MarinTrust Standard V2

By-product Fishery Assessment

ESP01 – Yellowfin tuna in FAO 77 and 87

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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 77 Pacific, Eastern Central FAO 87 Pacific, Southeast
	Country of origin of the product:	Spain, Portugal, Ecuador
	Stock:	Eastern Pacific Ocean (EPO) Yellowfin Tuna
Date	June 2024	
Report Code	ESP01	
Assessor	Jose Peiro Crespo	
Country of origin of the product - PASS	Spain, Portugal, Ecuador	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): Arteixo, Hijos de Emilio Ramirez SA - Pescave			
Country:			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Jose Peiro Crespo	Sam Peacock	0.5	Surveillance 1
Assessment Period	June 2024 – June 2025		

Scope Details	
Main Species	Yellowfin tuna (*Thunnus albacares)*
Stock	Eastern Pacific Ocean (EPO) Yellowfin Tuna
Fishery Location	FAO 77 (Pacific, Eastern Central) FAO 87 (Pacific, Southeast)
Management Authority (Country/ State)	Inter-American Tropical Tuna Commission (IATTC).
Gear Type(s)	Purse seine, longline, pole & line, handline
Outcome of Assessment	
Peer Review Evaluation	Agree with assessment outcome
Recommendation	**Pass**

Table 2. Assessment Determination

Assessment Determination
Yellowfin tuna (*Thunnus albacares*) meets the eligibility criteria for approval as Marin Trust by-product raw material, as it is not categorized as Endangered or Critically Endangered on the Union for Conservation of Nature's Red List (IUCN) (it is listed as Least Concern), nor does it appear in CITES appendices. For assessment and management purposes, two discrete stocks of yellowfin are recognised in the Pacific Ocean delimited: 1. Western Central Pacific Ocean (WCPO) yellowfin, managed via the Western and Central Pacific Fisheries Commission (WCPFC). 2. Eastern Pacific Ocean (EPO) yellowfin, managed by the Inter-American Tropical Tuna Commission (IATTC). This assessment refers to EPO yellowfin tuna which is managed by the IATTC relative to Stock Status Indicators (SSIs). Therefore, the stock has been categorized under category C. The stock assessment processes take into account fishery removals from the stocks, ensuring that the stock attains a **pass against Clause C1.1.** In the most recent stock assessment conducted in 2023, concluded that there was a low probability that stock biomass is below the target reference point, and zero probability that the stock biomass is below the limit reference point. Thus the stock **passes against C1.2**. Consequently, Yellowfin tuna in FAO 77 and 87 have been granted **approval** for the production of fishmeal and fish oil, adhering to the existing MarinTrust v2.3 by-products standard
Fishery Assessment Peer Review Comments
The peer reviewer agrees that this species is eligible for assessment under the MarinTrust byproduct assessment methodology, and that the stock falls into Category C. The most recent stock assessment was adequate to meet the requirements of C1.1, and biomass is currently estimated likely to be above the target reference point level, meeting the requirements of C1.2. Overall, the peer reviewer agrees that this stock should be approved as a source of byproduct raw material for MarinTrust certified facilities.
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[1]	CITES Appendix 1[2]
Yellowfin tuna	*Thunnus albacares*	EPO yellowfin tuna	IATTC	C	Least concern[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 Eastern Pacific Ocean (EPO) yellowfin tuna stock is assessed by the Inter-American Tropical Tunas Commission (IATTC). The last benchmark assessment for yellowfin tuna was conducted in 2020 and followed a risk assessment framework. A new risk-based approach was introduced to the management of the stock in 2022, with Stock Status Indicators (SSIs) developed using catch and other data collected from the EPO as a whole. Data on annual catches of yellowfin in the Pacific Ocean during 1993-2022 are available. The 2022 EPO catch of 292 thousand t is 20% higher than the average of 243 thousand t for the previous 5-year period (2017-2021). In the WCPO, the catches of yellowfin reached a record high of 771 thousand t in 2021 (IATTC 2023).

