



## MarinTrust Standard V2

# Whole fish Fishery Assessment Report Template

**MarinTrust Programme**

Unit C, Printworks

22 Amelia Street

London

SE17 3BZ

E: [standards@marin-trust.com](mailto:standards@marin-trust.com)

T: +44 2039 780 819

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

Application details and summary of the assessment outcome			
<b>Name:</b>			
<b>Address:</b>			
<b>Country:</b> Estonia		<b>Zip:</b>	
<b>Tel. No.</b>		<b>Fax. No.</b>	
<b>Email address:</b>		<b>Applicant Code</b>	
<b>Key Contact:</b>		<b>Title:</b>	
Certification Body Details			
<b>Name of Certification Body:</b>		Global Trust Certification	
<b>Assessor Name</b>	<b>CB Peer Reviewer</b>	<b>Assessment Days</b>	<b>Initial/Surveillance/ Re-approval</b>
Conor Donnelly			Initial
<b>Assessment Period</b>	2021		
Scope Details			
<b>Management Authority (Country/State)</b>		EU (CFP), Estonia	
<b>Main Species</b>		Baltic sprat <i>Sprattus sprattus</i> Central Baltic herring <i>Clupea harengus</i>	
<b>Fishery Location</b>		Baltic Sea (ICES subdivisions 25-29 and 32)	
<b>Gear Type(s)</b>		Pelagic trawl	
Outcome of Assessment			
<b>Overall Outcome</b>		Pass	
<b>Clauses Failed</b>		None	
<b>CB Peer Review Evaluation</b>		Approval	
<b>Fishery Assessment Peer Review Group Evaluation</b>		Approved see report: <a href="#">MarinTrust Fishery Assessment Peer Review</a>	
<b>Recommendation</b>		Approval	

**Table 2. Assessment Determination**

Assessment Determination
<p>This fishery targets Baltic sprat and central Baltic herring using pelagic trawls in ICES subdivisions 25-32.</p> <p>In relation to management of the Baltic sprat and central Baltic herring fisheries, both the management framework and the surveillance, control and enforcement system meet minimum requirements set by the MARINTRUST Standard.</p> <p>With regards the target stocks, sufficient data is collected to determine fishery removals and stock status, a stock assessment is in place which provides an estimate of the status of the biological stock relative to reference points and shows the stocks are at or just below target reference points. The harvest strategy restricts total fishing mortality and removals do not regularly exceed the level indicated in the stock assessment.</p> <p>The fishery targets homogenous shoals of herring and sprat with no catches of non-target species identified.</p> <p>In relation to further impacts of the fishery in other areas, the assessment considers interactions with ETP species. In this fishery these species include the marine mammals, harbour porpoise, harbour, grey and ringed seals and also seabirds and seaducks. Some of these are in a poor state including the Kalmarsund population of harbour seal and both populations of harbour porpoise, in particular the Baltic proper population which is considered critically endangered. Interactions of ETP with pelagic trawls are recorded and are considered infrequent but it is noted observer coverage is low. It is concluded that there is no substantial evidence that the fishery has a significant negative effect on ETP species, clause F.1 is passed. In relation to impacts on habitats, pelagic trawl gears are not designed to make contact with the seabed, such contact is likely to be minimal and consequently this gear is considered to have marginal impact on benthic habitats and bottom structures. There is no substantial evidence that the fishery has a significant negative impact on physical habitats and clause F.2 is passed. In relation to ecosystem effects of the fishery, clause F3 is also passed. However, whilst sprat and herring stocks in the Baltic proper are considered healthy there is evidence of a spatial separation in the southern Baltic between the clupeid stocks and the eastern Baltic cod stock which is in poor status and for which these clupeids are key prey species. There is some uncertainty arising from this including whether fishery removals may exacerbate the problem.</p> <p>Sprat and herring are assessed as of least concern on the IUCN Red List and are not on the current list of CITES endangered species.</p> <p>Baltic sprat and central Baltic herring are approved by the assessment team for the production of fishmeal and fish oil under the IFFO-RS v 2.0 by-products standard.</p>
Fishery Assessment Peer Review Comments
<p>The PR agrees with the assessor determination. Both, herring and sprat have a well-defined management system in the Baltic Sea. The species are above reference points and removals are considered in the stock assessment.</p> <p>There is a well structure management plan that take into consideration in the decision-making process aspects related to the stock status.</p> <p>As a pelagic fishery, catches are very clean and there are no catches from non-target species.</p> <p>Interactions with seabirds and marine mammals along with other possible ETPs species are negligible and even observer program has a low coverage it has been demonstrated over the years that interactions are rare.</p> <p>Interactions with key structure in habitats are negligible as the fishing activities occur in the column water with no contact with the bottom surface.</p> <p>Ecosystems needs are included in the management plan and there have been studies to evaluate the possible impact on cod populations or/and seabirds and marine mammals.</p>

Having said that, the PR agrees that the fishery achieves a PASS in all the clauses, and it can be approved by Global Trust Certification (GTC) for the production of fishmeal and fish oil under the MarinTrust v2.0 WF standard.

#### 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	Baltic sprat <i>Sprattus sprattus</i> and central Baltic herring <i>Clupea harengus</i>	100%	A1	Pass
			A2	Pass
			A3	Pass
			A4	Pass
Category B				
Category C				
Category D				

## Table 5 Species Categorisation Table

Common name	Latin name	Stock	IUCN Redlist Category <sup>1</sup>	% of landings	Management	Category
Sprat	<i>Sprattus sprattus</i>	ICES subdivisions 22-32 (Baltic Sea)	<a href="#">Least concern</a>	59%	EU	A
Herring	<i>Clupea harengus</i>	ICES subdivisions 25-29 and 32 (excl. Gulf of Riga. Central Baltic herring.	<a href="#">Least concern</a>	41%	EU	A

### Species categorisation rationale

Catch % based on information presented in Lloyd's Register (2020). MSC SUSTAINABLE FISHERIES CERTIFICATION. Denmark, Estonia, Germany & Sweden Baltic Herring & Sprat. Public Certification Report. November 2020. The report used landings data from the EU Data Collection Framework (DCF) for Baltic Sea ICES areas 22 to 32 for the 5-year period 2012-2016.

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

## 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.
	M1.2	There is an organisation responsible for collecting data and assessing the fishery.
	M1.3	Fishery management organisations are publicly committed to sustainability.
	M1.4	Fishery management organisations are legally empowered to take management actions.
	M1.5	There is a consultation process through which fishery stakeholders are engaged in decision-making.
	M1.6	The decision-making process is transparent, with processes and results publicly available.
Clause outcome:		Pass
<p><b>M1.1 There is an organisation responsible for managing the fishery.</b></p> <p>The fishery is managed within the context of the EU Common Fisheries Policy (CFP) and the Estonian national system for fisheries management. At regional level, management of the fishery is based on input from the Regional Baltic Sea Fisheries Forum (BALTFISH) and the Baltic Sea Advisory Council (BSAC). Scientific advice is provided by the International Council for the Exploration of the Sea (ICES) and the European Commission's Scientific, Technical and Economic Committee for Fisheries (STECF). In 2016, the EU adopted a multiannual management plan for cod, herring and sprat in the Baltic Sea which was updated in 2019. The plan specifies targets and harvest control rules (HCRs) for these stocks and includes management measures to ensure that the stocks of plaice, flounder, turbot, and brill caught as a bycatch in the cod, herring, and sprat fisheries are managed in accordance with CFP objectives.</p> <p>At EU level, the main management body is the EU Commission's Director-General (DG) for Maritime Affairs and Fisheries (DG Mare) and the main regulatory basis the 2013 CFP Basic Regulation.</p> <p>In Estonia, responsibility for fisheries management lies with a number of bodies. The Ministry of Ministry of Rural Affairs (Maaeluministerium) is responsible for issuing permits for commercial fishing, managing a national registry of fishing vessels and catch accounting). The Ministry of the Environment (Keskkonnaministerium) is responsible for quota negotiations, management for sustainable fishing and to restore and maintain the good condition of fish stocks. The Veterinary and Food Board (Veterinaar- Ja Toiduamet) are responsible for the collection of commercial fishing data, quota management, and the cross-checking of data on fishing activities, landings, first sale of fish, VMS and prior notifications. The Environmental Inspectorate (Keskkonnainspeksioon) are responsible for inspection and surveillance activities; enforcement and follow-up of infringements; assignment of penalty points to fishing licences, VMS surveillance and cross-checking catch and landings data.</p> <p>At the international level, a binding agreement has been in place since 2009 between the EU and Russia regarding fisheries management in the Baltic Sea.</p> <p>There is an organisation responsible for managing the fishery. <b>Sub-clause M1.1 is met.</b></p>		
<p><b>M1.2 There is an organisation responsible for collecting data and assessing the fishery.</b></p> <p>The Estonian Marine Institute undertake fish stock monitoring covering coastal, pelagic and inland (Lake Peipsi) fisheries. This includes herring, cod and sprat in the Baltic Sea.</p>		

Science-based fishery management advice is provided by the International Council for the Exploration of the Sea (ICES). ICES is a network of nearly 6,000 scientists from over 700 marine institutes (including the Estonian Marine Institute) in 20 member countries and beyond, linked by an intergovernmental agreement (the ICES Convention) to add value to national research efforts. Scientists working through ICES gather information about the marine ecosystem. Besides filling gaps in existing knowledge, this information is developed into unbiased, non-political fishery management advice.

ICES provides annual stock assessment and management advice in relation to the Baltic sprat and central Baltic herring fisheries via its Baltic Fisheries Assessment Working Group (WGBFAS). ICES Stock Annex Reports provide a great deal of integrated advice at ecosystem level, in support of their shift towards a more holistic approach to managing Europe's seas.

