MarinTrust Standard V2

Whole fish Fishery Assessment

WF37

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

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Table 1 Application details and summary of the assessment outcome

Application details and summary of the assessment outcome			
Name(s):	Eesti Kalatootjate Keskühistu - Paldiski Fishmeal Plant		
Country:	Estonia		
Email address:	kristjan@fishoil.ee	**Applicant Code**	
Certification Body Details			
Name of Certification Body:		**NSF / Global Trust Certification Ltd.**	
Assessor Name	**CB Peer Reviewer**	**Assessment Days**	**Initial/Surveillance/ Re-approval**
Ana Elisa Almeida Ayres	Léa Lebechnech	5	Initial
Assessment Period		April 2024 – April 2025	
Scope Details			
Management Authority (Country/State)		European Commission (EC), Ministry of Regional Affairs and Agriculture, the Environmental Board, and the Agriculture and Food Board	
Main Species		Gulf of Riga Herring (*Clupea harengus*) Central Baltic Herring (*Clupea harengus*) Sprat (*Sprattus sprattus*) Smelt (*Osmerus operlanus*)	
Fishery Location		Gulf of Riga, FAO 27, ICES 3. d. 28	
Gear Type(s)		Midwater Otter Trawl	
Outcome of Assessment			
Overall Outcome		APPROVED	
Clauses Failed		NONE	
CB Peer Review Evaluation		APPROVED – Agree with the assessor's determination	
Fishery Assessment Peer Review Group Evaluation		APPROVED – See report in Appendix B	
Recommendation		APPROVED	

Table 2. Assessment Determination

Assessment Determination
The Gulf of Riga herring and sprat fishery is highly selective. Catches of herring (*Clupea harengus*) in the Gulf of Riga primarily originate from the Gulf of Riga herring stock; however, a proportion belongs to the Central Baltic herring stock. In 2022, about 6% of the total catches of herring in the Gulf of Riga was estimated to come from the Central Baltic herring stock. Gulf of Riga herring stock, Central Baltic herring and sprat (*Sprattus sprattus*) composed 99.2% of the catches of this fishery and smelt (*Osmerus operlanus*) is the main species remaining. Herring, sprat and smelt are all categorised by the IUCN as Least Concern, and none appears on the CITES appendices. Sprat and both herring stocks are managed using stock assessments relative to established reference points, thus they were initially assessed under Category A. Smelt is not subjected to stock assessment nor are reference points established, therefore it was assessed under Category D. Gulf of Riga herring is subjected to an annual stock assessment by International Council for the Exploration of the Sea - ICES, the most recent of which was conducted in 2023. A full benchmark of the stock was also carried out in 2023. Sufficient information is collected to enable a reliable assessment of the stock, and stock size is currently estimated to be well above the reference point level. Catches are consistently in line with the ICES advice. The Central Baltic herring stock assessment benchmarked by ICES in 2023, leading to the reference points for the stock being updated. Before this update, the spawning biomass - SSB of the stock was considered to be at the limit reference point (Blim) in 2021 and at a biomass reference point that triggers a cautious response within the ICES Maximum Sustainable Yield framework (MSY Btrigger) in 2022. When this MarinTrust assessment was completed, April 2023, the most recent assessment available for this stock was from June 2023 and the SSB of the herring stock was considered to be below the Blim and no fisheries closure were predicted, leading to this stock to fail on clauses A.2.3, A.3.2, A.3.3, A4.4 and Table Ba. However, the MarinTrust client has appealed and a new stock assessment was released on 31st May 2024. In the 2024 assessment, ICES (2024) claimed that: “In last year’s assessment the 2022-year class was underestimated. This, in addition to an increase in weight-at-age in 2023, has led to an upward revision of the SSB and the spawning-stock size was found below MSY Btrigger and between Bpa and Blim. Moreover, ministers of the European Commission agreed on spawning closures for herring fishing in the Baltic Sea in various sea areas during April and May. These updates led to a “Pass” on clauses A.3.3 and A.4. The stock still failed on clause A.2.3 as there are disagreements regarding the recommended catches and timing of closure seasons, which are rising suspicions against the current MAP, and the recommended catches are no predicted to rebuild the stock in the long-term. Catches from 2021-2023 were very close to the upper limit stablished by ICES even with a SSB being below MSY Btrigger during this period. According to the MAP, this should only be done if the stock is in a good state (above MSY Btrigger) or if the MSY exploitation rate is to be achieved in any event by 2020. Neither of the cases is applied. Thus, as catches have been consistently above the mid-point, by about 10%, and the SSB is below the limit reference point, A.3.2 was not met. As the stock failed on Category A, it was assessed under Category B. the biomass in 2024 was found above Blim and fishing mortality was below Fmsy, leading to a “Pass” outcome on Table Ba. The sprat stock remains healthy, according to the 2023 stock assessment, which concluded that sprat SSB is nearly double the level of the target reference point. The TAC remains within the range recommended by ICES, and catches have not substantially exceeded the quota. Although catch in excess of the recommendation is a concern, the sprat stock meets the Category A of MarinTrust requirements because (i) catch has only exceeded the advice by more than 10% in one of the last 6 years; (ii) SSB is well above the limit reference point; and (iii) quotas and catches have been increasingly close to the ICES advice in recent years. Productivity-Susceptibility Analysis (PSA) pointed that the smelt has an average productivity score of 1.43 and an average susceptibility score of 2.50. The PSA risk rating results (Table D3) recommended a “Pass”.

The Gulf of Riga herring and sprat fishery operates under the European Union - EU Common Fisheries Policy, and meets all the Management requirements regarding responsible organisations and control and enforcement.

There is no substantial evidence that the fishery is likely to have a significant impact on Endangered Threated and Protected - ETP species. Midwater trawling is very unlikely to interact with seabed habitats. Herring and sprat are both recognised as being important prey species within the Baltic Sea ecosystem, and the quotas recommended by ICES take this important role into account.

In conclusion, the assessor recommends the approval of the Gulf of Riga herring and sprat fishery in FAO 27, ICES 3.d.28 for the production of fishmeal and/or fish oil under the current MarinTrust WholeFish Standard v2.0.

Fishery Assessment Peer Review Comments

CB Peer Review Comments:

The internal peer reviewer agrees with the assessor's determination of PASS for this fishery, noting that the management framework and surveillance, control and enforcement systems continue to meet the requirements of the MarinTrust Standard.

The main target species in this report are Gulf of Riga herring, Central Baltic herring and sprat. They have been firstly assessed under Category A:

- Sprat and Gulf of Riga herring stocks passed Category A, as they are healthy and catches globally respect ICES advices.
- Central Baltic herring stock failed Category A, because of several reasons: there are disagreements regarding the recommended catches and timing of closure seasons, which are rising suspicions against the current MAP, and the recommended catches are no predicted to rebuild the stock in the long-term, so it failed clause A.2.3 ; and total fishery removals regularly exceeded the range of catch recommendations provided by ICES by up to 10% and the stock status is below LRP or proxy, so it failed clause A.3.2.

  As per MT whole fish assessment guidance, the internal peer reviewer agrees with the Central Baltic herring stock being assessed under Category B, using Table B(a). Biomass is estimated in the most recent assessment to be above the LRP, and fishing mortality is estimated to be below FMSY. Consequently, Baltic herring stock passes Table B(a), and therefore the stock meets MT requirements.

The fishery being highly selective, there are no category C and only 1 category D species: smelt. The smelt stock passed the PSA risk-rating, with an average productivity score of 1.43 and an average susceptibility score of 2.50.

The peer reviewer notes that further impacts on ETP, habitats and ecosystem have been evaluated and there is no evidence of significative impact of the fishery on these 3 components. They meet MT requirements.

Overall, the internal peer reviewer agrees that the fishery just about meets the requirements of either Category A or Category B, and Category D. Consequently, it is recommended for approval for use in the assessment area under the current Marin Trust Standard v 2.0 for whole fish.

Fishery Assessment Peer Review Comments:

The assessor has provided a very thorough examination of the fishery with appropriate levels of referenced evidence to substantiate a decision to approve for a fishery that could be described as very borderline with respect to Central Baltic Herring stock.

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

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

The assessor provides substantiation to the failure (A2.3) decision.
MT Guidance for A2.3 states
Harvest Control Rules are in place or are available that are expected to reduce the exploitation rate as the point of recruitment impairment (PRI) is approached.
HCR's are in place as directed by ICES and the recent advise is marginal with respect to 'expected to reduce the exploitation rate as the PRI is approached. The external peer review has left a note to ask of the balance of evidence between 2023 and the more recent May 2024 ICES advise but does not propose a change in score.
Consequently, and again, agreed by the external reviewer, the Baltic Herring stock passes the Cat B(a) table requirements, and a pass score is awarded (which overturns the fail score in Cat A).

The assessor has provided a very thorough examination of the fishery, with good level of detail specific to each clause and applying these to all three species included as Category A and appropriate methodology as applied to Category D species (smelt). The report is accurately referenced to substantiate each score and an overall decision to approve. The external peer review has noted a few observations.

Notes for On-site Auditor

Table 3 General Results

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

Table 4 Species- Specific Results

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

Category	Species	% landings	Outcome (Pass/Fail)
Category A	Gulf of Riga Herring (*Clupea harengus*)	88.5	Pass
Category B (Failed Category A)	Central Baltic Herring (*Clupea harengus*)	5.7	Pass
Category A	Sprat (*Sprattus sprattus*)	5.0	Pass
Category D	Smelt (*Osmerus operlanus*)	0.8	Pass

Table 5 Species Categorisation Table

Common name	Latin name	Stock	IUCN Redlist Category	% of landings	Management	Category
Gulf of Riga Herring	*Clupea harengus*	Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga)	LC[1]	88.5	Yes	A
Central Baltic Herring	*Clupea harengus*	Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea).	LC[1]	5.7	Yes	B (Failed A)
Sprat	*Sprattus sprattus*	Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea)	LC[2]	5.0	Yes	A
Smelt	*Osmerus operlanus*	N/A	LC[3]	0.8	No	D

[1] https://www.iucnredlist.org/species/155123/4717767
[2] https://www.iucnredlist.org/species/198583/143833310
[3] https://www.iucnredlist.org/species/15631/4924600

Species categorisation rationale

Information on the catches of Estonian fishery for this initial assessment was sourced from STECF Fishery Dependant Information - FDI (year: 2022, the latest year available; gear type: Midwater Otter Trawl - OTM; target assemblage: Small Pelagic Fish - SPF; sub-divisions: 27.3.D.28.1).

Catches of herring (*Clupea harengus*) in the Gulf of Riga primarily originate from the Gulf of Riga herring stock; however, a proportion belongs to the Central Baltic herring stock. The most recent ICES catch advice for Gulf of Riga herring includes estimates of the proportion of each catch for every year since 1977. In 2022, about 6% of the total catches of herring in the Gulf of Riga was estimated to come from the Central Baltic herring stock. Considering the filters used on information from STECF, catches of herring in Gulf of Riga were of 12,909.24 tons, thus it was considered that 6% of this amount was from Central Baltic herring stock (774.55 tons) and the remaining 94% (12,134.69 tons), from Gulf of Riga stock. Combining this information with the catches presented by STECF, it was possible to estimate the composing of this fishery, as presented in the Table 1 below:

Table 1. Composition of Estonian fishery in 2022 (STECF 2024 and ICES 2023a).

Stocks	Total live weight landed (tons)	% of total catch
Gulf of Riga herring	12,134.69	88.5
Central Baltic herring	774.55	5.7
Sprat	679.58	5.0
Smelt	112.82	0.8
Total	13,701.64	100.0

Gulf of Riga herring stock, Central Baltic herring and sprat (*Sprattus sprattus*) composed 99.2% of the catches of this fishery, then they were assessed under Type 1 category. Smelt (*Osmerus operlanus*) composed up to 0.8%, thus it was assessed under Type 2 category.
Species-specific management regimes are available for herring and sprat, thus they were initially assessed under Category A. Central Baltic herring stock failed on Category A, thus it was assessed under Category B. Smelt is not managed relative to reference points and does not appear to be subjected to stock assessments; therefore it was assessed under Category D.

References:

ICES. 2023a. Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). In Report of the ICES. Advisory Committee, 2023. ICES Advice 2023, her.27.28. Published 31 May 2023. https://doi.org/10.17895/ices.advice.21820512

STECF. 2023. STECF Fishery Dependant Information. Downloads->Catches. Filters on the spreadsheet: FDI (year: 2022, the latest year available; gear type: Midwater Otter Trawl - OTM; target assemblage: Small Pelagic Fish - SPF; sub-divisions: 27.3.D.28.1). https://stecf.ec.europa.eu/data-dissemination/fdi_en

MANAGEMENT

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

M1	Management Framework – Minimum Requirements		
	M1.1	There is an organisation responsible for managing the fishery.	Pass
	M1.2	There is an organisation responsible for collecting data and assessing the fishery.	Pass
	M1.3	Fishery management organisations are publicly committed to sustainability.	Pass
	M1.4	Fishery management organisations are legally empowered to take management actions.	Pass
	M1.5	There is a consultation process through which fishery stakeholders are engaged in decision-making.	Pass
	M1.6	The decision-making process is transparent, with processes and results publicly available.	Pass
		Clause outcome:	Pass

M1.1 There is an organisation responsible for managing the fishery.

