
Average Productivity Score	1 - 1.75	PASS	PASS	PASS
	1.76 - 2.24	PASS	PASS	TABLE D4
	2.25 - 3	PASS	TABLE D4	TABLE D4

D4		Species Name	
<b>Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements</b>			
D4.1	The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.		
D4.2	There is no substantial evidence that the fishery has a significant negative impact on the species.		
			<b>Outcome:</b>
<b>Evidence</b>			
D4.1: The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.			
D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.			
<b>References</b>			
<b>Links</b>			
<b>MarinTrust Standard clause</b>		1.3.2.2, 4.1.4	
<b>FAO CCRF</b>		7.5.1	
<b>GSSI</b>		D.5.01	

## FURTHER IMPACTS

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

<b>F1</b>	<b>Impacts on ETP Species - Minimum Requirements</b>		
	<b>F1.1</b>	Interactions with ETP species are recorded.	PASS
	<b>F1.2</b>	There is no substantial evidence that the fishery has a significant negative effect on ETP species.	PASS
	<b>F1.3</b>	If the fishery is known to interact with ETP species, measures are in place to minimise mortality.	PASS
		<b>Clause outcome:</b>	PASS
<p>There have been no substantial changes in the aspects of the fishery relevant to section F1 since the time of the initial MT assessment, conducted in May 2023. A summary of the relevant information is provided below; please refer to the initial assessment report for full details.</p> <p><b>F1.1 Interactions with ETP species are recorded.</b></p> <p>Interactions with ETP species are recorded as required by EU and UK legislation (for example EC Regulation 812/2004 and EU Regulation 2017/10042) and are submitted to the ICES Working Group on Bycatch of Protected Species (WGBYC) for analysis. The most recent WGBYC report was published in 2023 (ICES 2023) and contains detailed information on the data sources used to inform the activities of the group. The bycatch data are used by the WGBYC to estimate bycatch rates and overall impacts of fisheries on ETP species in the waters covered by ICES.</p> <p>Interactions with ETP species are recorded, and F1.1 is met.</p> <p><b>F1.2 There is no substantial evidence that the fishery has a significant negative effect on ETP species.</b></p> <p>The NSAS herring stock annex states, in relation to the directed herring fishery, that interactions with ETP species are considered to be rare (ICES 2017), although this is not the fishery subject to this MT assessment. The sprat stock annex does not mention potential ETP impacts. An MSC Announcement Comment Draft Report (ACDR) for the “DFPO, DPPO and SPFPO North Sea, Skagerrak and Kattegat sandeel, sprat and Norway pout” fishery, published in April 2023, states that “for marine mammals and seabirds, the nature of the gear type and fishery methods means that there are rarely any direct interactions between these fisheries and these ETP species groups”, but also that for “rays and skates, there is no information on how many are encountered in the gear, and when encountered and discarded (as required by regulation) how many are released alive and survive. Fishermen anecdotally report it is extremely rare to see any skates or rays in the net when fishing these industrial species” (MRAG 2023).</p> <p>Of the ETP species identified in the MSC ACDR as potentially impacted by the sprat fishery, the majority do not fall within the MT definition of ETP (i.e. they do not appear in the CITES appendices nor are they categorised by the IUCN as Endangered or Critically Endangered). The exceptions to this are the common blue skate, <i>Dipturus batis</i> (Critically Endangered, IUCN 2021); and the flapper skate, <i>Dipturus intermedius</i> (Critically Endangered, IUCN 2021a). However, given the anecdotal evidence provided by fishers that skates and rays are rarely caught, plus the bycatch data provided by the applicant indicating no skates or rays are caught, and finally considering the pelagic nature of the trawl gear used, the assessor does not consider there to be substantial evidence that the fishery has a significant negative impact on these two species.</p> <p>Overall, there does not appear to be substantial evidence of negative impact on ETP species, and F1.2 is met.</p> <p><b>F1.3 If the fishery is known to interact with ETP species, measures are in place to minimise mortality.</b></p> <p>There is no evidence to indicate the fishery regularly interacts with ETP species, and therefore no such measures are required to be in place. However, some general measures are in place across EU fisheries, such as the reporting requirements listed in F1.1 above, and a recently proposed Action Plan for further protecting ecosystems and vulnerable species (EC 2023).</p>			
<b>References</b>			
<p>EC (2023). Fisheries, aquaculture and marine ecosystems: transition to clean energy and ecosystem protection for more sustainability and resilience. <a href="https://ec.europa.eu/commission/presscorner/detail/en/ip_23_828">https://ec.europa.eu/commission/presscorner/detail/en/ip_23_828</a></p>			

ICES (2017). Stock Annex: Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel). ICES Stock Annexes. Report. <https://doi.org/10.17895/ices.pub.18622589.v2>