There are organizations responsible for collecting data and assessing the fishery. **Sub-clause M1.2 is met.**

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

The CFP is the primary instrument for sustainable fisheries management. As such it looks to address impacts of fishing on target stocks as well as impacts on other ecosystem components. Implementing an ecosystem approach to fisheries management has been set as one of the objectives of the CFP:

*"...to ensure that negative impacts of fishing activities on the marine ecosystem are minimized and that aquaculture and fisheries activities avoid degradation of the marine environment."* (Article 2.3 CFP Reform).

The CFP contributes to the protection of the marine environment, to the sustainable management of all commercially exploited species, and in particular to the achievement of good environmental status by 2020, as set out in Regulation (EU) No 1380/2013.

Objectives of the CFP are, *inter alia*, to ensure that fishing and aquaculture are environmentally sustainable in the long term and to apply the precautionary approach to fisheries management.

Similarly the objectives of the Baltic Sea Multiannual Plan (MAP) as set out in Article 3, refers to the achievement of the objectives of the CFP, *"in particular by applying the precautionary approach to fisheries management and shall aim to ensure that exploitation of living marine biological resources restores and maintains populations of harvested species above levels which can produce MSY"*. It further notes that, *"the plan shall implement the ecosystem-based approach to fisheries management in order to ensure that negative impacts of fishing activities on the marine ecosystem are minimized"*.

Estonia is a Member State of the European Union, and therefore in Community waters implements the CFP and the Baltic sprat and central Baltic herring fishery is operated under the Baltic Sea MAP.

Fishery management organisations are publicly committed to sustainability. **Sub-clause M1.3 is met**

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

Estonia is a Member State of the European Union, and therefore in Community waters is subject to and implements the CFP.

Total allowable catches (TACs) are set for most commercial fish stocks, by the EU for member states following consultation with Council and Parliament. The EU prepares regulations, based on scientific advice from the advisory bodies ICES and STECF. TAC's are then set annually by the European Council. Some multi-annual plans (as in the case of the Baltic MAP for Baltic sprat and central Baltic herring) contain rules for the setting of TACs which are then shared between EU countries in the form of national quotas. For each stock a different allocation percentage per EU country is applied for the sharing out of the quotas. This fixed percentage is known as the relative stability key.

EU countries have to use transparent and objective criteria when they distribute the national quota among their fishermen. They are responsible for ensuring that the quotas are not overfished. When all the available quota of a species is fished, by national law the EU country has to close the fishery.

In Estonia, the Fisheries Act 2015 sets out the overall objective for fisheries management in Estonia, and rules for the allocation of access to fishery resources. It also identifies the duties of fishers to provide information about fishing activity to the management authorities; specifies that the Environmental Inspectorate is the Government agency responsible for enforcement and identifies the penalties that can be imposed for infringements of regulations.

Fishery management organisations are legally empowered to take management actions. **Sub-clause M1.4 is met.**

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

The EU receives scientific advice on EU fisheries from its Scientific, Technical and Economic Committee for Fisheries (STECF). STECF is composed of independent scientists and experts representing a broad range of opinion and is systematically consulted before any proposals are drafted. On biological issues, STECF depends to a great extent on advice from ICES for areas including the Baltic.

Advice provided by ICES includes stock assessments and deeper analysis on which the Commission bases both its annual recommendations for setting TACs and quotas, and more long-term proposals on how fisheries in European waters can be managed sustainably. Increasingly ICES also provides a great deal of integrated advice at ecosystem level, in support of the shift towards a more holistic approach to managing Europe's seas.

The BSAC is a stakeholder-led organization, established in 2006, which provides advice on the management of Baltic fisheries to the European Commission and member states and consists of organisations representing fisheries and other interest groups affected by the CFP (e.g. environmental, organisations, and sports and recreational fisheries organisations). 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.

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

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

ICES provide annual stock assessment and management advice in relation to Baltic sprat and central Baltic herring via its Baltic Fisheries Assessment Working Group (WGBFAS). The advice is published annually on the ICES website. Quotas for the EU fleet in the assessment area are published annually in the Baltic Sea Fishing Opportunities Regulation.

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

#### **References**

Advisory Councils  
<https://ec.europa.eu/fisheries/partners/advisory-councils/>

Baltic Sea Advisory Council  
<http://www.bsac.dk/>

BSAC statements and recommendations  
<http://www.bsac.dk/BSAC-Resources/BSAC-Statements-and-recommendations>



Baltic Sea Multi-annual Plan (MAP)

[https://ec.europa.eu/fisheries/cfp/fishing\\_rules/multi\\_annual\\_plans\\_en](https://ec.europa.eu/fisheries/cfp/fishing_rules/multi_annual_plans_en)

Commission Delegated Regulation (EU) 2017/1575 of 23 June 2017 amending Delegated Regulation (EU) 2015/242 laying down detailed rules on the functioning of the Advisory Councils under the common fisheries policy [https://eur-lex.europa.eu/eli/reg\\_del/2017/1575/oj](https://eur-lex.europa.eu/eli/reg_del/2017/1575/oj)

EU Common Fisheries Policy (CFP) overview

<https://ec.europa.eu/fisheries/cfp/>

Reform of the Common Fisheries Policy

<https://ec.europa.eu/fisheries/reform/>

Fisheries control authorities in the Baltic Sea area

[https://ec.europa.eu/fisheries/cfp/control/who\\_does\\_what/baltic\\_sea\\_authorities\\_en](https://ec.europa.eu/fisheries/cfp/control/who_does_what/baltic_sea_authorities_en)

Fishing Opportunities Regulations

[https://ec.europa.eu/fisheries/cfp/fishing\\_rules/tacs\\_en](https://ec.europa.eu/fisheries/cfp/fishing_rules/tacs_en)

Estonian Marine Institute

<https://mereinstituut.ut.ee/en/institute/departement-fish-biology-and-fisheries>

ICES – who we are

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

ICES latest advice on Baltic sprat

<https://www.ices.dk/sites/pub/Publication%20Reports/Advice/2020/2020/spr.27.22-32.pdf>

ICES latest advice on central Baltic herring

<https://www.ices.dk/sites/pub/Publication%20Reports/Advice/2020/2020/her.27.25-2932.pdf>

STECF home page

<https://stecf.jrc.ec.europa.eu/>

## Links

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

<b>M2 Surveillance, Control and Enforcement - Minimum Requirements</b>			
<b>M2</b>	<b>M2.1</b>	There is an organisation responsible for monitoring compliance with fishery laws and regulations.	Yes
	<b>M2.2</b>	There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.	Yes
	<b>M2.3</b>	There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.	Yes
	<b>M2.4</b>	Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS.	Yes
<b>Clause outcome:</b>			Pass
<b>M2.1 There is an organisation responsible for monitoring compliance with fishery laws and regulations.</b>			
Each Member State maintains an official website on fishery related control and reporting issues which are of benefit to the Commission, other Member States and the masters of fishing vessels in connection with the recovery of cod stocks in the Baltic.			

National websites contain *inter alia* information on:

- Description of control services and the resources available;
- National control action programmes;
- List of authorised vessels holding a special permit for fishing for cod in the Baltic Sea;
- Fishing effort limitation schemes;
- Contact details for the submission of logbooks and landing declarations when landing in that Member State
- Lists of designated ports for landing of certain species and addresses for fulfilling notification requirements

Member States must apply effective, proportionate and dissuasive sanctions against natural or legal persons engaged in IUU or other illegal activities.

The Estonian Environmental Inspectorate and the Veterinary and Food Board have a total of 20 shore based and sea-going fisheries inspectors. These inspectors work with colleagues from other EU Member States to implement the Baltic Sea Joint Deployment Plan (see below), and also work in cooperation with the Police and Border Guard Board. There are three Fishery Patrol Vessels, and the Estonian Government can also deploy one helicopter and 3 light aircraft for fisheries enforcement.

The European Fisheries Control Agency (EFCA) mission is to promote the highest common standards for control, inspection and surveillance under the CFP. Its primary role is to organise coordination and cooperation between national control and inspection activities so that the rules of the CFP are respected and applied effectively.

Joint Deployment Plans (JDP's) are established for fisheries/areas considered a priority by the Commission and the Member States concerned. They can refer either to European Union waters for which a Specific Control and Inspection Programme (SCIP) has been adopted or to International waters under the competence of a Regional Fisheries Management Organisation (RFMO), where EFCA is requested to coordinate the implementation of the European obligations under an International Control and Inspection Scheme.

In 2020 (Jan-June) a JDP was undertaken in EU Waters Subdivisions 22-32 (Baltic Sea) with the participation of inspection services and assets from competent authorities in Germany, Denmark, Estonia, Finland, Latvia, Lithuania, Poland and Sweden.

There is an organisation responsible for monitoring compliance with fishery laws and regulations. **Sub-clause 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.**

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

Since 2012, EU countries have been required to have a point system for serious infringements. Under the scheme, National Authorities are obliged to:

- Assess alleged infringements involving vessels registered under its flag, using standard EU definitions.
- Impose a pre-set number of penalty points on vessels involved in serious infringements (points are recorded in the national registry of fisheries offences).
- Suspend the vessel's license for 2, 4, 8 or 12 months when a pre-set number of points have been accumulated in a 3-year period.

The Estonian Environmental Inspectorate and the Veterinary and Food Board undertake fishing controls in marine waters under Estonian jurisdiction.

There is an organisation responsible for monitoring compliance with fishery laws and regulations. **Sub-clause M2.2 is met.**

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

Joint Deployment Plans (JDP's) undertaken in 2020 in the Baltic involved competent authorities for fisheries control and protection vessels from Germany, Denmark, Estonia, Finland, Latvia, Lithuania, Poland and Sweden. The Report (Jan-June 2020) noted that a total of 1,700 inspections (at sea, on land and in transport) were undertaken.

