



## MarinTrust Standard V2

### By-product Fishery Assessment

### *ZAF02 – European Pilchard – FAO 34, South Zone (Zone C)*

**MarinTrust Programme**

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

Fishery Under Assessment	Species:	European Pilchard ( <i>Sardina pilchardus</i> )
	Geographical area:	FAO 34, Eastern Central Atlantic
	Country of origin of the product:	Mauritania, Morocco
	Stock:	Northwest Africa (Zone C), South Zone
Date	June 2024	
Report Code	ZAF02	
Assessor	Vineetha Aravind	
Country of origin of the product - PASS	Mauritania, Morocco	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): St Helena Bay (Lucky Star Ltd), West Point Processors, Amawandle Pelagic (Pty) Ltd			
Country: South Africa			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Vineetha Aravind	Sam Peacock	0.2	Re-approval
Assessment Period	June 2024 – June 2025		

Scope Details	
Main Species	European Pilchard ( <i>Sardina pilchardus</i> )
Stock	Northwest Africa (Zone C), South Zone
Fishery Location	FAO 34, Eastern Central Atlantic
Management Authority (Country/ State)	Fishery Committee for the Eastern Central Atlantic (CECAF), Morocco, Mauritania
Gear Type(s)	Purse seine and pelagic trawler
Outcome of Assessment	
Peer Review Evaluation	Agree with assessment outcome
Recommendation	PASS

## Table 2. Assessment Determination

Assessment Determination
<p>To be approved as Marin Trust raw material, the species should not appear as Endangered or Critically Endangered in the IUCN Red list and should not appear in CITES appendices. European pilchard does not appear as Endangered or Critically Endangered on IUCN’s Red List, nor does it appear in CITES appendices; therefore, it is eligible for approval for use as Marin Trust by-product raw material.</p> <p>Sardine in Zone C is managed relative to reference points, and the most recent stock assessment was in 2023, using data up to 2022. Fishery removals are considered and the stock PASSES Clause C1.1.</p> <p>Latest stock assessment published in 2023 shows that the stock is not fully exploited in 2022, even though a significant increase (78%) in catch was recorded in the year. The biomass was reported to be stable. Therefore, the stock PASSES Clause C1.2.</p> <p>Sardine from Zone C should be approved for use as a MT raw material.</p>
Fishery Assessment Peer Review Comments
<p>The peer reviewer agrees that this species is eligible for assessment under the MarinTrust byproduct assessment methodology, and that the stock falls into Category C. The most recent stock assessment was adequate to meet the requirements of C1.1, and biomass is currently estimated to be above the target reference point level, meeting the requirements of C1.2. Overall, the peer reviewer agrees that this stock should be approved as a source of byproduct raw material for MarinTrust certified facilities.</p>
Notes for On-site Auditor
Empty space for notes

## 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 a 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 <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
European Pilchard	<i>Sardina pilchardus</i>	Northwest Africa, Zone C (South)	No <sup>3</sup>	C	Least Concern <sup>4</sup>	No <sup>4</sup>

