MarinTrust Standard V2

By-product Fishery Assessment Report Template

MarinTrust Programme
Unit C, Printworks
22 Amelia Street
London
SE17 3BZ
E: standards@marin-trust.com
T: +44 2039 780 819

Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Yellowfin tuna, *Thunnus albacares*
	Geographical area:	FAO Areas 77 (Pacific, Eastern Central) and 87 (Pacific, Southeast)
	Country of origin of the product:	Thailand
	Stock:	Western Central Pacific Ocean (WCPO) yellowfin tuna Eastern Pacific Ocean (EPO) yellowfin tuna
Date	13/12/2021	
Report Code	BP255	
Assessor	Virginia Polonio	
Country of origin of the product - PASS	Thailand	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Name:			
Address:			
Country: Thailand		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
Virginia Polonio	Vito Romito	0.5	Surveillance 1
Assessment Period	To December 2021		

Scope Details	
Main Species	Yellowfin tuna, *Thunnus albacares*
Stock	Western Central Pacific Ocean (WCPO) yellowfin tuna Eastern Pacific Ocean (EPO) yellowfin tuna
Fishery Location	FAO 77 (Pacific, Eastern Central) and 87 (Pacific, Southeast)
Management Authority (Country/ State)	The Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC).
Gear Type(s)	Longlines and purse seines
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor's recommendation for approval
Recommendation	**APPROVED**

Table 2. Assessment Determination

Assessment Determination
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. Yellowfin tuna (*Thunnus albacares*) is listed on the IUCN Red List as globally Near Threatened (NT) and is not listed in CITES such that yellowfin derived products are eligible for approval for use as MarinTrust by-product raw material. For assessment and management purposes, two discrete stocks of yellowfin are recognised in the Pacific Ocean delimited based on their being east and west of 150oW longitude: 1. Western Central Pacific Ocean (WCPO) yellowfin (west of 150oW), managed via the Western and Central Pacific Fisheries Commission (WCPFC). 2. Eastern Pacific Ocean (EPO) yellowfin (east of 150oW), managed by the Inter-American Tropical Tuna Commission (IATTC). FAO areas 77 and 87 have their western boundary at 175oW such that yellowfin tuna taken in these areas may come from either of the Western Central Pacific or Eastern Pacific stocks; therefore, both stocks are considered in this assessment. Fishery removals of both Pacific yellowfin tuna stocks are considered in their respective stock assessment processes such that the fishery **PASSES** Clause C1.1. As of the latest assessments, both stocks are considered to have a biomass above their respective limit reference points such that the fishery **PASSES** Clause C1.2. As both Clause C1.1 and C1.2 are met, the WCPO and EPO yellowfin tuna stocks are **APPROVED** for the production of fishmeal and fish oil under the current MarinTrust v 2.0 by-product standard.
Fishery Assessment Peer Review Comments

The assessor correctly classified WCPO and EPO yellowfin tuna stocks as category C, reference points are defined to assess status of both stocks relative to. Fishery removals are included in the stock assessment process so the stocks PASS Clause C1.1. The WCPO and EPO yellowfin tuna stocks are considered, in their most recent stock assessment, to have a biomass above the limit reference point, both stocks PASS Clause C1.2. Therefore, WCPO and EPO yellowfin tuna stocks should be approved.
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 Redlist 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*	WCPO and EPO yellowfin tuna	WCPFC and IATTC	C	Globally: Near Threatened (NT)	No

[1] https://www.iucnredlist.org/
[2] 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 may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

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.	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.

Western Central Pacific yellowfin tuna Fishery removals in the fishery under assessment are included in the stock assessment process via Western and Central Pacific Fisheries Commission (WCPFC) processes. Eastern Pacific yellowfin tuna Catches within the IATTC area of competence are reported to the IATTC (e.g. IATTC, 2020) and these catches are subsequently included in the IATTC stock assessment process.
Time series of total catches of yellowfin tuna in the WCPO and the EPO are presented in Figures 1 and 2, respectively.