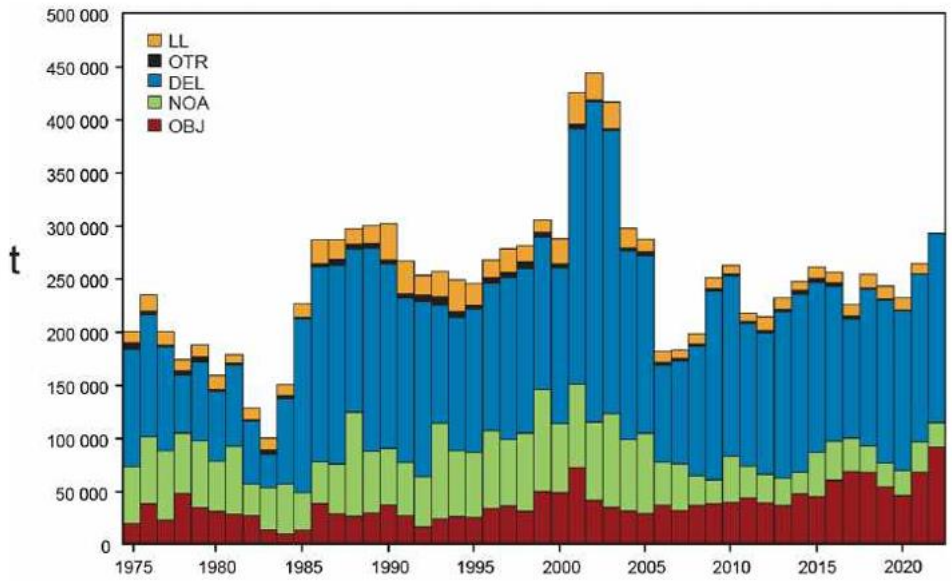

FIGURE 1TOTAL CATCHES (RETAINED CATCHES PLUS DISCARDS) FOR THE PURSE-SEINE FISHERIES, BY SET TYPE (DEL, NOA, OBJ), AND RETAINED CATCHES FOR THE LONGLINE (LL) AND OTHER (OTR) FISHERIES, OF YELLOWFIN TUNA IN

THE EASTERN PACIFIC OCEAN, 1975-2021. THE PURSE-SEINE CATCHES ARE ADJUSTED TO THE SPECIES COMPOSITION ESTIMATE OBTAINED FROM SAMPLING THE CATCHES (IATTC 2023).

Therefore, fishery removals are included in the 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.

The last benchmark assessment for yellowfin tuna was conducted in 2020 and followed a risk assessment framework, which includes the development of hypotheses, the implementation and weighting of models, and the construction of risk tables based on the combined result. At the beginning of 2020, the spawning biomass (S) of yellowfin ranged from 145% to 345% of the limit reference level (Slimit); no models suggest that it was below that limit. During 2017-2019 the fishing mortality (F) of yellowfin ranged from 40% to 168% of the level at MSY (FMSY); 14 models suggested that it was above that level. During 2017-2019, the fishing mortality of yellowfin ranged from 22% to 65% of the limit reference level (Flimit); no models suggest that it was above that limit. Every reference model suggests that lower steepness values correspond to more pessimistic estimates of stock status: lower S and higher F relative to the reference points (IATTC 2023).

The results from the reference models are combined in a risk analysis to provide management advice. The probabilities of exceeding the reference points where computed using each model result and its associated weight. There is a low probability of Fcur being above FMSY (9%). The probability of Fcur being above FLIMIT is zero. The probability of the spawning biomass being below SMSY_d is low (12%). The probability of the spawning biomass exceeding SLIMIT is zero. The combined expected risk of F exceeding FMSY is below 50% for six closure durations, varying from 26% (no 50 closure) to 5% (100 days), with a low risk (9%) for the current closure (72 days) (IATTC 2023).

