MarinTrust Whole fish fishery assessment report

Finland
Herring (*Clupea harengus*)
and Sprat (*Sprattus sprattus*)
in FAO 27, ICES 3.d.28.1

Initial assessment
WF39

Table 1: Whole fish fishery assessment scope

Fishery name	**Finland - *Clupea harengus* - Herring and *Sprattus sprattus* - Sprat - FAO 27, ICES 3.d.28.1**
MarinTrust report code	**WF39**
Type 1 species (common name, Latin name)	Herring (*Clupea harengus*); Sprat (*Sprattus sprattus*)
Fishery location	FAO 27, ICES 3.d.28.1 (Gulf of Riga)
Gear type(s)	Pelagic trawls
Management authority (country/state)	Finland / EU

Table 2: Applicant and Certification Body details

Application details			
Applicant(s)		Ab Salmonfarm Oy	
Applicant country		Finland	
Certification Body details			
Name of Certification Body		NSF/ Global Trust Certification Ltd.	
Contact Information for CB (e.g. email address/address/telephone number)		clientservicesie@nsf.org	
Fishery Assessor name		Sam Peacock	
CB Peer Reviewer name		Léa Lebechnech	
Number of assessment days	4	**Assessment period (mm/yyyy to mm/yyyy)**	10/2024 – 11/2024

Table 3: Assessment outcome

Assessment outcome (See Table 4 for a summary of assessment determination)		*Approve*
Approval validity	Valid from *(mm/yyyy):* 11/2024	Valid until *(mm/yyyy):* 11/2025
CB peer reviewer evaluation		*Agree with assessment determination*
Fishery Assessment Peer Review Group external peer reviewer evaluation		*Agree with assessment determination*

Table 4: Assessment determination

Assessment determination **Summary of assessment and outcome**	
This report documents the initial assessment of the Gulf of Riga herring and sprat fishery against the MarinTrust whole fish assessment requirements Version 3. This specific assessment has not previously been conducted, although the fishery is currently approved via two other MT assessments. Catch composition information was obtained from the applicant and from the Scientific, Technical and Economic Committee for Fisheries (STECF) Fisheries Dependent Information database. Based on this information, three Type 1 stocks were identified: Gulf of Riga herring, Central Baltic herring, and Baltic sprat. Additionally, two Type 2 species were identified: smelt and fourhorn sculpin. All Type 1 species were assessed under Category A, and both Type 2 species were assessed under Category D. All three Type 1 stocks are managed under the same scientific methodology, with regular stock assessments conducted by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). Both the Gulf of Riga herring and Baltic sprat stocks demonstrate a biomass above the target reference point level, and meet all of the other requirements of Category A. Central Baltic herring currently exhibits a biomass below the target reference point level, and there is evidence to suggest that the fishery would not be closed were it to fall below the limit reference point level. For this reason, the stock failed the Category A assessment and was subsequently assessed under Category B. Applying the current stock status to table B(a) led to an outcome of Pass, as the stock meets the Category B requirements. In the Category D PSA, smelt was awarded a Productivity score of 1.57 and a Susceptibility score of 2.5. Fourhorn sculpin was awarded a Productivity score of 1.71 and a susceptibility score of 2.5. Both species achieved a Pass rating on Table D3, thus meeting the Category D requirements. Outside the species requirements, the fishery performed well. The management, control and enforcement frameworks in place mean the fishery meets the requirements of Section M. The fishery is thought to have minimal interaction with ETP species, and, as a pelagic trawl fishery, is very unlikely to have significant impact on seabed habitats. Potential ecosystem impacts are monitored, and fishery removals take the potential ecosystem impacts into account. For these reasons, the fishery meets the requirements of Section F. Overall, as with the other MT whole fish assessments of this fishery, the fishery should be approved for use as a source of raw materials for MT-certified facilities. Information in this report was the most recently available as per November 2024.	
Summary of CB peer review	The CB peer reviewer agrees with the assessor's determination, noting that the management framework and surveillance, control and enforcement system continue to meet the requirements of the

	MarinTrust Standard. The peer reviewer agrees with the species classification. The selected species are the ones that composed more than 0.1% of the 2022 fishery season: - they are three type 1 species: Gulf of Riga herring, Central Baltic herring, and Baltic sprat, which have reference points, thus they were assessed under Category A, according to their contribution to the catches. The CB peer reviewer agrees that they all passed Category A except the Central Baltic herring which currently exhibits a biomass below the target reference point level, and there is evidence to suggest that the fishery would not be closed were it to fall below the limit reference point level. For this reason, the stock failed the Category A assessment and was subsequently assessed under Category B. Applying the current stock status to table B(a) led to an outcome of Pass ; - they are two type 2 species: smelt and fourhorn sculpin, which were both assessed under Category D and passed it. The peer reviewer notes the very low impacts of the fishery on endangered/declining ETP species and the absence of dedicated measures as it is considered that no risk is posed by the fishery. The impact of the fishery on the habitats is considered extremely low to absent, as it is a pelagic fishery. Overall, the internal peer reviewer agrees that the species listed in this report, are recommended for approval for use in the assessment area under the current Marin Trust Standard v 3.0 for whole fish.
Summary of external peer review (see Appendix 1 for the full peer review report)	*Note to assessor: Include a brief summary of the external peer review evaluation.* 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.
Notes for on-site auditor	*Note to assessor: Notes for on-site auditor should be included where there may be reason to validate the findings of the assessment during the on-site audit. For example, if a marine mammal or ETP shark is allowed to be landed by the fishery, the auditor on site can review evidence to ensure this species is not used for reduction purposes.*

Table 5: General results

Section	Outcome (Pass/Fail)
M1 - Management Framework	PASS
M2 - Surveillance, Control and Enforcement	PASS
E1 - Impacts on ETP Species	PASS
E2 - Impacts on Habitats	PASS
E3 - Ecosystem Impacts	PASS

Table 6: Species-specific results

See Table 7 for further details of species categorisation.

Category	Species name (common & Latin name)	Outcome (Pass/Fail/n/a)	
Category A	Herring (*Clupea harengus*), Gulf of Riga	A1	PASS
		A2	PASS
		A3	PASS
		A4	PASS
	Herring (*Clupea harengus*), Central Baltic	A1	PASS
		A2	PASS
		A3	FAIL
		A4	FAIL
	Sprat (*Sprattus sprattus*), Baltic Sea	A1	PASS
		A2	PASS
		A3	PASS
		A4	PASS
Category B	Herring (*Clupea harengus*), Central Baltic	PASS	
Category C	No Category C species		
Category D	Smelt (*Osmerus eperlanus*)	PASS	
	Fourhorn sculpin (*Myoxocephalus quadricornis*)	PASS	

Table 7: Species categorisation table

List of all the species assessed. Type 1 species are assessed against Category A or Category B. Type 1 species must represent 95% of the total annual catch. Type 2 species are assessed against Category C or Category D. Type 2 species may represent a maximum of 5% of the annual catch. Species that comprise less than 0.1% of the catch are not required to be assessed or listed here.

Species name (common & Latin name)	Stock	CITES listed yes/no	IUCN Red list Category	% catch composition	Management (Y/N)	Category (A, B, C or D)
Herring (*Clupea harengus*)	Gulf of Riga	No	Least Concern[1]	85%	Y	A
	Central Baltic			5%	Y	A
Sprat (*Sprattus sprattus*)	Baltic Sea	No	Least Concern[2]	6-7%	Y	A
Smelt (*Osmerus eperlanus*)	n/a	No	Least Concern[3]	1-2%	N	D
Fourhorn sculpin (*Myoxocephalus quadricornis*)	n/a	No	Least Concern[4]	1-2%	N	D

Rationale

There are several sources of data available to inform the species categorisation process. Firstly, the applicant provided the following catch composition information, which was not specific to any individual year:

Species	% total catch
Gulf of Riga herring / Baltic sprat	88-99%
Central Baltic herring	<5%
Fourhorn sculpin	<5%
Round goby	<5%
Shorthorn sculpin	<5%
Lamprey	<5%
Smelt	<5%
Eel pout	<5%
Three-spined stickleback	<5%
Flounder	<5%

[1] https://www.iucnredlist.org/species/155123/45074983
[2] https://www.iucnredlist.org/species/198583/45077260
[3] https://www.iucnredlist.org/species/15631/135090814
[4] https://www.iucnredlist.org/species/14214/225523885

The following table is taken from the Scientific, Technical and Economic Committee for Fisheries (STECF) Fisheries Dependent Information database (STECF 2024), using filters to capture all fish caught by vessels targeting the small pelagic assemblage in the Gulf of Riga in 2022, the most recent year for which data are available. Note that this data does not distinguish between herring from the Gulf of Riga and Central Baltic stocks.

Species	Catch (t)	% total catch
Herring	35,730	90.5%
Sprat	2,620	6.6%
Smelt	593	1.5%
Fourhorn sculpin	474	1.2%
Three-spined stickleback	33	<0.1%
Round goby	14	<0.1%
Eelpout	1	<0.1%
European flounder	0.6	<0.1%
Total	39,465	

Herring catches in the Gulf of Riga include individuals from the Gulf of Riga stock, but also from the Central Baltic herring stock. The most recent ICES catch advice for the Gulf of Riga herring stock (ICES 2024) states that in 2022, total herring catches in the region were 42,976t, of which 40,340t (94%) were from the Gulf of Riga stock. Applying this to the table above, the proportion of the two stocks in the overall catch in 2022 were as follows:

- Gulf of Riga herring: 85.1%
- Central Baltic herring: 5.4%

Finally, there are already two other MT fishery assessments covering this fishery, relating to Denmark (MT 2024a) and Estonia (MT 2024b). Both of these assessments identifies four stocks in the species categorisation section: Gulf of Riga and Central Baltic herring, Baltic Sea sprat, and Baltic sea smelt. Both assessments categorise Gulf of Riga herring and Baltic Sea sprat as Type 1 species, and smelt as a Type 2 species. The Estonian report considers Central Baltic herring to be Type 1, whereas the Danish report considers it to be Type 2.

Overall, it is clear that Gulf of Riga herring and Baltic Sea sprat regularly make up the bulk of catches, and these stocks have been categorised as Type 1. Given the significant presence of Central Baltic herring in the catch, this has also been categorised at Type 1. Finally, based on the 2022 catch data, smelt and fourhorn sculpin have been categorised as Type 2.

There are species-specific stock assessment activities and management measures in place for all three Type 1 stocks, therefore all three were assessed under Category A. There are no such measures in place for either of the Type 2 species, thus both were assessed under Category D.

References

ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent

Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1

MT (2024a). Fishery assessment, Denmark, herring and sprat in the Gulf of Riga: https://www.marin-trust.com/sites/marintrust/files/approved-raw-materials/WF07%20-%20herring%20and%20sprattus_Final.pdf

MT (2024b). Fishery assessment, Estonia, herring and sprat in the Gulf of Riga: https://www.marin-trust.com/sites/marintrust/files/approved-raw-materials/WF37_Estonia_Gulf%20of%20Riga%20Herring%20and%20Sprat%20FAO%2027%20ICES%203.d.28.1_Initial_April%202024.%20Final%20July%202024.pdf

STECF (2024). Fisheries Dependent Information database: https://stecf.ec.europa.eu/data-dissemination/fdi_en

Management requirements

This section, or module, assesses the general management regime applied to the fishery under assessment. It comprises two parts, M1, which evaluates the management framework, and M2, which evaluates surveillance, control and enforcement within the fishery.

1.6. All management criteria must be met (pass) for a fishery to pass the Management requirements.

1.6.1. The sub-criteria offer a structured evidence base to demonstrate that the fishery sufficiently meets the management criteria. It is not expected that sub-criteria are assessed independently of the main criterion.

M1 Management framework

M1.1	**M1.1 There is an organisation responsible for managing the fishery.** *In reaching a determination for M1.1, the assessor should consider if the following is in place:*
	M1.1.1 The management and administration organisations within the fishery are clearly identified.
	M1.1.2 The functions and responsibilities of the management organisations include the overall regulation, administration, science and data collection and enforcement roles, and are documented and publicly available.
	M1.1.3 Fishers have access to information and/or training materials through nationally recognised organisations.
Outcome	*Pass*

Rationale

Fisheries in EU member states 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. The CFP therefore sets out the policies and procedures by which member states manage their fisheries (EC 2018).