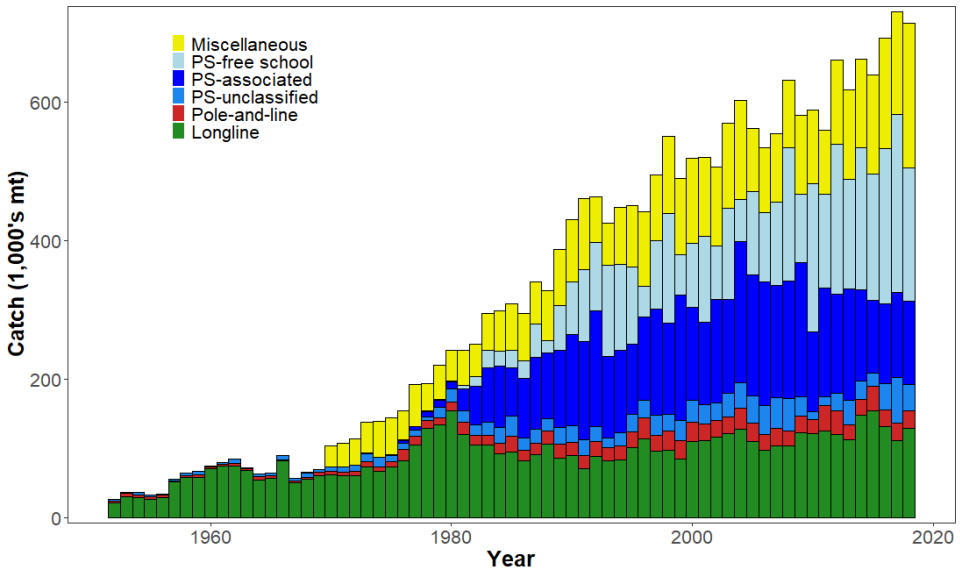

Figure 1. Time series of total annual catch (1000s mt) by fishing gear over the full assessment region and time period. The different colours denote longline (green), pole-and-line (red), purse seine unclassified (blue), purse seine-associated (dark blue), purse seine-unassociated (light blue), miscellaneous (yellow).

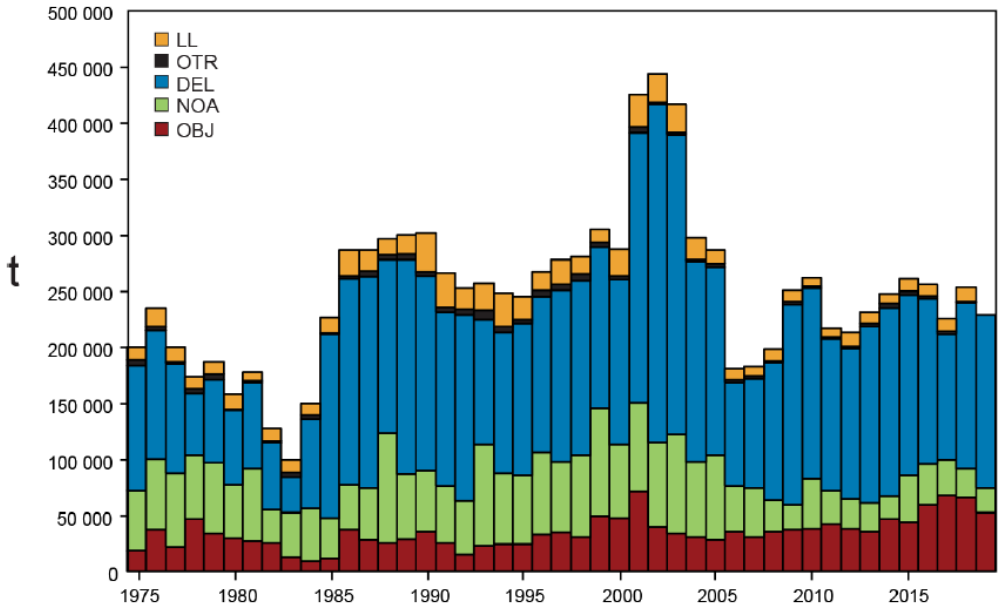

Figure 2. Total catches (retained catches plus discards) for the purse-seine fisheries, by set type (DEL, NOA, OBJ), and retained catches for the longline (LL) and other (OTR) fisheries, of yellowfin tuna in the eastern Pacific Ocean, 1975-2019. The purse-seine catches are adjusted to the species composition estimate obtained from sampling the catches. The 2019 data are preliminary.

Therefore, fishery removals of both stocks of relevance to this assessment are included in their respective stock assessment processes such that the fishery **PASSES** Clause C1.1.

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.

Western Central Pacific yellowfin tuna. The most recent stock assessment for WCPO yellowfin was conducted in 2020. The median values of relative recent (2015-2018) spawning biomass depletion ($SB_{recent}/SB_{F=0}$) and relative recent (2014-2017) fishing mortality (F_{recent}/F_{MSY}) over the uncertainty grid of 72 models were used to define stock status. A Majuro and Kobe plot summarising the results for each of the 72 models in the structural uncertainty grid are shown in Figures 3 and 4, respectively. Both Figures show that the current spawning biomass is above the reference point.

