



## MarinTrust Standard V2

### By-product Fishery Assessment

#### *ESP01, Yellowfin Tuna in FAO Areas 77 & 87 (Eastern Pacific Ocean)*

**MarinTrust Programme**

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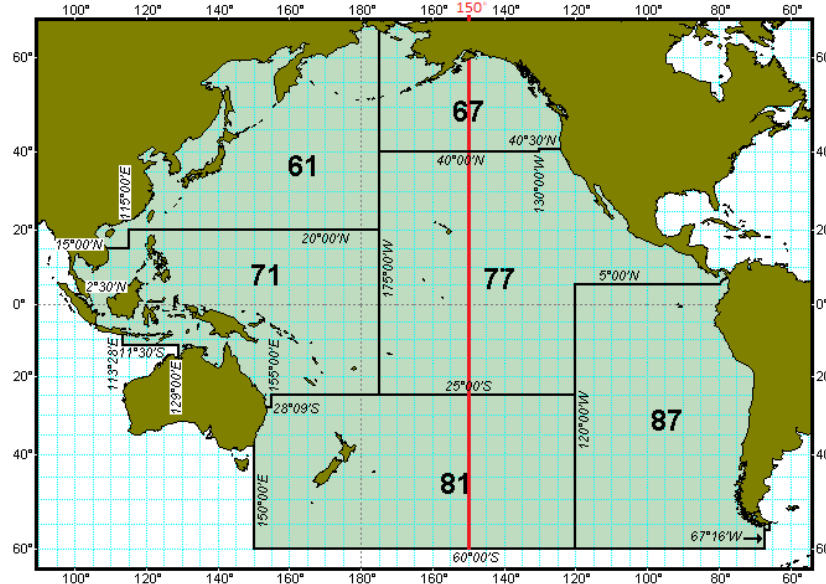
**Table 1 Application details and summary of the assessment outcome**

Fishery Under Assessment	Species:	Yellowfin tuna, <i>Thunnus albacares</i>
	Geographical area:	FAO Areas 77 & 87
	Country of origin of the product:	Spain, Portugal, Ecuador
	Stock:	Eastern Pacific Ocean Yellowfin
Date	April 2023	
Report Code	ESP01	
Assessor	Sam Peacock	
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): Sarval Bio-Industries Noroeste S.A.U.: Hijos De Emilio Ramirez S.A			
Country: Spain			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Sam Peacock	Sam Dignan	0.2	Re-approval
Assessment Period	April 2023 – April 2024		

Scope Details	
Main Species	Yellowfin tuna, <i>Thunnus albacares</i>
Stock	Eastern Pacific Ocean Yellowfin
Fishery Location	FAO Areas 77 & 87
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 determination.
Recommendation	Pass