ICES (2019). Stock Annex: Sprat (*Sprattus sprattus*) in Division 3.a and Subarea 4 (Skagerrak, Kattegat and North Sea). ICES Stock Annexes. Report. <https://doi.org/10.17895/ices.pub.18623360.v1>

ICES (2023). Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.24659484.v2>

IUCN (2021). Common blue skate. <https://www.iucnredlist.org/species/203364219/203375487>

IUCN (2021a). Flapper skate. <https://www.iucnredlist.org/species/18903491/68783461>

MRAG (2023). Announcement Comment Draft Report. DFPO, DPPO and SPFPO North Sea, Skagerrak and Kattegat sandeel, sprat and Norway pout. <https://fisheries.msc.org/en/fisheries/dfpo-dppo-and-spfpo-north-sea-skagerrak-and-kattegat-sandeel-sprat-and-norway-pout/@assessments>

### Links

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

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

As previously, the pelagic gears used in this fishery are thought not likely to interact with seabed habitats at a significant scale.

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

The MarinTrust fishery assessment guidance states that “good practice requires there to be a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types”. Such a strategy is not required for the specific fishery under assessment here, as due to the gear type used it fundamentally does not pose such a risk. However, in general terms the potential impacts of fisheries on habitats are considered throughout the management process in both the EU and Norway. F2.1 is met.

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

The pelagic gears used in the sprat fishery under assessment here do not interact with the seabed and are therefore considered unlikely to have a significant negative impact on seabed habitats. No evidence was encountered during the completion of this assessment report to indicate that the fishery impacts physical habitats. F2.2 is met.

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

The pelagic gears used in the Danish sprat fishery are considered unlikely to interact with seabed habitats. However, the protection of sensitive habitats throughout the area covered by this MT assessment is regulated through the international convention on biodiversity (OSPAR 03/17/1, Annex 9), and the corresponding national legislation (Natura2000 in Denmark, National Order No. 1048/2013). There are a series of Marine Protected Areas in the North Sea. F2.3 is met.

### References

Danish Fisheries Agency, Natura 2000 and fisheries: regional processes. <https://fiskeristyrelsen.dk/english/commercial-fisheries/natura-2000-and-fisheries-regional-processes/#c83659>

Rice, J., K. H. Andersen, and A. Stern-Piriot,. 2017. MSC Public Certification Report for DFPO and DPPO North Sea, Skagerrak and Kattegat Sandeel, Norway Pout, and Sprat fisheries. MRAG-MSC-7a-v3. MRAG Americas, Inc. March 23, 2017. 388 pp.

**Links**

<b>MarinTrust Standard clause</b>	1.3.3.2
<b>FAO CCRF</b>	6.8
<b>GSSI</b>	D.2.07, D.6.07, D3.09

F3 Ecosystem Impacts - Minimum Requirements		
F3.1	The broader ecosystem within which the fishery occurs is considered during the management decision-making process.	PASS
F3.2	There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.	
F3.3	If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals.	PASS
		<b>Clause outcome:</b>
<p>There have been no substantial changes in the aspects of the fishery relevant to section F3 since the time of the initial MT assessment, conducted in May 2023. A summary of the relevant information is provided below; please refer to the initial assessment report for full details.</p> <p><b>F3.1 The broader ecosystem within which the fishery occurs is considered during the management decision-making process.</b></p> <p>The potential ecosystem impacts of fisheries are primarily taken into account in the management process by ICES. A key component of this is the development of ecosystem overviews, the outcomes of which are incorporated into Working Group discussions and recommendations. The relevant ICES ecoregion to this fishery is the Greater North Sea (ICES 2022). Ecosystem overviews provide a summary of the key environmental indicators, ecosystem pressures, and the current state of the ecosystem.</p> <p>In addition to this over-arching consideration, the role of sprat and herring within the North Sea ecosystem is also considered by the HAWG when developing sprat and herring stock assessments and management advice. The most recent HAWG report (ICES 2024) summarises this discussion.</p> <p>Finally, a detailed explanation of the way in which the ecosystem aspects of sprat management are incorporated into ICES assessments (and therefore into management advice) is set out in the sprat and herring stock annexes (ICES 2017; ICES 2019). This includes an exploration of the bottom-up effects on sprat and herring (i.e. the way that environmental variables and plankton population affects sprat and herring stocks); top-down effects on sprat and herring (i.e. the way that predator populations affect sprat and herring stocks); and implications for ecosystem-based management.</p> <p>All of these factors are considered in the development and delivery of ICES advice, which in turn underpins the management decision-making process as per the CFP. The broader ecosystem is considered in the management decision-making process, and F3.1 is met.</p> <p><b>F3.2 There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.</b></p> <p>Sprat and herring are important prey species within the North Sea ecosystem, and as discussed in F3.1 and F3.3, this role is considered throughout the stock assessment and catch advice process. The HAWG report states that “Sprat is an important prey species in the North Sea ecosystem. The influence of the sprat fishery on other fish species and seabirds are at present not documented to be substantial” (ICES 2024). No other evidence was encountered during this assessment to contradict this conclusion. In terms of the potential impact of the herring bycatch taken in the sprat fishery, it is clear that the relatively small quantities taken as bycatch compared to the directed herring fishery mean that the sprat fishery is very unlikely in itself to have a direct negative impact on the availability of herring as prey. Overall, there is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem, and F3.2 is met.</p> <p><b>F3.3 If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals.</b></p> <p>Sprat and herring are both considered by ICES to play an important role in their ecosystems. The important role of sprat in the ecosystem is taken into account in the stock assessment process, which leads to catch recommendations, by incorporating estimates of natural mortality rates into the model. The 2018 sprat benchmarking report notes that “predation impacts are taken into account explicitly in the stock assessment for North Sea sprats by including annual estimates of natural mortality</p>		



