By-Product assessment report

BP091
Marine Protein Marprot S.A

Report code	BP091	Date of issue	October 2026

1. Application details		
Applicant	Marine Protein Marprot S.A	
Applicant country	Colombia	
2. Certification Body details		
Name of Certification Body (CB)	NSF / Global Trust Certification Ltd	
Contact information for CB	Fisheries@nsf.org	
Assessor name	Silvia Manglano	
CB internal peer reviewer name	Matthew Jew	
Internal peer review evaluation	Agree with evaluation	
Number of Assessment days	0.2	
Comments on the assessment	This re-approval covers 3 by-product species: Bigeye, Skipjack and Yellowfin tuna. All species originate under the flag states of Ecuador, Nicaragua, Panama, USA – considered as 'Medium Risk' and 'High Risk' flag states in Step 2 of this assessment. All by-products were subject to Step 3 of the assessment. All species passed the Step 3 assessment for both Category C and Traceability (Path 2) and so achieve "Approved source with caution" status.	
3. Approval validity	Valid from 10/2026	Valid until 10/2027
4. Assessment cycle	Re-Approval	

5. By-product assessment outcomes

By-product species name	Flag country(ies)	Fishing Areas	MarinTrust approval status
Bigeye tuna (*Thunnus obesus*)	Ecuador, Nicaragua, Panama, USA	FAO 77, 87	Approved source with caution
Skipjack tuna (*Katsuwonus pelamis*)	Ecuador, Nicaragua, Panama, USA	FAO 77, 87	Approved source with caution
Yellowfin tuna (*Thunnus albacares*)	Ecuador, Nicaragua, Panama, USA	FAO 77, 87	Approved source with caution

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Guidance for on-site auditor
For the audit, the auditor will check how the facility manages by-products deemed medium risk. Any by-products downrated from high to medium risk will require additional due diligence checks.

It is important that facilities check all raw materials from and verify their suppliers especially if there is a perceived risk of sourcing from known or suspected IUU fishing activity. This requires checking supplier records or procedures in place to understand how the supplier can ensure there is no IUU in the raw material they provide. For raw materials risk rated medium, additional or more frequent checks may be required until the facility is certain that the raw materials are not from IUU fishing activity.

The audit requirements are covered in clause 2.11.3 of the MarinTrust Global Standard for Responsible Supply of Marine Ingredients (the MarinTrust Standard) and associated interpretation guidance.

Approved by-products

- No further checks are required beyond those included in the MarinTrust Standard.

Additional checks of Approved Source with Caution by-products

- Review supplier records or procedures in place.

Additional checks of by-products Approved Source with Caution via Step 3 assessment

- In addition to checks for medium risk Approved Source with Caution by-products, by-products that have had risk downgraded from high to medium at Step 3 (use **Appendix 1** to identify these by-product species), confirm that the relevant traceability information continues to be collected for this by-product. During the audit, a traceability check on any by-products downgraded from high to medium risk shall be included as part of the required traceability checks (Section 4).

Guidance for the applicant/certificate holder
The applicant/certificate holder is responsible for ensuring the relevant actions are taken to comply with the MarinTrust Standard.
The certificate holder is responsible for communicating any changes to the by-products sourced by submitting a scope extension request through the MarinTrust online Application Portal.

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Appendix 1 – assessment outcomes

Step 2 Assessment Outcomes

By-product species name	Flag country(ies)	IUCN Red List	CITES Appendices	Step 2 risk status	Step 3 required?
Bigeye tuna (*Thunnus obesus*)	Ecuador, Nicaragua, Panama, USA	Vulnerable	Not listed	High risk	Yes
Skipjack tuna (*Katsuwonus pelamis*)	Ecuador, Nicaragua, Panama, USA	Least concern	Not listed	High risk	Yes
Yellowfin tuna (*Thunnus albacares*)	Ecuador, Nicaragua, Panama, USA	Least concern	Not listed	High risk	Yes

