



MarinTrust Whole fish fishery assessment report

Estonia

Herring (Clupea harengus) and Sprat (Sprattus sprattus)

FAO 27, ICES 3.d.28.1 (Gulf of Riga)

Re-approval

WF37

Table 1: Whole fish fishery assessment scope

Fishery name	Estonia Herring (<i>Clupea harengus</i>) and Sprat (<i>Sprattus sprattus</i>) in FAO 27, ICES 3.d.28.1 (Gulf of Riga)
MarinTrust report code	WF37
Type 1 species (common name, Latin name)	Herring, <i>Clupea harengus</i> Sprat, <i>Sprattus sprattus</i>
Fishery location	FAO 27, ICES 3.d.28.1 (Gulf of Riga)
Gear type(s)	Pelagic trawls
Management authority (country/state)	European Commission; Estonia

Table 2: Applicant and Certification Body details

Application details			
Applicant(s)		Eesti Kalatootjate Keskühistu - Paldiski Fishmeal Plant	
Applicant country		Estonia	
Certification Body details			
Name of Certification Body		NSF / Global Trust Certification Ltd	
Contact Information for CB		Fisheries@nsf.org	
Fishery Assessor name		Sam Peacock	
CB Peer Reviewer name		Matthew Jew	
Number of assessment days	1	Assessment period	10/2025 to 10/2026

Table 3: Assessment outcome

Assessment outcome (See Table 4 for a summary of assessment determination)		Approve
Approval validity	Valid from: 10/2025	Valid until: 10/2026
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
<p>This report details the assessment of the Estonian herring and sprat fishery in ICES 3.d.28.1 (Gulf of Riga). This fishery has been assessed against the MT whole fish requirements in the past, but this is the first time it has been assessed under Version 3.</p> <p>The main species caught in the fishery is herring (<i>Clupea harengus</i>), which frequently makes up more than 90% of the catch and in 2023 (the year for which the most recent detailed information is available) made up 97%. Herring caught in the Gulf of Riga is considered to originate from two stocks: Gulf of Riga herring, and Central Baltic herring. Both are present in the catch in sufficient quantities to represent Type 1 species, and both are subject to stock-specific management regimes and so were assessed under Category A.</p> <p>Sprat (<i>Sprattus sprattus</i>) is also regularly present in the catch in sufficient quantities to be considered a Type 1 species. In 2023 it only represented 2.7% of the catch, but for the purposes of the present assessment it has been treated as Type 1; this may change in future assessments if the proportion remains low. Sprat is subject to species-specific management, and was assessed under Category A.</p> <p>The only other species caught in sufficient quantities to be included in the assessment is smelt, (<i>Osmerus eperlanus</i>), which is a Type 2 unmanaged species and was therefore assessed under Category D. All three species are categorised by the IUCN as Least Concern, and do not appear in the CITES appendices.</p> <p>Regarding Section M, the fishery is managed under a well-established national and international regime. Control and enforcement activities are conducted and there was no evidence discovered indicating substantial IUU activity.</p> <p>There is strong evidence that the fishery does not have substantial impacts on ETP species or habitats. Evidence relating to ecosystem impacts is less clear-cut, but indicates that other sources of pressure are likely more significant than fishing activity, particularly pelagic fishing such as carried out by the fishery under assessment.</p> <p>Gulf of Riga herring and Baltic sprat both meet the Category A requirements. Smelt meets the Category D requirements. Central Baltic herring does not meet the requirements of Clauses A3.2, A3.3 or A4.1, as there is evidence that the fishery would remain open if stock biomass fell below the limit reference point. As per the MT fishery assessment methodology, Central Baltic herring was further assessed under Category B, where it does meet the requirements.</p> <p>As a result, all the MT requirements are met, and the fishery can remain approved for use as a source of raw material for MT-certified facilities.</p>

Summary of CB peer review	CB peer reviewer proposed a small number of relatively minor edits primarily relating to formatting. Peer reviewer agreed with the outcomes of all clauses and concluded that there was sufficient justification for all scores.
Summary of external peer review (see Appendix 1 for the full peer review report)	The Estonian herring and sprat fishery in the Gulf of Riga was assessed under MT Version 3, with herring making up 97% of the 2023 catch, sprat 2.7%, and smelt also present. Gulf of Riga herring and Baltic sprat met Category A requirements, smelt met Category D, and Central Baltic herring, though failing some Category A clauses, met Category B. All species are listed as Least Concern by the IUCN, not in CITES, and the fishery is well-managed with no evidence of IUU fishing or benthic and ecosystem impacts. Overall, the fishery meets all MT requirements. In conclusion; the peer reviewer agrees with CB assessment
Notes for on-site auditor	

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, <i>Clupea harengus</i> , in the Gulf of Riga	A1	Pass
		A2	Pass
		A3	Pass
		A4	Pass
	Herring, <i>Clupea harengus</i> , in the Central Baltic	A1	Pass
		A2	Pass
		A3	Fail
		A4	Fail
	Sprat, <i>Sprattus sprattus</i>	A1	Pass
		A2	Pass
		A3	Pass
		A4	Pass
Category B	Herring, <i>Clupea harengus</i> , in the Central Baltic	Pass	
Category C	No Category C Species		
Category D	Smelt, <i>Osmerus eperlanus</i>	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, <i>Clupea harengus</i>	Gulf of Riga	No	Least Concern	19%	Y	A
	Central Baltic			78%	Y	A
Sprat, <i>Sprattus sprattus</i>	Baltic	No	Least Concern	2.7%	Y	A
Smelt, <i>Osmerus eperlanus</i>	n/a	No	Least Concern	0.4%	N	D

*Catch composition percentage is provided for the most recent year for which detailed catch data are available; see text for details.

Rationale

The large majority of catch taken in this fishery in recent years has been herring, with a relatively small proportion of sprat and smelt, and very small quantities of other bycatch species. Previous MT assessments of this fishery have identified herring and sprat as Type 1 species, and smelt as the only Type 2 species.

The most recent detailed catch data available, covering 2023, is broadly in line with previous years, with the exception that sprat represented only 2.7% of the catch. Taken alone, this would mean that sprat should be assessed as a Type 2 species. However, as per the MT whole fish assessment guidance, multiple years of catch data should be taken into account. As sprat usually makes up more than 5% of catches, it has been categorised for the purposes of this report as a Type 1 species. If it continues to make up less than 5% of catches in future years, assessors should reconsider whether this remains appropriate.

Table 1 - Catches by Estonian vessels in the small pelagic fishery in the Gulf of Riga, 2023 (STECF 2025)

Species	2023 Catch	% 2023 catch
Herring, <i>Clupea harengus</i>	12,413t	97%
Sprat, <i>Sprattus sprattus</i>	353t	2.7%
Smelt, <i>Osmerus eperlanus</i>	50t	0.4%
Fourhorn sculpin, <i>Myoxocephalus quadricornis</i>	12t	<0.1%
Eelpout, <i>Zoarces viviparus</i>	11t	<0.1%
Three-spined stickleback, <i>Gasterosteus aculeatus</i>	4t	<0.1%
Other sculpins, <i>Myoxocephalus spp</i>	3t	<0.1%

Total	12,846t	
<p>Herring caught in the Gulf of Riga is understood to originate from one of two distinct stocks: Gulf of Riga herring and Central Baltic herring. ICES provides an annual estimate of the proportion of herring taken from each stock across the entire Gulf of Riga small pelagic fishery (ICES 2025). Over the last five years, Central Baltic herring has represented between 4% and 20% of herring catches in the Gulf of Riga; this means that the stock almost always represents more than 5% of landings in the small pelagic fishery as a whole. In 2024, Central Baltic herring represented 19.8% of herring catches in the Gulf of Riga. For this reason, both herring stocks are considered Type 1 stocks for the purposes of this assessment. Both are also subject to a species-specific management regime, and were therefore assessed under Category A.</p> <p>Likewise, Baltic sprat is also subject to a species-specific management regime, and was assessed under Category A. Smelt is not managed relative to established reference points and no regular stock assessment is conducted, therefore it was assessed under Category D.</p>		
<p>References</p> <p>ICES (2025). Herring (<i>Clupea harengus</i>) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.27202620.v1</p> <p>STECF (2025). Fisheries Dependent Information dataset. https://stecf.ec.europa.eu/data-dissemination/fdi_en</p>		

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. <i>In reaching a determination for M1.1, the assessor should consider if the following is in place:</i>
	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 <p>Fisheries in Estonia and other EU countries are managed according to the Common Fisheries Policy (CFP), which was most recently updated through Regulation (EU) No. 1380/2013. Individual member states generally incorporate the requirements of the CFP into their national legislation, and are individually responsible for its implementation. The CFP therefore sets out the policies and procedures by which member states manage their fisheries (EC 2018). In Estonia the primary national legislation is the Fishing Act 2015, which regulates fishing activity within the Estonian EEZ and activity carried out by Estonian-flagged vessels.</p> <p>There are a number of bodies relevant to the management of fisheries in Estonia (AFB 2025):</p> <ul style="list-style-type: none"> • The Ministry of Rural Affairs and Agriculture, which manages seafood market organisation, structural supports and state aid, and the aquaculture sector. • Additionally, within the MRAA, the Agriculture and Food Board has authority over the commercial wild-capture sector, including issuing permits, managing the national vessel registry, and catch accounting. 	

- The Ministry of the Environment, which prepares and implements the Policy on the Protection and Use of Fishery Resources, and issues permits for scientific research.
- The Environmental Board, which manages recreational fishing.
- Within the Ministry of Environment, the Environmental Inspectorate is responsible for monitoring and enforcement.

At the regional level, management of the fishery is based on input from the Regional Baltic Sea Fisheries Forum (BALTFISH) and the Baltic Sea Advisory Council (BSAC). A significant proportion of the catch is taken by Russian vessels, and a binding agreement has been in place since 2009 between the EU and Russia regarding fisheries management in the Baltic Sea.

There are organisations with well-defined roles responsible for managing the fishery, and M1.1 is met.

