By-Product assessment report

BP056

TCF Co. Ltd

Report code	BP056	Date of issue	July 2025

1. Application details		
Applicant	TCF Co. Ltd	
Applicant country	Thailand	
2. Certification Body details		
Name of Certification Body (CB)	NSF / Global Trust Certification Ltd	
Contact information for CB	Fisheries@nsf.org / nsf-marintrust@nsf.org	
Assessor name	Ana Ayres	
CB internal peer reviewer name	Léa Lebechnech	
Internal peer review evaluation	Agree with evaluation	
Comments on the assessment	This assessment covers nine byproduct species/source location combinations. All nine byproducts are fished by at least one High Risk flag state, and therefore all were subjected to the Step 3 assessment. The MarinTrust applicant orientated to get additional information for Step 3 on from BP071 Chotiwat Manufacturing Public Co., Ltd. by-product assessment, as TCF has only one supplier, getting all the by-products for its production from Chotiwat Manufacturing Public Co., Ltd. All byproducts passed the Category C assessment, meaning that all they were downgraded to Medium Risk, and subsequently Approved, source with caution.	
3. Approval validity	Valid from 07/2025	Valid until 07/2026
4. Assessment cycle	Initial	

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5. Scope Extension Assessment		
Name of Certification Body (CB)	NSF / Global Trust Certification Ltd	
Contact information for CB	Fisheries@nsf.org	
Assessor name	Ana Ayres	
CB internal peer reviewer name	Léa Lebechnech	
Internal peer review evaluation	Agree with evaluation	
Number of Assessment days	0.25	
Comments on the assessment	This scope extension is to include additional flag states to the already approved By Products which are indicated as medium risk in Step 2 of this assessment.	
6. Approval validity	Valid from 12/2025	Valid until 07/2026

7. By-product assessment outcomes		Valid from: 07/2025
By-product species name	**Flag country(ies)**	**MarinTrust approval status**
Katsuwonus pelamis - Skipjack tuna	Maldives, Kiribati, Micronesia, Papa New Guinea, Taiwan, Tuvalu and Vanuatu	Approved source with caution
Katsuwonus pelamis - Skipjack tuna	Japan, Nauru, Philippines, South Korea	Approved source with caution
Thunnus albacares - Yellowfin tuna	Maldives, Kiribati, Micronesia, Papa New Guinea, Taiwan, Tuvalu and Vanuatu	Approved source with caution
Thunnus albacares - Yellowfin tuna	Japan, Nauru, Philippines, South Korea	Approved source with caution
Thunnus alalunga - Albacore tuna	Taiwan and China	Approved source with caution

8. By-product assessment outcomes - Scope extension		Valid From: 12/2025
By-product species name	**Flag country(ies)**	**MarinTrust approval status**
Katsuwonus pelamis - Skipjack tuna	Indonesia, Philippines	Approved source with caution
Katsuwonus pelamis - Skipjack tuna	USA	Approved source with caution
Thunnus albacares - Yellowfin tuna	USA	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[1]

By-product species name	Flag country(ies)	IUCN Red List	CITES Appendices	Step 2 risk status	Step 3 required
Katsuwonus pelamis - Skipjack tuna	Maldives, Kiribati, Micronesia, Papa New Guinea, Taiwan, Tuvalu and Vanuatu	Least concern	Not listed	High risk	Yes
Katsuwonus pelamis - Skipjack tuna	Japan, Nauru, Philippines, South Korea, Indonesia	Least concern	Not listed	Medium risk	No
Thunnus albacares - Yellowfin tuna	Maldives, Kiribati, Micronesia, Papa New Guinea, Taiwan, Tuvalu and Vanuatu	Least concern	Not listed	High risk	Yes
Thunnus albacares - Yellowfin tuna	Japan, Nauru, Philippines, South Korea, USA	Least concern	Not listed	Medium risk	No
Thunnus alalunga - Albacore tuna	Taiwan and China	Least concern	Not listed	High risk	Yes

[1] Here it was combined in the same line all the countries that were considered high risk for each species (therefore they will go to step 3) and in other line all the countries that were considered medium risk for each species (therefore step 3 is not required for them).