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Step 3 Assessment Outcomes

By-product species name	Flag country(ies)	Fishing Area	Stock name	Category C Assessment Outcome	Traceability information	Step 3 Risk Outcome
Bigeye tuna (*Thunnus obesus*)	Ecuador, Nicaragua, Panama, USA	FAO 77, 87	Eastern Pacific Ocean (EPO) bigeye tuna	Pass	Path 2 – Yes	Risk downgraded to Medium Risk
Skipjack tuna (*Katsuwonus pelamis*)	Ecuador, Nicaragua, Panama, USA	FAO 77, 87	Eastern Pacific Ocean (EPO) skipjack tuna	Pass	Path 2 – Yes	Risk downgraded to Medium Risk
Yellowfin tuna (*Thunnus albacares*)	Ecuador, Nicaragua, Panama, USA	FAO 77, 87	Eastern Pacific Ocean (EPO) yellowfin tuna	Pass	Path 2 – Yes	Risk downgraded to Medium Risk
Comments on Step 3 Assessment: N/A						

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Appendix 2 – detailed assessment outcomes

(step 2 and step 3 if applicable)

Step 2 outcomes

Flag state (dropdown)	Risk rating	Flag score	Port score	General score	Flag State is contracting party or cooperating non-contracting party to all relevant RFMOs	'Carded' under EU Carding system	Flag state party to PSMA	Flag state mandatory vessel tracking for commercial seagoing fleet	WGI Governance rank
Ecuador	High	2.58	2.11	2.43	1	3	1	1	35.38%
Panama	High	3.75	1.67	1.93	3	3	1	1	55.19%
USA	Medium	2.29	2.06	2.37	1	1	1	1	91.04%

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Step 3 outcomes

Category C assessment

Species name		**Bigeye tuna (*Thunnus obesus*)**	
Fishing area and stock		**FAO 77 and 87 (Eastern Central Pacific and Southeast Pacific)**	
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) stock of bigeye tuna (*Thunnus obesus*) is assessed by the Inter-American Tropical Tuna Commission (IATTC). The most recent comprehensive evaluation took place this year, 2026, and continues to use a risk analysis approach to provide management advice [1]. This method uses a hierarchical set of three hypothesis levels to explore key uncertainties in the assessment. These include: (1) discrepancies in fitting length composition data for the longline fishery, which assumes asymptotic selectivity; (2) varying levels of effort creep within the longline fleet; and (3) uncertainty regarding the steepness of the stock-recruitment curve. Four models (the initial reference model, estimating growth, dome-shaped selectivity for all fisheries, and estimating natural mortality) are considered for the first-level hypothesis, three rates of annual increase in longline catchability (0%, 1%, and 2%) are considered for the second-level hypothesis, and three values of steepness (1.0, 0.9, and 0.8) are considered for the third-level hypothesis. The combi nation of the three levels of hypotheses results in thirty-six reference models [1]. This benchmark assessment was updated in 2026 with two additional years (2024 and 2025) of catch data, longline index of relative abundance, and length composition data.

Catches are presented in Table 1 above [2].

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 updated stock assessment indicates that the stock is in a healthy condition relative to MSY-based reference points. As shown in the Kobe plot (Figure 1), all level-1 reference models place the stock in the green quadrant, indicating spawning biomass above SMSY and fishing mortality below FMSY. The assessment concludes that fishing mortality during 2023-2025 was below FMSY and that

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spawning biomass at the beginning of 2026 was above SMSY, although the estimates are subject to uncertainty as reflected in the confidence intervals around the most recent model estimates.