References

AFB (2025). Commercial fishing. <https://pta.agri.ee/en/food/commercial-fishing>

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

Estonian Fishing Act 2015, English translation. <https://www.riigiteataja.ee/en/eli/514012016001/consolide>

MRFA (2025). 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://eur-lex.europa.eu/eli/reg/2013/1380/oj/eng>

M1.2	M1.2 Fishery management organisations are legally empowered to take management actions.
	<i>In reaching a determination for M1.2, the assessor should consider if the following is in place:</i>
	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	<i>Pass</i>
<p>Rationale</p> <p>In EU member states fisheries management is generally carried out under the national legislation arising from the implementation and/or transposing of EU regulations, in particular but not limited to Regulation (EU) No 1380/2013. In 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. The Fishing Act includes, under Chapter 2, 9(1): <i>“The Government of the Republic shall established by a regulation the Fishing Rules which prescribe the procedure for fishing an all water bodies”</i>. Chapter 2 also requires that fishing rules provide details of closed areas and seasons, minimum catch sizes, bycatch restrictions, gear restrictions and so on.</p> <p>Fishing permits in Estonia are granted by Agriculture and Food Board. Fishing permits are mandatory for all commercial fishing vessels, which must also be entered into the state register of fishing vessels, as per Fishing Act Chapter 3, Division 4, Subdivision 1, 33(1): <i>“Only a fishing vessel entered in the state register of fishing vessels which holds a valid fishing licence may be used to fish commercially at sea”</i>.</p> <p>The resolution of legal disputes in EU countries is broadly covered by Directive 2008/52/EC, which is transposed into Estonian legislation via the Conciliation Act. If standard administrative and judicial channel are exhausted, mediation and conciliation mechanisms can help to resolve disputes (EJ 2025).</p> <p>Fishery management organisations are legally empowered to take management actions, and M1.2 is met.</p>	
<p>References</p> <p>Directive 2008/52/EC of the European Parliament and of the Council of 21 May 2008 on certain aspects of mediation in civil and commercial matters. https://eur-lex.europa.eu/eli/dir/2008/52/oj/eng</p> <p>EJ (2025). https://e-justice.europa.eu/topics/taking-legal-action/mediation/mediation-eu-countries/ee_en</p> <p>Estonian Fishing Act 2015, English translation. https://www.riigiteataja.ee/en/eli/514012016001/consolide</p> <p>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://eur-lex.europa.eu/eli/reg/2013/1380/oj/eng</p>	

M1.3	M1.3 There is an organisation responsible for collecting data and (scientifically) assessing the fishery.
	<i>In reaching a determination for M1.3, the assessor should consider if the following is in place:</i>
	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	<i>Pass</i>
Rationale <p>The primary organisation responsible for coordinating and analysing the data relevant to the management of the Baltic 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 2025).</p> <p>ICES carries out an annual stock assessment of the Baltic 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 2025a).</p> <p>ICES provides advice according to the processes set out in technical guideline documents, such as the ICES Guidelines on the formulation of advice requests (ICES 2023), and in line with the overarching ICES framework and principle (ICES 2020).</p> <p>There is an organisation responsible for collecting data and assessing the fishery, and M1.3 is met.</p>	
References <p>ICES (2020). Guide to ICES advisory framework and principles. https://www.fishsec.org/app/uploads/2021/05/Guide-to-ICES-Advice-generally-2021.pdf</p> <p>ICES (2023). ICES Guidelines on the formulation of advice requests. ICES Advice Guidelines. Report. https://doi.org/10.17895/ices.pub.24338032.v1</p> <p>ICES (2025). Who we are. https://www.ices.dk/about-ICES/who-we-are/Pages/Who-we-are.aspx</p> <p>ICES (2025a). Latest Advice. https://www.ices.dk/advice/Pages/Latest-Advice.aspx</p>	

<p>M1.4</p>	<p>M1.4 The fishery management system is based on the principles of sustainable fishing and a precautionary approach.</p> <p><i>In reaching a determination for M1.4, the assessor should consider if the following is in place:</i></p> <p>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.</p>
<p>Outcome</p>	<p><i>Pass</i></p>
<p>Rationale</p> <p>Implementing an ecosystem approach to fisheries management has been set as one of the objectives of the CFP:</p> <p><i>“...to ensure that negative impacts of fishing activities on the marine ecosystem are minimized and that aquaculture and fisheries activities avoid degradation of the marine environment.”</i> (Regulation (EU) No. 1380/2013).</p> <p>Similarly, the objectives of the Baltic Sea Multiannual Plan (MAP) as set out in Article 3, refers to the achievement of the objectives of the CFP, <i>“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”</i> (Baltic Sea MAP).</p> <p>The Estonian Fishing Act (2015) states in Chapter 1 Paragraph 1 that <i>“The purpose of this Act is to:</i></p> <ol style="list-style-type: none"> <i>1) ensure conservation and economic use of fish and aquatic plant resources on the basis of internationally recognized principles of responsible fisheries;</i> <i>2) ensure reproduction capacity of fish and aquatic plant resources and productivity of bodies of water;</i> <i>3) avoid undesirable changes in the ecosystem of bodies of water.”</i> <p>The specific fishery under assessment is managed under a Multi-Annual Plan (MAP) established via EU legislation in 2016, which covers cod, herring and sprat in the Baltic Sea (Regulation (EU) No 2016/1139). The Baltic Sea MAP legislation includes many references to the precautionary and ecosystems-based approaches, including:</p> <ul style="list-style-type: none"> • Preamble point 9, <i>“The objective of the plan should be to contribute to the achievement of the objectives of the CFP, especially reaching and maintaining MSY for the stocks concerned”</i> • Article 3.1, <i>“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”</i> 	

- Article 3.3, “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”

Fisheries management is rooted in the principles of the precautionary and ecosystems-based approaches, and M1.4 is met.

References

Estonian Fishing Act 2015, English translation.

<https://www.riigiteataja.ee/en/eli/514012016001/consolide>

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://eur-lex.europa.eu/eli/reg/2013/1380/oj/eng>

Regulation (EU) No 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>

M1.5	M1.5 There is a clearly defined decision-making process which is transparent, with processes and results made publicly available. <i>In reaching a determination for M1.5, the assessor should consider if the following is in place:</i>
	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	<i>Pass</i>
Rationale The 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) (BSAC 2025).	

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. The BSAC publishes an annual report summarising their activities, with the most recent report indicating that there were 6 Working Group meetings held in 2024/25 (BSAC 2025a).

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 full details of WGBFAS discussions are published online; for example, the 2025 workshop report (ICES 2025). Summary catch advice is also published on the ICES website (ICES 2025a). 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, as occurred in 2025 (EUR-Lex 2025). Detailed catch data are made available on the STECF web portal (STECF 2025). This and all the other information required to complete this MT assessment report were freely available online, demonstrating the transparency of the decision-making process.

The decision-making process is transparent and participatory, and M1.5 is met.

References

BSAC (2025). About the Baltic Sea AC. <https://www.bsac.dk/about/>

BSAC (2025a). Nineteenth Annual Report of the Baltic Sea Advisory Council 2024-2025. <https://www.bsac.dk/wp-content/uploads/2025/06/BSACAnnualReport2024-2025final.pdf>

EUR-Lex (2025). Fishing opportunities in the Baltic Sea (2025). <https://eur-lex.europa.eu/EN/legal-content/summary/fishing-opportunities-in-the-baltic-sea-2025.html>

ICES (2025). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.v2>

ICES (2025a). Latest Advice. <https://www.ices.dk/advice/Pages/Latest-Advice.aspx>

STECF (2025). Fisheries Dependent Information. https://stecf.ec.europa.eu/data-dissemination/fdi_en

M2 Surveillance, control and enforcement

M2.1	M2.1 There is an organisation responsible for monitoring compliance with fishery laws and regulations. <i>In reaching a determination for M2.1, the assessor should consider if the following is in place:</i>
	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	<i>Pass</i>
Rationale <p>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.</p> <p>National websites contain information on:</p> <ul style="list-style-type: none"> • 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. <p>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 2025).</p> <p>The Estonian fisheries control action plan for the Baltic Sea is available online (EB 2025). Among other content, the plan describes the allocation of various aspects of fisheries control and enforcement between responsible authorities, as shown in the table below.</p>	

NAME OF THE AUTHORITY	RESPONSIBILITY
Estonian Environmental Board	1. Inspection and surveillance 2. Enforcement and follow-up to infringements, including assignment of penalty points 3. Operating VMS 4. Collection of prior notifications from vessels not involved in electronic reporting or in the event of the break-down of the system 5. Cross-check of data on fishing activities, landings, take-over and first sales, VMS and prior notifications
Agriculture and Food Board	1. Collection of commercial fishing data 2. Management of the Electronic Recording and Reporting System 3. Quota management 4. Cross-check of data on fishing activities, landings, take-over and first sales, VMS and prior notifications Ministry of Rural Affairs
Ministry of Regional Affairs and Agriculture	1. Management of Fisheries Information System on commercial fisheries and keeping it updated 2. Management of FLUX transfer of VMS data

Figure 1 - Allocation of responsibilities between the three main authorities involved in Estonian fisheries control and enforcement

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 2025a).

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.

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

References

EB (2025). Estonian fisheries control action plan in Baltic Sea.

<https://keskkonnaamet.ee/en/supervision-environmental-charge/supervision/fisheries->

[control-action-plan-baltic-sea](#)

EFCA (2025). European Fisheries Control Agency Mission and Strategy.

<https://www.efca.europa.eu/en/content/mission-and-strategy>

EFCA (2025a). Baltic Sea Joint Deployment Plan reports 2025.

<https://www.efca.europa.eu/en/content/BalticS-reports-2025>

M2.2	<p>M2.2 There is a framework of sanctions which are applied when infringements against laws and regulations are discovered.</p> <p><i>In reaching a determination for M2.2, the assessor should consider if the following is in place:</i></p> <p>M2.2.1 The laws and regulations provide for penalties or sanctions that are adequate in severity to act as an effective deterrent.</p> <p>M2.2.2 There is no evidence of systematic non-compliance.</p>
Outcome	Pass
<p>Rationale</p> <p>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.</p> <p>In Estonian fisheries, sanctions are set out in Chapter 6 of the Fisheries Act 2015, and include fines and confiscation, for violations relating to the sale, purchase and handling of fish; fishing without authorisation; failure to submit GPS or other monitoring information; submission of other information relating to fishing (e.g. catch data); hindering fisheries observers; requirements relating to fishing gear; and many others.</p> <p>During the research carried out to complete this assessment, no evidence was found to suggest any systematic non-compliance in the fishery.</p> <p>There is a framework of sanctions in place, and M2.2 is met.</p>	
<p>References</p> <p>Estonian Fishing Act 2015, English translation.</p> <p>https://www.riigiteataja.ee/en/eli/514012016001/consolide</p>	

M2.3	M2.3 There is substantial evidence of widespread compliance in the fishery, and no substantial evidence of IUU fishing. <i>In reaching a determination for M2.3, the assessor should consider if the following is in place:</i>
	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 <p>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 2025). The most recent available report covers the period January 2025 – June 2025. During this period, there were 1,188 inspections conducted ashore, with 88 suspected infringements, and 241 inspections carried out at sea, detecting 11 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 4.6% of at-sea inspections and 7.4% of on-land inspections, suggesting low levels of non-compliance (EFCA 2025). Additionally, the report indicates 98 sightings by air surveillance, with no suspected infringements.</p> <p>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).</p> <p>There is sufficient evidence of compliance in the fishery to conclude that M2.3 is met.</p>	
References <p>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</p> <p>EFCA (2025). Baltic Sea Joint Deployment Plan reports 2025. https://www.efca.europa.eu/en/content/BalticS-reports-2025</p>	

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 are 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.

Gulf of Riga Herring - *Clupea harengus*

A1 Data collection

A1.1	A1.1 Landings data are collected such that the fishery-wide removals of this species are known.
Outcome	<i>Pass</i>
Rationale <p>The EU Fisheries Control System, through the Fisheries Control Regulation (EC Regulation No 1224/2009), requires that each vessel record data on catches (target species and bycatch) in logbooks and complete a landing declaration indicating specifically all quantities of each species landed. Information should be transmitted to the competent authority of each member state, who then provide it to the Commission. (EC 2009).</p> <p>Russia does not report landing information to ICES; however, the Baltic Fisheries Assessment Working Group (WGBFAS) estimates catches based on information available on the Russian Federation's official websites, providing a comprehensive overview of the fishery removals (ICES</p>	

2025a). Uncertainty around the accuracy of this catch data is factored into the stock assessment process.

The total catch of Gulf of Riga Herring in the Gulf of Riga in 2024 was 31,152 t (ICES 2025b)

Landings data are collected and A1.1 is met.

