



## MarinTrust Standard V2

# By-product Fishery Assessment Herring (*Clupea harengus*) in FAO 27, ICES subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea).

**MarinTrust Programme**

Unit C, Printworks

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

Fishery Under Assessment	Species:	Herring ( <i>Clupea harengus</i> )
	Geographical area:	FAO Area 27 Northeast Atlantic, ICES divisions 3.c.22-d.32: subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea).
	Country of origin of the product:	Norway (Flag countries: Denmark)
	Stock:	Herring in ICES subdivisions 25–29 and 32, excluding the Gulf of Riga
Date	29 June 2023	
Report Code	NOR19	
Assessor	Léa Lebechnech	
Country of origin of the product - PASS	Norway (Flag countries: Denmark)	
Country of origin of the product - FAIL	N/A	

Application details and summary of the assessment outcome			
Company Name(s): Scanbio Ingredients AS			
Country: Norway			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Léa Lebechnech	Matthew Jew	0.5	Initial
Assessment Period	To June 2023		

Scope Details	
Main Species	Herring ( <i>Clupea harengus</i> )
Stock	Herring in ICES subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea).
Fishery Location	FAO Area 27 Northeast Atlantic
Management Authority (Country/ State)	Norway/European Union (Common Fisheries Policy-CFP)
Gear Type(s)	Pelagic trawls
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor's recommendation
Recommendation	<b>APPROVED</b>

## Table 2. Assessment Determination

Assessment Determination
<p>If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in the CITES appendices, it cannot be approved for use as Marin Trust raw material. Herring (<i>Clupea harengus</i>) does not appear as Endangered or Critically Endangered on the IUCN Red List, nor does it appear in the CITES appendices; therefore, herring is eligible for approval for use as Marin Trust raw material.</p> <p>There is a species-specific management regime in place for this stock, an EU multiannual plan (MAP) for the Baltic Sea, including a stock assessment with reference points defined and a TAC set. Therefore, the stock was assessed under Category C.</p> <p>In the last stock assessment, removals are considered, but the stock is below its limit reference point <math>B_{lim}</math>, therefore the stock PASSES clauses C1.1 but FAILS C1.2.</p> <p>As per MT guidance, it has been assessed under Category D with a PSA risk-rating. With a productivity score of 1.29 and a susceptibility score of 2.25, the fishery PASSES Table D3.</p> <p>Consequently, herring (<i>Clupea harengus</i>) in ICES subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea), is <b>APPROVED</b> for the production of fishmeal and fish oil under the Marin Trust Standard v.2.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified herring (<i>Clupea harengus</i>) in ICES subdivisions 25–29 and 32, excluding the Gulf of Riga as Category C, the stock is subject to a specific management regime and reference points are defined by ICES.</p> <p>Fishery removals are considered in the stock assessment process. The most recent stock assessment shows that the stock is below <math>MSY B_{trigger}</math>, <math>B_{pa}</math>, and <math>B_{lim}</math>. Therefore, the stock is considered to have biomass below the limit reference point (or proxy), so it was correctly assessed under Category D. The assessor correctly assigned values and scores on table D1. The given average attribute scores result in a passing score on Table D3.</p> <p>Herring in ICES subdivisions 25–29 and 32 passes Category D and the PSA and therefore should be approved under the MarinTrust Standard v.2.</p>
Notes for On-site Auditor
N/A

## Species Categorisation

**NB:** If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in CITES Appendix 1, it **cannot** be approved for use as an MarinTrust raw material.

### IUCN Red list Category

By-product material from a species listed by IUCN (the International Union for Conservation of Nature) under the Red List for the following categories shall immediately fail the assessment;

- EXTINCT (E) AND EXTINCT IN THE WILD (EW)
- CRITICALLY ENDANGERED (CR) facing an extremely high risk of extinction in the wild.
- ENDANGERED (EN) facing a very high risk of extinction in the wild.

By-product material may be used from the following categories provided that all clauses in the MarinTrust standard are passed.

- VULNERABLE (VU) facing a high risk of extinction in the wild.
- NEAR THREATENED (NT) does not qualify for above now, but is close or is likely to qualify for, a threatened category in the near future.
- LEAST CONCERN (LC) Widespread and abundant.
- DATA DEFICIENT (DD) and NOT EVALUATED (NE)

## Table 3 Species Categorisation Table

Common name	Latin name	Stock	Management	Category	IUCN Red List Category <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
Herring	<i>Clupea harengus</i>	Herring in ICES subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea).	Norway, European Union (CFP)	Failed C Passed D	LC <sup>3</sup>	No

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

<sup>2</sup> <https://cites.org/eng/app/appendices.php>

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

## CATEGORY C SPECIES

In a by-product assessment, Category C species are those which are subject to a species-specific management regime and are usually targeted species in fisheries for human consumption.

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 should be assessed as a Category D species instead.