The small pelagic fishery in the Gulf of Riga is conducted exclusively by Estonian and Latvian vessels. Within Estonia, the management of fisheries is conducted by three bodies: the Ministry of Regional Affairs and Agriculture, the Environmental Board, and the Agriculture and Food Board (MRFA 2024). In Latvia, fisheries legislation and management is through the Fisheries Department of the Ministry of Agriculture and the State Environmental

Service (SES), part of the Ministry of Environmental Protection and Regional Development, carries out licensing, control and inspection. There are organisations responsible for managing the fishery, and M1.1 is met.
References EC (2018). Common Fisheries Policy. https://ec.europa.eu/oceans-and-fisheries/policy/common-fisheries-policy-cfp_en MRFA (2024). Fishing industry and commercial fishing. https://www.agri.ee/en/objectives-and-activities/fishing-industry-and-commercial-fishing 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#

M1.2	**M1.2 Fishery management organisations are legally empowered to take management actions.** *In reaching a determination for M1.2, the assessor should consider if the following is in place:*	
	M1.2.1	There are legal instruments in place to give authority to the management organisation(s) which can include policies, regulations, acts or other legal mechanisms.
	M1.2.2	Vessels wishing to participate in the fishery must be authorised by the management organisation(s).
	M1.2.3	The management system has a mechanism in place for the resolution of legal disputes.
	M1.2.4	There is evidence of the legal rights of people dependent on fishing for food or livelihood.
Outcome	*Pass*	
Rationale 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 Estonia the primary		

legislation is the Fishing Act 2015, which regulates fishing activity within the Estonian EEZ and activity carried out by Estonian-flagged vessels. In Latvia the Fishery Law 1995 (as amended) sets the basis for fisheries legislation and institutions responsible for fisheries management and control, as well as rules on fish resources management. Any fishing vessel flying the flag of an EU member state must register to the EU Fleet Register (EC 2024). The CFP renders fishing licences mandatory for all EU vessels, with licenses issued by the individual member states (European Parliament 2024). Fishery management organisations are legally empowered to take management actions, and M1.2 is met.
References EC (2024). Fleet register. https://webgate.ec.europa.eu/fleet-europa/index_en Estonian Fishing Act 2015, English translation. https://www.riigiteataja.ee/en/eli/514012016001/consolide European Parliament (2024). Fisheries control. https://www.europarl.europa.eu/factsheets/en/sheet/116/fisheries-control Latvia Fishery Law 1995: https://www.fao.org/faolex/results/details/en/c/LEX-FAOC037831/ 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#

M1.3	**M1.3**	**There is an organisation responsible for collecting data and (scientifically) assessing the fishery.** *In reaching a determination for M1.3, the assessor should consider if the following is in place:*
	M1.3.1	The organisation(s) responsible for collecting data and assessing the fishery is/are clearly identified.
	M1.3.2	The management system receives scientific advice regarding stock, non-target species and ecosystem status.
	M1.3.3	Scientific advice is independent from the management organisation(s) and transparent in its formulation through a clearly defined process.

Clause outcome	*Pass*

Rationale

The primary organisation responsible for coordinating and analysing the data relevant to the management of the Gulf of Riga herring and 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 2024).

ICES carries out an annual stock assessment of the Gulf of Riga herring and sprat stocks, along with periodic benchmarking exercises to ensure the stock assessment processes and their underpinning assumptions remain appropriate. As a key output of the stock assessment process, ICES produces a recommendation for the appropriate level of fishery removals of both species in the coming fishing season (ICES 2024a). Advice is independent from the management organisations, and is provided according to detailed methodology and principles set out in ICES documentation (ICES 2020).

There are organisations responsible for collecting data and assessing the fishery. Requirement M1.3 is met.

References

ICES (2020) Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, Guide to ICES Advice. https://doi.org/10.17895/ices.advice.7648

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

ICES (2024a). Latest Advice. https://www.ices.dk/advice/Pages/Latest-Advice.aspx

M1.4	**M1.4**	**The fishery management system is based on the principles of sustainable fishing and a precautionary approach.** *In reaching a determination for M1.4, the assessor should consider if the following is in place:*
	M1.4.1	A policy or long-term management objective for sustainable harvesting based on the best scientific evidence and a precautionary approach is publicly available and implemented for the fishery.
Outcome	*Pass*	

Rationale

The Gulf of Riga herring and sprat stocks are managed according to a Multiannual Plan (MAP), which sets out, *inter alia*, the policy behind the annual catch limits for commercially important species in the Baltic Sea. The MAP is codified in Regulation (EU) 2016/1139, which includes the following commitments to sustainable harvesting:

Article 3, Paragraph 1: "The plan shall contribute to the achievement of the objectives of the common fisheries policy (CFP) listed in Article 2 of Regulation (EU) No 1380/2013, in particular by applying the precautionary approach to fisheries management, and shall aim to ensure that exploitation of living marine biological resources restores and maintains populations of harvested species above levels which can produce MSY"

Article 3, Paragraph 3: "The plan shall implement the ecosystem-based approach to fisheries management in order to ensure that negative impacts of fishing activities on the marine ecosystem are minimised"

Article 5, Paragraph 2: "When scientific advice indicates that the spawning stock biomass of any of the stocks concerned is below the minimum spawning stock biomass reference point as set out in Annex II, column A, to this Regulation, all appropriate remedial measures shall be adopted to ensure rapid return of the stock concerned to levels above the level capable of producing MSY"

The fishery management system is based on the principles of sustainable fishing and the precautionary approach, and M1.4 is met.

References

Regulation (EU) 2016/1139 of the European Parliament and of the Council of 6 July 2016 establishing a multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks, amending Council Regulation (EC) No 2187/2005 and repealing Council Regulation (EC) No 1098/2007. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016R1139

M1.5	**M1.5**	**There is a clearly defined decision-making process which is transparent, with processes and results made publicly available.** *In reaching a determination for M1.5, the assessor should consider if the following is in place:*
	M1.5.1	There is participatory engagement through which fishery stakeholders and other stakeholders can access, provide information, consult with, and respond to, the management systems' decision-making process.
	M1.5.2	The decision-making process is transparent, with results made publicly available.

	M1.5.3 The fishery management system is subject to periodic internal or external review to validate the decision-making process, outcomes and scientific data.
Outcome	*Pass*

Rationale

The Baltic Sea Advisory Committee (BSAC) is a stakeholder-led organization, established in 2006, which provides advice on the management of Baltic fisheries to the European Commission and member states and consists of organisations representing fisheries and other interest groups affected by the CFP (e.g. environmental, organisations, and sports and recreational fisheries organisations). Following CFP reform, a new regulation was adopted at the end of 2013 in which the role and function of Advisory Councils has been included - Advisory Councils are consulted in the context of regionalisation and should also contribute to data for fisheries management and conservation measures. There is evidence of this, in the form of consultation responses and advice provided to the European Commission and others, on the BSAC website (BSAC 2024).

ICES provide annual stock assessment and management advice in relation to central Baltic herring and Baltic sprat via its Baltic Fisheries Assessment Working Group (WGBFAS). The advice is published annually on the ICES website (ICES 2024). Quotas for the EU fleet in the assessment area are set annually through the AGRIFISH Council meeting of EU Fisheries Ministers and are published annually in the Baltic Sea Fishing Opportunities Regulation (e.g. EUR-Lex 2024).

There is a clearly-defined decision-making process in place, and M1.5 is met.

References

BSAC (2024). About the Baltic Sea Advisory Council. https://www.bsac.dk/about/

EUR-Lex (2024). https://eur-lex.europa.eu/EN/legal-content/summary/fishing-opportunities-in-the-baltic-sea-2024.html

ICES (2024). Latest Advice. https://www.ices.dk/advice/Pages/Latest-Advice.aspx

M2 Surveillance, control and enforcement

M2.1	**M2.1 There is an organisation responsible for monitoring compliance with fishery laws and regulations.** *In reaching a determination for M2.1, the assessor should consider if the following is in place:*	
	M2.1.1	There is an organisation responsible for monitoring compliance with specific monitoring, control and surveillance (MCS) mechanisms in place.
	M2.1.2	There are relevant tools or mechanisms used to minimise IUU fishing activity.
	M2.1.3	There is evidence of monitoring and surveillance activity appropriate to the intensity, geography, management control measures and compliance behaviour of the fishery.
Outcome	*Pass*	

Rationale

Each EU Member State maintains an official website on fishery related control and reporting issues, which are of benefit to the Commission, other Member States and the masters of fishing vessels.

National websites contain information on:

- Description of control services and the resources available;
- National control action programmes;
- Fishing effort limitation schemes;
- Contact details for the submission of logbooks and landing declarations when landing in that Member State;
- Lists of designated ports for landing of certain species and addresses for fulfilling notification requirements.

Member States are required to apply “effective, proportionate and dissuasive sanctions” against those engaged in IUU or other illegal activities. The European Fisheries Control Agency (EFCA) coordinates national control and inspection activities within the EU, with the mission to promote the highest common standards for control, inspection and surveillance under the CFP (EFCA 2024).

Joint Deployment Plans (JDP’s) are established for fisheries/areas considered a priority by the Commission and the Member States concerned. They can refer either to European Union waters for which a Specific Control and Inspection Programme (SCIP) has been adopted or to international waters under the competence of a Regional Fisheries

Management Organisation (RFMO), where EFCA is requested to coordinate the implementation of the European obligations under an International Control and Inspection Scheme. The Baltic Sea JDP has been in place since 2007 (EFCA 2024a).

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. Control efforts are targeted using a risk-based model, which ensures that inspections and other enforcement activity is focussed in areas where low levels of compliance have been detected in the past. Control and enforcement activities are also carried out through the JDP.

There are organisations responsible for monitoring compliance, and M2.1 is met.

References

EFCA (2023). Baltic Sea JDF control activities, Q3 report 2023. https://www.efca.europa.eu/sites/default/files/2024-01/9M-report_BS_Q2_WEB.pdf

EFCA (2024). European Fisheries Control Agency Objectives and Strategy. https://www.efca.europa.eu/en/content/objectives-and-strategy

EFCA (2024a). Baltic Sea JDF reports, 2023. https://www.efca.europa.eu/en/content/reports-2023-1

M2.2	**M2.2 There is a framework of sanctions which are applied when infringements against laws and regulations are discovered.** *In reaching a determination for M2.2, the assessor should consider if the following is in place:*
	M2.2.1 The laws and regulations provide for penalties or sanctions that are adequate in severity to act as an effective deterrent.
	M2.2.2 There is no evidence of systematic non-compliance.
Outcome	*Pass*

Rationale

To ensure that fishing rules are applied in the same way in all member countries, and to harmonise the way infringements are sanctioned, the EU has established a list of serious infringements of the rules of the common fisheries policy. EU countries must include in their legislation effective, proportionate and dissuasive sanctions, and ensure that the rules are respected. A maximum sanction of at least five times the value of fishery products obtained is provided for with regard to the committing of the said infringement.

In Estonian fisheries, sanctions are set out in Chapter 6 of the Fisheries Act 2015, and include fines and confiscation. In Latvia, similar sanctions are set out in the Fishery Law 1995. There is a framework of sanctions, and M2.2 is met.
References Estonian Fishing Act 2015, English translation. https://www.riigiteataja.ee/en/eli/514012016001/consolide Latvia Fishery Law 1995: https://www.fao.org/faolex/results/details/en/c/LEX-FAOC037831/

M2.3	**M2.3 There is substantial evidence of widespread compliance in the fishery, and no substantial evidence of IUU fishing.** *In reaching a determination for M2.3, the assessor should consider if the following is in place:*	
	M2.3.1	The level of compliance is documented and updated routinely, statistically reviewed and available.
	M2.3.2	Fishers provide additional information and cooperate with management/enforcement agencies/organisations to support the effective management of the fishery.
	M2.3.3	The catch recording and reporting system is sufficient for effective traceability of catches per vessel and supports the prevention of IUU fishing.
Outcome	*Pass*	

Rationale

The Joint Deployment Plan (JDP) for the Baltic involved competent authorities for fisheries control and protection vessels from Germany, Denmark, Estonia, Finland, Latvia, Lithuania, Poland and Sweden. Reports on the control and enforcement activities of the JDP are published regularly on the EFCA website (EFCA 2024). The most recent available report covers the period January 2023 – September 2023. During this period, there were 2,175 inspections conducted ashore, with 68 suspected infringements, and 640 inspections carried out at sea, detecting 14 suspected infringements. Of the infringements detected, the most common types related to misreporting of catch quantities or not reporting in time. Infringements were detected in around 2% of at-sea inspections and 3% of on-land

inspections, suggesting low levels of non-compliance (EFCA 2023). There is evidence of compliance in the fishery, and M2.3 is met.
References EFCA (2023). Baltic Sea JDF control activities, Q3 report 2023. https://www.efca.europa.eu/sites/default/files/2024-01/9M-report_BS_Q2_WEB.pdf EFCA (2024a. Baltic Sea JDF reports, 2023. https://www.efca.europa.eu/en/content/reports-2023-1

Species requirements

This section, or module, comprises of four species categories. Each species in the catch is subject to an assessment against the relevant species category in this section (see clauses 1.2 and 1.3 and Table 6).