Fisheries in Estonia, and in other EU countries, are managed according to the Common Fisheries Policy (CFP). 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.

In Estonia, the management of fisheries is decentralized across three distinct bodies: the Ministry of Regional Affairs and Agriculture, the Environmental Board, and the Agriculture and Food Board (Agree 2024).

The Ministry of Regional Affairs and Agriculture oversees several critical aspects of fisheries management. This includes the development of market organization systems, the allocation of structural supports and state aid, and the regulation of the aquaculture sector. Additionally, the Ministry manages commercial fishing operations, issuing permits, maintaining a national registry of fishing vessels, and accounting for catches. Moreover, it spearheads the implementation of the Policy on the Protection and Use of Fishery Resources, focusing on fish stock reproduction and the conservation of spawning grounds and habitats (Agree 2024).

The Environmental Board plays a pivotal role in managing recreational fishing activities. It issues recreational fishing cards and collects data related to recreational fishing. Furthermore, it collaborates in the protection and restoration of fish habitats, aligning with broader conservation efforts (Agree 2024).

Meanwhile, the Agriculture and Food Board concentrates on the development and regulation of commercial fishing endeavours. This includes issuing permits, managing the registry of fishing vessels, and overseeing catch accounting. Through its efforts, it contributes to the sustainable exploitation of fishery resources while ensuring compliance with regulations (Agree 2024).

There is an organisation responsible for managing the fishery. M.1.1 is met.

M1.2 There is an organisation responsible for collecting data and assessing the fishery.

Ministry of Regional Affairs and Agriculture is also responsible for catches accounting in Estonia (Agree 2024), but the primary organisation responsible for coordinating and analysing the data relevant to the management of the Gulf of Riga pelagic trawl 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 Baltic, Arctic, Mediterranean, Black Sea and North Pacific (ICES 2024a).

ICES carries out an annual stock assessment of the Baltic sprat, Gulf of Riga and Baltic Sea herring stocks, along with periodic benchmarking exercises to ensure the stock assessment processes and their underpinning assumptions remain appropriate (which occurred most recently for both stocks in 2023). As a key output of the stock assessment process, ICES produces a recommendation for the appropriate level of fishery removals in the coming fishing season (ICES 2024b).

There are organisations responsible for collecting data and assessing the fishery. M1.2 is met.

M1.3 Fishery management organisations are publicly committed to sustainability.

Objective 1 of the CFP, as set out in Regulation (EU) No. 1380/2013 is to "ensure that fishing and aquaculture activities are environmentally sustainable in the long-term and are managed in a way that is consistent with the objectives of achieving economic, social and employment benefits, and of contributing to the availability of food supplies".

The primary Estonian fisheries legislation, the Fishing Act of 19th February 2015, states that the purpose of the Act is to:
1. "ensure conservation and economic use of fish and aquatic plant resources on the basis of internationally recognized principles of responsible fisheries;
2. ensure reproduction capacity of fish and aquatic plant resources and productivity of bodies of water;
3. avoid undesirable changes in the ecosystem of bodies of water."

Fishery management organisations are publicly committed to sustainability. M.1.3 is met.

M1.4 Fishery management organisations are legally empowered to take management actions.

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.

The management of Estonian fisheries is shared between the Ministry of Regional Affairs and Agriculture, the Environmental Board, and the Agriculture and Food Board. The main legal framework and regulations is stated in detail in the Fishing Act 2015, which empowers the Ministry of Rural Affairs and Agriculture to implement the measures of the CFP.

Fishery management organisations are legally empowered to take management actions. M.1.4 is met.

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

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

There is a consultation process through which fishery stakeholders are engaged in decision-making. M.1.5 is met.

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

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

The decision-making process is transparent, with processes and results publicly available. M.1.6 is met.

References

Agree (2024). Commercial fishing. https://pta.agri.ee/en/food/commercial-fishing

Estonia, Fishing Act of 19th Feb 2015. https://www.riigiteataja.ee/en/eli/ee/531072023001/consolide

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

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

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

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

M2	**Surveillance, Control and Enforcement - Minimum Requirements**		
	M2.1	There is an organisation responsible for monitoring compliance with fishery laws and regulations.	PASS
	M2.2	There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.	PASS
	M2.3	There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.	PASS
	M2.4	Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS.	PASS
		Clause outcome:	PASS

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

Monitoring and enforcement of fisheries compliance in the EU is primarily the responsibility of the individual member states. National control and enforcement activities are supported by the European Fisheries Control Agency (EFCA). The EFCA aims to "promote the highest common standards for control, inspection and surveillance under the CFP" (EFCA 2023). The EFCA works in conjunction with the European Border and Coast Guard Agency and the European Maritime Safety Agency to support the various national agencies carrying out coastguard functions.

International control and enforcement activities are coordinated by the EFCA through the use of Joint Deployment Plans (JDPs). The JDP for the Baltic Sea, which coordinates actions between Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden, has been in place since 2007.

As stipulated in the Estonian National Fishing Act, enacted on February 19, 2015, the oversight of fisheries monitoring, control, and surveillance in Estonia falls under the purview of the Estonian Environmental Board, the Agriculture and Food Board, and the Ministry of Regional Affairs and Agriculture. These responsibilities have been delineated among various entities, as detailed in Table 2.

Table 2. Responsibilities of fisheries management bodies of Estonia (Keskkonnaamet 2024).

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

Recently, the Estonian Environmental Board has outlined the Estonian National Control Action Program for Baltic Sea 2024 for cod, sprat, herring, and salmon (Keskkonnaamet 2024).

There is an organisation responsible for monitoring compliance with fishery laws and regulations. M.2.1 is met.

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

Regulation (EC) No 1224/2009 establishes a community system for control, inspection and enforcement to ensure compliance with the rules of the common fisheries policy. EU countries must ensure that a system of inspections and enforcement measures is in place to identify infringements and sanction offenders. They are responsible for establishing their own sanctioning systems but to ensure a level playing field they must conform to the requirements of the EU laws. These requirements include the obligation for sanctions to be 'dissuasive, proportionate and effective', to consider the seriousness and potential economic benefit of the offence as well as the prejudice to fishing resources and marine environments (EC, 2023).

Moreover, EU countries are required to have a point system to sanction fishing vessel masters and licence holders when they commit serious infringements. The number of points to be attributed for specific infringements is fixed in detailed rules. Any vessel that accumulates more than a certain number of points in a three-year period will have its fishing licence suspended for up to 12 months (EC 2023).

Estonia applies the EU regulations, and infringements under either jurisdiction may incur sanctions including fines, gear confiscation, and/or licence suspension. MSC (2020) concluded: "There is the evidence of the ability of the monitoring control and surveillance operations in the Baltic Sea to enforce the relevant rules, measures and strategies. (…) Evidence of the consistent application of sanctions and evidence of deterrence is provided by the Baltic Sea Joint Deployment Plan. The JDP

requires the secondment of enforcement officers between Member (…). The Estonian authorities (Environmental Inspectorate and the Veterinary and Food Board) have provided confirmation that the vessels in the Estonian UoA comply with the management system. A report on enforcement activity and issues of noncompliance is provided in the annual Estonian Fisheries Yearbook, which provides evidence that non-compliance has been detected in other Estonian fisheries, but that no issues of concern were raised with respect to the herring and sprat fisheries. It also notes that in response to sustained and targeted enforcement there is a downward trend to the detected levels of non-compliance overall in Estonian fisheries."

There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken. M.2.2 is met.

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

The EFCA publishes quarterly reports detailing control and enforcement activities under the Baltic Sea Joint Deployment Plans – JDP. The most recent report (EFCA 2023), for the third quarter of 2023, covering the period between 1st January to 30th September 2023, states that as part of the JDP there were (across the entire Baltic Sea area) 2,175 inspections conducted ashore, including 35 market inspections, detecting 68 suspected infringements (an infringement rate of 3.1%). Additionally, 640 inspections were carried out at sea, revealing 14 suspected infringements (a rate of 2.2%). Finally, 274 surveillance sightings produced no suspected infringements.

Of the 68 suspected infringements, 55 were categorised as "non-compliance with the recording and reporting obligations", primarily misreporting catch quantities. Other infringements included fishing without a licence or quota, noncompliant gear, or failure to facilitate safe access of inspectors.

Throughout the compilation of this MarinTrust assessment report, no evidence was encountered suggesting widespread noncompliance in the fishery, and available evidence suggests a robust and focussed control and enforcement regime is in place.

There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing. 2.3 is met.

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

Compliance is monitored through a programme put in place as part of the Baltic Sea JDP. In practice, this involves inspections at-sea and ashore and surveillance flights. EU-wide rules also apply, with mandatory VMS, e-logbooks, landing certificates, sales notes, designated ports, and other inspections throughout the supply chain.

The Estonian National Control Action Program for Baltic Sea 2024 includes aircraft and patrol vessels for the monitoring, control and surveillance activities at sea (Keskkonnaamet 2024). According to the Program, all fishing vessels with more than 12m length have been provided with the electronic recording and reporting devices and vessels not involved in electronic reporting or in the event must have a fishing logbook on board at all the time. MSC (2020) reported that the Estonian Environmental Inspectorate and the Veterinary and Food Board have a total of 20 shore based and sea-going fisheries inspectors, there are three Fishery Patrol Vessels, and the Estonian Government can deploy one helicopter and 3 light aircraft for fisheries enforcement.

Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS. M.2.4 is met.

References

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

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Links	
MarinTrust Standard clause	1.3.1.3
FAO CCRF	7.7.2
GSSI	D1.09

CATEGORY A SPECIES

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

Species Name	Gulf of Riga Herring (*Clupea harengus*)	
A1	**Data Collection - Minimum Requirements**	
A1.1	Landings data are collected such that the fishery-wide removals of this species are known.	Pass
A1.2	Sufficient additional information is collected to enable an indication of stock status to be estimated.	Pass
	Clause outcome:	Pass

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

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.

Total catches of herring in the Gulf of Riga in 2022 were 42,976t (Figure 1), of which 18,810t were caught by Estonian vessels and 24,166t were caught by Latvian vessels. Of the 42,976t, 40,340t were from the Gulf of Riga stock and 2,636t were from the Central Baltic stock. An additional 777t of Gulf of Riga herring was caught outside the Gulf of Riga, meaning total catches of Gulf of Riga herring were 41,117t (ICES 2023a).

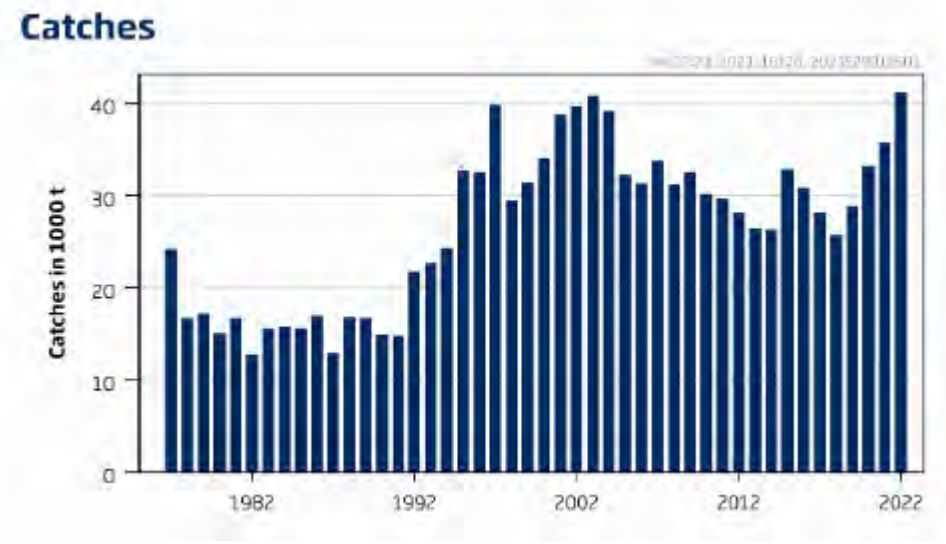

Figure 1. Gulf of Riga herring catches between 1997-2022 (ICES 2023a).

Landings data are collected such that the fishery-wide removals of this species are known. A.1.1 is met.

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

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 2023a). The 2023 catch advice includes a section covering the quality of the assessment, which notes only that recruitment for 2022 was uncertain and was replaced by a historical

median. 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. However, efforts are underway to estimate the levels of misreporting (ICES, 2023b).

Sufficient additional information is collected to enable an indication of stock status to be estimated. A.1.2 is met.

References

ICES (2023a). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). In Report of the ICES. Advisory Committee, 2023. ICES Advice 2023, her.27.28. Published 31 May 2023. https://doi.org/10.17895/ices.advice.21820512

ICES (2023b). Sprat (*Sprattus sprattus)* in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22–32. Published 31 May 2023. https://doi.org/10.17895/ices.advice.21820581

Links

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

A2	**Stock Assessment - Minimum Requirements**		
	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.	Pass
	A2.2	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.	Pass
	A2.3	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.	Pass
	A2.4	The assessment is subject to internal or external peer review.	Pass
	A2.5	The assessment is made publicly available.	Pass
		Clause outcome:	Pass

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

Herring in the Gulf of Riga is subjected to an annual stock assessment carried out by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). The most recent assessment was carried out in 2023, following a full benchmarking of the assessment methodology in the same year (ICES 2023c), using the data sources listed in A1.2. 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 as a whole is conducted following the ICES methodology (ICES 2023d).

