



MarinTrust Standard V2

By-product Fishery Assessment *Horse Mackerel (Trachurus trachurus) in FAO 34*

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

Fishery Under Assessment	Species:	Horse mackerel (<i>Trachurus trachurus</i>)
	Geographical area:	FAO 34 Atlantic Eastern Central
	Country of origin of the product:	Morocco
	Stock:	Saharo-Mauritanian horse mackerel
Date	16 June 2023	
Report Code	MAR002	
Assessor	Léa Lebechnech	
Country of origin of the product - PASS	Morocco	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Copelit			
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	Up to June 2023		
Scope Details			
Main Species	Horse mackerel (<i>Trachurus trachurus</i>)		
Stock	Saharo-Mauritanian horse mackerel		
Fishery Location	Horse Mackerel in FAO 34 Atlantic Eastern Central		
Management Authority (Country/ State)	<p>Domestic management system: Département des Pêches Maritimes du Ministère de l’Agriculture, de la Pêche Maritime, du Développement Durable et des Eaux et Forêt (Maroc), Office National des Pêches, Institut National de la Recherche Halieutique ;</p> <p>Regional management system: FAO Committee for the Eastern Central Atlantic (CECAF)</p>		
Gear Type(s)	Pelagic trawl and purse seine		
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. Horse mackerel (<i>Trachurus trachurus</i>) does not appear as Endangered or Critically Endangered on IUCN’s Red List, and does not appear in CITES appendices; therefore, <i>Trachurus trachurus</i> is eligible for approval for use as Marin trust by-product raw material.</p> <p>The horse mackerel in FAO Area 34 Atlantic, Eastern Central Saharo-Mauritanian stock, is assessed by the Scientific Sub-Committee (SSC) of the Fishery Committee for the Eastern Central Atlantic (CECAF). The Saharo-Mauritanian horse mackerel stock is 1 of 4 stocks of horse mackerel in the Northwest African Sub-region. For assessment and management purposes, the horse mackerel is included in the stock assessment of all the small pelagic species in the study area FAO 34. In the 2021 assessment from the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa, held virtually from 21 to 25 June 2021, the stock was assessed together with other species such as Cunene horse mackerel (<i>Trachurus trecae</i>).</p> <p>Fishery removals are included in the stock assessment and it PASSES Clause C1.1. The stock is considered, in its most recent stock assessment, to have biomass above the limit reference point, it PASSES Clause C1.2.</p> <p>Therefore, horse mackerel in FAO 34 is APPROVED for the production of fishmeal and fish oil under the current MarinTrust v2.0 by-products.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified the Saharo-Mauritian stock of horse mackerel (<i>Trachurus trachurus</i>) as Category C, the stock is subject to a specific management regime and reference points are defined.</p> <p>Fishery removals are considered in the stock assessment process. The most recent stock assessment shows that the stock biomass is above limit reference point. Therefore, the stock passes Clauses C1.1 and C1.2.</p> <p>Saharo-Mauritian stock of horse mackerel should be approved under the MarinTrust Standard v.2.</p>
Notes for On-site Auditor
<p>N/A</p>

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 ¹	CITES Appendix 1 ²
Horse mackerel	<i>Trachurus trachurus</i>	Saharo-Mauritanian Horse mackerel stock (FAO 34 Atlantic Eastern Central)	Département des Pêches Maritimes du Ministère de l'Agriculture, de la Pêche Maritime, du Développement Durable et des Eaux et Forêt (Maroc), Office National des Pêches, Institut National de la Recherche Halieutique ; FAO CECAF	C	VU	No

¹ <https://www.iucnredlist.org/species/198647/43157137>

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		Horse mackerel (<i>Trachurus Trachurus</i>)	
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.	Yes
	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.	Yes

Clause outcome: PASS

No recent assessment have been published after the 2022 assessment, so the results below remain the same as last year's assessment.

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.

The following information comes from preliminary results, not yet validated by the Scientific Sub-Committee (SSC) of the Fishery Committee for the Eastern Central Atlantic (CECAF), of the 20th meeting of the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa held virtually from 21 to 25 June 2021.

In this fishery, horse mackerel is assessed as a part of the small pelagic fisheries in the area. Sardine (*Sardina pilchardus*) remains the dominant species, constituting about 48% of overall catch of the main small pelagic species in 2020. Catches of this species decreased about 14% from 2019 to 2020, from around 1 417 000 tonnes in 2019 to around 1 236 000 tonnes in 2020. Sardine is followed by *Sardinella colias* (15%), *Sardinella maderensis* (13%), *Sardinella aurita* (8%), *Trachurus tracae* (Cunene horse mackerel) (9%) and *Trachurus trachurus* (horse mackerel) (3%).

The catches of horse mackerel increased by 8% from 2019 to 2020; from 76 000 tonnes in 2019 to 82 000 tonnes in 2020. The figure 1 below shows the evolution of catches since 1990.