Type 1 species can be considered the 'target' or 'main' species in the fishery under assessment. They make up the bulk of the catch and a subjected to a detailed assessment. Type 1 species must represent 95% of the total annual catch. If a species-specific management regime is in place for a Type 1 species, it shall be assessed under Category A. If there is no species-specific management regime in place for a Type 1 species, it shall be assessed under Category B.

Type 2 Species can be considered the 'non-target' species in the fishery under assessment. They comprise a small proportion of the annual catch and are subjected to a relatively high-level assessment. Type 2 species may represent a maximum of 5% of the annual catch. If a species-specific management regime is in place for a Type 2 species, it shall be assessed under Category C. If there is no species-specific management regime in place for a Type 2 species, it shall be assessed under Category D.

Species that comprise less than 0.1% of the catch are not required to be assessed or listed here.

Category A species

2.1. All clauses must be met for a species to pass the Category A assessment.

2.1.1. If a species fails any of the Category A clauses, it should be re-assessed as a Category B species.

Herring (*Clupea harengus*), Gulf of Riga

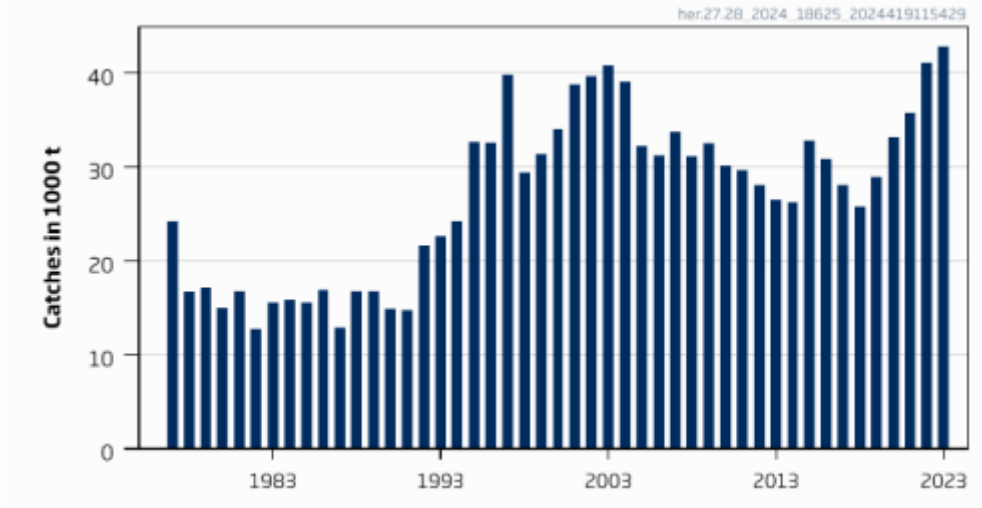
A1 Data collection

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

Rationale

The EU Fisheries Control System, through the Fisheries Control Regulation (EC Regulation No 1224/2009) requires that data on catches (target species and bycatch) are recorded in logbooks by vessel captains and transmitted to the competent authority of each member state who then provide it to the Commission. Landings data collected in this fashion are incorporated into the annual stock assessment conducted by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). Discards and bycatch are considered negligible (ICES 2024).

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



Gulf of Riga herring, catches (ICES 2024)

References

ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1

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

Rationale In addition to commercial catch data, the stock assessment carried out annually by the WGBFAS utilises one acoustic survey index, fixed maturity ogive estimates, and a constant natural mortality estimate (ICES 2024). The model assumes discards and bycatch are negligible. The 2024 catch advice includes a section covering the quality of the assessment, which does not include any concerns other than uncertainty around the 2023 recruitment estimate, which was replaced by a historical median for the purposes of the 2024 stock assessment (ICES 2024). Sufficient additional information is collected to enable an indication of stock status to be estimated, and A2.1 is met.
References ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1

A2 Stock assessment

A2.1	**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.**
Outcome	*Pass*	
Rationale Herring in the Gulf of Riga is subjected to an annual stock assessment carried out by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). The most recent assessment was conducted in 2024 using the data sources listed in A1.2, above (ICES 2024). A stock assessment is conducted annually, and A2.1 is met.		
References ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1		

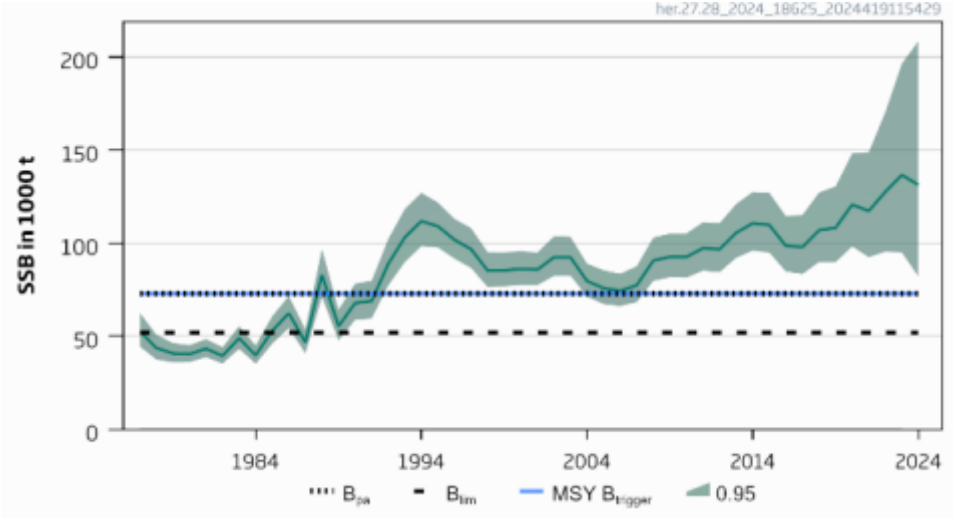
A2.2	**A2.2**	**The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.**

Outcome	*Pass*

Rationale

The WGBFAS stock assessment provides an indication of the status of the stock relative to target and limit reference points. These reference points were updated in 2023 as a result of a full benchmarking of the stock (ICES 2023). The new reference points are listed in the table below; key amongst these for the purpose of this MT assessment are the target reference point MSY $B_{trigger}$, set at 72,907t; and limit reference point B_{lim}, set at 52,076t (ICES 2024).

The 2024 stock assessment estimated that SSB in 2024 would be 131,262t, and the catch advice states, "spawning-stock size is above MSY $B_{trigger}$, B_{pa}, and B_{lim}" (ICES 2024).



Gulf of Riga herring, SSB and current reference points (ICES 2024)

Herring in Subdivisions 25-29 and 32, excluding the Gulf of Riga. Reference points, values, and their technical basis (ICES 2024)

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	72 907	B_{pa}	ICES (2023a)
	F_{MSY}	0.28	Stochastic simulations (EqSim) with segmented regression with fixed breakpoint at B_{pa} stock–recruitment model from the full time-series (1977–2021)	ICES (2023a)
Precautionary approach	B_{lim}	52 076	$B_{lim} = B_{pa}/1.4$	ICES (2023a)
	B_{pa}	72 907	Average SSB based on SSB–recruitment pairs where SSB ≤ median SSB and recruitment ≥ median recruitment	ICES (2023a)
	F_{lim}	0.49	Equilibrium scenarios with stochastic recruitment: F value corresponding to 50% probability of (SSB < B_{lim})	ICES (2023a)
	F_{pa}	0.35	F_{P05}; the F that leads to SSB ≥ B_{lim} with 95% probability	ICES (2023a)
Management plan	MAP MSY $B_{trigger}$	72 907	MSY $B_{trigger}$	ICES (2023a)
	MAP B_{lim}	52 076	B_{lim}	ICES (2023a)
	MAP F_{MSY}	0.28	F_{MSY}	ICES (2023a)
	MAP target range F_{lower}	0.21–0.28	Consistent with the ranges resulting in no more than 5% reduction in long-term yield compared with MSY	ICES (2023a)
	MAP target range F_{upper}	0.28–0.33	Consistent with the ranges resulting in no more than 5% reduction in long-term yield compared with MSY	ICES (2023a)

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

References

ICES. (2023) Benchmark Workshop on Baltic Pelagic stocks (WKBBALTPEL). ICES Scientific Reports. 5:47. https://doi.org/10.17895/ices.pub.23216492

ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1

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

Rationale

The results of the WGBFAS stock assessment are summarised in catch and effort advice published by ICES annually. The 2024 advice states that "ICES advises that when the EU multiannual plan (MAP) for the Baltic Sea is applied, the catches in 2025 that correspond to the F ranges in the plan are between 30 394 tonnes and 45 235 tonnes. According to the MAP, catches higher than those corresponding to FMSY (39 233 tonnes) can be taken only under conditions specified in the plan, whilst the entire range is considered precautionary when applying ICES advice rule" (ICES 2024).

The stock assessment provides an indication of an appropriate level of fishery removals, and A2.3 is met.

References
ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1

A2.4	A2.4 The assessment is subject to internal or external peer review.
Outcome	*Pass*
Rationale	
The Guide to ICES Advisory Framework and Principles (ICES 2020) sets out the process by which ICES carries out scientific activities and provides fishery management advice. The process is designed to be transparent, independent and produce peer-reviewed recommendations. Advice is provided based on ten key Principles, of which Principle seven states 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". The herring stock assessment was most recently benchmarked in 2023. The assessment is peer reviewed, and A2.4 is met.	
References	
ICES (2020) Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, Guide to ICES Advice. https://doi.org/10.17895/ices.advice.7648	

A2.5	A2.5 The assessment is made publicly available.
Outcome	*Pass*
Rationale	
All the stock assessment information used to produce this MarinTrust assessment report was publicly available. Specifically, information is published in the WGBFAS report (ICES 2023) and the catch advice (ICES 2024). Additionally, the publication of methodologies, data, deliberations, and outcomes is a core part of the ICES process, as set out by the ICES Advisory Framework and Principles, particularly Principles 4, 5 and 6 (ICES 2020). The stock assessment is publicly available, and A2.5 is met.	
References	
ICES (2020) Guide to ICES advisory framework and principles. In Report of the ICES	

Advisory Committee, 2020. ICES Advice 2020, Guide to ICES Advice. https://doi.org/10.17895/ices.advice.7648

ICES (2023) Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. https://doi.org/10.17895/ices.pub.23123768

ICES (2024). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019276.v1

A3 Harvest strategy

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

Rationale

Total fishing mortality is restricted through the implementation of catch quotas. A TAC is set, generally based on the ICES advice, which in turn is guided by the EU Baltic Sea MAP (Regulation (EU) 2016/1139 as amended).

There is a mechanism in place to restrict total fishing mortality, and A3.1 is met.

References

Regulation (EU) 2016/1139: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016R1139

A3.2	**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.**
Outcome	*Pass*

Rationale

ICES provides catch advice based on the Baltic Sea MAP; this produces a range of potential catch scenarios. Although TACs have historically exceeded the ICES advice, the TAC applied to the stock has been consistently within the recommended range since 2018, and has approximated the middle of the range since 2022. Catches have been below the TAC every year since it was first introduced in 2003.