Catches

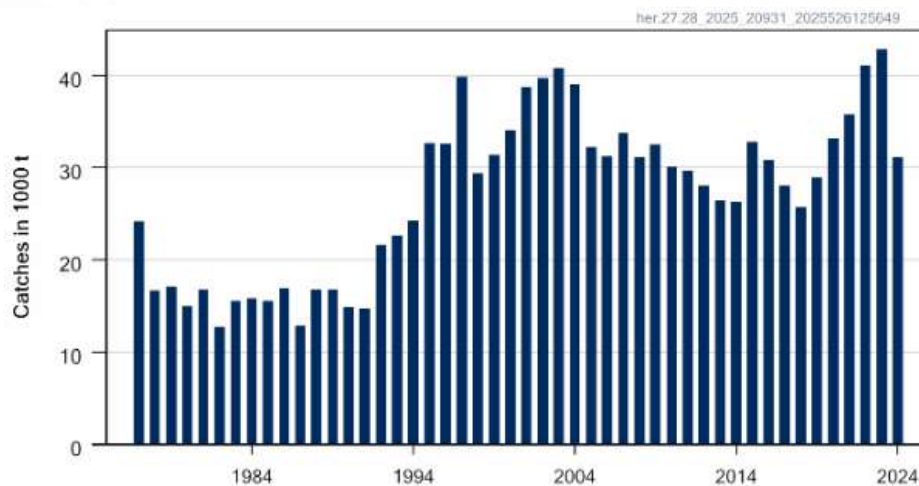


Figure 2 - Herring catches in ICES subdivision 28.1 (Gulf of Riga), 1977 – 2024 (ICES 2025b)

References

EC (2009). Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Union control system for ensuring compliance with the rules of the common fisheries policy <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02009R1224-20241011>.

ICES (2025a). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.v1>

ICES (2025b). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202620.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 ICES Baltic Fisheries Assessment Working Group (WGBFAS) utilises one acoustic survey index (GRAHS); maturity estimates from sampling; and a constant rate of natural mortality. Discards and bycatch are considered to be negligible (ICES 2025a). The 2025 catch advice includes a section covering the quality of the assessment. Although not	

mentioned in the herring catch advice, the sprat advice which covers sprat in the Gulf of Riga states 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 (ICES 2025b). Another challenging issue faced when assessing this fishery is distinguishing between the herring stocks from the Central Baltic and Gulf of Riga; however, the assessment and the advice take in account of all of the Gulf of Riga herring stock, both that harvested in the Gulf of Riga and that harvested outside of it. The distinct differences in otolith structure serve as a basis for discrimination of Baltic herring populations, therefore the population belonging of individuals is assigned during the age reading process (ICES 2025c).

Overall, the assessment is considered by ICES to be supported by adequate data collection and analysis, and A1.2 is met.

References

ICES (2025a). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202620.v1>

ICES (2025b). Sprat (*Sprattus sprattus*) in subdivisions 22-32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202893.v1>

ICES (2025c). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.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
<p>Rationale</p> <p>Gulf of Riga herring is subjected to an annual stock assessment carried out by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). The stock was benchmarked in 2023 (ICES, 2023a), and outcomes were implemented in the last assessment published in 2025 (ICES, 2025). The benchmarking process ensures the stock assessment recognises the most recent available scientific understanding of the species, the stock, the fishery, and the ecosystems within which they occur. The stock assessment is conducted as a whole following the ICES methodology (ICES 2023b).</p> <p>The data used for the stock assessment included landing and catch data from all countries exploiting the stock, as well as biological data such as age composition, mean weights at age, maturity at age, and natural mortality. Additionally, fishery-independent information from the Estonian-Latvian hydro-acoustic survey in the Gulf of Riga (GRAHS) was also utilized. (ICES, 2025).</p>	

An appropriate stock assessment is conducted annually and A2.1 is met.

References

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

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

ICES (2025). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report.
<https://doi.org/10.17895/ices.pub.29099786.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	<i>Pass</i>
Rationale <p>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 the full benchmarking of the stock. The reference points are listed in the table below. Key among these for the purposes of this MT assessment are the target reference points $MSY B_{trigger}$ and $MAP MSY B_{trigger}$, set at 72,907t; and the limit reference points B_{lim} and $MAP B_{lim}$, set at 52,076t (ICES 2025).</p> <p>The 2025 catch advice indicates that the stock assessment projected an estimated SSB at spawning time 2025 of 119,208t, and states that “spawning-stock size is above $MSY B_{trigger}$, BPA, and B_{lim}” (ICES 2025).</p> <p>The stock assessment provides an indication of the current status of the stock relative to reference points, and A2.2 is met.</p>	

Framework	Reference point	Value	Technical basis	Source
Maximum sustainable yield (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 spawning-stock biomass (SSB) based on SSB–recruitment pairs where SSB \leq median SSB and recruitment \geq median recruitment	ICES (2023a)
	F_{PA}	0.35	$F_{0.95}$; the F that leads to SSB $\geq B_{lim}$ with 95% probability	ICES (2023a)
Management plan	Multiannual (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 F_{lower}	0.21	Consistent with the ranges resulting in no more than 5% reduction in long-term yield compared with MSY	ICES (2023a)
	MAP target F_{upper}	0.33	Consistent with the ranges resulting in no more than 5% reduction in long-term yield compared with MSY	ICES (2023a)

Figure 3 - Gulf of Riga herring in ICES subdivision 28.1 (Gulf of Riga) reference points, values, and their technical basis. Weight in tonnes (ICES 2025).

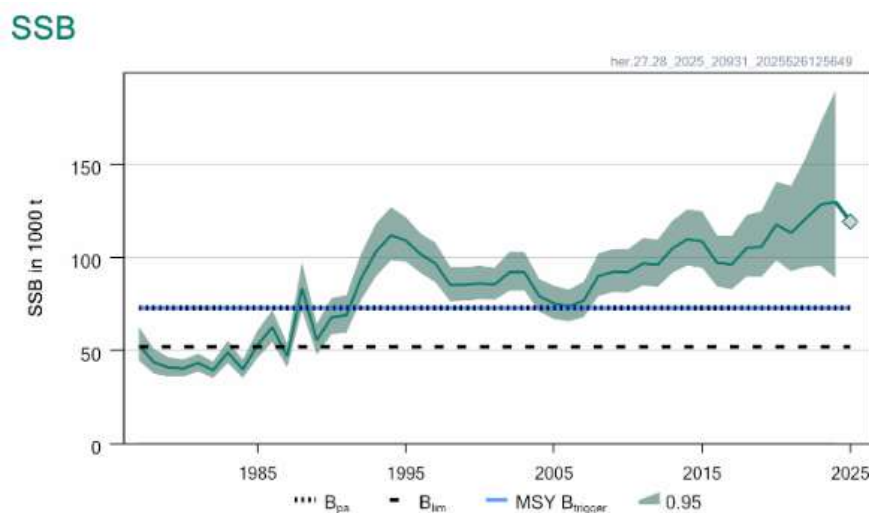


Figure 4 -Gulf of Riga herring in ICES subdivisions 28.1 (Gulf of Riga) spawning-stock size above MSY Btrigger, Bpa, and Blim. (ICES 2025)

References

ICES (2025). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202620.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	<i>Pass</i>
Rationale The ICES advice annually provides an indication of the volume of fishery removals which is	

appropriate for the current stock status in the form of recommended catches in the upcoming year. The latest catch advice indicates that when the EU multiannual plan (MAP) for the Baltic Sea is applied, the catches in 2026 that correspond to the F ranges in the plan are between 23,962 tonnes and 35,643 tonnes. According to the MAP, catches higher than those corresponding to F_{MSY} (30,913 tonnes) can be taken only under conditions specified in the plan, while the entire range is considered precautionary when applying the ICES advice rule (ICES 2025).

The stock assessment produces recommendations for the appropriate level of fishery removals, and A2.3 is met.

References

ICES (2025). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202620.v1>

A2.4	A2.4 The assessment is subject to internal or external peer review.
Outcome	<i>Pass</i>
Rationale <p>The Guide to the ICES Advisory Framework and Principles (ICES 2023) outlines the process by which ICES conducts scientific activities and provides fisheries management advice. When the results of the assessments are agreed by the ICES groups, they are sent to the ICES Advice Drafting Group, which consists of National Experts, who review them, and they are finally reviewed by the Advisory Committee (ACOM), which delivers the ICES advice. The ACOM advice is grounded on 10 principles to support ecosystem-based management advice. This ensures that the advice is based on the best available science and data, considered legitimate by both authorities and stakeholders, and relevant and operational to the policy or management challenge in question (ICES 2023).</p> <p>Principle 7 states that the process undergoes a peer review phase to ensure that the best available, credible science has been used and to confirm that the analysis provides a sound basis for advice. All analyses and methods are peer reviewed by at least two independent reviewers. For recurrent advice, the review is conducted through a benchmark process; for special requests, through one-off reviews. (ICES 2023). The herring stock assessment was most recently benchmarked in 2023; thus, it was subject to peer review (ICES 2025).</p>	



Figure 5 - ICES advice principles, Principle 7 states that the process undergoes a peer review phase. (ICES 2023).

The assessment is peer reviewed, and A2.4 is met.

References

- ICES. (2023). Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, section 1.1. <https://doi.org/10.17895/ices.advice.22116890>
- ICES (2025). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.v1>

A2.5	A2.5 The assessment is made publicly available.
Outcome	<i>Pass</i>
Rationale <p>All the stock assessment information used to produce this MarinTrust assessment report was publicly available. Specifically, information is published in the WGBFAS report (ICES 2023a) and the catch advice (ICES 2025). 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 2023b).</p> <p>The stock assessment is publicly available, and A2.5 is met.</p>	
References <p>ICES (2023a) Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. https://doi.org/10.17895/ices.pub.23123768</p> <p>ICES. (2023b). Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, section 1.1. https://doi.org/10.17895/ices.advice.22116890</p> <p>ICES (2025). Herring (<i>Clupea harengus</i>) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. https://doi.org/10.17895/ices.advice.27202620.v1</p>	

A3 Harvest strategy

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

Rationale

Total fishing mortality is restricted through the use of a TAC, which is generally based on the ICES advice which in turn is based on the Baltic Sea MAP (Regulation (EU) 2016/1139 as amended). TACs have been set within the range recommended by ICES since the implementation of the MAP in 2018, and the TAC appears to be an effective mechanism for limiting catches as total removals from the Gulf of Riga stock have similarly been within the recommended range since that time. The TAC is set for the Gulf of Riga geographically, with the knowledge that some herring taken will belong to the Central Baltic stock, and also that some herring taken under the Central Baltic TAC will belong to the Gulf of Riga stock. In practice this has led to total catches from the Gulf of Riga herring stock being below the total Gulf of Riga herring TAC since it was first set, in 2003.

There is an effective mechanism in place by which total fishing mortality is restricted, and A3.1 is met.

References

EU (2016). 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. In force. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02016R1139-20240710>.

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	<i>Pass</i>

Rationale

Removals of Gulf of Riga herring have been below the upper boundary of the ICES advice range since the MAP was implemented in 2018. As noted in A3.1 above, a TAC is set for herring catches in the Gulf of Riga as a whole. In recent years, 4% - 11% of herring catch in the Gulf of Riga has been taken from the Central Baltic stock, meaning the TAC can be set higher than the advice, which is specific to the Gulf of Riga herring stock. Despite this, the TAC has consistently been set within the

range recommended by ICES, and – as expected due to catches being taken from two stocks – removals from the Gulf of Riga herring stock have consistently been below the TAC. This has been effective in maintaining the Gulf of Riga herring spawning-stock size above the B_{pa} and B_{lim} reference points (ICES 2025).

Total fishery removals of Gulf of Riga herring have not exceeded the scientific advice since the MAP was put in place in 2018, and A3.2 is met.

