MarinTrust Standard V2

By-product Fishery Assessment Report Template

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 (*Katsuwonus pelamis*)
	Geographical area:	FAO Area 77 Pacific Eastern Central
	Country of origin of the product:	Thailand
	Stock:	1. Western Central Pacific Ocean skipjack tuna 2. Eastern Pacific Ocean skipjack tuna
Date	7 December 2021	
Report Code	BP 258	
Assessor	Geraldine Criquet	
Country of origin of the product - PASS	Thailand	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Name:			
Address:			
Country: Thailand		Zip:	
Tel. No.:		Fax. No.:	
Email address:		Applicant Code:	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Geraldine Criquet	Conor Donnelly	0.5	Initial approval
Assessment Period	To December 2021		

Scope Details	
Main Species	Skipjack tuna (*Katsuwonus pelamis*)
Stock	1. Western Central Pacific Ocean skipjack tuna 2. Eastern Pacific Ocean skipjack tuna
Fishery Location	FAO Area 77 Pacific Eastern Central
Management Authority (Country/ State)	WCPFC, IATTC, Thailand
Gear Type(s)	Various
Peer Review Evaluation	Agree with recommendation
Recommendation	**APPROVED**

Table 2. Assessment Determination

Assessment Determination
If a 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 MarinTrust RS raw material. Skipjack tuna (*Katsuwonus pelamis*) is listed on the IUCN Red List as globally Least Concern (LC) and is not listed in CITES such that skipjack derived products are eligible for approval for use as MarinTrust RS by-product raw material. For management purposes, two Pacific skipjack tuna stocks are defined which are nominally split based on the WCPO/EPO boundary at 150°W: 1. Western Central Pacific Ocean skipjack tuna 2. Eastern Pacific Ocean skipjack tuna FAO 77 Pacific, Eastern Central has its western boundary at 175°W such that it overlaps at least in part with stock areas for both Western Central and Eastern Pacific skipjack; therefore, both stocks are included in this assessment. Fishery removals of both relevant skipjack tuna stock are considered in their respective stock assessment processes such that **the fishery PASSES Clause C1.1.** As of their latest assessments, both stocks are considered to have biomasses above their corresponding limit reference points such that **the fishery PASSES Clause C1.2.** As the fishery passes both Clause C1.1 and C1.2, skipjack tuna in FAO Area 77 is **APPROVED** for the production of fishmeal and fish oil under the current MarinTrust RS v 2.0 by-product standard.
Fishery Assessment Peer Review Comments
The assessor correctly classified Western Central Pacific Ocean and Eastern Pacific Ocean skipjack stocks as category C, reference points are defined to assess status of both stocks relative to. Fishery removals are included in the stock assessment process so both stocks PASS Clause C1.1. Both skipjack stocks are considered, in their most recent stock assessments, to have biomasses above their limit reference points (or proxies) such that, Clause C1.2 is met. Therefore, skipjack tuna in FAO area 77 should be **APPROVED**.
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 Redlist 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	*Katsuwonus pelamis*	1. Western Central Pacific skipjack tuna 2. Eastern Central Pacific skipjack tuna	WCPFC IATTC Thailand	C	Globally: Least Concern (LC)	No

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

CATEGORY C SPECIES

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

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		1. Western Central Pacific skipjack tuna (*Katsuwonus pelamis*) 2. Eastern Central Pacific skipjack tuna (*Katsuwonus pelamis*)	
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.

