MarinTrust Standard V2

By-product Fishery Assessment

Atlantic Yellowfin Tuna

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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 Areas 34-41-47 Atlantic Eastern Central, Southwest, Southeast
	Country of origin of the product:	El Salvador, Ecuador, Spain, USA, Phillipines, Panama
	Stock:	Atlantic yellowfin tuna
Date	March 22 2022	
Report Code	BP044	
Assessor	Ivan Mateo	
Country of origin of the product - PASS	El Salvador, Ecuador, Spain, USA, Phillipines, Panama	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Marine Biotechnology Products			
Country: Ivory Coast			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:			
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Ivan Mateo	Vito Romito	0.5	Surveillance 2
Assessment Period	To March 2022		

Scope Details	
Main Species	Yellowfin tuna, *Thunnus albacares*
Stock	Atlantic yellowfin tuna
Fishery Location	FAO Areas 34-41-47 Atlantic Eastern Central, Southwest, Southeast
Management Authority (Country/ State)	International Commission for the Conservation of Atlantic Tunas (ICCAT)
Gear Type(s)	Longline, baitboat and purse seine
Outcome of Assessment	
Peer Review Evaluation	Approve
Recommendation	Approve

Table 2. Assessment Determination.

Assessment Determination
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 MARINTRUST raw material. Yellowfin tuna (*Thunnus albacares*) is not listed as Endangered or Critically Endangered on IUCN's Red List, nor it is listed in CITES appendices; therefore, Atlantic yellowfin tuna is eligible for approval for use as MARIN TRUST by-product raw material. There is a single yellowfin tuna stock in the Atlantic. This stock is managed at the international level by the International Commission for the Conservation of Atlantic Tunas (ICCAT). ICCAT conducts stock assessments; reference points are defined for the Atlantic yellowfin tuna stock. The stock is classified as Category C. Fishery removals of the stock are considered in the various stock assessment processes so the stock PASSES Clause C1.1. In the most recent stock assessment, the stock is considered to have a biomass above the limit reference point, the stocks PASSES Clause C1.2. In order to be approved, the stock under assessment must pass both Clauses C1.1 and C1.2. Atlantic yellowfin tuna passes both Clauses C1.1 and C1.2, and therefore is APPROVED by the assessor for the production of fishmeal and fish oil under the current Marin Trust v.2.0 by-product Standard.
Fishery Assessment Peer Review Comments
The Atlantic yellowfin tuna stock is assessed by ICCAT and correctly classified as Category C. The last stock assessment was conducted in 2019 applying two production models and one age-structured model to the available catch data through 2018. The combined results show that the median estimate of B2018/BMSY is 1.17 and that the stock is not overfished and overfishing is not occurring. Clause C1.1 and C1.2 are met and the stock shall be APPROVED for the production of fishmeal and fish oil under the current Marin Trust v.2.0 by-product Standard.
Notes for On-site Auditor
NA

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*	Atlantic yellowfin tuna	International Commission for the Conservation of Atlantic Tunas (ICCAT)	C	NT	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		**Atlantic Yellowfin tuna**	
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.
Given that there are no updates on stock assessment for this species. Information from previous report is included here

A full stock assessment was conducted in 2019 applying two production models and one age-structured model to the available catch data through 2018. Total catches from the 1950-2018 period are shown in Figure 1. Therefore, the stock **PASSES** Clause C1.1.