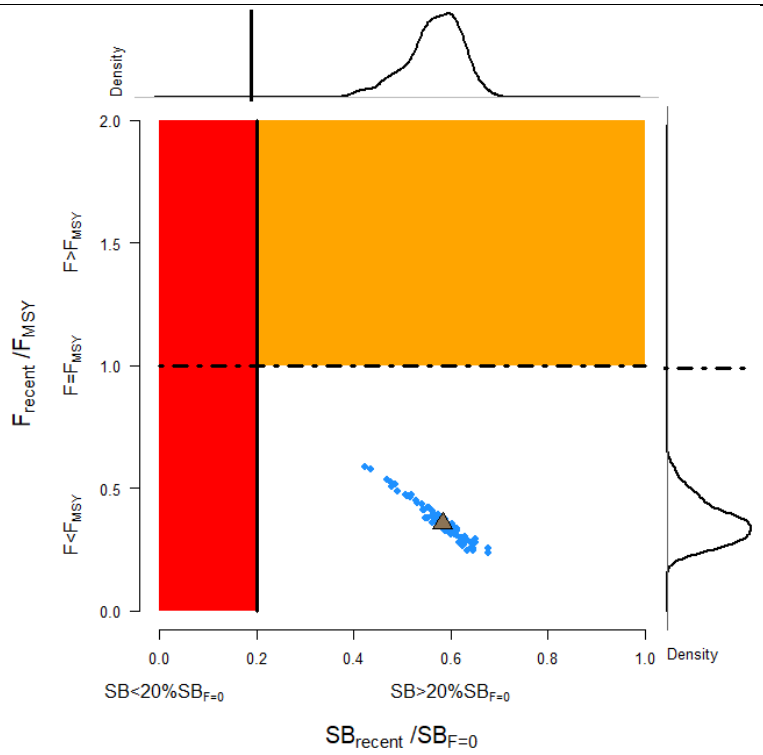

Figure 3. Majuro plot representing stock status in terms of recent spawning potential depletion (2015–2018) and fishing mortality. The plots summarize the results for each of the models in the structural uncertainty grid with marginal distributions for spawning potential depletion and fishing mortality, where the brown triangle is the median of the structural uncertainty grid.

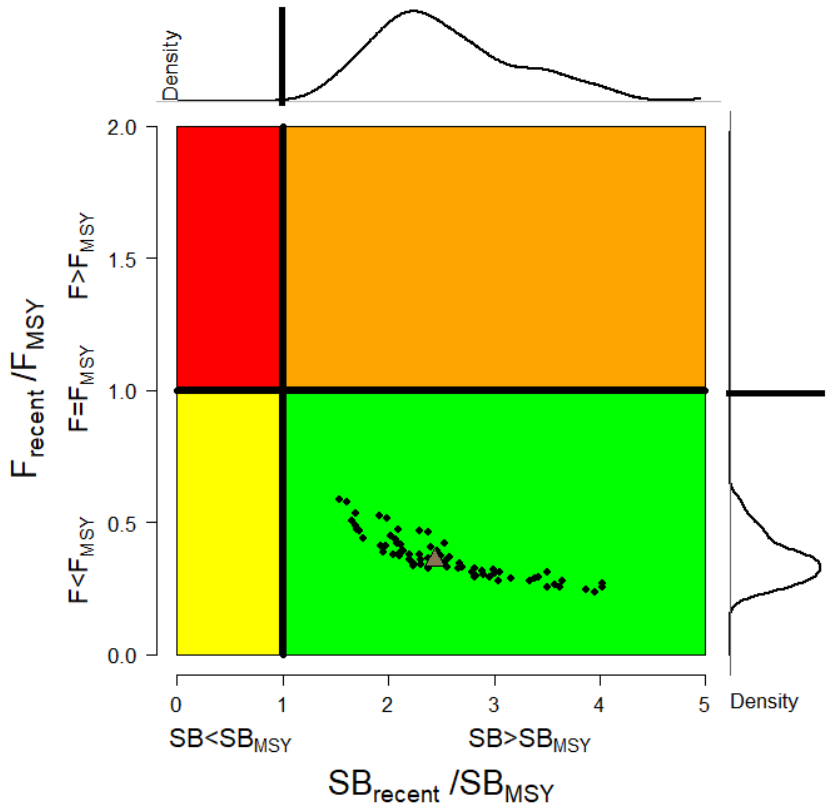

Figure 4. Kobe plot for the recent spawning potential (2015–2018) summarizing the results for each of the models in the structural uncertainty grid. The plots represent estimates of stock status in terms of spawning biomass depletion and fishing

mortality relative to *MSY* quantities and marginal distributions of each are presented with the median of the structural uncertainty grid displayed as a brown triangle.

