



## 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:	Yellowfin tuna ( <i>Thunnus albacares</i> )
	Geographical area:	FAO Major Fishing Area 51 (Indian Ocean, Western)
	Country of origin of the product:	Seychelles, Mauritius, Maldives
	Stock:	Yellowfin tuna in the Indian Ocean
Date	June 2021	
Report Code	BP118	
Assessor	Conor Donnelly	
Country of origin of the product - PASS	Seychelles, Mauritius, Maldives	
Country of origin of the product - FAIL		

Application details and summary of the assessment outcome			
Name:			
Address:			
Country: Spain		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
Conor Donnelly	Virginia Polonio	0.5	Surveillance 1
Assessment Period	2021		

Scope Details	
Main Species	Yellowfin tuna ( <i>Thunnus albacares</i> )
Stock	Yellowfin tuna in the Indian Ocean
Fishery Location	FAO Major Fishing Area 51 (Seychelles, Mauritius, Maldives)
Management Authority (Country/ State)	Internationally: The Indian Ocean Tuna Commission (IOTC) National authorities of Seychelles, Mauritius, Maldives
Gear Type(s)	Gillnet; pole-and-Line; longline and other gears (e.g., troll line, handline, artisanal longline).
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor's determination
Recommendation	<b>APPROVE</b>

**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. Indian Ocean yellowfin 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.</p> <p>For assessment and management purposes, one discrete stock of yellowfin is recognised in the Indian Ocean; therefore, this assessment covers one stock (i.e. yellowfin tuna in the Indian Ocean) when fished within FAO Major Fishing Area 51 by Seychelles, Mauritius and Maldives fleet. Fishery removals from the stock are considered in the IOTC stock assessment processes such that <b>the stock achieves a PASS against Clause C1.1.</b></p> <p>In addition, the most recent stock assessment for the stock shows it to be above relevant limit reference point defined by management such that <b>the stock achieves a PASS against C1.2.</b></p> <p>In order to be approved, stocks assessed must pass both Clause C1.1 and C1.2; therefore, as this is the case here, by-product covered by this report is <b>APPROVED</b> for the production of fishmeal and fish oil under the current MARIN TRUST v 2.0 by-product standard.</p>
Fishery Assessment Peer Review Comments
<p>The assessor has categorised correctly as there are reference points defined, and biomass is above limits in the last stock assessment.</p> <p>Removals are considered in the stock assessment and according to the 2018 stock assessment, spawning biomass in 2017 was estimated to be below the interim target reference point of SBMSY (SB2017 / SBMSY = 0.83 (0.74-0.97)) but above the interim limit reference point of 0.4*SBMSY.</p> <p>Therefore, the peer review agrees with the assessor's determination and the by-product is approved for the production of fishmeal and fish oil under the current MARIN TRUST v 2.0 by-product standard</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 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>
Yellowfin tuna	<i>Thunnus albacares</i>	Yellowfin tuna in the Indian Ocean	IOTC	C	<a href="#">Near threatened (global assessment)</a>	Not listed

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

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

## CATEGORY C SPECIES

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

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.

<b>Species Name</b>		Yellowfin tuna ( <i>Thunnus albacares</i> )	
<b>C1</b>	<b>Category C Stock Status - Minimum Requirements</b>		
	<b>C1.1</b>	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
	<b>C1.2</b>	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
			<b>Clause outcome:</b> PASS
<p><b>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.</b></p> <p>Catch data used for stock assessments are available on the IOTC website (e.g. IOTC-LATEST-NC-SCI-1950-2019_2021_05_21.zip). Catches in 2019 were estimated as 41,497 mt in Seychelles; 12,684 mt Mauritius and 44,702 mt in Maldives. Total catches of yellowfin tuna in Indian Ocean in 2019 were estimated as 448,629 mt. Therefore, removals in the fishery under assessment are included in the stock assessment process such that <b>the fishery achieves a PASS against C1.1.</b></p> <p><b>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.</b></p> <p>The latest stock assessment for Indian Ocean yellowfin tuna was carried out in 2018 (Urtizberea <i>et al.</i>, 2018). The next full assessment is due this year. According to the 2018 stock assessment, spawning biomass in 2017 was estimated to be below the interim target reference point of SBMSY (SB2017 / SBMSY = 0.83 (0.74-0.97)) but above the interim limit reference point of 0.4*SBMSY (yellowfin tuna executive summary, 2020). As noted in last year's initial assessment, various uncertainties led the IOTCs Scientific Committee (SC) to develop a workplan to address these uncertainties in 2019 before providing management advice. This workplan continued into 2020 (IOTC, 2020). However, the 2018 stock assessment shows the 2017 stock status to be comfortably above 0.4 *SBMSY even accounting for these uncertainties with 95% confidence limits showing SB well above 0.4 SBMSY; therefore, the stock is considered, in its most recent stock assessment, to be above its limit reference point such that the fishery <b>achieves a PASS against C1.2.</b></p>			
<b>References</b>			
IOTC catch data. <a href="https://iotc.org/data/datasets/latest/NC-SCI">https://iotc.org/data/datasets/latest/NC-SCI</a>			
IOTC (2020). Report of the 22 <sup>nd</sup> session of the IOTC working party on tropical tunas, assessment meeting. Working Party on Tropical Tunas (WPTT). 25 November 2020. <a href="https://iotc.org/documents/WPTT/2202/RE">https://iotc.org/documents/WPTT/2202/RE</a>			
Status summary for species of tuna and tuna-like species under the IOTC mandate, as well as other species impacted by IOTC fisheries (this page includes the latest stock assessment executive summary and assessment schedule information). <a href="https://iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc">https://iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc</a>			
Urtizberea, A., Fu, D., Merino, G., Methot, R., Cardinale, M., Winker, H., Walter, J. and Murua H. (2018). Preliminary assessment of Indian Ocean yellowfin tuna 1950 – 2018 (Stock Synthesis, V3.30). IOTC-2019-WPTT21-50: <a href="https://iotc.org/documents/WPTT/21/50">https://iotc.org/documents/WPTT/21/50</a>			
<b>Links</b>			
<b>MARINTRUST Standard clause</b>		1.3.2.2	

FAO CCRF	7.5.3
GSSI	D.3.04, D5.01

## 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.

<b>D1</b>	<b>Species Name</b>		
	<b>Productivity Attribute</b>		<b>Value</b>
	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		
	<b>Average Productivity Score</b>		
	<b>Susceptibility Attribute</b>		<b>Value</b>
	Overlap of adult species range with fishery		
	Distribution		
	Habitat		
	Depth range		
	Selectivity		
	Post-capture mortality		
	<b>Average Susceptibility Score</b>		
	<b>PSA Risk Rating (From Table D3)</b>		
	<b>Compliance rating</b>		
<b>References</b>			
<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.

<b>D3</b>		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

<b>D4 Species Name</b>			
<b>Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements</b>			
<b>D4.1</b>	The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.		
<b>D4.2</b>	There is no substantial evidence that the fishery has a significant negative impact on the species.		
<b>Outcome:</b>			
<b>Evidence</b>			
<b>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.</b>			
<b>D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.</b>			
<b>References</b>			
<b>Links</b>			
<b>MARINTRUST Standard clause</b>	1.3.2.2, 4.1.4		
<b>FAO CCRF</b>	7.5.1		
<b>GSSI</b>	D.5.01		