MarinTrust Standard V2

By-product Fishery Assessment

ECU16

Yellowfin tuna *(Thunnus albacares)*

in FAO 51 (Western Indian Ocean)

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Yellowfin tuna (*Thunnus albacares)*
	Geographical area:	FAO 51 (Western Indian Ocean)
	Country of origin of the product:	Ecuador Flag country: Spain
	Stock:	Yellowfin tuna in the Indian Ocean
Date	June 2024	
Report Code	ECU16	
Assessor	Ana Elisa Almeida Ayres	
Country of origin of the product - PASS	Ecuador Flag country: Spain	
Country of origin of the product - FAIL	N/A	

Application details and summary of the assessment outcome			
Company Name(s): Borsea, NIRSA S.A.			
Country: Ecuador Flag country: Spain			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		NSF / Global Trust Certification Ltd.	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval
Ana Elisa Almeida Ayres	Léa Lebechnech	0.5	Surveillance 1
Assessment Period	June 2024 – June 2025		

Scope Details	
Main Species	Yellowfin tuna (*Thunnus albacares*)
Stock	Yellowfin tuna in Indian Ocean
Fishery Location	FAO 51 (Western Indian Ocean)
Management Authority (Country/ State)	Indian Ocean Tuna Commission (IOTC)
Gear Type(s)	Purse seine, longline, handline, baitboat, gillnet, trolling
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's determination
Recommendation	**APPROVED**

Table 2. Assessment Determination

Assessment Determination
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 Marin Trust raw material. Yellowfin tuna (*Thunnus albacares)* is not categorised as Endangered or Critically Endangered on IUCN's Red List and does not appear in CITES appendices; therefore, Yellowfin tuna (*Thunnus albacares)* is eligible for approval for use as Marin Trust by-product raw material. 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 Food and Agriculture Organization of the United Nations - FAO fishing areas 51 and 57. The most recent stock assessment for Indian Ocean yellowfin tuna was conducted in 2023. The stock is subject to a specific management regime, therefore it was assessed under Category C. Fishery removals from the stock are considered in the IOTC stock assessment processes such that the stock achieves a PASS against Clause C1.1. In addition, the most recent stock assessment shows the biomass to be above the interim limit reference point of 0.4*SBMSY defined by management such that the stock achieves a PASS against C1.2. Therefore, yellowfin tuna (*Thunnus albacares*) in FAO 51 (Western Indian Ocean) is **APPROVED** for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products standard.
Fishery Assessment Peer Review Comments
The assessor correctly classified the Indian Ocean yellowfin tuna under category C, as the stock is managed and reference points are defined to assess the stock status against. Fishery removals from the stock are considered in the stock assessment process, and the most recent stock assessment shows that the stock is considered to have a biomass well above the limit reference point. Consequently, the fishery passes both clauses C1.1 and C1.2. Therefore the Indian Ocean yellowfin tuna is **APPROVED** for the production of fishmeal and fish oil under the current MarinTrust V2.0 by-products standards.
Notes for On-site Auditor
N/A

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[1]	CITES Appendix 1[2]
Yellowfin tuna	*Thunnus albacares*	Yellowfin tuna in Indian Ocean	Yes	C	LC[3]	No

[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php
[3] https://www.iucnredlist.org/species/21857/46624561

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	**Yellowfin tuna (*Thunnus albacares*)**	
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

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.

The stock assessment conducted by IOTC takes all fishery removals into account. The most recent assessment was conducted in 2021, using data from 1950-2020 and it was based on the model developed in 2018 with a series of revisions that were noted during the Working Party on Tropical Tunas - WPTT in 2018, 2019 and 2020 (IOTC, 2023).

Landings in recent years were reported as a total catch in 2022 of 410,332t, and an average catch 2018-2022 of 429,241t (IOTC, 2023). Full catch datasets, including catch and effort by month, species, gear, and vessels flag, and size-frequency datasets, are available on the IOTC website (IOTC, 2024).

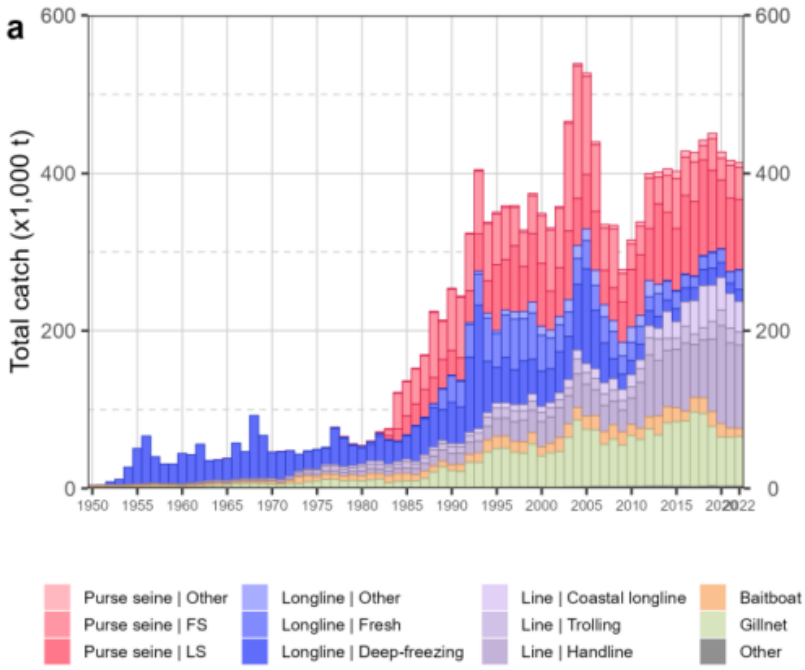

Figure 1. Yellowfin tuna total catch 1950 – 2022 by main fishing gear group (IOTC, 2023).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process. C.1.1 is met.