A stock assessment is conducted at least once every 3 years, and considers all fishery removals and the biological characteristics of the species. A.2.1 is met.

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

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 new reference points are listed in the table below. The target reference point of the biomass level at which management action should be triggered to ensure that the stock remains above a level that could jeopardize achieving Maximum Sustainable Yield - MAP MSY Btrigger, is set at 72,907t and the limit reference point for spawning stock biomass - MAP Blim is set at 52,076t (ICES 2023a).

Table 3. reference points and their technical bases for Gulf of Riga herring (ICES, 2023a).

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

The 2023 catch advice indicates that the stock assessment projected an estimated Spawning Stock Biomass - SSB at spawning time 2023 of 139,870t, and states that "spawning-stock size is above MSY Btrigger, Bpa [precautionary reference point for spawning stock biomass], and Blim" (ICES 2023a).

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

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

The European Commission considers MAP a dependable and enduring tool for implementing the CFP in the Baltic Sea, offering greater predictability in quota setting and facilitating improved planning for the fishing industry (SU, 2020). The results of the WGBFAS stock assessment are summarised in catch and effort advice published by ICES annually. The stock was benchmarked in 2023, and this resulted in a new assessment model and a revision of the fishing mortality and biomass reference points. ICES considered that significant achievements were performed during the meeting for this stock: "The assessment model was changed from XSA to SAM, a trap net tuning series previously used in the assessment was investigated and excluded, maturity at age values were updated and the ages considered for Fbar were updated. The reference points were calculated using EQSIM. There was no evident SR relationship, hence Blim was defined based on Bpa" (ICES 2023c). The biomass of the herring stock in Gulf of Riga has been above MSY since 90s and no concerns have been raised for this stock.

The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status. A.2.3 is met.

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

The assessment of Baltic sprat is conducted annually at the ICES WGBFAS, where fisheries scientists from about nine European fisheries laboratories participate. The assessment is presented and reviewed at the meeting and must meet ICES standards to be accepted. If the assessment is agreed, it is subsequently reviewed by the ICES Advice Drafting Group which consists of National Experts and, finally, by the Advisory Committee (ACOM) which delivers the ICES advice. A group of external experts

participate every few years in the benchmark process to provide a review of the assessment. The most recent meeting was for a benchmark in April 2023 (ICES 2023e).

The assessment is subject to internal or external peer review. A.2.4 is met.

A2.5 The assessment is made publicly available.

ICES operates a transparent assessment framework (TAF), an online open resource of annual ICES stock assessments. All data input and output are fully traceable and versioned. The open framework enables anyone to easily find, reference, download, and run the assessment from any stage in the process leading to published ICES advice for a given stock.
The assessment is made publicly available. Sub-clause A2.5 is met.

References

ICES (2023a). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). In Report of the ICES. Advisory Committee, 2023. ICES Advice 2023, her.27.28. Published 31 May 2023. https://doi.org/10.17895/ices.advice.21820512

ICES (2023c). Benchmark Workshop on Baltic Pelagic stocks (WKBBALTPEL). ICES Scientific Reports. 5:47. 350 pp. https://doi.org/10.17895/ices.pub.23216492

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

SU (2020). Stockholm University Baltic Sea Centre. Analysis: Baltic Sea fishing has not gone according to (multiannual) plan. https://www.su.se/stockholm-university-baltic-sea-centre/web-magazine-baltic-eye/fisheries/analysis-baltic-sea-fishing-has-not-gone-according-to-multiannual-plan-1.613899

Links

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

A3	**Harvest Strategy - Minimum Requirements**		
	A3.1	There is a mechanism in place by which total fishing mortality of this species is restricted.	PASS
	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.	PASS
	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).	PASS
		Clause outcome:	PASS

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

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 (ICES 2023a).

There is a mechanism in place by which total fishing mortality of this species is restricted. A.3.2 is met.

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.

Removals of Gulf of Riga herring have been below the upper boundary of the ICES advice range since the MAP was implemented in 2018 (Table 4). 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 (ICES 2023a).

Table 4. ICES advice basis, corresponding catch range, Gulf of Riga TAC, and final catches of herring from the Gulf of Riga stock since 2018, when the ICES advice was first provided on the MAP basis. Note that the catch advice and total catch columns refer specifically to the Gulf of Riga stock; the TAC covers all herring removals in the Gulf of Riga geographical area and therefore is set on the assumption that a proportion of removals will be from the Central Baltic stock (ICES 2023a).

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

Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. A.3.2 is met.

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

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 Blim. According to Regulation (EU) 2016/1139, when scientific advice indicates that the spawning stock

biomass of the stock is below Blim, 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. According to the MAP, catches higher than those corresponding to FMSY can only be taken under conditions specified in the plan, whilst the entire range is considered precautionary when applying ICES advice rule (ICES 2023a).

Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy. A.3.3 is met.

References

ICES (2023a). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). In Report of the ICES. Advisory Committee, 2023. ICES Advice 2023, her.27.28. Published 31 May 2023. https://doi.org/10.17895/ices.advice.21820512

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

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

Standard clause 1.3.2.1.3

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

A4	**Stock Status - Minimum Requirements**		
	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.	PASS
		Clause outcome:	PASS

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.

The most recent catch advice states that “spawning-stock size is above MSY Btrigger, Bpa, and Blim” (Figure 2) [ICES 2023a].

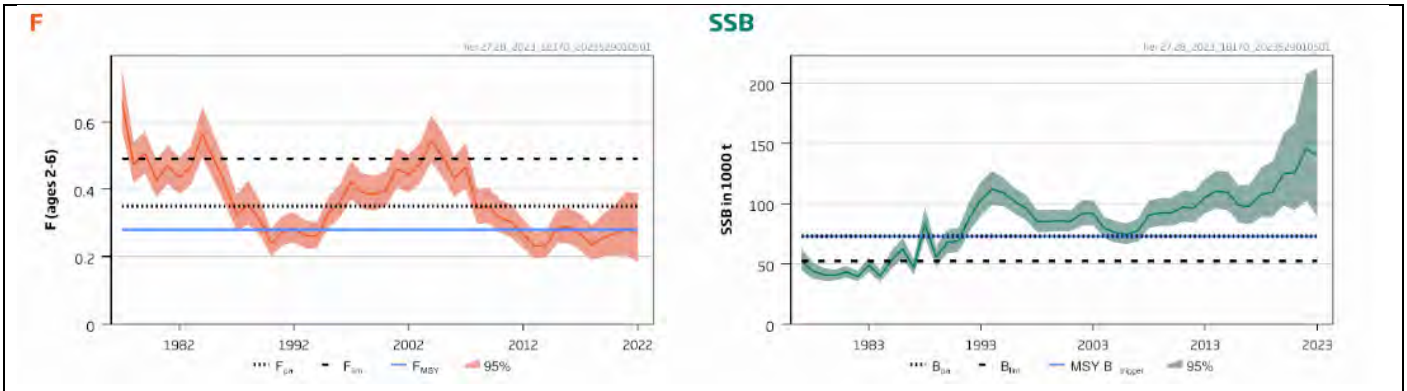

Figure 2. Summary of the stock assessment of herring in Subdivision 28.1. SSB at spawning time in 2023 is predicted.

The stock is at or above the target reference point. A.4.1 is met.

References

ICES (2023a). Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). In Report of the ICES. Advisory Committee, 2023. ICES Advice 2023, her.27.28. Published 31 May 2023. https://doi.org/10.17895/ices.advice.21820512

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

Links	
MarinTrust Standard clause	**1.3.2.1.4**
FAO CCRF	**7.2.1, 7.2.2 (e)**
GSSI	**D6 01**

CATEGORY A SPECIES

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

Species Name	**Central Baltic Herring (*Clupea harengus*)**	
A1	**Data Collection - Minimum Requirements**	
A1.1	Landings data are collected such that the fishery-wide removals of this species are known.	Pass
A1.2	Sufficient additional information is collected to enable an indication of stock status to be estimated.	Pass
	Clause outcome:	Pass

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

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. These landings data are used in the stock assessment undertaken by ICES and published in their advice. ICES advises that when the EU multiannual plan (MAP) for the Baltic Sea is applied, catches in 2024 that correspond to the F ranges in the plan are between 41 706 (corresponding to FMSY lower × SSB2024/MSY Btrigger) and 52 549* tonnes (corresponding to FMSY × SSB2024/MSY Btrigger). The current advice applies to all catches from the stock, including those taken in Subdivision 28.1 (ICES 2024).

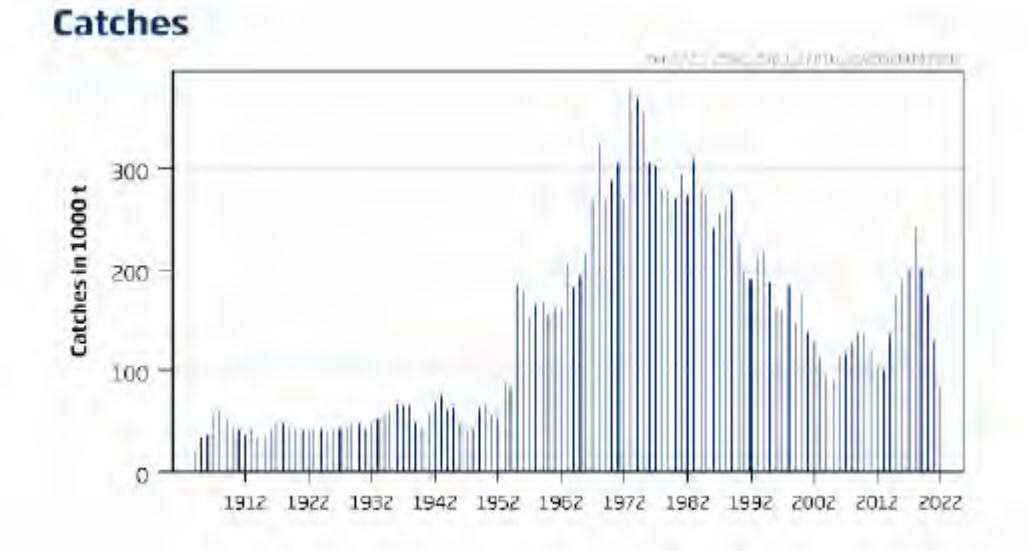

Figure 3. Catches of herring in subdivisions 25–29 and 32, excluding the Gulf of Riga (ICES 2024).

Landings data are collected such that the fishery-wide removals of this species are known. Sub-clause A1.1 is met.

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

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

Sufficient additional information is collected to enable an indication of stock status to be estimated. Sub-clause A2.1 is met.

References

ICES. 2024. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2024. ICES Advice 2024, her.27.25–2932. https://doi.org/10.17895/ices.advice.25019276

Links

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

A2	**Stock Assessment - Minimum Requirements**		
	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.	Pass
	A2.2	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.	Pass
	A2.3	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.	Fail
	A2.4	The assessment is subject to internal or external peer review.	Pass
	A2.5	The assessment is made publicly available.	Pass

Clause outcome:	Fail

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.

Herring in the Central Baltic Sea is subjected to an annual stock assessment carried out by the ICES WGBFAS. The most recent assessment was conducted in 2023 using the data sources listed in A1.2, above. This included all international landings including removals by the Russian fleet (ICES 2023f).

An annual stock assessment is conducted. Sub-clause A2.1 is met.

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

The WGBFAS stock assessment provides an indication of the status of the stock relative to target and limit reference points. Prior to 2023, reference points were expressed as absolute values (MAP MSY Btrigger= 460,000 and MAP Blim= 330,000) [ICES, 2022f]. MAP MSY Btrigger used to be calculated considering 1.4 Blim, while MAP Blim was calculated using the lowest SSB that has resulted in above-average recruitment, i.e. year 2002 (the SSB in 2002 happens to correspond to B loss). However, these reference points were updated in 2023, as a result of a full benchmarking of the stock. Management strategy evaluations (MSE), a method previously used for one of the Northern shrimp's stocks in ICES (pra.27.3a4a) is used now and there was and there was a change of the assessment model, from XSA to stock synthesis (SS3) [ICES 2023c]. The new reference points are listed in the table 5 below. MAP MSY Btrigger is set at B30% (i.e. 30% of the estimated unexploited biomass) and MAP Blim is set at 0.15*B0 (i.e. 15% of the estimated unexploited biomass) now (ICES 2023f).

Table 5. Herring in Subdivisions 25-29 and 32, excluding the Gulf of Riga. Reference points, values, and their technical basis (ICES 2023f).

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

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

The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy. Sub-clause A.2.2 is met.

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

The MAP agreed in 2016 was based on scientific, technical and economic advice and contains objectives, quantifiable targets with clear time frames, conservation reference points and safeguards which work together towards achieving stock management objectives. However, since its adoption in 2016, three of the seven stocks managed by the Baltic Sea Multiannual Plan have crashed (western baltic spring spawning herring, eastern baltic cod and western baltic cod) in the sense that ICES has in essentially advised that the targeted fishery be closed (Baltic Sea Centre, 2023a). With the new benchmark established in 2023, it was possible to observe that the herring stock is also in a poor situation, and its biomass has been fluctuating the around Blim since 1994 (Figure 4).