A total of 1404 inspections were made ashore with 29 suspected infringements detected on 28 fishing vessels. 14931.56 tonnes of sprat were controlled during these inspections.

A total of 282 inspections were made at sea with 3 suspected infringements detected on 3 fishing vessels. 1558.6 tonnes of sprat were controlled during inspections at sea.

The main type of suspected infringement detected related to 'falsifying the logbook, landing declarations, sales notes, transfer declaration, transport docs or failure to keep or submit these documents, as required', accounting for 60% of all infringements detected. No IUU-related infringements were detected.

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

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

In practice, CFP control as carried out by the Member States' control authorities can be broken down into three broad areas: conservation, structures, and markets:

- Conservation measures cover issues such as quota management or the implementation of technical measures (e.g. mesh sizes). Inspections are used to ensure that the fishing gear on board vessels meets official norms and that the information entered in logbooks.
- Structural policy plays a key role in the search for a balance between the fishing capacity of Member States, the fishing effort actually deployed, and the available fish resources. Checks are therefore necessary to establish that allocated days-at-sea have not been exceeded.
- Finally, national inspections are not limited to the catching sector, but also include all operations from landing and marketing to storage and transportation. Operators must, at all times, be in possession of proper documentation detailing the origin, nature, quantity and quality of fish involved in transactions, so that it can be cross-checked with data in log-books and from other sources, such as fish auctions.

As with the application of sanctions, bodies responsible for control and enforcement are set up by individual EU states.

The Estonian Environmental Inspectorate and the Veterinary and Food Board have a total of 20 shore based and sea-going fisheries inspectors. These inspectors work with colleagues from other EU Member States to implement the Baltic Sea Joint Deployment Plan, and also work in cooperation with the Police and Border Guard Board. There are three Fishery Patrol Vessels, and the Estonian Government can also 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. **Sub-clause M2.4 is met.**

#### References

European Fisheries Control Agency

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

EFCA Joint Deployment Plan Baltic Sea January-June 2020.

<https://www.efca.europa.eu/sites/default/files/atoms/files/2020-%20BALTIC%20SEA%20CAMPAIGN%20-%206M%20WEB%20REP%20final.pdf>

EU's Fisheries Control System

<https://ec.europa.eu/fisheries/cfp/control/>

Fisheries control authorities in the Baltic Sea area

[https://ec.europa.eu/fisheries/cfp/control/who\\_does\\_what/baltic\\_sea\\_authorities/](https://ec.europa.eu/fisheries/cfp/control/who_does_what/baltic_sea_authorities/)

MSC Sustainable Fisheries Certification. Denmark, Estonia, Germany, Sweden Baltic Sea herring and sprat. Public Certification Report. Lloyd's Register, November 2020.

<https://fisheries.msc.org/en/fisheries/denmark-estonia-germany-sweden-baltic-herring-and-sprat/@@view>

#### 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.**

<b>Species Name</b>		Baltic sprat <i>Sprattus sprattus</i>	
<b>A1</b>	<b>Data Collection - Minimum Requirements</b>		
	<b>A1.1</b>	Landings data are collected such that the fishery-wide removals of this species are known.	Yes
	<b>A1.2</b>	Sufficient additional information is collected to enable an indication of stock status to be estimated.	Yes
			<b>Clause outcome:</b> Pass
<p><b>A1.1 Landings data are collected such that the fishery-wide removals of this species are known.</b></p> <p>The EU Fisheries Control System, through the Fisheries Control Regulation (EC Regulation No 1224/2009) requires that data on catches (target species and bycatch) are recorded in logbooks by vessel captains and transmitted to the competent authority of each member state who then provide it to the Commission. These landings data are used in the stock assessment undertaken by ICES and published in their advice (e.g. ICES, 2020a).</p> <p>Landings data are collected such that the fishery-wide removals of this species are known. <b>Sub-clause A1.1 is met.</b></p>			
<p><b>A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.</b></p> <p>In addition to commercial catch data, stock abundance estimates are made from two acoustic surveys (BASS, BIAS) and natural mortalities calculated from the SMS multispecies model (ICES, 2020a). Mixing also occurs with herring stocks, which varies on a spatial scale. According to logbooks and sales slips, this mixing can vary between &lt; 5% and 40%, although these percentages are not quantifiable at this stage (ICES, 2020b).</p> <p>Sufficient additional information is collected to enable an indication of stock status to be estimated. <b>Sub-clause A1.2 is met.</b></p>			
<p><b>References</b></p> <p>Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, 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.  <a href="https://eur-lex.europa.eu/eli/reg/2009/1224/oj/eng">https://eur-lex.europa.eu/eli/reg/2009/1224/oj/eng</a></p> <p>ICES. 2020a. Sprat (<i>Sprattus sprattus</i>) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, spr.27.22-32. <a href="https://doi.org/10.17895/ices.advice.5879">https://doi.org/10.17895/ices.advice.5879</a></p> <p>ICES. 2020b. Baltic Sea ecoregion – Fisheries overview. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, section 4.2. <a href="https://doi.org/10.17895/ices.advice.7607">https://doi.org/10.17895/ices.advice.7607</a></p>			
<b>Links</b>			
<b>MARINTRUST Standard clause</b>		1.3.2.1.1, 1.3.2.1.2, 1.3.2.1.4, 1.3.1.2	
<b>FAO CCRF</b>		7.3.1, 12.3	
<b>GSSI</b>		D.4.01, D.5.01, D.6.02, D.3.14	

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

A stock assessment is conducted annually. The latest stock assessment was undertaken in May 2020 by the Working Group on Baltic Sea Fisheries (WGBFAS) (ICES, 2020a). It includes commercial catches from international catches (ICES, 2020a). Discard data have not generally been available for inclusion in stock assessments, although discards are estimated to be negligible. It is expected that misreporting of catches occurs, as estimates of species composition of clupeid catches are imprecise in some mixed pelagic fisheries. In the past this has been taken into account when assessing sprat stocks but are not quantified currently (ICES, 2018; ICES 2020a).

Biological information used in the assessment includes natural mortalities from the SMS multispecies model and stock abundance estimates from the BASS and BIAS surveys (ICES, 2020a; ICES, 2020b). **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.**

Reference points have been defined for the stock under ICES MSY and precautionary approach and also under the Baltic Sea MAP. Both MSY and PA reference points were re-estimated during an Inter-Benchmark Process (IBP) on Baltic Sprat (*Sprattus sprattus*) and herring (*Clupea harengus*) (IBPBASH) in March 2020 (ICES, 2020c). The reference points are presented in the table below.

**TABLE 6. SPRAT IN SUBDIVISIONS 22–32. REFERENCE POINTS, VALUES, AND THEIR TECHNICAL BASIS. WEIGHTS IN TONNES (SOURCE: ICES, 2020A)**

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	570 000	Assumed at $B_{pa}$ .	ICES (2020a)
	$F_{MSY}$	0.31	Stochastic simulations with Beverton–Holt stock–recruitment model	ICES (2020a)
Precautionary approach	$B_{lim}$	410 000	Stock–recruitment relationship (average of biomasses which produce half of the maximal recruitment in the Beverton–Holt and Ricker models).	ICES (2020a)
	$B_{pa}$	570 000	$B_{lim} \times \exp(1.645 \times \sigma)$ , where $\sigma = 0.2$ .	ICES (2020a)
	$F_{lim}$	0.63	Consistent with $B_{lim}$ .	ICES (2020a)
	$F_{pa}$	0.45	Consistent with $B_{pa}$ .	ICES (2020a)
Management plan	MAP MSY $B_{trigger}$	570 000	MSY $B_{trigger}$	ICES (2020a)
	MAP $B_{lim}$	410 000	$B_{lim}$	ICES (2020a)
	MAP $F_{MSY}$	0.31	$F_{MSY}$	ICES (2020a)
	MAP target range $F_{lower}$ – $F_{MSY}$	0.22–0.31	Consistent with the ranges that result in a no more than 5% reduction in long-term yield compared with MSY.	ICES (2020a)
	MAP target range $F_{MSY}$ – $F_{upper}$	0.31–0.41	Consistent with the ranges that result in a no more than 5% reduction in long-term yield compared with MSY.	ICES (2020a)



The latest stock assessment (ICES, 2020a) shows SSB is above MSY  $B_{trigger}$  in 2020 and has been since 1991 (see figure below). Fishing mortality has been above  $F_{MSY}$  since 2002. The increase in SSB in 2016–2017 is attributable to the strong year class of 2014. The 2015–2018 year classes are below or close to average, while the 2019 year class is above average.



FIGURE 1. SPRAT IN SUBDIVISIONS 22–32. SUMMARY OF THE STOCK ASSESSMENT. SSB AT SPAWNING TIME IS PREDICTED FOR 2020 (SOURCE: ICES, 2020A).

The status of the stock relative to its reference points is shown in the table below.

TABLE 7. SPRAT IN SUBDIVISIONS 22–32. STATE OF THE STOCK AND THE FISHERY RELATIVE TO REFERENCE POINTS (SOURCE: ICES, 2020A).

		Fishing pressure				Stock size			
		2017	2018	2019		2018	2019	2020	
Maximum sustainable yield	$F_{MSY}$	✗	✗	✗	Above	$MSY$	✓	✓	Above trigger
Precautionary approach	$F_{pa}, F_{lim}$	✓	✓	✓	Harvested sustainably	$B_{pa}, B_{lim}$	✓	✓	Full reproductive capacity
Management plan	$F_{MGT}$	✓	✓	✓	Within the range	$SSB_{MGT}$	✓	✓	Above

Species misreporting of sprat has occurred in the past and there are again indications of sprat being misreported as herring. These effects have not been quantified; however, it may affect the revision in SSB and  $F$  over time (ICES, 2020a).