1. Western Central Pacific skipjack tuna

1. Fishery removals of the stock 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 for this stock.**

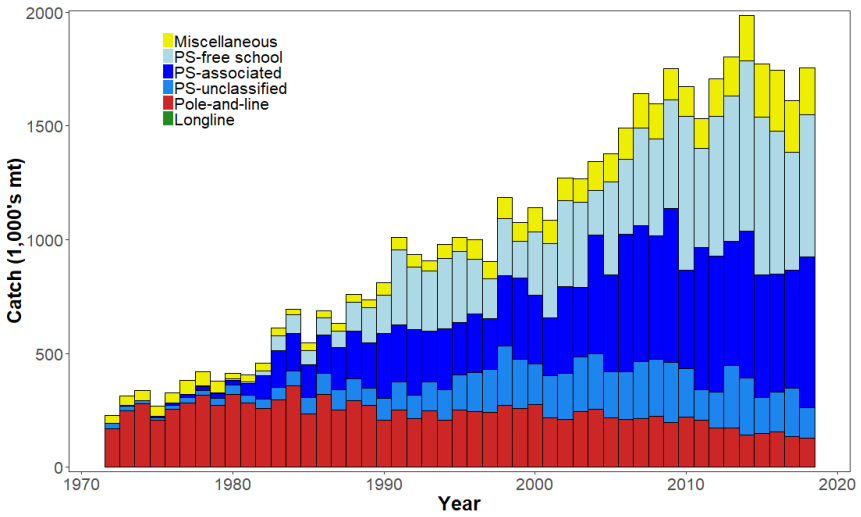

Figure 1. Time series of total annual catch (1000's mt) by fishing gear over the full assessment period.

2. Eastern Central Pacific skipjack tuna

Fishery removals of Eastern Pacific skipjack tuna are included in the stock assessment process as evidenced by Figure 2. In fact, fishery removals is one of a suite of indicators (i.e. proxies) used to assess the status of the stock. Given the inclusion of removals from the fishery under assessment in IATTC stock assessment processes, **the fishery achieves a PASS against C1.1 for this stock.**

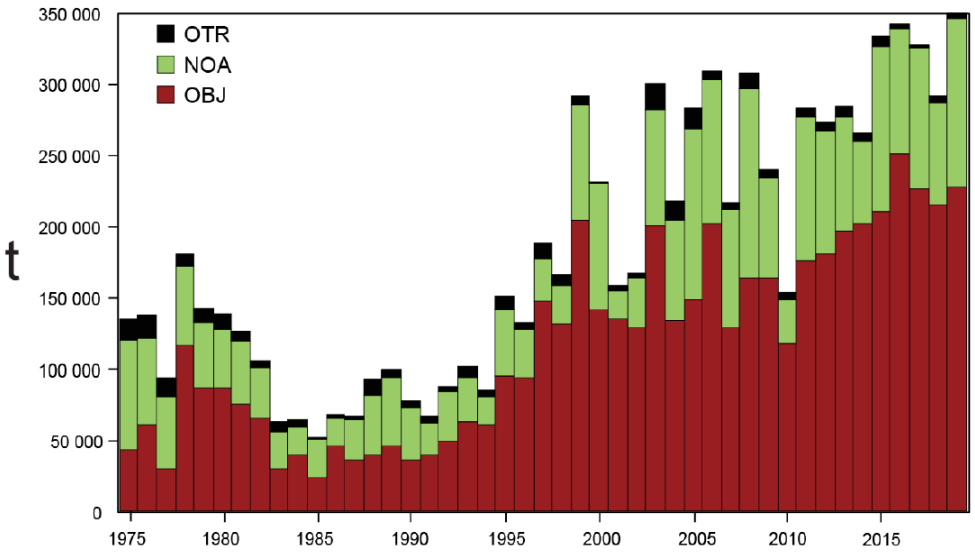

Figure 2. Total catches (retained catches plus discards) for the purse-seine fisheries, by set type (NOA, OBJ) and retained catches for the other (OTR) fisheries, of skipjack tuna in the eastern Pacific Ocean, 1975- 2019. The purse-seine catches are adjusted to the species composition estimate obtained from sampling the catches. The 2019 catch data are preliminary.

Overall, fishery removals of both stocks of relevance to this assessment are included in their respective stock assessment processes such that **the fishery achieves a PASS against 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.

