MarinTrust Standard V2

By-product Fishery Assessment

Sprat, ICES Division 3.a and Subarea 4

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Sprat *(Sprattus sprattus)*
	Geographical area:	ICES Division 3.a and Subarea 4
	Country of origin of the product:	UK and Ireland
	Stock:	Skagerrak, Kattegat, and North Sea
Date	January, 2023	
Report Code	GBR31	
Assessor	Vineetha Aravind	
Country of origin of the product - PASS	UK and Ireland	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Pelagia			
Country: UK and Ireland			
Email address: Geraldine.fox@pelagia.com		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Vineetha Aravind	Kate Morris	0.5	Surveillance 2
Assessment Period	Jan 2023-Jan 2024		

Scope Details	
Main Species	Sprat *(Sprattus sprattus)*
Stock	Skagerrak, Kattegat, and North Sea
Fishery Location	ICES Division 3.a and Subarea 4
Management Authority (Country/ State)	UK and Ireland
Gear Type(s)	Industrial trawl
Outcome of Assessment	
Peer Review Evaluation	Pass
Recommendation	Pass

Table 2. Assessment Determination

Assessment Determination
Sprat has been categorised as of least concern by IUCN Red data List and does not appear in CITES appendices. Sprat in this area is managed by some reference points (B_{lim}) and TAC[1] and was therefore analysed under Category C. ICES conducts annual stock estimates on the basis of commercial landings, survey indices and age composition and length frequencies of catches. Discards are not included as discarding is assumed to be negligible by the scientific authorities. No fishing mortality reference points have been defined for this fishery, but it is assessed that the size of spawning stock is above $B_{lim.}$ ICES advises that when the MSY approach is applied, catches in the period from 1 July 2022 to 30 June 2023 should be no more than 68 690 tonnes. The advice is based on MSY escapement strategy (with an F_{cap}) which relies on prediction of SSB after the fishery has taken place. A high proportion of the predicted SSB consists of recruits from the previous year for which the abundance and proportion of mature fish at spawning time are unknown. This contributes to the uncertainty in the forecast, which is mitigated by the Fcap. As the size of spawning stock biomass is above $B_{lim,}$ the by-product is assessed under Category C. Fishery removals of the stock are considered in the ICES stock assessment process so the stock PASSES Clause C1.1. The stock is above Blim; therefore, the stock PASSES Clause C1.2 Therefore, the by-product passes Category C under Marin Trust v 2.0 by-products standard.
Fishery Assessment Peer Review Comments
The by-product fishery under assessment here is the Sprat (*Sprattus sprattus*) fishery, pursued by UK and Irish fishing vessels in FAO fishing area 27, ICES subdivision 3a and 4. Sprat is managed by the EU Common Fisheries Policy and the UK fisheries act. For this Marin Trust assessment, the Sprat stock is scored as a category C species as it's managed to species-specific reference points. The species scoring table has been completed by the auditor with sufficient evidence presented to support their final determination. The peer review supports the auditor's recommendation to pass the ICES 27, Sub3a and 4, Sprat stock pursued by the fishery under the Marin Trust IFFO RS v2.0 by-fishery standard for the production of fishmeal and fish oil.
Notes for On-site Auditor

Species Categorisation

NB: If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in CITES Appendix 1, it **cannot** be approved for use as an MarinTrust raw material.

IUCN Red list Category

By-product material from a species listed by IUCN (the International Union for Conservation of Nature) under the Red List for the following categories shall immediately fail the assessment;

- EXTINCT (E) AND EXTINCT IN THE WILD (EW)
- CRITICALLY ENDANGERED (CR) facing an extremely high risk of extinction in the wild.
- ENDANGERED (EN) facing a very high risk of extinction in the wild.

By-product material may be used from the following categories provided that all clauses in the MarinTrust standard are passed.

- VULNERABLE (VU) facing a high risk of extinction in the wild.
- NEAR THREATENED (NT) does not qualify for above now, but is close or is likely to qualify for, a threatened category in the near future.
- LEAST CONCERN (LC) Widespread and abundant.
- DATA DEFICIENT (DD) and NOT EVALUATED (NE)

Table 3 Species Categorisation Table

Common name	Latin name	Stock	Management	Category	IUCN Red List Category[1]	CITES Appendix 1[2]
Sprat	*Sprattus sprattus*	Skagerrak, Kattegat, and North Sea	Yes	C	Least concern	No

[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php

CATEGORY C SPECIES

In a by-product assessment, Category C species are those which are subject to a species-specific management regime and are usually targeted species in fisheries for human consumption.

Clause C1 should be completed for each Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it should be assessed as a Category D species instead.

Species Name		
C1	**Category C Stock Status - Minimum Requirements**	
	C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	**PASS**
	C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	**PASS**
	Clause outcome:	**PASS**

C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.

