



## MarinTrust Standard V2

# By-product Fishery Assessment

## *Ecuador Pacific Chub Mackerel*

**MarinTrust Programme**

Unit C, Printworks

22 Amelia Street

London

SE17 3BZ

E: [standards@marin-trust.com](mailto:standards@marin-trust.com)

T: +44 2039 780 819

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

Fishery Under Assessment	Species:	Pacific Chub Mackerel ( <i>Scomber japonicus</i> )
	Geographical area:	FAO 87 Pacific South East
	Country of origin of the product:	Ecuador
	Stock:	Ecuador Pacific Chub Mackerel
Date	March 2022	
Report Code	BP043	
Assessor	Vito Romito	
Country of origin of the product - PASS	Ecuador	
Country of origin of the product - FAIL		

Application details and summary of the assessment outcome			
Company Name(s): Tadel S.A			
Country: Ecuador			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Vito Romito	Ivan Mateo	0.5	Surveillance 2
Assessment Period	To March 2022		

Scope Details	
Main Species	Pacific Chub Mackerel ( <i>Scomber japonicus</i> )
Stock	Ecuador Pacific Chub Mackerel
Fishery Location	FAO 87 Pacific South East
Management Authority (Country/ State)	Instituto Nacional de Pesca (INP) Ecuador
Gear Type(s)	All (Purse seine, hand-line, pelagic trawls)
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's recommendation
Recommendation	Approve

## Table 2. Assessment Determination

<b>Assessment Determination</b>
<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. Pacific chub mackerel (<i>Scomber japonicus</i>) does not appear as Endangered or Critically Endangered on IUCN's Red List, nor does it appear in CITES appendices; therefore, Pacific chub mackerel in FAO Area 87 is eligible for approval for use as Marin Trust by-product raw material.</p> <p>The stock is subject to stock assessment and assessed a category C species. The stock is currently below the target reference point (40% of B0). Assuming the limit reference point (currently not defined) is half the target as it is the case in many fisheries, we can safely assume that the stock is above the assumed limit reference point.</p> <p>Therefore, Pacific chub mackerel (<i>Scomber japonicus</i>) in FAO Area 87 is APPROVED in the assessment area by the assessors for the production of fishmeal and fish oil under the current MARIN TRUST v 2.0 by-products standard.</p>
<b>Fishery Assessment Peer Review Comments</b>
<p>The assessor correctly classified the Pacific chub mackerel (<i>Scomber japonicus</i>) in FAO Area 87 as category C, the stock is managed, and reference points are defined to assess the stock status against.</p> <p>Fishery removals from the stock are considered in the stock assessment process. The most recent stock assessment shows that the stock is considered to have a biomass well above the limit reference point.</p> <p>Therefore, Pacific chub mackerel (<i>Scomber japonicus</i>) in FAO Area 87 fishery passes both C1.1 and C1.2 and therefore the Pacific chub mackerel (<i>Scomber japonicus</i>) in FAO Area 87 is approved</p>
<b>Notes for On-site Auditor</b>
NA

## 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>
Pacific chub mackerel	<i>Scomber japonicus</i>	FAO Area 87 Pacific Southeast	Instituto Nacional de Pesca (INP) Ecuador	C	LC	No