Species Name		Herring ( <i>Clupea harengus</i> )	
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.	Yes
	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.	Yes
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.**

This stock is shared between the EU and Russian Federation. An EU MAP in place for stocks in the Baltic Sea includes herring (EU, 2016, 2019, 2020). The advice, based on the  $F_{MSY}$  ranges used in the management plan, is considered precautionary. Russian Federation does not have a management plan for this stock.

ICES advises that when the EU multiannual plan (MAP) for the Baltic Sea is applied, catches in 2024 that correspond to the  $F$  ranges in the plan are between 41 706 (corresponding to  $F_{MSY_{lower}} \times SSB_{2024}/MSY_{B_{trigger}}$ ) and 52 549 tonnes (corresponding to  $F_{MSY} \times SSB_{2024}/MSY_{B_{trigger}}$ ). The current advice applies to all catches from the stock, including those taken in Subdivision 28.1.

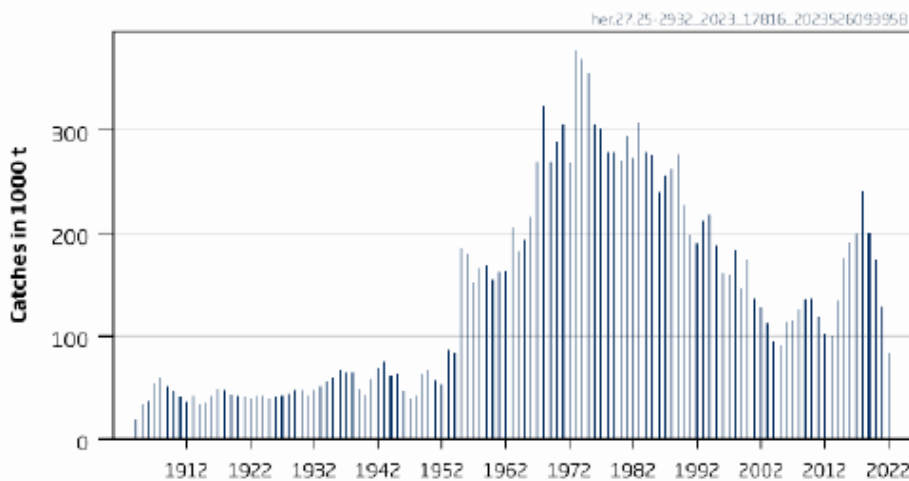
The assessment type is an age-based analytical assessment, SS that uses catches in the model and in the forecast. An ensemble of 3 models is used where each model differs based on the assumed level of natural mortality.

The input data considered in the last stock assessment are the following: Commercial catches (international landings, age distributions from catch sampling); one survey acoustic index (BIAS A1588); natural mortalities from multispecies model (SMS) until 2021, 2022 = 2021. Catches for Russian Federation since 2022 are taken from AtlantNIRO.

Discards are considered negligible.

Catches are presented in the figure below:

### Catches

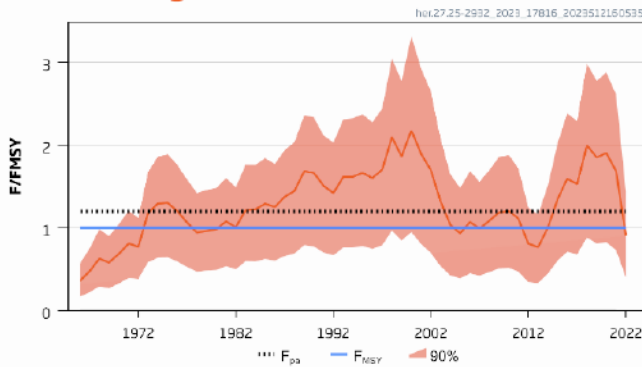


Therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process and the stock PASSES clause C1.1.

**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.

Fishing pressure on the stock is below  $F_{MSY}$  and spawning-stock size is below  $MSY B_{trigger}$ ,  $B_{pa}$ , and  $B_{lim}$ .

### Relative Fishing Pressure



### Relative Spawning Biomass

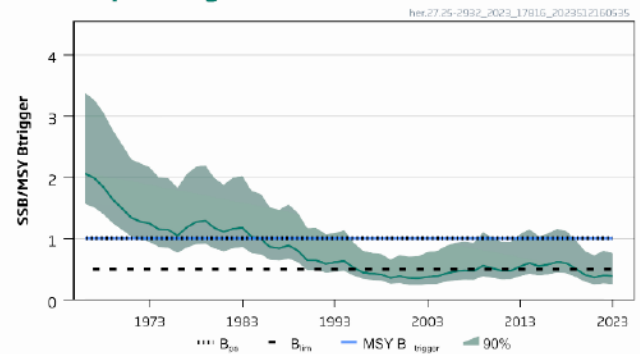


Figure 2. Herring in subdivisions 25–29 and 32, excluding the Gulf of Riga. Summary of the stock assessment. Source: ICES, 2023.