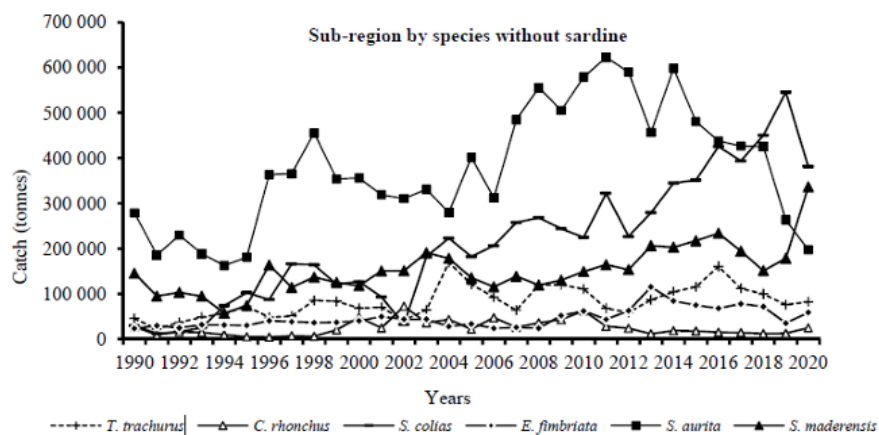


Figure 1. Total small pelagic species and sardine catches in the subregion by species and year with and without sardine catches. Source: FAO, 2021.

The figure below shows how catches by species and years are reported by the FAO Working Group on the Assessment of Small Pelagic Fish off Northwest Africa.

Species	Catch 2016	Catch 2017	Catch 2018	Catch 2019	Catch 2020	% 2020 related to total catch	Average (2016-2020)	Average (1990-2020)
<i>S. pilchardus</i>	1 068	1 220	1 360	1 417	1 236	48%	1 260	836
<i>S. aurita</i>	438	427	426	263	197	8%	350	377
<i>S. maderensis</i>	234	194	151	178	336	13%	219	152
<i>T. trachurus</i>	160	112	99	76	82	3%	106	82
<i>T. trecae</i>	236	235	205	245	226	9%	229	189
<i>C. rhonchus</i>	15	14	12	13	24	1%	15	24
<i>S. colias</i>	426	394	450	546	381	15%	439	211
<i>E. encrasicolus</i>	29	20	24	20	51	2%	29	78
<i>E. fimbriata</i>	68	78	71	35	58	2%	62	46
Total	2 672	2 693	2 798	2 792	2 592	-	2 710	1 996

Figure 2. Comparative catches between 2016 and 2020 in thousand tonnes, by Species.

Source: FAO, 2021.

Therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process and therefore the stock PASSES clause 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.

According to the assessment from the FAO working group 2021, horse mackerel stock is fully exploited, which indicates an improvement in the state of the stock. The fishery operates within the limits of sustainability and current fishing pressure seems sustainable and can be maintained. This improvement is likely due to a decrease in fishing mortality in 2016 and 2017 as well as an observed improvement in the recruitment index for the horse mackerel. Given the multi-specific nature of these fisheries and the results of the projections, the FAO Working Group (WG) recommends not to exceed the estimated 2020 catch level for the species (around 300 000 tonnes) in 2021.

Reference points are defined for the horse mackerel stock as follows:

- Biomass target reference point $B_{0.1}$: value of Biomass corresponding to $F_{0.1}$
- Fishing mortality target reference point $F_{0.1}$: fishing mortality rate at which the slope of the yield-per-recruit curve is only 1/10th the slope of the curve at its origin, or 90% of F_{MSY} .

The current state of the Horse mackerel stock is detailed using 2 ratios:

- $B_{cur}/B_{0.1}$: ratio between the estimated biomass for the last year of the series and the biomass corresponding to $F_{0.1}$
- $F_{cur}/F_{0.1}$: ratio between the fishing mortality coefficient observed for the last year of the series and $F_{0.1}$.

The result of the stock assessment indicates that the current biomass (B_{cur}) is above the target biomass reference point, with B_{cur} being 128% of the target reference point. Furthermore, the current fishing mortality (F_{cur}) is below the target fishing mortality reference point, being 61% of it.

Stock	2020 catch in 1 000 tonnes (2016-2020 avg.)	* $B_{cur}/B_{0.1}$	* $F_{cur}/F_{0.1}$	Assessment
Horse mackerel²				
<i>T. trachurus</i>	82 (106)	128%	61%	Fully exploited

Figure 3. Summary of the current status of the horse mackerel stock.

Source: FAO, 2021.

Therefore, the species is considered, in its most recent stock assessment, to have a biomass above the limit reference point and it PASSES clause C1.2.

References

FAO, 2021. Report of the FAO working group on the assessment of small pelagic fish off Northwest Africa. Held virtually, 21-25 June 2021: <https://www.fao.org/3/cb9193en/cb9193en.pdf>

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