MarinTrust Standard V2

By-product Fishery Assessment
Black skipjack (Euthynnus lineatus)
FAO 87- Southeast Pacific, Ecuador EEZ

Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Black skipjack (*Euthynnus lineatus*)
	Geographical area:	FAO 87
	Country of origin of the product:	Ecuador
	Stock:	Southeast Pacific – Ecuador EEZ
Date	February 2024	
Report Code	ECU24	
Assessor	Blanca Gonzalez	
Country of origin of the product - PASS	Ecuador	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): Marine Protein S.A.			
Country: Ecuador			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Blanca Gonzalez	Sam Peacock	0.5	Initial
Assessment Period	February 2024 – February 2025		

Scope Details	
Main Species	Black skipjack (*Euthynnus lineatus*)
Stock	Southeast Pacific – Ecuador EEZ
Fishery Location	FAO 87
Management Authority (Country/ State)	Inter-American Tropical Tuna Commission (IATTC)
Gear Type(s)	Longline and purse seine
Outcome of Assessment	
Peer Review Evaluation	Agree with conclusion
Recommendation	PASS

Table 2. Assessment Determination

Assessment Determination
Black skipjack (*Euthynnus lineatus*) is categorised by the IUCN as Least Concern, do not appear in the CITES appendices, and there is no species-specific management in place or established reference points for the species in Ecuador. Thus, it was assessed under Category D. In the Productivity-Susceptibility Analysis (PSA) the black skipjack awarded an average productivity score of 1.43 and an average susceptibility score of 1.5 passing against Table D3, indicating that the stock is not vulnerable to the fisheries in the Ecuadorian EEZ. The black skipjack by-product meets the Marin Trust requirements and it should be remained approved for use as a raw material.

Fishery Assessment Peer Review Comments
The peer reviewer agrees that black skipjack is eligible for assessment, and has been correctly categorised as a Category D species. The PSA has been conducted correctly, and evidence has been provided for the scores awarded. The PSA produces an outcome of Pass, and therefore the peer reviewer agrees that the byproduct should be approved for use as a raw material in the manufacture of MT-certified products.

Notes for On-site Auditor

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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[1]	CITES Appendix 1[2]
Black skipjack	*Euthynnus lineatus*	Southeast Pacific – Ecuador EEZ	No	D	Least Concern [3]	No

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[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php
[3] https://www.iucnredlist.org/species/170320/170086293

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		N/A	
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.	
	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.	
		Clause outcome:	

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.

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.

References	
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**	**Black skipjack (*Euthynnus lineatus*)**	
	Productivity Attribute	**Value**	**Score**
	Average age at maturity (years)	1.9[1]	1
	Average maximum age (years)	8.5[1]	1
	Fecundity (eggs/spawning)	221,886-350,346 [2]	1
	Average maximum size (cm)	84[1]	1
	Average size at maturity (cm)	45.9[1]	2
	Reproductive strategy	Broadcast spawners[1]	1
	Mean trophic level	3.8[1]	3
		Average Productivity Score	**1.43**
	Susceptibility Attribute	**Value**	**Score**
	Availability (area overlap)	<10 % overlap[3]	1
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Low overlap[4-5]	1
	Selectivity of gear type	Individuals < size at maturity are rarely caught [4-5]	1
	Post-capture mortality	Retained	3
		Average Susceptibility Score	**1.5**
		PSA Risk Rating (From Table D3)	**PASS**
		Compliance rating	**PASS**

Further justification for susceptibility scoring (where relevant)
For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision

Area overlap: The fishery occurs in the Exclusive Economic Zone from Ecuador and the black skipjack is found from Southern California to northern Peruvian coasts, around the offshore islands of the Eastern Pacific, and also occasionally as far west as the Hawaiian Islands [3]

Encounterability: Black skipjack in Ecuador is associated to the big pelagic fish fishery where it captures represents small amounts (<0.1%) of the total catch[4-5].

Selectivity of gear type: Individuals < size at maturity are rarely caught, since this species is not a target species of the big pelagic fish fishery in Ecuador [4-5].

Figure 1. map distribution of black skipjack [3].

References

1 Fishbase 2023. Black skipjack. https://www.fishbase.se/summary/Euthynnus-lineatus.html

2 Schaefer K. 1987. Reproductive biology of the black skipjack tuna *Euthynnus lineatus*, and eastern pacific tuna. https://aquadocs.org/bitstream/handle/1834/21264/Vol._19_no._2.pdf?sequence=1&isAllowed=y

3 https://www.fishsource.org/stock_page/2719

4 Reporte biológico pesquero de especies de peces pelágicos grandes. Mayo 2019. https://www.institutopesca.gob.ec/wp-content/uploads/2018/01/Reporte-biol%C3%B3gico-pesquero-de-peces-pel%C3%A1gicos-grandes-mayo-2019.pdf

5 Padilla Erwin. 2021. Análisis de captura de las especies más representativas de túnidos por buques de cerqueros y cañeros en el Océano Pacifico Oriental-Ecuador-Periodo 2010-2018. https://repositorio.upse.edu.ec/bitstream/46000/6639/1/UPSE-TBI-2021-0010.pdf

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		N/A
	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

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