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Step 2 Assessment Outcomes – Scope Extension

By-product species name	Flag country(ies)	IUCN Red List	CITES Appendices	Step 2 risk status	Step 3 required
Katsuwonus pelamis - Skipjack tuna	Indonesia, Philippines	Least concern	Not listed	Medium risk	No
Katsuwonus pelamis - Skipjack tuna	USA	Least concern	Not listed	Medium risk	No
Thunnus albacares - Yellowfin tuna	USA	Least concern	Not listed	Medium risk	No

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Step 3 Assessment Outcomes[2]

By-product species name	Flag country(ies)	Fishing Area	Stock name	Category C Assessment Outcome	Traceability information	Step 3 Risk Outcome
Katsuwonus pelamis - Skipjack tuna	Maldives	FAO 51 and 57	Skipjack tuna in the Indian Ocean	*Pass*	*Path 1 – Yes*	Risk downgraded to Medium risk
Katsuwonus pelamis - Skipjack tuna	Kiribati, Micronesia, Papa New Guinea, Taiwan, Tuvalu and Vanuatu	FAO 61 and 71	Western and central Pacific Ocean (WCPO) skipjack tuna	*Pass*	*Path 2 – Yes*	Risk downgraded to Medium risk
Katsuwonus pelamis - Skipjack tuna	Micronesia	FAO 77	Eastern Pacific Ocean (EPO) skipjack tuna	*Pass*	*Path 2 – Yes*	Risk downgraded to Medium risk
Thunnus albacares - Yellowfin tuna	Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu	FAO 61 and 71	WCPO Yellowfin Tuna	*Pass*	*Path 1 – Yes*	Risk downgraded to Medium risk

[2] Here the byproducts from countries that were considered high risk on step 2 are separated by stocks. Notice that are byproducts provided by the MarinTrust applicant had at list one high risk country as flag country, thus all of them were required to be assessed under Category C.

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Thunnus albacares - Yellowfin tuna	Micronesia	77 and 87	EPO yellowfin tuna	*Pass*	*Path 1 – Yes*	Risk downgraded to Medium risk
Thunnus alalunga - Albacore tuna	Taiwan	FAO 21, 27, 31 and 34	Northern Atlantic albacore tuna	*Pass*	*Path 2 - Yes*	Risk downgraded to Medium risk
Thunnus alalunga - Albacore tuna	Taiwan	FAO 41 and 47	Southern Atlantic albacore tuna	*Pass*	*Path 2 - Yes*	Risk downgraded to Medium risk
Thunnus alalunga - Albacore tuna	Taiwan and China	FAO 61 and 71	WCPO albacore tuna	*Pass*	*Path 2 – Yes*	Risk downgraded to Medium risk
Thunnus alalunga - Albacore tuna	China	FAO 77, 81 and 87	South Pacific albacore tuna	*Pass*	*Path 1 – Yes*	Risk downgraded to Medium risk
Comments on Step 3 Assessment: The MarinTrust applicant orientated to get additional information for Step 3 on from BP071 Chotiwat Manufacturing Public Co., Ltd. by-product assessment, as TCF has only one supplier, getting all the by-products for its production from Chotiwat Manufacturing Public Co., Ltd.						

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Appendix 2 – detailed assessment outcomes

(step 2 and step 3 if applicable)

Step 2 outcomes

Flag state	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
China	High	4.21	4.33	3.2	1	1	5	1	36.79%
Indonesia	Medium	3.33	2.56	2.47	1	1	1	1	59.43%
Japan	Medium	2.92	2.06	1.93	1	1	1	1	91.51%
Kiribati	High	1.79	3.11	1.96	1	1	5	1	42.92%
Korea (Rep. South)	Medium	3.67	3.11	1.97	1	1	1	1	83.96%
Maldives	High	2.25	1.67	2.13	1	1	1	1	26.89%
Micronesia (FS of)	High	1.92	2.94	1.93	1	1	5	1	31.13%

