



MarinTrust Standard V2

By-product Fishery Assessment

Bigeye tuna (Thunnus obesus, FAO 51 & 57 Indian Ocean, Western and Eastern)

MarinTrust Programme

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Bigeye tuna (<i>Thunnus obesus</i>)
	Geographical area:	FAO 51 & 57 Indian Ocean, Western and Eastern
	Country of origin of the product:	Ghana, Belize, Spain, France, Italy (Flag Country)
	Stock:	Indian Ocean bigeye tuna
Date	June 2022	
Report Code	BP_USA07	
Assessor	Conor Donnelly	
Country of origin of the product - PASS	Ghana, Belize, Spain, France, Italy (Flag Country)	
Country of origin of the product - FAIL		

Application details and summary of the assessment outcome			
Company Name(s): The Scoular Company IP Model			
Country: USA			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Conor Donnelly	Léa Lebechnech	0.5	Initial
Assessment Period	To June 2022		

Scope Details	
Main Species	Bigeye tuna (<i>Thunnus obesus</i>)
Stock	Indian Ocean bigeye tuna
Fishery Location	FAO 51 & 57 Indian Ocean, Western and Eastern
Management Authority (Country/ State)	IOTC and the national fisheries management of Ghana, Belize, Spain, France, Italy
Gear Type(s)	Purse seine, longline, handlines, trolling, baitboat, gillnet and other
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's recommendation of approval.
Recommendation	APPROVED

Table 2. Assessment Determination

Assessment Determination
<p>If a 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 MarinTrust raw material. Bigeye tuna (<i>Thunnus obesus</i>) does not appear as Endangered or Critically Endangered on IUCN's Red List, nor does it appear in CITES appendices such that bigeye tuna-derived products are eligible for approval for use as MarinTrust by-product raw material.</p> <p>Bigeye tuna in the Indian Ocean is managed at the international level by the Indian Ocean Tuna Commission (IOTC) which is an intergovernmental organisation responsible for the management of tuna and tuna-like species in the Indian Ocean. In 2019 a new stock assessment was carried out for bigeye tuna in the IOTC area of competence to update the stock status undertaken in 2016. The stock therefore has a species-specific management regime and reference points are available to define the status of the stock and consequently it was assessed under Category C.</p> <p>Removals of the species are taken into consideration in its stock assessment and in the latest stock assessment (2019) its biomass was above SB_{MSY} with high probability (and therefore its limit reference point). Therefore, the stock has passed clause C1.1 and C1.2</p> <p>As the fishery passes both Clause C1.1 and C1.2, the by-product covered by this report is APPROVED for the production of fishmeal and fish oil under the current MarinTrust RS v 2.0 by-product standard.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified Indian Ocean bigeye tuna as category C, reference points are defined to assess status of the stock relative to.</p> <p>Fishery removals are included in the stock assessment process so the stock PASSES Clause C1.1.</p> <p>The Indian Ocean bigeye tuna stock is considered, in its most recent stock assessment, to have a biomass above the limit reference point. Therefore, it PASSES Clause C1.2.</p> <p>Therefore, Indian Ocean bigeye tuna is APPROVED.</p>
Notes for On-site Auditor
<p>None.</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
Bigeye tuna	<i>Thunnus obesus</i>	Indian Ocean bigeye tuna	IOTC	C	Globally: Least Concern (VU)	No

¹ <https://www.iucnredlist.org/>

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

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		Indian Ocean bigeye tuna (<i>Thunnus obesus</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.	Yes
	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.	Yes
			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.

Fishery removals of the stock under assessment are included in the IOTC stock assessment process with bigeye tuna catches being available to view through the IOTC Online Data Querying Service and are summarised annually (see figure below). Given the inclusion of removals from the fishery under assessment in IOTC stock assessment processes, **the fishery achieves a PASS against C1.1.**