Year	ICES advice	Catch from stock corresponding to advice	Agreed TAC for Gulf of Riga	Catches of Gulf of Riga herring stock
2018	Multiannual plan (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	31 152
2025	Management plan	39 233 (ranges 30 394–45 235)	41 635	
2026	Management plan	30 913 (ranges 23 962 – 35 643)		

Figure 6 - ICES advice, TAC and catches of Gulf of Riga herring stock from the Gulf of Riga. All weights are in tonnes. (ICES 2025)

References

ICES (2025). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202620.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. (EU 2016)

Fishery removals are likely to be prohibited if the stock biomass falls below the limit reference point, and A3.3 is met.

References

EU (2016). 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. In force. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02016R1139-20240710>.

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 catch advice states that “spawning-stock size is above MSY $B_{trigger}$, B_{pa} , and B_{lim} ” (ICES 2025). As the stock is currently estimated to be substantially above the target reference point, the first clause of A4.1 is met.	

SSB

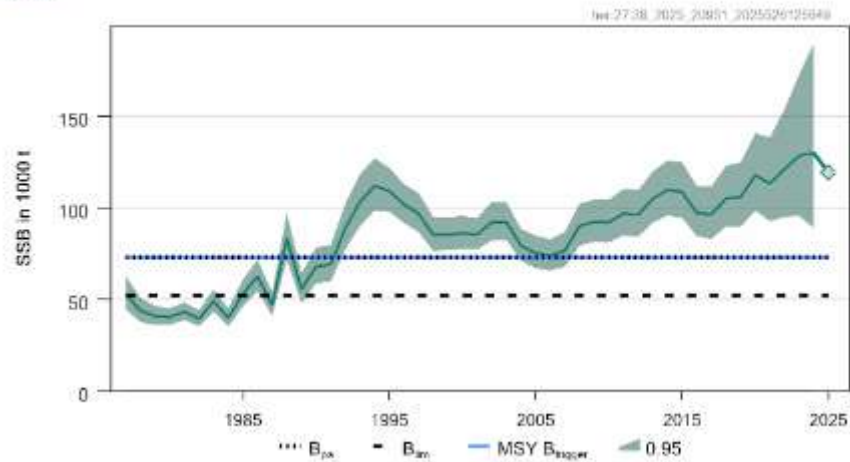


Figure 7 - Gulf of Riga herring in ICES subdivision 28.1 (Gulf of Riga) spawning-stock size relative to current MSY Btrigger, Bpa, and Blim (ICES 2025)

References

ICES (2025). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202620.v1>

Central Baltic Herring - *Clupea harengus* WF10

A1 Data collection

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

Rationale

The EU Fisheries Control System, through the Fisheries Control Regulation (EC Regulation No 1224/2009), requires that each vessel record data on catches (target species and bycatch) in logbooks and complete a landing declaration indicating specifically all quantities of each species landed. Information should be transmitted to the competent authority of each member state, who then provide it to the Commission. (EC 2009).

Russia does not report landing information to ICES; however, the Baltic Fisheries Assessment Working Group (WGBFAS) estimates catches based on information available on the Russian Federation's official websites, providing a comprehensive overview of the fishery removals (ICES 2025a). Uncertainty around the accuracy of this catch data is factored into the stock assessment process.

Total catches in the Central Baltic (excluding Gulf of Riga) of herring in 2024 were 75,236 (ICES 2025b)

Landings data are collected and A1.1 is met.

Catches

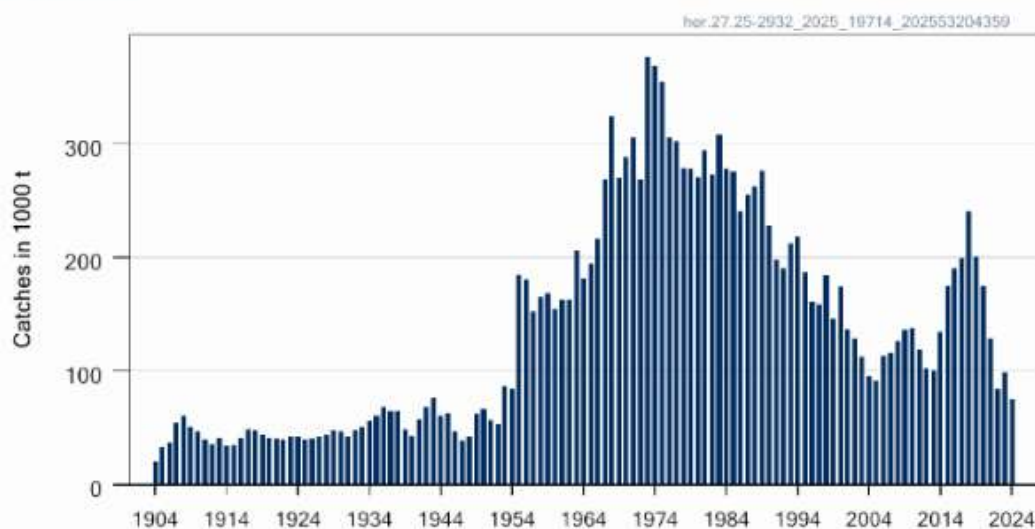


Figure 8 - Herring catches from 1904 to 2024 in ICES subdivisions 25–29 and 32, excluding the Gulf of Riga. (ICES 2025b)

References

EC (2009). Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Union control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006. In force. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02009R1224-20241011>.

ICES (2025a). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.v1>

ICES (2025b). 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.27202617.v1>

A1.2	A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.
Outcome	<i>Pass</i>
<p>Rationale</p> <p>In addition to commercial catch data, the stock assessment carried out annually by the ICES Baltic Fisheries Assessment Working Group (WGBFAS) utilises one acoustic survey indices (the Baltic International Acoustic Survey (BIAS)); and natural mortalities from the ICES multispecies model (ICES 2025a). All fish species in the catch are measured in length, and biological samples, including age, are taken on the target species, herring and sprat. The Baltic Sea countries meet in the Baltic International Fish Survey Working Group (WGBIFS), and the results from each country are compiled in a common database. (SLU 2025, ICES 2024).</p> <p>The stock assessment model assumes discards and bycatch are negligible. The 2025 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 2025b). Additionally, there is uncertainty surrounding information on Russian catch composition in recent years, and recruitment in 2024 and 2025 is also uncertain. However, ICES recognises these uncertainties and takes them into account during the stock assessment process.</p> <p>Overall, sufficient additional information is collected to enable an indication of stock status to be estimated, and A2.1 is met.</p>	

References

- ICES (2024). Baltic International Fish Survey Working Group (WGBIFS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.25922290.v1>
- ICES (2025a). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.v1>
- ICES (2025b). 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.27202617.v1>
- SLU (2025). Sveriges lantbruksuniversitet (Swedish University of agricultural Sciences). BIAS – Baltic International Acoustic Survey. <https://www.slu.se/en/environment/statistics-and-environmental-data/environmental-data-catalogue/bias/>

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
<p>Rationale</p> <p>Herring in the Central Baltic Sea, excluding the Gulf of Riga, is subjected to an annual stock assessment carried out by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). The stock was benchmarked in 2023 (ICES, 2023a), and outcomes were implemented in the last assessment published in 2025 (ICES, 2025). The benchmarking process ensures the stock assessment recognises the most recent available scientific understanding of the species, the stock, the fishery, and the ecosystems within which they occur. The stock assessment is conducted as a whole following the ICES methodology (ICES 2023b).</p> <p>The data used for the stock assessment included landing and catch data from all countries exploiting the stock, as well as biological data such as mean weights at age, maturity at age, and natural mortality. Additionally, fishery-independent information from the Baltic International Acoustic Survey (BIAS) was also utilized. (ICES, 2025).</p> <p>An annual stock assessment is conducted and A2.1 is met.</p>	
<p>References</p> <p>ICES. (2023a) Benchmark Workshop on Baltic Pelagic stocks (WKBALPEL). ICES Scientific Reports. 5:47. https://doi.org/10.17895/ices.pub.23216492</p>	

ICES. (2023b). Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, section 1.1.

<https://doi.org/10.17895/ices.advice.22116890>

ICES (2025). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report.

<https://doi.org/10.17895/ices.pub.29099786.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	<i>Pass</i>
<p>Rationale</p> <p>The WGBFAS stock assessment indicates the status of the stock relative to target and limit reference points. These reference points were updated in 2023 as a result of the full benchmarking of the stock (ICES 2023a), which used to be expressed as absolute values and are now expressed in relative values. Key amongst the reference points 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 $0.15 \cdot B_0$ (i.e. 15% of the estimated unexploited biomass) (ICES 2023).</p> <p>The 2025 stock assessment projected that SSB in 2026 would be 79% of the target reference point level, and stated, “spawning-stock size is below $MSY B_{trigger}$, and between B_{PA} and B_{lim}” (ICES 2025).</p> <p>The assessment provides an indication of stock status relative to reference points, and A2.2 is met.</p>	

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}	$F_{E30\%}$	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_{POS} . Relative value. Determined through management strategy evaluation. The F that leads to $SSB \geq B_{lim}$ 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}	$F_{E30\%}$	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_{POS} .	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 $B_{trigger}$.

Figure 9 - Herring in ICES subdivisions 25–29 and 32, excluding the Gulf of Riga, Reference points, values, and their technical basis (ICES 2025a)

Relative Spawning Biomass

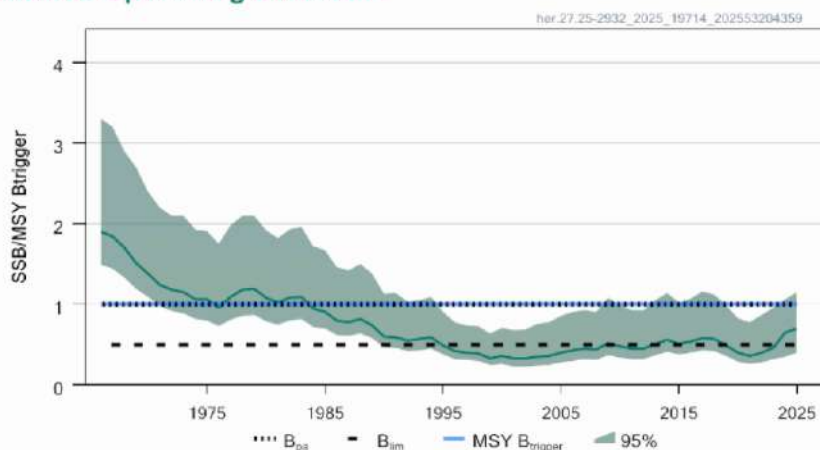


Figure 10 - Central Baltic herring, excluding Gulf of Riga, spawning-stock size is below MSY Btrigger, and between Bpa, and Blim (ICES 2025b)

References

- ICES. (2023a) Benchmark Workshop on Baltic Pelagic stocks (WKBBALTPEL). ICES Scientific Reports. 5:47. <https://doi.org/10.17895/ices.pub.23216492>
- ICES (2025a). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.v1>
- ICES (2025b). 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.27202617.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 <p>The ICES advice provides annually an indication of the volume of fishery removals which is appropriate for the current stock status in the form of recommended catches in the upcoming year</p> <p>The latest catch advice indicates that when the EU multiannual plan (MAP) for the Baltic Sea is applied, catches in 2026 that correspond to the F ranges in the plan are between 120,378 (corresponding to $F_{MSY\ lower} \times SSB_{2026}/MSY\ B_{trigger}$) and 157,996 tonnes (corresponding to $F_{MSY} \times SSB_{2026}/MSY\ B_{trigger}$). The fishery for central Baltic herring includes fish from Gulf of Riga herring. The above advice corresponds to catches of herring in subdivisions 25–29 and 32 of no more than 154 542 tonnes (corresponding to $F_{MSY} \times SSB_{2026}/MSY\ B_{trigger}$) in 2026, assuming the same proportion of the Gulf of Riga herring and central Baltic herring stocks is taken in subdivisions 25–29 and 32 as was estimated for 2020–2024 (ICES 2025).</p> <p>The stock assessment provides an indication of an appropriate level of fishery removals, and A2.3 is met.</p>	
References <p>ICES (2025). Herring (<i>Clupea harengus</i>) 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.27202617.v1</p>	

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

The Guide to the ICES Advisory Framework and Principles (ICES 2023) outlines the process by which ICES conducts scientific activities and provides fisheries management advice. When the results of the assessments are agreed by the ICES groups, they are sent to the ICES Advice Drafting Group, which consists of National Experts, who review them, and they are finally reviewed by the Advisory Committee (ACOM), which delivers the ICES advice. The ACOM advice is grounded on 10 principles to support ecosystem-based management advice. This ensures that the advice is based on the best available science and data, considered legitimate by both authorities and stakeholders, and relevant and operational to the policy or management challenge in question (ICES 2023).

