



MarinTrust Standard V2

By-product Fishery Assessment

SLV11 Skipjack Tuna in FAO Areas 77 (Pacific, Eastern Central) and 87 (Pacific, Southeast)

MarinTrust Programme

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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 Major Fishing Areas: 77 Pacific, Eastern Central 87 Pacific, Southeast
	Country of origin of the product:	El Salvador
	Stock:	1) Western Central Pacific Ocean (WCPO) skipjack 2) Eastern Pacific Ocean (EPO) skipjack
Date	March 2023	
Report Code	SLV11	
Assessor	Sam Dignan	
Country of origin of the product - PASS	El Salvador	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): Calvo Conservas El Salvador SA de CV			
Country: El Salvador			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Sam Dignan	Sam Peacock	0.2	Surveillance 1
Assessment Period	To April 2023		

Scope Details	
Main Species	Skipjack tuna (<i>Katsuwonus pelamis</i>)
Stock	1) Western Central Pacific Ocean (WCPO) skipjack 2) Eastern Pacific Ocean (EPO) skipjack
Fishery Location	FAO Major Fishing Areas: 77 Pacific, Eastern Central 87 Pacific, Southeast
Management Authority (Country/ State)	1) Western Central Pacific Ocean (WCPO) skipjack - Western and Central Pacific Fisheries Commission (WCPFC) 2) Eastern Pacific Ocean (EPO) skipjack - Inter-American Tropical Tuna Commission (IATTC)
Gear Type(s)	Longline, pole and line, purse seine
Outcome of Assessment	
Peer Review Evaluation	Agree with recommendation
Recommendation	PASS

Table 2. Assessment Determination

Assessment Determination
<p>Skipjack tuna has been categorised by the IUCN as a species of Least Concern and does not appear in the CITES appendices.</p> <p>Two stocks of skipjack tuna in the Pacific are currently defined for management purposes which are nominally split based on the WCPO (Western and Central Pacific Ocean)/EPO (Eastern Pacific Ocean) boundary at 150°W:</p> <ol style="list-style-type: none"> 1) Western Central Pacific skipjack tuna (west of 150°W), assessed and managed by the Western and Central Pacific Fisheries Commission (WCPFC). 2) Eastern Pacific skipjack tuna (east of 150°W), assessed and managed by the Inter-American Tropical Tuna Commission (IATTC). <p>On this basis, catches from FAO 87 (Pacific, Southeast), which has its westernmost boundaries at 120°W, can be assumed to come entirely from the Eastern Pacific skipjack tuna stock.</p> <p>In contrast, catches from FAO 77 (Pacific, Eastern Central), which has its westernmost boundaries at 175°W, could come from either of the two stocks; therefore, on a precautionary basis, both stocks are considered in this assessment.</p> <p>Catch data for both stocks are included in their respective stock assessments, and the most recent stock assessments for both stocks estimate their status as defined interim biomass limit reference points; therefore, the by-product meets the MT requirements and should be approved for use as a raw material.</p>
Fishery Assessment Peer Review Comments
<p>Skipjack byproduct has been correctly assessed to be eligible for use as a raw material, and correctly assessed under Category C. Both stocks relevant to this assessment have been determined in recent stock assessments to have a biomass which is above the limit reference point, and therefore the assessor is correct to conclude that material from these stocks should be approved for use in MT-certified marine ingredients.</p>
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 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 Central Pacific	Yes	C	Least Concern ³	No
		Eastern Pacific	Yes	C	Least Concern ⁴	No

¹ <https://www.iucnredlist.org/>

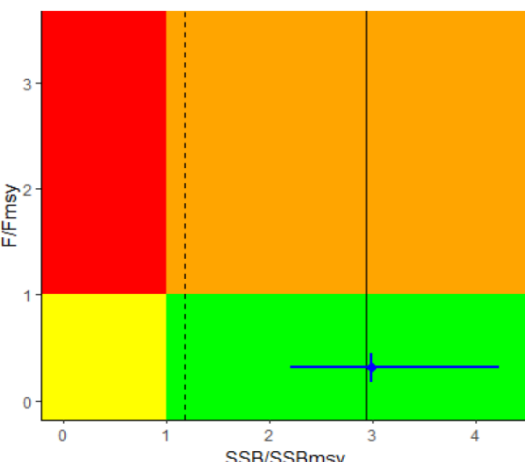
² <https://cites.org/eng/app/appendices.php>

³ <https://www.iucnredlist.org/species/170310/46644566>

⁴ <https://www.iucnredlist.org/species/170310/46644566>

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 (Western Central Pacific stock)	
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
<p>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. Catches are not negligible and amounted to 1,512,600 mt in 2021, a 12% decrease from 2020. Catch data are available and are included in the stock assessment process such that C1.1 is met.</p> <p>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 most recent stock assessment of Western Central Pacific Ocean skipjack was conducted in 2022 where results indicated:</p> <ol style="list-style-type: none"> F_{recent}/F_{MSY} is estimated to be 0.32 (80% CI: 0.18 – 0.45), indicating that overfishing is not occurring. $SSB_{recent}/SSB_{MSY} = 2.98$ (80% CI: 2.2 – 4.22) indicating that the stock is not in an overfished state. The median estimate of MSY is 2.65 million meaning recent catches were below this level. <p>Overall, the stock is considered, in its most recent stock assessment, to have a biomass above the defined interim limit reference point such that C1.2 is met.</p>			
		 <p>Figure 1. Latest estimate of SSB/SSB_{MSY} and F/F_{MSY} for WCPO skipjack (blue dot, with range (80% CIs) indicated by bars). Solid and dashed black lines represent interim target and limit reference points respectively.</p>	
<p>References Castillo Jordán, C., Tears T., Hampton, J., Davies, N., Scutt Phillips, J., McKechnie, S., Peatman, T., Macdonald, J., Day, J., Magnusson, A., Scott, R., Scott, F., Pilling, G., and Hamer P. (2022). Stock assessment of skipjack tuna in the western and central Pacific Ocean: 2022: https://meetings.wcpfc.int/node/16242</p> <p>ISSF (2023). Status of the world fisheries for tuna. Mar. 2023. ISSF Technical Report 2023-01. International Seafood Sustainability Foundation, Pittsburgh, PA, USA.</p>			
Links			
MarinTrust Standard clause		1.3.2.2	
FAO CCRF		7.5.3	
GSSI		D.3.04, D5.01	

