



MarinTrust Standard V2

By-product Fishery Assessment Report Template

MarinTrust Programme

Unit C, Printworks

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Bali sardinella, <i>Sardinella lemuru</i>
	Geographical area:	FAO 57 Indian Ocean, Eastern
	Country of origin of the product:	Thailand
	Stock:	Southern Java to Western of Timor Sea
Date	18/10/2021	
Report Code	BP205	
Assessor	Virginia Polonio	
Country of origin of the product - PASS	Thailand	
Country of origin of the product - FAIL	NA	

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	Re-approval
Assessment Period	To October 2021		

Scope Details	
Main Species	Bali sardinella, <i>Sardinella lemuru</i>
Stock	Eastern Southern Java to Western of Timor Sea
Fishery Location	FAO Area 57 Indian Ocean, Eastern
Management Authority (Country/ State)	Ministry of Marine Affairs and Fisheries of the Republic of Indonesia (KKP-RI) and Thailand Department of fisheries
Gear Type(s)	Purse seine
Peer Review Evaluation	
Agree with the assessor's recommendation of approval	
Recommendation	APPROVED

Table 2. Assessment Determination

Assessment Determination
<p>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 MarinTrust raw material. Bali sardinella <i>Sardinella lemuru</i>, do not appear as Endangered or Critically Endangered on IUCN’s Red List, nor do they appear in CITES appendices; therefore, Bali sardinella <i>Sardinella lemuru</i> in FAO Area 57 is eligible for approval for use as MarinTrust by-product raw material.</p> <p>A management plan was implemented for this stock in 2016 through a stakeholder approach. An agreed catch limit was implemented, however there are no biomass reference points defined for this stock. Hence, due to the lack of scientific information on the status of the stock, a risk-assessment style approach was taken. Therefore, the stock has been assessed under category D.</p> <p>Table D1 (PSA) has achieved a PASS therefore, the average for the PSA risk rating results in the species passing D1.</p> <p>Bali sardinella <i>Sardinella lemuru</i> in FAO area 57 is APPROVED for the production of fishmeal and fish oil under the current MarinTrust v 2.0 by-products standard.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified Bali sardinella in FAO Area 57 Indian Ocean Eastern as category D, reference points are not defined to assess status of the stock relative to.</p> <p>With an average productivity score of 1 and an average susceptibility score of 2.75, the Bali sardinella in FAO Area 57 Indian Ocean Eastern PASSES Clause D1 in accordance with Table D3.</p> <p>Therefore, the Bali sardinella in FAO Area 57 Indian Ocean Eastern should be approved.</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 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
Bali sardinella	<i>Sardinella lemuru</i>	Indian Ocean	Ministry of Marine Affairs and Fisheries of the Republic of Indonesia (KKP-RI) and Thailand Department of fisheries	D	NT	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	Bali sardinella (<i>Sardinella lemuru</i>)	
	Productivity Attribute	Value	Score
	Average age at maturity (years)	0.9	1
	Average maximum age (years)	3.3	1
	Fecundity (eggs/spawning)	Not known	-
	Average maximum size (cm)	23 cm	1
	Average size at maturity (cm)	15 cm	1
	Reproductive strategy	Non-guarders: open water/substratum egg scatterers	1
	Mean trophic level	2.4	1
	Average Productivity Score		1
	Susceptibility Attribute	Value	Score
	Overlap of adult species range with fishery	Stock distributed in the FAO areas 51 and 57 (see the figure 1 below)	3
	Distribution	Throughout region	Not scored
	Habitat	Pelagic	2
	Depth range	15-100 m	3
	Selectivity	1 to 2 times mesh sizes	2
	Post-capture mortality	Most dead	3
	Average Susceptibility Score		2.75
	PSA Risk Rating (From Table D3)		PASS
	Compliance rating		PASS

References

Santos, M. 2018. *Sardinella lemuru* (errata version published in 2019). The IUCN Red List of Threatened Species 2018: e.T75154879A143836046. <https://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T75154879A143836046.en>

CITES <http://checklist.cites.org/#/en>

<https://www.fishbase.de/summary/Sardinella-lemuru.html>

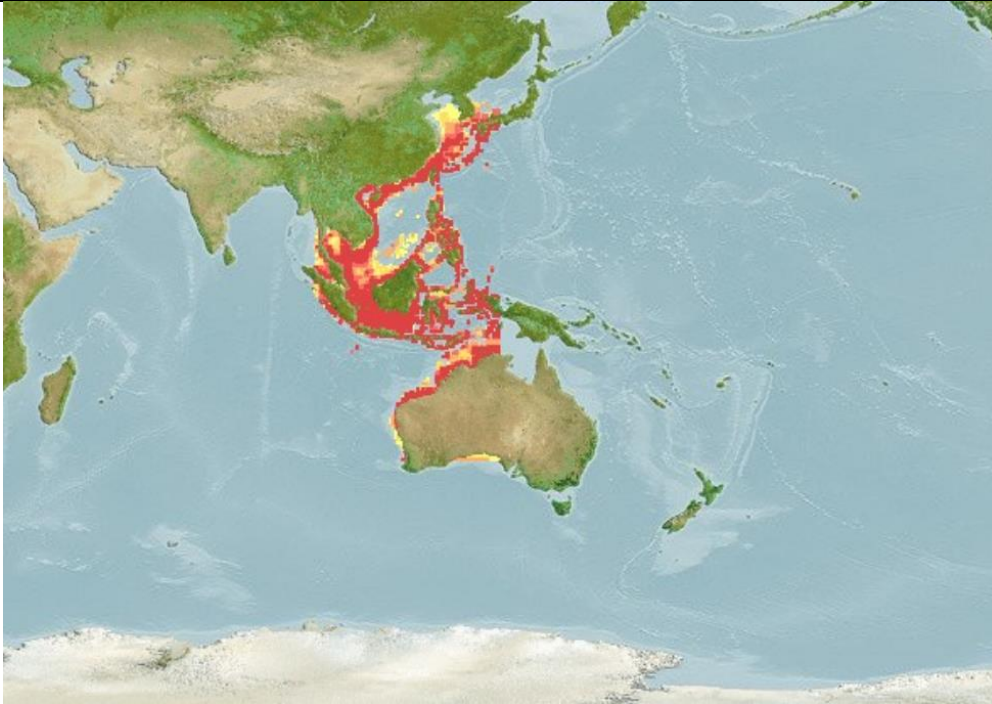


Figure 1. Distribution maps for *Sardinella lemuru* (Bali sardinella), with modelled year 2050 native range map based on IPCC RCP8.5 emissions scenario. Retrieved from <https://www.aquamaps.org>. Source: Fishbase

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	