imposed by predators based on predator abundances, prey preferences and abundances of other prey stocks” (ICES 2018); this is achieved through the use of multispecies modelling, as described in brief in the HAWG report (ICES 2022a). Thus, quota recommendations are made and quotas set based on the assumption of a certain quantity of sprat being taken by predators, rendering the quotas more conservative than they would otherwise be. A similar process is used to determine the appropriate herring TAC, which impacts the maximum catch in the directed herring fishery but also the quantity permitted as bycatch in the sprat fishery.

Sprat and herring are recognised as playing an important role in the marine ecosystem, and quotas are set at a level which takes this into account.

**References**

ICES (2017). Stock Annex: Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel). ICES Stock Annexes. Report. <https://doi.org/10.17895/ices.pub.18622589.v2>

ICES (2018). Benchmark Workshop on Sprat (WKSPRAT 2018). ICES WKSPRAT Report 2018, 5–9 November 2018. ICES HQ, Copenhagen, Denmark. ICES CM 2018/ACOM:35. 60 pp. <https://doi.org/10.17895/ices.pub.19291145>

ICES (2019). Stock Annex: Sprat (*Sprattus sprattus*) in Division 3.a and Subarea 4 (Skagerrak, Kattegat and North Sea). ICES Stock Annexes. Report. <https://doi.org/10.17895/ices.pub.18623360.v1>

ICES (2022). Greater North Sea ecoregion – Ecosystem overview. In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, Section 7.1, <https://doi.org/10.17895/ices.advice.21731912>

ICES (2024). Herring Assessment Working Group for the Area South of 62°N (HAWG). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.25305532.v4>

**Links**

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

## SOCIAL CRITERION

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

## Appendix A - Determining Resilience Ratings

The assessment of Category B species described in this assessment report template utilises a resilience rating system suggested by the American Fisheries Society. This approach was chosen because it is also used by FishBase, and so the resilience ratings for many thousands of species are freely available online. As described by FishBase, the following is the process used to arrive at the resilience ratings:

*“The American Fisheries Society (AFS) has suggested values for several biological parameters that allow classification of a fish population or species into categories of high, medium, low and very low resilience or productivity (Musick 1999). If no reliable estimate of  $r_m$  (see below) is available, the assignment is to the lowest category for which any of the available parameters fits. For each of these categories, AFS has suggested thresholds for decline over the longer of 10 years or three generations. If an observed decline measured in biomass or numbers of mature individuals exceeds the indicated threshold value, the population or species is considered vulnerable to extinction unless explicitly shown otherwise. If one sex strongly limits the reproductive capacity of the species or population, then only the decline in the limiting sex should be considered. We decided to restrict the automatic assignment of resilience categories in the Key Facts page to values of  $K$ ,  $t_m$  and  $t_{max}$  and those records of fecundity estimates that referred to minimum number of eggs or pups per female per year, assuming that these were equivalent to average fecundity at first maturity (Musick 1999). Note that many small fishes may spawn several times per year (we exclude these for the time being) and large live bearers such as the coelacanth may have gestation periods of more than one year (we corrected fecundity estimates for those cases reported in the literature). Also, we excluded resilience estimates based on  $r_m$  (see below) as we are not yet confident with the reliability of the current method for estimating  $r_m$ . If users have independent  $r_m$  or fecundity estimates, they can refer to Table 1 for using this information.”*

Parameter	High	Medium	Low	Very low
Threshold	0.99	0.95	0.85	0.70
$r_{max}$ (1/year)	> 0.5	0.16 - 0.50	0.05 - 0.15	< 0.05
$K$ (1/year)	> 0.3	0.16 - 0.30	0.05 - 0.15	< 0.05
Fecundity (1/year)	> 10,000	100 - 1000	10 - 100	< 10
$t_m$ (years)	< 1	2 - 4	5 - 10	> 10
$t_{max}$ (years)	1 - 3	4 - 10	11 - 30	> 30