**Table 2. Assessment Determination**

Assessment Determination														
<p>Yellowfin tuna has been categorised by the IUCN as a species of Least Concern, and it does not appear in the CITES appendices. Yellowfin in the Eastern Pacific Ocean (EPO) is managed by the Inter-American Tropical Tunas Commission (IATTC) relative to Stock Status Indicators (SSIs), and was therefore assessed under Category C.</p> <p>EPO yellowfin was subjected to a new form of risk-based assessment in 2022, using multiple SSI models to estimate the likelihood that fishing mortality and stock biomass are above or below the target and limit reference points. The modelling incorporates all available data from the entire EPO. The 2022 assessment 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. The byproduct meets the MT requirements and should be re-approved for use as a raw material.</p>														
Fishery Assessment Peer Review Comments														
<p>Some tuna stock ‘boundaries’ in the Pacific (including for yellowfin) do not match neatly with FAO areas.</p> <p>The FAO areas covered by this assessment are 77 (Pacific, Eastern Central) and 87 (Pacific, Southeast) where the westernmost boundary of FAO 77 is at 175°W.</p> <p>In contrast, two Pacific yellowfin stocks, nominally split based on the WCPO (Western and Central Pacific Ocean)/EPO (Eastern Pacific Ocean) boundary at 150°W (red line in the below), are currently defined for management purposes:</p> <ul style="list-style-type: none"><li>1) Western Central Pacific Ocean (WCPO) yellowfin (west of 150°W), assessed and managed by the Western and Central Pacific Fisheries Commission (WCPFC).</li><li>2) Eastern Pacific Ocean (EPO) yellowfin (east of 150°W), assessed and managed by the Inter-American Tropical Tuna Commission (IATTC).</li></ul> <p>Therefore, the area of FAO 77 west of the red line below is in the stock area of WCPO yellowfin, so it might be useful to clarify that WCPO yellowfin caught in FAO 77 is covered by another assessment.</p>														
<div></div> <table><tr><th>Area</th><th>Name</th></tr><tr><td>61</td><td>Pacific, Northwest</td></tr><tr><td>67</td><td>Pacific, Northeast</td></tr><tr><td>71</td><td>Pacific, Western Central</td></tr><tr><td>67</td><td>Pacific, Eastern Central</td></tr><tr><td>81</td><td>Pacific, Southwest</td></tr><tr><td>67</td><td>Pacific, Southeast</td></tr></table>	Area	Name	61	Pacific, Northwest	67	Pacific, Northeast	71	Pacific, Western Central	67	Pacific, Eastern Central	81	Pacific, Southwest	67	Pacific, Southeast
Area	Name													
61	Pacific, Northwest													
67	Pacific, Northeast													
71	Pacific, Western Central													
67	Pacific, Eastern Central													
81	Pacific, Southwest													
67	Pacific, Southeast													
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 <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
Yellowfin tuna	<i>Thunnus albacares</i>	Eastern Pacific Ocean Yellowfin	Yes	C	Least Concern <sup>3</sup>	No

<sup>1</sup> <https://www.iucnredlist.org/>

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

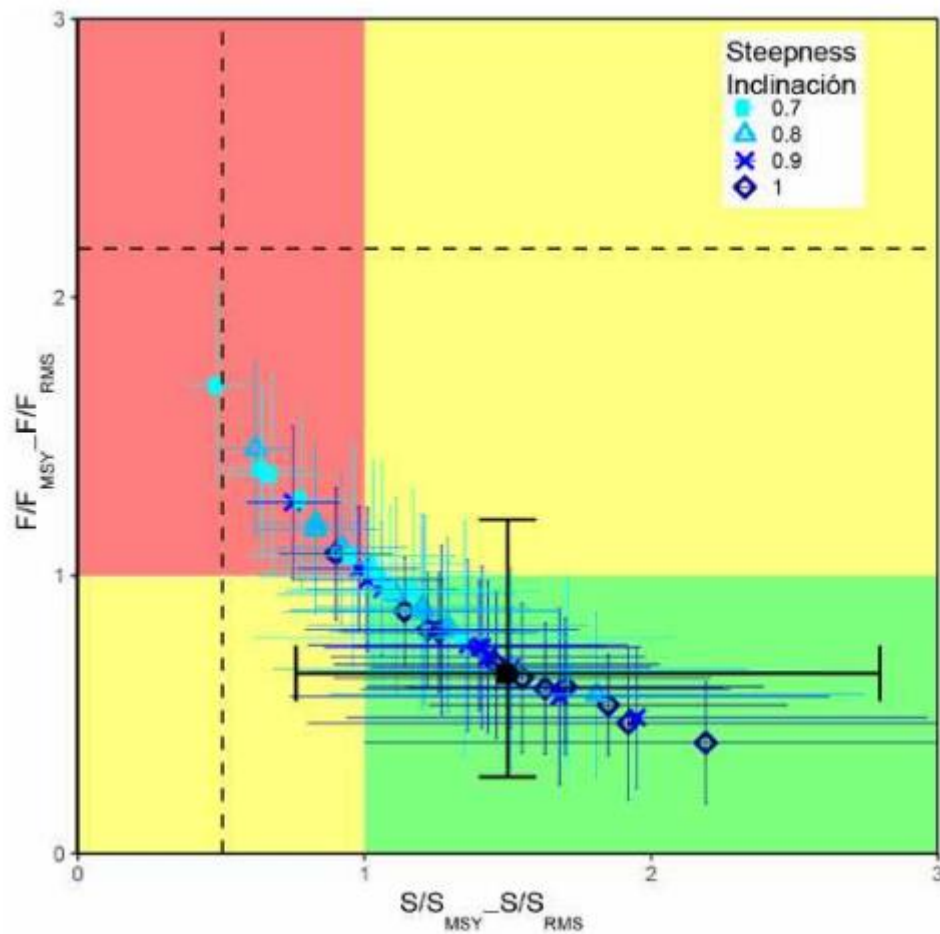
<sup>3</sup> <https://www.iucnredlist.org/species/21857/46624561>