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Nauru	Medium	2.04	1	1.64	1	1		1	53.30%
Papua New Guinea	High	2.04	2.94	2.07	1	1	5	1	26.42%
Philippines	Medium	2.04	2.06	2.53	1	1	1	1	53.77%
Taiwan	High	4.17	3.06	2.27	1	1	5	1	90.57%
Tuvalu	High	1.67	2.67	1.81	1	1	5	1	47.64%
USA	Medium	2.29	2.06	2.37	1	1	1	1	91.04%
Vanuatu	High	2.88	1.56	2.17	2	1	1	1	48.58%

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Step 3 outcomes

Category C assessment

Species name		***Katsuwonus pelamis* - Skipjack tuna stock**	
Fishing area and stock		**FAO 51 and 57 (Western and Eastern Indian Ocean)**	
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 stock assessment conducted by the Indian Ocean Tuna Commission (IOTC) takes all fishery removals into account. The most recent assessment was conducted in 2023 using Stock Synthesis with data up to 2022. The next full assessment is scheduled for 2027 (IOTC-2024-SC27-R).

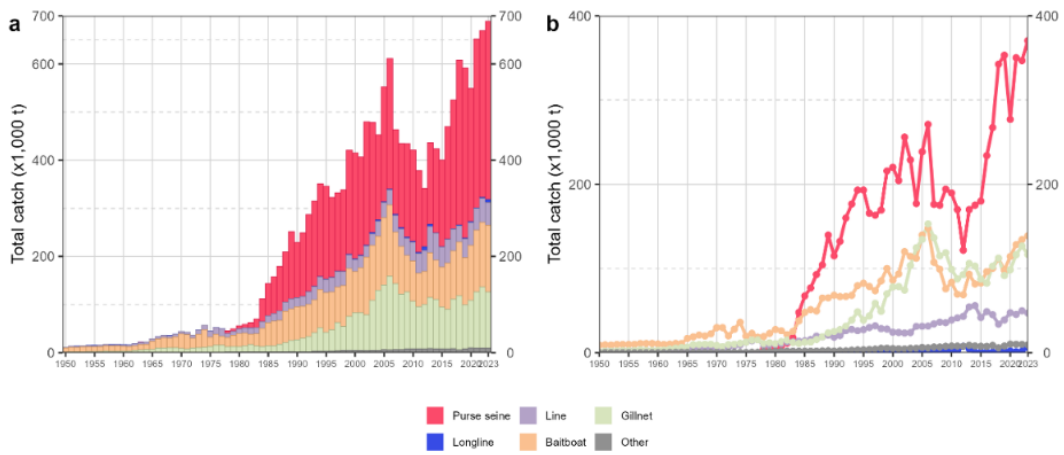

Figure 1. Annual time series of (a) cumulative nominal catches (metric tonnes; t) by fishery group and (b) individual nominal catches (metric tonnes; t) by fishery group for skipjack tuna during 1950-2023 (IOTC 2024).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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.

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The most recent stock assessment was carried out in 2023, as reported in a 2024 stock status report published by the IOTC (IOTC 2024). The stock assessment conclusion states that "*The outcome of the 2023 stock assessment model is more optimistic than the previous assessment (2020) despite the high catches recorded in the period 2021-2022, which exceeded the catch limits established in 2020 for this period*" (IOTC 2024). Biomass was estimated to be around 53% of the unfished level, which is above SBMSY. The IOTC also notes that "*Over the history of the fishery, biomass has been well above the adopted limit reference point (20%SB0)*" (IOTC 2024).