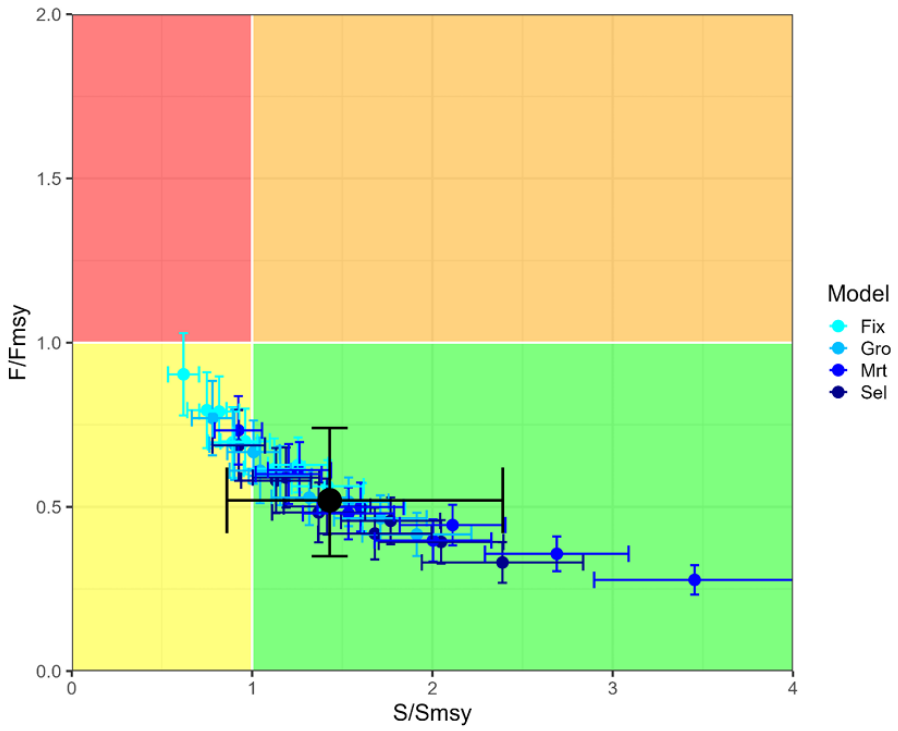


Figure 1. (Kobe) plot of the most recent estimates of spawning biomass (S) and fishing mortality (F) relative to their MSY reference points (S MSY and F MSY) from the thirty-six reference models [1].

References

[1] IATTC (2026). DOCUMENT SAC-17-03 STOCK ASSESSMENT OF BIGEYE TUNA IN THE EASTERN PACIFIC OCEAN: 2026 UPDATE ASSESSMENT. https://www.iattc.org/GetAttachment/c5e3d906-6a44-421e-a23c-5b60788f0250/SAC-17-03_BET-assessment-EN.pdf

[2] IATCC (2026). The tuna fishery in the Eastern Pacific Ocean in 2025. https://www.iattc.org/GetAttachment/8c01144d-131a-4231-b129-4680fca45632/SAC-17-01_La-pesqueria-atunera-en-el-OPO-en-2025-ES.pdf

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Species name		**Skipjack tuna (*Katsuwonus pelamis*)**	
Fishing area and stock		**FAO 77 and 87 (Eastern Central Pacific and Southeast Pacific)**	
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.

One stock of skipjack is defined in the eastern Pacific Ocean (EPO). Catch data is available and it is used by the IATTC to assess the stock status of skipjack tuna in the EPO (Table 1). In 2024, a benchmark stock assessment was conducted using an integrated statistical age-structured catch-at-length model in Stock Synthesis [2]. Several data sources were used to fit the model, including data from sixteen defined fisheries and five “surveys”. The fisheries are classified by gear type (purse-seine, longline) and purse-seine set [1]. The "surveys” data included: a) catch-per-set indices for purse-seine sets, by set type (OBJ, NOA), where the relationship between catch-per-set and abundance remains uncertain; b) an index based on recently developed echosounder buoy data; c) absolute biomass from a spatiotemporal Petersen-type model applied to tag-recapture data; and d) an index of relative biomass from a tagging biomass model that uses a flexible effort assumption. A reference model was developed based on the most plausible assumptions and sensitivity analyses were conducted by changing the assumptions of the reference model [1].

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Table 1. Total annual catches (t) of yellowfin, skipjack, and bigeye tunas, by all types of gear combined, in the Pacific Ocean. The EPO totals for 1995-2025 include discards from purse-seine vessels with carrying capacities greater than 363 t [2].