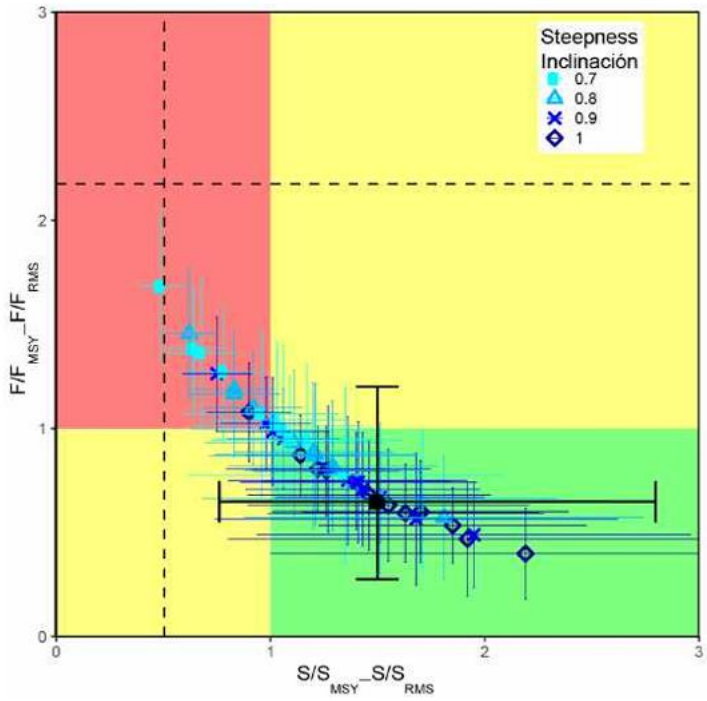

FIGURE 2KOBE (PHASE) PLOT OF THE TIME SERIES OF ESTIMATES OF SPAWNING STOCK SIZE (S) AND FISHING MORTALITY (F) OF YELLOWFIN TUNA RELATIVE TO THEIR MSY REFERENCE POINTS (IATTC 2023)

The fishery **PASSES Clause C1.2.**

References	
IATCC (2023). Report on the tuna fishery, stocks, and ecosystem in the Eastern Pacific Ocean in 2022. https://www.iattc.org/GetAttachment/0f48f889-2aa5-437f-8d03-648d62ecfb75/No-21-2023_Tunas,-stocks-and-ecosystem-inthe-eastern-Pacific-Ocean-in-2022.pdf	
Links	
MarinTrust Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01

CATEGORY D SPECIES

Category D species are those which 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.

D1	**Species Name**	**NA**	
	Productivity Attribute	**Value**	**Score**
	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		
		Average Productivity Score	
	Susceptibility Attribute	**Value**	**Score**
	Availability (area overlap)		
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)		
	Selectivity of gear type		
	Post-capture mortality		
		Average Susceptibility Score	
		PSA Risk Rating (From Table D3)	
		Compliance rating	
	Further justification for susceptibility scoring (where relevant) *For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision*		
References			
Standard clauses 1.3.2.2			

Table D2 - Productivity / Susceptibility attributes and scores.

Productivity attributes	High productivity (Low risk, score = 1)	Medium productivity (medium risk, score = 2)	Low productivity (high risk, score = 3)
Average age at maturity	<5 years	5-15 years	>15 years
Average maximum age	<10 years	10-25 years	>25 years
Fecundity	>20,000 eggs per year	100-20,000 eggs per year	<100 eggs per year
Average maximum size	<100 cm	100-300 cm	>300 cm
Average size at maturity	<40 cm	40-200 cm	>200 cm
Reproductive strategy	Broadcast spawner	Demersal egg layer	Live bearer
Mean Trophic Level	<2.75	2.75-3.25	>3.25

Susceptibility attributes	Low susceptibility (Low risk, score = 1)	Medium susceptibility (medium risk, score = 2)	High susceptibility (high risk, score = 3)
Areal overlap (availability) Overlap of the fishing effort with the species range	<10% overlap	10-30% overlap	>30% overlap
Encounterability The position of the stock/species within the water column relative to the fishing gear, and the position of the stock/species within the habitat relative to the position of the gear	Low overlap with fishing gear (low encounterability).	Medium overlap with fishing gear.	High overlap with fishing gear (high encounterability). Default score for target species
Selectivity of gear type Potential of the gear to retain species	a Individuals < size at maturity are rarely caught	a Individuals < size at maturity are regularly caught.	a Individuals < size at maturity are frequently caught
	b Individuals < size at maturity can escape or avoid gear.	b Individuals < half the size at maturity can escape or avoid gear.	b Individuals < half the size at maturity are retained by gear.
Post-capture mortality (PCM) The chance that, if captured, a species would be released and that it would be in a condition permitting subsequent survival	Evidence of majority released post-capture and survival.	Evidence of some released post-capture and survival.	Retained species or majority dead when released.

D3		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

D4	Species Name		
	Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements		
	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.	
	D4.2	There is no substantial evidence that the fishery has a significant negative impact on the species.	
Outcome:			

Evidence

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.

D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.

References

Links	
MarinTrust Standard clause	1.3.2.2, 4.1.4
FAO CCRF	7.5.1
GSSI	D.5.01