Principle 7 states that the process undergoes a peer review phase to ensure that the best available, credible science has been used and to confirm that the analysis provides a sound basis for advice. All analyses and methods are peer reviewed by at least two independent reviewers. For recurrent advice, the review is conducted through a benchmark process; for special requests, through one-off reviews. (ICES 2023). The sprat stock assessment was most recently benchmarked in 2023; thus, it was subject to peer review (ICES 2025).



Figure 11 - ICES advises principles, Principle 7 states that the process undergoes a peer review phase. (ICES 2023).

The assessment is peer reviewed, and A2.4 is met.

References

- ICES. (2023). Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, section 1.1. <https://doi.org/10.17895/ices.advice.22116890>
- ICES (2025). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.v1>

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 2023a) and the catch advice (ICES 2025). 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 2023b).

The stock assessment is publicly available, and A2.5 is met.

References

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

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

ICES (2025). 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.27202617.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	<i>Pass</i>
Rationale <p>Total fishing mortality is restricted through the use of a TAC, which is generally based on the ICES advice, which in turn is based on the Baltic Sea Multiannual Plan (Regulation (EU) 2016/1139 as amended) (EU 2016). In Russia, the federal law on Fisheries and Protection of Aquatic Biological Resources mandates the establishment of Total Allowable Catch (TAC) levels for various fish stocks to ensure the conservation of aquatic biological resources (FAF 2021).</p> <p>A mixture of central Baltic herring (subdivisions 25–27, 28.2, 29, and 32) and Gulf of Riga herring (subdivision 28.1) is caught in the central Baltic Sea. In the assessment and the advice, the central Baltic herring stock is considered to be caught both inside and outside the central Baltic Sea. The total allowable catch (TAC; sum of the EU and Russian Federation autonomous quotas) is set for herring caught in the central Baltic management area; it includes a small amount of Gulf of Riga herring caught in the central Baltic Sea but excludes central Baltic herring caught outside of the central Baltic Sea. (ICES 2025)</p> <p>There is a mechanism in place to restrict total fishing mortality, and A3.1 is met.</p>	
References <p>EU (2016). 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</p>	

the fisheries exploiting those stocks, amending Council Regulation (EC) No 2187/2005 and repealing Council Regulation (EC) No 1098/2007. In force. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02016R1139-20240710>.

FAF (2021). Federal Agency for Fisheries. Federal Law of 20.12.2004 N 166-FZ "On Fisheries and Conservation of Aquatic Biological Resources" https://fish.gov.ru/wp-content/uploads/documents/documenty/federalnye_zakony/Federalnyi-zakon_166-FZ_ot_20-12-2004.pdf. Translated by Google.

ICES (2025). 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.27202617.v1>

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
<p>Rationale</p> <p>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 for 2024 was set at 67,368t, nearly 30% greater than the maximum recommended level (ICES 2025).</p> <p>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.</p> <p>Total fishery removals in 2024 are likely to substantially exceed the range of catch recommendations provided by ICES, and A3.2 is not met.</p>	

Year	ICES advice	Catch corresponding to the advice	Agreed TAC	ICES catch SDs 25–29 and 32	ICES catch
2017	MSY approach ($F_{MSY} = 0.22$)	$\leq 216\,000$	220 629 ^{^^}		199 4281
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 ^{^^}		240 738
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 ^{^^}		200 956
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 173 975 only under conditions specified in MAP	182 484 ^{^^}		174 521
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 ^{^^}		75 236 ^{^^^}
2025	Management plan	125 344 (range 95 340–125 344)	110 881 ^{^^}		
2026	Management plan	157 996 (range 120 378 – 157 996)			

* 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 during the Baltic Fisheries Assessment Working Group (WGBFAS) 2024 meeting.

Figure 12 - Herring in subdivisions (SDs) 25–29 and 32, excluding the Gulf of Riga. ICES advice, total allowable catches (TACs), and catches. All weights are in tonnes. (ICES 2025)

References

ICES (2025). 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.27202617.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	<p>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).</p> <p>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.</p> <p>In conclusion, despite biomass being below the LRP, the 2024 TAC was set substantially higher than the level recommended by ICES. A3.3 is not met.</p>
References	<p>ICES (2023) Herring (<i>Clupea harengus</i>) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). Replacing advice provided in May 2023. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.25–2932. https://doi.org/10.17895/ices.advice.23310368</p> <p>ICES (2024). Herring (<i>Clupea harengus</i>) 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</p>

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	<i>Fail</i>
Rationale	<p>The stock is currently estimated to be above the limit reference point (B_{lim}) but below the target reference points B_{pa} and MSY $B_{trigger}$ (ICES 2025), therefore the first and third statements of this clause are not met.</p>

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 has been further assessed under Category B.

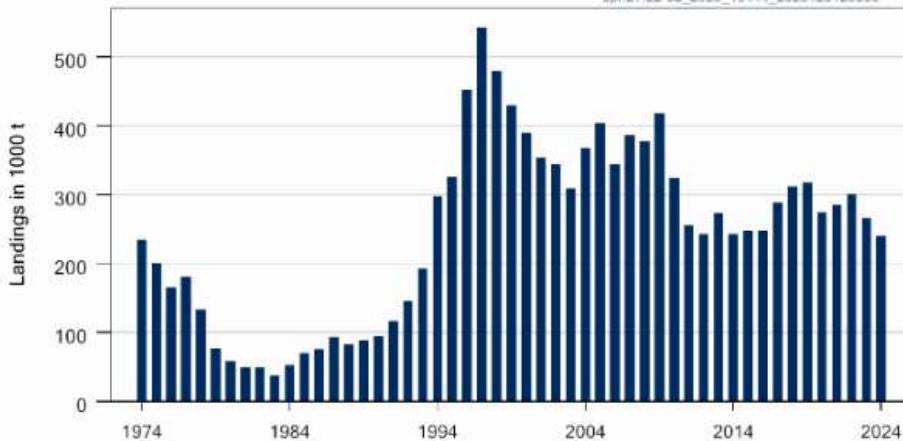
References

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 (2025). 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.27202617.v1>

Baltic Sprat - *Sprattus sprattus*

A1 Data collection

A1.1	A1.1 Landings data are collected such that the fishery-wide removals of this species are known.
Outcome	<i>Pass</i>
<p>Rationale</p> <p>The EU Fisheries Control System, through the Fisheries Control Regulation (EC Regulation No 1224/2009), requires that each vessel record data on catches (target species and bycatch) in logbooks and complete a landing declaration indicating specifically all quantities of each species landed. Information should be transmitted to the competent authority of each member state, who then provide it to the Commission. (EC 2009).</p> <p>Russia does not report landing information to ICES; however, the Baltic Fisheries Assessment Working Group (WGBFAS) estimates catches based on information available on the Russian Federation's official websites, providing a comprehensive overview of the fishery removals (ICES 2025a). Uncertainty around the accuracy of this catch data is factored into the stock assessment process.</p> <p>The total catch of sprat in the Baltic Sea in 2024 was 239,888 (ICES 2025b)</p> <p>Landings data are collected and A1.1 is met.</p> <div data-bbox="328 1267 1254 1771"> <p>Catches</p>  <p>The chart displays annual landings of sprat in the Baltic Sea from 1974 to 2024. The y-axis represents landings in 1000 t, ranging from 0 to 500. The x-axis shows years from 1974 to 2024. The data shows a period of high catches in the late 1970s and early 1980s, followed by a sharp decline in the mid-1980s. Catches then increased significantly in the early 1990s, peaking around 1995 at over 500,000 t. After 1995, catches generally declined, with a notable peak around 2005 and a subsequent decline towards 2024.</p> </div> <p><i>Figure 13 - Sprat catches from 1974 to 2024 in ICES subdivisions 22–32, Baltic Sea (ICES 2025b)</i></p>	
References	

EC (2009). Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Union control system for ensuring compliance with the rules of the common fisheries policy. In force. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02009R1224-20241011>.

ICES (2025a). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.v1>

ICES (2025b). Sprat (*Sprattus sprattus*) in subdivisions 22-32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202893.v1>

A1.2	A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.
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Outcome	<i>Pass</i>
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Rationale

In addition to commercial catch data, 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 2025). The model assumes discards and bycatch are negligible. During surveys, sampling is done with echo sounders and pelagic trawls. All fish species in the catch are measured in length, and biological samples, including age, are taken on the target species, herring and sprat. The Baltic Sea countries meet in the Baltic International Fish Survey Working Group (WGBIFS), and the results from each country are compiled in a common database. (SLU 2025, ICES 2024).

The 2025 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 2025).

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

References

ICES (2024). Baltic International Fish Survey Working Group (WGBIFS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.25922290.v1>

ICES (2025). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.v1>

SLU (2025). Sveriges lantbruksuniversitet (Swedish University of agricultural Sciences). BIAS – Baltic International Acoustic Survey. <https://www.slu.se/en/environment/statistics-and-environmental-data/environmental-data-catalogue/bias/>.

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	<i>Pass</i>
Rationale <p>Sprat in the Baltic Sea, is subjected to an annual stock assessment carried out by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). The stock was benchmarked in 2023 (ICES, 2023a), and outcomes were implemented in the last assessment published in 2025 (ICES, 2025). The benchmarking process ensures the stock assessment recognises the most recent available scientific understanding of the species, the stock, the fishery, and the ecosystems within which they occur. The stock assessment is conducted as a whole following the ICES methodology (ICES, 2023b).</p> <p>The data used for the stock assessment included landing and catch data from all countries exploiting the stock, as well as biological data such as age composition, mean weights at age, maturity at age, and natural mortality. Additionally, fishery-independent information from the Baltic International Acoustic Survey (BIAS) and the Baltic Spring Survey (BASS) were also utilized. (ICES, 2025).</p> <p>An annual stock assessment is conducted and A2.1 is met.</p>	
References <p>ICES. (2023a) Benchmark Workshop on Baltic Pelagic stocks (WKBBALTPEL). ICES Scientific Reports. 5:47. https://doi.org/10.17895/ices.pub.23216492</p> <p>ICES. (2023b). Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, section 1.1. https://doi.org/10.17895/ices.advice.22116890</p> <p>ICES (2025). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. https://doi.org/10.17895/ices.pub.29099786.v1</p>	

A2.2	A2.2 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.
Outcome	<i>Pass</i>
Rationale <p>The WGBFAS stock assessment indicates the status of the stock relative to target and limit reference points. These reference points were updated in 2023 as a result of the full benchmarking of the</p>	

stock (ICES 2023a) The 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 2025).

