



MarinTrust Standard V2

Whole fish Fishery Assessment Report Baltic Sprat (*Sprattus sprattus*) Baltic Sea (ICES subdivisions 22 - 32)

MarinTrust Programme

Unit C, Printworks

22 Amelia Street

London

SE17 3BZ

E: 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			
Name:			
Address:			
Country: Denmark		Zip:	
Tel. No.		Fax. No.	
Email address:		Applicant Code	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor Name	CB Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Conor Donnelly	Géraldine Criquet	3	Surveillance 2
Assessment Period	2020		
Scope Details			
Management Authority (Country/State)		EU, Denmark, Latvia	
Main Species		Baltic sprat <i>Sprattus sprattus</i> Central Baltic herring <i>Clupea harengus</i>	
Fishery Location		Baltic Sea (ICES subdivisions 22 - 32)	
Gear Type(s)		Pelagic trawl	
Outcome of Assessment			
Overall Outcome		Pass	
Clauses Failed		None	
CB Peer Review Evaluation		Agree with the assessor's determination.	

Fishery Assessment Peer Review Group Evaluation	Approved see appendix
Recommendation	Approval

Table 2. Assessment Determination

Assessment Determination
<p>This fishery targets Baltic sprat using pelagic trawls in ICES subdivisions 25-32. Central Baltic herring make up a significant by-catch (>5%) so it is also assessed as a Category A stock.</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 and monitoring of interactions is an area that requires improvement. However, 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

The assessor correctly classified the two stocks in conformity with the Species categorisation requirements. The fishery is managed by the European Union, the and the Danish and Latvian national systems for fisheries management. There is a monitoring, surveillance and control system in place.

Data are collected and stocks are assessed. In the most recent stock assessment, the Baltic Sea sprat stock is above $MSY B_{trigger}$ and the central Baltic herring stock is just below $MSY B_{trigger}$ but above the limit reference point. There is a harvest strategy in place to ensure that stocks are fished at sustainable levels. The main mechanism to restrict total fishing mortality is the Baltic Sea MAP (Regulation (EU) No 2016/1139 as amended). The MAP specifies that the target fishing mortality should be maintained in line with the ranges of F_{MSY} 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 F_{MSY} available at that time for the stock. The harvest strategy has been largely effective in maintaining central Baltic herring SSB above $MSY B_{trigger}$. TACs and catches are largely in line with ICES advice

Given the type of gear, there is no evidence that the fishery impacts significantly habitats. There is no evidence that the fishery has significant negative impacts on ETP species and the ecosystem.

Therefore, Baltic Sea sprat and central Baltic herring stocks should be awarded continued approval for the production of fishmeal and fish oil under the IFFO-RS v 2.0 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 ¹	% of landings	Management	Category
Sprat	<i>Sprattus sprattus</i>	ICES subdivisions 22-32 (Baltic Sea)	Least concern	77%	EU	A
Herring	<i>Clupea harengus</i>	ICES subdivisions 25-29 and 32 (excl. Gulf of Riga. Central Baltic herring.	Least concern	23%	EU	A

Species categorisation rationale

The client provided the following report for information on catch composition and fleets: 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. The report notes that sprat are caught by Danish vessels in subdivisions 25-32. Danish pelagic trawlers catch both sprat and herring. As herring catches exceed 5% of total catches (see table above), herring has been identified as a Category A species alongside the target species, sprat. Herring present in subdivisions 25-32 are part of the central Baltic stock.

Information on the Latvian fishery was sourced from Bureau Veritas (2017). LFPO Pelagic Trawl Sprat (*Sprattus sprattus*). Public Certification Report. The Latvian sprat fishery is undertaken in ICES subdivisions 25-29 and 32. Information on catch composition in the report (§3.4.3.1) comes from the Fisheries Department of the Latvian Ministry of Agriculture (Latvian landings 2006-2015 in ICES subdivisions 25-27, 28.2, 29 & 32), catches by the MSC UoA in 2015 and data collected between 2013 and 2016 by BIOR scientists on board fishing vessels in SDs 26 and 28.2 under the DCF. The report indicates sprat and herring make up 100% of catches, with herring c.11 – 12% of total catches. The report identifies central Baltic herring as the herring stock impacted by the fishery. This confirms the species categorisation.

¹ <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.	Yes
	M1.2	There is an organisation responsible for collecting data and assessing the fishery.	Yes
	M1.3	Fishery management organisations are publicly committed to sustainability.	Yes
	M1.4	Fishery management organisations are legally empowered to take management actions.	Yes
	M1.5	There is a consultation process through which fishery stakeholders are engaged in decision-making.	Yes
	M1.6	The decision-making process is transparent, with processes and results publicly available.	Yes
Clause outcome:			Pass
<p>M1.1 There is an organisation responsible for managing the fishery.</p> <p>The fishery is managed within the context of the EU Common Fisheries Policy (CFP) and the Danish and Latvian national systems 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 Denmark, the Ministry of Food, Agriculture and Fisheries is responsible for the administration and regulation of EU fisheries policy, rule-making, control, structural policy, angling, support for business promotion and for environmentally friendly fishing. The Danish Fisheries Agency (Fiskeristyrelsen) implements the government's fisheries policy and conducts, among other things, rules and policy preparation, control, regulatory preparedness, case management and participation in international cooperation.</p> <p>In Latvia, fisheries legislation and management is through the Fisheries Department of the Ministry of Agriculture and the State Environmental Service (SES), part of the Ministry of Environmental Protection and Regional Development, carries out licensing, control and inspection.</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>			