Gulf of Riga herring, ICES advice, TACs and catches. All weights in tonnes (ICES 2024)

Year	ICES advice	Catch from stock corresponding to advice	Agreed TAC for Gulf of Riga	Catches of Gulf of Riga herring stock
2018	MAP target F ranges: F_{lower} to F_{upper} (0.24–0.38), but F higher than F_{MSY} = 0.32 only under conditions specified in the MAP	19 396–29 195, but catch higher than 24 919 only under conditions specified in the MAP	28 999	25 747
2019	MAP target F ranges: F_{lower} to F_{upper} (0.24–0.38), but F higher than F_{MSY} = 0.32 only under conditions specified in the MAP	20 664–31 237, but catch higher than 26 932 only under conditions specified in the MAP	31 044	28 922
2020	MAP target F ranges: F_{lower} to F_{upper} (0.24–0.38), but F higher than F_{MSY} = 0.32 only under conditions specified in the MAP	23 395–35 094, but catch higher than 30 382 only under conditions specified in the MAP	34 445	33 215
2021	Management plan	35 771 (ranges 27 702–41 423)	39 446	35 758
2022	Management plan	44 945 (range 34 797–52 132)	47 697	41 117
2023	Management plan	43 226 (range 33 519–50 079)	45 643	42 800
2024	Management plan	35 902 (range 27 696–41 370)	37 959	
2025	Management plan	39 233 (ranges 30 394–45 235)		

Catches do not regularly exceed the recommended level, and have been within the recommended range every year since 2018. A3.2 is met.

References

ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1

A3.3	**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).**
Outcome	*Pass*

Rationale

The Gulf of Riga herring stock has not historically been estimated to be below the limit reference point level. The Baltic Sea MAP requires that fishing opportunities are fixed in such a way that there is a less than 5% probability of the spawning stock biomass falling below B_{lim}. When scientific advice indicates that the spawning stock biomass of the stock is below B_{lim}, further remedial measures shall be taken to ensure rapid return of the stock to levels above

the level capable of producing MSY. Those remedial measures may include suspending the targeted fishery for the stock and the adequate reduction of fishing opportunities. Evidence suggests that the fishery would be closed should biomass fall below the limit reference point, and A3.3 is met.
References ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1

A4 Stock status

A4.1	**A4.1**	**The stock is at or above the target reference point; OR IF NOT: 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: the stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.**
Outcome	*Pass*	
Rationale As noted in A2.2, the 2024 ICES catch advice states that "spawning-stock size is above MSY $B_{trigger}$, B_{pa}, and B_{lim}" (ICES 2024). As the stock is above the target reference point, it meets the first statement of this clause and A4.1 is met.		
References ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1		

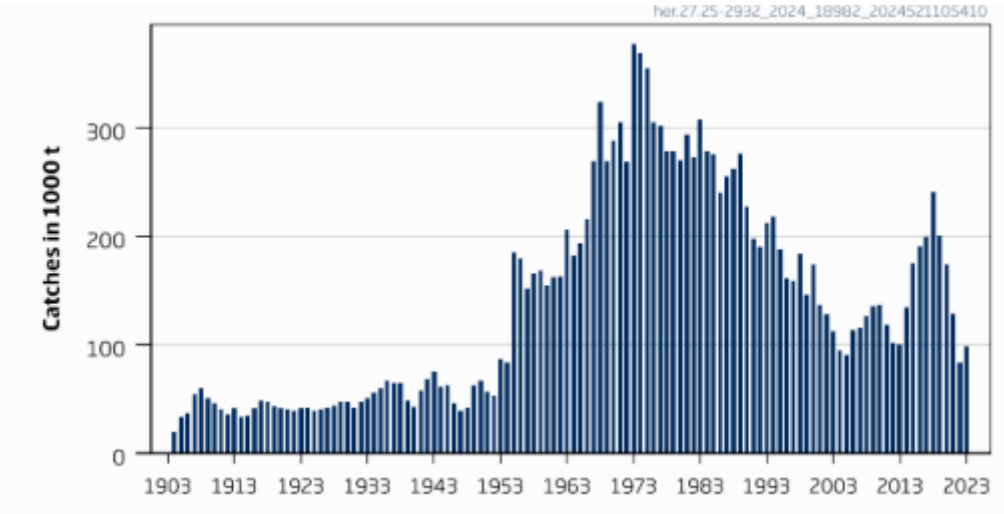
Herring (*Clupea harengus*), Central Baltic

A1 Data collection

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

Rationale

The EU Fisheries Control System, through the Fisheries Control Regulation (EC Regulation No 1224/2009) requires that data on catches (target species and bycatch) are recorded in logbooks by vessel captains and transmitted to the competent authority of each member state who then provide it to the Commission. Landings data collected in this fashion are incorporated into the annual stock assessment conducted by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). Discards and bycatch are considered negligible. ICES notes that "species misreporting of herring and sprat has occurred in the past, and there is evidence that this is an ongoing problem" (ICES 2024). However, ICES also reports that "considerable effort was made before the [stock assessment] benchmark to estimate levels of misreporting" (ICES 2024). Additionally, Russian catches were not formally reported, and were incorporated by ICES based on publicly available information.



Central Baltic herring, catches (ICES 2024)

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

References

Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community

control system for ensuring compliance with the rules of the common fisheries policy. https://eur-lex.europa.eu/eli/reg/2009/1224/oj/eng ICES (2024). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019276.v1

A1.2	**A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.**
Outcome	*Pass*
Rationale	
In addition to the commercial catch data described in A1.1, the stock assessment carried out annually by the WGBFAS utilises one acoustic survey indices (the Baltic International Acoustic Survey (BIAS)); and natural mortalities from the ICES multispecies model (ICES 2024). The model assumes discards and bycatch are negligible. The 2024 catch advice includes a section covering the quality of the assessment, which notes that misreporting of herring and sprat is an ongoing problem which is challenging to quantify, and which introduces an unquantifiable level of uncertainty into the assessment. However, efforts are underway to estimate the levels of misreporting (ICES 2024). Sufficient additional information is collected to enable an indication of stock status to be estimated, and A2.1 is met.	
References	
ICES (2024). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019276.v1	

A2 Stock assessment

A2.1	**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.**
Outcome	*Pass*
Rationale	

Herring in the Central Baltic Sea is subjected to an annual stock assessment carried out by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). The most recent assessment was conducted in 2024 using the data sources listed in A1.2, above. This included all international landings including estimates of removals by the Russian fleet (ICES 2024).

A stock assessment is conducted annually, and A2.1 is met.

References

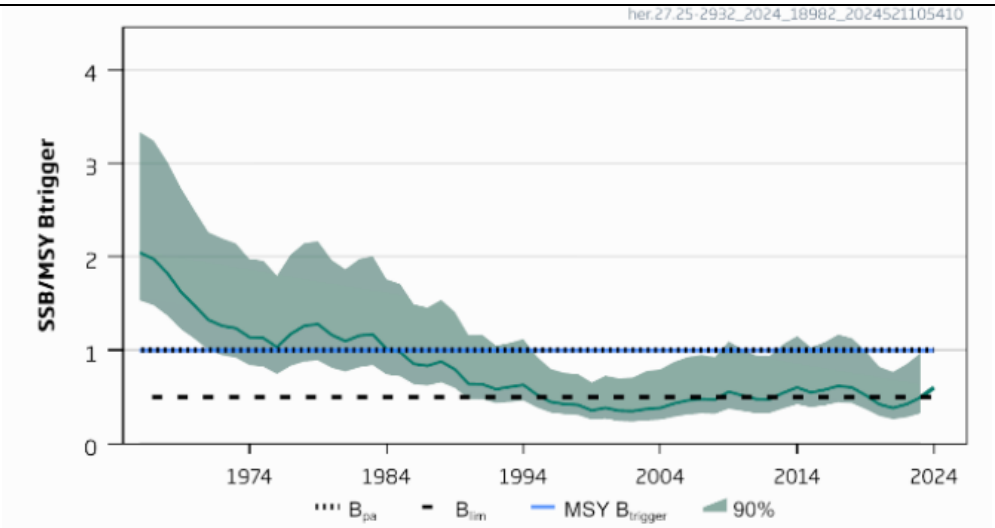
ICES (2024). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019276.v1

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

Rationale

The WGBFAS stock assessment provides an indication of the status of the stock relative to target and limit reference points. These reference points were updated in 2023 as a result of a full benchmarking of the stock. The new reference points are listed in the table below; key amongst these for the purpose of this MT assessment are the management plan target reference point MAP MSY $B_{trigger}$, set at $B_{30\%}$ (i.e. 30% of the estimated unexploited biomass); and limit reference point MAP B_{lim}, set at $0.15*B_0$ (i.e. 15% of the estimated unexploited biomass) (ICES 2024). Prior to 2023, reference points were expressed as absolute values, but these were updated to relative values in the 2023 benchmarking.

The 2024 stock assessment projected that SSB in 2025 would be 73% of the target reference point level, and stated, "spawning-stock size is below MSY $B_{trigger}$, and between B_{pa}, and B_{lim}" (ICES 2024).



Central Baltic herring, relative spawning biomass and current reference points (ICES 2024)

Herring in Subdivisions 25-29 and 32, excluding the Gulf of Riga. Reference points, values, and their technical basis (ICES 2024)

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	$B_{30\%}$	Relative value. Set at 30% of B_0*. Determined through management strategy evaluation with the objective to achieve high sustainable yields without exceeding a 5% probability of SSB falling below B_{lim} in any single year.	ICES (2023a)
	F_{MSY}	$F_{B30\%}$	Relative value. Set as the F which will achieve 30% of B_0. Determined through management strategy evaluation with the objective to achieve high sustainable yields without exceeding a 5% probability of SSB falling below B_{lim} in any single year.	ICES (2023a)
Precautionary approach	B_{lim}	$0.15 \times B_0$	Relative value. Set at 15% of B_0.	ICES (2023b)
	B_{pa}=MSY $B_{trigger}$	$B_{30\%}$	Relative value. Set at 30% of B_0. Determined through management strategy evaluation with the objective to achieve high sustainable yields without exceeding a 5% probability of SSB falling below B_{lim} in any single year.	ICES (2023a)
	F_{pa}	$F_{B25\%}$**= F_{MSY}*1.21	F_{P05}. Relative value. Determined through management strategy evaluation. The F that leads to SSB ≥ B_{lim} with 95% probability.	ICES (2023a)
Management plan	MAP MSY $B_{trigger}$	$B_{30\%}$	MSY $B_{trigger}$	ICES (2023a)
	MAP B_{lim}	$0.15 \times B_0$	B_{lim}	ICES (2023a)
	MAP F_{MSY}	$F_{B30\%}$	F_{MSY}	ICES (2023a)
	MAP target range F_{lower}	$F_{B40\%}$ = F_{MSY}*0.75	Relative value. Determined through management strategy evaluation, consistent with the ranges that result in no more than a 5% reduction in long-term yield compared to MSY.	ICES (2023a)
	MAP target range F_{upper}	$F_{B25\%}$**= F_{MSY}*1.21	Relative value. Determined through management strategy evaluation, consistent with the ranges that result in no more than a 5% reduction in long-term yield compared to MSY. Capped to F_{P05}.	ICES (2023a)

* B_0 is the estimated unexploited spawning biomass at current conditions (average biological parameters for the last 10 years).
** Determined from the management strategy evaluation. To be precautionary, this reference point can only be used with the MSY $B_{trigger}$.

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

References

ICES. (2023) Benchmark Workshop on Baltic Pelagic stocks (WKBBALTPEL). ICES Scientific

Reports. 5:47. https://doi.org/10.17895/ices.pub.23216492

ICES (2024). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019276.v1

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

Rationale

The results of the WGBFAS stock assessment are summarised in catch and effort advice published by ICES annually. The 2024 advice states that "when the EU multiannual plan (MAP) for the Baltic Sea is applied, catches in 2025 that correspond to the F ranges in the plan are between 95 340 (corresponding to $F_{MSY\ lower} \times SSB_{2025}/MSY\ B_{trigger}$) and 125 344 tonnes (corresponding to $F_{MSY} \times SSB_{2025}/MSY\ B_{trigger}$)" (ICES 2024).

The stock assessment provides an indication of an appropriate level of fishery removals, and A2.3 is met.

References

ICES (2024). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019276.v1

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

Rationale

The Guide to ICES Advisory Framework and Principles (ICES 2020) sets out the process by which ICES carries out scientific activities and provides fishery management advice. The process is designed to be transparent, independent and produce peer-reviewed recommendations. Advice is provided based on ten key Principles, of which Principle seven states 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".