The most stock assessment report for the EOP yellowfin tuna was published in 2020. The 48 models of the benchmark assessment estimate similar relative recruitment trends, regardless of the steepness assumed. At the beginning of 2020, the spawning biomass (*S*) of yellowfin ranged from 49% to 219% of the level at dynamic MSY (*S*MSY_d); 12 models suggested that it was below that level. At the beginning of 2020, the spawning biomass (*S*) of yellowfin ranged from 145% to 345% of the limit reference level (*S*LIMIT); no models suggest that it was below that limit (Figure 5).

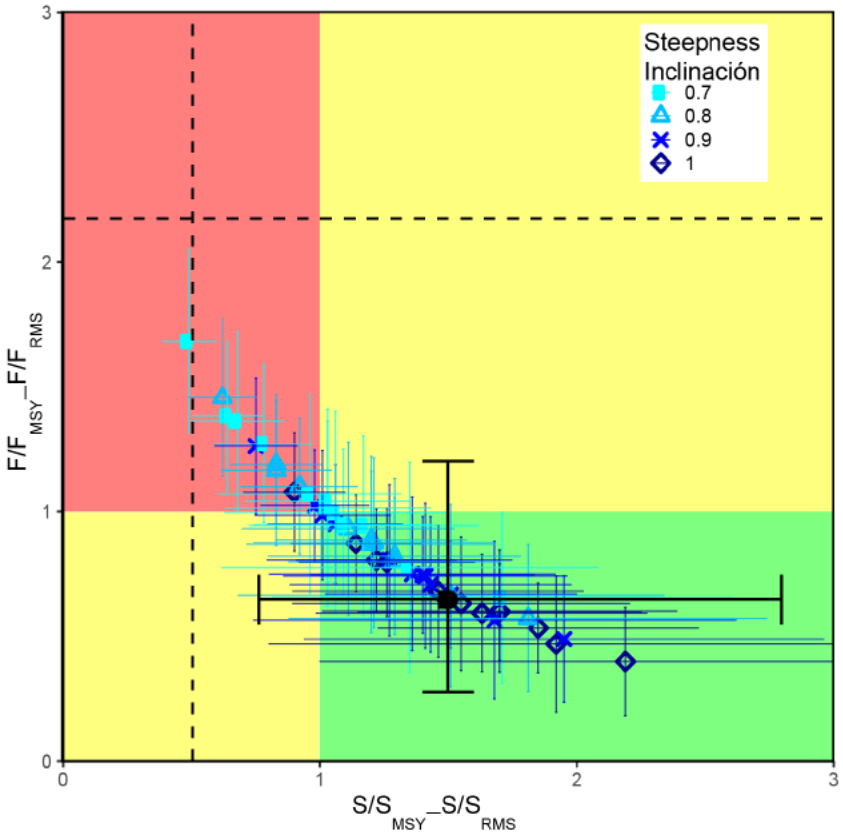

Figure 5. Kobe (phase) plot of the time series of estimates of spawning stock size (*S*) and fishing mortality (*F*) of yellowfin tuna relative to their MSY reference points. The colored panels are separated by the target reference points (*S*MSY and *F*MSY). Limit reference points (dashed lines), which correspond to a 50% reduction in recruitment from its average unexploited level, based on a conservative steepness (*h*) of 0.75 for the Beverton-Holt stock-recruitment relationship, are merely indicative, since they vary by model and are based on all models combined. The center point for each model indicates the current stock status, based on the average fishing mortality (*F*) over the last three years; The solid black circle represents all models combined; to be consistent with the probabilistic nature of the risk analysis and the HCR, it is based on P(*S*cur/*S*LIMIT<x) = 0.5 and P(*F*cur/*F*MSY>x) = 0.5. The lines around each estimate represent its approximate 95% confidence interval.

Therefore, both WCPO and EPO yellowfin tuna stocks are considered, in their most recent stock assessment, to have a biomass above the limit reference point and both stocks **PASSES** C1.2.

References

Western and Central Pacific Fisheries Commission 2021. WCPO yellowfin tuna (*Thunnus albacares*) stock status and management advice. The Scientific Committee. February 2021.
https://www.wcpfc.int/doc/02/yellowfin-tuna

IATTC (2020). Estimated Catch (in mt) by Purse Seine and Pole-and-Line vessels in the Eastern Pacific Ocean (east of 150°W 01 Jan – 03 May 2020: http://www.iattc.org/MonthlyReports/2020/_English/Apr-2020_Current%20monthly%20report.pdf Minte-Vera, Xu and Maunder (2019) Inter-American Tropical Tuna Commission Stock IATTC 2020. Report on the tuna fishery, stocks, and ecosystem in the Eastern Pacific Ocean in 2019. https://www.iattc.org/FisheryStatusReportsENG.htm	
Links	
MARINTRUST Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01