



## MarinTrust Standard V2

# By-product Fishery Assessment *Skipjack tuna (Katsuwonus pelamis) in FAO 77*

### MarinTrust Programme

Unit C, Printworks

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

Fishery Under Assessment	Species:	Skipjack tuna ( <i>Katsuwonus pelamis</i> )
	Geographical area:	FAO 77 (eastern Pacific, central)
	Country of origin of the product:	Thailand (flag states: Vietnam)
	Stock:	Eastern Pacific Ocean (EPO) skipjack tuna
Date	8 August 2023	
Report Code	THA39	
Assessor	Matthew Jew	
Country of origin of the product - PASS	Thailand (flag states: Vietnam)	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Piyo Bhokabhan Co.,Ltd,TCF Co. Ltd,Sirisaengarumpee Co. Ltd.,South East Asian Packaging and Canning Ltd, TC 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
Matthew Jew	Ivan Mateo	0.5	Surveillance 1
Assessment Period	Up to August 2023		

Scope Details	
Main Species	Skipjack tuna ( <i>Katsuwonus pelamis</i> )
Stock	Eastern Pacific Ocean (EPO) skipjack tuna
Fishery Location	FAO 77 (eastern Pacific, central)
Management Authority (Country/ State)	Inter-American Tropical Tuna Commission (IATTC)
Gear Type(s)	Purse Seine, Longline, and Pole-and-Line
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor's assessment
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. Skipjack Tuna (<i>Katsuwonus pelamis</i>) do not appear as Endangered or Critically Endangered on IUCN’s Red List, nor do they appear in CITES appendices; therefore, <i>Katsuwonus pelamis</i> is eligible for approval for use as Marin trust by-product raw material.</p> <p>The Eastern Pacific Ocean (EPO) skipjack tuna is managed at the international level by the IATTC through a multiyear conservation plan. IATTC conducts regular stock assessments. Skipjack tuna is a difficult species to assess. A conventional stock assessment method for EPO skipjack is not possible due to the lack of age composition data and tagging data. Neither biomass- nor fishing mortality-based reference points are available for EPO skipjack. Simple stock, status indicators (SSIs) based on relative quantities have been investigated by Maunder and Deriso (2007). The most recent stock assessment for Eastern Pacific Skipjack Tuna was conducted in 2021. The assessment considers skipjack tuna in the Eastern Pacific Ocean to be a single stock and this is the only stock under assessment. The stock is subject to a specific management regime (IATTC), therefore it was assessed under Category C.</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, EPO skipjack tuna is <b>APPROVED</b> for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified EPO skipjack tuna in category C, the stock is managed, and reference points are defined to assess the stock status against. 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. Therefore, EPO skipjack tuna passes both C1.1 and C1.2 and therefore EPO skipjack tuna is approved</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 <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
Skipjack tuna	<i>Katsuwonus pelamis</i>	EPO skipjack tuna	IATTC	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		Skipjack tuna ( <i>Katsuwonus pelamis</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

**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 most recent assessment was conducted in 2021. The next benchmark assessment should be conducted in 2024. Data to support the stock assessment is derived from commercial catches: relative catches in weight, relative catch per set and relative average length of catch. Total catches (retained plus discards) are shown in Figure below:

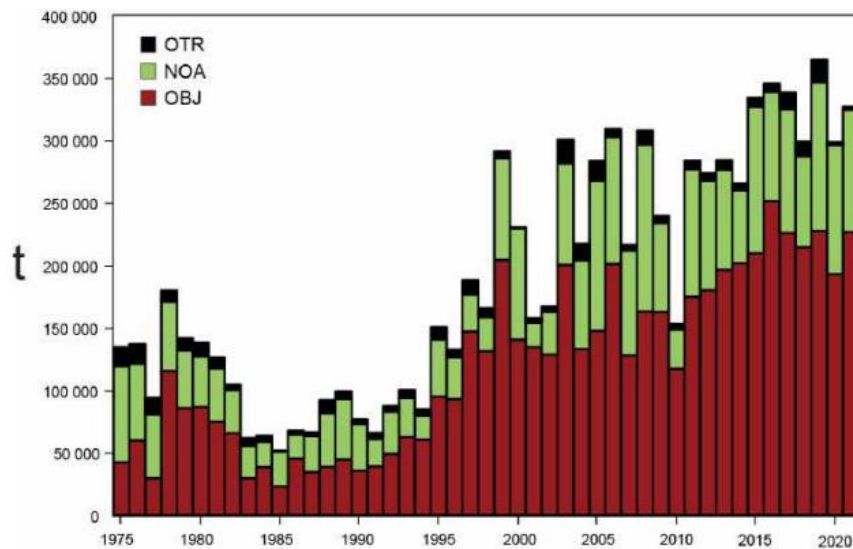


Figure 1. Total catches (retained catches plus discards) for the purse-seine fisheries, by set type (NOA, OBJ) and retained catches for the other (OTR) fisheries, of skipjack tuna in the eastern Pacific Ocean, 1975- 2021. The purse-seine catches are adjusted to the species composition estimate obtained from sampling the catches. The 2020 catch data are preliminary.