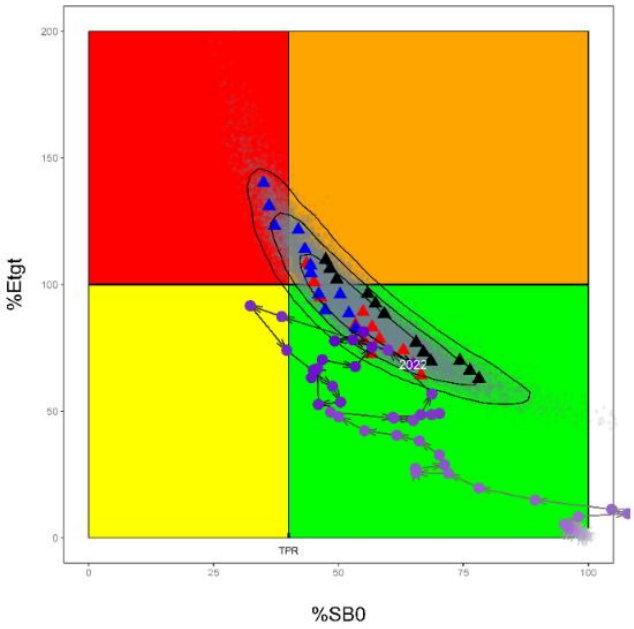

Figure 2. Skipjack tuna: SS3 Aggregated Indian Ocean assessment Kobe plot of the 2023 uncertainty grid. Left - current stock status, relative to SB0 and F (x-axis) and F40%B0 (y-axis) reference points for the final model grid- TPR indicates 40% B0; Triangles represent MPD estimates from individual models (black, models based on PL index; red, models based on PSLS index; blue, models based on and both PSLS and ABBI index). Grey dots represent uncertainty from individual models. The arrowed line represents time series of historical stock trajectory for model PSLS. Contours represents 50, 80, and 90% confidence region (IOTC 2024).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met

References

IOTC. 2024. APPENDIX 3 EXECUTIVE SUMMARY: SKIPJACK TUNA (2024). https://iotc.org/sites/default/files/content/Stock_status/2024/Engish/IOTC-2024-SC27-ES03_SKJE.pdf

IOTC-2024-SC27-R. APPENDIX 37. SCHEDULE OF STOCK ASSESSMENTS FOR IOTC SPECIES AND SPECIES OF INTEREST FROM 2025–2029, AND FOR OTHERWORKING PARTY PRIORITIES. https://iotc.org/sites/default/files/documents/science/2025/Shedule_of_AssessmentE.pdf

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Species name	*Katsuwonus pelamis* - Skipjack tuna
Fishing area and stock	FAO 61 and 71 (Northwest and Western Central 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.

WCPO skipjack tuna is subjected to regular stock assessments by the WCPFC. The most recent of these was carried out in 2022, using data up to 2021. The assessment incorporated catch, effort and length-frequency estimates, and tag-recapture data (WCPFC 2022). The stock assessment report includes a discussion of structural uncertainties and needs for further data gathering; however, it does not raise major concerns.

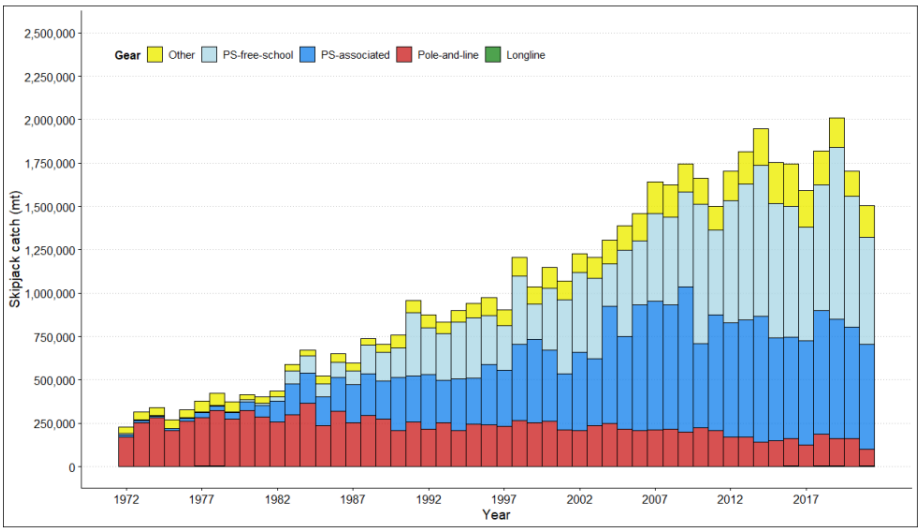

Figure 3. Annual catches of skipjack by gear type in the WCPO area covered by the stock assessment (WCPO 2023).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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 2022 stock assessment for WCPO skipjack concluded that "according to WCPFC reference points