1. Western Central Pacific skipjack tuna

Western Central Pacific skipjack tuna is assessed and managed by the WCPFC which has adopted a limit reference point for the stock of 20% $SB_{F=0}$, where $SB_{F=0}$ is calculated as the average over the period 2006 – 2015. The most recent analyses of the stock was conducted in 2019 (Vincent, Pilling and Hampton 2019) and the latest available information on the stock (WCPFC, 2019) is that the probability that recent spawning biomass was below the LRP = ~0% (Figure 3); therefore, the stock is considered, in its most recent stock assessment, to have a biomass above its limit reference point (or proxy) such that **the fishery achieves a PASS against C1.2 for this stock.**

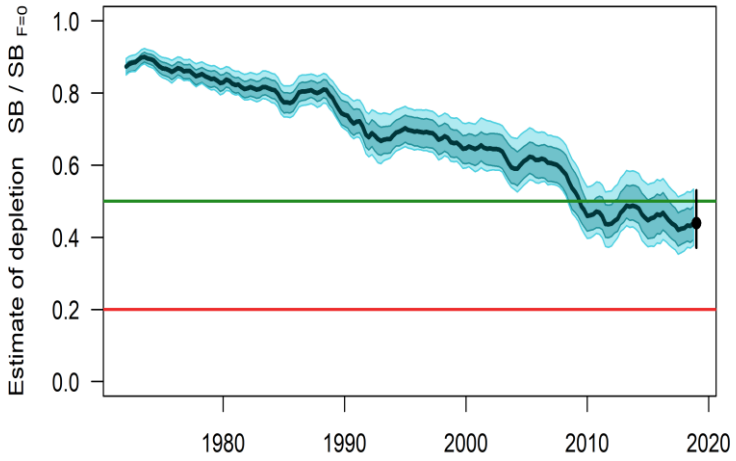

Figure 3. Plot showing the trajectories of spawning potential depletion for the model runs included in the structural uncertainty grid weighted by the values given in Table SKJ-01. Red horizontal line indicates the agreed limit reference point, the green horizontal line indicates the interim target reference point.

2. Eastern Central Pacific skipjack tuna

The Inter-American Tropical Tuna Commission (IATTC) conducts assessments of Eastern Pacific skipjack tuna using various indicators (i.e. proxies) rather than traditional reference points. The most recent assessment used eight data- and model-based indicators and concluded that those indicators have yet to detect any adverse impacts of the fishery. A PSA analysis was conducted in order to infer skipjack stock status from bigeye stock status. The PSA for the tropical tuna fishery in the EPO indicated that skipjack and bigeye have about the same susceptibility to purse-seine fishing gear, and that skipjack is much more productive than bigeye. Taking the risk analysis results for bigeye as reference, the staff infers that there is less than 53% probability that S_{cur} is below S_{MSY}.

Therefore, the stock is considered, in its most recent stock assessment, to have a biomass above its limit reference point (or proxy) such that **the fishery achieves a PASS against C1.2 for this stock.**

Overall, both stocks of relevance to this assessment are considered, in their most recent stock assessments, to have biomasses above their limit reference points (or proxies) such that **the fishery achieves a PASS against C1.2.**

References

IATTC, 2020. Report on the tuna fishery, stocks, and ecosystem in the Eastern Pacific Ocean in 2019. https://www.iattc.org/FisheryStatusReportsENG.htm

Maunder, 2018: IATTC Updated indicators of stock status for skipjack tuna in the Eastern Pacific Ocean (2018): https://www.iattc.org/Meetings/Meetings2018/SAC-09/PDFs/Docs/_English/SAC-09-07-EN-REV-23-Apr-18_Skipjack-tuna-indicators-of-stock-status.pdf.

Western and Central Pacific Fisheries Commission 2019. Stock status and management advice for skipjack tuna. Scientific Committee, SC15 2019. https://www.wcpfc.int/doc/03/skipjack-tuna

Collette, B.B., Boustany, A., Fox, W., Graves, J., Juan Jorda, M. & Restrepo, V. 2021. *Katsuwonus pelamis*. *The IUCN Red List of Threatened Species* 2021: e.T170310A46644566. https://dx.doi.org/10.2305/IUCN.UK.2021-2.RLTS.T170310A46644566.en. Downloaded on 07 December 2021.

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 make up less than 5% of landings and 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		
	Susceptibility Attribute	**Value**	**Score**
	Overlap of adult species range with fishery		
	Distribution		
	Habitat		
	Depth range		
	Selectivity		
	Post-capture mortality		
		Average Susceptibility Score	
		PSA Risk Rating (From Table D3)	
		Compliance rating	
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