



MarinTrust Standard V2

By-product Fishery Assessment

Albacore tuna in FAO Areas 51-57

MarinTrust Programme

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Albacore tuna (<i>Thunnus alalunga</i>)
	Geographical area:	FAO Areas 51-57
	Country of origin of the product:	The Republic of Seychelles, Taiwan, Sri Lanka
	Stock:	Indian Ocean
Date	August 2022	
Report Code	THA17	
Assessor	Sam Peacock	
Country of origin of the product - PASS	The Republic of Seychelles, Taiwan, Sri Lanka	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): Golden Prize Canning Co Ltd; Sirisaengarumpee Co. Ltd; South East Asian Packaging and Canning Ltd; T.C. Union Agrotech Co, Ltd; Thai Union Ingredients Co Ltd			
Country: Thailand			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Sam Peacock	Kate Morris	0.25	Re-approval
Assessment Period	August 2021- August 2022		

Scope Details	
Main Species	Albacore tuna (<i>Thunnus alalunga</i>)
Stock	Indian Ocean
Fishery Location	FAO Areas 51-57
Management Authority (Country/ State)	Indian Ocean Tuna Commission (IOTC)
Gear Type(s)	Longline, pole and line, purse seine, troll
Outcome of Assessment	
Peer Review Evaluation	Pass
Recommendation	Approve byproduct

Table 2. Assessment Determination

Assessment Determination
<p>Albacore tuna has been categorised by the IUCN as Least Concern and does not appear in the CITES appendices. The Indian Ocean albacore stock is managed using established reference points and therefore was assessed under Category C.</p> <p>The most recent stock assessment conducted for albacore in the Indian Ocean remains the one identified by the previous MT assessment report, published in 2019 and utilising data from 2017. The stock assessment used international landings and effort data and concluded that while the stock was subject to overfishing, it was not overfished, with biomass above the limit reference point with a high degree of certainty. The by-product, therefore, meets the Category C requirements and should be approved for use as a raw material in MT-certified marine ingredients.</p>
Fishery Assessment Peer Review Comments
<p>The by-product fishery under assessment here is the Indian Ocean Albacore tuna (<i>Thunnus alalunga</i>) fishery which is pursued by international vessels in FAO fishing areas 51-57. Albacore tuna is managed by Indian Ocean Tuna Commission (IOTC). For this Marin Trust assessment, the Indian Ocean Albacore tuna is scored as a category C species. The assessment of Albacore as a category C species met the MT requirements. All species scoring tables have been completed by the auditor with sufficient evidence presented to support their final determination.</p> <p>The peer review supports the auditor's recommendation to Pass this fishery under the Marin Trust IFFO RS v2.0 by-fishery standard for the production of fishmeal and fish oil.</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 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
Albacore tuna	<i>Thunnus alalunga</i>	Indian Ocean albacore tuna	Yes	C	Least concern ³	No

¹ <https://www.iucnredlist.org/>

² <https://cites.org/eng/app/appendices.php>

³ <https://www.iucnredlist.org/species/21856/46911332>

CATEGORY C SPECIES

In a by-product assessment, Category C species are those which are subject to a species-specific management regime and are usually targeted species in fisheries for human consumption.

Clause C1 should be completed for each Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it should be assessed as a Category D species instead.

Species Name		Albacore tuna (<i>Thunnus alalunga</i>)	
C1	Category C Stock Status - Minimum Requirements		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	PASS
	C1.2	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	PASS
			Clause outcome: PASS
<p>C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.</p> <p>As at the time of the previous MT assessment, the most recent stock assessment for this by-product was conducted in 2019. The assessment was carried out using an integrated model named “Stock Synthesis III”, and utilised international catch and CPUE data. No concerns relating to data incompleteness were raised in the reporting documentation (IOTC 2021). Fishery removals of albacore tuna are incorporated into the stock assessment process, and C1.1 is met.</p> <p>C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.</p> <p>The 2019 stock assessment concluded that at the time the Indian Ocean tuna stock was not overfished but was subject to overfishing. The spawning biomass was “considered to be above the target reference point of SB_{MSY}, and therefore also above the limit reference point of $0.4 \cdot SB_{MSY}$” (IOTC 2021). The 95% confidence interval for potential values of SB/SB_{MSY} was 0.574-2.071, providing a high degree of certainty that the stock was above the limit reference point. C1.2 is met.</p> <p>Note that although the stock assessment is now 3 years old, and provides an indication of stock status in 2017, the MT by-product assessment guidance does not currently set requirements as to how recent the stock assessment must be. For this reason, the 2019 stock assessment is considered to remain relevant to the scoring of this clause.</p>			

Area	Indicators – 2019 assessment		Status ³
Indian Ocean ¹	Catch 2020 ² (t)	38,082	
	Average catch 2016–2020 (t)	38,781	
	MSY (1,000 t) (95% CI)	35.7 (27.3–44.4)	
	F _{MSY} (95% CI)	0.21 (0.195–0.237)	
	SB _{MSY} (1,000 tt) (95% CI)	23.2 (17.6–29.2)	
	F ₂₀₁₇ /F _{MSY} (95% CI)	1.346 (0.588–2.171)	
	SB ₂₀₁₇ /SB _{MSY} (95% CI)	1.281 (0.574–2.071)	
	SB ₂₀₁₇ /SB ₁₉₅₀	0.262	

¹ Boundaries for the Indian Ocean stock assessment are defined as the IOTC area of competence

² Proportion of 2020 catch fully or partially estimated by IOTC Secretariat: 15%

³ The stock status refers to the most recent years' data used in the last assessment conducted in 2019. i.e., 2017

Colour key	Stock overfished (SB _{year} /SB _{MSY} < 1)	Stock not overfished (SB _{year} /SB _{MSY} ≥ 1)
Stock subject to overfishing (F _{year} /F _{MSY} > 1)		
Stock not subject to overfishing (F _{year} /F _{MSY} ≤ 1)		

Status of albacore tuna at the time of the most recent stock assessment, conducted in 2019 (IOTC 2021).

References

IOTC (2021). Executive summary of albacore tuna stock status, 2021.

https://iotc.org/sites/default/files/documents/science/species_summaries/english/1_Albacore2021E.pdf

Links

MarinTrust Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01

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		
	Productivity Attribute		Value
	Average age at maturity (years)		
	Average maximum age (years)		
	Fecundity (eggs/spawning)		
	Average maximum size (cm)		
	Average size at maturity (cm)		
	Reproductive strategy		
	Mean trophic level		
	Average Productivity Score		
	Susceptibility Attribute		Value
	Availability (area overlap)		
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)		
	Selectivity of gear type		
	Post-capture mortality		
	Average Susceptibility Score		
	PSA Risk Rating (From Table D3)		
	Compliance rating		
	Further justification for susceptibility scoring (where relevant)		
	References		
<i>Standard clauses 1.3.2.2</i>			

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 Categorized 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	