



## MarinTrust Standard V2

### By-product Fishery Assessment

#### *SLV09 - Skipjack Tuna in FAO areas 41 and 47*

**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:	Atlantic Ocean, FAO Major Fishing Area 41 (Southwest Atlantic) and 47 (Southeast Atlantic)
	Country of origin of the product:	El Salvador, Ecuador, Spain, Panama
	Stock:	Atlantic Western and Eastern stocks
Date	June 2024	
Report Code	SLV09	
Assessor	Jose Peiro Crespo	
Country of origin of the product - PASS	El Salvador, Ecuador, Spain, Panama	
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
Jose Peiro Crespo	Sam Peacock	0.5	Surveillance 2
Assessment Period	June 2024 – June 2025		

Scope Details	
Main Species	Skipjack tuna ( <i>Katsuwonus pelamis</i> )
Stock	Indian Ocean skipjack tuna
Fishery Location	FAO 41 & 47 Atlantic, Southwest and Atlantic, Southeast
Management Authority (Country/ State)	International Commission for the Conservation of Atlantic Tunas (ICCAT).
Gear Type(s)	Longlines and purse seines
Outcome of Assessment	
Peer Review Evaluation	Agree with assessment outcome
Recommendation	<b>Pass</b>

## Table 2. Assessment Determination

Assessment Determination
<p>Skipjack tuna (<i>Katsuwonus pelamis</i>) meets the eligibility criteria for approval as Marin Trust by-product raw material, as it is not categorized as Endangered or Critically Endangered on the Union for Conservation of Nature's Red List (IUCN) (it is listed as LC) and it does not appear in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) appendices.</p> <p>There are two stocks of skipjack tuna in the area of the interest. Therefore, both stocks have been considered for the purposes of this assessment. Fishery removals of both stocks are considered during the assessment process conducted by the International Commission for the Conservation of Atlantic Tunas (ICCAT). Therefore, both stocks successfully <b>meet the criteria outlined in Clause C1.1</b>. In the most recent assessments conducted in 2022, the biomass of both stocks was considered to be above the corresponding limit reference points, <b>satisfying the conditions of Clause C1.2</b>.</p> <p>Given that both stocks fulfil both C clauses, they are <b>approved</b> for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products standard.</p>
Fishery Assessment Peer Review Comments
<p>The peer reviewer agrees that this species is eligible for assessment under the MarinTrust byproduct assessment methodology, and that the two relevant stocks fall into Category C. The most recent stock assessment for each stock was adequate to meet the requirements of C1.1, and biomass of both stocks is currently estimated to be above the target reference point level, meeting the requirements of C1.2. Overall, the peer reviewer agrees that these skipjack tuna stocks should be approved as a source of byproduct raw material for MarinTrust certified facilities.</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 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>
Skipjack tuna	<i>Katsuwonus pelamis</i>	Atlantic, Southwest and Atlantic, Southeast	ICCAT	C	Least concern <sup>3</sup>	No

<sup>1</sup> <https://www.iucnredlist.org/>

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

<sup>3</sup> <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.

<b>Species Name</b>		<b>Skipjack tuna (<i>Katsuwonus pelamis</i>)</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>Yes</b>
	<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>Yes</b>

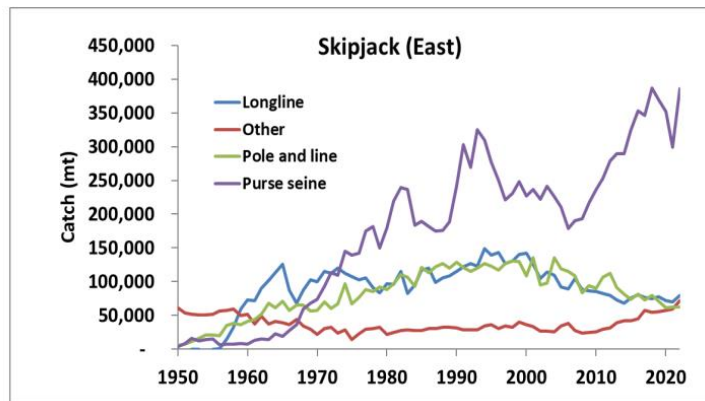
**Clause outcome:** **Pass**

There are two skipjack stocks in the Atlantic (eastern and western stock). Both are considered in the sections below.

**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.**

a) Eastern Skipjack Tuna

Skipjack catches in the eastern Atlantic Ocean in 2022 were about 271,400 tonnes, a 31% increase from 2021. Purse seine (88%) and pole-and-line (9%) dominate the catches. The purse seine catches had been decreasing from the early 1990s to 2009, but increased substantially since then, reaching a high peak in 2018 and again in 2022. Catches by other gears have remained stable. Catches of the stock were considered during the most recent assessment process.