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

<sup>2</sup> <https://cites.org/eng/app/appendices.php>

<sup>3</sup> See assessment determination

<sup>4</sup> <https://www.iucnredlist.org/species/198580/15542481>

## 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.

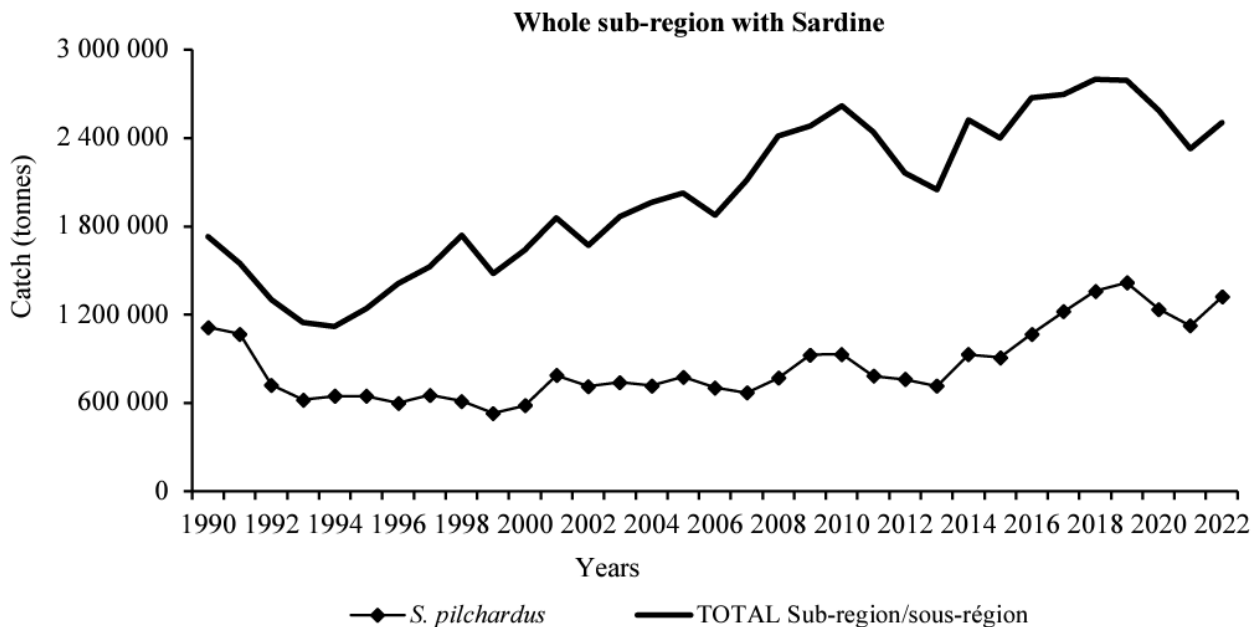
Clause C1 should be completed for each Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it should be assessed as a Category D species instead.

Species Name		NA
C1	<b>Category C Stock Status - Minimum Requirements</b>	
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible. <span style="float: right;">PASS</span>
	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. <span style="float: right;">PASS</span>

**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.**

Fishery Committee for the Eastern Central Atlantic (CECAF), has summarised the preliminary results by its Scientific Sub-Committee (SSC) in the twenty-second meeting of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa during 2023. Fishery removals are recorded and C1.1 is met.



**Figure 1: Total small pelagic species and sardine catches in the subregion by species and year (Source: CECAF summary report, 2023)**