There is an organisation responsible for managing the fishery. **Sub-clause M1.1 is met.**

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

The primary provider of scientific information and advice at the national level within Denmark is the National Institute of Aquatic Resources at the Technical University of Denmark (DTU Aqua). DTU Aqua's stated mission is to conduct research, provide advice, educate at university level and contribute to innovation in sustainable exploitation and management of aquatic resources. DTU Aqua directly advises the Danish Ministry of Food, Agriculture and Fisheries and other public authorities.

In Latvia, the BIOR Institute is responsible for scientific assessment and advice relating to fisheries. BIOR's mission is, *"to take care of public and animal health, food and environmental quality, sustainable use of fish and other aquatic biological resources by ensuring research activities in accordance with international standards, carrying out high-quality scientific expertise and laboratory examinations, providing services internationally"*.

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 DTU Aqua and BIOR) 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.

Also relevant to the management of sprat and herring in the Baltic Sea is the Baltic Sea Advisory Council (BSAC). The main objective of the BSAC is to provide advice on the management of Baltic fisheries, through its membership of representatives of the fishing industry and other non-governmental groups affected by the CFP, including NGOs, consumers and others.

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”*.

Denmark and Latvia are Member States of the European Union, and therefore in Community waters implement 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.

Denmark and Latvia are Member States of the European Union, and therefore in Community waters are subject to and implement 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 Denmark, the legislative basis for fishery management is set out in the Fisheries and Aquaculture Act 2017 (Miljø-og Fødevareministeriet 2017). The Act provisions cover fisheries control including giving powers to fisheries enforcement agencies to implement EU and domestic legislation, also provisions relating to managing impacts on the marine environment, addressing disputes between fishermen, and procedures for prosecuting fishing offences.

In Latvia, “Fishing Law” (12.04.1995 as amended) sets the basis for fisheries legislation in Latvia and institutions responsible for fisheries management and control, as well as rules on fish resources management.

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/>

BIOR Institute

<https://www.bior.lv/lv/par-bior/par-mums>

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

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

DTU Aqua, "Mission, vision and tasks"
http://www.aqua.dtu.dk/english/About/Mission_vision

Danish Fisheries Agency
<https://fiskeristyrelsen.dk>

Danish Ministry of Food, Agriculture and Fisheries
<https://fvm.dk/fiskeri/>

EU Common Fisheries Policy (CFP) overview
<https://ec.europa.eu/fisheries/cfp/>

Latvian Ministry of Agriculture
<https://www.zm.gov.lv/zivsaimnieciba/statiskas-lapas/zvejnieciba?nid=699#jump>

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

Fishing Opportunities Regulations
https://ec.europa.eu/fisheries/cfp/fishing_rules/tacs_en

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/>

The State Environmental Service (SES), Ministry of Environmental Protection and Regional Development, Republic of Latvia
<https://www.vvd.gov.lv/lv/par-mums>

Links

MARINTRUST Standard clause

1.3.1.1, 1.3.1.2

FAO CCRF	7.2, 7.3.1, 7.4.4, 12.3
GSSI	D.1.01, D.4.01, D2.01, D1.07, D1.04,

M2	Surveillance, Control and Enforcement - Minimum Requirements	
	M2.1	There is an organisation responsible for monitoring compliance with fishery laws and regulations. Yes
	M2.2	There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken. Yes
	M2.3	There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing. Yes
	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. Yes
Clause outcome:		Pass
<p>M2.1 There is an organisation responsible for monitoring compliance with fishery laws and regulations.</p> <p>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.</p> <p>National websites contain <i>inter alia</i> information on:</p> <ul style="list-style-type: none"> • Description of control services and the resources available; • National control action programmes; • Fishing effort limitation schemes; • Contact details for the submission of logbooks and landing declarations when landing in that Member State • Lists of designated ports for landing of certain species and addresses for fulfilling notification requirements <p>Member States must apply effective, proportionate and dissuasive sanctions against natural or legal persons engaged in IUU or other illegal activities.</p> <p>The Danish Fishery Agency is the competent authority with responsibility of enforcement of sanctions and penalties with respect to the prosecution of fishery rules.</p> <p>The State Environmental Service (SES), part of the Ministry of Environmental Protection and Regional Development, carries out fishing controls in marine waters under Latvian jurisdiction.</p> <p>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.</p> <p>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</p>		

(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 Danish Fishery Agency is the competent authority with responsibility of enforcement of sanctions and penalties with respect to the prosecution of fishery rules. The Agency applies the points system referred to above. Further details can be found on the Agency's website, in particular it's 'Guide to the application of points rules for serious infringements of fisheries legislation'.

