MarinTrust Standard V2

By-product Fishery Assessment

ECU05

Bullet tuna (*Auxis rochei*)

in FAO 87 (southeast Pacific)

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Bullet tuna (*Auxis rochei*) in FAO 87 (southeast Pacific)
	Geographical area:	Bullet tuna (*Auxis rochei*) in FAO 87 (southeast Pacific)
	Country of origin of the product:	Ecuador
	Stock:	Bullet tuna (*Auxis rochei*) in FAO 87 (southeast Pacific)
Date	October 2024	
Report Code	ECU05	
Assessor	Ana Elisa Almeida Ayres	
Country of origin of the product - PASS	Ecuador	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Universal de Comercio S.A. Unicorsa, Productos Pesqueros SA Produpes, URISA SA, Tadel SA, Lucomercon SA, Manabita de Comercio SA - Mancorsacom, Exu SA			
Country: Ecuador			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		NSF / Global Trust Certification Ltd	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval
Ana Elisa Almeida Ayres	Léa Lebechnech	0.5	Surveillance 1
Assessment Period	October 2024 – October 2025		

Scope Details	
Main Species	Bullet tuna (*Auxis rochei*)
Stock	Bullet tuna (*Auxis rochei*) in FAO 87 (southeast Pacific)
Fishery Location	FAO 87 (southeast Pacific)
Management Authority (Country/ State)	Inter-American Tropical Tuna Commission (IATTC), Vice-ministry of Aquaculture and Fisheries of Ecuador
Gear Type(s)	Purse seine and longline
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's determination
Recommendation	**APPROVED**

Table 2. Assessment Determination

Assessment Determination
If any species is categorised as Endangered or Critically Endangered on Union for Conservation of Nature's Red List of Threatened Species - IUCN's Red List, or if it appears in the Convention on International Trade in Endangered Species of Wild Fauna and Flora - CITES appendices, it cannot be approved for use as Marin Trust raw material. Bullet tuna (*Auxis rochei*) is not categorised as Endangered or Critically Endangered on IUCN's Red List and does not appear in CITES appendices; therefore, bullet tuna (*Auxis rochei*) is eligible for approval for use as Marin Trust by-product raw material. Inter-American Tropical Tuna Commission (IATTC) and Vice-ministry of Aquaculture and Fisheries of Ecuador provide data of catches of bullet tuna, but there is no stock assessment neither reference points defined for this stock, thus it was assessed under Category D, with the use of the Productivity-Susceptibility Analysis – PSA. The stock was awarded a Productivity score of 1.29 and a Susceptibility score of 2.5, leading to a "Pass" rating against Table D3. Therefore, bullet tuna (*Auxis rochei*) in FAO 87 (southeast Pacific) is **APPROVED** for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products standard.
Fishery Assessment Peer Review Comments
The assessor correctly classified the bullet tuna (*Auxis rochei*) in FAO 87 (southeast Pacific) under category D, as there is no stock assessment neither reference points defined to assess the stock status against. The stock was awarded a Productivity score of 1.29 and a Susceptibility score of 2.5, leading to a "Pass" rating against Table D3. Therefore bullet tuna in FAO 87 (southeast Pacific) is **APPROVED** for the production of fishmeal and fish oil under the current MarinTrust V2.3 by-products standards.
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[1]	CITES Appendix 1[2]
Bullet tuna	*Auxis rochei*	Bullet tuna (*Auxis rochei*) in FAO 87 (southeast Pacific)	Yes	D	LC[3]	No

[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php
[3] https://www.iucnredlist.org/ja/species/170355/46652471

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	Bullet tuna (*Auxis rochei*)	
	Productivity Attribute	**Value**	**Score**
	Average age at maturity (years)	1.1	1
	Average maximum age (years)	5	1
	Fecundity (eggs/spawning)	31,000 -103,000	1
	Average maximum size (cm)	42.3	1
	Average size at maturity (cm)	24.1	1
	Reproductive strategy	Broadcast spawner	1
	Mean trophic level	4.4	3
		Average Productivity Score	**1.29**
	Susceptibility Attribute	**Value**	**Score**
	Availability (area overlap)	<10% overlap	1
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	High	3
	Selectivity of gear type	High	3
	Post-capture mortality	Retained	3
		Average Susceptibility Score	**2.5**
		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* According to Froese and Pauly (2024), the species is found in Atlantic, Indian and Pacific (Western), including the Mediterranean Sea (Figure 1). The client did not provide details of the gear used to harvest bullet tuna, and the selectivity of the gear cannot be determined. Thus, it was awarded a score of 3 out of precaution.		