The 2025 stock assessment predicted that SSB at spawning time in 2025 would be 601,856t, and the 2025 catch advice states that “Spawning-stock size is above MSY $B_{trigger}$, B_{PA} , and B_{lim} ” (ICES 2025).

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

Framework	Reference point	Value	Technical basis	Source
Maximum sustainable yield (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_{PA}	0.35	F_{POS} ; the F that leads to SSB $\geq B_{lim}$ with 95% probability	ICES (2023a)
Management plan	Multiannual 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 F_{lower}	0.26	Consistent with the ranges that result in a $\leq 5\%$ reduction in long-term yield compared with MSY	ICES (2023a)
	MAP target F_{upper}	0.35	Consistent with the ranges that result in a $\leq 5\%$ reduction in long-term yield compared with MSY, constrained by F_{POS}	ICES (2023a)

Figure 14 - Sprat in ICES subdivisions 22-32 (Baltic Sea) reference points, values, and their technical basis. Weight in tonnes (ICES 2025).

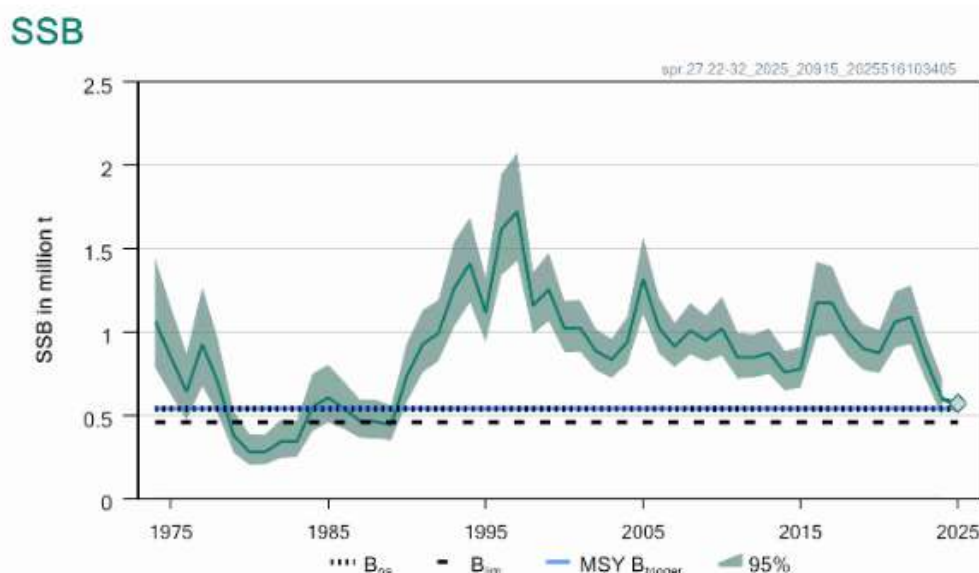


Figure 15 - Sprat in ICES subdivisions 22-32 (Baltic Sea) spawning-stock size above MSY $B_{trigger}$, B_{PA} , and B_{lim} (ICES 2025)

References

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

ICES (2025). Sprat (*Sprattus sprattus*) in subdivisions 22-32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202893.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 annual ICES advice provides an indication of the volume of fishery removals which is appropriate for the current stock status in the form of recommended catches in the upcoming year.

The latest advice indicates that when the EU multiannual plan (MAP) for the Baltic Sea is applied, catches in 2026 that correspond to the F ranges in the plan are between 176,056 tonnes and 230,518 tonnes. According to the MAP, catches higher than those corresponding to FMSY (224,616 tonnes) can only be taken under conditions specified in the plan, while the entire range is considered precautionary when applying the ICES advice rule (ICES 2025)

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

References

ICES (2025). Sprat (*Sprattus sprattus*) in subdivisions 22-32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202893.v1>

A2.4

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

Outcome

Pass

Rationale

The Guide to the ICES Advisory Framework and Principles (ICES 2023) outlines the process by which ICES conducts scientific activities and provides fisheries management advice. When the results of the assessments are agreed by the ICES groups, they are sent to the ICES Advice Drafting Group, which consists of National Experts, who review them, and they are finally reviewed by the Advisory Committee (ACOM), which delivers the ICES advice. The ACOM advice is grounded on 10 principles to support ecosystem-based management advice. This ensures that the advice is based on the best

available science and data, considered legitimate by both authorities and stakeholders, and relevant and operational to the policy or management challenge in question (ICES 2023).

Principle 7 states that the process undergoes a peer review phase to ensure that the best available, credible science has been used and to confirm that the analysis provides a sound basis for advice. All analyses and methods are peer reviewed by at least two independent reviewers. For recurrent advice, the review is conducted through a benchmark process; for special requests, through one-off reviews. (ICES 2023). The sprat stock assessment was most recently benchmarked in 2023; thus, it was subject to peer review (ICES 2025).



Figure 16 - ICES advice principles, Principle 7 states that the process undergoes a peer review phase. (ICES 2023).

The assessment is peer reviewed, and A2.4 is met.

References

- ICES. (2023). Guide to ICES advisory framework and principles. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, section 1.1. <https://doi.org/10.17895/ices.advice.22116890>
- ICES (2025). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.29099786.v1>

A2.5	A2.5 The assessment is made publicly available.
Outcome	<i>Pass</i>
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 2023a) and the catch advice (ICES 2025). 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 2023b). The stock assessment is publicly available, and A2.5 is met.	
References	

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

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

ICES (2025). Sprat (*Sprattus sprattus*) in subdivisions 22-32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202893.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	<i>Pass</i>
Rationale Total fishing mortality is restricted through the use of a TAC, which is generally based on the ICES advice, which in turn is based on the Baltic Sea Multiannual Plan (Regulation (EU) 2016/1139 as amended) (EU 2016). In Russia, the federal law on Fisheries and Protection of Aquatic Biological Resources mandates the establishment of Total Allowable Catch (TAC) levels for various fish stocks to ensure the conservation of aquatic biological resources (FAF 2021). There is a mechanism in place to restrict total fishing mortality, and A3.1 is met.	
References EU (2016). 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. In force. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02016R1139-20240710 . FAF (2021). Federal Agency for Fisheries. Federal Law of 20.12.2004 N 166-FZ "On Fisheries and Conservation of Aquatic Biological Resources" https://fish.gov.ru/wp-content/uploads/documents/documenty/federalnye_zakony/Federalnyj-zakon_166-FZ_ot_20-12-2004.pdf . Translated by Google.	

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.
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Outcome	Pass
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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 in the past it has sometimes exceeded the upper boundary of the advice. However, this did not occur between 2020 and 2024. In 2025 the total international TAC has been set around 9% higher than the maximum recommended catch; it remains to be seen whether this will lead to landings significantly above the advice.

SSB has been estimated to be well above the limit reference point since the 90s. Since 2021 catch estimations have not exceeded the top end of the range of advice provided by ICES.

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; however, future assessments should review this conclusion if stock biomass falls below the target reference point.

Year	ICES advice	Catch corresponding to advice	Agreed TAC	ICES catch
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**	312 200
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**	317 700
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**	274 100
2021	Management plan	247 952 (range 181 567–316 833)	268 458**	284 900
2022	Management plan	291 745 (range 214 000–373 210)	295 300**	301 409 [^] , [§]
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**	239 888 [^]
2025	Management plan	164 947 (range 130 195 – 169 131)	183 700**	
2026	Management plan	224 616 (range 176 056–230 518)		

* 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).

Figure 17 - Sprat in subdivisions 22-32 (Baltic Sea) ICES advice, total allowable catches (TACs), and catches. All weights are in tonnes (ICES 2025)

References

ICES (2025). Sprat (*Sprattus sprattus*) in subdivisions 22-32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202893.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. (EU 2016)

Fishery removals are likely to be prohibited if the stock biomass falls below the limit reference point, and A3.3 is met.

References

EU (2016). 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. In force. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02016R1139-20240710>.

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 2025). Therefore, the fishery meets the first option of this clause, and A4.1 is met.

SSB

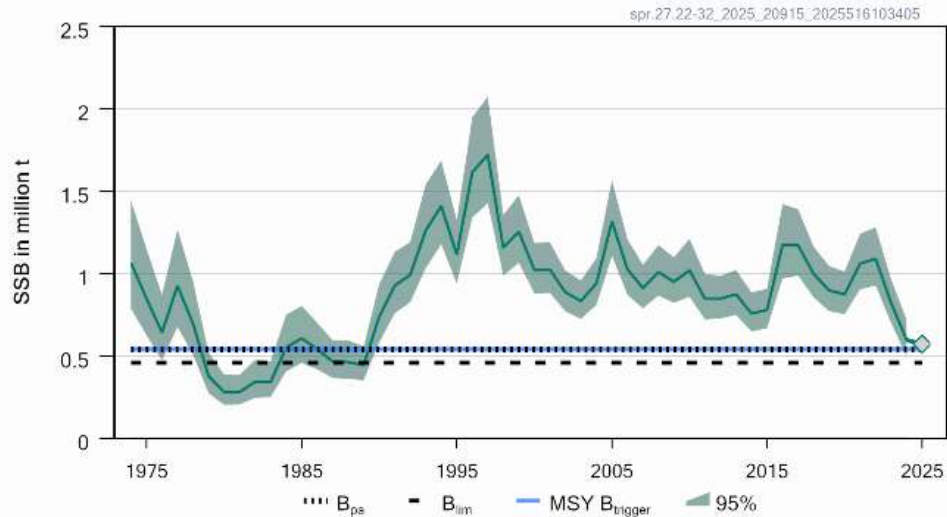


Figure 18 - Sprat in ICES subdivisions 22-32 (Baltic Sea) spawning-stock size above MSY $B_{trigger}$, B_{pa} , and B_{lim} . (ICES 2025)

References

ICES (2025). Sprat (*Sprattus sprattus*) in subdivisions 22-32 (Baltic Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.27202893.v1>

Category B species

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

- 1.1. 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.
- 1.2. The risk matrix in Table B(b) shall be used when assessing a Category B species when no reference points are available.

Central Baltic Herring - *Clupea harengus*

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
<p>Rationale</p> <p>Central Baltic herring is managed relative to established target and limit reference points, but fails in Category A assessment; thus information about biomass, fishing mortality, and reference points is available and table B(a) was used. In the last Central Baltic herring stock assessment, it was determined 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 2025)</p> <p>Taking into account current estimates of biomass and fishing mortality relative to reference points, and reading off Table B(a), the outcome is that the stock Passes the Category B assessment.</p>	

Table B(a) – Biomass/fishing pressure risk assessment.

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

Figure 19 - Table B(a) risk matrix. In green squares, results for Central Baltic herring are shown.