The State Environmental Service (SES), part of the Ministry of Environmental Protection and Regional Development, carries out fishing controls in marine waters under Latvian jurisdiction. A Latvian Administrative Penalty Code exists and is applied for violations of fishing rules. Where repeated violation of fishing regulations occurs or fishing occurs without authorization fines range from 700€ up to 14,000€, gear can be confiscated and fishing licenses suspended for up to three years

There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken. **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 Danish Fishery Agency is the competent authority with responsibility of enforcement of sanctions and penalties with respect to the prosecution of fishery rules. The State Environmental Service (SES), part of the Ministry of Environmental Protection and Regional Development, carries out fishing controls in marine waters under Latvian jurisdiction. These organisations work with colleagues from other EU Member States to implement the Baltic Sea Joint Deployment Plan.

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

Danish Fisheries Agency
<https://fiskeristyrelsen.dk>

Danish Fisheries Agency. Guide to the application of points rules for serious infringements of fisheries legislation.
https://fiskeristyrelsen.dk/fileadmin/user_upload/Fiskeristyrelsen/Erhvervsfiskeri/Vejledninger_til_erhvervsfiskere/17-10-2019-vejledning-om-anvendelsen-af-reglerne-om-point-ved-alvorlige-overtraedelser-af-fiskerilovgivningen.pdf

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/

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>

The State Environmental Service (SES), Ministry of Environmental Protection and Regional Development, Republic of Latvia
<https://www.vvd.gov.lv/lv/par-mums>

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

CATEGORY A SPECIES

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

Species Name		Baltic sprat <i>Sprattus sprattus</i>	
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
<p>A1.1 Landings data are collected such that the fishery-wide removals of this species are known.</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. Sub-clause A1.1 is met.</p>			
<p>A1.2 Sufficient additional information is collected to enable an indication of stock status to be estimated.</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 < 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. Sub-clause A1.2 is met.</p>			
<p>References</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.</p> <p>https://eur-lex.europa.eu/eli/reg/2009/1224/oj/eng</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. https://doi.org/10.17895/ices.advice.5879</p>			

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>

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

A2 Stock Assessment - Minimum Requirements		
A2.1	A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.	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
<p>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.</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, 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. This is taken into account when assessing sprat stocks (ICES, 2018).</p> <p>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.</p> <p>A2.2 The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.</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 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.

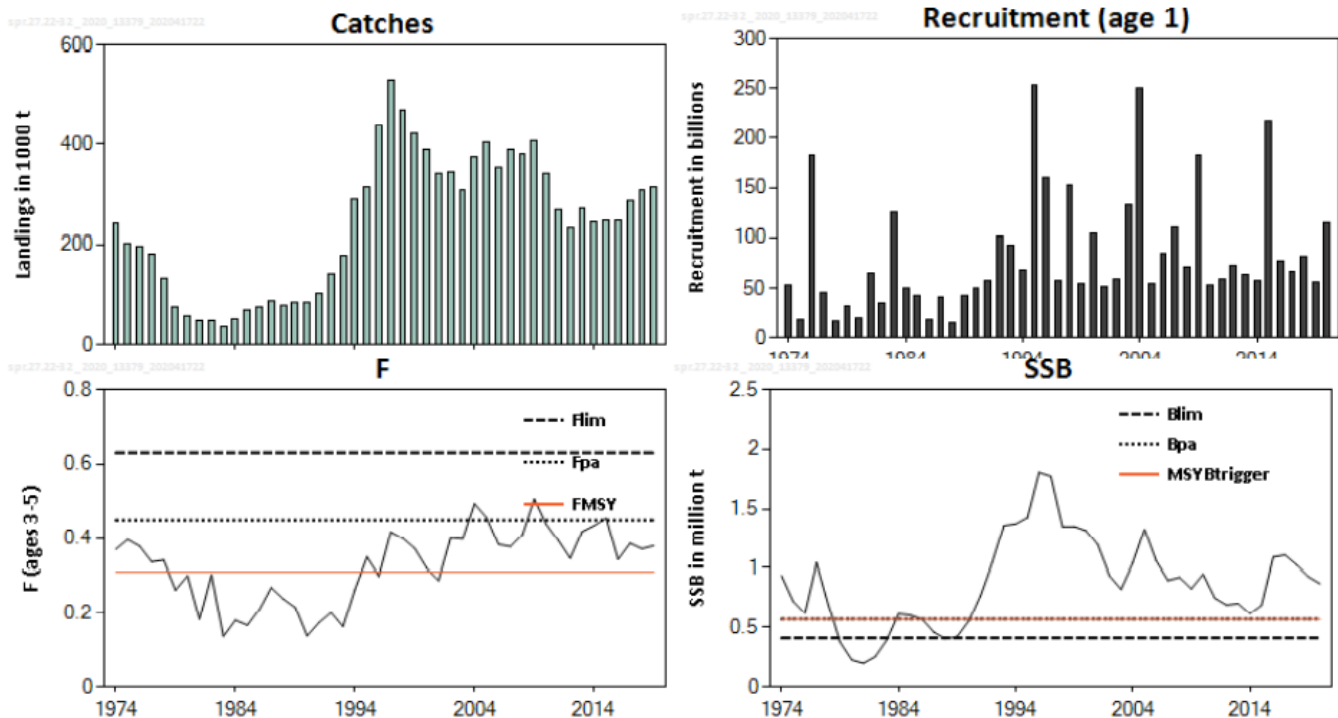


FIGURE 1. SPRAT IN SUBDIVISIONS 22–32. SUMMARY OF THE STOCK ASSESSMENT. SSB AT SPAWNING TIME IS PREDICTED FOR 2020 (SOURCE: ICES. 2020A).