Species Name		Skipjack tuna (Eastern Pacific stock)	
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.

Catches are not negligible and amounted to 325,300 mt in 2021, a 10% increase from 2020. Catch data are available and are included in the stock assessment process such that C1.1 is met.

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 most recent stock assessment of Eastern Pacific Ocean skipjack was an interim assessment conducted in 2022. A benchmark assessment is planned for 2024.

The 2022 interim assessment did not calculate MSY-based reference points but instead used a proxy depletion level (spawning biomass ratio, SBR, defined as $SSB_{current}/SSB_0$) target reference of 0.3—results indicated that:

1. Current depletion is above the target reference point ($SBR_{2021}/SBR_{target} = 1.77$ (range: 0.4 – 3.5), indicating that the stock is not overfished.
2. Current fishing mortality is below the value that would result in the target reference depletion level of 0.3 ($F_{2021}/F_{SBR=0.3}=0.25$; (range: 0.04 – 1.16), indicating that overfishing is not occurring.

Overall, the stock is considered, in its most recent stock assessment, to have a biomass above the defined interim limit reference point such that C1.2 is met.

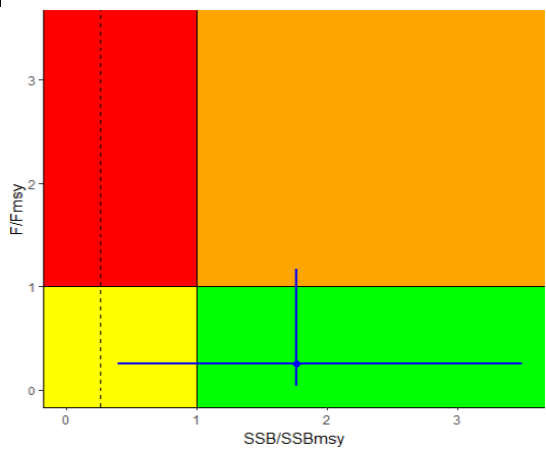


Figure 1. Latest estimate of SSB/SSB_{MSY} and F/F_{MSY} proxies (in blue, including range) for skipjack tuna in the eastern Pacific Ocean. Range corresponds to Min-Max values across all models. Solid black lines represent interim target reference points and dashed black vertical line represents the SSB interim limit reference point.

References
 Maunder, M. N., Xu, H., Minte-Vera, C., Valero, J. L., Lennert-Cody, C. E. and Aires-da-Silva, A (2022). Skipjack Tuna in the Eastern Pacific Ocean, 2021 Interim Assessment: <https://www.iattc.org/GetAttachment/0acfc999-fbcd-4b07-9e8d-fc5f85fd88e8/SAC-13-07%20-%20Skipjack%20tuna%20interim%20assessment%202022>.

ISSF (2023). Status of the world fisheries for tuna. Mar. 2023. ISSF Technical Report 2023-01. International Seafood Sustainability Foundation, Pittsburgh, PA, USA.

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	High productivity (Low risk, score = 1)	Medium productivity (medium risk, score = 2)	Low productivity (high risk, score = 3)
Average age at maturity	<5 years	5-15 years	>15 years
Average maximum age	<10 years	10-25 years	>25 years
Fecundity	>20,000 eggs per year	100-20,000 eggs per year	<100 eggs per year
Average maximum size	<100 cm	100-300 cm	>300 cm
Average size at maturity	<40 cm	40-200 cm	>200 cm
Reproductive strategy	Broadcast spawner	Demersal egg layer	Live bearer
Mean Trophic Level	<2.75	2.75-3.25	>3.25

Susceptibility attributes	Low susceptibility (Low risk, score = 1)	Medium susceptibility (medium risk, score = 2)	High susceptibility (high risk, score = 3)
Areal overlap (availability) Overlap of the fishing effort with the species range	<10% overlap	10-30% overlap	>30% overlap
Encounterability The position of the stock/species within the water column relative to the fishing gear, and the position of the stock/species within the habitat relative to the position of the gear	Low overlap with fishing gear (low encounterability).	Medium overlap with fishing gear.	High overlap with fishing gear (high encounterability). Default score for target species
Selectivity of gear type Potential of the gear to retain species	a Individuals < size at maturity are rarely caught	a Individuals < size at maturity are regularly caught.	a Individuals < size at maturity are frequently caught
	b Individuals < size at maturity can escape or avoid gear.	b Individuals < half the size at maturity can escape or avoid gear.	b Individuals < half the size at maturity are retained by gear.
Post-capture mortality (PCM) The chance that, if captured, a species would be released and that it would be in a condition permitting subsequent survival	Evidence of majority released post-capture and survival.	Evidence of some released post-capture and survival.	Retained species or majority dead when released.

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	