



MarinTrust Standard V2

By-product Fishery Assessment *Report – Thailand Skipjack Tuna* *FAO Areas 61 and 71*

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:	Skipjack tuna, <i>Katsuwonus pelamis</i>
	Geographical area:	FAO Area 61 Pacific Northwest FAO Area 71 Western Central
	Country of origin of the product:	Thailand (Flag State)
	Stock:	Pacific Northwest & Western Central Skipjack
Date	June 2022	
Report Code	THA14	
Assessor	Ivan Mateo, Ph.D.	
Country of origin of the product - PASS	Thailand (Flag State)	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s):			
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
Ivan Mateo, Ph.D.	Vito Romito	0.5	Surveillance 2
Assessment Period	To June 2022		

Scope Details	
Main Species	Skipjack tuna, <i>Katsuwonus pelamis</i>
Stock	Pacific Northwest, Western Central
Fishery Location	FAO Area 61 Pacific Northwest FAO Area 71 Western Central
Management Authority (Country/ State)	Western and Central Pacific Fisheries Commission (WCPFC)
Gear Type(s)	Longline, pole & line, and purse seine
Outcome of Assessment	
Peer Review Evaluation	Approve
Recommendation	APPROVED

Table 2. Assessment Determination.

Assessment Determination
<p>If any species is categorised as Endangered or Critically Endangered on the IUCN's Red List, or if it appears in the CITES appendices, it cannot be approved for use as MARINTRUST raw material. Skipjack tuna (<i>Katsuwonus pelamis</i>) is not listed as Endangered or Critically Endangered on IUCN's Red List, nor is it listed in CITES appendices; therefore, skipjack tuna is eligible for approval for use as MARIN TRUST by-product raw material.</p> <p>Skipjack in the western central Pacific Ocean are considered to comprise a single stock for assessment and management purposes; therefore, this assessment covers that stock when fished within FAO Areas 61 and 71. Fishery removals of the stock are considered in the WCPFC stock assessment process so the stock PASSES Clause C1.1.</p> <p>As of the latest assessment of stock status, managers consider the stock to be above the limit such that the stock PASSES Clause C1.2.</p> <p>In order to be approved, the stock under assessment must pass both Clauses C1.1 and C1.2.</p> <p>WCPO skipjack tuna pass both Clauses C1.1 and C1.2, and therefore is APPROVED for the production of fishmeal and fish oil under the current Marin Trust v.2.0 by-product Standard.</p>
Fishery Assessment Peer Review Comments
<p>The stock is correctly assessed as a Category C stock. Given the inclusion of removals from the fishery under assessment in the 2019 WCPFC stock assessment process, and the fact that the stock is above the adopted Limit Reference Point and fished at rates below FMSY with 100% probability, WCPO skipjack tuna pass both Clauses C1.1 and C1.2. The reviewer agrees that the stock shall be APPROVED for the production of fishmeal and fish oil under the current Marin Trust v.2.0 by-product Standard.</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 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
Skipjack tuna	<i>Katsuwonus pelamis</i>	Western and Central Pacific	Western and Central Pacific Fisheries Commission (WCPFC)	C	LC	No

¹ <https://www.iucnredlist.org/>

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		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.	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

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.

Fishery removals of the stock in the fishery under assessment are included in the WCPFC stock assessment process.

The total provisional catch in 2018 was 1,795,048 mt, a 10% increase from 2017 and a 1% decrease from 2013-2017. Purse seine catch in 2018 (1,469,520 mt) was a 15% increase from 2017 and a 2% increase from the 2013-2017 average. Pole and line catch (138,534 mt) was a 4% increase from 2017 and a 9% decrease from the average 2013-2017 catch. Catch by other gear (182,888 mt) was a 16% decrease from 2017 and 19% decrease from the average catch in 2013-2017. Given the inclusion of removals from the fishery under assessment in the WCPFC stock assessment process, **the fishery achieves a PASS against C1.1.**