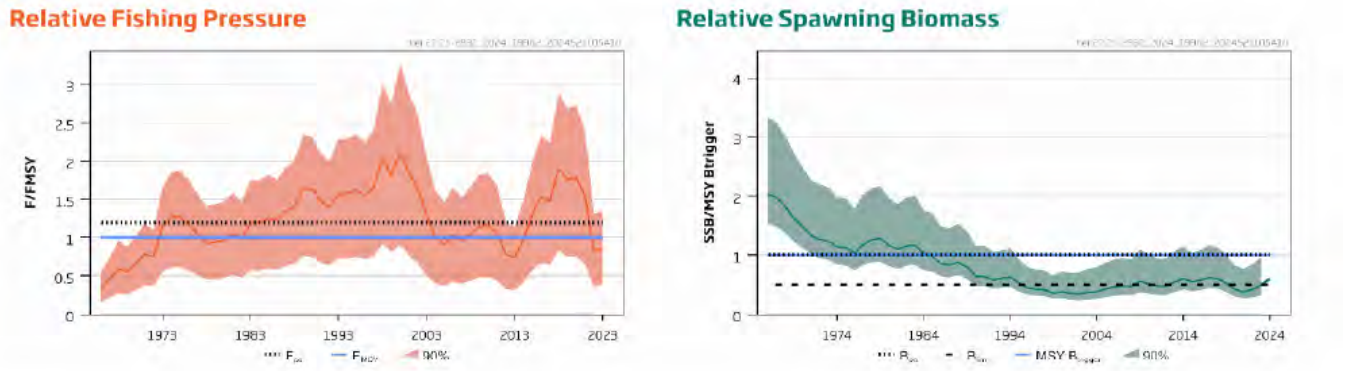

FIGURE 4. REFERENCE POINTS AND ESTIMATED RELATIVE FISHING PRESSURE AND SPAWNING BIOMASS RELATIVE TO CURRENT REFERENCE POINTS OF HERRING STOCK IN SUBDIVISIONS 25–29 AND 32, EXCLUDING THE GULF OF RIGA (ICES, 2024).

According to the advice on fishing opportunities published in March 2023 (ICES, 2023g):
"The advice rule leads to catch advice corresponding to a fishing mortality of:
1) F = FMSY when SSB is at or above MSY Btrigger
2) F = FMSY × SSB/MSY Btrigger when the stock is below MSY Btrigger and above Blim
3) If the F following from applying rule 2 is insufficient to bring the stock above Blim in the short term, ICES advice will be based on bringing the stock above Blim at the end of the projection year with a 50% probability. If there is no F that will bring the stock above Blim at the end of the projection year or when the forecast is highly sensitive to assumptions (e.g. incoming recruitment), ICES will advise zero catch based on precautionary considerations until the SSB is above Blim with high probability.
Conceptually, SSB in the advice rule is the estimated spawning-stock size at the beginning of the year to which the advice applies (advice year), or at spawning time in the year before the advice year. For example, for an assessment performed in 2020 using data through 2019, the reference spawning-stock size for most stocks will be the projected size at the beginning of 2021."

In the ICES report of this stock published in June 2023, the advice rule 2 is used even with the biomass of the herring being found below Blim. There is a 69-71% probability of bringing the stock above Blim by 2025 considering the F range catch advice given in the report of 41,706 - and 52,549t (ICES 2023f). The report explains that this probability relates to the short-term probability of SSB < Blim and MSY Btrigger and is not comparable to the long-term probability of SSB < Blim and MSY Btrigger tested in simulations when estimating fishing mortality reference points. However, the same report states that even a zero catch in 2024 will not bring the stock above Blim in 2025 with 95% probability. Recently, ICES released a report and claimed that: "In last year's assessment the 2022 year class was underestimated. This, in addition to an increase in weight-at-age in 2023, has led to an upward revision of the SSB." (ICES, 2024). However, the same report stated that "Bpa and MSY Btrigger cannot be achieved in 2026, even with zero catch in 2025" and even so, it calculates a 95.1-96.6% probability of bringing the stock above Blim by 2026 considering the F range catch advice given in the report of 95,340 – 125,344, which is more than double of the recommendation from the previous year. The rule 2 was used again, but this time the biomass was considered above Blim, thus it was in line with the expected for applying this rule.

There were debates regarding the closure of this fishery in 2023 considering potential socio-economic implications of such measure and the interpretation of the article 4.6 – the so-called 5% rule of the MAP, which says: "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 Blim." In early 2023, European Commission proposed that herring fishing in the central Baltic Sea should be stopped in the following year considering this article. However, European Union fisheries ministers decided otherwise and voted to continue fishing for herring next year (Baltic Sea Centre, 2023b). In early December 2023, the European Commission proposed to modify the MAP and explained that MAP refers to the possibility, and not the obligation, to suspend the targeted fishery and that remedial measures could be taken instead (European Commission, 2023). The European Parliament rejected a request for an emergency procedure on this matter (EAA, 2024). The measure in place in 2023 was to cut TAC recommendation by nearly half, even though it was concluded that a zero catch in 2024 would not rebuild the stock in the long-term. The European Commission

proposed to stop all directed herring fishing in the central Baltic Sea, however the proposal was rejected by the Council of Ministers, which decided to apply a 43% cut in the TAC regarding the last year (Counciling, 2023).

Ministers agreed on new spawning closures, which include stopping herring fishing in the Baltic Sea proper in various sea areas during April and May. However, this makes them ineffective, according to Stockholm University's Baltic Sea Centre's analysis of commercial fishing logbook data from the last decade (2011-2022). In the last decade, 58% of the catches have been usually taken during January-March, while 23% is taken during October-December (Su, 2024).

Therefore, as the stock is not healthy, there are disagreements regarding the recommended catches and timing of closure seasons, which are rising suspicions against the current MAP, and the recommended catches are no predicted to rebuilt the stock in the long-term, the assessment team concluded that the stock failed in this sub-clause.
The assessment provides an indication of the volume of fishery removals which is not appropriate for the current stock status. Sub-clause A.2.3 is not met. The stock will be assessed under Category B as per MT guidance.

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

The assessment of central Baltic herring is conducted annually at the ICES WGBFAS (ICES 2023e), where fisheries scientists from about nine European fisheries laboratories participate. The assessment is presented and reviewed at the meeting and must meet ICES standards to be accepted. If the assessment is agreed, it is subsequently reviewed by the ICES Advice Drafting Group which consists of National Experts and, finally, by the Advisory Committee (ACOM) which delivers the ICES advice.

A group of external experts participate every few years in the benchmark process to provide a review of the assessment. The most recent meeting was for a benchmark in April 2023 (ICES 2023f).
The assessment is subject to internal or external peer review. Sub-clause A2.4 is met.

A2.5 The assessment is made publicly available.

ICES operate a transparent assessment framework (TAF); an online open resource of annual ICES stock assessments. All data input and output are fully traceable and versioned. The open framework enables anyone to easily find, reference, download, and run the assessment from any stage in the process leading to published ICES advice for a given stock.
The assessment is made publicly available. Sub-clause A.2.5 is met.

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Links

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

A3	**Harvest Strategy - Minimum Requirements**		
	A3.1	There is a mechanism in place by which total fishing mortality of this species is restricted.	Pass
	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.	Fail
	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).	Pass
		Clause outcome:	Fail

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

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

There is a mechanism in place by which total fishing mortality of this species is restricted. Sub-clause A.3.1 is met.

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.

Since 2018, ICES has provided a range of potential catch recommendations to reflect the specifics of the Baltic Sea MAP. 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.

According to the MAP: "For the purposes of fixing fishing opportunities, there should be an upper threshold for FMSY ranges in normal use and, provided that the stock concerned is considered to be in a good state (above MSY Btrigger), an upper limit for certain cases. It should only be possible to fix fishing opportunities to the upper limit if, on the basis of scientific advice or evidence, it is necessary for the achievement of the objectives laid down in this Regulation in mixed fisheries or necessary to avoid harm to a stock caused by intra- or inter-species stock dynamics, or in order to limit the year-to-year variations in fishing opportunities. For the purpose of applying the upper limit, it is necessary to recall the objectives set out in Regulation (EU) No 1380/2013 that the MSY exploitation rate is to be achieved in any event by 2020."

Catches from 2021-2023 were very close to the upper limit, which according to the MAP should only be done if the stock is in a good state (above MSY Btrigger) or if the MSY exploitation rate is to be achieved in any event by 2020. This is not the situation, as the stock has been found below MSY Btrigger since 2021 (Figure 5). Catches have been consistently above the mid-point, by about 10%, even exceeding the upper boundary of the advice in 2023, by about 2% (Figure 6, Table 6). Moreover, with the new benchmark, it is assumed that the biomass of the stock has been below Blim since 1994 (Figure 5).

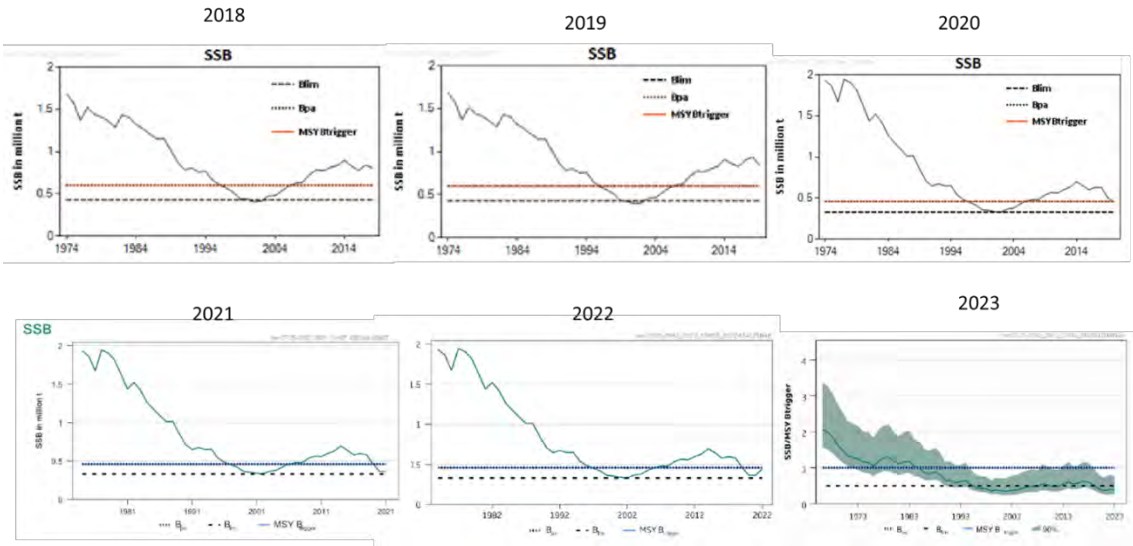

Figure 5. Spawning biomass of herring stock over the years. Noted that in 2023 there was a change in the benchmark (ICES 2018,2019,2020,2021,2022,2023f).

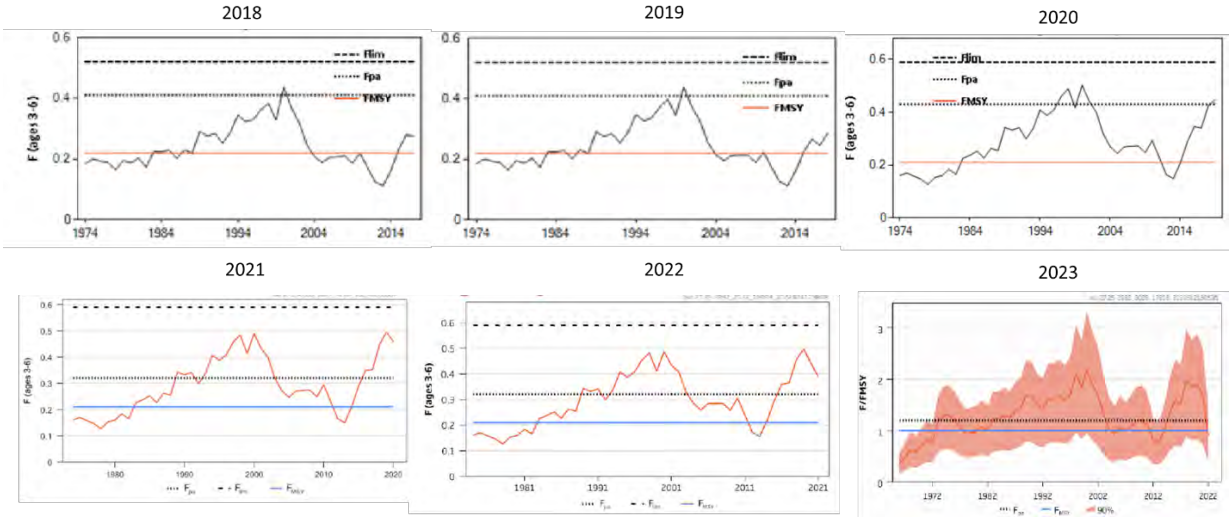

Figure 6. Fishing pressure over the herring stock over the years. Noted that in 2023 there was a change in the benchmark (ICES 2018,2019,2020,2021,2022,2023f).

Table 6. Central Baltic herring, ICES advice, TACs and catches. All weights in tonnes (ICES 2024).