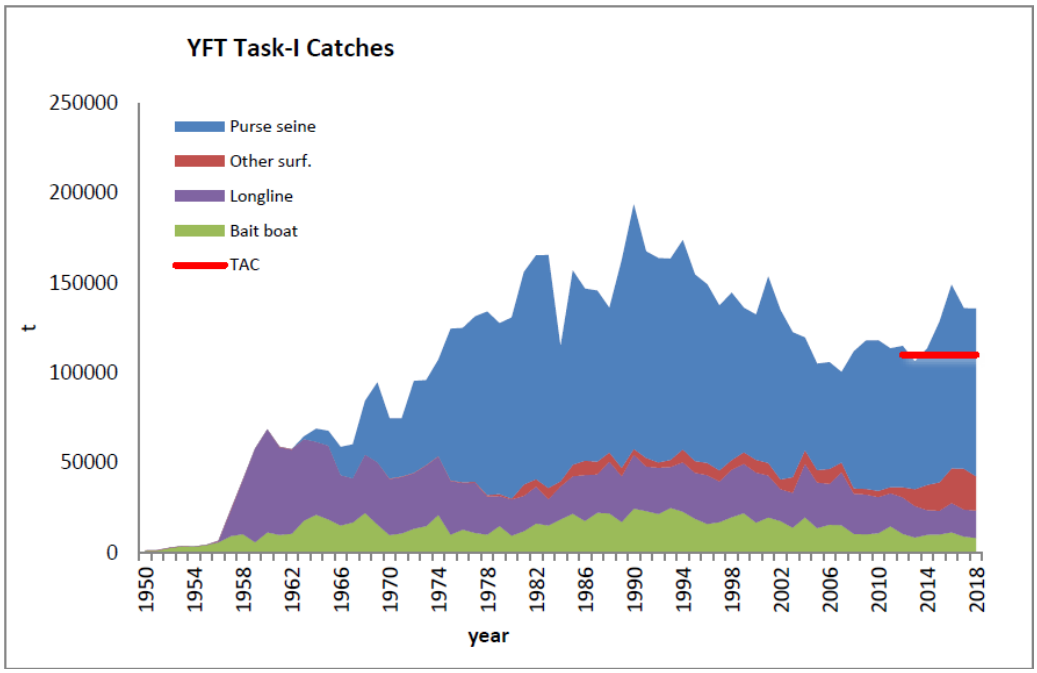

FIGURE 1. Yellowfin tuna total catch 1950 – 2018 by main fishing gear group.

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.

A full stock assessment was conducted in 2019 applying two production models and one age-structured model to the available catch data through 2018. All models show that estimated biomass continuously declines through time. The combined results show that the median estimate of B_{2018}/B_{MSY} is 1.17 (Table 4) and that the stock is not overfished and overfishing is not occurring (Figure 2).

Therefore, the assessor determines that, the stock is considered to have a biomass above the limit reference point, it **PASSES** Clause C1.2.

Table 4. Atlantic yellowfin tuna stock status summary.

ATLANTIC YELLOWFIN TUNA SUMMARY

Estimates	Mean (90% confidence intervals)
Maximum Sustainable Yield (MSY)	121,298 t (90,428 - 267,350 t)[1]
2018 Yield	135,689 t
Relative Biomass[2]: B_{2018}/B_{MSY}	1.17 (0.75 - 1.62)
Relative Fishing Mortality: F_{2018}/F_{MSY}	0.96 (0.56 - 1.50)

2018 Total Biomass[3]		729,436 t
Stock Status (2018)	Overfished: No[4]	
	Overfishing: No[5]	

[Rec. 16-01]
- No fishing with natural or artificial floating objects during January and February in the area encompassed by the African coast, 20º W, 5ºN and 4ºS.
- TAC of 110,000 t (since Rec. 11-01).
- Specific authorization to fish for tropical tunas for vessels 20 meters or greater
- Specific limits of number of longline and/or purse seine boats for a number of fleets
- Specific limits on FADs, non-entangling FADs required

1) Minimum and maximum values of 90%LCI and 90%UCI among all runs by the Stock Synthesis, JABBA, and MPB
2) SSB (Stock Synthesis) or exploited biomass (production models)
3) Mean of the central estimates of the SS, JABBA and MPB models
4) (24% probability of overfished status)
5) (43% probability of overfishing taking place)

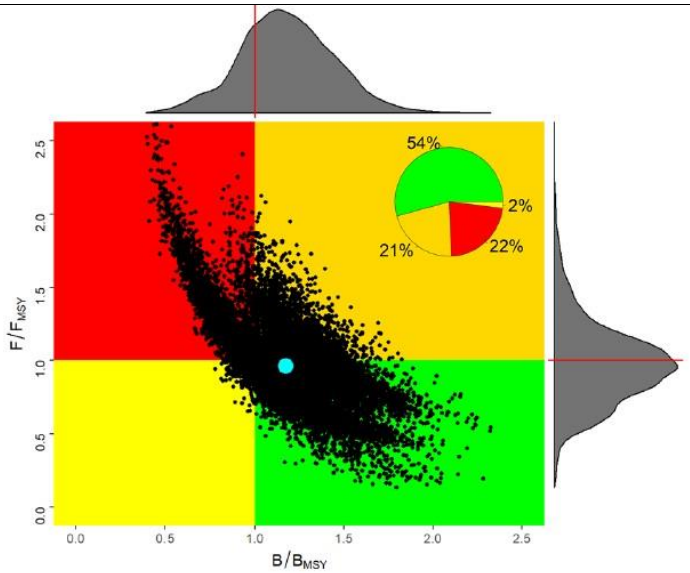

Figure 2. Kobe plot estimated from the combination of Stock Synthesis, JABBA and MPB model runs chosen to develop the management advice.

References

Collette, B., Acero, A., Amorim, A.F., Boustany, A., Canales Ramirez, C., Cardenas, G., Carpenter, K.E., Chang, S.-K., de Oliveira Leite Jr., N., Di Natale, A., Die, D., Fox, W., Fredou, F.L., Graves, J., Guzman-Mora, A., Viera Hazin, F.H., Hinton, M., Juan Jorda, M., Minte Vera, C., Miyabe, N., Montano Cruz, R., Masuti, E., Nelson, R., Oxenford, H., Restrepo, V., Salas, E., Schaefer, K., Schratwieser, J., Serra, R., Sun, C., Teixeira Lessa, R.P., Pires Ferreira Travassos, P.E., Uozumi, Y. & Yanez, E. 2011. *Thunnus albacares*. *The IUCN Red List of Threatened Species* 2011: e.T21857A9327139. https://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T21857A9327139.en.

ICCAT Stock Assessment and Executive Summary – Yellowfin tuna. https://www.iccat.int/en/assess.html

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