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the stock is not overfished, not undergoing overfishing" (WCPFC 2023). None of the model outcomes produced by the stock assessment indicated that the stock biomass was below the limit reference point of 0.2*SBF=0. The median model outcome indicated that stock biomass is very close to the interim target reference point of SBrecent/SBF=0 = 0.5.

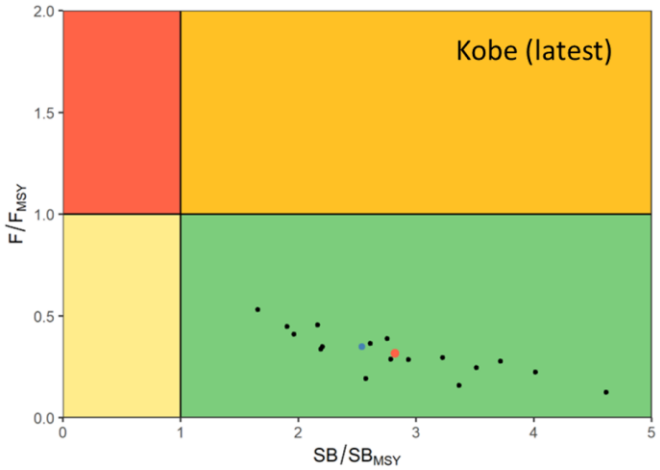

Figure 4. Kobe plot summarising the results for each of the models in the "latest" period (i.e. 2021). The black dots represent model outcomes, the blue point is the diagnostic model, and the red point is the median (WCPFC 2023).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met.

References

WCPFC (2022). WCPO skipjack tuna stock assessment, 2022. https://meetings.wcpfc.int/node/16242

WCPFC (2023). Skipjack tuna, current stock status and advice. https://www.wcpfc.int/file/987813

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Species name	*Katsuwonus pelamis* - Skipjack tuna
Fishing area and stock	FAO 77 – Eastern Central 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.

EPO skipjack has historically been subject to "interim" integrated statistical age-structured catch-at-length stock assessments carried out by the IATTC. In 2023, a benchmark stock assessment was conducted using an integrated statistical age-structured catch-at-length model in Stock Synthesis, which is considered by the IATTC to represent "*a significant improvement from the initial interim assessment conducted in 2022*" (IATTC 2024). The assessment incorporates all available data from across the EPO, including catch data but also size and age frequency data and other sources. C1.1 is met.

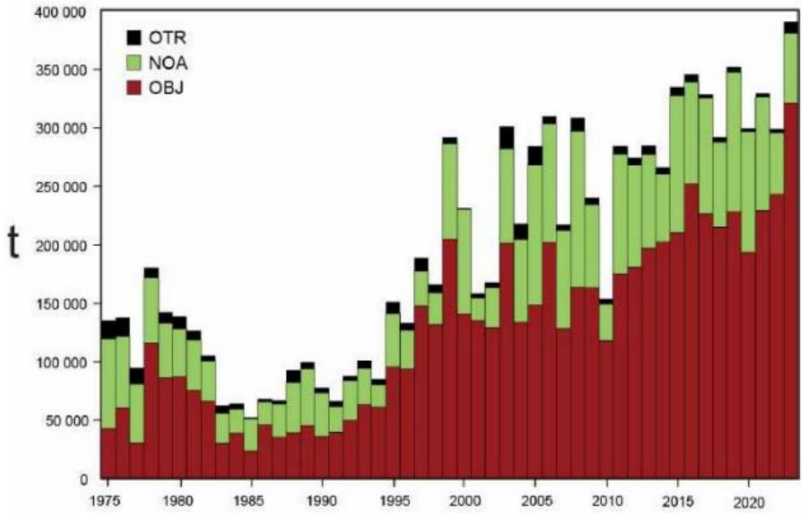

Figure 5. Skipjack catches (retained plus discards) in the EPO, 1975-2023 (IATTC 2024).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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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.