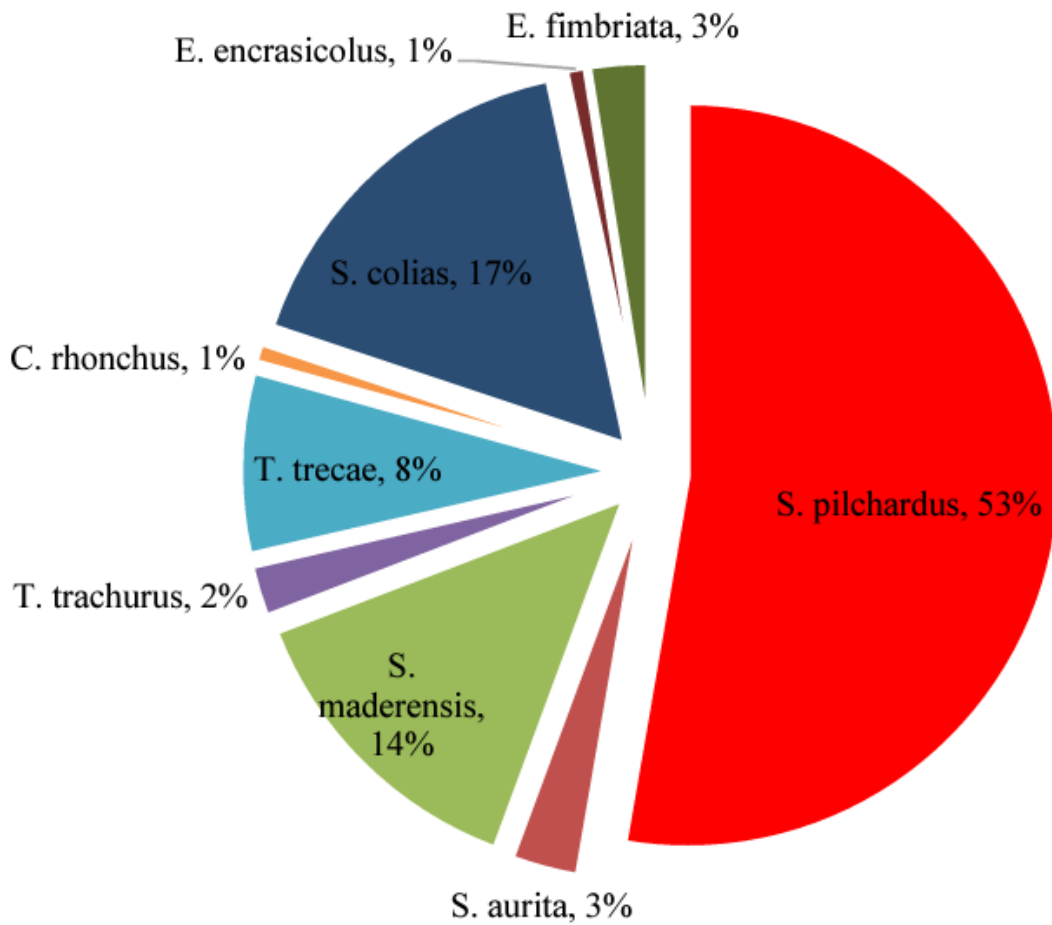


Figure 2: Percentage of each species in catches in Northwest Africa region in 2022. (Source: CECAF summary report, 2023)

Total *S. pilchardus* catch of 2022 is recorded as 1320108 tonnes.

**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 stock is considered not fully exploited in 2022. The catch in Zone C represents more than 52 percent of the total catch of small pelagics for the subregion. However, the acoustic biomass (of the Moroccan R/V) decreased in 2022 (29% compared to the year 2021). The decrease coincided with a drop in catches especially for vessels operating offshore. In addition, catches have continued to decline since 2019, a period that coincided with the implementation of several management measures at the regional level. The emergence of coastal fleets in Mauritania has contributed to significant sardine catches south of Cap Blanc and in this area, the abundance indices are not regularly assessed. The average size of the sardine caught showed an overall downward trend, hence the assessment insists the need to be vigilant in the exploitation of this stock. In addition, the stock is strongly influenced by environmental factors and exhibits fluctuations in biomass independent of fishing. Therefore, there is necessity in adapting the total authorized catch to variations in the stock. Stock structure and abundance should also be closely monitored through fishery-independent methods, such as coordinated acoustic surveys throughout the species' range.

Bcur/B0.1 is 140% and Fcur/F0.1 is 47%.

The stock is assessed to be in good condition and therefore, C1,2 is met.

#### References

FISHERY COMMITTEE FOR THE EASTERN CENTRAL ATLANTIC. SUMMARY REPORT. FAO WORKING GROUP ON THE ASSESSMENT OF SMALL PELAGIC FISH OFF NORTHWEST AFRICA 2023.

<https://openknowledge.fao.org/server/api/core/bitstreams/402e8343-87d0-471a-b288-4397f5e7af32/content>

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.

<b>D1</b>	<b>Species Name</b>	<b>European Pilchard</b>		
	<b>Productivity Attribute</b>	<b>Value</b>	<b>Score</b>	
	Average age at maturity (years)	2 years		
	Average maximum age (years)	7 years		
	Fecundity (eggs/spawning)	156,525		
	Average maximum size (cm)	27.5 cm		
	Average size at maturity (cm)	11.8 cm		
	Reproductive strategy	Broadcast spawner		
	Mean trophic level	3.1		
	<b>Average Productivity Score</b>			
	<b>Susceptibility Attribute</b>	<b>Value</b>	<b>Score</b>	
	Availability (area overlap)	< 10% overlap		
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Targeted		
	Selectivity of gear type	Juveniles rarely caught		
	Post-capture mortality	Retained species		
	<b>Average Susceptibility Score</b>			
	<b>PSA Risk Rating (From Table D3)</b>			
	<b>Compliance rating</b>			
	<b>Further justification for susceptibility scoring (where relevant)</b>			
	<i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i>			
<b>References</b>				
<i>Standard clauses 1.3.2.2</i>				



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

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