The herring stock assessment was most recently benchmarked in 2023. The assessment is

peer reviewed, and A2.4 is met.
References ICES (2020) Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, Guide to ICES Advice. https://doi.org/10.17895/ices.advice.7648

A2.5	**A2.5 The assessment is made publicly available.**
Outcome	*Pass*
Rationale All the stock assessment information used to produce this MarinTrust assessment report was publicly available. Specifically, information is published in the WGBFAS report (ICES 2023) and the catch advice (ICES 2024). Additionally, the publication of methodologies, data, deliberations, and outcomes is a core part of the ICES process, as set out by the ICES Advisory Framework and Principles, particularly Principles 4, 5 and 6 (ICES 2020). The stock assessment is publicly available, and A2.5 is met.	
References ICES (2020) Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, Guide to ICES Advice. https://doi.org/10.17895/ices.advice.7648 ICES (2023b) Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. https://doi.org/10.17895/ices.pub.23123768 ICES (2024). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019276.v1	

A3 Harvest strategy

A3.1	**A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.**
Outcome	*Pass*
Rationale Total fishing mortality is restricted through the implementation of catch quotas. In EU waters a TAC is set, and is generally based on the ICES advice which in turn is guided by the	

EU Baltic Sea MAP (Regulation (EU) 2016/1139 as amended). Total removals by the Russian fleet are restricted by a Russian autonomous quota. Note that this clause considers only whether there is a mechanism in place to restrict fishing mortality; the extent to which the mechanism is effective at restricting removals to the level advised by scientific organisations is covered in A3.2, below.

There is a mechanism in place to restrict total fishing mortality, and A3.1 is met.

References

Regulation (EU) 2016/1139. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016R1139

A3.2	**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.**
Outcome	*Fail*

Rationale

Since 2018, ICES has provided a range of potential catch recommendations to reflect the specifics of the Baltic Sea MAP (see A2.3). The total international quota – i.e. the sum of the EU TAC and the Russian autonomous quota – has historically been broadly within the boundaries of the ICES advice. However, while the headline 2023 ICES catch advice called for maximum catches within the range of 41,706t – 52,549t, the total international TAC was set at 67,368t, nearly 30% greater than the maximum recommended level.

An argument could be made that this excess TAC has only occurred in one year, and therefore does not represent removals which "regularly exceed" the level stated in the stock assessment. However, the severity of the excess TAC in 2024 is exacerbated by the conclusion of the 2023 stock assessment that this quota was set at a time when stock biomass was below the limit reference point. Some scientists and management stakeholders – including, originally, the European Commission (EC 2023) – argued that the TAC should be set to zero.

Central Baltic herring, ICES advice, TACs and catches. All weights in tonnes (ICES 2024)

Year	ICES advice	Catch corresponding to the advice	Agreed TAC	ICES catch SDs 25–29 and 32	ICES catch
2018	MAP target F ranges: F_{lower} to F_{upper} (0.16–0.28), but F higher than F_{MSY} = 0.22 only under conditions specified in MAP	200 236–331 510 but catch higher than 267 745 only under conditions specified in MAP	258 855^^		240 739
2019	MAP target F ranges: F_{lower} to F_{upper} (0.16–0.28), but F higher than F_{MSY} = 0.22 only under conditions specified in MAP	115 591–192 787 but catch higher than 155 333 only under conditions specified in MAP	200 260^^		200 957
2020	MAP target F ranges: F_{lower} to F_{upper} (0.16–0.28), but F higher than F_{MSY} = 0.22 only under conditions specified in MAP	130 546–214 553 but catch higher than 173975 only under conditions specified in MAP	182 484^^		174 520
2021	Management plan	111 852 (range 83 971–138 183)	126 051^^		128 961
2022	Management plan	71 939 (range 52 443–87 581)	80 753^^		83 821^^^§
2023	Management plan	95 643 (range 70 130–95 643)	97 822^^		98 696^^^
2024	Management plan	52 549 (range 41 706–52 549)	67 368^^		
2025	Management plan	125 344 (range 95 340–125 344)			

* 1988–2003 including Gulf of Riga herring.
** TAC for subdivisions 22–29S and 32.
*** TAC for subdivisions 25–28.2, 29, and 32.
^ EU TAC for subdivisions 25–28.2, 29, and 32.
^^ TAC is calculated as EU (subdivisions 25–28.2, 29, and 32) + Russian Federation autonomous quotas.
^^^ Russian Federation landings were not officially reported to ICES, but an estimate is included.
§ Russian Federation landings were updated in during the Baltic Fisheries Assessment Working Group (WGBFAS) 2024 meeting.

Total fishery removals in 2024 are likely to substantially exceed the range of catch recommendations provided by ICES, and A3.2 is not met. As per the MT whole fish assessment guidance, the stock should be further assessed under Category B.

References

EC (2023). Commission proposes fishing opportunities for 2024 in the Baltic Sea https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4287

ICES (2024). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019276.v1

A3.3	**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).**

Outcome	*Fail*

Rationale

The 2023 ICES advice stated that the stock was substantially below the LRP; noted that the MAP requires fishing pressure to be set at a level which reduces the chance of SSB falling below LRP to less than 5%; and stated that the stock will likely remain under LRP even with zero fishing in 2024. However, despite this, the ICES headline catch advice recommended a quota of between 41,706t and 52,549t (ICES 2023), although text included within the advice also noted that "The EU MAP states, "Fishing opportunities shall in any event be fixed in such a way as to ensure that there is less than a 5% probability of the spawning stock biomass falling below B_{lim}"" (ICES 2023).

Due to the state of the stock, in August 2023 the European Commission proposed the closure of the targeted central Baltic herring fishery (EC 2023). However, this proposal was not implemented, and the 2024 TAC was eventually set at 40,368t (EC 2023a). The 2024 ICES advice indicates that when combined with the Russian Federation autonomous quota, the total international TAC in 2024 was 67,368t.

In conclusion, despite biomass being below the LRP in 2023, the 2024 TAC was set substantially higher than the level recommended by ICES. A3.3 is not met. As per the MT whole fish assessment guidance, the stock should be further assessed under Category B.

References

EC (2023). Commission proposes fishing opportunities for 2024 in the Baltic Sea https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4287

EC (2023a). Baltic Sea: Agreement reached on 2024 fishing opportunities https://oceans-and-fisheries.ec.europa.eu/news/baltic-sea-agreement-reached-2024-fishing-opportunities-2023-10-24_en

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. ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.23310368.v1

A4 Stock status

A4.1	**A4.1**	**The stock is at or above the target reference point; OR IF NOT: 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: the stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.**

Outcome	Choose an item.

The stock is currently estimated to be slightly above the limit reference point (B_{lim}) but below the target reference points B_{pa} and MSY $B_{trigger}$ (ICES 2024), therefore the first and third statements of this clause are not met.

In order to meet the second statement, there must be evidence that a fall below the limit reference point would result in fishery closure. The 2023 stock assessment concluded that stock biomass was below the limit reference point level (ICES 2023). However, the fishery remained open in 2024, with a total international TAC of 67,368t, nearly 30% more than the maximum recommended by the ICES advice (52,549t). There is conclusive evidence that the fishery is not closed when biomass falls below the limit reference point, and the second statement is not met.

A4.1 is not met. As per the MT whole fish assessment guidance, the stock should be further assessed under Category B.

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. ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.23310368.v1

ICES (2024). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019276.v1

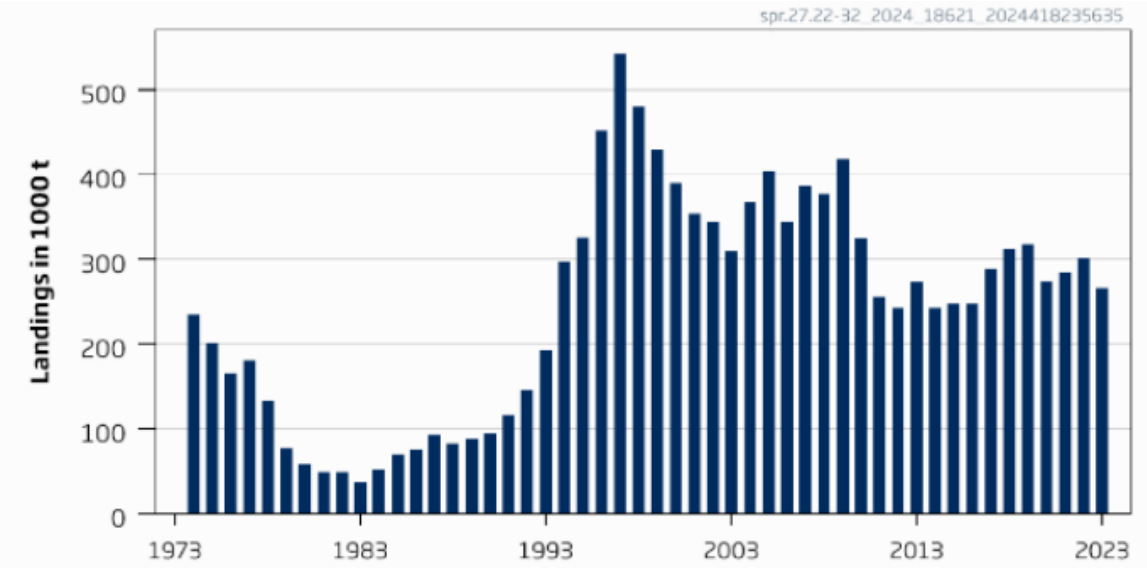
Sprat (*Sprattus sprattus*), Baltic Sea

A1 Data collection

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

Rationale

The EU Fisheries Control System, through the Fisheries Control Regulation (EC Regulation No 1224/2009) requires that data on catches (target species and bycatch) are recorded in logbooks by vessel captains and transmitted to the competent authority of each member state who then provide it to the Commission. Landings data collected in this fashion are incorporated into the annual stock assessment conducted by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). Discards and bycatch are considered negligible (ICES 2024). ICES notes that "species misreporting of herring and sprat has occurred in the past, and there is evidence that this is an ongoing problem" (ICES 2024). However, ICES also reports that "considerable effort was made before the [stock assessment] benchmark to estimate levels of misreporting" (ICES 2024). Additionally, Russian catches were not formally reported, and were incorporated by ICES based on publicly available information.



Baltic Sea sprat, landings (ICES 2024)

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

References

Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy. https://eur-lex.europa.eu/eli/reg/2009/1224/oj/eng

ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1

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

Rationale

In addition to the commercial catch data described in A1.1, the stock assessment carried out annually by the ICES Baltic Fisheries Assessment Working Group (WGBFAS) utilises two acoustic survey indices (the Baltic Acoustic Spring Survey (BASS) and the Baltic International Acoustic Survey (BIAS)); and natural mortalities from the ICES multispecies model (ICES 2024). The model assumes discards and bycatch are negligible. The 2024 catch advice includes a section covering the quality of the assessment, which notes that misreporting of herring and sprat is an ongoing problem which is challenging to quantify, and which introduces an unquantifiable level of uncertainty into the assessment. However, efforts are underway to estimate the levels of misreporting (ICES 2024).

Sufficient additional information is collected to enable an indication of stock status to be estimated, and A2.1 is met.

References

ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1

A2 Stock assessment

A2.1	**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.**
Outcome	*Pass*

Rationale

Sprat in the Baltic Sea is subjected to an annual stock assessment carried out by the ICES

Baltic Fisheries Assessment Working Group (WGBFAS). The most recent assessment was conducted in 2024 using the data sources listed in A1.2, above. This included all international landings including estimated removals by the Russian fleet (ICES 2024).

A stock assessment is conducted annually, and A2.1 is met.

