



MarinTrust Standard V2

By-product Fishery Assessment Goldstripe sardinella (*Sardinella gibbosa*) in FAO 57 and 71, eastern Indian and western central Pacific oceans

MarinTrust Programme

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Goldstripe sardinella (<i>Sardinella gibbose</i>)
	Geographical area:	FAO areas 57 and 71- eastern Indian and western central Pacific oceans
	Country of origin of the product:	Thailand
	Stock:	Goldstripe sardinella in FAO areas 57 and 71
Date	08 th February 2024	
Report Code	THA48	
Assessor	Ana Elisa Almeida Ayres	
Country of origin of the product - PASS	Thailand	
Country of origin of the product - FAIL	N/A	

Application details and summary of the assessment outcome			
Company Name(s): ASIAN ALLIANCE INTERNATIONAL PUBLIC COMPANY LIMITED			
Country: Thailand			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Certification Trust/NSF	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval
Ana Elisa Almeida Ayres	Léa Lebechnech	0.5	Surveillance 1
Assessment Period	February 2024 – February 2025		

Scope Details	
Main Species	Goldstripe sardinella (<i>Sardinella gibbose</i>)
Stock	Goldstripe sardinella in FAO areas 57 and 71
Fishery Location	FAO areas 57 and 71- eastern Indian and western central Pacific oceans
Management Authority (Country/ State)	Thailand Department of fisheries
Gear Type(s)	Gear type not provided by client
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's determination
Recommendation	APPROVED

Table 2. Assessment Determination

Assessment Determination
<p>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 MarinTrust raw material. Goldstripe sardinella (<i>Sardinella gibbose</i>) is not categorised as Endangered or Critically Endangered on IUCN's Red List and does not appear in CITES appendices; therefore, goldstripe sardinella (<i>Sardinella gibbose</i>) is eligible for approval for use as Marin Trust by-product raw material.</p> <p>There is a national fisheries management framework in Thailand, but that does not extend to the goldstripe sardinella. Due to the lack of data collection and scientific oversight on this stock, catches are not included in the assessment process and reference points for the stock are not defined. Thus, this stock is not subject to a species-specific management regime. Therefore, this stock cannot be assessed under category C and, instead, will be assessed as category D.</p> <p>With an average productivity score of 1.14 and an average susceptibility score of 3.0, it PASSES Table D1.</p> <p>Therefore, goldstripe sardinella (<i>Sardinella gibbose</i>) in FAO areas 57 and 71- eastern Indian and western central Pacific oceans is APPROVED 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 internal peer reviewer agrees with the assessor's determination, who correctly classified goldstripe sardinella (<i>Sardinella gibbose</i>) in FAO areas 57 and 71 under Category D, as the stock is not subject to a specific management regime in place, and there are no defined reference points.</p> <p>The internal peer reviewer agrees with the result of the PSA risk-rating: average productivity score of 1.14 and average susceptibility score of 3.</p> <p>Therefore, goldstripe sardinella in FAO areas 57 and 71, is APPROVED for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products standards.</p>
Notes for On-site Auditor
<p>Determine which gear types are used to catch this stock. PSA cannot be precisely applied without accurate harvest information.</p>

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 a 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
Goldstripe sardinella	<i>Sardinella gibbose</i>	Goldstripe sardinella in FAO areas 57 and 61	Thailand Department of fisheries	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 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.