**FIGURE 1. CATCHES OF SKIPJACK TUNA IN THE EASTERN AO FROM 1950 TO 2022, BY GEAR TYPE (ISSF 2023).**

b) Western Skipjack Tuna

Skipjack catches in the western Atlantic Ocean in 2022 were about 21,400 tonnes, a 7% increase from 2021. Pole-and-line fishing dominates the catches (70%), followed by purse seining (9%). Pole and line catches have remained relatively stable (although highly variable) during the last two decades and declined recently. Catches of the stock were considered during the most recent assessment process.

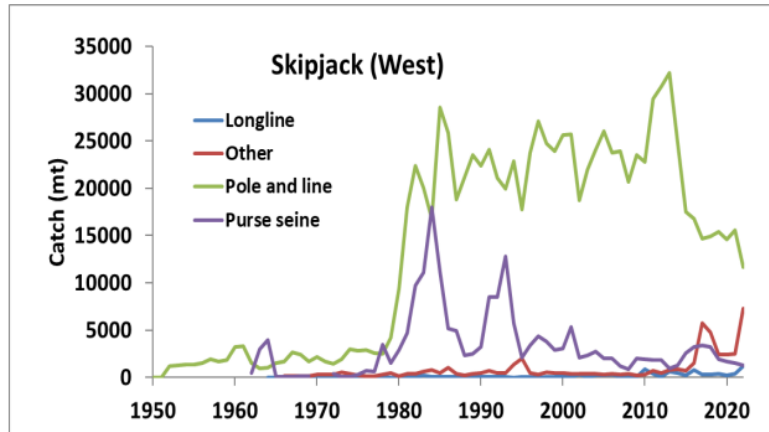


FIGURE 2. CATCHES OF SKIPJACK TUNA IN THE WESTERN AO FROM 1950 TO 2022, BY GEAR TYPE (ISSF 2023).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, **C1.1. is met for both stocks.**

**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.**

a) Eastern Skipjack Tuna

The stock was last assessed by the International Commission for the Conservation of Atlantic Tunas (ICCAT) in 2022, using data up to 2020 and two different model platforms. The combined results of both assessment models, based on the median of an uncertainty grid with 18 scenarios in each model, show that:

1. The ratio of  $F_{current}/F_{MSY}$  is estimated to be 0.63 (95% C.I.: 0.18-2.35), indicating that overfishing is not occurring.
2. The ratio of spawning biomass  $SSB_{current}/SSB_{MSY}$  is estimated to be 1.60 (95% C.I.: 0.50-5.79) , indicating that the stock is not in an overfished state.
3. The estimate of MSY is 216,617 t (95% C.I.: 172,735-284,658 t). Current catch levels (271,400 t in 2022) are above the MSY.

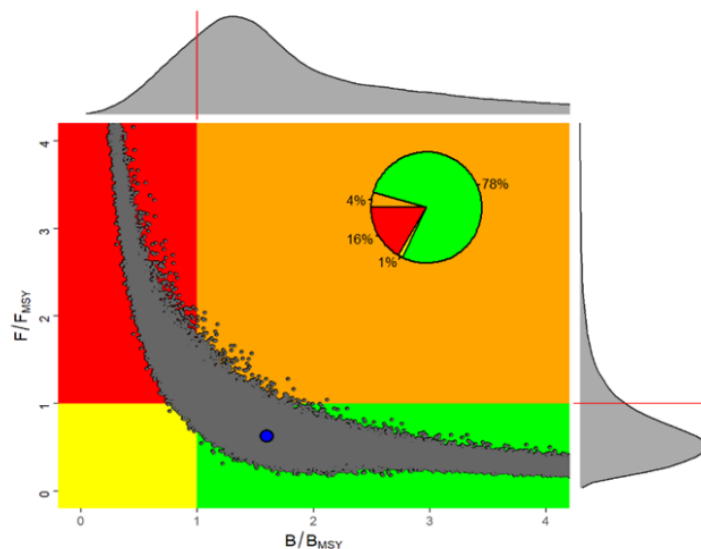


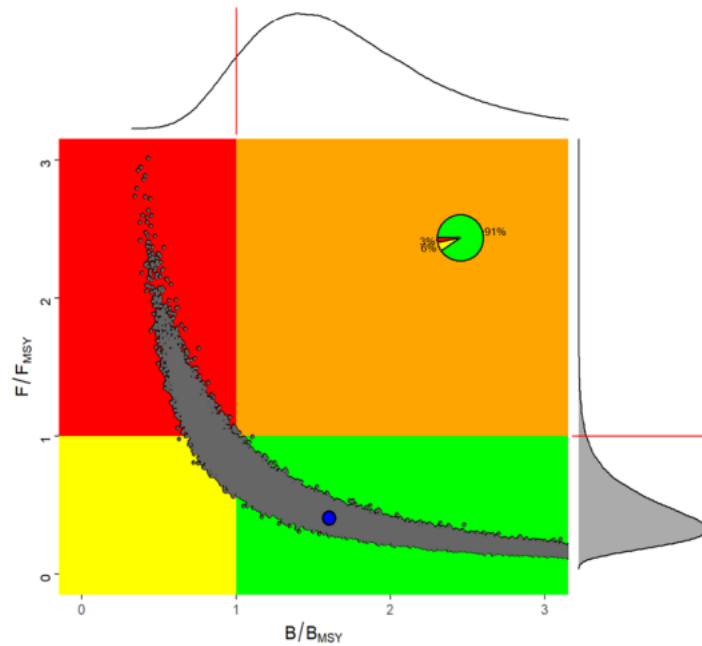
FIGURE 3. JOINT KOBE PHASE PLOT FOR THE 18 STOCK SYNTHESIS UNCERTAINTY GRID RUNS AND 18 JABBA UNCERTAINTY GRID