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 $B_{trigger}$	✓	✓	✓ 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 sprat and herring is significantly worse than 5% and 4%, this issue needs to be investigated as soon as possible and when data available addressed in a benchmark. Significant misreporting can potentially be a large problem with regards to the perception of these stocks (ICES, 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

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>A3.1 There is a mechanism in place by which total fishing mortality of this species is restricted.</p> <p>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.</p> <p>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).</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 F_{MSY} 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 F_{MSY} available at that time for the stock. In specific circumstances fishing opportunities may be fixed in line with the upper range of F_{MSY}, provided that the stock is above $MSY B_{trigger}$. 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 $MSY B_{trigger}$. 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 $MSY B_{trigger}$ it is noteworthy that fishing mortality has been above F_{MSY} 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	
MARINTRUST Standard clause	1.3.2.1.3, 1.3.2.1.4
FAO CCRF	7.2.1, 7.22 (e), 7.5.3
GSSI	D3.04, D6.01

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

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

A2 Stock Assessment - Minimum Requirements		
A2.1	A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.	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, 2020d). It includes commercial catches from international landings. Discarding is considered to be negligible.

Biological information used in the assessment includes natural mortalities from the SMS multispecies model and stock abundance estimates from the BIAS survey (ICES, 2020d). **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 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.

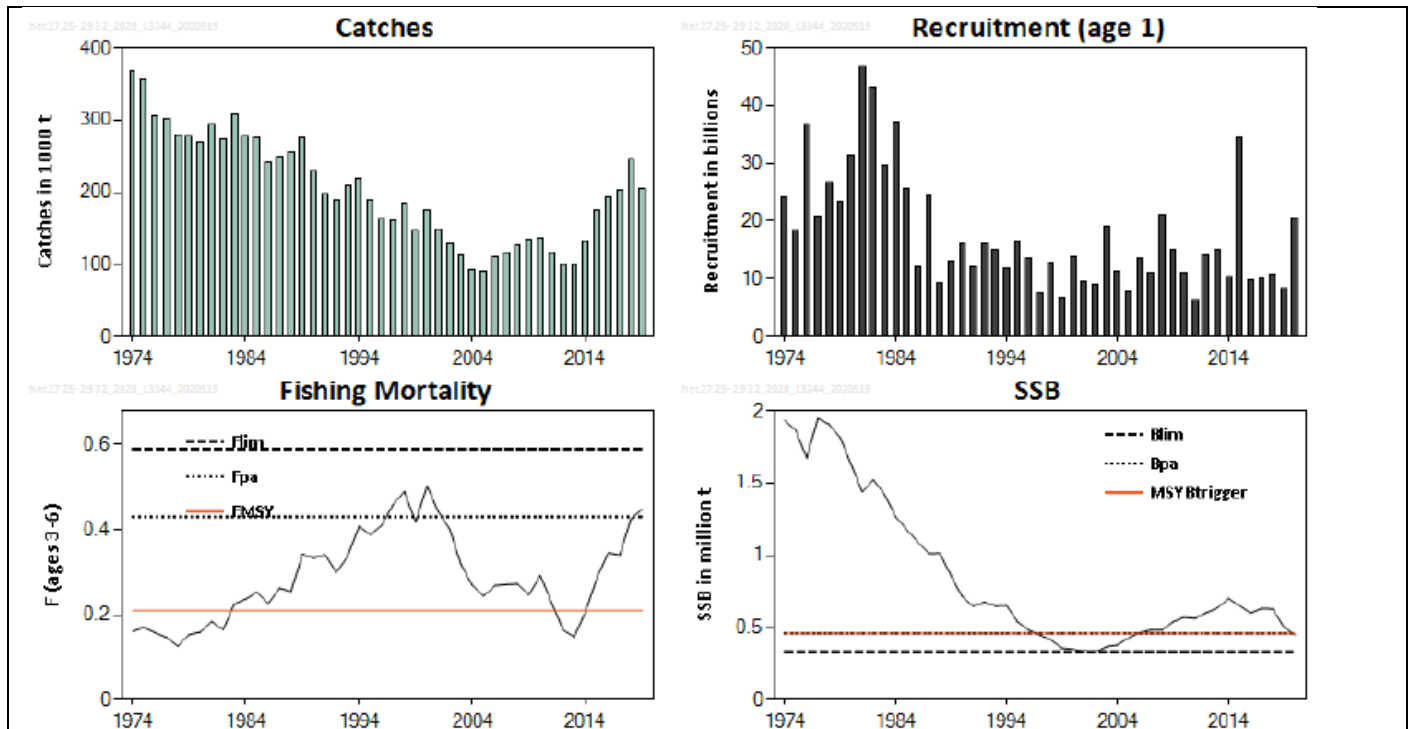


FIGURE 2. HERRING IN SUBDIVISIONS 25–29 AND 32, EXCLUDING THE GULF OF RIGA. SUMMARY OF THE STOCK ASSESSMENT. SSB AT SPAWNING TIME IN 2020 IS PREDICTED (SOURCE: ICES, 2020D).