The stock assessment provides an estimate of the status of the biological stock relative to a reference point or proxy. **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 herring and sprat 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, 2020c).

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 2020b), 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 an inter-benchmark in March 2020 (ICES, 2020c).

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 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.

Stock Assessments are made publicly available on the ICES website. **Sub-clause A2.5 is met.**

#### **References**

- ICES. 2020a. Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, spr.27.22-32. <https://doi.org/10.17895/ices.advice.5879>
- ICES, 2020b. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 2:45. 643 pp. [http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/Fisheries%20Resources%20Steering%20Group/2020/WGBFAS\\_2020.pdf](http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/Fisheries%20Resources%20Steering%20Group/2020/WGBFAS_2020.pdf)



ICES, 2020c. 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, 2018. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2020. ICES Advice 2018, her.27.25-2932.

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2018/2018/her.27.25-2932.pdf>

ICES Transparent Assessment Framework

<https://www.ices.dk/data/assessment-tools/Pages/transparent-assessment-framework.aspx>

#### 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.	Yes
	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.	Yes
	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).	Yes
Clause outcome:			Pass
<p><b>A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.</b></p> <p><b>A3.2 Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.</b></p> <p><b>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).</b></p> <p>The main mechanism to restrict total fishing mortality is the Baltic Sea MAP (Regulation (EU) No 2016/1139 as amended). The multiannual plan established, is 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. The MAP specifies that the target fishing mortality should be maintained (by 2020) in line with the ranges of <math>F_{MSY}</math> specified in the plan, informed by advice on the state of the stock which is assessed annually by ICES. It requires that fishing opportunities (the TAC) for the stock should be established within the lower range of <math>F_{MSY}</math> available at that time for the stock. In specific circumstances fishing opportunities may be fixed in line with the upper range of <math>F_{MSY}</math>, provided that the stock is above <math>MSY B_{trigger}</math>. These circumstances include to avoid serious harm arising from intra- or inter-species stock dynamics.</p> <p>The harvest strategy has been effective in maintaining Baltic sprat SSB above <math>MSY B_{trigger}</math>. TACs and catches are largely in line with ICES advice (provided in line with the MAP) – see table below. Whilst SSB has been maintained above <math>MSY B_{trigger}</math> it is noteworthy that fishing mortality has been above <math>F_{MSY}</math> since 2002.</p>			

**TABLE 8 BALTIC SPRAT: ICES ADVICE, THE AGREED TAC AND ICES ESTIMATED CATCHES (ALL WEIGHTS ARE IN TONNES) (SOURCE: ICES. 2020A)**

Year	ICES advice	Catch corresponding to advice	Agreed TAC	ICES catch
2016	MSY approach (F = 0.26)	≤ 205000	243000**	246500
2017	MSY approach (F = 0.26)	≤ 314000	303593**	285701
2018	MAP target F ranges: Flower to Fupper (F = 0.19–0.27), but F higher than FMSY = 0.26 only under conditions specified in MAP	219152–301722, but catch higher than 291715 only under conditions specified	304900**	308827
2019	MAP target F ranges: Flower to Fupper (F = 0.19–0.27), but F higher than FMSY = 0.26 only under conditions specified in MAP	225752–311523, but catch higher than 301125 only under conditions specified	313100**	314147
2020	MAP target F ranges: Flower to Fupper (F = 0.19–0.27), but F higher than FMSY = 0.26 only under conditions specified in MAP	169965–233704, but catch higher than 225786 only under conditions specified in MAP	256700**	
2021	Management Plan	247952 (range 181567 – 316833)		

The MAP requires that fishing opportunities are fixed in such a way that there is a less than 5% probability of the spawning stock biomass falling below  $B_{lim}$ . When scientific advice indicates that the spawning stock biomass of the stock is below  $B_{lim}$ , further remedial measures shall be taken to ensure rapid return of the stock to levels above the level capable of producing MSY. Those remedial measures may include suspending the targeted fishery for the stock and the adequate reduction of fishing opportunities.

**Sub-clauses A3.1 to A3.3 are met.**

#### References

ICES. 2020a. Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, spr.27.22-32. <https://doi.org/10.17895/ices.advice.5879>

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>

*Standard clause 1.3.2.1.3*

#### Links

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

<b>A4 Stock Status - Minimum Requirements</b>			
<b>A4.1</b>	The stock is at or above the target reference point, OR IF NOT:		Yes
	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.		
<b>Clause outcome:</b>			Pass

#### A4.1 The stock is at or above the target reference point, OR IF NOT:

As noted in clause A2, the stock is above the target biomass reference point (MSY  $B_{trigger}$ ).

**Clause A4.1 is met.**

#### References

ICES. 2020a. Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, spr.27.22-32. <https://doi.org/10.17895/ices.advice.5879>

#### Links

MARINTRUST Standard clause	1.3.2.1.4
FAO CCRF	7.2.1, 7.2.2 (e)
GSSI	D6 01

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

**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 (e.g. ICES, 2020d).

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 catch data (international landings, age distributions from catch sampling), stock abundance estimates are made from the Baltic International Acoustic October Survey (BIAS) and natural mortalities calculated from the SMS multispecies model (ICES, 2020d).

Mixing also occurs with sprat stocks, which varies on a spatial scale. According to logbooks and sales slips, this mixing can vary between < 5% and 40%, although these percentages are not quantifiable at this stage (ICES, 2020b).

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

<https://eur-lex.europa.eu/eli/reg/2009/1224/oj/eng>

ICES. 2020b. Baltic Sea ecoregion – Fisheries overview. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, section 4.2. <https://doi.org/10.17895/ices.advice.7607>

ICES. 2020d. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, her.27.25-2932.  
<http://ices.dk/sites/pub/Publication%20Reports/Advice/2020/2020/her.27.25-2932.pdf>

#### Links

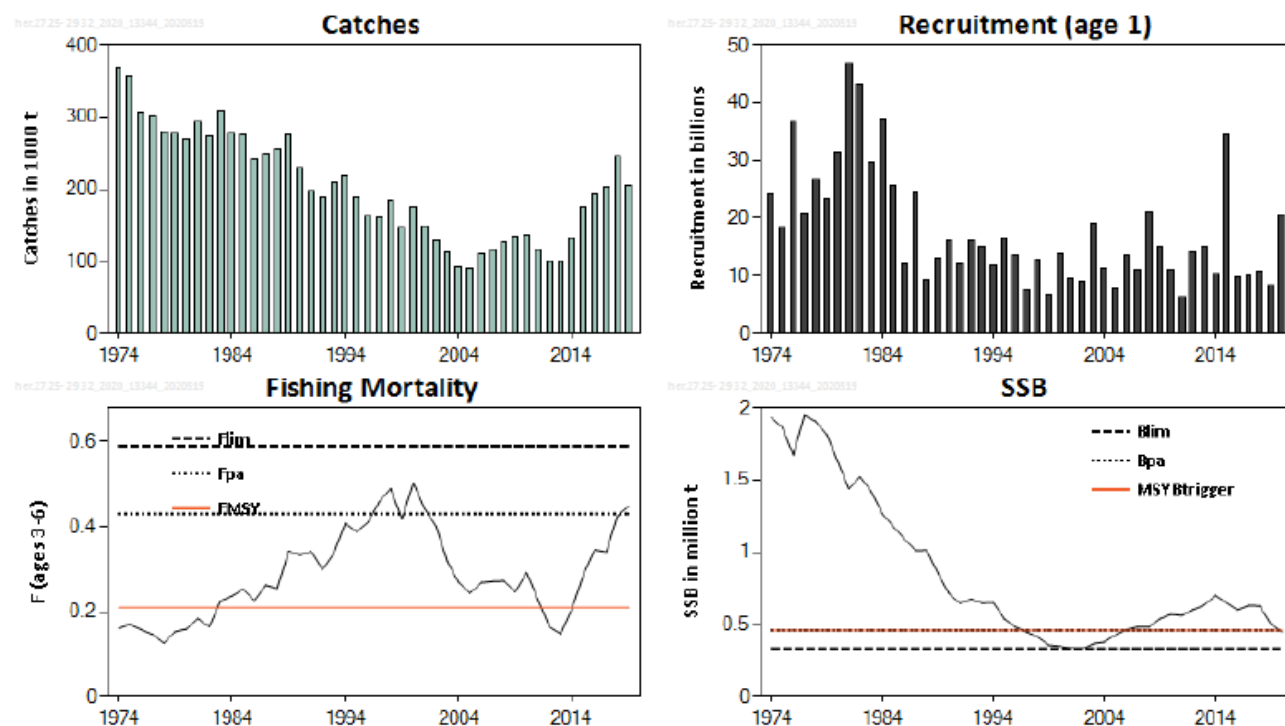
<b>MARINTRUST Standard clause</b>	1.3.2.1.1, 1.3.2.1.2, 1.3.2.1.4, 1.3.1.2
<b>FAO CCRF</b>	7.3.1, 12.3
<b>GSSI</b>	D.4.01, D.5.01, D.6.02, D.3.14