**RUNS FOR THE EASTERN ATLANTIC SKIPJACK STOCK (ICCAT 2022)**

b) Western Skipjack Tuna

The stock was assessed by SCRS in 2022, using data up to 2020. Stock status was estimated by combining the results of the 9 scenarios in the uncertainty grid. The SCRS concluded that:

1. The ratio of  $F_{current}/F_{MSY}$  is around 0.41 (95% C.I.: 0.19-0.89), indicating that overfishing is not occurring.
2. The ratio of spawning biomass  $SSB_{current}/SSB_{MSY}$  is 1.60 (95% C.I.: 0.90-2.87), indicating that the stock is not overfished.
3. The value of MSY is estimated as 35,277 tonnes (95% C.I.: 28,444-46,340 t), higher than current catch levels (21,400 t in 2022)



**FIGURE 4. KOBE PHASE PLOT FOR THE 9 STOCK SYNTHESIS UNCERTAINTY GRID RUNS FOR THE WESTERN Atlantic skipjack stock (ICCAT 2022)**

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point, **C1.2 is met for both stocks.**

Summary of the results of the most recent stock assessment for the two stocks.

ATLANTIC SKIPJACK SUMMARY		
	<i>Eastern Atlantic</i>	<i>Western Atlantic</i>
Maximum Sustainable Yield (MSY) <sup>1</sup>	216,617 t (172,735 – 284,658 t)	35,277 t (28,444 – 46,340 t)
Yield for 2020 at the Stock Assessment	217,874 t	18,183 t
Current yield for 2022	271,371 t	21,383 t
Relative Biomass ( $B_{2020}/B_{MSY}$ ) <sup>2</sup>	1.60 (0.50 – 5.79)	1.60 (0.90 – 2.87)
Relative Fishing Mortality ( $F_{2020}/F_{MSY}$ ) <sup>2</sup>	0.63 (0.18 – 2.35)	0.41 (0.19 – 0.89)
Stock Status (2020)		
Overfished:	No	No
Overfishing:	No	No

<sup>1</sup> Median and 95% confidence interval estimated from the joint uncertainty grid.  
<sup>2</sup> Median and 95% confidence interval based on 90,000 iterations of the multivariate lognormal (MVLN) approximation for Stock Synthesis and 90,000 Markov chain Monte Carlo (MCMC) iterations for JABBA.

**FIGURE 5. SUMMARY OF THE ASSESSMENT RESULTS (ICCAT 2022)**

**References**

ICCAT REPORT 2022-2023 (I). Skipjack tuna (summary). Available at:  
[https://www.iccat.int/Documents/SCRS/ExecSum/SKJ\\_ENG.pdf](https://www.iccat.int/Documents/SCRS/ExecSum/SKJ_ENG.pdf)

International Seafood Sustainability Foundation ISSF 2023-12: Status of the World Fisheries for Tuna. Available at :  
<https://www.issf-foundation.org/issf-downloads/download-info/issf-2023-12-status-of-the-world-fisheries-for-tuna-november-2023/>

**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.

<b>D1</b>	<b>Species Name</b>	<b>NA</b>	
	<b>Productivity Attribute</b>	<b>Value</b>	<b>Score</b>
	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		
	<b>Average Productivity Score</b>		
	<b>Susceptibility Attribute</b>	<b>Value</b>	<b>Score</b>
	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		
	<b>Average Susceptibility Score</b>		
	<b>PSA Risk Rating (From Table D3)</b>		
	<b>Compliance rating</b>		
	<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>		
<b>References</b>			
<i>Standard clauses 1.3.2.2</i>			

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

<b>D4</b>	<b>Species Name</b>		
	<b>Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements</b>		
	<b>D4.1</b>	The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.	
<b>D4.2</b>	There is no substantial evidence that the fishery has a significant negative impact on the species.		
<b>Outcome:</b>			
<b>Evidence</b>			
<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.</b>			
<b>D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.</b>			
<b>References</b>			
<b>Links</b>			
<b>MarinTrust Standard clause</b>		1.3.2.2, 4.1.4	
<b>FAO CCRF</b>		7.5.1	
<b>GSSI</b>		D.5.01	