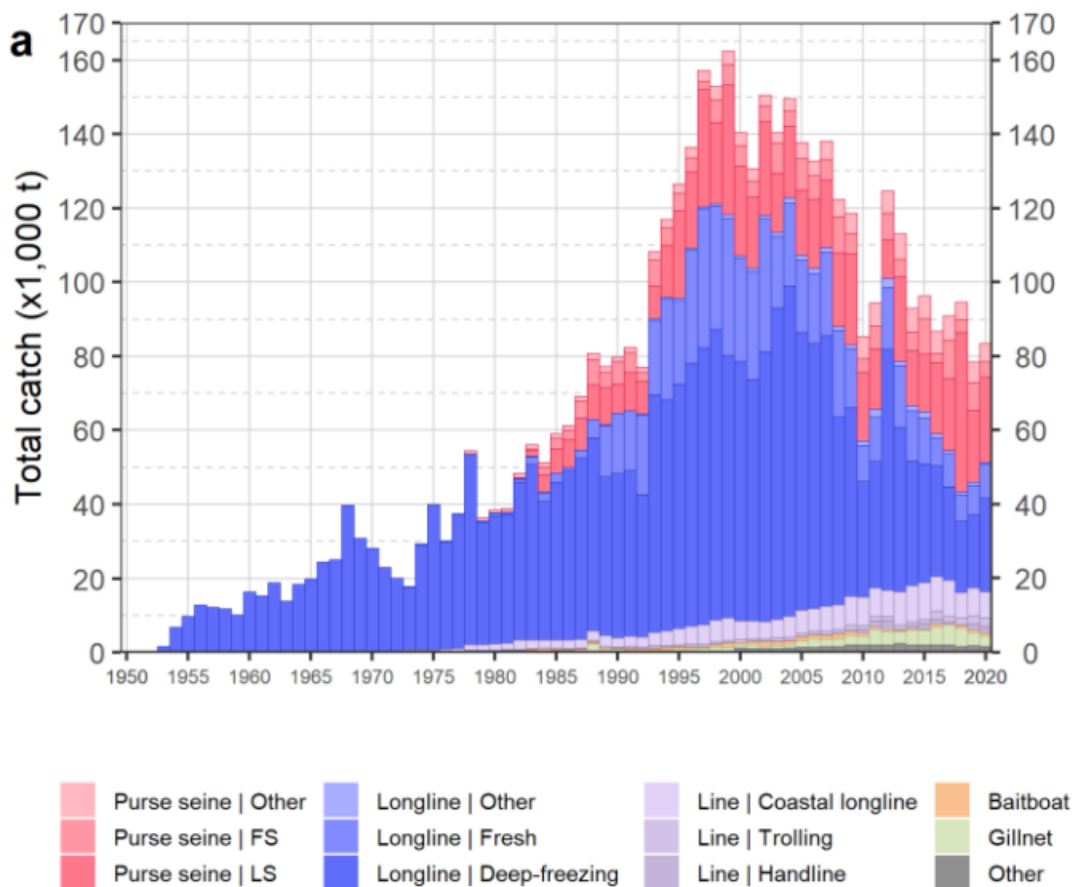


Figure 1. Annual time series of cumulative nominal catches (t) by fishery for bigeye tuna during 1950–2020. FS = free-swimming schools; LS = drifting log/FAD-associated school. Purse seine | Other: coastal purse seine, purse seine of unknown association type, ring net; Other: all remaining fishing gear (source: IOTC, 2021).

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.

The latest stock assessment information is set out in the IOTC’s executive summary for Indian Ocean bigeye tuna (2021):

In 2019 a new stock assessment was carried out for bigeye tuna in the IOTC area of competence to update the stock status undertaken in 2016. Two models were applied to the bigeye stock (JABBA and Stock Synthesis (SS3)). The stock assessment selected to provide scientific advice was carried out using SS3, a fully integrated model used to provide scientific advice for the three tropical tunas stocks in the Indian Ocean. The reported stock status is based on the SS3 model formulation using a grid of 18 model configurations designed to capture the uncertainty on stock recruitment relationship, the influence of tagging information and selectivity of longline fleets. Due to concerns on the reported catch data for 2018, the stock status is based on SS3 model formulations using the best catch estimate by the Scientific Committee (for details see WPTT report).

Spawning biomass in 2018 was estimated to be 31% of the unfished levels in 2018 and 122% (82–181%) of the level that can support MSY. The assessment outcome is qualitatively different to the stock assessment conducted in 2016 due to the increase of catch of small size, changes in modelling assumptions about longline selectivity, and the abundance index developed in 2019. Considering the characterized uncertainty, the assessment indicates that SB_{2018} is above SB_{MSY} with high probability (65.4%) and that fishing mortality is above F_{MSY} also with high probability (72.8%). The median value of MSY from the model runs presented with SS3 was 87,000 t with a range between 75,000 and 108,000 t (a median level 16% lower than the estimate in 2016). Catches in 2018 (~81,413 t) remain lower than the estimated median MSY values from the stock assessment conducted in 2019 but within the range of estimated MSY. The average catch over the previous five years (2014–18; ~89,717 t) is just above the estimated median MSY and within the range of estimated values. Thus, on the weight-of-evidence available in 2019, the bigeye tuna stock is determined to be not overfished but subject to overfishing.

As the stock is above SB_{MSY} with high probability, **the stock achieves a PASS against C1.2.**

References

IOTC, 2021. STATUS SUMMARY FOR SPECIES OF TUNA AND TUNA-LIKE SPECIES UNDER THE IOTC MANDATE, AS WELL AS OTHER SPECIES IMPACTED BY IOTC FISHERIES. Indian Ocean bigeye tuna (*Thunnus obesus*).
https://www.iotc.org/sites/default/files/documents/science/species_summaries/english/2_Bigeye2021E.pdf

Links

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