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

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

Total fishery removals regularly exceed the range of catch recommendations provided by ICES by up to 10% and the stock status is below the limit reference point or proxy. Sub-clause A3.2 is not met.

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

The ICES advice states that the stock is substantially below the LRP and notes 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%. However, despite this, the ICES headline advice of 2023 recommended a quota of up to 52,549t, instead of recommending the closure of the fishery. The TAC was cut to the half compared to the TAC from the previous year and ICES calculated that this would bring a short-term probability of 69-71% for the stock to be above the LRP by 2025. However, ICES (2023f) also pointed that this “probability relates to the short-term probability of SSB < Blim and MSY Btrigger and is not comparable to the long-term probability of SSB < Blim and MSY Btrigger tested in simulations when estimating fishing mortality reference points”. ICES (2023b) also stated that “the Bpa and MSY Btrigger options were left blank because Bpa and MSY Btrigger cannot be achieved in 2025, even with zero catch in 2024”.

As pointed in clause A.2.3 there were disagreements regarding the closure of this fishery in 2023, however in 2024 the Regulation (EU) 2023/2638, article 8, established closures for pelagic trawlers to protect herring spawning in subdivisions 25–27, 28.2, 29 and 32. Fishing for pelagic species with pelagic trawls was prohibited during the following periods (ICES, 2024):

- In subdivisions 25 and 26 from April 1 to April 30
- In subdivisions 27 and 28.2 from April 16 to May 15
- In subdivisions 29 and 32 from May 1 to May 31

Although there was a delay on establishing measures for prohibiting commercial fishery removals when the stock was predicted to be below the LRP, as this condition was recognized recently with the new benchmark and resulted in a fishing ban, the MarinTrust assessment team decided that the clause was met.

Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy. A.3.3 is met.

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

Standard clause 1.3.2.1.3

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

A4	Stock Status - Minimum Requirements		
	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.	Pass
		Clause outcome:	Pass

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.

The stock is above the limit reference point or proxy. The new benchmark established in 2023 showed that the herring stock was below LRP in 2023 (ICES, 2023f), and fishing closures were established for April and May 2024 (ICES 2024). The agreed TAC has been reduced in 2023 and even further in 2024.

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. A.4.1 is met.

References

ICES (2023f). Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). Replacing advice provided in May 2023. In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.25–2932. Published 13 June 2023. https://ices-library.figshare.com/articles/report/Herring_Clupea_harengus_in_subdivisions_25_29_and_32_excluding_the_Gulf_of_Riga_central_Baltic_Sea_Replacing_advice_provided_in_May_2023/23310368

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Links	
MarinTrust Standard clause	**1.3.2.1.4**
FAO CCRF	**7.2.1, 7.2.2 (e)**
GSSI	**D6 01**

CATEGORY A SPECIES

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

Species Name	**Sprat (*Sprattus sprattus*)**
	Data Collection - Minimum Requirements

A1	**A1.1**	Landings data are collected such that the fishery-wide removals of this species are known.	Pass
	A1.2	Sufficient additional information is collected to enable an indication of stock status to be estimated.	Pass
		Clause outcome:	Pass

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

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. These landings data are used in the stock assessment undertaken by ICES and published in their advice (Figure 7). According to ICES (2023b), catches in 2024 that correspond to the F ranges in the plan are between 191,075 tonnes and 247,704 tonnes.

Figure 7. Landings of sprat in subdivisions 22–32 (ICES, 2023b).

Landings data are collected such that the fishery-wide removals of this species are known. Sub-clause A1.1 is met.

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

In addition to commercial catch data, the stock assessment carried out annually by the ICES Baltic Fisheries Assessment Working Group (WGBFAS) uses 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 2023b). The model assumes discards and bycatch are negligible. The 2023 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 2023b).

Sufficient additional information is collected to enable an indication of stock status to be estimated. Sub-clause A2.1 is met.

References

ICES (2023b). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22–32. Published 31 May 2023. https://doi.org/10.17895/ices.advice.21820581

Links

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

	Stock Assessment - Minimum Requirements

A2	**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.	Pass
	A2.2	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.	Pass
	A2.3	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.	Pass
	A2.4	The assessment is subject to internal or external peer review.	Pass
	A2.5	The assessment is made publicly available.	Pass
		Clause outcome:	Pass

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

Sprat in the Baltic Sea is subjected to an annual stock assessment carried out by the ICES WGBFAS. The most recent assessment was conducted in 2023 using the data sources listed in A1.2, above. This included all international landings including removals by the Russian fleet (ICES 2023b).

An annual stock assessment is conducted. Sub-clause A2.1 is met.

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

The WGBFAS stock assessment provides an indication of the status of the stock relative to target and limit reference points. These reference points were updated in 2023 as a result of a full benchmarking of the stock (ICES 2023c). The new reference points are listed in the table 7 below; key amongst these for the purpose of this MarinTrust assessment are the management plan target reference point (MAP MSY Btrigger = 541,000t) and limit reference point (MAP Blim = 459,000t) (ICES 2023b).

Table 7. Sprat in Subdivisions 22-32, reference points, values, and their technical basis. Weights in tonnes (ICES 2023b).

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

The 2023 catch advice stated that fishing pressure on the stock is above FMSY and between Fpa and Flim and spawning-stock size is above MSY Btrigger, Bpa, and Blim (ICES 2023b).

The assessment provides an indication of stock status relative to reference points. Sub-clause A2.2 is met.

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

As noted above commercial catches are used in the assessment of stock status. ICES have raised a number of issues relevant to the assessment of fishery removals:

ICES has been stating for several years that pelagic fisheries take a mixture of herring and sprat and this causes uncertainties in catch levels. The extent to which species misreporting has occurred is however not well known. Analysis of a questionnaire answered by all Baltic countries during 2012 revealed that misreporting is mainly an issue of the industrial trawl fishery targeting sprat-herring mix in nearshore waters. Countries with major proportions of sprat catches used for industrial purposes are Sweden, Poland and Denmark. Countries with major proportions of herring catches used for industrial purposes are Finland and Sweden. The official catch figures of both sprat and herring are modified by Poland and Denmark, but not currently in Sweden. A worst-case scenario using the permitted margin of tolerance of 10% in the logbooks of the quantities by species on board (EU 1224/2009) revealed that sprat catches may be underestimated by 5% and that herring catches may be underestimated by 4%. It was, therefore, concluded at the time after the questionnaire that that species misreporting could be regarded as minor importance. However, as Sweden is not currently correcting for this misreporting and preliminary analyses by Sweden suggests that misreporting of sprat and herring is significantly worse than 5% and 4%, this issue needs to be investigated as soon as possible and when data available addressed in a benchmark. Significant misreporting can potentially be a large problem with regards to the perception of these stocks (ICES 2020a).

Nonetheless, **the assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status. Sub-clause A2.3 is met.**

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

The assessment of Baltic sprat is conducted annually at the ICES WGBFAS (ICES 2023e), where fisheries scientists from about nine European fisheries laboratories participate. The assessment is presented and reviewed at the meeting and must meet ICES standards to be accepted. If the assessment is agreed, it is subsequently reviewed by the ICES Advice Drafting Group which consists of National Experts and, finally, by the Advisory Committee (ACOM) which delivers the ICES advice.

A group of external experts participate every few years in the benchmark process to provide a review of the assessment. The most recent meeting was for a benchmark in April 2023 (ICES 2023c).

The assessment is subject to internal and external peer-review. Sub-clause A2.4 is met.

A2.5 The assessment is made publicly available.

ICES operates a transparent assessment framework (TAF), an online open resource of annual ICES stock assessments. All data input and output are fully traceable and versioned. The open framework enables anyone to easily find, reference, download, and run the assessment from any stage in the process leading to published ICES advice for a given stock.

The assessment is made publicly available. Sub-clause A2.5 is met.

References

ICES (2020a). Inter-Benchmark Process on Baltic Sprat (*Sprattus sprattus*) and Herring (*Clupea harengus*) (IBPBash). ICES Scientific Reports, 2:34. 44 pp. http://doi.org/10.17895/ices.pub.5971
ICES (2023b). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22–32. Published 31 May 2023. https://doi.org/10.17895/ices.advice.21820581

ICES (2023c). Benchmark Workshop on Baltic Pelagic stocks (WKBBALTPEL). ICES Scientific Reports. 5:47. 350 pp. https://doi.org/10.17895/ices.pub.23216492 ICES (2023e). Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 607 pp. https://doi.org/10.17895/ices.pub.23123768
Links

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

A3	**Harvest Strategy - Minimum Requirements**		
	A3.1	There is a mechanism in place by which total fishing mortality of this species is restricted.	Pass
	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.	Pass
	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).	Pass
		Clause outcome:	Pass

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

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

There is a mechanism in place to restrict total fishing mortality. Sub-clause A3.1 is met.

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.

Since 2018, ICES has provided a range of potential catch recommendations to reflect the specifics of the Baltic Sea MAP. The total international quota – i.e., the sum of the EU TAC and the Russian autonomous quota – is generally within the boundaries of the ICES advice, although it exceeded the upper boundary of the advice by a small amount in 2018 and 2019, and by a larger amount in 2020. Total catch estimates also exceeded the upper boundary of the advice in these three years, by around 3% (2018), 2% (2019), and 17% (2020) [Table 8]. The catch advice has not been exceeded since 2020, and total catches have been substantially lower than the upper boundary of the advice. Throughout this period, estimated SSB has been substantially larger than the current target and limit reference points.

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

- Catch has only exceeded the advice by more than 10% in one of the past 6 years, since advice has been based on the MAP;
- In years when catch has exceeded the advice by less than 10%, and in all other recent years, SSB has been estimated to be well above the limit reference point;
- Quotas and total catches have been trending towards the centre of the ICES catch advice range, and have been relatively close to the centre of the range since 2021.

Table 8. Sprat in subdivisions 22-32, ICES advice, agreed TAC and ICES estimates of total catch (ICES 2023b).

Year	ICES advice	Catch corresponding to advice	Agreed TAC	ICES catch
2015	MSY approach	< 222 000	240 200**	247 300
2016	MSY approach (F = 0.26)	≤ 205 000	243 000**	247 200
2017	MSY approach (F = 0.26)	≤ 314 000	303 593**	288 500
2018	MAP target F ranges: F_{lower} to F_{upper} (0.19–0.27), but F higher than F_{MSY} = 0.26 only under conditions specified in MAP	219 152–301 722, but catch higher than 291 715 only under conditions specified in MAP	304 900**	312 188
2019	MAP target F ranges: F_{lower} to F_{upper} (0.19–0.27), but F higher than F_{MSY} = 0.26 only under conditions specified in MAP	225 752–311 523, but catch higher than 301 125 only under conditions specified in MAP	313 100**	317 650
2020	MAP target F ranges: F_{lower} to F_{upper} (0.19–0.27), but F higher than F_{MSY} = 0.26 only under conditions specified in MAP	169 965–233 704, but catch higher than 225 786 only under conditions specified in MAP	256 700**	274 060
2021	Management plan	247 952 (range 181 567–316 833)	268 458**	284 890
2022	Management plan	291 745 (range 214 000–373 210)	295 300**	301 409^
2023	Management plan	249 237 (range 183 749–317 905)	269 200**	
2024	Management plan	241 604 (range 191 075–247 704)		

* EU autonomous quota and does not include Russian Federation catches.
** TAC is calculated as EU + Russian Federation autonomous quotas.
^ Russia Federation landings were not officially reported to ICES, but an estimate is included.

Total fishery removals do not regularly exceed the range of catch recommendations provided by ICES. Sub-clause A3.2 is met.

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

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 Blim. According to Regulation (EU) 2016/1139, when scientific advice indicates that the spawning stock biomass of the stock is below Blim, 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. According to the MAP, catches higher than those corresponding to FMSY can only be taken under conditions specified in the plan, whilst the entire range is considered precautionary when applying ICES advice rule (ICES, 2023b).

Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy. Sub-clause A.3.3 is met.

References

ICES. 2023b. Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22–32. Published 31 May 2023. https://doi.org/10.17895/ices.advice.21820581
Regulation (EU) 2016/1139 of the European Parliament and of the Council of 6 July 2016 establishing a multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks, amending Council Regulation (EC) No 2187/2005 and repealing Council Regulation (EC) No 1098/2007. https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32016R1139

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

A4	**Stock Status - Minimum Requirements**	
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.	Pass
	Clause outcome:	Pass

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.

The most recent ICES catch advice states that "Spawning-stock size is above MSY Btrigger, Bpa, and Blim" (ICES 2023b) [Figure 8].

