



## MarinTrust Standard V2

# By-product Fishery Assessment *Report Template (Pacific chub mackerel in FAO 71 Pacific Western Central)*

**MarinTrust Programme**

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

Fishery Under Assessment	Species:	Pacific chub mackerel ( <i>Scomber japonicus</i> )
	Geographical area:	FAO 71 Pacific Western Central
	Country of origin of the product:	Thailand
	Stock:	Pacific Western Central
Date	13 June 2022	
Report Code	THA13	
Assessor	Léa Lebechnech	
Country of origin of the product - PASS	Thailand	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Golden Prize Canning Co Ltd; Asian Alliance International Co., Ltd; South East Asian Packaging and Canning Ltd; T.C. Union Agrotech Co, Ltd.			
Country: Thailand			
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	Conor Donnelly	0,5 days	Surveillance 2
Assessment Period	To June 2022		

Scope Details	
Main Species	Pacific chub mackerel ( <i>Scomber japonicus</i> )
Stock	Pacific Western Central
Fishery Location	FAO 71 Pacific Western Central
Management Authority (Country/ State)	Thailand Fisheries Management Authorities
Gear Type(s)	Pelagic Trawls
Outcome of Assessment	
Peer Review Evaluation	Agree with recommendation
Recommendation	<b>APPROVED</b>

## 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. Pacific chub mackerel (<i>Scomber japonicus</i>) is neither listed as Endangered or Critically Endangered on IUCN's Red List ("least concern"), nor listed in CITES appendices; therefore, product originating from the Pacific chub mackerel fishery is eligible for approval for use as Marin Trust by-product raw material.</p> <p>There is currently no stock assessment of Pacific chub mackerel in the NPFC Convention Area. However, during the 6<sup>th</sup> Scientific Committee Meeting of the North Pacific Fisheries Commission (NPFC), which took place from 15<sup>th</sup> to 18<sup>th</sup> December 2021, it has been stated that the Technical Working Group on Chub mackerel stock assessment (TWG CMSA) will conduct a preliminary stock assessment for chub mackerel in 2022 and a complete stock assessment in 2023.</p> <p>There are several stock assessments carried out by Japan, China or Russia. However, reference points are still not agreed by all parties. Pacific chub mackerel in Thailand is not subject to a specific research and management regime. Therefore, the fishery was assessed using the risk-based Productivity, Susceptibility Analysis (PSA) as per MarinTrust v 2.0 procedures for Category D species.</p> <p>The species has passed this risk-based assessment (Table D3) with an average productivity of 1.57 and an average susceptibility of 2.25. The Pacific Chub Mackerel in FAO Area 71 is <b>APPROVED</b> for the production of fishmeal and fish oil under the MarinTrust v 2.0 by-products standard.</p>
Fishery Assessment Peer Review Comments
<p>The assessor has correctly identified the stock as a category D species given the lack of agreed reference points. The PSA was undertaken correctly, and Pacific chub mackerel passed the analysis and therefore is Approved.</p>
Notes for On-site Auditor
<p>None.</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 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 <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
Pacific chub mackerel	<i>Scomber japonicus</i>	Pacific Western Central (Pacific Northwest)	Internationally, North Pacific Fisheries Commission	D	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.

<b>Species Name</b>		
<b>C1</b>	<b>Category C Stock Status - Minimum Requirements</b>	
	<b>C1.1</b>	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>C1.2</b>	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>Clause outcome:</b>
<b>References</b>		
<b>Links</b>		
<b>MarinTrust Standard clause</b>	1.3.2.2	
<b>FAO CCRF</b>	7.5.3	
<b>GSSI</b>	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>		Pacific chub mackerel
	<b>Productivity Attribute</b>		<b>Value</b>
	Average age at maturity (years)		2
	Average maximum age (years)		10.9
	Fecundity (eggs/spawning)		135,962 (100,000 to 400,000)
	Average maximum size (cm)		43.25
	Average size at maturity (cm)		30.31
	Reproductive strategy		Broadcast spawner
	Mean trophic level		3.4
			<b>Average Productivity Score</b>
			<b>1.71</b>
	<b>Susceptibility Attribute</b>		<b>Value</b>
	Availability (area overlap)		Throughout region
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)		Pelagic, depth range usually 50-200 m
	Selectivity of gear type		Up to 4m
	Post-capture mortality		Most dead or retained
			<b>Average Susceptibility Score</b>
			<b>2.25</b>
			<b>PSA Risk Rating (From Table D3)</b>
			<b>PASS</b>
			<b>Compliance rating</b>
<p><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></p>			
<p><b>FIGURE 1. COMPUTER GENERATED DISTRIBUTION MAPS FOR <i>SCOMBER JAPONICUS</i> (CHUB MACKEREL), WITH MODELLED YEAR 2050 NATIVE RANGE MAP BASED ON IPCC RCP8.5 EMISSIONS SCENARIO.</b></p>			
<ul style="list-style-type: none"> <li>- Depth range 0 - 300 m, usually 50 - 200 m</li> <li>- No information on the fishing gear mesh size used by the client, but the species is up to 4 m</li> </ul>			

- No information from the client on post-capture mortality but it can reasonably be estimated that after 3 hours, the species is mostly dead or retained.

### References

Scientific Committee. 2021. 6th Meeting Report. NPFC-2021-SC06-Final Report. 231 pp. (Available at [www.npfc.int](http://www.npfc.int)).

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 09 June 2022.

CITES website: <https://cites.org/eng>

Fish base. *Scomber japonicus*, Houttuyn, 1782, Chub mackerel: <https://www.fishbase.se/summary/Scomber-japonicus.html>

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			
<b>Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements</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>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>			
MarinTrust Standard clause		1.3.2.2, 4.1.4	
FAO CCRF		7.5.1	
GSSI		D.5.01	