	YFT			SKJ			BET			Total		
	EPO	WCPO	Total	EPO	WCPO	Total	EPO	WCPO	Total	EPO	WCPO	Total
1996	266,928	425,669	692,597	132,335	999,701	1,132,036	114,706	107,168	221,874	513,969	1,532,538	2,046,507
1997	277,575	481,019	758,594	188,285	939,497	1,127,782	122,274	133,495	255,769	588,134	1,554,011	2,142,145
1998	280,606	536,845	817,451	165,489	1,244,132	1,409,621	93,954	152,415	246,369	540,049	1,933,392	2,473,441
1999	304,638	474,648	779,286	291,249	1,070,280	1,361,529	93,078	162,524	255,602	688,965	1,707,452	2,396,417
2000	286,863	506,028	792,891	230,479	1,194,139	1,424,618	148,557	148,094	296,651	665,899	1,848,261	2,514,160
2001	425,008	504,501	929,509	157,676	1,100,714	1,258,390	130,546	134,459	265,005	713,230	1,739,674	2,452,904
2002	443,458	489,995	933,453	167,048	1,253,634	1,420,682	132,806	157,958	290,764	743,312	1,901,587	2,644,899
2003	415,933	563,926	979,859	300,470	1,245,155	1,545,625	115,175	143,471	258,646	831,578	1,952,552	2,784,130
2004	296,847	595,888	892,735	217,249	1,354,765	1,572,014	110,722	182,599	293,321	624,818	2,133,252	2,758,070
2005	286,492	551,822	838,314	283,453	1,418,105	1,701,558	110,514	154,748	265,262	680,459	2,124,675	2,805,134
2006	180,519	537,076	717,595	309,090	1,479,366	1,788,456	117,328	165,386	282,714	606,937	2,181,828	2,788,765
2007	182,141	565,930	748,071	216,324	1,663,353	1,879,677	94,260	165,365	259,625	492,725	2,394,648	2,887,373
2008	197,328	644,365	841,693	307,699	1,649,067	1,956,766	103,350	171,317	274,667	608,377	2,464,749	3,073,126
2009	250,413	558,914	809,327	239,408	1,761,272	2,000,680	109,255	169,294	278,549	599,076	2,489,480	3,088,556
2010	261,871	564,607	826,478	153,092	1,680,215	1,833,307	95,408	139,796	235,204	510,371	2,384,618	2,894,989
2011	216,720	530,946	747,666	283,509	1,536,806	1,820,315	89,460	168,119	257,579	589,689	2,235,871	2,825,560
2012	213,310	625,697	839,007	273,519	1,731,944	2,005,463	102,687	167,245	269,932	589,516	2,524,886	3,114,402
2013	231,170	578,467	809,637	284,043	1,831,413	2,115,456	86,029	154,783	240,812	601,242	2,564,663	3,165,905
2014	246,784	618,262	865,046	265,490	1,985,110	2,250,600	96,054	169,046	265,100	608,328	2,772,418	3,380,746
2015	260,265	589,128	849,393	334,049	1,788,545	2,122,594	104,820	145,709	250,529	699,134	2,523,382	3,222,516
2016	255,465	658,112	913,577	345,163	1,791,373	2,136,536	92,952	156,495	249,447	693,580	2,605,980	3,299,560
2017	224,800	704,628	929,428	327,629	1,615,560	1,943,189	102,860	130,533	233,393	655,289	2,450,721	3,106,010
2018	253,305	695,759	949,064	291,352	1,843,397	2,134,749	94,479	153,017	247,496	639,136	2,692,173	3,331,309
2019	242,248	682,704	924,952	350,992	2,044,247	2,395,239	97,145	131,124	228,269	690,385	2,858,075	3,548,460
2020	231,693	736,547	968,240	298,583	1,714,513	2,013,096	105,183	139,923	245,106	635,459	2,590,983	3,226,442
2021	263,842	755,978	1,019,820	328,616	1,714,670	2,043,286	80,177	140,586	220,763	672,635	2,611,234	3,283,869
2022	298,862	660,975	959,837	298,136	1,750,324	2,048,460	68,265	146,065	214,330	665,263	2,557,364	3,222,627
2023	306,108	746,359	1,052,467	390,554	1,668,328	2,058,882	67,240	143,704	210,944	763,902	2,558,391	3,322,293
2024	308,200	716,282	1,024,482	646,643	2,051,550	2,698,193	55,415	141,338	196,753	1,010,258	2,909,170	3,919,428
2025	445,756	*	445,756	471,708	*	471,708	63,753	*	63,753	981,217	*	981,217

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.

According to the reference model, current fishing mortality remains below the threshold associated with the MSY proxy, while the spawning biomass exceeds the dynamic level linked to the same benchmark (Figure 2). Furthermore, there is less than a 10% chance that the spawning biomass surpasses the established limit reference point. This conclusion holds true across all sensitivity models as well.

