MarinTrust Standard V2

By-product Fishery Assessment Report Template

MarinTrust Programme
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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Bullet tuna (*Auxi rochei*)
	Geographical area:	FAO Area 57 (Indian Ocean, Eastern)
	Country of origin of the product:	Thailand
	Stock:	Indian Ocean
Date	08/06/2021	
Report Code	BP105	
Assessor	Virginia Polonio	
Country of origin of the product - PASS	Thailand	
Country of origin of the product - FAIL		

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
Virginia Polonio	Geraldine Criquet	0.5	Surveillance 1
Assessment Period	To June 2021		

Scope Details	
Main Species	Bullet tuna (*Auxi rochei*)
Stock	Indian Ocean bullet tuna
Fishery Location	FAO Area 57 (Indian Ocean, Eastern)
Management Authority (Country/ State)	Indian Ocean Tuna Commission
Gear Type(s)	Purse seine, handline, pole & line, 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 IUCN's Red List, or if it appears in the CITES appendices, it cannot be approved for use as Marin Trust raw material. Indian Ocean bullet tuna does not appear as Endangered or Critically Endangered on IUCN's Red List, nor does it appear in CITES appendices; therefore, product originating from this fishery is eligible for approval for use as Marin Trust by-product raw material. For assessment and management purposes, one discrete stock of bullet tuna is recognised in the Indian Ocean; therefore, this assessment covers one stock (i.e. bullet tuna in the Indian Ocean) when fished within FAO fishing areas 57. The stock is not subject to specific research and the comparative lack of scientific information on the status of the stock led to the use of a risk-assessment style approach. No quantitative stock assessment is currently available for bullet tuna in the Indian Ocean, and due to a lack of fishery data for several gears, only preliminary stock status indicators can be used. Therefore, the fishery was assessed using the risk-based Productivity, Susceptibility Analysis (PSA) as per Marin Trust v 2.0 procedures for Category D species. The species has passed this risk-based assessment (Table D3). In order to be approved, stocks assessed must pass table D3; with an average productivity s of 1.57 and susceptibility of 1.75, as this is the case here, bullet tuna in FAO Area 57 is **APPROVED** for the production of fishmeal and fish oil under the current Marin Trust v 2.0 by-product standard.
Fishery Assessment Peer Review Comments
The assessor correctly classified Indian Ocean bullet tuna as category D, reference points are not defined to assess the stock status relative to. A PSA was performed. With an average productivity score of 1.57 and an average susceptibility score of 1.75, it passed D3. Therefore, the peer reviewer agrees with the assessor's determination that the fishery passes Table D3 and Indian Ocean bullet tuna is thus 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]
Bullet tuna	*Auxi rochei*	Indian Ocean bullet tuna	Indian Ocean Tuna Commission	D	LC	NO

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

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	Bullet tuna, *Auxi rochei*	
	Productivity Attribute	**Value**	**Score**
	Average age at maturity (years)	2	2
	Average maximum age (years)	6	1
	Fecundity (eggs/spawning)	31,000 and 103,000 eggs	1
	Average maximum size (cm)	50 Fork Length (FL)	1
	Average size at maturity (cm)	35	2
	Reproductive strategy	Open water / substratum egg scatterers	1
	Mean trophic level	4.4	3
		Average Productivity Score	**1.57**
	Susceptibility Attribute	**Value**	**Score**
	Overlap of adult species range with fishery	No information	-
	Distribution	Throughout region / global distribution*	1
	Habitat	Epi-pelagic in neritic waters	Not used
	Depth range	0-200m	1
	Selectivity	Mesh size 2.5-9cm approx	3
	Post-capture mortality	Retained Short tows	2
		Average Susceptibility Score	**1.75**
		PSA Risk Rating (From Table D3)	**PASS**
		Compliance rating	**PASS**

References

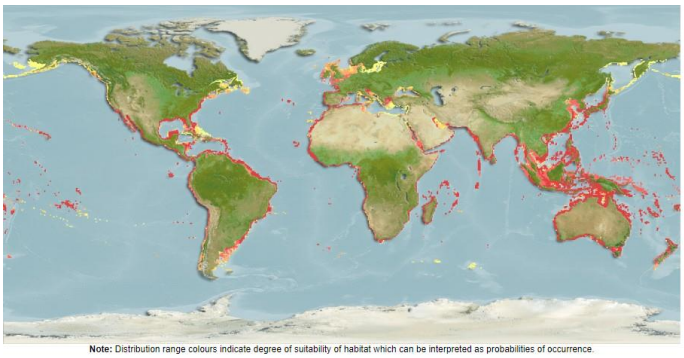

*Figure 1. Distribution Map for Auxis rochei (Bullet tuna), with modelled year 2050 native range map based on IPCC RCP8.5 emissions scenario. (Source: fishbase)

Collette, B., Acero, A., Amorim, A.F., Boustany, A., Canales Ramirez, C., Cardenas, G., Carpenter, K.E., de Oliveira Leite Jr., N., Di Natale, A., Fox, W., Fredou, F.L., Graves, J., Guzman-Mora, A., Viera Hazin, F.H., Juan Jorda, M., Kada, O., Minte Vera, C., Miyabe, N., Montano Cruz, R., Nelson, R., Oxenford, H., Salas, E., Schaefer, K., Serra, R., Sun, C., Teixeira Lessa, R.P., Pires Ferreira Travassos, P.E., Uozumi, Y. & Yanez, E. 2011. Auxis rochei. The IUCN Red List of Threatened Species 2011: e.T170355A6765188. https://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T170355A6765188.en.

Fishbase: Bullet tuna Auxis rochei : https://www.fishbase.se/summary/Auxis-rochei

Status summary for species of tuna and tuna-like species under the IOTC mandate, as well as other species impacted by IOCT fisheries. Executive summary: Stock Status Bullet tuna, 2020.

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

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