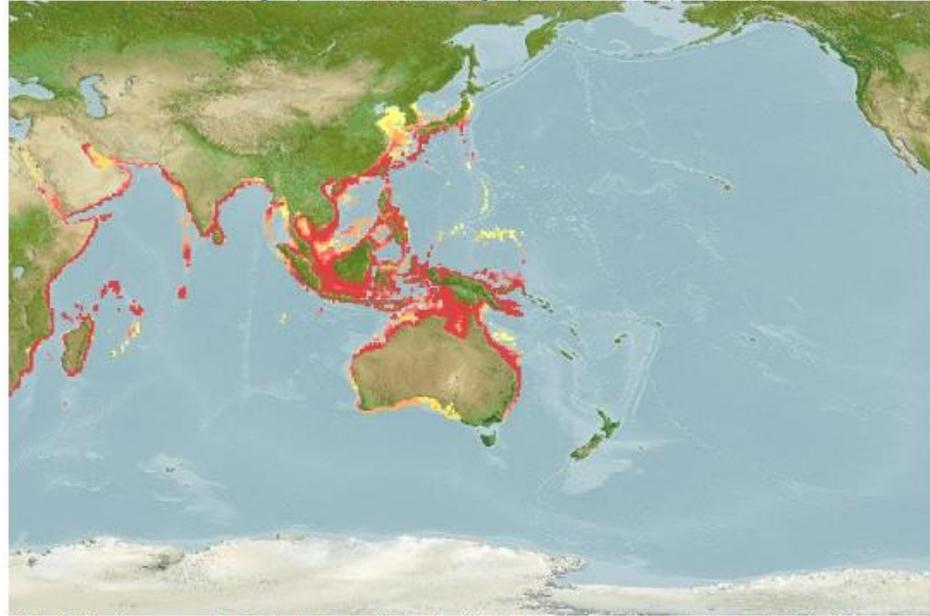
D1	Species Name	Goldstripe sardinella (<i>Sardinella gibbose</i>)		
	Productivity Attribute	Value	Score	
	Average age at maturity (years)	0.8	1	
	Average maximum age (years)	3.0	1	
	Fecundity (eggs/spawning)	43,566	1	
	Average maximum size (cm)	20.7	1	
	Average size at maturity (cm)	12.7	1	
	Reproductive strategy	Broadcast spawner	1	
	Mean trophic level	2.9	2	
	Average Productivity Score			1.14
	Susceptibility Attribute	Value	Score	
	Availability (area overlap)	>30%	3	
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Precautionary	3	
	Selectivity of gear type	Precautionary	3	
	Post-capture mortality	Retained (commercial species)	3	
	Average Susceptibility Score			3
	PSA Risk Rating (From Table D3)			Pass
	Compliance rating			Pass
	Further justification for susceptibility scoring (where relevant)			
	<i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i>			
Goldstripe sardinella (<i>Sardinella gibbose</i>) is a commercial species found in Indo-West Pacific: widespread including the Red Sea, and reported as an invasive species in the eastern Mediterranean basin. Its depth range is between 10 - 70 m. In the lack of information about the gears, a precautionary score was given for encounterability and selectivity of gear type.				



Computer Generated Native Distribution Map for *Sardinella gibbosa* (Goldstripe sardinella), with modelled year 2050 native range map based on IPCC RCP8.5 emissions scenario

Currently known distribution: Indo-West Pacific: widespread in the Indo-West Pacific including the Red Sea, and reported as an invasive species in the eastern Mediterranean basin.

[Native Range](#) | [Year 2050 Native Range](#) | [Suitable Habitat](#) | [Point Map](#)



Note: Distribution range colours indicate degree of suitability of habitat which can be interpreted as probabilities of occurrence.

<p>Relative probabilities of occurrence</p> <ul style="list-style-type: none"> ■ 0.80 - 1.00 ■ 0.60 - 0.79 ■ 0.40 - 0.59 ■ 0.20 - 0.39 ■ 0.01 - 0.19 	<p>Explore:</p> <ul style="list-style-type: none"> Native range map Suitable habitat map Point map Show mapping parameters Create your own map 	<p>Download native range data:</p> <ul style="list-style-type: none"> csv format NetCDF (view in Godiva) About AquaMaps 	<p>More species info:</p> <ul style="list-style-type: none"> List of countries List of FAO areas List of ecosystems Comments & Corrections 	<p>Session no. 70</p> <p>-Close window-</p> <p><i>Please use -Close window-link just above to exit instead of the browser's X button.</i></p>
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Figure 1. Distribution of Goldstripe sardinella (*Sardinella gibbosa*).

References

AquaMaps. 2019. Computer generated distribution maps for *Sardinella gibbosa* (*Goldstripe sardinella*), 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. 2023. FishBase. World Wide Web electronic publication. <https://fishbase.se/summary/1508>

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