Source: IATTC, 2022

**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.**

MSY-based quantities cannot be estimated because the trade-off between growth and natural mortality, in combination with the assumption that recruitment is independent of stock size, implies fish should be caught at the youngest ages to maximize yield, implying that the optimal fishing mortality should be infinite. Therefore, a conservative proxy for the target biomass of SBR = 0.3 based on values for bigeye and yellowfin, and the fishing mortality corresponding to that biomass, are used as the target reference points.

The reference model estimated that the 2021 exploitation rate was slightly above status quo (average level of 2017-2019; Figure 2) as did over half of the sensitivity models ranging from being only slightly above to being 0.1 higher (except one model that estimated high exploitation rates).

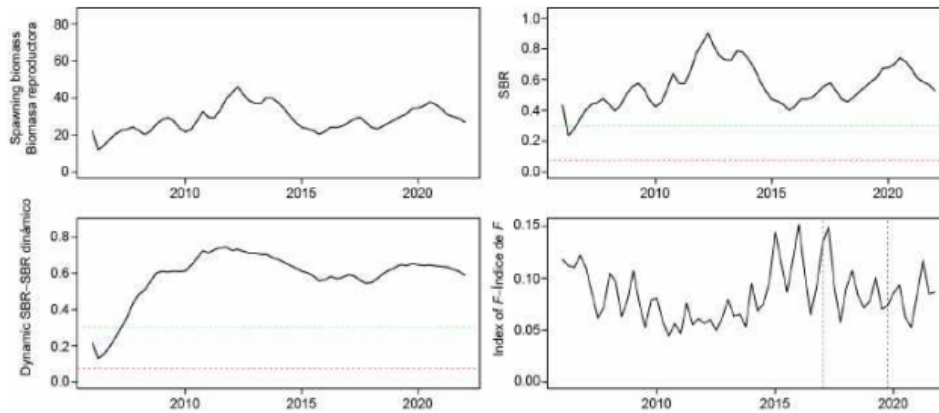


Figure 2. Spawning biomass, spawning biomass ratio, dynamic spawning biomass ratio, and an index of quarterly exploitation rate for the reference model. The green dashed horizontal line is the target biomass reference point (SBR = 0.3) and the red horizontal dashed line is the limit biomass reference point (SBR = 0.077). The two vertical lines represent the status quo period (2017-2019).  
Source: IATTC, 2022.

The reference model and most of the sensitivity analyses estimate that the current biomass is above the target reference point and the fishing mortality is below the target fishing mortality (Figure 3).

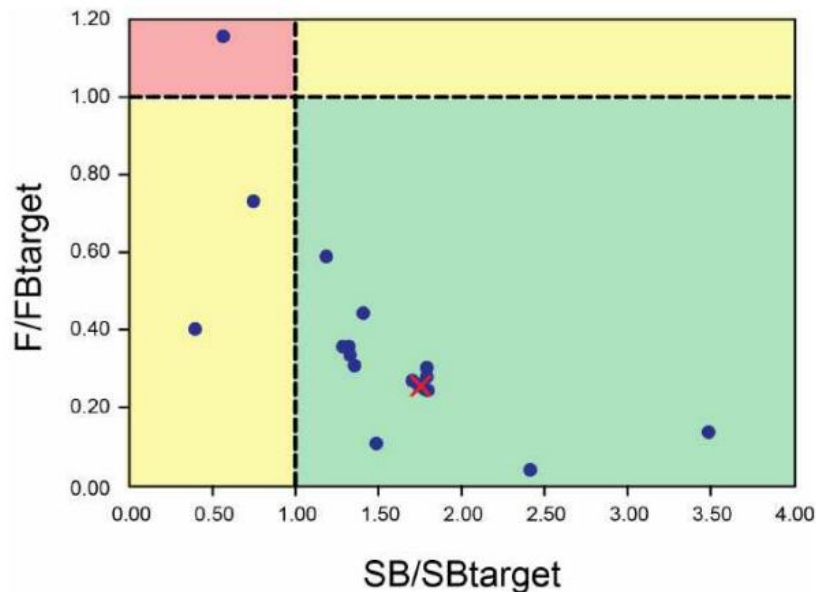


Figure 3. Kobe plot showing the stock status estimates from all the models.  
Source: IATTC, 2022.

The model will continue to be improved towards the benchmark assessment in 2024, including incorporating the results of the analysis of recently collected tagging data.

**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**

IATTC 2022. Reports on the Tuna fishery, stocks, and ecosystem in the Eastern Pacific Ocean in 2021: [https://www.iattc.org/GetAttachment/99dc87b3-cf5f-4b7b-8e6e-f5aa9cab0fce/No-20-2022\\_Tunas-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2021.pdf](https://www.iattc.org/GetAttachment/99dc87b3-cf5f-4b7b-8e6e-f5aa9cab0fce/No-20-2022_Tunas-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2021.pdf)

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