A2 Stock Assessment - Minimum Requirements		
<b>A2.1</b>	A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.	Yes
<b>A2.2</b>	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.	Yes
<b>A2.3</b>	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.	Yes
<b>A2.4</b>	The assessment is subject to internal or external peer review.	Yes
<b>A2.5</b>	The assessment is made publicly available.	Yes
<b>Clause outcome:</b>		Pass
<p><b>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.</b></p> <p>A stock assessment is conducted annually. The latest stock assessment was undertaken in May 2020 by the Working Group on Baltic Sea Fisheries (WGBFAS) (ICES, 2020d). It includes commercial catches from international landings. Discarding is considered to be negligible.</p> <p>Biological information used in the assessment includes natural mortalities from the SMS multispecies model and stock abundance estimates from the BIAS survey (ICES, 2020d). <b>Clause A2.1 is met.</b></p> <p><b>A2.2 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.</b></p> <p>Reference points have been defined for the stock under ICES MSY and precautionary approach and also under the Baltic Sea MAP. Both MSY and PA reference points were re-estimated during an Inter-Benchmark Process (IBP) on Baltic Sprat (<i>Sprattus sprattus</i>) and herring (<i>Clupea harengus</i>) (IBPBASH) in March 2020 (ICES, 2020c). The reference points are presented in the table below.</p>		

**TABLE 9. HERRING IN SUBDIVISIONS 25–29 AND 32, EXCLUDING THE GULF OF RIGA. REFERENCE POINTS, VALUES, AND THEIR TECHNICAL BASIS. WEIGHTS ARE IN TONNES (SOURCE: ICES, 2020D)**

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	460 000	$B_{pa}$	ICES (2020a)
	$F_{MSY}$	0.21	Estimated by EqSim	ICES (2020a)
Precautionary approach	$B_{lim}$	330 000	The lowest SSB that has resulted in above-average recruitment, i.e. year 2002 (the SSB in 2002 happens to correspond to $B_{loss}$ )	ICES (2020a)
	$B_{pa}$	460 000	$1.4 \times B_{lim}$	ICES (2020a)
	$F_{lim}$	0.59	Estimated by EqSim as the F with 50% probability of SSB being less than $B_{lim}$	ICES (2020a)
	$F_{pa}$	0.43	$F_{lim} \times \exp(-1.645 \times 0.2)$	ICES (2020a)
Management plan	MAP MSY $B_{trigger}$	460 000	MSY $B_{trigger}$	ICES (2020a)
	MAP $B_{lim}$	330 000	$B_{lim}$	ICES (2020a)
	MAP $F_{MSY}$	0.21	$F_{MSY}$	ICES (2020a)
	MAP target range $F_{lower}-F_{MSY}$	0.15–0.21	Consistent with the ranges which result in no more than a 5% reduction in long-term yield compared to MSY	ICES(2020a)
	MAP target range $F_{MSY}-F_{upper}$	0.21–0.26	Consistent with the ranges which result in no more than a 5% reduction in long-term yield compared to MSY	ICES(2020a)

The latest stock assessment (ICES, 2020d) shows SSB has had a decreasing trend since 2014 and is just below MSY  $B_{trigger}$  in 2020 and above its limit reference point  $B_{lim}$  (see figure below). Fishing mortality has shown an increasing trend since 2014 and has been above  $F_{MSY}$  since 2015 and above  $F_{pa}$  in 2019. The high recruitment in 2015 was followed by four years of below average or average recruitment. Recruitment in 2020 is above average.



**FIGURE 2. HERRING IN SUBDIVISIONS 25–29 AND 32, EXCLUDING THE GULF OF RIGA. SUMMARY OF THE STOCK ASSESSMENT. SSB AT SPAWNING TIME IN 2020 IS PREDICTED (SOURCE: ICES, 2020D).**

The status of the stock relative to its reference points is shown in the table below.

**TABLE 10. HERRING IN SUBDIVISIONS 25–29 AND 32, EXCLUDING THE GULF OF RIGA. STATE OF THE STOCK AND THE FISHERY RELATIVE TO REFERENCE POINTS (SOURCE: ICES, 2020D).**

		Fishing pressure				Stock size			
		2017	2018	2019		2018	2019	2020	
Maximum sustainable yield	$F_{MSY}$	✗	✗	✗	Above	$MSY B_{trigger}$	✓	✓	✗ Below trigger
Precautionary approach	$F_{pa}/F_{lim}$	✓	✓	○	Increased risk	$B_{pa}/B_{lim}$	✓	✓	○ Increased risk
Management plan	$F_{MGT}$	✗	✗	✗	Above the range	$SSB_{MGT}$	✓	✓	✗ Below

The stock assessment provides an estimate of the status of the biological stock relative to a reference point or proxy. **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 herring and sprat 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, 2020c).

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 central Baltic herring is conducted annually at the ICES WGBFAS (ICES 2020b), 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 an inter-benchmark in March 2020 (ICES, 2020c).

**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.



Stock Assessments are made publicly available on the ICES website. **Sub-clause A2.5 is met.**

#### References

ICES, 2020b. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 2:45. 643 pp.  
[http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/Fisheries%20Resources%20Steering%20Group/2020/WGBFAS\\_2020.pdf](http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/Fisheries%20Resources%20Steering%20Group/2020/WGBFAS_2020.pdf)

ICES, 2020c. 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. 2020d. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, her.27.25-2932.  
<http://ices.dk/sites/pub/Publication%20Reports/Advice/2020/2020/her.27.25-2932.pdf>

#### 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	A3.1	There is a mechanism in place by which total fishing mortality of this species is restricted.	Yes
	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.	Yes
	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).	Yes
Clause outcome:			Pass
<p><b>A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.</b></p> <p><b>A3.2 Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.</b></p> <p><b>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).</b></p> <p>The main mechanism to restrict total fishing mortality is the Baltic Sea MAP (Regulation (EU) No 2016/1139 as amended). The multiannual plan established, is 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. The MAP specifies that the target fishing mortality should be maintained (by 2020) in line with the ranges of <math>F_{MSY}</math> specified in the plan, informed by advice on the state of the stock which is assessed annually by ICES. It requires that fishing opportunities (the TAC) for the stock should be established within the lower range of <math>F_{MSY}</math> available at that time for the stock. In specific circumstances fishing opportunities may be fixed in line with the upper range of <math>F_{MSY}</math>, provided that the stock is above <math>MSY B_{trigger}</math>. These circumstances include to avoid serious harm arising from intra- or inter-species stock dynamics.</p> <p>The harvest strategy has been largely effective in maintaining central Baltic herring SSB above <math>MSY B_{trigger}</math>. TACs and catches are largely in line with ICES advice (provided in line with the MAP) – see table below. Whilst SSB has been largely effective in maintaining SSB above <math>MSY B_{trigger}</math> it is noteworthy that fishing mortality has been above <math>F_{MSY}</math> since 2015 and above <math>F_{pa}</math> in 2019.</p>			

**TABLE 11. HERRING IN SUBDIVISIONS 25–29 AND 32, EXCLUDING THE GULF OF RIGA. ICES ADVICE, TACS, AND CATCHES. ALL WEIGHTS ARE IN TONNES (SOURCE: ICES. 2020d)**

Year	ICES advice	Catch corresponding to the advice	Agreed TAC	ICES catch SDs 25–29+32	ICES catch
2016	MSY approach ( $F_{MSY} = 0.22$ )	$\leq 201000$	206605 <sup>^^</sup>		192056
2017	MSY approach ( $F_{MSY} = 0.22$ )	$\leq 216000$	220629 <sup>^^</sup>		202517
2018	MAP target F ranges: $F_{lower}$ to $F_{upper}$ ( $F = 0.16–0.28$ ), but F higher than $F_{MSY} = 0.22$ only under conditions specified in MAP	200236–331510, but catch higher than 267745 only under conditions specified in MAP	258855 <sup>^^</sup>		244365
2019	MAP target F ranges: $F_{lower}$ to $F_{upper}$ ( $F = 0.16–0.28$ ), but F higher than $F_{MSY} = 0.22$ only under conditions specified in MAP	115591–192787, but catch higher than 155333 only under conditions specified in MAP	200260 <sup>^^</sup>		204438
2020	MAP target F ranges: $F_{lower}$ to $F_{upper}$ ( $F = 0.16–0.28$ ), but F higher than $F_{MSY} = 0.22$ only under conditions specified in MAP	130546–214553, but catch higher than 173975 only under conditions specified in MAP	182484 <sup>^^</sup>		
2021	Management Plan	111852 (range 83971–138183)			

<sup>^^</sup> TAC is calculated as EU (subdivisions 25–28(2), 29, and 32) + Russian autonomous quotas

The MAP requires that fishing opportunities are fixed in such a way that there is a less than 5% probability of the spawning stock biomass falling below  $B_{lim}$ . When scientific advice indicates that the spawning stock biomass of the stock is below  $B_{lim}$ , further remedial measures shall be taken to ensure rapid return of the stock to levels above the level capable of producing MSY. Those remedial measures may include suspending the targeted fishery for the stock and the adequate reduction of fishing opportunities.

Sub-clauses A3.1 to A3.3 are met.

#### References

ICES. 2020d. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, her.27.25-2932.

