



## MarinTrust Standard V2

# By-product Fishery Assessment

## *Frigate tuna (Auxis thazard) FAO 57, western Indian Ocean*

**MarinTrust Programme**

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**Table 1 Application details and summary of the assessment outcome**

Fishery Under Assessment	Species:	Frigate tuna ( <i>Auxis thazard</i> )
	Geographical area:	FAO 57, western Indian Ocean
	Country of origin of the product:	Thailand
	Stock:	Frigate tuna in western Indian Ocean
Date	20 July 2023	
Report Code	THA53	
Assessor	Matthew Jew	
Country of origin of the product - PASS	Thailand	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): South East Asian Packaging and Canning Ltd			
Country: Thailand			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Matthew Jew	Ivan Mateo	0.5	Initial
Assessment Period	Up to July 2023		

Scope Details	
Main Species	Frigate tuna ( <i>Auxis thazard</i> )
Stock	Frigate tuna in western Indian Ocean
Fishery Location	FAO 57, western Indian Ocean
Management Authority (Country/ State)	IOTC
Gear Type(s)	Catches from 2017-2021: Gillnet (37.4%), line (32.8%), purse seine (15.3%), other (14.5%)
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor's assessment
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 Marin trust raw material. Frigate tuna (<i>Auxis thazard</i>) does not appear as Endangered or Critically Endangered on IUCN’s Red List, and does not appear in CITES appendices; therefore, <i>Auxis thazard</i> is eligible for approval for use as Marin trust by-product raw material.</p> <p>Frigate tuna is managed by the Indian Ocean Tuna Commission (IOTC), however there was not a new assessment conducted for this stock in 2022 and the 2021 assessment used data-limited techniques. The stock status in relation to <math>B_{MSY}</math> and <math>F_{MSY}</math> reference points remains unknown (and limit reference points). 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>Table D1 (PSA) shows that the stock as an average productivity score of <b>1.29</b> and an average susceptibility score of 2.5. The PSA risk rating results (Table D3) determined that the species passes.</p> <p>Therefore, frigate tuna in western Indian Ocean is <b>APPROVED</b> for the production of fishmeal and fish oil under the current MarinTrust v2.0 by-products.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified the Thailand Frigate Tuna as category D, because the stock status in relation to biological reference points remain unknown. Thus, this stock is not subject to a species-specific management regime. PSA analysis was correctly conducted</p> <p>Table D1 (PSA) shows that the stock has an average productivity score of 1.29 and an average susceptibility score of 2.5. The PSA risk rating results (Table D3) determined that the species passes.</p> <p>Therefore, I agree with the assessor that frigate tuna in western Indian Ocean should be APPROVED for the production of fishmeal and fish oil under the current MarinTrust v2.0 by-products.</p>
Notes for On-site Auditor
<p>Determine which flag state(s) the species is being sources from.</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

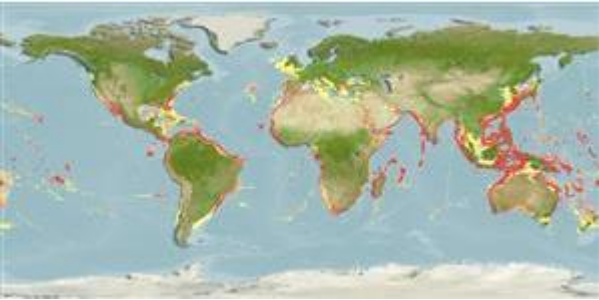
Common name	Latin name	Stock	Management	Category	IUCN Red List Category <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
Frigate tuna	<i>Auxis thazard</i>	Frigate tuna in western Indian Ocean	IOTC	D	LC	No

<sup>1</sup> <https://www.iucnredlist.org/>

<sup>2</sup> <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.

<b>D1</b>	<b>Species Name</b>		Frigate tuna ( <i>Auxis thazard</i> )
	<b>Productivity Attribute</b>		
		<b>Value</b>	<b>Score</b>
	Average age at maturity (years)	0.7	1
	Average maximum age (years)	3	1
	Fecundity (eggs/spawning)	460,435	1
	Average maximum size (cm)	65	1
	Average size at maturity (cm)	27.5	1
	Reproductive strategy	Broadcast spawner	1
	Mean trophic level	4.4	3
	<b>Average Productivity Score</b>		<b>1.29</b>
	<b>Susceptibility Attribute</b>		
		<b>Value</b>	<b>Score</b>
	Availability (area overlap)	<10%	1
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	High risk	3
	Selectivity of gear type	High risk	3
	Post-capture mortality	Retained	3
	<b>Average Susceptibility Score</b>		<b>2.5</b>
	<b>PSA Risk Rating (From Table D3)</b>		<b>PASS</b>
	<b>Compliance rating</b>		<b>PASS</b>
	<b>Further justification for susceptibility scoring (where relevant)</b>		
	<ol style="list-style-type: none"> <li>The worldwide distribution of the species and the overall fishing effort has low overlap. The areal overlap is &lt;10%.           <div>  </div> </li> <li><i>Encounterability: The client did not provide any indication on gear used in the application. Without knowing the specific harvest gear, it is not possible to score Encounterability. Score of 3 was awarded out of precaution.</i></li> <li><i>Selectivity of gear type: The client did not provide any indication on gear used in the application. As no gear was identified by the client and it cannot be further determined the level of selectivity of the gear, this attribute is scored as a 3 out of precaution.</i></li> <li>Retained species receives a score of 3.</li> </ol>		
<b>References</b>			
IOTC. 2022. Executive summary: frigate tuna (2022). Appendix 7. <a href="https://iotc.org/sites/default/files/content/Stock_status/2022/Frigate-tuna2022E.pdf">https://iotc.org/sites/default/files/content/Stock_status/2022/Frigate-tuna2022E.pdf</a>			

Fishbase. 2023. Frigate tuna, *Auxis thazard* (Lacepède, 1800). <https://fishbase.mnhn.fr/summary/Auxis-thazard.html>

*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.

<b>D3</b>		<b>Average Susceptibility Score</b>		
		<b>1 - 1.75</b>	<b>1.76 - 2.24</b>	<b>2.25 - 3</b>
<b>Average Productivity Score</b>	<b>1 - 1.75</b>	PASS	PASS	PASS
	<b>1.76 - 2.24</b>	PASS	PASS	TABLE D4
	<b>2.25 - 3</b>	PASS	TABLE D4	TABLE D4