



MarinTrust Standard V2

By-product Fishery Assessment Round sardinella (*Sardinella aurita*) in FAO 34, Atlantic eastern central

MarinTrust Programme

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Round sardinella (<i>Sardinella aurita</i>)
	Geographical area:	FAO 34 Atlantic eastern central
	Country of origin of the product:	Morocco (Flag country: Morocco)
	Stock:	Atlantic eastern central round sardinella
Date	3 February 2023	
Report Code	MAR001	
Assessor	Léa Lebechnech	
Country of origin of the product - PASS	Morocco (Flag country: Morocco)	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Copelit, Laayoune			
Country: Morocco			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Léa Lebechnech	Matthew Jew	0.5	Surveillance 1
Assessment Period	To February 2023		

Scope Details	
Main Species	Round sardinella (<i>Sardinella aurita</i>)
Stock	Atlantic eastern central round sardinella
Fishery Location	FAO 34 eastern central Atlantic Ocean
Management Authority (Country/ State)	Fishery Committee for the Eastern Central Atlantic (CECAF)/ Morocco <i>Ministère de l'Agriculture, de la Pêche Maritime, du Développement Durable et des Eaux et Forêts (MAMF)</i>
Gear Type(s)	Purse seine, midwater trawl
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor's recommendation
Recommendation	APPROVED

Table 2. Assessment Determination

Assessment Determination
<p>If any species is categorised as Endangered or Critically Endangered on IUCN’s Red List, or if it appears in the CITES appendices, it cannot be approved for use as Marin trust raw material.</p> <p>Round sardinella (<i>Sardinella aurita</i>) does not appear as Endangered or Critically Endangered on IUCN’s Red List, nor do they appear in CITES appendices; therefore, round sardinella is eligible for approval for use as Marin Trust RS by-product raw material.</p> <p>The small pelagics fishery in the zone C is managed under a plan which includes a TAC (all small pelagic species combined), bycatch limits, species restrictions, spatial zoning and closed areas. The fishery in zones A+B is also managed via a management plan but using limits on effort rather than a TAC. Therefore, management measures are applied to the small pelagics fishery, but it is not clear the extent to which these are specific measures for round sardinella. In addition, there are no reference points defined for the stock. Therefore, it has been assessed under category D and a PSA was conducted.</p> <p>With an average productivity score of 1.43 and an average susceptibility score of 2.25, it PASSES Table D1.</p> <p>Therefore, round sardinella in FAO 34 (eastern central Atlantic Ocean), is APPROVED for the production of fishmeal and fish-oil under the current Marin Trust v 2.0 by-products.</p> <p>However, the assessor would like to stress that FAO in 2021¹ underlined that the sardinella stock is still overexploited. FAO highly recommends a fishing effort reduction of at least 50%, along with an implementation of joint management between national governments for the sustainable management of these species.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified round sardinella in FAO 34 (eastern central Atlantic Ocean) as Category D, as the stock is not subject to a specific management regime and reference points are not defined.</p> <p>The assessor correctly applied attribute scores for the PSA and the productivity total of 1.43 and susceptibility total of 2.25 were correctly calculated. The stock passes category D per Table D4.</p> <p>Round sardinella in FAO 34 (eastern central Atlantic Ocean) passes the PSA and therefore should be approved under the MarinTrust Standard v.2.</p>
Notes for On-site Auditor
<p>N/A</p>

¹ Fishery committee for the eastern central Atlantic. Summary report. FAO working group on the assessment of small pelagic fish off northwest Africa 2021: https://dac.eu/images/2021_WGSPN_summary_EN.pdf

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 ²	CITES Appendix 1 ³
Round sardinella	<i>Sardinella aurita</i>	Atlantic eastern central round sardinella	CECAF / MAMF	D	LC ⁴	No

² <https://www.iucnredlist.org/>

³ <https://cites.org/eng/app/appendices.php>

⁴ <https://www.iucnredlist.org/species/198581/115340607>

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	Round sardinella (<i>Sardinella aurita</i>)	
	Productivity Attribute	Value	Score
	Average age at maturity (years)	2.7	1
	Average maximum age (years)	10.9	2
	Fecundity (eggs/spawning)	26,555	1
	Average maximum size (cm)	41	1
	Average size at maturity (cm)	21.4	1
	Reproductive strategy	Broadcast spawner, nonguarders	1
	Mean trophic level	3.4	3
	Average Productivity Score		1.43
	Susceptibility Attribute	Value	Score
	Availability (area overlap)	Medium overlap	2
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Depth range 0 - 350 m	2
	Selectivity of gear type	Individuals < size at maturity are regularly caught and individuals < half the size at maturity can avoid or escape the gear	2
	Post-capture mortality	Mostly dead when retained	3
	Average Susceptibility Score		2.25
	PSA Risk Rating (From Table D3)		Pass
	Compliance rating		PASS
	Further justification for susceptibility scoring (where relevant)		
	For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision		
	<p>This map was computer-generated and has not yet been reviewed. <i>Sardinella aurita</i> AquaMaps Data sources: GBIF OBIS</p>		
	References		
	Fishbase. <i>Sardinella aurita</i> , Valenciennes, 1847. Round sardinella: https://www.fishbase.de/summary/Sardinella-aurita.html		
	Standard clauses 1.3.2.2		

Table D2 - Productivity / Susceptibility attributes and scores.

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

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

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

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	