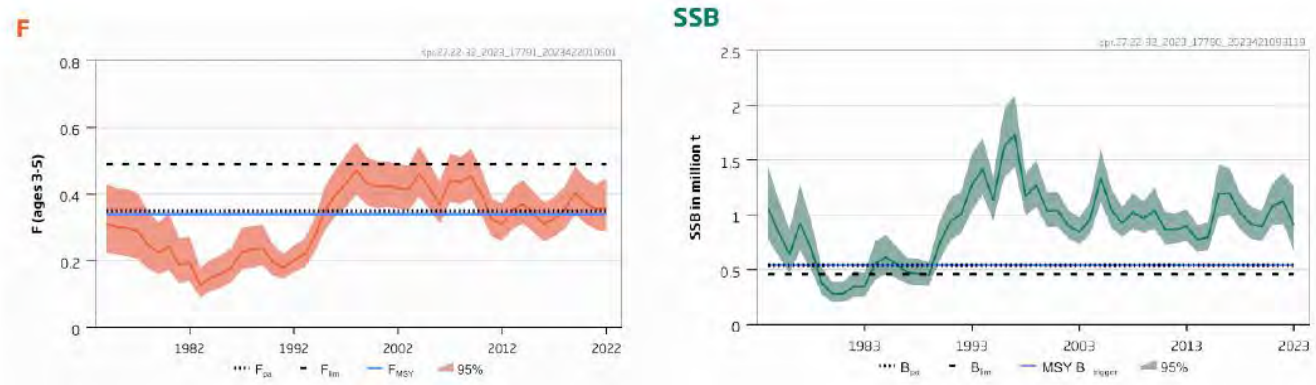

Figure 8. Reference points and estimated fishing pressure and spawning biomass relative to current reference points of sprat in Subdivisions 22-32 (ICES 2023b).

Therefore, the stock is at or above the target reference point. Sub-clause A4.1 is met.

References

ICES (2023b). Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22–32. Published 31 May 2023. https://doi.org/10.17895/ices.advice.21820581

Links	
MarinTrust Standard clause	**1.3.2.1.4**
FAO CCRF	**7.2.1, 7.2.2 (e)**
GSSI	**D6 01**

CATEGORY B SPECIES

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

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

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

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

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

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
	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)**

If the biomass / fishing pressure risk assessment is not possible

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

TABLE B(B) - NO REFERENCE POINTS AVAILABLE. B = CURRENT BIOMASS; B_{AV} = LONG-TERM AVERAGE BIOMASS; F = CURRENT FISHING MORTALITY; F_{AV} = LONG-TERM AVERAGE FISHING MORTALITY.

B > B_{av} and F < F_{av}	Pass	Pass	Pass	Fail
B > B_{av} and F or F_{av} unknown	Pass	Pass	Fail	Fail
B = B_{av} and F < F_{av}	Pass	Pass	Fail	Fail
B = B_{av} and F or F_{av} unknown	Pass	Fail	Fail	Fail
B > B_{av} and F > F_{av}	Pass	Fail	Fail	Fail
B < B_{av}	Fail	Fail	Fail	Fail
B unknown	Fail	Fail	Fail	Fail
Resilience	**High**	**Medium**	**Low**	**Very Low**

Assessment Results

Species Name		Baltic Sea Herring (*Clupea harengus*)
B1	Species Name	*Clupea harengus*
	Table used (Ba, Bb)	Ba
	Outcome	Pass

The herring stock failed on Category A, therefore it was assessed under Category B.

Fishing mortality and biomass at MSY are available for the stock, thus it was assessed under Table Ba. Biomass is below MSY/target reference point, but above limit reference point and Fishing mortality is below MSY or target reference point, leading to a "Pass" outcome.

The 2024 assessment showed that fishing pressure on the stock is below FMSY, and spawning-stock size is below MSY Btrigger and between Bpa and Blim. There was an increase in SSB as a result of the decreased fishing mortality in the most recent years and the relatively large incoming 2022-year class. According to ICES (2024), in last year's assessment, the 2022-year class was underestimated and this, in addition to an increase in weight-at-age in 2023, has led to an upward revision of the SSB.

References

ICES. 2024. Herring (*Clupea harengus)* in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2024. ICES Advice 2024, her.27.25–2932. https://doi.org/10.17895/ices.advice.25019276

Links	
MarinTrust Standard clause	**1.3.2.2, 4.1.4**
FAO CCRF	**7.5.1**
GSSI	**D.5.01**

CATEGORY D SPECIES

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

D1	Species Name	Smelt (*Osmerus operlanus*)	
	Productivity Attribute	**Value**	**Score**
	Average age at maturity (years)	4.7	1
	Average maximum age (years)	18.9	2
	Fecundity (eggs/spawning)	18,028 [6,500-50,000]	1
	Average maximum size (cm)	38.3	1
	Average size at maturity (cm)	22.1	1
	Reproductive strategy	Broadcast spawner	1
	Mean trophic level	3.5	3
		Average Productivity Score	**1.43**
	Susceptibility Attribute	**Value**	**Score**
	Availability (area overlap)	<10%	1
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Precautionary	3
	Selectivity of gear type	Precautionary	3
	Post-capture mortality	Retained	3
		Average Susceptibility Score	**2.5**
		PSA Risk Rating (From Table D3)	**Pass**
		Compliance rating	**Pass**
	Further justification for susceptibility scoring (where relevant) *For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision* Smelt (*Osmerus operlanus*) is found in North Atlantic, in White Sea southward to western coasts of France including Baltic Sea, southern North Sea and British Isles and in the Gironde, estuary is the southern limit of his distribution. There are also some landlocked populations in lakes of coastal areas of North, Baltic, White and Barents Sea. North to about 68° N in Scandinavia (Froose and Pauly, 2024). It is a commercial species; thus, it is usually retained. There is no specific information of the gears, thus a precautionary score was given for the encounterability and selectivity attributes.		

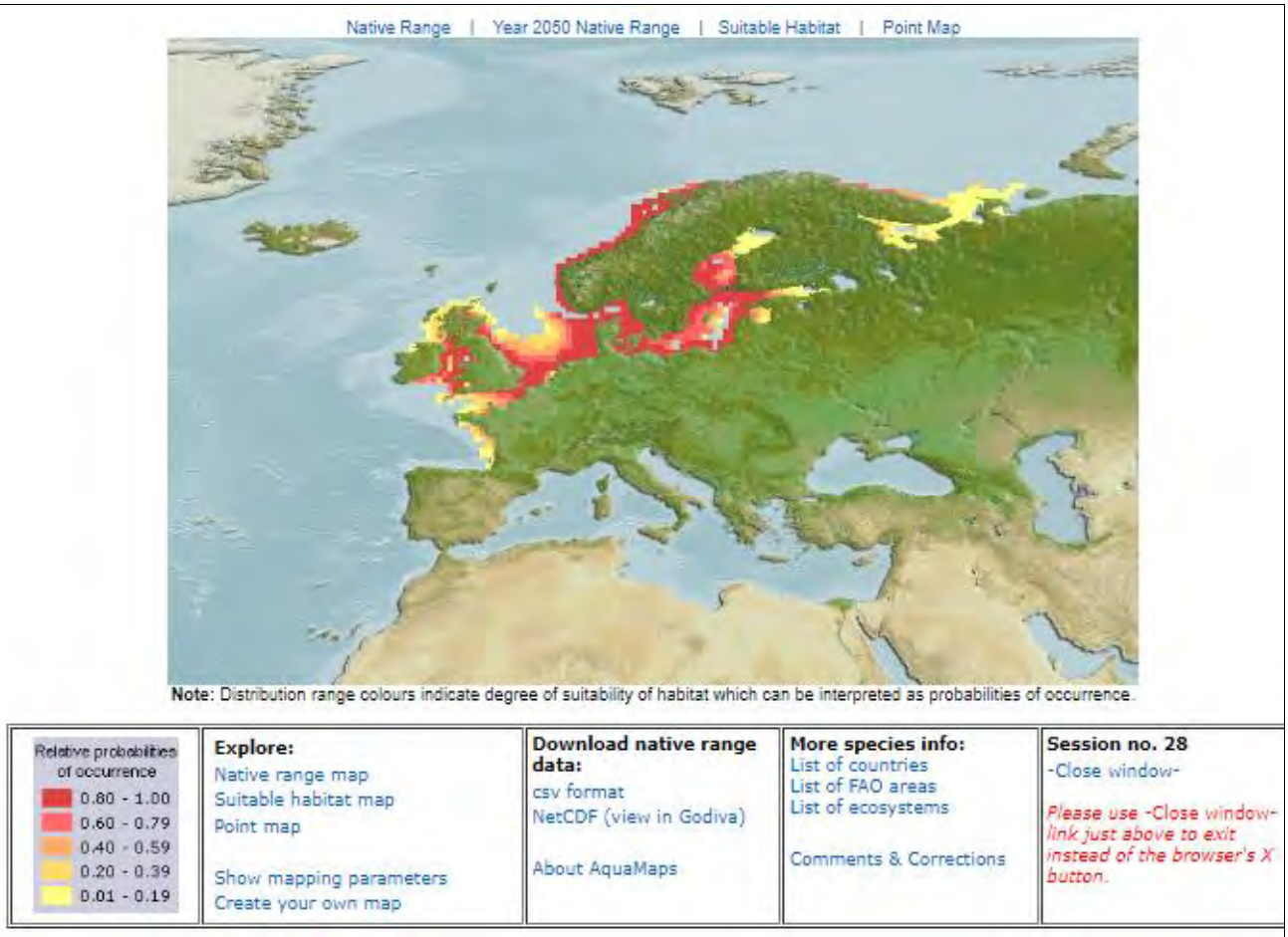

Figure 9. Distribution of smelt (*Osmerus operlanus*) [AquaMaps, 2019].

References

AquaMaps (2019). Computer generated distribution maps for *Osmerus eperlanus* (European smelt), with modelled year 2050 native range map based on IPCC RCP8.5 emissions scenario. https://www.aquamaps.org/receive.php?type_of_map=regular&map=cached

Froese, R. and D. Pauly (2024). FishBase. World Wide Web electronic publication. *Osmerus eperlanus* (Linnaeus, 1758) European smelt. https://www.fishbase.se/summary/osmerus-eperlanus.html

Standard clauses 1.3.2.2

Table D2 - Productivity / Susceptibility attributes and scores.

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

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

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

FURTHER IMPACTS

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

F1	Impacts on ETP Species - Minimum Requirements		
	F1.1	Interactions with ETP species are recorded.	Pass
	F1.2	There is no substantial evidence that the fishery has a significant negative effect on ETP species.	Pass
	F1.3	If the fishery is known to interact with ETP species, measures are in place to minimise mortality.	Pass
		Clause outcome:	Pass

F1.1 Interactions with ETP species are recorded.

WGBYC collects and analyses information from across the Northeast Atlantic and adjacent sea areas (Baltic, Mediterranean and Black Seas) related to the bycatch of protected, endangered and threatened species, including marine mammals, seabirds, turtles and sensitive fish species in commercial fishing operations. Last report was published provided an overview of data collection activities during 2022 including details of reported monitoring and fishing effort data, and bycatch records that were submitted to the WGBYC database in 2023 (ICES, 2023h).

Interactions with ETP species are recorded. F.1.1 is met.

F1.2 There is no substantial evidence that the fishery has a significant negative effect on ETP species.

According to ICES (2023h), in the Baltic Sea ecoregion, 148 marine mammals (8 species), 763 birds (19 species), 33 elasmobranchs (2 species), 1,884 teleost individuals (3 species), 3 chondrosteians (1 species) and 673 lam-prey (1 species) were recorded from 13,2604 days at sea in 2022. Nevertheless, most of these data was reported from nets fishery. Compiled data from midwater trawling in shown in Table 9. Teleosts specimens were the main specimens reported for this fishery, mainly Lumpfish - *Cyclopterus lumpus,* which is listed as *"*Near Threatened" and European River Lamprey - *Lampetra fluviatilis*, which is listed as *"Least Concern"* species by IUCN Red List (IUCN, 2011 and 2013).

Table 9. Reported fishing and monitoring days (only for those metiers that reported bycatch) and number of bycaught specimens and incidents in 2022 by pelagic trawl provided through the ICES WGBYC 2023 data call for Baltic Sea ecoregion for all reported species (ICES, 2023h). PO: Port observer; SO: At-Sea Observer; LO: Logbooks.

Ecoregion	ICES Area /GFCM GSA	Metier L3	Fishing Effort (das)	Monitoring Method	Total Observed Effort (das)	Monitoring Coverage (%)	Taxa	Species	No. Specimens	Incidents
Baltic Sea	27.3.d.28.1	Pelagic trawls	3995.00	SO	153.00	3.830	Teleostei	*Cyclopterus lumpus*	1	1
Baltic Sea	27.3.d.28.1	Pelagic trawls	3995.00	SO	153.00	3.830	Petromyzonti	*Lampetra fluviatilis*	33	7
Baltic Sea	27.3.d.28.2	Pelagic trawls	2552.00	SO	297.00	11.638	Teleostei	*Alosa fallax*	1	1
Baltic Sea	27.3.d.25	Pelagic trawls	4096.63	LB	448.00	10.936	Teleostei	*Cyclopterus lumpus*	87	10
Baltic Sea	27.3.d.30	Pelagic trawls	2552.88	PO	25.00	0.979	Mammals	*Halichoerus grypus*	2	1

There is no substantial evidence that the fishery has a significant negative effect on ETP species. F.1.2 is met.

F1.3 If the fishery is known to interact with ETP species, measures are in place to minimise mortality.