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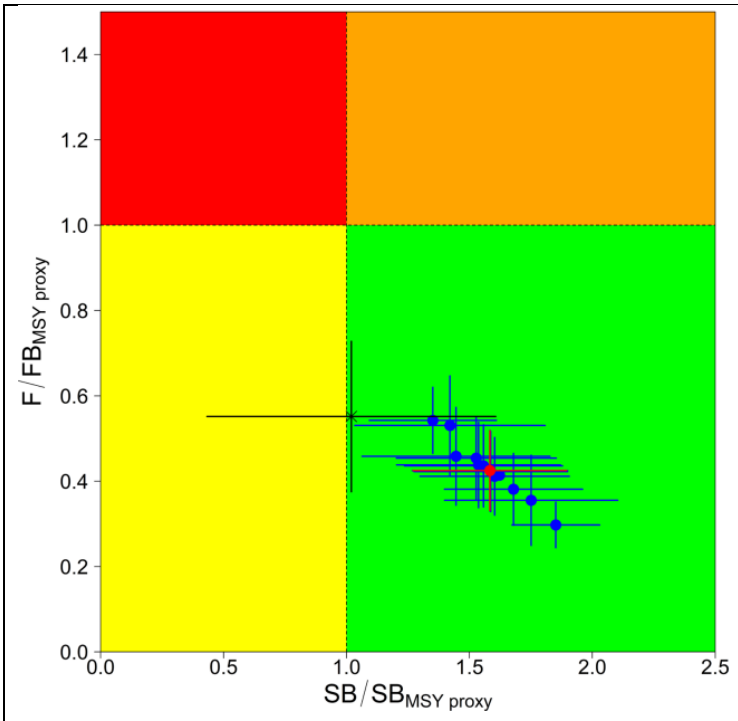


*Figure 2. Kobe plot showing the most recent stock status estimates from all the models for skipjack tuna. The x-axis is SBcurrent/0.3*dynamic SB0. Each dot is based on the average F over the most recent three years, 2021-2023, and the error bars represent the 80% confidence intervals of model estimates. The red dot and error bars represent the estimates from the reference model. The black cross and error bars represent the estimates from the model that removed the ECHO index [1].*

References

[1] IATTC. 2024. DOCUMENT SAC-15-04 REV STOCK ASSESSMENT OF SKIPJACK TUNA IN THE EASTERN PACIFIC OCEAN: 2024 BENCHMARK ASSESSMENT. https://www.iattc.org/GetAttachment/f57dece1-81ba-4771-8fa8-3362320a368a/SAC-15-04_Skipjack-tuna-benchmark-assessment-2024.pdf

[2] IATTC (2026). The tuna fishery in the Eastern Pacific Ocean in 2025. https://www.iattc.org/GetAttachment/8c01144d-131a-4231-b129-4680fca45632/SAC-17-01_La-pesqueria-atunera-en-el-OPO-en-2025-ES.pdf

[3] IATTC (2025). DOCUMENT SAC-16-04. RISK ASSESSMENT OF SKIPJACK TUNA IN THE EASTERN PACIFIC OCEAN. https://www.iattc.org/GetAttachment/f42e4520-24b6-4577-a617-389d952d962c/SAC-16-04_SKJ-risk-assessment.pdf

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Species name		**Yellowfin tuna (*Thunnus albacares*)**	
Fishing area and stock		**FAO 77 and 87 (Eastern Central Pacific and Southeast Pacific)**	
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 managed and assessed by the Inter-American Tropical Tunas Commission (IATTC). The 2025 benchmark assessment of yellowfin tuna in the eastern Pacific Ocean continues to use a risk analysis approach to provide management advice [2]. 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 [1]. 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 (Table 1)[2]. The most recent stock assessment was conducted in 2025.

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 2025 benchmark assessment indicates that yellowfin tuna in the eastern Pacific Ocean is in a healthy condition relative to management reference points. As shown in the Kobe plot (Figure 3) all spatial structure hypotheses place the stock in the green quadrant, indicating spawning biomass above the MSY reference level and fishing mortality below FMSY. The assessment estimated a very low probability that biomass is below the target reference points or that fishing mortality exceeds sustainable levels, and a zero probability of breaching the adopted limit

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reference points. Overall, the assessment concludes that the stock is not overfished and is not subject to overfishing.