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).

REFERENCE POINTS (SOURCE: ICGF 2019)										
		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

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		
	A3.1	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

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

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.

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

The 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 F_{MSY} 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 F_{MSY} available at that time for the stock. In specific circumstances fishing opportunities may be fixed in line with the upper range of F_{MSY} , provided that the stock is above $MSY B_{trigger}$. These circumstances include to avoid serious harm arising from intra- or inter-species stock dynamics.

The harvest strategy has been largely effective in maintaining central Baltic herring SSB above MSY $B_{trigger}$. TACs and catches are largely in line with ICES advice (provided in line with the MAP) – see table below.

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 ($F_{MSY} = 0.22$)	≤ 201000	206605 ^{^^}		192056
2017	MSY approach ($F_{MSY} = 0.22$)	≤ 216000	220629 ^{^^}		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 ^{^^}		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 ^{^^}		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 ^{^^}		
2021	Management Plan	111852 (range 83971–138183)			

^{^^} 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.

It is worth noting that there was a significant change in the perception of central Baltic herring stock status recently – following an inter-benchmark process in 2020. This led to a revision of SSB and F such that F is now above F_{pa} and SSB below MSY $B_{trigger}$. The MAP has responded to the changed perception of stock status with a reduction of the TAC by 36% (see: https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1522). This is consistent with ICES advice, will reduce F to a level within the range required by the MAP, and is anticipated by ICES to restore SSB above MSY $B_{trigger}$ (the conservation reference point set out in the MAP) within a year (in 2022, see the forecast in ICES. 2020. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 2:45. <http://doi.org/10.17895/ices.pub.6024>. Table 4.2.20). This response is consistent with the overall objective of the MAP and is being delivered by the revised targets and conservation reference points that were introduced to the MAP in 2019 and which were themselves linked to the ICES advice published in 2020.

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

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

References

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

D1	Species Name		
	Productivity Attribute	Value	Score
	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		
	Average Productivity Score		
	Susceptibility Attribute	Value	Score
	Overlap of adult species range with fishery		
	Distribution		
	Habitat		
	Depth range		
	Selectivity		
	Post-capture mortality		
	Average Susceptibility Score		
	PSA Risk Rating (From Table D3)		
	Compliance rating		
References			
<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>F1.1 Interactions with ETP species are recorded.</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 dedicated cetacean monitoring for its pelagic trawl fishery in recent years (monitoring is undertaken of its gillnet fisheries under the Data Collection Regulation (DCR) scheme). ICES WGBYC (2020) note that, <i>“the reason for not continuing previous monitoring programmes from 2006–2008 was that the observer schemes, with a coverage of up to 7%, had no records of incidental bycatch of cetaceans. A much higher coverage would be needed to detect any bycaught cetaceans and other marine mammals in the Danish pelagic trawl fishery but this was also considered to be a very expensive task compared to the likely outcome.”</i></p> <p>The Public Certification Report (PCR) for Denmark, Estonia, Germany, Sweden Baltic Sea herring and sprat (Lloyd’s Register, 2020) refers to the existence of the Danish Code of Conduct (CoC) which commits to the following:</p> <p><i>“To work to avoid catching marine mammals and other endangered and protected species. If we catch a protected species, we will record this in the PO logbook, and if it is still alive, we will return it to sea as quickly and gently as possible. The relevant species and how to register, are described in the wheelhouse guide and accompanying instructions. The registrations are monitored by the DFPO and shared with relevant scientific institutions. The extent of by-catches of the relevant species is calculated annually, and on this basis, DFPO may choose to develop a plan to reduce the extent (through advice, rules, development, etc.) if specific problems occur in specific fisheries or areas.”</i></p> <p>It further notes that data from the CoC on incidental by-catches from the Danish pelagic fleet in the Baltic Sea are not yet available so that quantitative data is not yet available however qualitative data is.</p>			

The PCR for LFPO Pelagic Trawl Sprat (Bureau Veritas, 2017) notes that in addition to the monitoring undertaken under the EU Regulations described above harvesters have an obligation to report porpoise encounters in their logbooks. The latest ICES WGBYC report (2020) notes that the Latvian national monitoring programme of incidental catches of cetaceans in 2018 covered observations of 508 trips in pelagic trawl fisheries. The observations were carried out by 5 observers on 13 different vessels. No incidental bycatch of cetaceans was observed. In pelagic trawl fisheries in subdivisions 25, 26 and 28.2, observer coverage amounted to 8.6% of both hauls and tow time for vessels 24-40m in length. For vessels 12-18m in length 7.5% of days at sea were observed and for vessels 24-40m in length 8.9% of days at sea were observed. The report notes that Latvia has had an annual observer coverage of 8-10% of the pelagic fishery in the Baltic since 2006 and there have been no reports of cetacean bycatch by fishers.