References

ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1

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

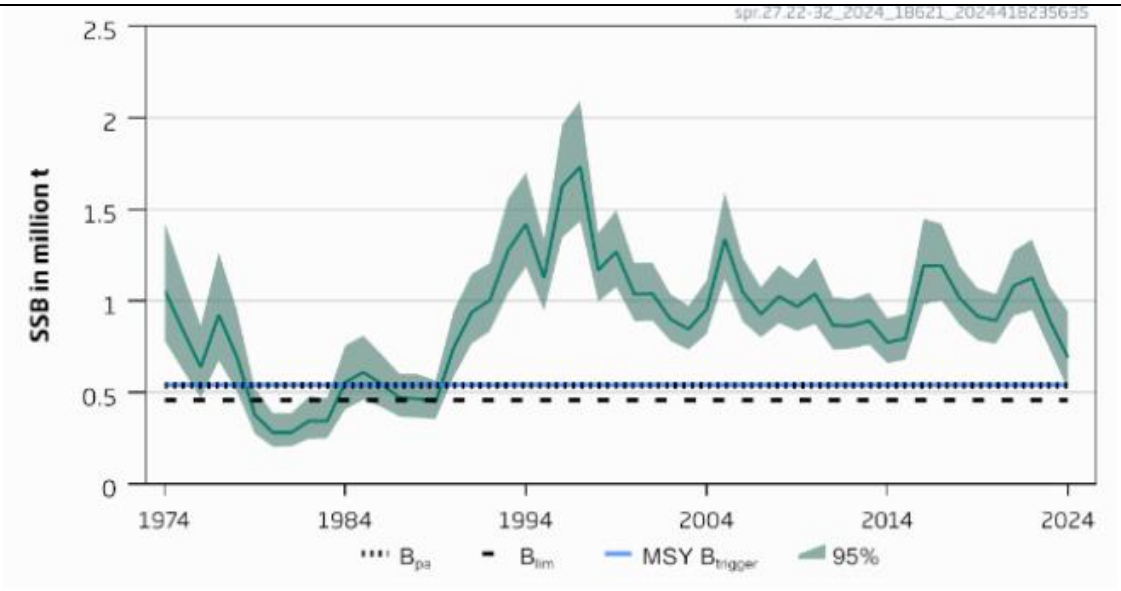
Rationale

The WGBFAS stock assessment provides an indication of the status of the stock relative to target and limit reference points. These reference points were updated in 2023 as a result of a full benchmarking of the stock. The new reference points are listed in the table below; key amongst these for the purpose of this MT assessment are the management plan target reference point (MAP MSY $B_{trigger}$ = 541,000t) and limit reference point (MAP B_{lim} = 459,000t) (ICES 2024).

Sprat in Subdivisions 22-32, reference points, values, and their technical basis. Weights in tonnes (ICES 2024).

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	541 000	B_{pa}	ICES (2023a)
	F_{MSY}	0.34	Stochastic simulations with Beverton–Holt and segmented regression stock-recruitment model	ICES (2023a)
Precautionary approach	B_{lim}	459 000	Biomass that produces half of the maximal recruitment in the Beverton–Holt stock-recruitment relationship	ICES (2023a)
	B_{pa}	541 000	$B_{lim} \times \exp(1.645 \times \sigma)$, where $\sigma = 0.1$	ICES (2023a)
	F_{lim}	0.58	Consistent with B_{lim}	ICES (2023a)
	F_{pa}	0.35	F_{p05}; the F that leads to SSB ≥ B_{lim} with 95% probability	ICES (2023a)
Management plan	MAP MSY $B_{trigger}$	541 000	MSY $B_{trigger}$	ICES (2023a)
	MAP B_{lim}	459 000	B_{lim}	ICES (2023a)
	MAP F_{MSY}	0.34	F_{MSY}	ICES (2023a)
	MAP target range F_{lower}	0.26–0.34	Consistent with the ranges that result in a ≤ 5% reduction in long-term yield compared with MSY	ICES (2023a)
	MAP target range F_{upper}	0.34–0.35	Consistent with the ranges that result in a ≤ 5% reduction in long-term yield compared with MSY, constrained by F_{p05}	ICES (2023a)

The 2024 stock assessment predicted that SSB at spawning time in 2024 would be 692,126t, and the 2024 catch advice states that "Spawning-stock size is above MSY $B_{trigger}$, B_{pa}, and B_{lim}" (ICES 2024).



Sprat in Subdivisions 22-32, estimated SSB relative to current reference points (established in 2023). SSB shown for 2024 is the predicted value (ICES 2024).

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

References

ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1

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

Rationale

The results of the WGBFAS stock assessment are summarised in catch and effort advice published by ICES annually. The 2024 advice states that "when the EU multiannual plan (MAP) for the Baltic Sea is applied, catches in 2 025 that correspond to the F ranges in the plan are between 130 195 tonnes and 169 131 tonnes. According to the MAP, catches higher than those corresponding to F_{MSY} (164 947 tonnes) can only be taken under conditions specified in the plan, whilst the entire range is considered precautionary when applying ICES advice rule." (ICES 2024).

The stock assessment provides an indication of an appropriate level of fishery removals, and A2.3 is met.

References
ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1

A2.4	A2.4 The assessment is subject to internal or external peer review.
Outcome	*Pass*
Rationale	
The Guide to ICES Advisory Framework and Principles (ICES 2020) sets out the process by which ICES carries out scientific activities and provides fishery management advice. The process is designed to be transparent, independent and produce peer-reviewed recommendations. Advice is provided based on ten key Principles, of which Principle seven states 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". The sprat stock assessment was most recently benchmarked in 2023. The assessment is peer reviewed, and A2.4 is met.	
References	
ICES (2020) Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, Guide to ICES Advice. https://doi.org/10.17895/ices.advice.7648	

A2.5	A2.5 The assessment is made publicly available.
Outcome	*Pass*
Rationale	
All the stock assessment information used to produce this MarinTrust assessment report was publicly available. Specifically, information is published in the WGBFAS report (ICES 2022) and the catch advice (ICES 2024). Additionally, the publication of methodologies, data, deliberations, and outcomes is a core part of the ICES process, as set out by the ICES Advisory Framework and Principles, particularly Principles 4, 5 and 6 (ICES 2020). The stock assessment is publicly available, and A2.5 is met.	
References	
ICES (2020) Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, Guide to ICES Advice.	

https://doi.org/10.17895/ices.advice.7648

ICES (2023) Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. https://doi.org/10.17895/ices.pub.23123768

ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1

A3 Harvest strategy

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

Rationale

Total fishing mortality is restricted through the implementation of catch quotas. In EU waters a TAC is set, and is generally based on the ICES advice which in turn is guided by the EU Baltic Sea MAP (Regulation (EU) 2016/1139 as amended). Total removals by the Russian fleet are restricted by a Russian autonomous quota.

There is a mechanism in place to restrict total fishing mortality, and A3.1 is met.

References

Regulation (EU) 2016/1139: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32016R1139

A3.2	**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.**
Outcome	*Pass*	

Rationale

Since 2018, ICES has provided a range of potential catch recommendations to reflect the specifics of the Baltic Sea MAP (see A2.3). The total international quota – i.e. the sum of the EU TAC and the Russian autonomous quota – is generally within the boundaries of the ICES advice, although it exceeded the upper boundary of the advice by a small amount in 2018 and 2019, and by a larger amount in 2020. Total catch estimates also exceeded the upper boundary of the advice in these three years, by around 3% (2018), 2% (2019), and

17% (2020). The catch advice has not been exceeded since 2020, and total catches have been substantially lower than the upper boundary of the advice. Throughout this period, estimated SSB has been substantially larger than the current target and limit reference points.

It is clear that there is an issue in this fishery with total international quota being set above the ICES advice. However, the assessor considers A3.2 to be met for the following key reasons:

- Catch has only exceeded the advice by more than 10% in one of the past 6 years, since advice has been based on the MAP.
- In years when catch has exceeded the advice by less than 10%, and in all other recent years, SSB has been estimated to be well above the limit reference point.

Sprat in Subdivisions 22-32, ICES advice, agreed TAC and ICES estimates of total catch (ICES 2024)

Year	ICES advice	Catch corresponding to advice	Agreed TAC	ICES catch
2006	Agreed management plan	439 000	468 000	344 500
2007	< F_{pa}	< 477 000	454 000*	386 900
2008	< F_{pa}	< 432 000	454 000*	376 600
2009	< F_{pa}	< 291 000	399 000*	404 400
2010	< F_{pa}	< 306 000	380 000*	340 900
2011	< F_{pa}	< 242 000	322 700**	267 600
2012	MSY transition scheme	< 242 000	255 100**	243 000
2013	F < F_{MSY}	< 278 000	278 000**	273 100
2014	MSY approach	< 247 000	267 900**	242 100
2015	MSY approach	< 222 000	240 200**	247 300
2016	MSY approach (F = 0.26)	≤ 205 000	243 000**	247 200
2017	MSY approach (F = 0.26)	≤ 314 000	303 593**	288 500
2018	MAP target F ranges: F_{lower} to F_{upper} (0.19–0.27), but F higher than F_{MSY} = 0.26 only under conditions specified in MAP	219 152–301 722, but catch higher than 291 715 only under conditions specified in MAP	304 900**	312 188
2019	MAP target F ranges: F_{lower} to F_{upper} (0.19–0.27), but F higher than F_{MSY} = 0.26 only under conditions specified in MAP	225 752–311 523, but catch higher than 301 125 only under conditions specified in MAP	313 100**	317 650
2020	MAP target F ranges: F_{lower} to F_{upper} (0.19–0.27), but F higher than F_{MSY} = 0.26 only under conditions specified in MAP	169 965–233 704, but catch higher than 225 786 only under conditions specified in MAP	256 700**	274 060
2021	Management plan	247 952 (range 181 567–316 833)	268 458**	284 890
2022	Management plan	291 745 (range 214 000–373 210)	295 300**	300 788^,§
2023	Management plan	249 237 (range 183 749–317 905)	269 200**	265 900^
2024	Management plan	241 604 (range 191 075–247 704)	245 200**	
2025	Management plan	164 947 (range 130 195 – 169 131)		

* EU autonomous quota and does not include Russian Federation catches.
** TAC is calculated as EU + Russian Federation autonomous quotas.
^ Russian Federation landings were not officially reported to ICES, but an estimate is included.
§ Russian Federation landings were updated in 2024 by the Baltic Fisheries Assessment Working Group (WGBFAS).

Catches rarely exceed the advice by more than 10%, and SSB has been above the current target reference point for over 30 years. A3.2 is met.

References

ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1

A3.3	**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).
Outcome	*Pass*
Rationale The MAP requires that fishing opportunities are fixed in such a way that there is a less than 5% probability of the spawning stock biomass falling below B_{lim}. When scientific advice indicates that the spawning stock biomass of the stock is below B_{lim}, further remedial measures shall be taken to ensure rapid return of the stock to levels above the level capable of producing MSY. Those remedial measures may include suspending the targeted fishery for the stock and the adequate reduction of fishing opportunities. Evidence suggests that the fishery would be closed should biomass fall below the limit reference point, and A3.3 is met.	
References ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1 Regulation (EU) 2016/1139: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32016R1139	

A4 Stock status

A4.1	**A4.1 The stock is at or above the target reference point; OR IF NOT: 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: the stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.**
Outcome	*Pass*
Rationale The most recent ICES catch advice states that "Spawning-stock size is above MSY $B_{trigger}$, B_{pa}, and B_{lim}" (ICES 2024. See also A2.2. The stock meets the first statement of this clause, and A4.1 is met.	
References ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1	

Category B species

Category B species are assessed using a risk-based approach.

2.2. The risk matrix in Table B(a) shall be used when assessing a Category B species when estimates of Fishing mortality (F), Biomass (B) and reference points are available.

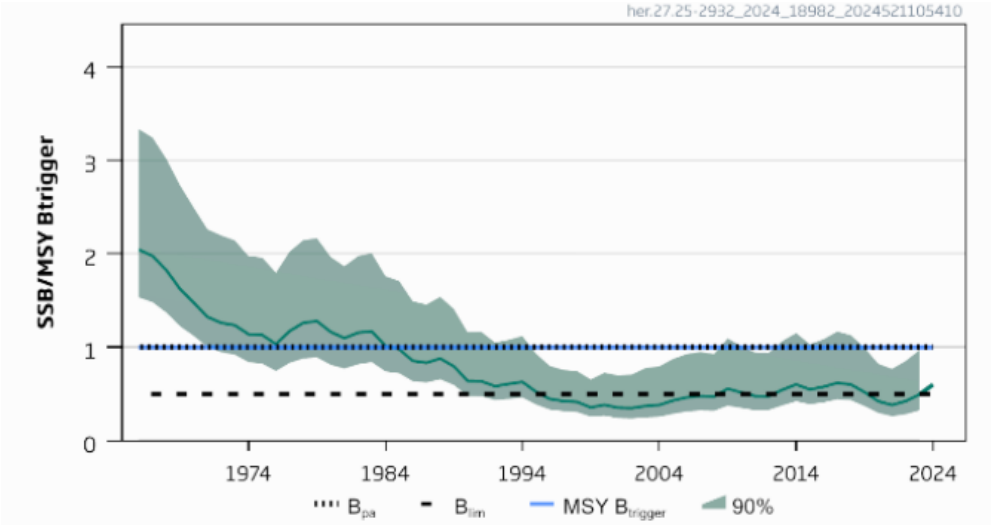
2.3. The risk matrix in Table B(b) shall be used when assessing a Category B species when no reference points are available.