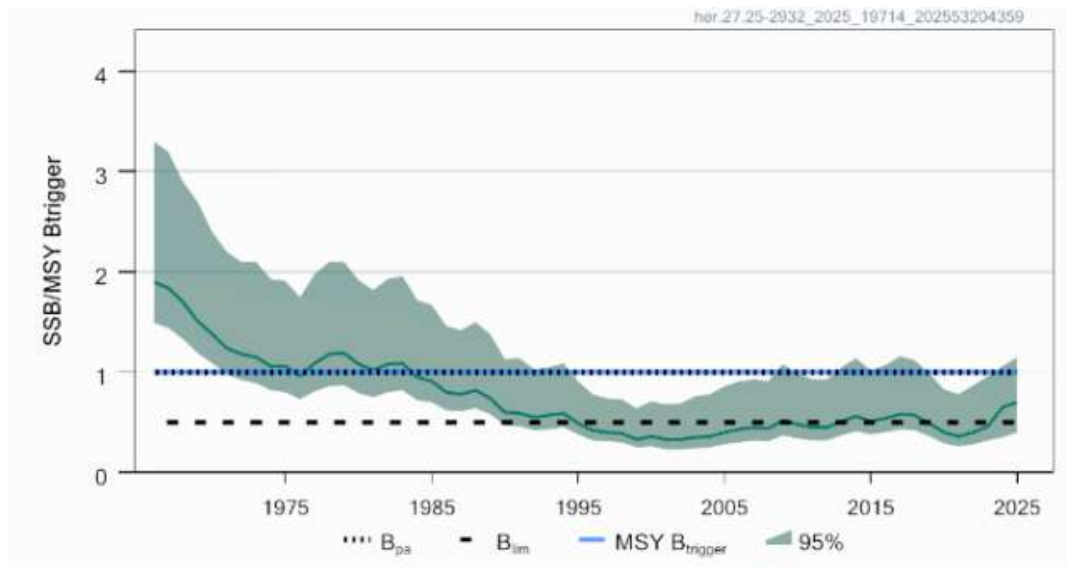


Figure 20 - Central Baltic herring, relative spawning biomass and current reference points (ICES 2025)

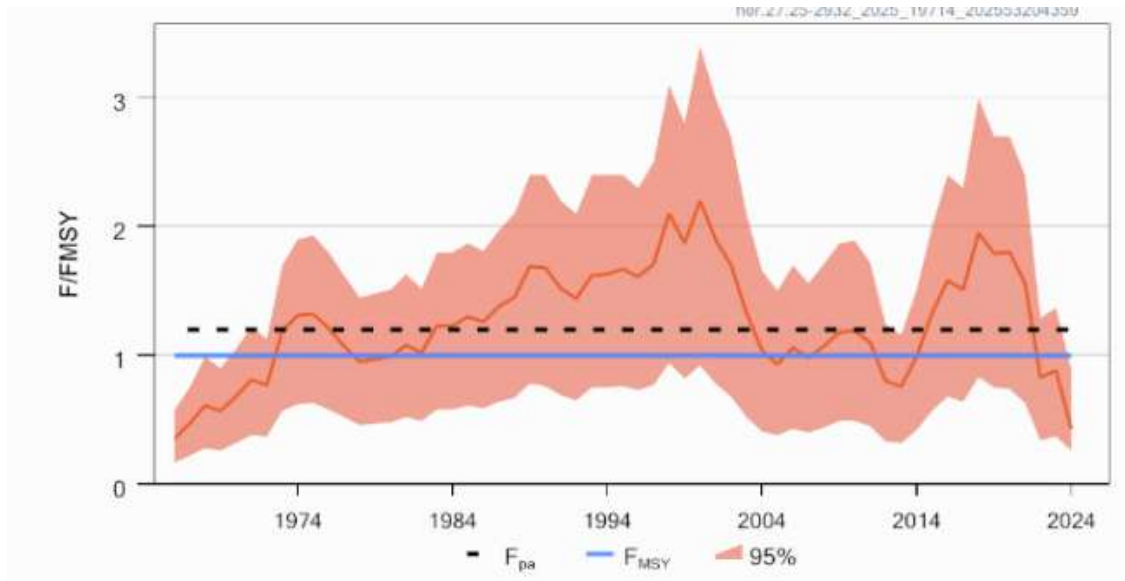


Figure 21 - Central Baltic herring, relative fishing pressure (ICES 2025)

References

ICES (2025). 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.27202617.v1>

Category D species

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

- 1.3. The Productivity-Susceptibility Analysis (PSA) in Table D(a) shall be used when assessing Category D species.
- 1.4. Table D(b) shall be used to calculate the overall PSA risk rating for the Category D species.
- 1.5. 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, <i>Osmerus eperlanus</i>	
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 spawners	1
Mean Trophic Level (MTL)	3.5	3
Density dependence (to be used when scoring invertebrate species only)	n/a	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	High overlap – pelagic schooler	3
Selectivity of gear type: Potential of the gear to retain species	Frequent retention	3
Post-capture mortality (PCM): The chance that, if captured, a species	Retained	3

would be released and that it would be in a condition permitting subsequent survival		
Average productivity score		1.57
Average susceptibility score		2.5
PSA risk rating (from Table D(b))		Pass
Compliance rating		Pass

Productivity attributes and species distribution taken from Fishbase, European smelt
<https://www.fishbase.se/summary/osmerus-eperlanus.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	N/A
Rationale	
References	

D2	D2. There is no substantial evidence that the fishery has a significant negative impact on the species.
Outcome	N/A
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.

- 2.1. All ecosystem criteria must be met (pass) for a fishery to pass the Ecosystem Requirements.
 - 2.1.1. 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. <i>In reaching a determination for E1.1, the assessor should consider if the following is in place:</i>
	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 <p>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 and 2009/47/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 2025).</p> <p>WGBYC efforts include the identification and summarisation of data relating to all endangered species which may be impacted by fisheries in the Baltic (and elsewhere in the region covered by ICES). Information collected by fisheries is used to produce estimates of total bycatch and bycatch per unit effort (BPUE) for the identified ETP species. The most recent WGBYC report states that in</p>	

2024 it was possible to “estimate a BPUE for 788 ecoregion x species pairs”, and that “[m]ost of the scenarios for which we could not estimate BPUE were because there was no bycatch observed” (ICES 2024). Data from the report indicates that there are relatively few ETP species which interact with fisheries in the Baltic Sea. Bycatch of ETP species specifically by vessels using the pelagic gears utilised by the fishery under assessment was zero, according to the supplementary data associated with the WGBYC report, which indicated that the only bycatch species of interest to the WGBVY were twaite shad, *Alosa fallax* (Least Concern); lumpfish, *Cyclopterus lumpus* (Near Threatened); and European river lamprey, *Lampetra fluviatilis* (Near Threatened) (ICES 2024, Annex 6).

Information on interactions with ETP species is collected and analysed, such that a reliable estimate of the potential impact of the fishery on ETP species can be produced. E1.1 is met.

References

ICES (2024). Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.27762723.v6>

ICES (2025). Working Group on the Bycatch of Protected Species. <https://www.ices.dk/community/groups/Pages/WGbyc.aspx>

E1.2	E1.2 The fishery has no significant negative impact on ETP species. <i>In reaching a determination for E1.2, the assessor should consider if the following is in place:</i>
	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 described in E1.1, interactions between ETP species and pelagic trawl fisheries in the Baltic Sea are very rare. The most recent WGBYC report indicates that pelagic gears in the Baltic Sea reported no interactions with sharks, seabirds or turtles, in addition to no interactions with ETP species (as per the MT definition of “ETP”) (ICES 2024). 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 collected for this fishery indicates very few, if any, interactions with ETP species, and E1.2 is met.	
References ICES (2024). Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. Report. https://doi.org/10.17895/ices.pub.27762723.v6	

ICES (2018). Report from the Working Group on Bycatch of Protected Species (WGBYC). ICES Expert Group reports (until 2018). Report. <https://doi.org/10.17895/ices.pub.19290758.v2>

E1.3	E1.3 There is an ETP management strategy in place for the fishery. <i>In reaching a determination for E1.3, the assessor should consider if the following is in place:</i>
	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	<i>Pass</i>
Rationale <p>Despite very low levels of interaction with ETP species, some measures which apply to the fishery under assessment 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.</p> <p>Due to the very low likelihood of interaction with ETP species, there is no specific management strategy required for this fishery, and E1.3 is met.</p>	
References	

E2 Impact on the habitat

E2.1	E2.1 Information on interactions between the fishery and marine habitats is collected. <i>In reaching a determination for E2.1, the assessor should consider if the following is in place:</i>
	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	<i>Pass</i>

Rationale	<p>The pelagic trawl gears used in this fishery are not intended to make contact with the sea bed, and in order to avoid damage vessels will attempt to avoid such interactions wherever possible. The assessment guidance for this clause states that “good practice requires there to be a strategy in place that is designed to ensure the fishery does not pose a risk of serious or irreversible harm to habitat types”. For fisheries in the region which interact with seabed habitats, measures are in place to manage and mitigate impacts via mechanisms such as the HELCOM Baltic Sea Action Plan (BSAP) (HELCOM 2021), the requirements associated with Natura 2000 sites, and the technical measures set out in EU regulations.</p> <p>Due to the gears used in this fishery, there is very little information on interactions with marine habitats which could be collected. E2.1 is met.</p>
References	<p>HELCOM (2021). Baltic Sea Action Plan 2021 update. https://helcom.fi/wp-content/uploads/2021/10/Baltic-Sea-Action-Plan-2021-update.pdf</p>

E2.2	<p>E2.2 The fishery has no significant impact on marine habitats.</p> <p><i>In reaching a determination for E2.2, the assessor should consider if the following is in place:</i></p>
	<p>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.</p>
Outcome	Pass
Rationale	<p>Pelagic trawl gears are not intended to make contact with the seabed. Such contact is likely to be minimal and consequently the impact of this gear on benthic habitats and seabed structures is considered minimal, if any. E.2. is met.</p>
References	

E2.3	<p>E2.3 There is a habitat management strategy in place for the fishery.</p> <p><i>In reaching a determination for E2.3, the assessor should consider if the following is in place:</i></p>
	<p>E2.3.1 There are measures applied to the fishery which are designed to manage the impact of the fishery on marine habitats.</p>
	<p>E2.3.2 The measures are considered likely to prevent the fishery from having a significant negative impact on marine habitats.</p>

Outcome	<i>Pass</i>
Rationale <p>Pelagic gears such as those used in this fishery are highly unlikely to cause significant habitat disruption. However, within the broader fisheries management structures present in the Baltic, measures are in place to protect habitats. Habitats are provided protection through the Natura 2000 network established under the EU Birds and Habitats Directives (2009/147/EC; 92/43/EEC). This is a network of core breeding and resting sites for rare and threatened species, and some rare natural habitat types which are protected in their own right. Under Article 6 of the Habitats Directive, Member States are required to establish the necessary conservation measures, including, if necessary, management plans for these sites and the impact of any 'plans or projects' likely to have a significant effect on the sites subject to assessment. The Technical Measures Regulation (Regulation (EU) 2019/1241) also sets out technical measures which can protect habitats including regional measures under Article 15 and powers to introduce real-time closures and moving-on provisions.</p> <p>Even though the fishery is thought very unlikely to interact with seabed habitats, habitat protection measures applied to fisheries in general are in place, and E2.3 is met.</p>	
References <p>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:01992L0043-20130701</p> <p>Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147</p>	

E3 Impact on the ecosystem

E3.1	E3.1 Information on the potential impacts of the fishery on marine ecosystems is collected. <i>In reaching a determination for E3.1, the assessor should consider if the following is in place:</i>
	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	<i>Pass</i>
Rationale <p>ICES conducts and publishes regular ecosystems reviews, each covering a particular ecoregion. The relevant region for the fishery under assessment is the Baltic Sea ecoregion, for which the most recent ecosystem overview report was published in 2024 (ICES 2024). The review considers a wide range of ecosystem components and factors, and is not limited to the impacts of fisheries. Human activities reviewed include fishing, agriculture and forestry, waste water, shipping, land-based industry, coastal development, and tourism and recreation; pressures include nutrient and organic enrichment, selective extraction of species, introducing contaminating compounds, marine litter, and physical seabed disturbance. The impacts of these on ice, pelagic and benthic habitats, fish, waterbirds, marine mammals, and broader biodiversity are all covered by the review (ICES 2024).</p>	