In both cases, interaction with ETP is considered rare and whilst recording of interaction is an area for improvement (hence the condition on the Danish fishery in the MSC assessment) it is sufficient to meet the requirements of F1.1. **Clause F1.1 is met.**

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

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 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.

Denmark and Latvia are contracting parties 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.

Denmark is a contracting party to the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS) while Latvia is not. The purpose of the Agreement 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

Bureau Veritas, 2017. LFPO Pelagic Trawl Sprat (*Sprattus sprattus*). Public Certification Report. May 2017.
<https://fisheries.msc.org/en/fisheries/lfpo-pelagic-trawl-sprat-sprattus-sprattus/@assessments>

ASCOBANS, 2016. ASCOBANS Recovery Plan for Baltic Harbour Porpoises. Jastarnia Plan (2016 Revision).

https://www.ascobans.org/sites/default/files/document/ASCOBANS_JastarniaPlan_MOP8.pdf

ASCOBANS, 2012. Conservation Plan for the Harbour Porpoise Population in the Western Baltic, the Belt Sea and the Kattegat.

<https://www.ascobans.org/en/documents/action%20plans/Western-Baltic-Conservation-Plan>

COUNCIL DIRECTIVE 92 /43 /EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0043&from=EN>

COUNCIL REGULATION (EC) No 812/2004 of 26.4.2004 laying down measures concerning incidental catches of cetaceans in fisheries and amending Regulation (EC) No 88/98

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32004R0812&from=EN>

DIRECTIVE 2009/147/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 November 2009 on the conservation of wild birds (codified version)

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0147&from=EN>

HELCOM, 2018a. Population trends and abundance of seals. HELCOM core indicator report. July 2018.

<https://helcom.fi/wp-content/uploads/2019/08/Population-trends-and-abundance-of-seals-HELCOM-core-indicator-2018.pdf>

HELCOM, 2018b. Distribution of Baltic seals. HELCOM core indicator report. July 2018.

<https://helcom.fi/media/core%20indicators/Distribution-of-Baltic-seals-HELCOM-core-indicator-2018.pdf>

HELCOM, 2013a. HELCOM Red List of Baltic Sea species in danger of becoming extinct. Balt. Sea Environ. Proc. No. 140.

<https://www.helcom.fi/wp-content/uploads/2019/08/BSEP140-1.pdf>

HELCOM, 2013b. HELCOM Red List Species Information Sheets (SIS) Mammals. HELCOM Red List Marine Mammal Expert Group 2013.

https://www.helcom.fi/wp-content/uploads/2019/08/HELCOM-RedList-All-SIS_Mammals.pdf

HELCOM RECOMMENDATION 27-28/2. Adopted 8 July 2006 having regard to Article 20, Paragraph 1 b) of the Helsinki Convention. CONSERVATION OF SEALS IN THE BALTIC SEA AREA.

http://archive.iwlearn.net/helcom.fi/Recommendations/en_GB/rec27-28_2/index.html

ICES. 2020a. Baltic Sea Ecoregion – Ecosystem overview. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, Section 4.1, <https://doi.org/10.17895/ices.advice.7635>

ICES, 2020f. Road map for ICES bycatch advice on protected, endangered, and threatened species. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, section 1.6. <https://doi.org/10.17895/ices.advice.6022>

ICES. 2020g. EU request on emergency measures to prevent bycatch of common dolphin (*Delphinus delphis*) and Baltic Proper harbour porpoise (*Phocoena phocoena*) in the Northeast Atlantic. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, sr.2020.04. <https://10.17895/ices.advice.6023>.

ICES. 2020h. Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. 2:81. 209 pp. <http://doi.org/10.17895/ices.pub.7471>

ICES, 2019a. Working Group on Bycatch of Protected Species (WGBYC). ICES Scientific Reports. 1:51. 163 pp. <http://doi.org/10.17895/ices.pub.5563>.

ICES, 2015a. Report of the Working Group on Marine Mammal Ecology (WGMME), 9-12 February 2015, London, UK. ICES CM 2015/ACOM:25. 114 pp.

ICES, 2018. Report from the Working Group on Bycatch of Protected Species (WGBYC), 1-4 May 2018, Reykjavik, Iceland. ICES CM 2018/ACOM:25. 128 pp.

Lloyd's Register, 2020. 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>

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

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

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

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

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 bycatch.

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.

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).

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).

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).

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 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

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1181&from=EN>

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:01992L0043-20130701>

Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147>

<https://helcom.fi/baltic-sea-action-plan/>

<https://helcom.fi/action-areas/marine-protected-areas/basic-facts/>

<https://helcom.fi/action-areas/marine-protected-areas/management-of-helcom-mpas/>

HELCOM Recommendation 35/1. Adopted 1 April 2014.