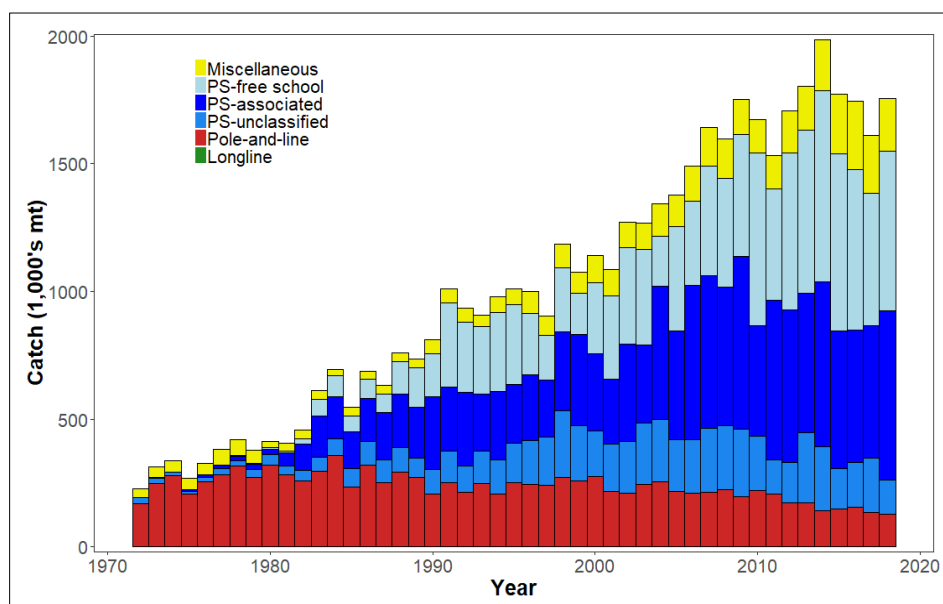


Figure 1. Time series of total annual catch (1000's mt) by fishing gear over the full assessment period. Source WCPFC 2019.

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.

The 2019 stock assessment (Vincent et al., 2019) showed that stock above the adopted Limit Reference Point and fished at rates below FMSY with 100% probability. The latest available information on the stock (WCPFC, 2019) is that the probability that recent spawning biomass was below the LRP = ~0% (SB_{recent}/SB_{MSY} = 2.579 and SB_{latest}/SB_{MSY} = 2.382 (median)). Therefore, the skipjack stock is not overfished, nor subject to overfishing. At the same time, it was also noted that fishing mortality is continuously increasing for both adult and juvenile while the spawning biomass reached the historical lowest level.

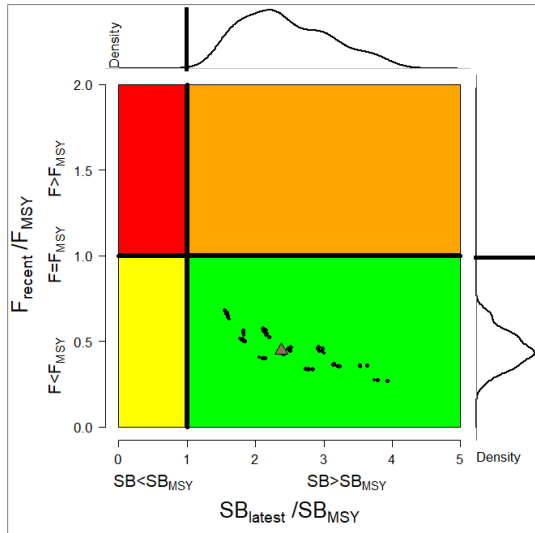


FIGURE 2. Kobe plot for the latest spawning potential (2018) summarizing the results for each of the models in the structural uncertainty grid. The plots represent estimates of stock status in terms of spawning potential depletion and fishing mortality and marginal distributions of each are presented. Brown triangle indicates the median of the estimates. The size of the circle relates to the weight of that particular model run. Source WCPFC 2019.

References

Collette, B., Acero, A., Amorim, A.F., Boustany, A., Canales Ramirez, C., Cardenas, G., Carpenter, K.E., de Oliveira Leite Jr., N., Di Natale, A., Fox, W., Fredou, F.L., Graves, J., Guzman-Mora, A., Viera Hazin, F.H., Juan Jorda, M., Kada, O., Minte Vera, C., Miyabe, N., Montano Cruz, R., Nelson, R., Oxenford, H., Salas, E., Schaefer, K., Serra, R., Sun, C., Teixeira Lessa, R.P., Pires Ferreira Travassos, P.E., Uozumi, Y. & Yanez, E. 2011. *Katsuwonus pelamis*. *The IUCN Red List of Threatened Species 2011*: e.T170310A6739812. <https://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T170310A6739812.en>

Vincent M.T., Pilling G. M. and Hampton J. 2019. Stock assessment of skipjack tuna in the western and central Pacific Ocean. WCPFC-SC15-2019/SA-WP-05-Rev2

WCPFC-SC 2019. Fifteenth Regular Session of the Scientific Committee. Summary Report. Pohnpei, Federated States of Micronesia, 12–20 August 2019. <https://www.wcpfc.int/file/361972/download?token=aYQGK8kV>

Links

MarinTrust Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	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.

D1	Species Name		
	Productivity Attribute	Value	Score
	Average age at maturity (years)		
	Average maximum age (years)		
	Fecundity (eggs/spawning)		
	Average maximum size (cm)		
	Average size at maturity (cm)		
	Reproductive strategy		
	Mean trophic level		
	Average Productivity Score		
	Susceptibility Attribute	Value	Score
	Availability (area overlap)		
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)		
	Selectivity of gear type		
	Post-capture mortality		
	Average Susceptibility Score		
	PSA Risk Rating (From Table D3)		
	Compliance rating		
	Further justification for susceptibility scoring (where relevant)		
	<i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i>		
References			
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	