ICES Herring Assessment Working Group for the Area South of 62°N (HAWG) conducts stock assessment. The most recent analysis is an age based analytical assessment, quarterly time-steps that uses landings in the model. Input data for assessment includes commercial catches (international catches, ages and length frequencies from catch sampling), three survey indices (IBTS Q1 [G1022], IBTS Q3 [G2829], HERAS [A5092]), constant maturity based on long-term average from IBTS Q1 survey (ICES, 2018a), and natural mortalities from the multispecies model (ICES,2017). Discards are not used as discarding has been assumed negligible since 2016. Catches are given in Figure 1. It is concluded that fishery removals are included in the assessment and the fishery passes C1.1.

C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.

The May 2022 ICES Catch Advice provides a summary of the stock status. ICES apply their MSY approach to the stock and have defined MSY and precautionary reference points. The spawning stock is below $B_{escapement}$ and B_{pa} but above B_{lim}. (Refer figure below). Therefore, the fishery passes C1.2.

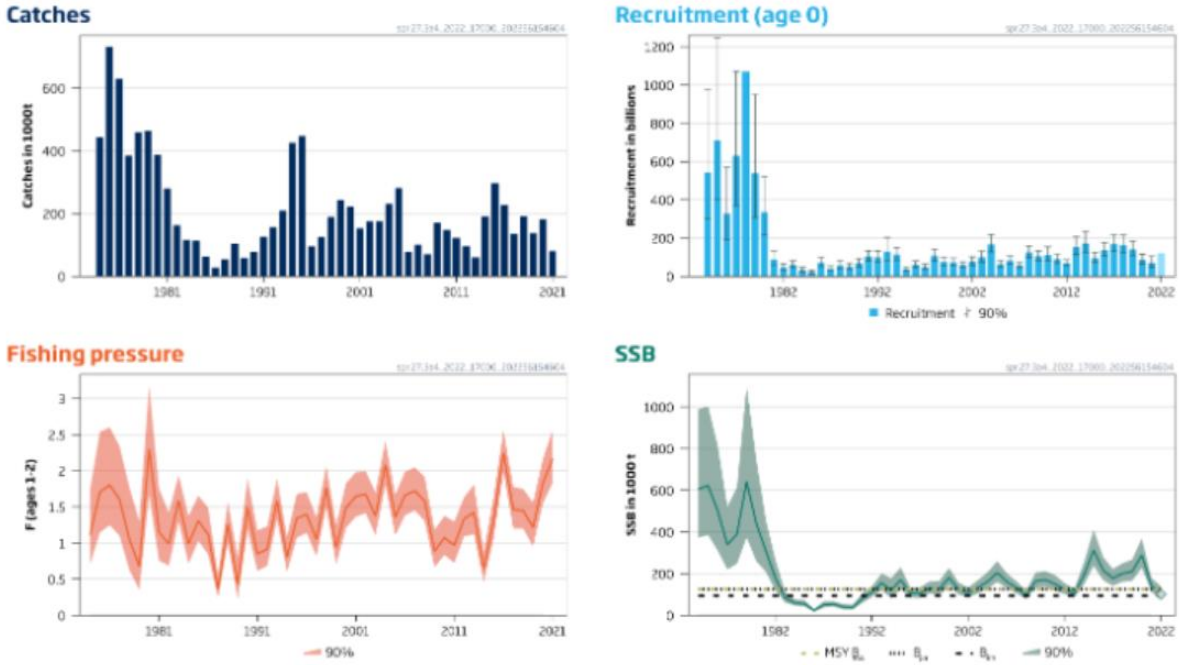

FIGURE 1. SPRAT IN DIVISION 3.A AND SUBAREA 4. SUMMARY OF THE STOCK ASSESSMENT. YEARS ON THE X-AXES REFER TO THE MODEL YEAR JULY TO JUNE; RECRUITMENT AND SSB AS OF JULY 1; THE PALER SHADED RECRUITMENT VALUE 2022 IS ASSUMED, AND THE DIAMOND SSB VALUE IS PREDICTED. (SOURCE: ICES, 2022).

References

ICES. 2022. Sprat (Sprattus sprattus) in Division 3.a and Subarea 4 (Skagerrak, Kattegat, and North Sea). In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, spr.27.3a4, https://doi.org/10.17895/ices.advice.19453859.

Links	
MarinTrust Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01

CATEGORY D SPECIES

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

D1	**Species Name**		
	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**
	Availability (area overlap)		
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)		
	Selectivity of gear type		
	Post-capture mortality		
		Average Susceptibility Score	
		PSA Risk Rating (From Table D3)	
		Compliance rating	
	Further justification for susceptibility scoring (where relevant) *For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision.*		
References			
Standard clauses 1.3.2.2			

Table D2 - Productivity / Susceptibility attributes and scores.

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

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

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

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