MSY-based estimates and reference points cannot be estimated for EPO Skipjack due to the nature of the model used. Instead, the IATTC management process utilises a conservative proxy for target biomass of SBR = 0.3, with the fishing mortality corresponding to that target biomass used as the target reference point for fishing mortality (IATTC 2024). The reference model and most of the sensitivity analyses conducted in 2023 indicated that biomass is above the target reference point and fishing mortality is below the target level. None of the model scenarios concluded that stock biomass is below the limit reference point level.

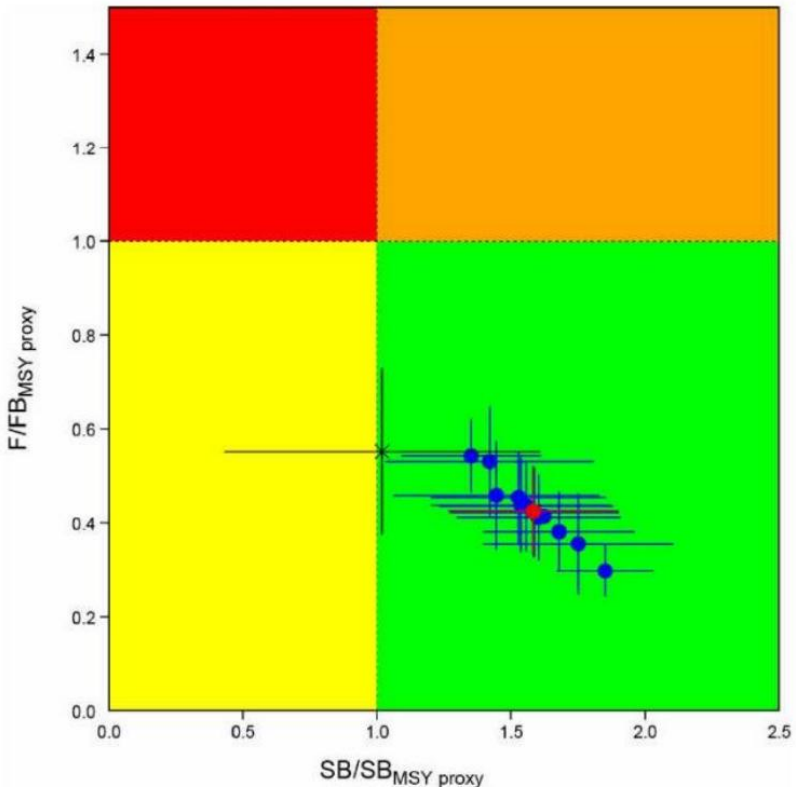

Figure 6. Kobe plot for skipjack tuna in the EPO (IATTC 2024).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met.

References

IATTC (2024). The tuna fishery in the Eastern Pacific Ocean in 2023. https://www.iattc.org/GetAttachment/1ed36788-07ce-4bf4-80e4-10c6c3b2b14d/No-22-2024_Tunas,-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2023.pdf

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Species name	*Thunnus albacares* - Yellowfin tuna
Fishing area and stock	FAO 61 and 71 (Northwest and Western Central 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.

Western and Central Pacific Ocean (WCPO) yellowfin tuna is subject to regular stock assessments by the Western and Central Pacific Fisheries Commission (WCPFC). The most recent stock assessment was conducted in 2023 and utilised all available catch data, as summarised in the graph below. 54 models were used to provide a range of potential outcomes based on different key variables, a process which reduces the inherent level of uncertainty.