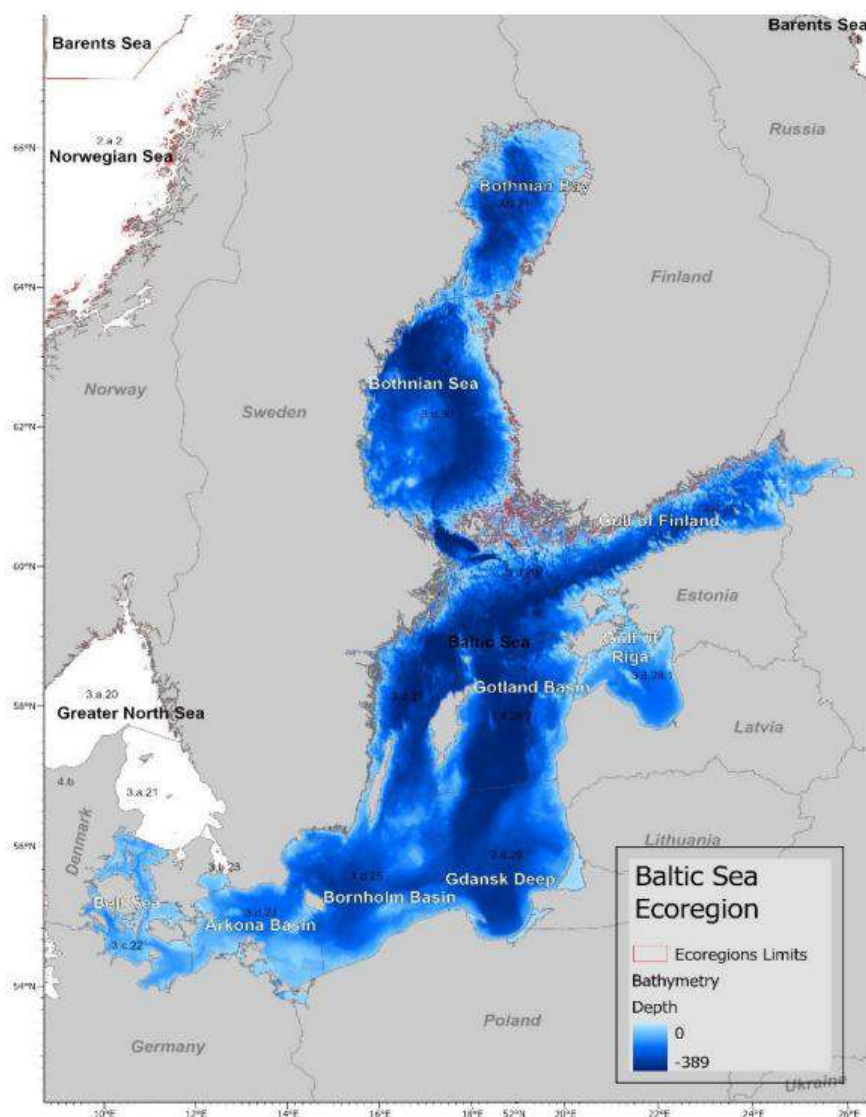


Figure 22 - Geographical area encompassed by the ICES Baltic Sea ecoregion (ICES 2024)

Across all human activities, selective species extraction is thought to account for 26% of the pressure on the ecosystem, with other major sources of pressure being nutrient and organic enrichment (27%) and contaminants (22%) (ICES 2024).

The role of herring and sprat within the Baltic Sea ecosystem is well understood and incorporated into the ecosystem overview analysis. Herring and sprat are key forage fish in the Baltic Sea, transferring energy from zooplankton to higher predators such as cod, seabirds, and marine mammals. Since both species are zooplanktivores, their population fluctuations influence zooplankton abundance, which in turn affects phytoplankton blooms and overall ecosystem health by exerting stronger zooplankton grazing pressure and potentially enhancing eutrophication through trophic cascades. Also, variations in sprat stocks have been linked to changes in the fledgling mass of common guillemots (seabirds) (Casini *et al* 2004; Osterblom *et al* 2006).

Information on the potential impacts of fisheries on the Baltic Sea ecosystem is collected and

analysed, and E3.1 is met.

References

Casini, M., Cardinale, M., & Arrhenius, F. (2004). Feeding preferences of herring (*Clupea harengus*) and sprat (*Sprattus sprattus*) in the southern Baltic Sea. ICES Journal of Marine Science, 61(8), 1267- 1277. <https://ui.adsabs.harvard.edu/abs/2004ICJMS..61.1267C/abstract>

ICES (2024). Baltic Sea Ecoregion – Ecosystem Overview. ICES Advice: Ecosystem Overviews. Report. <https://doi.org/10.17895/ices.advice.27256635.v1>

Österblom, H., Casini, M., Olsson, O., & Bignert, A. (2006). Fish, seabirds and trophic cascades in the Baltic Sea. Marine Ecology Progress Series, 323, 233-238.
<https://www.intres.com/abstracts/meps/v323/meps323233>

E3.2	E3.2 There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem. <i>In reaching a determination for E3.2, the assessor should consider if the following is in place:</i>
	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	<i>Pass</i>
Rationale The most significant potential ecosystem impacts of the fishery arise from the removal of herring and sprat biomass. The ICES ecosystem overview (ICES 2024) states that “pelagic species strongly dominate the fish community”, and that “The abundance and dispersion of waterbirds in the Baltic Sea is strongly influenced not only by prey availability but also by a variety of human activities, with much impact generated by fishing, shipping and the use of wind energy at sea” (ICES 2024). Prey depletion is not considered to be a primary determining factor in the health of populations of porpoise, seal or cod populations, all of which predate sprat and herring. The ecoregion overview does not provide any strong evidence that fisheries, particularly pelagic fisheries, have a substantial negative impact on the Baltic Sea ecosystem, indicating that other human activities represent cumulatively larger risks, and no other evidence was discovered during the production of this assessment report to suggest fisheries have a significant negative impact. E3.2 is met.	
References ICES (2024). Baltic Sea Ecoregion – Ecosystem Overview. ICES Advice: Ecosystem Overviews. Report. https://doi.org/10.17895/ices.advice.27256635.v1	

E3.3	E3.3 There is an ecosystem management strategy in place for the fishery. <i>In reaching a determination for E3.3, the assessor should consider if the following is in place:</i>
	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	<i>Pass</i>
Rationale <p>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. The regular management advice published by ICES includes an ecoregion overview for the Baltic Sea (ICES 2024), 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 fishery is managed under an ecosystem-based approach, and E3.3 is met.</p>	
References <p>ICES (2024). Baltic Sea Ecoregion – Ecosystem Overview. ICES Advice: Ecosystem Overviews. Report. https://doi.org/10.17895/ices.advice.27256635.v1</p> <p>Regulation (EU) No 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</p>	

Annex 1: External Peer Review report

Fishery name	Estonia Herring (<i>Clupea harengus</i>) and Sprat (<i>Sprattus sprattus</i>) in FAO 27, ICES 3.d.28.1 (Gulf of Riga)
MarinTrust report code	WF37
Type 1 species (common name, Latin name)	<i>Herring, Clupea harengus</i> <i>Sprat, Sprattus sprattus</i>
Fishery location	<i>FAO 27, ICES 3.d.28.1 (gulf of riga)</i>
Gear type(s)	<i>Pelagic trawl</i>
Management authority (country/state)	<i>European Commission; Estonia</i>
Certification Body recommendation	<i>Approved</i>
FAPRG reviewer recommendation	<i>Agree with CB determination</i>

Summary of peer review outcomes

<p>Summary</p> <p><i>Provide any information about the fishery that the reviewers feel is significant to their decision. This summary is used by the Certification Body in the Fishery Assessment Report.</i></p> <p>The Estonian herring and sprat fishery in the Gulf of Riga was assessed under MT Version 3, with herring making up 97% of the 2023 catch, sprat 2.7%, and smelt also present. Gulf of Riga herring and Baltic sprat met Category A requirements, smelt met Category D, and Central Baltic herring, though failing some Category A clauses, met Category B. All species are listed as Least Concern by the IUCN, not in CITES, and the fishery is well-managed with no evidence of IUU fishing or benthic and ecosystem impacts. Overall, the fishery meets all MT requirements.</p> <p>In conclusion; the peer reviewer agrees with CB assessment.</p>
<p>General comments on the draft report provided to the peer reviewer</p> <p>The report is well-written, and justifications are provided throughout to support scoring decisions. References are provided which are relevant and current to the fishery under assessment. No clarification or further evidence is required. There are other MT Baltic herring assessments which have gone through peer review and this report is clearly harmonised across existing assessments.</p>

1. Has the fishery assessment been fully completed, using the recognised MarinTrust fishery assessment methodology and associated guidance?	Yes
2. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?	Yes
3. Are the scores in the following sections consistent with the MarinTrust requirements (i.e. do the scores reflect the evidence provided)?	Yes
Section M – Management Requirements	Yes
Category A Species	Yes
Category B Species	Yes
Category C Species	n/a
Category D Species	Yes
Section E – Ecosystem Impacts	Yes

Detailed Peer Review Justification

1. Has the fishery assessment been fully completed, using the recognised MarinTrust fishery assessment methodology and associated guidance?	Yes
Yes, the scoring within the report is mostly consistent with the Marin Trust V3 standard for whole fishery assessment. The report is well-written, with references, accessible web links, and relevant figures and tables provided throughout to support scoring.	
Certification Body response	
n/a	

2. Does the species categorisation section of the report reflect the best current understanding of the catch composition of the fishery?	Yes
Herring in the Gulf of Riga comes from two stocks—Gulf of Riga herring and Central Baltic herring—with the latter making up 4–20% of catches in recent years (19.8% in 2024). Because both stocks consistently exceed 5% of landings, they are treated as Type 1 and assessed under Category A. Baltic sprat is also managed and assessed under Category A, while smelt, lacking stock-specific management, is assessed under Category D. Catch data used is from the European Commission FDI data, searchable by country and gear type.	
Certification Body response	
n/a	

3. Is the scoring of the fishery consistent with the MarinTrust requirements, and clearly based on the evidence presented in the assessment report?	Yes
It is apparent that the Marin Trust whole fishery v3 assessment methodology and associated guidance have been followed.	
Certification Body response	
n/a	

3a. Are the “Category A Species” scores clearly justified?	Yes
The section is well-written, and justifications are provided throughout to support scoring descions. References are provided which are relevant and current to the stocks under assessment. Gulf of Riga herring and Baltic sprat met Category A requirements. Central Baltic herring, justifiably, did not meet failed Category A3.2, A3.3 and A4.1 clauses, and was therefore scored against Category B.	
Certification Body response	
n/a	

3b. Are the “Category B Species” scores clearly justified?	Yes
Central Baltic Herring, failed some Category A clauses and therefore assessed against category B. The stock is between Bpa and Blim and therefore meets the CatB clause.	
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?	Yes
Smelt Cat D scoring is sufficient to pass MT requirements. A reference to fishbase is provided for biological traits and species distribution.	
Certification Body response	
n/a	

Are the scores in “Section M – Management Requirements” clearly justified?	Yes
The management scoring is very detailed and references are provided throughout. Both the Estonian and EU management systems are scored.	
Certification Body response	
n/a	

Are the scores in “Section E – Ecosystem Impacts” clearly justified?	Yes
This fishery is well managed in terms of its impacts on ETP and ecosystems. The gear type, pelagic trawl, doesn't interact with the seabed so habitat management is minimised. Scoring is well presented and referenced throughout.	
Certification Body response	
n/a	

Optional: General peer reviewer comments on the draft report
Certification Body response