<http://ices.dk/sites/pub/Publication%20Reports/Advice/2020/2020/her.27.25-2932.pdf>

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>

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

<b>A4</b>	<b>Stock Status - Minimum Requirements</b>	
	<b>A4.1</b>	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:	Yes
		The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.	
Clause outcome:			Pass
<b>A4.1 The stock is at or above the target reference point, OR IF NOT:</b>  <b>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure</b>  As noted in clause A2, following a revision of reference points at the last inter-benchmark assessment (ICES. 2020c), the stock level has been revised downwards so that it is now just below the target biomass reference point (MSY $B_{trigger}$ ), but above the limit reference point $B_{lim}$ (ICES. 2020d).  As noted in clause A3, the MAP requires that fishing opportunities are fixed in such a way that there is a less than 5% probability of the spawning stock biomass falling below $B_{lim}$ . When scientific advice indicates that the spawning stock biomass of the stock is below $B_{lim}$ , further remedial measures shall be taken to ensure rapid return of the stock to levels above the level capable of producing MSY. Those remedial measures may include suspending the targeted fishery for the stock and the adequate reduction of fishing opportunities.  The stock is above the limit reference point and there is evidence that a fall below the limit reference point would result in fishery closure. <b>Clause A4.1 is met.</b>			
<b>References</b>  ICES, 2020c. Inter-Benchmark Process on Baltic Sprat ( <i>Sprattus sprattus</i> ) and Herring ( <i>Clupea harengus</i> ) (IBPBash). ICES Scientific Reports, 2:34. 44 pp. <a href="http://doi.org/10.17895/ices.pub.5971">http://doi.org/10.17895/ices.pub.5971</a>  ICES. 2020d. Herring ( <i>Clupea harengus</i> ) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, her.27.25-2932. <a href="http://ices.dk/sites/pub/Publication%20Reports/Advice/2020/2020/her.27.25-2932.pdf">http://ices.dk/sites/pub/Publication%20Reports/Advice/2020/2020/her.27.25-2932.pdf</a>			
<b>Links</b>			
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**

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

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

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

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

<b>B &gt; <math>B_{av}</math> and F &lt; <math>F_{av}</math></b>	Pass	Pass	Pass	Fail
<b>B &gt; <math>B_{av}</math> and F or <math>F_{av}</math> unknown</b>	Pass	Pass	Fail	Fail
<b>B = <math>B_{av}</math> and F &lt; <math>F_{av}</math></b>	Pass	Pass	Fail	Fail
<b>B = <math>B_{av}</math> and F or <math>F_{av}</math> unknown</b>	Pass	Fail	Fail	Fail
<b>B &gt; <math>B_{av}</math> and F &gt; <math>F_{av}</math></b>	Pass	Fail	Fail	Fail
<b>B &lt; <math>B_{av}</math></b>	Fail	Fail	Fail	Fail
<b>B unknown</b>	Fail	Fail	Fail	Fail
<b>Resilience</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>Very Low</b>

## Assessment Results

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

## CATEGORY C SPECIES

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

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

<b>Species Name</b>		
<b>C1</b>	<b>Category C Stock Status - Minimum Requirements</b>	
	<b>C1.1</b>	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.
	<b>C1.2</b>	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.
		<b>Clause outcome:</b>
<p><b>C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.</b></p> <p><b>C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.</b></p>		
<b>References</b>		
<b>Links</b>		
MARINTRUST Standard clause		1.3.2.2
FAO CCRF		7.5.3

GSSI	D.3.04, D5.01
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<b>D1</b>	<b>Species Name</b>			
	<b>Productivity Attribute</b>		<b>Value</b>	<b>Score</b>
	Average age at maturity (years)			
	Average maximum age (years)			
	Fecundity (eggs/spawning)			
	Average maximum size (cm)			
	Average size at maturity (cm)			
	Reproductive strategy			
	Mean trophic level			
	<b>Average Productivity Score</b>			
	<b>Susceptibility Attribute</b>		<b>Value</b>	<b>Score</b>
	Overlap of adult species range with fishery			
	Distribution			
	Habitat			
	Depth range			
	Selectivity			
	Post-capture mortality			
	<b>Average Susceptibility Score</b>			
	<b>PSA Risk Rating (From Table D3)</b>			
	<b>Compliance rating</b>			
<b>References</b>				
<i>Standard clauses 1.3.2.2</i>				

## 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.

Table D2 - Productivity / Susceptibility attributes and scores.

Productivity attributes	Low productivity/ High risk	Medium productivity/ Medium risk	High productivity/ Low risk
	Score 3	Score 2	Score 1
Average age at maturity (years)	>4	2 to 4	<2
Average maximum age (years)	>30	10 to 30	<10
Fecundity (eggs/spawning)	<1 000	1 000 to 10 000	>10 000
Average maximum size (cm)	>150	60 to 150	<60
Average size at maturity (cm)	>150	30 to 150	<30
Reproductive strategy	Live bearer, mouth brooder or significant parental investment	Demersal spawner "berried"	Broadcast spawner
Mean trophic level	>3.25	2.5–3.25	<2.5

Susceptibility attributes		High susceptibility/ High risk	Medium susceptibility/ Medium risk	Low susceptibility/ Low risk
		Score 3	Score 2	Score 1
Availability	1) Overlap of adult species range with fishery	>50% of stock occurs in the area fished	Between 25% and 50% of the stock occurs in the area fished	<25% of stock occurs in the area fished
	2) Distribution	Only in the country/ fishery	Limited range in the region	Throughout region/ global distribution
Encounterability	1) Habitat	Habitat preference of species make it highly likely to encounter trawl gear (e.g. demersal, muddy/sandy bottom)	Habitat preference of species make it moderately likely to encounter trawl gear (e.g. rocky bottom/reefs)	Depth or distribution of species make it unlikely to encounter trawl gear (e.g. epi-pelagic or meso-pelagic)
	2) Depth range	High overlap with trawl fishing gear (20 to 60 m depth)	Medium overlap with trawl fishing gear (10 to 20 m depth)	Low overlap with trawl fishing gear (0 to 10 m, >70 m depth)
Selectivity		Species >2 times mesh size or up to 4 m length	Species 1 to 2 times mesh size or 4 to 5 m length	Species <mesh size or >5 m length
Post capture mortality		Most dead or retained Trawl tow >3 hours	Alive after net hauled Trawl tow 0.5 to 3 hours	Released alive Trawl tow <0.5 hours

**Note:** Availability 2 is only used when there is no information for Availability 1; the most conservative score between Encounterability 1 and 2 is used.

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

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



## FURTHER IMPACTS

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

F1	Impacts on ETP Species - Minimum Requirements		
	F1.1	Interactions with ETP species are recorded.	Yes
	F1.2	There is no substantial evidence that the fishery has a significant negative effect on ETP species.	Yes
	F1.3	If the fishery is known to interact with ETP species, measures are in place to minimise mortality.	Yes
Clause outcome:			Pass
<p><b>F1.1 Interactions with ETP species are recorded.</b></p> <p>Recording of the catch of seabirds and mammals has been undertaken in some Baltic Sea fisheries, usually where there is perceived risk of such bycatch. Seabirds can become entangled in gillnets or hooked on longlines. Seals can be caught in submerged trap nets and harbour porpoises entangled in gillnets. Pelagic trawlers or purse seines in general are not known to cause significant bycatch of birds or mammals in the offshore fishery.</p> <p>There is a requirement for EU member states to record ETP bycatch initially through Council Regulation (EC) 812/2004 (which was focused on cetaceans, although member states also provided information on other species) and from 2019 through the technical measures Regulation (EU Regulation 2019/1241) (Annex XIII sets out monitoring requirements for marine mammals, reptiles and seabirds) and the Habitats and Birds Directives (1992/43/EC and 2009/47/EC) also require monitoring of bycatch of species protected under the Directives (ICES, 2020f).</p> <p>Whilst the observer programmes have been running for a number of years they have been abandoned in some countries on the basis that no records of incidental catch of marine mammals were made. For this reason, Denmark has not undertaken a specific marine monitoring programme for its pelagic trawl fishery (monitoring is undertaken of its gillnet fisheries under the Data Collection Regulation (DCR) scheme) and Latvia is proposing to do the same in future for its pelagic trawl fisheries (ICES, 2019a). Observer coverage for some of these fisheries has been low (&lt;5%).</p> <p>The Public Certification Report for Denmark, Estonia, Germany, Sweden Baltic Sea herring and sprat (Lloyd's Register, 2020) notes that in all Estonian fisheries, recording of bycatch is mandatory by national law and data are included in the Estonian Fisheries Information System. In 2017 bycatch was registered in coastal fisheries, but not in trawl fisheries. Furthermore, no bycatch was registered during Estonian trawl surveys (Ministry of the Environment (Republic of Estonia), 2019). However, the 2017-2019 annual report data table indicates there is mammal bycatch registered to pelagic sea fisheries. The details of these entries, including target fishery, bycatch species and quantity, are unknown. Reporting under (EC) 812/2004 on observer coverage have been provided for Estonian vessels, which documents zero bycatch of cetaceans in the years 2016 to 2018, however it is noted that observer coverage was limited including no coverage in areas 25, 26 and 27 and &lt;5% coverage in areas 29 and 32 during 2018.</p> <p>Observer coverage is low but there is evidence that interactions with ETP species are recorded. <b>Clause F1.1 is met.</b></p>			
<p><b>F1.2 There is no substantial evidence that the fishery has a significant negative effect on ETP species.</b></p> <p>At least four species of marine mammals can be found in the Baltic Sea: grey seal; harbour seal; ringed seal and a small population of harbour porpoise. The status of grey seals is generally good, whereas that of the Baltic proper 'Kalmarsund' population of common seal and the southern populations of ringed seal is poor according to the latest HELCOM assessment (HELCOM, 2018a; HELCOM, 2018b). The two sub-populations of harbour porpoise in the Baltic Sea are also considered to be</p>			

in a poor state. The Western Baltic (or Belt Sea) population is classified as vulnerable on the HELCOM Red List of species in danger of becoming extinct, which uses the IUCN Red List criteria as its basis, and the Baltic proper sub-population is classified as critically endangered (HELCOM, 2013a).

As noted in the previous clause there is little evidence of bycatch of marine mammals in the pelagic trawl fisheries from observer programmes although coverage is low. The ICES Working group on Bycatch (WGBYC) recently assessed the bycatch risk posed by different fishing gears to protected species in the Baltic Seas using expert judgement. Each combination of protected species and gear type was assigned a simple 1 to 3 (lower-higher risk) score. Pelagic trawls were scored at '1', except for seals and harbour porpoise which were scored at '2' based on a record from Poland of one porpoise bycatch from a pelagic trawl (Skora and Kuklik, 2003 cited in ICES, 2018).