## 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	
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
<b>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.</b>			
<p>The Eastern Pacific Ocean (EPO) yellowfin tuna stock is managed and assessed by the Inter-American Tropical Tunas Commission (IATTC). A new risk-based approach was applied 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 (IATTC 2022). SSIs are considered to be important alternatives to formal stock assessments, particularly where those stock assessments may be too unreliable to form the basis for management advice (IATTC 2022a). Fishery removals are a key component of the modelling used to generate SSI’s, and their development and use is evidence that managers have sought out alternative mechanisms where stock assessment uncertainty is high.</p>			
<b>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.</b>			
<p>Multiple reference models are utilised to create a risk-based understanding of stock status. The most recent results indicate that “the probability of the spawning biomass being below <math>S_{MSY\_d}</math> [i.e. the target reference point] is low (12%)” (IATTC 2022), and that the probability of the biomass being below the limit reference point <math>S_{LIMIT}</math> is zero. There is therefore a low probability that biomass is currently below the target reference point and almost no possibility it is below the limit reference point.</p>			



Kobe plot for yellowfin tuna in the EPO of estimates of spawning stock size (S) and fishing mortality (F). Coloured panels are separated by the target reference points  $S_{MSY}$  and  $F_{MSY}$ . Limit reference points are approximately indicated by the dashed lines, although these vary between models. The solid black circle represents all models combined (IATTC 2022).

#### References

- IATCC (2022). Report on the tuna fishery, stocks, and ecosystem in the Eastern Pacific Ocean in 2021. [https://www.iattc.org/GetAttachment/99dc87b3-cf5f-4b7b-8e6e-f5aa9cab0fce/No-20-2022\\_Tunas,-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2021.pdf](https://www.iattc.org/GetAttachment/99dc87b3-cf5f-4b7b-8e6e-f5aa9cab0fce/No-20-2022_Tunas,-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2021.pdf)
- IATTC (2022a). Stock Status Indicators (SSIs) for tropical tunas in the Eastern Pacific Ocean. 13<sup>th</sup> Meeting of the IATTC Scientific Advisory Committee, Document SAC-13-06 Corr. [https://www.iattc.org/GetAttachment/22511b5b-ba2b-4126-9ba2-0bffee89f4d5/SAC-13-06%20-%20Stock%20status%20indicators%20\(SSIs\)%20for%20tropical%20tunas%20in%20the%20EPO](https://www.iattc.org/GetAttachment/22511b5b-ba2b-4126-9ba2-0bffee89f4d5/SAC-13-06%20-%20Stock%20status%20indicators%20(SSIs)%20for%20tropical%20tunas%20in%20the%20EPO)

#### 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.

<b>D1</b>	<b>Species Name</b>			
	<b>Productivity Attribute</b>	<b>Value</b>	<b>Score</b>	
	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			
	<b>Average Productivity Score</b>			
	<b>Susceptibility Attribute</b>	<b>Value</b>	<b>Score</b>	
	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			
	<b>Average Susceptibility Score</b>			
	<b>PSA Risk Rating (From Table D3)</b>			
	<b>Compliance rating</b>			
	<b>Further justification for susceptibility scoring (where relevant)</b> <i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i>			
	<b>References</b>			
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

<b>D4</b>	<b>Species Name</b>		
	<b>Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements</b>		
	<b>D4.1</b>	The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.	
	<b>D4.2</b>	There is no substantial evidence that the fishery has a significant negative impact on the species.	
			<b>Outcome:</b>
<b>Evidence</b>  <b>D4.1:</b> The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.  <b>D4.2</b> There is no substantial evidence that the fishery has a significant negative impact on the species.			
<b>References</b>			
<b>Links</b>			
<b>MarinTrust Standard clause</b>		1.3.2.2, 4.1.4	
<b>FAO CCRF</b>		7.5.1	
<b>GSSI</b>		D.5.01	