[Taken from the FishBase manual, “Estimation of Life-History Key Facts”, <http://www.fishbase.us/manual/English/key%20facts.htm#resilience>]

## Appendix B - MarinTrust Fishery Assessment Peer Review Template

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

<b>Fishery under assessment</b>	Whole fish Fishery Assessment WF31_ Sprat and Herring in ICES division 3a and subarea 4
<b>Management authority (Country/State)</b>	European Commission (EC), Denmark
<b>Main species</b>	Herring ( <i>Clupea harengus</i> ) Sprat ( <i>Sprattus sprattus</i> )
<b>Fishery location</b>	FAO 27, ICES 3a and 4
<b>Gear type(s)</b>	Small-meshed pelagic trawl
<b>Overall recommendation. (Approve/ Fail)</b>	Approve

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

The report is well-written, provides good references, and follows the MT guidance. Multiple data sources verified the catch profile, and the species categories were applied appropriately. All species scored past the MT Whole Fishery assessment.

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

Title page – only sprat mentioned; should herring also be there as the other main species?

CAB response: The title page has been updated to include herring, as per the fishery name listed in the MT documentation

## Summary of Peer Review Outcomes

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

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

## Detailed Peer Review Justification

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

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

Boxes may be extended if more space is required.

1. Is the scoring of the fishery consistent with the MarinTrust standard, and clearly based on the evidence presented in the assessment report?
The peer reviewer agrees with all of the scoring, which has been well evidenced throughout; references all appear to be up-to-date, with working links. A few comments are made below, but I would not expect this to change the overall outcome of the assessment.
Certification body response
n/a

2. Has the fishery assessment been fully completed, using the recognised MARINTRUST fishery assessment methodology and associated guidance?
Most sections of the report have been completed with sufficient information and evidence to justify the scoring given. In some scoring rationales, the auditor directly quotes MT guidance and lays out a rationale for why scoring is still met. This approach is clear and easy to follow.
Certification body response
n/a

<b>3. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?</b>
The species categorisation looks accurate, and based on the available and up-to-date evidence, the reference links provided are up-to-date and working. Table 4 species categories – haddock is missing from this table
<b>Certification body response</b>
Table 4 updated to include haddock

<b>3M. Are the scores in “Section M – Management” clearly justified?</b>	<b>YES</b>
Scoring is detailed and covers both the EU and Danish management systems. All reference links are up-to-date and working. M2.3—No evidence has been presented on the number of sanctions/convictions; ideally, this evidence should be specific to vessels targeting herring and sprat.	
<b>Certification body response</b>	
As this is a surveillance assessment, and in the absence of any change in the circumstances relating to compliance in the fishery, a Pass rating is appropriate with the level of information currently provided. However, the assessor agrees that ideally there would be fishery-specific compliance data available, and this should be sought out for the next re-assessment report.	

<b>3A. Are the “Category A Species” scores clearly justified? YES</b>
All sections of the report have been completed with sufficient information and evidence to justify the scoring given. All reference links are up-to-date and working. Considering Sprat's low stock status and the importance of recovery under A4, an additional argument to support the rationale would be to reflect on A3.2 and the likelihood that catches will stay within the established TAC set based on previous years. In the last three years, the 2022 catch was significantly over the TAC—what reassurance is there that this won't happen again?
<b>Certification body response</b>
There is no reassurance that this won't happen again, and in fact in other fisheries with inter-year quota transfer we have seen excessive catches in years where the TAC is smaller than previously. The extent to which the ICES advice is precautionary in practice is highly dependent on whether the TAC is adhered to. Therefore, a note has been added to the report for the 2025 assessor to review catch versus the TAC and apply more conservative scoring if the TAC has been exceeded, particularly if stock biomass remains below the LRP.

<b>3B. Are the “Category B Species” scores clearly justified? N.A</b>
<b>Certification body response</b>

<b>3C. Are the “Category C Species” scores clearly justified? YES</b>
Mackerel – No comments, scoring is based on up-to-date evidence, and all reference links are working. Whiting – No comments, scoring is based on up-to-date evidence, and all reference links are working. Haddock – No comments, scoring is based on up-to-date evidence, and all reference links are working.
<b>Certification body response</b>
n/a

<b>3D. Are the “Category D Species” scores clearly justified? N.A</b>
<b>Certification body response</b>

3F. Are the scores in “Section F – Further Impacts” clearly justified? YES
All sections of the report have been completed with sufficient information and evidence to justify the scoring given. This fishery is a pelagic fishery, so interaction with the seabed is largely disregarded. Interactions with ETP species are recorded, and herring/sprat fishery removals are appropriately considered in regard to ecosystem impacts on predator species.
Certification body response
n/a

Optional: General comments on the Peer Review Draft Report
Certification body response

## Glossary

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

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