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

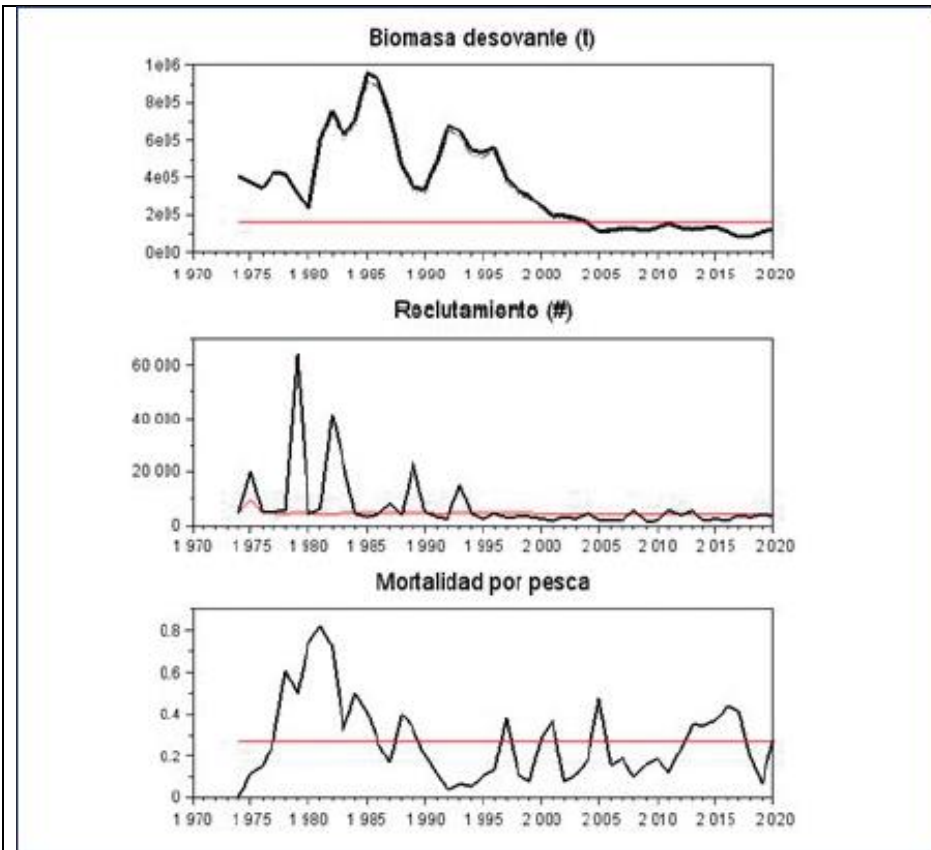
<sup>2</sup> <https://cites.org/eng/app/appendices.php>

## 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		Chub mackerel	
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
<p><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.</b></p> <p>Acoustic cruises and CPUE were analyzed at through a catch-by-catch statistical model in the 2021 stock assessment of small pelagics, of which chub mackerel is one. The stock was assessed with an age based model with size data similar to A-SCALA (Maunder and Watters, 2003) called MESTOCKL (Canales et al., 2015). This model it is implemented in ADMB. The dynamics of the population is modeled in ages, but uses size compositions of the catches as observations. <b>Fishery removals of the species in the fishery under assessment are included in the stock assessment process. C1.1 is met.</b></p> <p><b>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.</b></p> <p>As shown in the figure below, the stock is currently below the target reference point (40% of B<sub>0</sub>). Assuming the limit reference point is half the target as it is the case in many fisheries, we can safely assume that the stock is above an assumed limit reference point.</p>			



**Figure 1.** Spawning biomass, recruitments and fishing mortality of chub mackerel (Macarela). The red lines represent 40%B0 reference values (target management goals for BD and F) and expected recruitment. The line thin segmented corresponds to the 2020 stock assessment (Canales and Jurado, 2021).

The species is considered, in its most recent stock assessment, to have a biomass above the (assumed) limit reference point. C1.2 is met.

**References**

Canales, C., and V. Jurado. 2021. Evaluación del stock de recursos pelágicos pequeños del Ecuador. Año 2021. <https://www.institutopesca.gob.ec/wp-content/uploads/2018/01/IPIAP-Evaluacion-pel%C3%A1gicos-del-Ecuador.pdf>

CITES. 2022. Cites Appendix 1. <https://cites.org/eng/app/appendices.php>

Collette, B., Acero, A., Canales Ramirez, C., Cardenas, G., Carpenter, K.E., Chang, S.-K., Di Natale, A., Fox, W., Guzman-Mora, A., Juan Jorda, M., Miyabe, N., Montano Cruz, R., Nelson, R., Salas, E., Schaefer, K., Serra, R., Sun, C., Uozumi, Y., Wang, S., Wu, J. & Yeh, S. 2011. *Scomber japonicus*. The IUCN Red List of Threatened Species 2011: e.T170306A6737373. <https://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T170306A6737373.en>. Accessed on 24 March 2022.

**Links**

<b>MarinTrust Standard clause</b>	1.3.2.2
<b>FAO CCRF</b>	7.5.3
<b>GSSI</b>	D.3.04, D5.01