The most likely indirect effects from pelagic trawl fisheries is prey depletion. HELCOM have reviewed and identified threats to the Baltic seal populations (HELCOM, 2013b). With the exception of grey seals, prey depletion is not identified as a major threat to the populations in the Baltic. Grey seals are generalist feeders taking a wide variety of prey including sandeels, gadoids (cod, whiting, haddock, ling) and flatfish (plaice, sole, flounder, dab) (ICES, 2015). Amongst these sandeels are typically the most important. Diet varies seasonally and from region to region. Taking into account these preferred forage species it is unlikely the fishery is posing a risk to grey seals.

The Baltic is an important overwintering ground for seabirds and sea ducks and nine of nineteen species breeding in the area are decreasing in numbers, ten have increased, nine were stable, and the trend was uncertain in one species (ICES Ecosystem Overview, Baltic Sea Ecoregion; ICES, 2020a). The greatest declines in breeding numbers were observed in common eider *Somateria mollissima* and great black-backed gull *Larus marinus*. Three species that feed mainly on herring and sprat (common guillemot, razorbill, and Arctic tern) have increased in number over recent decades. The Baltic Sea is an important wintering area for many species, including the globally threatened long-tailed duck, velvet scoter *Melanitta fusca*, and Steller's eider *Polysticta stelleri*. These three species have been declining in number during the last 25 years, as have many other benthic-feeding species (ICES, 2020a). However, pelagic trawls have not been identified as posing a significant risk to seabirds.

In conclusion, there is no substantial evidence that the fishery has a significant negative effect on ETP species. **Clause F1.2 is met.**

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

Estonia is a contracting party to HELCOM which agreed in 2006 on a Recommendation of the 'Conservation of seals in the Baltic Sea'. This is a regional agreement on joint management principles, management units for the different seal populations, limit reference levels for the respective management unit, and coordinated monitoring programmes.

Estonia is not a contracting party to the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS) the purpose of which is to achieve and maintain a favourable conservation status for small cetaceans. ASCOBANS has made a number of resolutions relating to harbour porpoise bycatch, most recently in ASCOBANS Resolution 8.5, which sets out targets for the reduction of bycatch. A number of harbour porpoise recovery plans have also been developed of which the 'Jastarnia Plan' (ASCOBANS, 2016) covers the harbour porpoise in the Baltic Sea, and a plan covering the Western Baltic, Belt Sea and Kattegat population (ASCOBANS, 2012). These list a range of actions to protect harbour porpoise including for instance by reducing bycatch in fisheries towards zero, designating marine protected areas for them and minimising the impacts of anthropogenic noise.

ICES has recently been requested by the EU to produce advice on emergency measures to prevent bycatch of harbour porpoise (ICES, 2020g). Following this advice, BALTFISH and the European Commission met on the 3rd March 2021 and agreed emergency measures for the protection of harbour porpoises for 6 months starting April/May 2021. These measures (closures, use of pingers) are focused on the 'fisheries of concern', namely static net fisheries (i.e. trammel net, gillnet and semi-driftnet) rather than the pelagic trawls considered in this assessment.

The EU technical measure regulations, which covers all marine mammals listed under the Habitats Directive Annexes II and IV and seabirds covered by the Birds Directive, prohibits their capture and where captured requires their prompt release. Monitoring and reporting requirements also apply to marine mammals and seabirds as referred to in the previous sub-clause.

Pelagic trawlers or purse seines are not known to cause significant bycatch of ETP in the offshore fishery in the Baltic Sea but there is some evidence of interaction. Measures are in place to minimise mortality. **Clause F1.3 is met**

#### References

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<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1241&from=EN>

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.	Yes
	F2.2	There is no substantial evidence that the fishery has a significant negative impact on physical habitats.	Yes
	F2.3	If the fishery is known to interact with physical habitats, there are measures in place to minimise and mitigate negative impacts.	Yes

Clause outcome:	Pass
<p><b>F2.1 Potential habitat interactions are considered in the management decision-making process.</b></p> <p><b>F2.2 There is no substantial evidence that the fishery has a significant negative impact on physical habitats.</b></p> <p><b>F2.3 If the fishery is known to interact with physical habitats, there are measures in place to minimise and mitigate negative impacts.</b></p> <p>Pelagic trawl gears are not designed to make contact with the seabed, such contact is likely to be minimal and consequently this gear is considered to have marginal impact on benthic habitats and bottom structures. 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 by-catch.</p> <p>The HELCOM Baltic Sea Action Plan (BSAP) is a programme to restore the good ecological status of the Baltic marine environment by 2021. The Plan, adopted by all the Baltic coastal states and the EU in 2007, provides the basis for HELCOM work. Under 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. As at 2018, 11.8% of the total marine area of the Baltic Sea is covered by HELCOM MPAs.</p> <p>HELCOM Recommendation 35/1 also emphasizes the development and implementation of management plans for MPAs, as well as assessing the effectiveness of management plans, or other measures, to ensure protection. One of the commitments is to develop and apply management plans, or measures, for all existing HELCOM MPAs by 2015, and to establish a management plan, or measures, for every new MPA within five years after its designation. This agreement has not been met; currently, of the 176 established HELCOM MPAs, 127 (72%) have a management plan in force, and 39 HELCOM MPAs (22%) have a management plan under preparation. Regarding the monitoring within MPAs which is required to assess their effectiveness, this occurs in 64% of HELCOM MPAs (HELCOM, 2016).</p> <p>In addition to the work of HELCOM, habitats are provided protection through the Natura 2000 network established under the EU Birds and Habitats Directives (2009/147/EC; 92/43/EEC). This is a network of core breeding and resting sites for rare and threatened species, and some rare natural habitat types which are protected in their own right. Under Article 6 of the Habitats Directive, Member States are required to establish the necessary conservation measures, including if necessary, management plans for these sites and the impact of any 'plans or projects' likely to have a significant effect on the sites subject to assessment. The definition of "plans or projects" is broad and includes fishing activities. Conservation measures have been developed in the Baltic Sea, in particular to protect reef sites in Denmark from demersal gears used by the nations fishing there, by excluding these gears in reef zones (Regulation (EU) 2017/1181).</p> <p>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. The regional measures for the Baltic Sea include a closed area for any active gear (offshore from the mouth of the Oder) and temporal area restrictions on fishing with any gear (Annex VIII).</p> <p>In conclusion, potential habitat interactions are considered in the management decision-making process through the BSAP with its associated measures, the requirements associated with Natura 2000 sites and the technical measures under EU Regulations. There is no substantial evidence that the fishery has a significant negative impact on physical habitats. The pelagic trawl gears operate in the water column. Pelagic trawlers using fishfinders to locate their target shoal and netsounders to</p>	

monitor the position of the gear, technology which enables fishers to avoid the gear contacting the bottom. This gear is considered to have marginal impact on benthic habitats and bottom structures. **Clauses F2.1, F2.2 and F2.3 are met.**

#### References

COMMISSION DELEGATED REGULATION (EU) 2017/1181 of 2 March 2017 amending Delegated Regulation (EU) 2017/117 establishing fisheries conservation measures for the protection of the marine environment in the Baltic Sea and repealing Delegated Regulation (EU) 2015/1778

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<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R1241>

#### Links

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



<b>F3</b>	<b>F3.1</b>	The broader ecosystem within which the fishery occurs is considered during the management decision-making process.	Yes
	<b>F3.2</b>	There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.	Yes
	<b>F3.3</b>	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.	Yes

**Clause outcome:** Pass

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

The Baltic Sea main commercial fisheries (i.e. cod, sprat and herring) are regulated through the Baltic Sea MAP (Regulation (EU) 2016/1139). The objectives of the MAP, as set out in Article 3, are inter alia to:

- contribute to the achievement of the Common Fisheries Policy (CFP) (Regulation (EU) 1380/2013) in particular through the application of the precautionary approach to fisheries management.
- implement the ecosystem-based approach to fisheries management in order to ensure that negative impacts of fishing activities on the marine ecosystem are minimised.
- be coherent with EU environmental legislation, in particular with the objective of achieving good environmental status by 2020 as set out in the Marine Strategy Framework Directive MSFD (Directive 2008/56/EC)

The Baltic sprat stock is managed according to an MSY strategy where key trophic interactions are incorporated. Predation pressure on sprat by cod is taken into account in the assessment, reference points, management regulations (MAP ranges).

The broader ecosystem within which the fishery occurs is considered during the management decision-making process. **Clause F3.1 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 impact of the fishery is the removal of herring and sprat biomass. These species are a potential source of food for demersal fish (cod), for birds and for sea mammals.

Cod, herring and sprat comprise the bulk of the fish community in the Baltic proper both in terms of biomass and numbers. Cod is the main predator on herring and sprat and herring and sprat prey on cod eggs and compete with each other for food. Removal of sprat and cod by fisheries could therefore have an impact on the food available for cod.

Depletion of cod in the Baltic Sea in the 1990s has contributed to a shift in the trophic structure from a cod-dominated system to a clupeid-dominated one. Both stocks of central Baltic herring and Baltic sprat are healthy and are considered to be above the point where serious ecosystem impacts could occur and fluctuating at a level consistent with ecosystem needs.

The ICES Ecosystem Overview (ICES, 2020a) noted that the populations of three seabird species that feed mainly on herring and sprat (common guillemot, razorbill, and Arctic tern) have increased in number over recent decades. As noted in the previous clause, prey depletion of the target clupeids is not considered a major threat to the Baltic Sea harbour porpoise and seal populations. This suggests that food is available and that herring/sprat at present are not constraining these populations.

