MarinTrust Standard V2

By-product Fishery Assessment

Report Template (Pacific chub mackerel, *Scomber japonicus*)

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:	Pacific Chub mackerel, *Scomber japonicus*
	Geographical area:	FAO Area 87 Pacific Southeast, Chile EEZ
	Country of origin of the product:	Chile
	Stock:	Pacific Chub mackerel in Chile Regions XV, I, II
Date	24 January 2022	
Report Code	BP003	
Assessor	Géraldine Criquet	
Country of origin of the product - PASS	Chile - PASS	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Camanchaca - Ibique			
Country: Chile			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Géraldine Criquet	Conor Donnelly	0.5	Surveillance 1
Assessment Period	January 2022		

Scope Details	
Main Species	Pacific Chub mackerel, *Scomber japonicus*
Stock	Pacific Chub mackerel in Chile Regions XV, I, II
Fishery Location	FAO Area 87 Pacific Southeast, Chile EEZ
Management Authority (Country/ State)	Chile - Undersecretary of Fisheries and Aquaculture (SUBPESCA)
Gear Type(s)	Pelagic trawl, purse seines
Outcome of Assessment	
Peer Review Evaluation	Agree with recommendation
Recommendation	Approved

Table 2. Assessment Determination

Assessment Determination
If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in the CITES appendices, it cannot be approved for use as Marin Trust raw material. Pacific Chub mackerel is neither listed as Endangered or Critically Endangered on the IUCN Red List, nor listed in CITES appendices, therefore Pacific Chub mackerel is eligible for approval for use as MarinTrust raw material. The stock is not subject to a specific management regime and reference points are not defined to assess the stock status against. Therefore, the stock is classified as Category D and a risk-based Productivity, Susceptibility Analysis (PSA) was carried out. With an average productivity of 1.57 and an average susceptibility of 2.25, it passes the PSA. Therefore, Pacific Chub mackerel in FAO Area 87 Pacific Southeast is **APPROVED** for the production of fishmeal and fish oil under the current Marin Trust v 2.0 by-products.
Fishery Assessment Peer Review Comments
The stock has been correctly classified as a Category D stock and a PSA correctly undertaken which it passes. Consequently, Pacific Chub mackerel in FAO Area 87 Pacific Southeast should be approved for the production of fishmeal and fish oil under the current Marin Trust v 2.0 by-products.
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]
Pacific chub mackerel	*Scomber japonicus*	Pacific Chub mackerel in Chile Regions XV, I, II	Chile	D	LC	No

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

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

D1	Species Name	Pacific Chub mackerel , Scomber japonicus	
	Productivity Attribute	**Value**	**Score**
	Average age at maturity (years)	2-3 years	2
	Average maximum age (years)	9 years	1
	Fecundity (eggs/spawning)	100,000-400,000	1
	Average maximum size (cm)	64 cm	2
	Average size at maturity (cm)	26 cm	1
	Reproductive strategy	Broadcast spawner	1
	Mean trophic level	3.4	3
		Average Productivity Score	**1.57**
	Susceptibility Attribute	**Value**	**Score**
	Overlap of adult species range with fishery	Information unavailable	Not scored
	Distribution	Although the chub mackerel has a worldwide distribution (Figure 1) and there is limited information on the stock structure, there is evidence of a single population along the Chilean coast. Therefore, is it classified as "only in the country".	3
	Habitat	Pelagic species	1
	Depth range	50-200 m	1
	Selectivity	Species 1 or 2 times mesh size	2
	Post-capture mortality	Most dead or retained	3
		Average Susceptibility Score	**2.25**
		PSA Risk Rating (From Table D3)	**PASS**
		Compliance rating	**PASS**