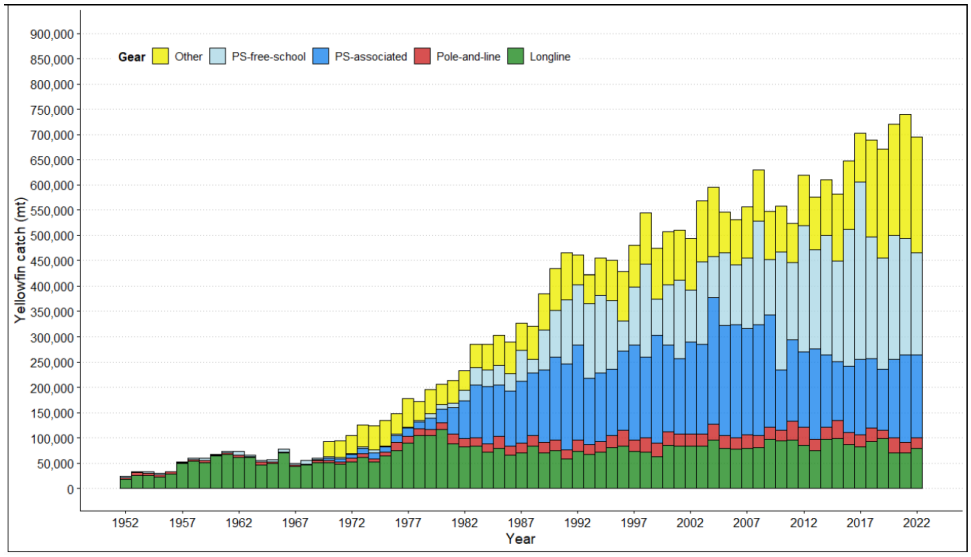

Figure 7. WCPO yellowfin catches, 1952-2022 (WCPFC 2024).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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.

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The 2023 stock assessment produced a series of estimates of the current status of the stock relative to the target reference point BMSY. Biomass in 2021 was estimated to be between 1.91 and 3.11 times larger than BMSY with an 80% certainty; none of the model results indicated that biomass was below BMSY. Biomass is estimated by the most recent stock assessment to be above the target reference point with a high degree of certainty, and therefore also above any potential limit reference point (WCPFC 2024).

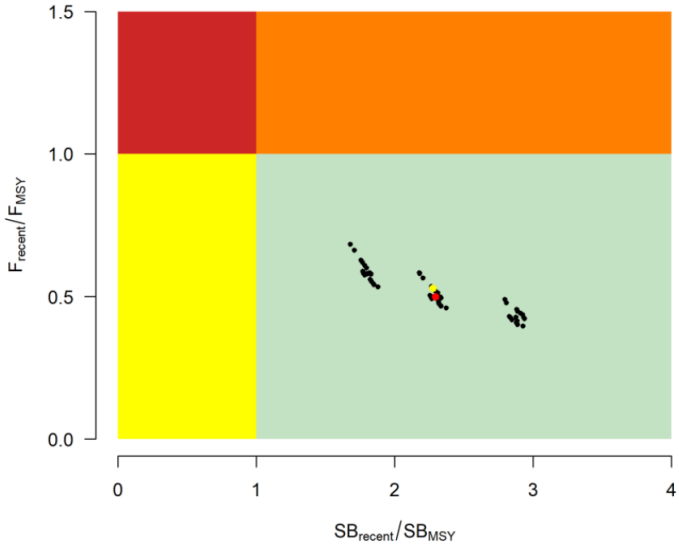

Figure 8. WCPO yellowfin tuna, Kobe plot summarising the results of each of the stock assessment models. The yellow dot is the 2023 diagnostic model and the red dot is the median (WCPFC 2024).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met

References

WCPFC (2024). WCPO Yellowfin Tuna, Stock Status and Management Advice. https://www.wcpfc.int/file/1008665/download?token=wFUhc7q7

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Species name	*Thunnus albacares* - Yellowfin tuna
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). 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. This approach continued in 2024 (IATTC 2025). 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 2022). 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. The most recent full stock assessment was conducted in 2020.