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.

In 2015, the IOTC adopted Resolution 15/10 which defined target/limit reference points and decision framework. Resolution 15/10 defined the limit reference point to be 0.4*SB_{MSY}. The last stock assessment conclusion stated that overall stock status estimates do not differ substantially from the previous assessment. Spawning biomass in 2020 was estimated to be 87% of the level that supports the maximum sustainable yield (SB2020/SBMSY = 0.87) and above the interim limit reference point of 0.4*SB_{MSY}. Current fishing mortality is estimated to be 32% higher than FMSY (F2020/FMSY = 1.32) and below the interim limit reference point of 1.4*FMS.

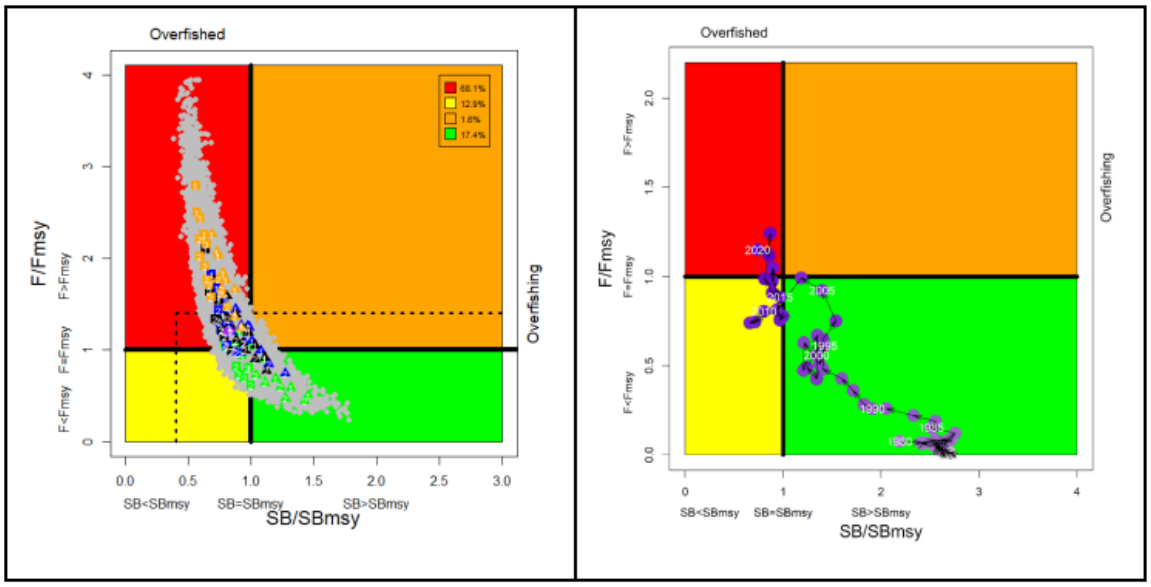

Fig. 4. Yellowfin tuna: SS3 Indian Ocean assessment Kobe plot: (left): current (2020) stock status, relative to SB_{MSY} (x-axis) and F_{MSY} (y-axis) reference points for the final model options. Coloured symbols represent Maximum posterior density (MPD) estimates from individual models: square and Triangles and represents LL CPUE catchability options q1 and q2 respectively; green, blue, black, and orange represents growth and natural mortality option combination Gbase_Mbase, GDortel_Mbase, Gbase_Mlow, and GDortel_Mlow respectively; 1,2, represents spatial structure option io and sp respectively. The purple dot represents the base model. Grey dots represent uncertainty from individual models. The dashed lines represent limit reference points for IO yellowfin tuna (SBlim = 0.4 SB_{MSY} and Flim = 1.4 F_{MSY}); (right) stock trajectory from the base model

Figure 2. Source: IOTC (2023).

In response to Indian Ocean yellowfin tuna falling below the target reference point, the IOTC has put in place an interim plan for rebuilding the stock (IOTC, 2021). The rebuilding plan limits and reduces total catch by all member states, requiring a 21% reduction in total catch relative to 2014 from most members. The plan also requires member states to reduce the efficiency of fishing effort by phasing out supply vessels and gillnet gears. Some of the fisheries subject to catch reductions have achieved a decrease in catches in 2021 in accordance with the levels of reductions specified in the plan, however, these reductions were offset by increases in the catches from Contracting Parties and Cooperating Non-Contracting Parties - CPCs exempt from and some CPCs subject to limitations on their catches of yellowfin tuna. The 2017-2021 average catches (435,225 t) were above the estimated MSY level. Although 2021 saw a slight decrease (3%) in catches compared to 2020, the overall picture remains worrisome, with the latest catch figure still significantly higher than the median MSY.

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point. C.1.2 is met.

References

IOTC. 2021. Compendium of Active Conservation and Management Measures for the Indian Ocean Tuna Commission (17 December 2021). https://www.iotc.org/cmms

IOTC. 2023. Indian Ocean Yellowfin Tuna Stock Status: Executive Summary. https://iotc.org/sites/default/files/documents/2023/11/IOTC-2023-SC26-ES04_YFT_E.pdf

IOTC. 2024. Available datasets. https://www.iotc.org/data/datasets

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