Herring (*Clupea harengus*), Central Baltic

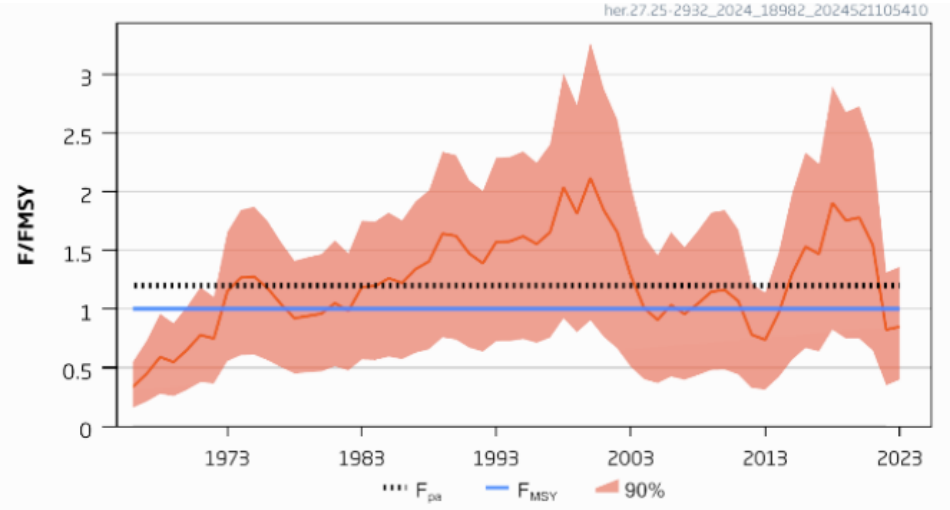
B1	**A3.3 Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).**
Table used B(a) or B(b)	B(a)
Outcome	*Pass*

Rationale

Central Baltic herring is managed relative to established target and limit reference points, and can therefore be assessed against Table B(a). In the most recent stock assessment biomass was estimated to be above the limit reference point. Fishing mortality in 2023 was below the F_{MSY} level, and if the TAC set for 2024 is fully taken then fishing mortality will be about 48% of the F_{MSY} level (ICES 2024). The 2024 ICES catch advice states that "Fishing pressure on the stock is below F_{MSY}, and spawning-stock size is below MSY $B_{trigger}$ and between B_{pa} and B_{lim}" (ICES 2024).



Central Baltic herring, relative spawning biomass and current reference points (ICES 2024)



Central Baltic herring, relative fishing pressure (ICES 2024)

Taking into account current estimates of biomass and fishing mortality relative to reference points, and reading off Table B(a) of the whole fish assessment guidance, the outcome is that the stock Passes the Category B assessment.

References

ICES (2024). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019276.v1

Category C species

2.4. All clauses must be met for a species to pass the Category C assessment.

2.4.1. Where a species fails this Category C clause, it should be assessed as a Category D species instead, except if there is evidence that the species is currently below the limit reference point.

C1.1	**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.**
Outcome	Choose an item.
Rationale	
References	

C1.2	**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.**
Outcome	Choose an item.
Rationale	
References	

Category D species

Category D species are assessed against a risk-based approach.

2.5. The Productivity-Susceptibility Analysis (PSA) in Table D(a) shall be used when assessing Category D species.

2.6. Table D(b) shall be used to calculate the overall PSA risk rating for the Category D species.

2.7. Should the PSA indicate a high risk, further assessment shall be completed against the requirements in Table D(C).

Productivity Susceptibility Analysis (PSA) and scores

Table D(a) provides detailed values and scores for the species productivity and susceptibility attributes and attributes, the assessor shall use Table D(a) to the PSA table.
Table D(b) is used to calculate the overall PSA risk rating for the Category D species.

Species name	Smelt (*Osmerus eperlanus*)	
Productivity attributes	**Value**	**Score**
Average age at maturity	4.7 years	1
Average maximum age	18.9 years	2
Fecundity	18,028	2
Average maximum size	45cm	1
Average size at maturity	22.1cm	1
Reproductive strategy	Broadcast spawner	1
Mean Trophic Level (MTL)	3.5	3
Density dependence (to be used when scoring invertebrate species only)	n/a	
Susceptibility attributes		
Areal overlap (availability): Overlap of the fishing effort with a species concentration of the stock	<10%	1
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	Unknown; assumed High	3
Selectivity of gear type:	Unknown; assumed High	3

Potential of the gear to retain species		
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	Retained	3
Average productivity score		1.57
Average susceptibility score		2.5
PSA risk rating (from Table D(b))		PASS
Compliance rating		PASS

Reference: Fishbase, European smelt: https://www.fishbase.se/summary/Osmerus-eperlanus.html

Species name	Fourhorn sculpin (*Myoxocephalus quadricornis*)	
Productivity attributes	**Value**	**Score**
Average age at maturity	4 years	1
Average maximum age	16.9 years	2
Fecundity	3,776	2
Average maximum size	60cm	1
Average size at maturity	34.1cm	1
Reproductive strategy	Guarders / nesters	2
Mean Trophic Level (MTL)	3.9	3
Density dependence (to be used when scoring invertebrate species only)		
Susceptibility attributes		
Areal overlap (availability): Overlap of the fishing effort with a species concentration of the stock	<10%	1
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	Unknown; assumed High	3
Selectivity of gear type: Potential of the gear to	Unknown; assumed High	3

retain species		
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	Retained	3
Average productivity score		1.71
Average susceptibility score		2.5
PSA risk rating (from Table D(b))		PASS
Compliance rating		PASS

Reference: Fishbase, fourhorn sculpin: https://www.fishbase.se/summary/Myoxocephalus-quadricornis.html

Further assessment for Category D species

Should the PSA indicate a high risk, further assessment shall be completed against the requirements D1 and D2 – Table D(c).

D1	**D1. The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.**
Outcome	Choose an item.
Rationale	
References	

D2	**D2. There is no substantial evidence that the fishery has a significant negative impact on the species.**
Outcome	Choose an item.
Rationale	
References	

Ecosystem requirements

This section, or module, assesses the impacts that the fishery under assessment may have on key ecosystem components: ETP species, habitat and the wider ecosystem.

3.1. All ecosystem criteria must be met (pass) for a fishery to pass the Ecosystem Requirements.

3.1.1. The sub-criteria offer a structured evidence base to demonstrate that the fishery sufficiently meets the ecosystem criteria, it is not expected that sub-criteria are assessed independently of the main criterion.

E1 Impact on Endangered, Threatened or Protected species (ETP species)

E1.1	**E1.1 Information on interactions between the fishery and ETP species is collected.** *In reaching a determination for E1.1, the assessor should consider if the following is in place:*	
	E1.1.1 ETP species which may be directly affected by the fishery have been identified.	
	E1.1.2 Interactions between the fishery and ETP species are recorded and reported to management organisations.	
	E1.1.3 Collection and analysis of ETP information is adequate to provide a reliable indication of the impact the fishery has on ETP species.	
Outcome	*Pass*	

Rationale

There is a requirement for EU member states to record ETP bycatch initially through Council Regulation (EC) 812/2004 (which was focused on cetaceans, although member states also provided information on other species) and from 2019 through the technical Conservation Measures Regulation (EU Regulation 2019/1241) (Annex XIII sets out monitoring requirements for marine mammals, reptiles and seabirds) and the Habitats and Birds Directives (1992/43/EC) also require monitoring of bycatch of species protected under the Directives. Information collected through these mechanisms is collated and assessed by the ICES WGBYC (ICES 2023).

Interactions with ETP species are considered very rare. The most recent WGBYC report indicates that pelagic gears in the Baltic Sea reported no interactions with sharks, seabirds or turtles in 2022 (ICES 2023). Previously, the WGBYC has assessed the bycatch risk posed

by different fishing gears to protected species in the Baltic Seas using expert judgement. Each combination of protected species and gear type was assigned a simple 1 to 3 (lower-higher risk) score. Pelagic trawls were scored at '1', except for seals and harbour porpoise which were scored at '2' based on a record from Poland of one porpoise bycatch from a pelagic trawl (ICES 2018).

Information on interactions between the fishery and ETP species is collected, and E1.1 is met.

References

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31992L0043

Council Regulation (EC) No 812/2004 of 26.4.2004 laying down measures concerning incidental catches of cetaceans in fisheries and amending Regulation (EC) No 88/98. https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32004R0812

ICES, 2018. Report from the Working Group on Bycatch of Protected Species (WGBYC), 1–4 May 2018, Reykjavik, Iceland. ICES CM 2018/ACOM:25. 128 pp https://www.ascobans.org/sites/default/files/document/AC24_Inf._2.1.b_ICES%20WGBYC.pdf

ICES (2023). Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. Report. https://doi.org/10.17895/ices.pub.24659484.v3

Regulation (EU) 2019/1241 of the European Parliament and of the Council of 20 June 2019 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures. https://eur-lex.europa.eu/eli/reg/2019/1241/art_2/oj

E1.2	**E1.2 The fishery has no significant negative impact on ETP species.** *In reaching a determination for E1.2, the assessor should consider if the following is in place:* E1.2.1 The information collected in relation to E1.1.3 indicates that the fishery does not have a significant negative impact on ETP species.
Outcome	*Pass*

Rationale

As noted in E1.1, the most recent WGBYC report (ICES 2023) indicates that interactions between this fishery and ETP species are thought to be very rare. E1.2 is met.

References

ICES (2023). Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific

Reports. Report. https://doi.org/10.17895/ices.pub.24659484.v3

E1.3	**E1.3 There is an ETP management strategy in place for the fishery.** *In reaching a determination for E1.3, the assessor should consider if the following is in place:*	
	E1.3.1	There are measures applied to the fishery which are designed to manage the impacts of the fishery on ETP species.
	E1.3.2	The measures are considered likely to achieve the objectives of regional, national and international legislation relating to ETP species.
Outcome	*Pass*	

Rationale

Although interactions between this fishery and ETP species are thought to be extremely rare, measures are in place to minimise mortality. These include area closures (e.g. offshore from the mouth of the Oder), ban on fishing in inshore areas in certain locations, monitoring requirements, marine protected areas designated for ETP species, and ban on capture of ETP species and, where this occurs, their prompt release.

No fishery-specific strategy is required for this fishery due to the infrequency of ETP interactions; however, broader ETP measures are in place. E1.3 is met.

References

n/a

E2 Impact on the habitat

E2.1	**E2.1**	**Information on interactions between the fishery and marine habitats is collected.** *In reaching a determination for E2.1, the assessor should consider if the following is in place:*
	E2.1.1	Habitats which may be directly affected by the fishery have been identified, including any habitats which may be particularly vulnerable.
	E2.1.2	Information on the scale, location and intensity of fishing activity relative to habitats is collected.
	E2.1.3	Collection and analysis of habitat information is adequate to provide a reliable indication of the impact the fishery has on marine habitats.
Outcome	*Pass*	

Rationale

Due to the gears used, this pelagic fishery is inherently very unlikely to significantly impact any marine habitats, and there are no habitats likely to be directly affected by this fishery. Pelagic gears operate in the water column and fishers make efforts to avoid contact with the bottom, which can damage the gear. However, in fisheries within EU waters where habitat impacts are likely – for example bottom trawl fisheries – efforts have been made to understand those impacts, such as through the European Marine Observation and Data Network (EMODnet 2024).

Fishing activity within the small pelagic fishery is very unlikely to have any impact on marine habitats; however, the locations of vessels and fishing activity is monitored via VMS. Due to the gears used, data do not need to be collected to indicate that the fishery does not have an impact on habitats. Data are collected, and E2.1 is met.