<https://helcom.fi/wp-content/uploads/2019/06/Rec-35-1.pdf>

HELCOM, 2016. Ecological coherence assessment of the Marine Protected Area network in the Baltic. Balt. Sea Environ. Proc. No. 148

<https://helcom.fi/wp-content/uploads/2019/08/BSEP148.pdf>

Regulation (EU) 2019/1241 of the European Parliament and of the Council of 20 June 2019 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures, amending Council Regulations (EC) No 1967/2006, (EC) No 1224/2009 and Regulations (EU) No 1380/2013, (EU) 2016/1139, (EU) 2018/973, (EU) 2019/472 and (EU) 2019/1022 of the European Parliament and of the Council, and repealing Council Regulations (EC) No 894/97, (EC) No 850/98, (EC) No 2549/2000, (EC) No 254/2002, (EC) No 812/2004 and (EC) No 2187/2005.

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

Links

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

F3 Ecosystem Impacts - Minimum Requirements		
F3.1	The broader ecosystem within which the fishery occurs is considered during the management decision-making process.	Yes
F3.2	There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.	Yes
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.	Yes
Clause outcome:		Pass
<p>F3.1 The broader ecosystem within which the fishery occurs is considered during the management decision-making process.</p> <p>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:</p> <ul style="list-style-type: none"> • 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) <p>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).</p> <p>The broader ecosystem within which the fishery occurs is considered during the management decision-making process. Clause F3.1 is met.</p> <p>F3.2 There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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</p>		

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.**

References

ICES. 2020a. Baltic Sea Ecoregion – Ecosystem overview. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, Section 4.1, <https://doi.org/10.17895/ices.advice.7635>

ICES, 2019c. Stock Annex: Cod (*Gadus morhua*) in Subdivisions 24–32, eastern Baltic stock. 8 February, 2019. https://www.ices.dk/sites/pub/Publication%20Reports/Stock%20Annexes/2019/cod.27.24-32_SA.pdf

ICES, 2019d. ICES Fisheries overviews. Baltic Sea Ecoregion. Published 2 September 2019. Version 2: 29 November 2019.

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)

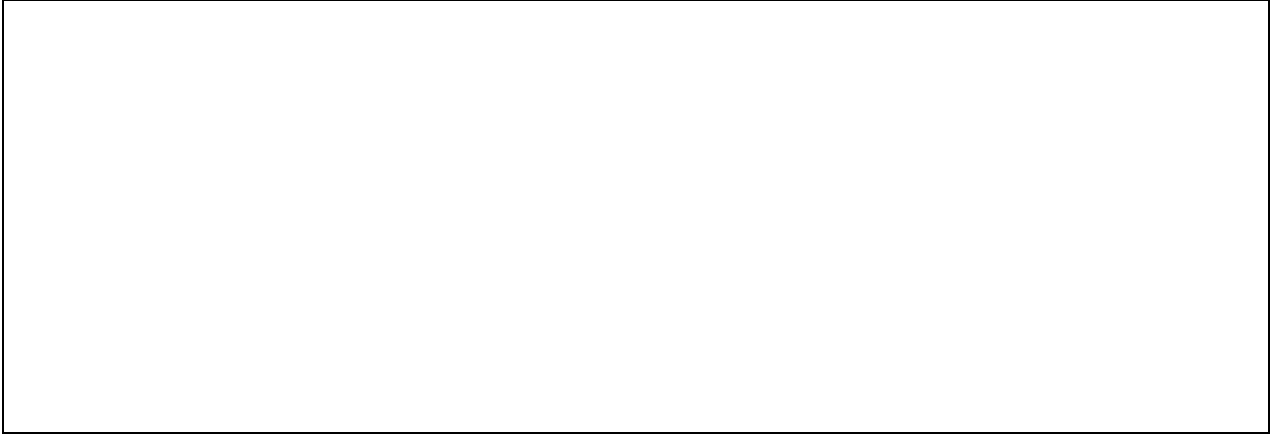
Appendix

MarinTrust Fishery Assessment Peer Review Template

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

Fishery under assessment	Baltic sprat_Denmark and Latvia_ICES Subdivisions 25-29 32_2020
Management authority (Country/State)	EU, Denmark, Latvia
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 22 - 32)
Gear type(s)	Pelagic trawl

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



Summary of Peer Review Outcomes

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

	YES	NO	See Notes
A – Fishery Assessment			
1. Has the fishery assessment been fully completed, using the recognised MarinTrust fishery assessment methodology and associated guidance?	X		
2. Does the Species Categorisation section of the report reflect the best current understanding of the catch composition of the fishery?			X
3. Are the scores in the following sections accurate (i.e. do the scores reflect the evidence provided)?			
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 is adequate, the MARINTRUST standard has been adequately applied and the information provided seem to be enough to justify the scores assigned to the different categories. This is a pelagic fishery with relatively low impact on bycatch species and the habitat. The target stocks are above the limit reference points and a management plan has been implemented for the fishery although there are some concerns about how fishing mortality (F) is restricted as it seems to be over FMSY and increasing. Two main concerns: One is the level of misreporting in the fishery, which could potentially be a large problem with regards to the perception of these stocks (particularly for the herring stock). No adequate information on misreporting seems to be available for the assessed fisheries. 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 MARINTRUST 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 reports provided by the clients. As in previous reviews, I would have preferred that the author had used more official references (ICES data, scientific report or similar), as I do not like to use secondary references, but I understand that the species categorisation is correct. It is interesting to see that the amount of the herring caught in the Latvian fishery doubles the amount of the same species in the Danish fishery.