However, in recent years there has been a mismatch in the spatial overlap between the cod stock (eastern Baltic stock) and the clupeid stocks. ICES (2019c) note that nutritional condition of adult cod has been continuously declining since the early 1990s and that since the mid-2000s, the proportion of cod with a very low condition index rapidly increased. The decline in

cod condition is evident in all offshore areas of the central Baltic. Over this time the clupeids have significantly decreased in the southern Baltic where the cod is concentrated, with sprat and herring now more northerly distributed with little overlap with cod (Eero *et al.*, 2012 cited in ICES, 2019d). This lack of overlap has been hypothesized as one of the main reasons for the current poor condition of the cod stock, together with poor oxygen conditions thought to affect cod metabolism and increased infestation with parasites (ICES, 2019c). ICES note that these drivers are interrelated, and the relative effect on the cod stock is unclear (ICES, 2019e).

Given the healthy status of the clupeid stocks targeted by the fishery in this area and evidence of increases in predator populations that rely on these stocks, it is considered that there is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem. However, the current poor condition of the cod stock, a factor in which is thought to be the lack of spatial overlap with its clupeid prey and the potential for the fishery to exacerbate the problem is an area of uncertainty. **Clause F3.2 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.**

As noted in F3.1, the central Baltic herring stock is managed according to an MSY strategy where key trophic interactions are incorporated. Predation pressure on sprat by cod is taken into account in the assessment, reference points, management regulations (MAP ranges). However, there is some uncertainty arising from the spatial separation of the cod and herring stock (referred to in the previous sub-clause) which is hypothesised could be one of the main reasons for its poor growth and condition and which affects the data used in the multi-species models used for stock assessment and estimation of reference points.

On balance, it can be said that additional precaution is included in recommendations relating to the total permissible fishery removals. **Clause F3.3 is met.**

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ICES, 2019e. Cod (*Gadus morhua*) in subdivisions 24-32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2019, cod.27.24-32. <https://doi.org/10.17895/ices.advice.4747>

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>

**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  $r_m$ . If users have independent  $r_m$  or fecundity estimates, they can refer to Table 1 for using this information.”*

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

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

## 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)

## MarinTrust Fishery Assessment Peer Review

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

Fishery under assessment	Baltic sprat and central Baltic herring using pelagic trawls in ICES subdivisions 25-32.
Management authority (Country/State)	EU, Estonia
Main species	Baltic sprat ( <i>Sprattus sprattus</i> ) Central Baltic herring ( <i>Clupea harengus</i> )
Fishery location	FAO 27 Northeast Atlantic - Baltic Sea (ICES subdivisions 25-29 and 32)
Gear type(s)	Pelagic trawl

- **CB responses to peer review comments in Blue**

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

In the Management authority section, I would recommend to include EU Common fisheries Policy.

A reference to CFP has been added.

## Summary of Peer Review Outcomes

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

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

## Detailed Peer Review Justification

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

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

Boxes may be extended if more space is required.

1. Is the scoring of the fishery consistent with the MarinTrust standard, and clearly based on the evidence presented in the assessment report?
The assessment report seems to be adequate and in general, it provides the information necessary to justify the scores assigned to the different categories. This is a semi-pelagic fishery with relatively low impact on other species and the habitat. The target stocks are above the limit reference points and a management plan has been implemented for the fishery (but there are some concerns about how F is restricted as it seems to be over FMSY and increasing). Two main concerns. One is the level of misreporting in the fishery. It could potentially be a large problem with regards to the perception of these stocks (particularly for the herring stock). And no information on misreporting is currently available for the Estonian fishery. My second concern is about the low level of observer coverage which prevents assessing the real impact of the fishery on ETP species. The fishery could potentially be a threat to the critically endangered population of the Baltic harbour porpoise. See my comments in the relevant sections.
2. Has the fishery assessment been fully completed, using the recognised MARINTRUST fishery assessment methodology and associated guidance?
The IFFO RS standard has been adequately applied to this assessment.

### 3. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?

The species categorisation is based on the MSC report, which I understand is correct. I would prefer to have a more official reference (ICES data, scientific report or similar). I do not like assessments which are based on secondary references.

The report has been updated with more specific references on the source of the catch composition information used in the MSC reports referred to.

### 3M. Are the scores in “Section M – Management” clearly justified?

A management system is in place for the this fishery in the Baltic Sea. The EU adopted a multiannual management plan for cod, herring and sprat in the area. Some minor comments:  
M1.2 The information provided for the Baltic Sea Advisory Council (BSAC) seems to be more relevant in section M1.5. [Agreed, text removed from M1.2.](#)

M1.3 *“The achievement of good environmental status by 2020”* seems to be outdated (as 2020 has already gone). Regulation (EU) No 1380/2013 has not been updated for this particular objective, hasn't it? [I'm not aware that it has. The Directive is due for review no later than 2023 \(see report on implementation of MSFD published 25 June 2020\)](#)

### 3A. Are the “Category A Species” scores clearly justified?

The information provided is adequate. Commercial and survey data is collected for both species. The sprat stock is over the MSY Btrigger (although F is higher than the recommended level) and the herring stock is under the target reference point but well above the limit reference point. A clear harvest strategy is in place for both species.

#### **Sprat**

A1.2. It is interesting to know the wide range of mixing in the fishery (between 5 and 40%). Have you explored a little more why this wide it happens (misreporting, environmental conditions, prey-predator relationships?). [It is not clear – there appears to be a spatial factor \(greater mixing in the central Baltic\) and also the nature of the fishery is relevant \(greater mixing in industrial rather than directed fisheries\).](#)

A2.2 In this clause it is indicated *“Species misreporting of sprat has occurred in the past and there are again indications of sprat being misreported as herring. These effects have not been quantified”* but in A2.1 you stated: *“It is expected that misreporting of catches occurs, as estimates of species composition of clupeid catches are imprecise in some mixed pelagic fisheries. This is taken into account when assessing sprat stocks”*. [The text in A2.2 reflects the current situation. Text in A1.2 has been amended slightly.](#)

A2.3 The subheading in the justification section for this clause is incorrect: “A2.3 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.” It corresponds to A2.2. [Corrected.](#)

Misreporting seems to be important in some fisheries, any information about the Estonian fishery assessed here? [It would not appear that it is a major issue for Estonia. ICES WGBFAS note that misreporting is mainly an issue in the industrial trawl fishery targeting sprat-herring mix in nearshore waters, e.g. archipelago area of Sweden or the Kolobrzeg-Darlowo fishing ground off Poland. 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 \(WGBFAS, 2020\).](#)

A3. Yes, a mechanism is in place to restrict total fishing mortality, but it does not seem effective in keeping  $F$  at the  $MSY$  level (it has been over that level since 20 years ago). [Agreed, but that \(i.e. keeping  \$F\$  at  \$F\_{MSY}\$ \) is not what the clause is assessing. However, some text has been added to reflect the high  \$F\$ .](#)

#### Herring

A2 I am more concerned about the status of this species.  $F$  has increased sharply since 2014 (it is now above  $F_{pa}$ ) and the stock is close (below)  $MSY_{trigger}$  but well below the historical levels (compare the year 2020 with the period 1974-84). It is true that it is over  $F_{lim}$  but we will see what happens if fishing mortality is not cut. [Agreed and noted.](#)

A2.3 As in the previous species, the level of misreporting has been estimated (but it is largely unknown, in particular for the assessed fishery) but due to the status of the stock, this issue is maybe more worrying here. [Noted. It seems the Estonian fishery is not a major contributor to this problem.](#)

A3 And again, the mechanism to control  $F$  does not seem to be effective at all. [Agreed \(see previous comment\).](#)

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

No Category B species identified

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

No Category C species identified

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

No Category D species identified

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

F1.1. I am concerned about the low observer coverage in the fishery. This 2017-2019 annual report data table referenced by the assessor indicates marine mammal bycatch in pelagic fisheries. Later in the text it is stated (under (EC) 812/2004) that Estonian trawl vessels documented zero bycatch of cetaceans between 2016 and 2018. So, I understand that the previous data refers to what kind of pelagic fisheries? It is important to keep in mind that the Baltic Sea harbour porpoise population is Critically endangered with only 599 individuals left (<https://www.ascobans.org/en/species/phocoena-phocoena>) and even the catch of very few individuals of this species may have an important impact on the population. And according to the information provided by the assessor, the pelagic trawl presents a potential medium risk on these species. [As noted in the report the details of the fisheries referred to in 2017-2019 data table are unknown. Interactions with pelagic gears are likely to be rare \(the main focus in the Baltic with regard to harbour porpoise bycatch is with regard to static nets\). However, based on that 2017-2019 data it does appear interactions are recorded which is the focus of this clause.](#)

F1.3 I understand that if Estonia is not a contracting party to the ASCOBANS, any of the listed measures to protect harbour porpoises are being implemented there, is that correct? [If they are not a contracting party the measures referenced are presumably not binding on Estonia and not implemented by Estonia. However, if they have been implemented in other jurisdictions \(e.g. MPAs\) then Estonian vessels fishing those waters would have to adhere to them.](#)



Optional: General comments on the Peer Review Draft Report

I am not sure if I understand this sentence in the assessment determination section: *"However, whilst sprat and herring stocks in the Baltic proper are considered healthy, there is evidence of a spatial separation in the southern Baltic of the clupeid stocks and the eastern Baltic cod stock for which these are key prey species and which is in poor status"*. Which stock is in poor status, only the cod or also the southern Baltic clupeid stocks? (which stocks?). [Text clarified – only the eastern Baltic cod stock is in poor status.](#)

The use of the word "weird" in the peer review section sounds strange (I am not sure if it is incorrect). I would recommend something more appropriate such as "rare", "uncommon": *"has been demonstrated over the years that interactions are rare"*.