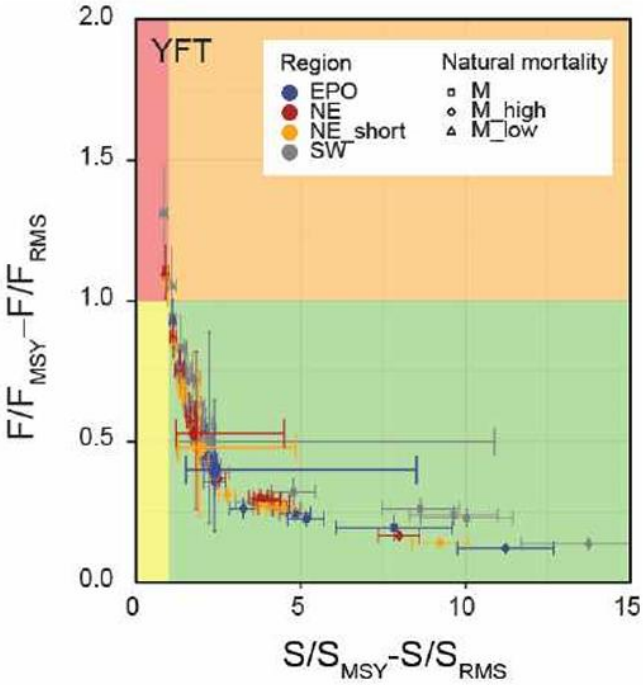


Figure 3. Kobe plot for yellowfin tuna in the EPO of estimates of spawning stock size (S) and fishing mortality (F). [1]

References

[1] IATTC (2025). Stock assessment of yellowfin tuna in the eastern Pacific Ocean: 2025 benchmark assessment. SAC-16-03_Evaluacion-de-referencia-del-aleta-amarilla-Texto-principal-ES.pdf

[2] IATCC (2026). The tuna fishery in the Eastern Pacific Ocean in 2025. https://www.iattc.org/GetAttachment/8c01144d-131a-4231-b129-4680fca45632/SAC-17-01_La-pesqueria-atunera-en-el-OPO-en-2025-ES.pdf

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Traceability information

Information provided for Step 3 Path 1 or Path 2.

Species name		**Bigeye tuna (*Thunnus obesus*)**		
Path 1		Yes ☐ No ☒		
Confirm all KDEs are provided		Yes ☐ No ☒		
Path 2		Yes ☒ No ☐		
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Ecuador	2.69	2.11	Downgraded to medium risk
	Nicaragua	2.25	1.44	Downgraded to medium risk
	Panama	1.69	1.67	Downgraded to medium risk
	USA	2.56	3.00	Medium risk

Species name		**Skipjack tuna (*Katsuwonus pelamis)***		
Path 1		Yes ☐ No ☒		
Confirm all KDEs are provided		Yes ☐ No ☒		
Path 2		Yes ☒ No ☐		
Path 2 outcome .	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Ecuador	2.69	2.11	Downgraded to medium risk
	Nicaragua	2.25	1.44	Downgraded to medium risk
	Panama	1.69	1.67	Downgraded to medium risk
	USA	2.56	3.00	Medium risk

Species name		**Yellowfin tuna (*Thunnus albacares*)**		
Path 1		Yes ☐ No ☒		
Confirm all KDEs are provided		Yes ☐ No ☒		
Path 2		Yes ☒ No ☐		
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Ecuador	2.69	2.11	Downgraded to medium risk
	Nicaragua	2.25	1.44	Downgraded to medium risk
	Panama	1.69	1.67	Downgraded to medium risk
	USA	2.56	3.00	Medium risk

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Guidance for Applicants/Certificate holders on improved traceability

When by-product origin cannot be made more granular than major FAO Areas, or when the source fishery is taking place in the High Seas (i.e. outside of EEZs of all relevant nations), an assessor must evaluate the Coastal and Port scores for each nation that straddles that FAO Area. This may lead to higher risk outcomes for an applicant. To mitigate that risk, better practice involves securing KDEs from the source fishery of the by-products, thereby meeting Path 1 instead of Path 2.

What does better practices look like?
Comprehensive data collection and sharing: Collect detailed information using Key Data Elements (KDEs) including vessel identification and authorisation, species, catch areas, fishing method and dates. These are defined in the MarinTrust Standard clauses 2.11.2.2 and 3.2.5.

Supply chain transparency: Maintain detailed records at each step of the supply chain, from capture to final sale, to ensure traceability.

Interoperable systems and technologies to support the collection and transfer of this information.

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