Therefore, the species is not considered, in its most recent stock assessment, to have a biomass above the limit reference point, so it fails clause C1.2.

As per MT guidance, it has been assessed under Category D.

### References

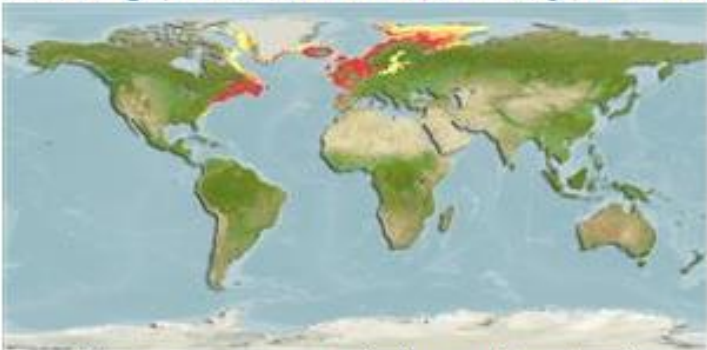
ICES, 2023. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). Replacing advice provided in May 2023. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.25–2932. [https://ices-library.figshare.com/articles/report/Herring\\_Clupea\\_harengus\\_in\\_subdivisions\\_25\\_29\\_and\\_32\\_excluding\\_the\\_Gulf\\_of\\_Riga\\_central\\_Baltic\\_Sea\\_Replacing\\_advice\\_provided\\_in\\_May\\_2023/23310368?backTo=/collections/ICES\\_Advice\\_2023/6398177](https://ices-library.figshare.com/articles/report/Herring_Clupea_harengus_in_subdivisions_25_29_and_32_excluding_the_Gulf_of_Riga_central_Baltic_Sea_Replacing_advice_provided_in_May_2023/23310368?backTo=/collections/ICES_Advice_2023/6398177)

### Links

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

## CATEGORY D SPECIES

Category D species are those which 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>Herring (<i>Clupea harengus</i>)</b>	
	<b>Productivity Attribute</b>	<b>Value</b>	<b>Score</b>
	Average age at maturity (years)	2.5	1
	Average maximum age (years)	10.1	2
	Fecundity (eggs/spawning)	21,000 <sup>4</sup> -59,700	1
	Average maximum size (cm)	35.2	1
	Average size at maturity (cm)	20.5	1
	Reproductive strategy	Broadcast spawner	1
	Mean trophic level	3.4	2
	<b>Average Productivity Score</b>		<b>1.29</b>
	<b>Susceptibility Attribute</b>	<b>Value</b>	<b>Score</b>
	Availability (area overlap)	Small overlap <10%	1
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Marine; brackish; benthopelagic; oceanodromous, depth range 0-364 m, usually 0-200 m	2
	Selectivity of gear type	No information, precautionary score	3
	Post-capture mortality	Retained	3
	<b>Average Susceptibility Score</b>		<b>2.25</b>
	<b>PSA Risk Rating (From Table D3)</b>		<b>Pass</b>
	<b>Compliance rating</b>		<b>PASS</b>
	<p><b>Further justification for susceptibility scoring (where relevant)</b>            For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</p>		
	<p>Native range   All suitable habitat   Point map   Year 2100</p>  <p>This map was computer-generated and has not yet been reviewed.  <i>Clupea harengus</i> AquaMaps Data sources: GBIF OBIS</p>		
<p><b>References</b>            Fishbase, <i>Clupea harengus</i> Linnaeus, 1758. Atlantic herring:  <a href="https://www.fishbase.se/Summary/SpeciesSummary.php?ID=24&amp;AT=herring">https://www.fishbase.se/Summary/SpeciesSummary.php?ID=24&amp;AT=herring</a></p>			
<p>Standard clauses 1.3.2.2</p>			

<sup>4</sup> This minimum value has been taken from <https://scottishherring.org/about-scottish-herring/spawning-ecology/>

Table D2 - Productivity / Susceptibility attributes and scores.

Productivity attributes	High productivity (Low risk, score = 1)	Medium productivity (medium risk, score = 2)	Low productivity (high risk, score = 3)
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

Susceptibility attributes	Low susceptibility (Low risk, score = 1)	Medium susceptibility (medium risk, score = 2)	High susceptibility (high risk, score = 3)
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.



<b>D3</b>		<b>Average Susceptibility Score</b>		
		<b>1 - 1.75</b>	<b>1.76 - 2.24</b>	<b>2.25 - 3</b>
<b>Average Productivity Score</b>	<b>1 - 1.75</b>	PASS	PASS	PASS
	<b>1.76 - 2.24</b>	PASS	PASS	TABLE D4
	<b>2.25 - 3</b>	PASS	TABLE D4	TABLE D4