References

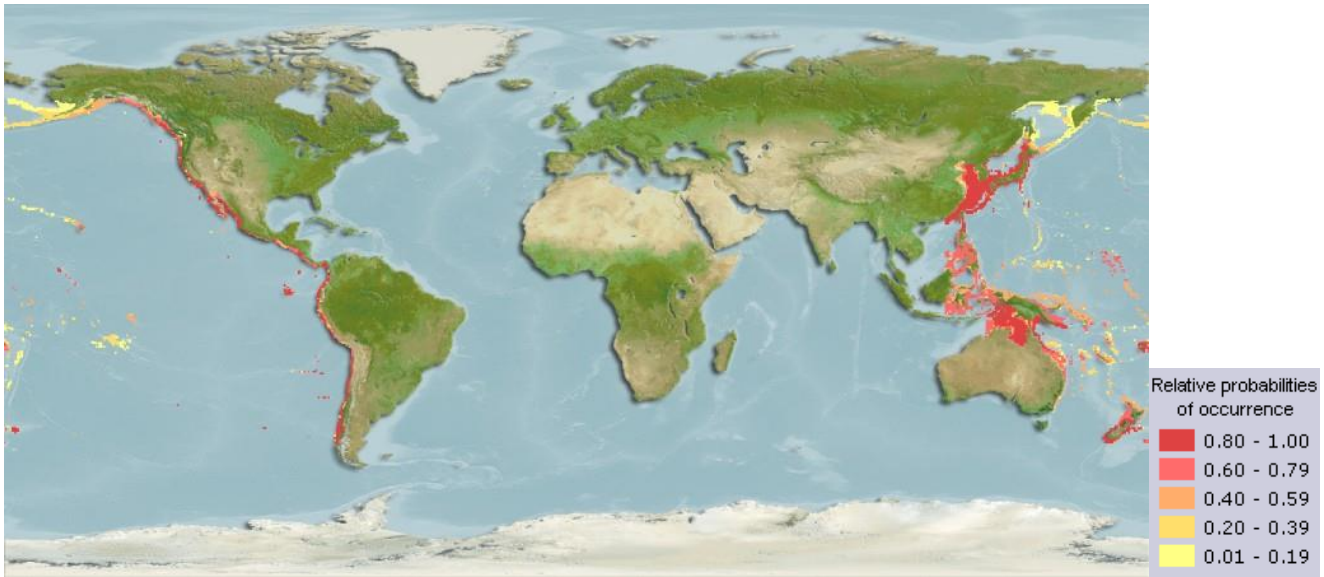

Figure 1. Distribution map for *Scomber japonicus* (Chub mackerel), with modelled year 2050 native range map based on IPCC RCP8.5 emissions scenario. Source: https://www.aquamaps.org/receive.php?type_of_map=regular

FishBase
https://www.fishbase.de/summary/Scomber-japonicus.html

Fishsource
https://www.fishsource.org/stock_page/2280
https://www.fishsource.org/stock_page/1647

South Pacific Regional Fisheries Management Organisation, species profile – Chub mackerel
https://www.sprfmo.int/assets/Fisheries/Species-Profiles/MAS-Species-Profile.pdf

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 January 2022.

Standard clauses 1.3.2.2

Table D2 - Productivity / Susceptibility attributes and scores.

Productivity attributes	Low productivity/ High risk	Medium productivity/ Medium risk	High productivity/ Low risk
	Score 3	Score 2	Score 1
Average age at maturity (years)	>4	2 to 4	<2
Average maximum age (years)	>30	10 to 30	<10
Fecundity (eggs/spawning)	<1 000	1 000 to 10 000	>10 000
Average maximum size (cm)	>150	60 to 150	<60
Average size at maturity (cm)	>150	30 to 150	<30
Reproductive strategy	Live bearer, mouth brooder or significant parental investment	Demersal spawner "berried"	Broadcast spawner
Mean trophic level	>3.25	2.5–3.25	<2.5

Susceptibility attributes		High susceptibility/ High risk	Medium susceptibility/ Medium risk	Low susceptibility/ Low risk
		Score 3	Score 2	Score 1
Availability	1) Overlap of adult species range with fishery	>50% of stock occurs in the area fished	Between 25% and 50% of the stock occurs in the area fished	<25% of stock occurs in the area fished
	2) Distribution	Only in the country/ fishery	Limited range in the region	Throughout region/ global distribution
Encounterability	1) Habitat	Habitat preference of species make it highly likely to encounter trawl gear (e.g. demersal, muddy/sandy bottom)	Habitat preference of species make it moderately likely to encounter trawl gear (e.g. rocky bottom/reefs)	Depth or distribution of species make it unlikely to encounter trawl gear (e.g. epi-pelagic or meso-pelagic)
	2) Depth range	High overlap with trawl fishing gear (20 to 60 m depth)	Medium overlap with trawl fishing gear (10 to 20 m depth)	Low overlap with trawl fishing gear (0 to 10 m, >70 m depth)
Selectivity		Species >2 times mesh size or up to 4 m length	Species 1 to 2 times mesh size or 4 to 5 m length	Species <mesh size or >5 m length
Post capture mortality		Most dead or retained Trawl tow >3 hours	Alive after net hauled Trawl tow 0.5 to 3 hours	Released alive Trawl tow <0.5 hours

Note: Availability 2 is only used when there is no information for Availability 1; the most conservative score between Encounterability 1 and 2 is used.

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