References

EMODnet(2024). Seabed habitats: https://emodnet.ec.europa.eu/en/seabed-habitats

E2.2	**E2.2**	**The fishery has no significant impact on marine habitats.** *In reaching a determination for E2.2, the assessor should consider if the following is in place:*
	E2.2.1	The information collected in relation to E2.1.3 indicates that the fishery does not have a significant negative impact on marine habitats.
Outcome	*Pass*	

Rationale As noted above, due to the gear types used in this fishery, it is very unlikely to have a significant negative impact on marine habitats. E2.2 is met.
References n/a

E2.3	**E2.3 There is a habitat management strategy in place for the fishery.** *In reaching a determination for E2.3, the assessor should consider if the following is in place:*	
	E2.3.1	There are measures applied to the fishery which are designed to manage the impact of the fishery on marine habitats.
	E2.3.2	The measures are considered likely to prevent the fishery from having a significant negative impact on marine habitats.
Outcome	*Pass*	
Rationale Due to the pelagic nature of the gears used in this fishery, no habitat management strategy is necessary. No measures are required to reduce the potential impacts of the fishery on marine habitats, as these are likely to be zero due to the gear types used. E2.3 is met.		
References n/a		

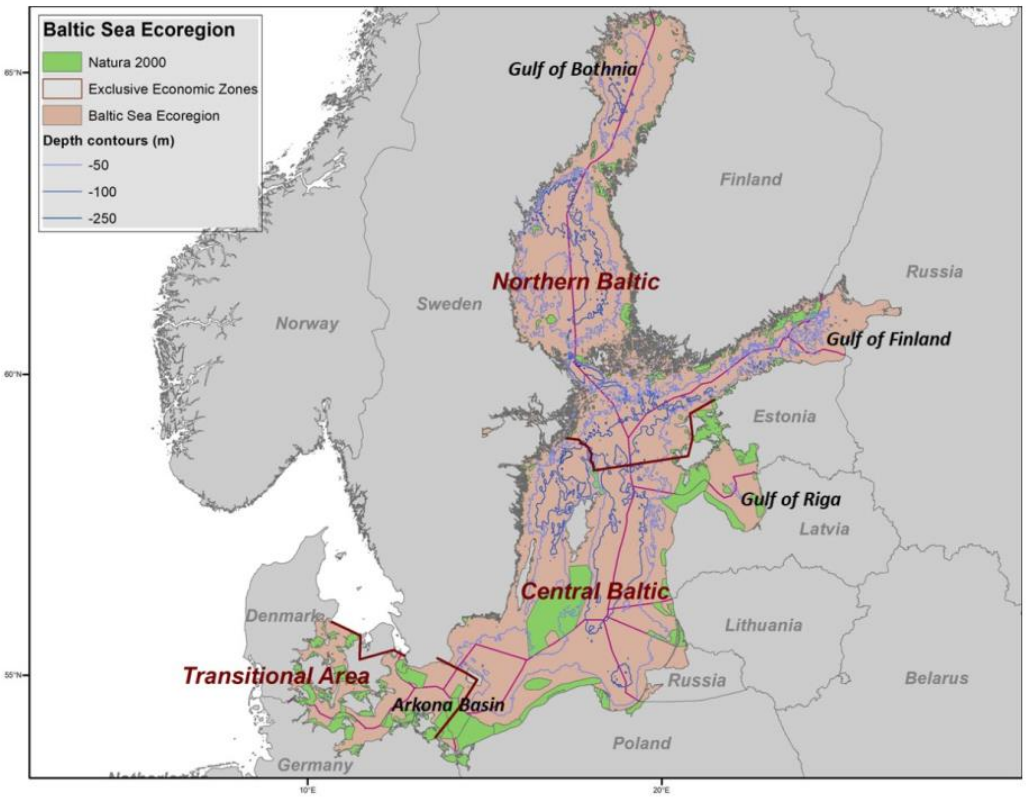
E3 Impact on the ecosystem

E3.1	**E3.1**	**Information on the potential impacts of the fishery on marine ecosystems is collected.** *In reaching a determination for E3.1, the assessor should consider if the following is in place:*
	E3.1.1	The main elements of the marine ecosystems in the area(s) where the fishery takes place have been identified.
	E3.1.2	The role of the species caught in the fishery within the marine ecosystem is understood, either through research on this specific fishery or inferred from other fisheries.
	E3.1.3	Collection and analysis of ecosystem information is adequate to provide a reliable indication of the impact the fishery has on marine ecosystems.
Outcome	*Pass*	

Rationale

Commercial fisheries in the Baltic Sea are managed according to a Multi-Annual Plan (MAP), EU Regulation 2016/1139. The objectives of the MAP include implementing the ecosystem-based approach to fisheries management, the precautionary approach, and EU legislation including the Marine Strategy Framework Directive (MSFD), Directive 2008/56/EC. Article 3 Clause 3 of the MAP states, “The plan shall implement the ecosystem-based approach to fisheries management in order to ensure that negative impacts of fishing activities on the marine ecosystem are minimised”. Article 8 empowers the European Commission to adopt technical measures to “minimise the negative impact [of fishing gears and fishing activities] on the ecosystem”.

The regular management advice published by ICES includes an ecoregion overview for the Baltic Sea (ICES, 2022), which summarises the most up to date understanding of the Baltic ecosystem and the ways in which this knowledge influences the management advice. These include noting the likely current and future impacts of climate change, and the shifts in the food web which have occurred since the late 1980s.



The ICES Baltic Sea ecoregion, showing EEZs and larger Natura 200 sites (ICES 2022)

Key ecosystem aspects identified at the regional level by the Baltic Sea ecoregion overview include:

- Nutrient inputs have decreased but are still above regional goals, and levels of nutrients in the water column and sediments remain high.
- Many deep-water areas have poor or no oxygen.
- Climate-driven changes to water temperature and salinity are likely to have an increasing influence on the Baltic Sea ecosystem.
- There have been shifts in the structure of the food web over the past few decades, including changes to phytoplankton and zooplankton communities; changes in coastal fish communities including an increase in carp and decrease in piscivorous species; changes in seabird populations, including a decline of species feeding on the benthos and an increase in those eating sprat and herring.

In addition to the over-arching consideration afforded to ecosystems at the Baltic Sea level, the specific roles of herring and sprat in the Gulf of Riga ecosystem factors in to the development of the stock assessment process. The objectives of the 2023 benchmarking workshop, which aimed to update the stock assessment methodology, were set in advance, and included the following:

"As part of the assessment methods workshop, knowledge about environmental drivers, including multispecies interactions, and ecosystem impacts should be integrated in the methodology" (ICES 2023). The benchmarking workshop report provides evidence that ecosystem knowledge was indeed factored into discussions. The Gulf of Riga herring section includes an extensive discussion of "Ecosystem drivers", stating for example that "the year-class strength of Gulf of Riga herring strongly depends on the severity of winter" (ICES 2023). Further consideration is given to Gulf of Riga herring and sprat specifically in the annual WGBFAS workshop and reports. In the case of sprat, there are ongoing efforts to "develop an F scaling factor…to tune the long-term F_{MSY} and…account for medium-term ecosystem-driven variability in productivity" (ICES 2023a). The broader ecosystem is considered during the management decision-making process, and E3.1 is met.
References ICES (2022). Baltic Sea Ecoregion – Ecosystem overview. In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, Section 4.1, https://doi.org/10.17895/ices.advice.21725438 ICES (2023). Benchmark Workshop on Baltic Pelagic stocks (WKBBALTPEL). ICES Scientific Reports. 5:47. 350 pp. https://doi.org/10.17895/ices.pub.23216492 ICES (2023a). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. https://doi.org/10.17895/ices.pub.23123768

E3.2	**E3.2**	**There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.** *In reaching a determination for E3.2, the assessor should consider if the following is in place:*
	E3.2.1	The information collected in relation to E3.1.3 indicates that the fishery does not have a significant negative impact on marine ecosystems.
Outcome	*Pass*	
Rationale The most significant potential ecosystem impacts of the fishery arise from the removal of herring and sprat biomass. The ICES ecosystem overview (ICES, 2022) states that since the late 1980's "the open-sea system has been dominated by small pelagic fish, such as sprat",		

and that "in general, those seabird species eating sprat and herring have increased in number". Prey depletion is not considered to be a determining factor in the health of populations of porpoise, seal or cod populations, all of which predate sprat and herring (ICES 2022). Additionally, the ICES catch recommendations – which as noted in Section A are broadly followed – are calculated with the ecosystem considerations listed in F3.1, above. No other evidence was encountered during the completion of this report to indicate that the fishery has a significant negative impact on the marine ecosystem, and E3.2 is met.

References

ICES (2022). Baltic Sea Ecoregion – Ecosystem overview. In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, Section 4.1, https://doi.org/10.17895/ices.advice.21725438

ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1

ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1

Regulation (EU) 2016/1139 of the European Parliament and of the Council of 6 July 2016 establishing a multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks, amending Council Regulation (EC) No 2187/2005 and repealing Council Regulation (EC) No 1098/2007. https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32016R1139

E3.3	**E3.3 There is an ecosystem management strategy in place for the fishery.** *In reaching a determination for E3.3, the assessor should consider if the following is in place:*	
	E3.3.1	There are measures applied to the fishery which are designed to manage the impacts of the fishery on marine ecosystems.
	E3.3.2	The measures are considered likely to prevent the fishery from having a significant negative impact on marine ecosystems.
Outcome	*Pass*	

Rationale

Herring and sprat are both considered to be important prey species in the Baltic Sea ecosystem. Natural mortality – primarily due to predation – is factored in to the ICES quota recommendations. Natural mortality levels are estimated for sprat as part of the stock assessment process, using a multispecies assessment model (ICES 2023b). Natural mortality

of Gulf of Riga herring is assumed to be constant, but is still factored into the stock assessment process which leads to quota recommendations (ICES 2023c). In both cases, this means that catch recommendations are lower than they would be if natural mortality was not considered, and therefore catches are more conservative due to the important role played by both prey species. E3.3 is met.

References

ICES (2024). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019687.v1

ICES (2024). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.25019279.v1

Annex 1: External Peer Review report

Insert report from Fisheries Assessment Peer Review Group. Reference this report in Tables 3 & 4

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

Fishery under assessment	Whole fish Fishery Assessment WF39_Finland Herring and Sprat
Management authority (Country/State)	European Commission (EC), Finland
Main species	Herring (*Clupea harengus*) Sprat (*Sprattus sprattus*)
Fishery location	FAO 27, ICES 3d.28.1 (Gulf of Riga)
Gear type(s)	Pelagic trawl
Overall recommendation. (Approve/ Fail)	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
n/a

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
A – Fishery Assessment			
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	N.A.		
Category C Species	X		
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 the scoring, which has been well evidenced throughout; references appear 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

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 evidence to justify the scoring given. The new scoring system does not require the auditor to provide written justification for the additional consideration under each scoring component. However, the links and references provided may show that most scoring considerations are met if not explicitly written by the auditor.
Certification body response
n/a

3. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?
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.
Certification body response
n/a

3M. Are the scores in "Section M – Management" clearly justified?
Scoring is detailed and covers both the EU and Finish management systems. All reference links are up-to-date and working.
Certification body response
n/a

3A. Are the "Category A Species" scores clearly justified?
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. A1.1 Gulf of Riga Herring - No comments, scoring is based on up-to-date evidence, and all reference links are working. A1.1 Central Baltic Herring—The auditor should consider mentioning the misreporting issue here as it is essential to know the quantity of species removal. The ICES Stock assessment report says, "*resulting in minor revisions to the catch time series*". Russian catches have not been directly reported, but ICES still collects publicly available information. A1.1 Baltic Sea Sprat – Same comment as above: species misreporting and Russian catches should be mentioned to justify the scoring given.
Certification body response
Section A1.1 has been updated for both Central Baltic herring and Baltic Sea sprat to reflect the comments provided here.

3B. Are the “Category B Species” scores clearly justified?
Central Baltic herring does not meet A1 scoring, so following MT v3 guidance, it is therefore scored against catB and meets the scoring requirements.
Certification body response
n/a

3C. Are the “Category C Species” scores clearly justified?
N.A
Certification body response

3D. Are the “Category D Species” scores clearly justified?
PSA for Smelt – it’s unclear from the fishbase weblink where some values have been pulled from. The auditor should double-check, the average age at maturity (fishbase 3-4years), average maximum age (fishbase 10 years), fecundity (fishbase 8-50,000), average size at maturity (15-18cm). If a different reference is used, it should be added and indicated in the table where each reference is used. Some changes may change the overall scoring outcome. PSA Fourhorn sculpin - it’s unclear from the fishbase weblink where some values have been pulled from. The auditor should double-check the average maximum age (fishbase max reported age is 14 years Ref 12193) and average size at maturity (fishbase has no linked data for this distribution; the only information provided is for arctic seas, maturity length 15016cm). If a different reference is used, it should be added and indicated in the table where each reference is used. Some changes may change the overall scoring outcome.
Certification body response
The listed productivity values are taken from the Fishbase Life History Tool for each species, and match those provided by the Tool. However, it is notable that the reviewer is also correct – the main page for each species provides different values to the Life History Tool. As the Tool has been a key source for the MarinTrust PSA since it was introduced, this may merit some investigation.

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