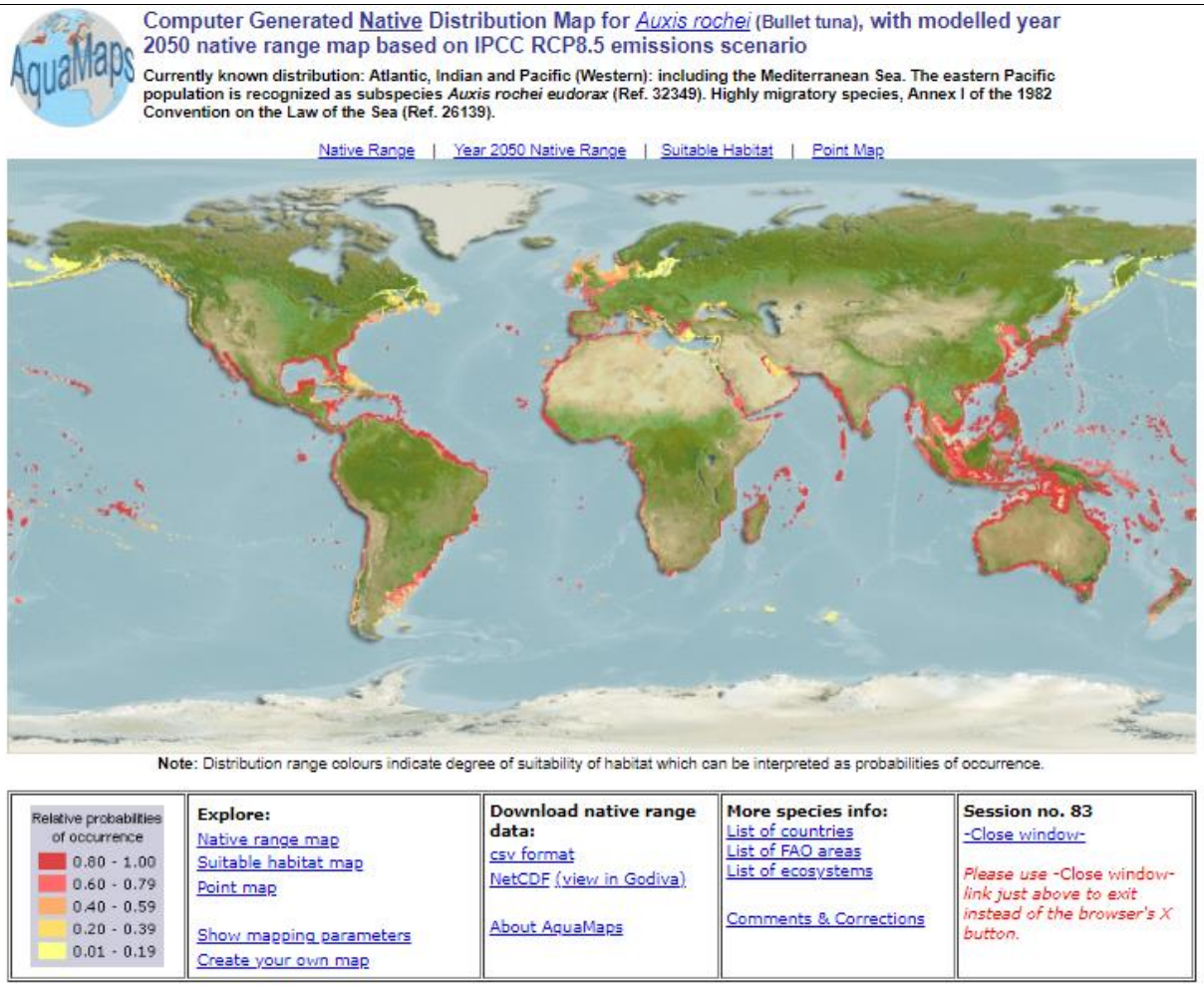

Figure 1. Distribution of the bullet tuna (*Auxis rochei*). Source: AquaMaps (2019).

References

AquaMaps. 2019. Computer generated distribution maps for *Auxis rochei* (Bullet tuna), with modelled year 2050 native range map based on IPCC RCP8.5 emissions scenario: https://www.aquamaps.org/receive.php?type_of_map=regular&map=cached

Froese, R. and D. Pauly. Editors. 2024.FishBase. World Wide Web electronic publication: https://www.fishbase.se/summary/Auxis-rochei

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