CB: As ever, we are reliant on the catch composition information provided by the client. They need to provide details of the fleet targeting the stock and information on fleet-specific catches. In this case, they simply referred us to the "Denmark, Estonia, Germany & Sweden Baltic herring and sprat" MSC report. We were able to source catch composition information for the Latvian sprat fishery from another MSC report as referred to in our report.

We have updated our report with further details of the source of the catch information used in these MSC reports.

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: M1.3 "*The achievement of good environmental status by 2020*" seems to be outdated. Do you know if Regulation (EU) No 1380/2013 has been updated for this particular objective?

CB: 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](#))

M2.1 This list of information shown on the national websites is a general list or do you really checked that this information is shown in the countries' respective websites?

CB: This is the information generally shown on national websites and is true for Denmark and Latvia.

M2.2 The conclusion in this issue is incorrect, it refers to M1.2. I would say that the information provided is a little mixed up between M2.1 and 2.2. The information provided for Denmark for example is the same for both clauses and to be totally honest with you is not very informative, it needs to be improved. In the case of Latvia, I would say that the information about the range of fines would be more relevant in 2.2.

CB: Corrected. Some additional information added.

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

The information provided is clear. Commercial and survey data is collected for both species. For sprat the SSB 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 harvest strategy is in place for both species. However, the mechanism in place for restricting F is not very effective and it seems that misreporting can be a problem in these fisheries. Some other minor comments:

Sprat

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.

CB: Corrected. This is an error in the template – will ask MT to correct.

A3. Yes, a mechanism is in place to restrict total fishing mortality, but in recent years, catches have regularly been slightly over the agreed TAC and F is above FMSY. So, I do not think it is very effective.

CB: 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 in the next years.

CB: Noted and agreed.

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.

CB: Noted.

A3 And again, the mechanism to control F does not seem to be effective at all. So, "There is a mechanism in place by which total fishing mortality of this species is restricted?" – Yes; Is it effective? No.

CB: Agreed, but as per our response for sprat, the requirements of the clause are met for central Baltic herring.

Whilst fishing mortality has been above F_{MSY} since 2015, it is worth noting that there was a significant change in the perception of stock status only recently – following an inter-benchmark process in 2020. This led to a revision of SSB and F such that F is now above F_{pa} and SSB below $MSY_{B_{trigger}}$. The MAP has responded to the changed perception of stock status with a reduction of the TAC by 36% (see: https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1522). This is consistent with ICES advice, will reduce F to a level within the range required by the MAP, and is anticipated by ICES to restore SSB above $MSY_{B_{trigger}}$ (the conservation reference point set out in the MAP) within a year (in 2022, see the forecast in ICES. 2020. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 2:45. <http://doi.org/10.17895/ices.pub.6024>. Table 4.2.20). This response is consistent with the overall objective of the MAP and is being delivered by the revised targets and conservation reference points that were introduced to the MAP in 2019 and which were themselves linked to the ICES advice published in 2020. As such there is a mechanism in place and action is being taken under it. Some text has been added to the report.

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

No Category B species identified, I understand that if no category B, C y D species are present in the catch, these sections can be deleted from the report? (or maybe not). Deleted

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?

My main concern is about the low level of observer coverage in these fisheries (<5%). As indicated in the Estonian review, it is important to highlight 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.

CB: The status of the Baltic Sea marine mammal populations are already described in the report including the critically endangered status of the Baltic proper harbour porpoise. See section F1.2.

F1.1. In this clause it is indicated "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)". But later, "The Public Certification Report (PCR) for Denmark, Estonia, Germany, Sweden Baltic Sea herring and sprat (Lloyd's Register, 2020) notes that the Denmark observer program includes at sea observer coverage and at sea self-sampling for vessels targeting small pelagic species in the Baltic Sea". I am not sure which is the difference, there is not a specific monitoring programme but there are sea observers aboard these vessels. What does it mean a specific MMP?

CB: This term was taken from the ICES WGBYC report and I think means dedicated monitoring as required by Reg. 812/2004 (specifically focussed on observing interactions with cetaceans) versus non-dedicated monitoring undertaken under the DCR (which is more focussed on fish sampling). The text has been clarified but the section has also been re-written to include new information from ICES WGBYC.

Do you know the number of BIOR observers deployed in more recent years, 10 fishing trips seem to be very low, much lower than 5%.

CB: Section updated with new information.

Optional: General comments on the Peer Review Draft Report

As in the Estonian 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?)

CB: Text clarified – only the eastern Baltic cod stock is in poor status.

Please use commas in numbers greater than 999 to make them clearer.