The fishery is not known to interact with ETP species, but there are some measures in place to address ETPs. The Baltic Sea has a network of protected areas including HELCOM Baltic Sea Protected Areas (BSPAs) and the Natura 2000 network of the EU Birds Directive (Directives 2009/147/EC) and EU Habitats Directive (Directive 92/43/EEC). These Directives explicitly prohibit the intentional killing, disturbance, or destruction of habitats of the species listed therein, which encompass various marine creatures such as the harbour porpoise, Baltic seal species, sea lampreys and all seabirds (with limited exceptions related to specific hunting activities). Additionally, the recent EU Regulation on the conservation of fisheries resources and the protection of marine ecosystems through technical measures (Regulation 2019/1241/EU) reinforces these protections by explicitly prohibiting the catching, retention on board, transhipment, or landing of listed marine species. An Estonian Nature Conservation Law includes consideration of birds and marine mammals. In all Estonian fisheries, registering of bycatch is

mandatory by national law and data are included in the Estonian Fisheries Information System. Estonia has had a discard ban in place since 2005 and according to MSC (2020): "due to discard ban, Estonian fisheries do not have discards. This is very well controlled with a low risk of not working."

The fishery is known to interact with ETP species, measures are in place to minimise mortality. F.1.3 is met.

References

Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, 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, OJ L. http://data.europa.eu/eli/reg/2009/1224/oj/eng

ICES (2023h). Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. 5:111. 334 pp. https://doi.org/10.17895/ices.pub.24659484

IUCN (2011). European River Lamprey - *Lampetra fluviatilis* https://www.iucnredlist.org/species/11206/97805807

IUCN (2013). Lumpfish - *Cyclopterus lumpus* *https://www.iucnredlist.org/species/18237406/45078284*

MSC (2020). Denmark, Estonia, Germany & Sweden Baltic Herring & Sprat. Public Certification Report. https://fisheries.msc.org/en/fisheries/denmark-estonia-germany-sweden-baltic-herring-and-sprat/@@assessments

Links	
MarinTrust Standard clause	1.3.3.1
FAO CCRF	7.2.2 (d)
GSSI	D4.04, D.3.08

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

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

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), the requirements associated with Natura 2000 sites, and the technical measures set out in EU regulation.

Under HELCOM BSAP, several actions are being implemented. Of relevance here, is the establishment of an ecologically coherent and effectively managed network of coastal and marine Baltic Sea protected areas (HELCOM MPAs) to protect marine habitats and species.

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 definition of "plans or projects" is broad and includes fishing activities.

The management of European fisheries falls under the European Union Common Fisheries Policy (CFP). This regulation outlines the strategic objectives of the CFP, emphasizing the adoption of ecosystem-based management approaches. Such strategies include the implementation of multispecies management plans, the prohibition of discards, and the mitigation of unintended bycatches involving mammals, birds, and non-targeted or undersized fish. The CFP operates through a series of

regulations addressing various aspects including monitoring, control, and surveillance, fleet composition, overarching technical conservation measures, and Total Allowable Catches (TACs), among others.

The Baltic Sea Technical Measures for the conservation of the fishery resources in the Baltic Sea, the Belts and the Sound was established in the Council Regulation 2187/2005. This Regulation sought to summarise all this legislation in a single legislative text, from measures on gears to those on target species, by-catches, minimum landing sizes and geographical and seasonal restrictions. This Regulation have been later amended by other Regulations (landing obligation, multiannual plans established, etc.), but some of the technical measures included in this Regulation are still in place for the whole region.

Potential habitat interactions are considered in the management decision-making process. F.2.1 is met.

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

Pelagic trawl gears are not designed 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. In relation to impact upon the pelagic habitat, the trawl fisheries are targeted at dense homogeneous shoals of herring and sprat with very little bycatch of non-target species so impacts on biological diversity and abundance of the habitat is limited to the target species and bycatch.

There is no substantial evidence that the fishery has a significant negative impact on physical habitats. Sub-clause F.2.2 is met.

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

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). 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.

MSC (2020) summarized some measures is place in Estonia/Baltic Sea related to interaction with physical habitats:

"• Under the Fisheries Act, active gear must be used in water depths greater than 20m.
• Regulations within the Gulf of Riga are set within the EU technical regulations, these include maximum height of pelagic trawl net: 12m and restriction on maximum engine power permitted to fish in area.
• There is a closed area within the Gulf of Riga that is closed to fishing activity for 30 days every year in order to protect herring spawning. This is set as an order of the Ministry of Environment.
• EU Baltic Sea technical measures regulation 2187 / 2005 includes coordinates for a closed area where there is total ban on all trawling for all EU vessels."

Even though the fishery is thought very unlikely to interact with seabed habitats, there are measures in place to minimise and mitigate negative impacts. Sub-clause F.2.3 is met.

References

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. https://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX:01992L0043-20130701

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

HELCOM. 2023. Baltic Sea Action Plan 2021 update. https://helcom.fi/baltic-sea-action-plan/

Regulation (EU) 2019/1241 of the European Parliament and of the Council of 20 June 2019 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures, amending Council Regulations (EC) No 1967/2006, (EC) No 1224/2009 and Regulations (EU) No 1380/2013, (EU) 2016/1139, (EU) 2018/973, (EU) 2019/472 and (EU) 2019/1022 of the European Parliament and of the Council, and repealing Council Regulations (EC) No 894/97, (EC) No 850/98, (EC) No 2549/2000, (EC) No 254/2002, (EC) No 812/2004 and (EC) No 2187/2005. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R1241

MSC (2020). Denmark, Estonia, Germany & Sweden Baltic Herring & Sprat. Public Certification Report. https://fisheries.msc.org/en/fisheries/denmark-estonia-germany-sweden-baltic-herring-and-sprat/@@assessments

Links	
MarinTrust Standard clause	1.3.3.2
FAO CCRF	6.8
GSSI	D.2.07, D.6.07, D3.09

F3	Ecosystem Impacts - Minimum Requirements		
	F3.1	The broader ecosystem within which the fishery occurs is considered during the management decision-making process.	Pass
	F3.2	There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.	Pass
	F3.3	If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals.	Pass
		Clause outcome:	Pass

F3.1 The broader ecosystem within which the fishery occurs is considered during the management decision-making process.

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 2022), which summarises the most up to date understanding of the Baltic ecosystem and the ways in which this knowledge influences the management advice. These include noting the likely current and future impacts of climate change, and the shifts in the food web which have occurred since the late 1980s.

The objectives of the 2023 Benchmark Workshop on Baltic Pelagic stocks, which aimed to update the stock assessment methodology, included the following: "As part of the assessment methods workshop, knowledge about environmental drivers, including multispecies interactions, and ecosystem impacts should be integrated in the methodology" (ICES 2023c). The workshop report provides evidence that ecosystem knowledge was indeed factored into discussions. The Gulf of Riga herring section includes an extensive discussion of "Ecosystem drivers", stating for example that "the year-class strength of Gulf of Riga herring strongly depends on the severity of winter" (ICES 2023c). Further consideration is given to Gulf of Riga herring and sprat specifically in the annual WGBFAS workshop and reports. In the case of sprat, there are ongoing efforts to "develop an F scaling factor…to tune the long-term FMSY and…account for medium-term ecosystem-driven variability in productivity" (ICES 2023e).

The broader ecosystem within which the fishery occurs is considered during the management decision-making process. Sub-clause F.3.1 is met.

F3.2 There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.

The most significant potential ecosystem impacts of the fishery arise from the removal of herring and sprat biomass. The ICES ecosystem overview (ICES 2022) states that since the late 1980's "the open-sea system has been dominated by small pelagic fish, such as sprat", and that "in general, those seabird species eating sprat and herring have increased in number". Prey depletion is not considered to be a determining factor in the health of populations of porpoise, seal or cod populations, all of them predate sprat and herring. Ecosystem models have been constructed for the central Baltic and it was demonstrated that outside of this area, fishing for herring is not regarded as being likely to impact ecosystem function significantly due to the availability of alternative prey (Sandberg et al. 2000).

There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem. Sub-clause F.3.2 is met.

F3.3 If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals.

Herring and sprat are both considered to be important prey species in the Baltic Sea ecosystem. Predation of sprat is considered in the EU MAP, and factored in when establishing reference points and management regulations such as quotas, area and seasonal restrictions, gear limitations, and controls on the number of vessels in the fishery.
Natural mortality – primarily due to predation – is factored in to the ICES quota recommendations. Natural mortality levels are estimated for sprat as part of the stock assessment process, using a multispecies assessment model (ICES 2023b). Natural

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

Precaution is included in recommendations relating to the total permissible fishery removals. Sub-clause F.3.3 is met.

References

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

ICES (2023c). Benchmark Workshop on Baltic Pelagic stocks (WKBBALTPEL). ICES Scientific Reports. 5:47. 350 pp. https://doi.org/10.17895/ices.pub.23216492

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

Regulation (EU) 2016/1139 (as amended) 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/PDF/?uri=CELEX:02016R1139-20190814&from=EN

Sandberg, J., Elmgren, R. and F. Wulff (2000). Carbon flows in Baltic Sea food webs — a re-evaluation using a mass balance approach. Journal of Marine Systems 25 (2000) 249–260. https://www.sciencedirect.com/science/article/pii/S0924796300000191

Links	
MarinTrust Standard clause	1.3.3.3
FAO CCRF	7.2.2 (d)
GSSI	D.2.09, D3.10, D.6.09

SOCIAL CRITERION

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

Appendix A - Determining Resilience Ratings

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

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

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

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

Appendix B - MarinTrust Fishery Assessment Peer Review Template

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

Fishery under assessment	WholeFish Assessment Gulf of Riga, FAO27, ICES 3.d.28.1 Gulf of Riga & Central Baltic Herring (*Clupea harengus*) Baltic sea Sprat (*Sprattus sprattus*) Baltic sea Smelt (*Osmerus operlanus* by Midwater Otter trawl.
Management authority (Country/State)	Europe - European Union, Estonia- Ministry of Regional Affairs & Agriculture, Environmental Board and Agriculture & Food Board
Main species	Gulf of Riga Herring (*Clupea harengus*) Central Baltic Herring (Clupea harengus) Sprat (*Sprattus sprattus*) Smelt (*Osmerus operlanus*)
Fishery location	Gulf of Riga, FAO27, ICES 3.d.28.1
Gear type(s)	Midwater Otter trawl
Overall recommendation. (Approve/ Fail)	Approve A marginal pass for Baltic Sea Herring but appropriate since they take only 5% of Baltic stock in the Estonian fishery. Noticing the MSC fishery for combined Baltic states for Baltic herring and sprat has been withdrawn end of June - was suspended for a couple years already.

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

The assessor has provided a very thorough examination of the fishery with appropriate levels of referenced evidence to substantiate a decision to approve for a fishery that could be described as very borderline with respect to Central Baltic Herring stock.

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

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

The assessor provides substantiation to the failure (A2.3) decision.
MT Guidance for A2.3 states
Harvest Control Rules are in place or are available that are expected to reduce the exploitation rate as the point of recruitment impairment (PRI) is approached.
HCR's are in place as directed by ICES and the recent advise is marginal with respect to 'expected to reduce the exploitation rate as the PRI is approached. The external peer review has left a note to ask of the balance of evidence between 2023 and the more recent May 2024 ICES advise but does not propose a change in score.
Consequently, and again, agreed by the external reviewer, the Baltic Herring stock passes the Cat B(a) table requirements, and a pass score is awarded (which overturns the fail score in Cat A).

General Comments on the Draft Report provided to the peer reviewer

The assessor has provided a very thorough examination of the fishery, with good level of detail specific to each clause and applying these to all three species included as Category A and appropriate methodology as applied to Category D species (smelt). The report is accurately referenced to substantiate each score and an overall decision to approve. The external peer review has noted a few observations.

Summary of Peer Review Outcomes

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

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

Detailed Peer Review Justification

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

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

Boxes may be extended if more space is required.

1. Is the scoring of the fishery consistent with the MarinTrust standard, and clearly based on the evidence presented in the assessment report?
Scoring is consistent with Marin Trust Standard and clearly based on the evidence presented.
Certification body response
Ok

2. Has the fishery assessment been fully completed, using the recognised MARINTRUST fishery assessment methodology and associated guidance?
The fishery assessment has been fully completed following the MarinTrust methodology and guidance. Minor note of a typo in the Assessor Summary 2nd para which identifies smelt as a Cat C but is actually Cat D and treated accordingly by the assessor. No response from assessor is required.
Certification body response
Thanks, I corrected it now.

3. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?
Yes, the species categorisation section reflects the best current understanding of catch composition. The assessor uses information on the catches of Estonian fishery sourced from STECF Fishery Dependant Information - FDI (year: 2022, the latest year available; gear type: Midwater Otter Trawl - OTM; target assemblage: Small Pelagic Fish - SPF; sub-divisions: 27.3.D.28.1). and from ICES. 2023a. Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). In Report of the ICES. Advisory Committee, 2023. ICES Advice 2023, her.27.28. Published 31 May 2023. In combination a catch composition estimate was derived: Catches in this Estonian (mixed species-stock) fishery originate predominantly from Gulf of Riga herring (88.5%) and from Central Baltic herring (5.7%) with 5% of catches from Baltic sea sprat. There was also <1% of catch contribution from Baltic sea smelt. Hence, the assessor assesses Gulf of Riga Herring, Central Baltic Herring and Baltic sea sprat as type 1 Cat A (representing 99.2% of catches) and then defaults (correctly) to Cat B for Baltic sea sprat, having failed Cat A clauses A2.3 and A3.3. Any other fish species is encountered as bycatch are noted in Section F of the report, and very unlikely to appear in above 0.1% level.
Certification body response
Ok

3M. Are the scores in "Section M – Management" clearly justified?	YES
The scores in this section are evidenced by the available information and are justified. The assessor clearly describes the various entities that make up the legal framework and management of the fishery including; under the EU CFP, three distinct bodies: the Ministry of Regional Affairs and Agriculture, the Environmental Board, and the Agriculture and Food Board. The assessor notes that the Ministry manages commercial fishing operations, issuing permits, maintaining a national registry of fishing vessels, and accounting for catches. Moreover, it spearheads the implementation of the Policy on the Protection and Use of Fishery Resources, focusing on fish stock reproduction and the conservation of spawning grounds and habitats and references the information. The Agriculture and Food Board concentrates on the administration, development and regulation of commercial fishing including issuing permits, managing the registry of fishing vessels, and overseeing catch accounting and the oversight of fisheries monitoring, control, and surveillance in Estonia falls under the purview of the Estonian Environmental Board. The assessor provides a useful summary table bullet pointing the various roles of each Department or Agency and referenced as Keskkonnaamet (2024). https://keskkonnaamet.ee/media/4031/download . A framework of sanctions is described, and monitoring, control and enforcement is supported by a Baltic Sea Joint Deployment Plan, involving EFCA as well as enforcement arms from each of the Baltic States involving inspections at-sea and ashore and surveillance flights. EU-wide rules also apply, with mandatory VMS, e-logbooks, landing certificates, sales notes, designated ports, and other inspections throughout the supply chain. The assessor describes the 2023 activity (Jan-Sept) with 2,175 inspections conducted ashore, including 35 market inspections, detecting 68 suspected infringements (an infringement rate of 3.1%). 640 inspections were carried out at sea, revealing 14 suspected infringements (a rate of 2.2%). Finally, 274 surveillance sightings produced no suspected infringements. Of 68 suspected infringements, 55 were categorised as "non-compliance with the recording and reporting obligations", primarily misreporting catch quantities.	

The external peer review notes that there are multiple references to evidence of misreporting in various reports, but these are not specific to any one Baltic State. There is also variability in catch compositions from different States (as documented in several and historical Marin Trust Assessments). Speculatively, incentives to misreport may be influenced by catch composition, based on fishing location, season and possibly target species (noting that the gear is not selective). All said suspected infringement rate is modest (2.2%) albeit the majority appear to be mis-reporting infringements. This appears more problematic for the sprat advice where the quote from (ICES 2023b) is noted on page 15. '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'.

Speculatively again, accurately reporting quantities of herring and sprat in shots may be problematic and an enquiry into how this is undertaken could be something a factory auditor could enquire upon.
An observation and not proposing a Certification Body response is required here.

Certification body response

Ok, well noted. Thanks.

3A. Are the "Category A Species" scores clearly justified?	YES

The scores in this section are very well described and justified.

Gulf of Riga Herring (est. 87% of catch composition by Estonian vessels)

These are clearly presented, scored and accurately referenced.

The Gulf of Riga herring is subjected to an annual stock assessment by ICES, the most recent of which was conducted in 2023 and a full benchmark of the stock was also carried out. Adequate information is collected to enable a reliable assessment of the stock, and stock size is currently estimated to be well above the reference point level. Catches are also consistently in line with the ICES advice.

Baltic sea sprat (est. 5% of catch composition by Estonian vessels)

The Baltic sea sprat stock is subjected to an annual stock assessment by ICES and remains healthy. The assessor notes that and catches have not substantially exceeded the quota – and not exceeding the advice by more than 10% in one of the last 6 years; sprat SSB is nearly double the level of the target reference point and the TAC remains within the range recommended by ICES.

Baltic sea herring (est. 5.7% of catch composition by Estonian vessels)

The Central Baltic herring stock is similarly, subjected to an annual stock assessment by ICES and similarly was benchmarked in 2023. This led to more precautionary (downward) stock reference points being elected leading to fisheries not meeting the MT assessment requirements for clauses A.2.3, A.3.2, A.3.3, A4.4 and consequently, Table Ba of Cat B species.

In this new stock assessment method (ICES 2023f), an increase in weight-at-age was identified leading to an upward revision in SSB placing the stock below MSY Btrigger and between Bpa and Bim. The assessor has identified that the fishery under clauses A2.1 (stock assessment is conducted), A2.2 (stock assessment provides) an estimate of stock status relative to reference points) and A.2.4 (internal and external peer review conducted) and A2.5 (the assessment is publicly available) meets the pass requirements.

However, for clause A2.3 the assessor identifies that the fishery does not meet the clause ' the assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status; giving a fail score. There are several evidential points that substantiate this decision:

- ICES proposed to use the advice rule F=MSY x SSB/MSY Btrigger (rule 2) although the biomass of the herring being found below Blim.
- a zero catch in 2024 will not bring the stock above Blim in 2025 with 95% probability (ICES 2023f)
- Bpa and MSY Btrigger cannot be achieved in 2026, even with zero catch in 2025

Some mitigating evidence is also presented:

- ICES released a report and claimed that: "In last year's assessment the 2022 year class was underestimated. This, in addition to an increase in weight-at-age in 2023, has led to an upward revision of the SSB." (ICES, May 2024)

The report describes the debate, the Commission proposing that the fishery should be stopped and fisheries ministers (State representatives) voting to continue fishing with a 43% cut in TAC. However, new spawning closures were elected, their effectiveness though, questionable given the closure times compared to the evidence of when the fishery is most active (58% of catches taken Jan- Mar (Su, 2024).

The evidence presents a justifiable argument for failing clause A2.3 since the indication of the volume of fishery removals advised is arguably inappropriate or marginal with respect to meeting clause A2.3 given the historical over catches and recent stock status.

Overall, the external peer reviewer concurs that had a clearer cut statement advising the fishery closure for the 2024 season been available in the 2023 ICES advise, this may have given less grounds for a debate to maintain a fishery, albeit with a substantial reduction in TAC.
[The assessor note the potential socio-economic implications which were most likely a strong influence on these decisions].

The external peer reviewer also notes that the fishery met clause A2.4 (subject to external peer review) and that despite the rigorous ICES process including peer review, the final advice provided remains marginal with respect to whether clause A2.3 was met.

The fishery also failed clause A3.2 since fishery removals have exceeded levels indicated regularly (>10%) and the stock status (under the new assessment) being below or just at the limit reference point in recent years and since the mid-1990's (despite the most recent stock assessment indicating an SSB >Blim). The external peer review noted two occasions of catch exceeding 10% of advised in recent years and other occasions below 10%.

The assessor does describe that the identified spawning closures for fishing in the Baltic sea were finally introduced in April-May (ICES 2024) and determined that a pass score for A3.3 was appropriate.

Similarly, the closures implemented in April-May when the stock was estimated at below Blim means that clause A4.1 is met and despite the evidence questioning the effectiveness of the closures, in principle, appears to meet this clause.

The assessor also refers to several recent ICES advise publications of March and June 2023 and the very recent ICES advise of May 2024.

Although, not disputing the evidence that justifies the scores assigned, can the assessor clarify to what extent the recent May 2024 ICES advise could influence this outcome (https://ices-library.figshare.com/articles/report/Herring_i_Clupea_harengus_i_in_subdivisions_25_29_and_32_excluding_the_Gulf_of_Riga_central_Baltic_Sea_/25019276) in the assessment of A2.3.

Certification body response

Thanks, I have added a bit more details of May 2024 ICES advise explaining that the report pointed that Bpa and MSY Btrigger cannot be achieved in 2026, even with zero catch in 2025 and even so, it is calculated a 95.1-96.6% probability of bringing the stock above Blim by 2026 considering the F range catch advice given in the report of 95,340 – 125,344, which is more than double of the recommendation from the previous year. The rule 2 was used again, but this time the biomass was considered above Blim, thus it was in line with the expected for applying this rule.

3B. Are the "Category B Species" scores clearly justified?	N/A

Since Central Baltic herring stock failed the MT assessment under Cat A it is therefore, in accordance with MT methodology, assessed under Category B.

The assessor uses Table B(a). As described above, biomass is estimated in the most recent assessment to be above the limit reference point (ICES, and fishing mortality is estimated to be below FMSY. Consequently, Baltic herring stock passes Table B(a), and therefore the stock meets MT requirements.

Category B. the biomass in 2024 was found above Blim and fishing mortality was below Fmsy, leading to a "Pass" outcome on Table Ba.

The assessor refers to the most recent advise ICES. 2024. Herring (*Clupea harengus)* in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2024. ICES Advice 2024, her.27.25–2932.

Certification body response

OK

3C. Are the "Category C Species" scores clearly justified?	N/A

External Reviewer concurs that there are no Cat C species in the fishery.

Certification body response

OK

3D. Are the "Category D Species" scores clearly justified?	YES

Smelt which represents <1% of the catch in the 2022 has been assessed as a Cat D species as there is no formal species management regime in place and is awarded a Pass score. There is a clear rationale, with evidence and justification, for the scores provided in the table and the assessor takes a precautionary approach to scoring the susceptibility attributes for encounter ability and selectivity of gear types which appears appropriate.

Certification body response

OK

3F. Are the scores in "Section F – Further Impacts" clearly justified?	YES

The scores in this section are justified by the assessor, with information from the ICES WGBYC 2022 reports of recent observation data from 2021-22 the Baltic Region and data specific to mid water trawls is presented to demonstrate that interactions with ETP are recorded. The data also substantiates that there is no significant negative impact on ETP species, noting low level interaction with Lumpfish - *Cyclopterus lumpus,* which is listed as "Near Threatened" .

The assessor provides an account of the measures in place to address ETPs via network of protected areas including HELCOM Baltic Sea Protected Areas (BSPAs) and the Natura 2000 network of the EU Birds Directive (Directives 2009/147/EC) and EU Habitats Directive (Directive 92/43/EEC) and the recent EU Regulation on the conservation of fisheries resources and the protection of marine ecosystems through technical measures (Regulation 2019/1241/EU) reinforcing these protections by explicitly prohibiting the catching, retention on board, transhipment, or landing of listed marine species. An Estonian Nature Conservation Law includes consideration of birds and marine mammals. In all Estonian fisheries, registering of bycatch is noted and mandatory by law. The assessor uses recent MSC reports identifying the discard ban in place in Estonia since 2005. The section is suitably referenced with IUCN, ICES WGBYC and MSC reports.

As the fishery operates in mid-water hence, bottom habitat impacts are of lower risk and similarly physical impact on habitats. The assessor describes the measures in place that demonstrate how habitat interactions are considered in management decisions including; HELCOM BSAP, actions for ecologically coherent and effectively managed network of coastal and marine Baltic Sea protected areas (HELCOM MPAs) to protect marine habitats and species is referenced; Article 6 of the Habitats Directive, which requires that Member States 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 definition of "plans or projects" is broad and includes fishing activities; Baltic Sea Technical Measures, which wrap a number of legal provisions into one focused on gear, species specific interactions, bycatches, landing sizes, other restrictions and more recently the multi-annual plans form part of this which demonstrates the connectiveness of fishery management considerations with habitat. The assessor also references recent MSC reports for the fishery summarising specific measures in place.

There is a concise description of how the broader ecosystem is considered within the fishery management system including '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 and ICES management advice which includes an ecoregion overview for the Baltic Sea (ICES 2022). Also, noting - The objectives of the 2023 Benchmark Workshop on Baltic Pelagic stocks, which aimed to update the stock assessment methodology, is also described which again, demonstrates how the broader ecosystem is included in fishery management decisions.

The ICES ecosystem overview (ICES 2022) is used to evidence that there are no significant impacts …..since the late 1980's quoting "the open-sea system has been dominated by small pelagic fish, such as sprat", and that "in general, those seabird species eating sprat and herring have increased in number". Prey depletion is not considered to be a determining factor in the health of populations of porpoise, seal or cod populations, all of them predate sprat and herring.
The assessor draws reference to the Ecosystem models which have been constructed for the central Baltic and it was demonstrated that outside of this area, fishing for herring is not regarded as being likely to impact ecosystem function significantly due to the availability of alternative prey.
The external assessor, reflecting on the stock condition, declining in SSB since 2017 more recently at a level just above Blim in 2020 and 2021, and has now increased to just below MSYBtrigger. The assessor draws reference to ICES referring to the 'Natural mortality (primarily due to predation) – is factored in to the ICES quota recommendations. Natural mortality levels are estimated for sprat as part of the stock assessment process, using a multispecies assessment model (ICES 2023b). Hence, catch recommendations are lower than they would be if natural mortality was not considered, and therefore catches are more conservative due to the important role played by both prey species'.
The peer review concurs with a PASS score for the F clauses.

Certification body response

OK

Optional: General comments on the Peer Review Draft Report
The report provides a very good level of concise information with good use of tables and references to the available science and management information and updated references specific to the fisheries catch composition data as it presents in the most recent evaluation. The failure clauses for Central Baltic Herring are described in detail based on recent ICES and related evidence. However, the most recent 2024 ICES publication allows a Pass score to be obtained under Table B(a). Again, this appears to be the appropriate outcome. As a sperate FYI note, the combined Baltic States fishery MSC certificate (suspended) which includes Baltic Sea Herring and Sprat was recently withdrawn from MSC (June 28, 2024). file:///C:/Users/daveb/Downloads/LRQA%20notice%20of%20withdrawal%2090141%20DDESHerrSprat%20(1).pdf
Certification body response
OK

Glossary

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

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