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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 1995-2024 include discards from purse-seine vessels with carrying capacities greater than 363 t (IATCC, 2025).

	YFT			SKJ			BET			Total		
	EPO	WCPO	Total	EPO	WCPO	Total	EPO	WCPO	Total	EPO	WCPO	Total
1995	244,639	442,805	687,444	150,661	977,478	1,128,139	108,210	110,385	218,595	503,510	1,530,668	2,034,178
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	660,291	915,756	345,163	1,788,760	2,133,923	92,952	156,656	249,608	693,580	2,605,707	3,299,287
2017	224,800	710,202	935,002	327,629	1,609,970	1,937,599	102,860	130,595	233,455	655,289	2,450,767	3,106,056
2018	253,305	696,706	950,011	291,352	1,843,398	2,134,750	94,479	154,404	248,883	639,136	2,694,508	3,333,644
2019	242,248	682,704	924,952	350,992	2,044,477	2,395,469	97,145	131,808	228,953	690,385	2,858,989	3,549,374
2020	231,603	726,403	958,006	298,583	1,721,476	2,020,059	104,893	146,497	251,390	635,079	2,594,376	3,229,455
2021	263,755	747,354	1,011,109	328,616	1,684,029	2,012,645	79,953	132,915	212,868	672,324	2,564,298	3,236,622
2022	298,897	689,051	987,948	298,136	1,715,934	2,014,070	68,217	140,838	209,055	665,250	2,545,823	3,211,073
2023	306,170	739,277	1,045,447	390,549	1,631,322	2,021,871	67,233	140,673	207,906	763,952	2,511,272	3,275,224
2024	294,493	*	294,493	645,260	*	645,260	51,936	*	51,936	991,689	*	991,689

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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.

In the full stock assessments for this stock, multiple reference models are utilised to create a risk-based understanding of stock status. The most recent results, from 2020, indicated that "*the probability of the spawning biomass being below SMSYd [i.e. the target reference point] is low (12%)*" (IATTC 2024), and that the probability of the biomass being below the limit reference point SLIMIT is zero.

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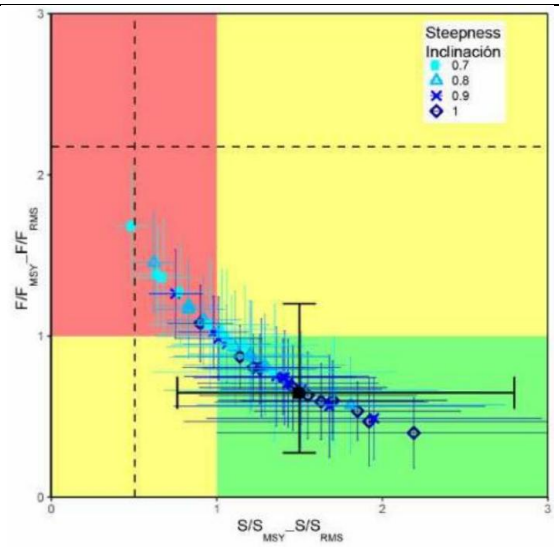

Figure 9. Kobe plot for yellowfin tuna in the EPO of estimates of spawning stock size (S) and fishing mortality (F). Coloured panels are separated by the target reference points SMSY and FMSY. Limit reference points are approximately indicated by the dashed lines, although these vary between models. The solid black circle represents all models combined (IATTC 2024).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met

References

IATTC (2022). Stock Status Indicators (SSIs) for tropical tunas in the Eastern Pacific Ocean. 13th 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

IATTC (2024). The tuna fishery in the Eastern Pacific Ocean in 2023. https://www.iattc.org/GetAttachment/1ed36788-07ce-4bf4-80e4-10c6c3b2b14d/No-22-2024_Tunas,-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2023.pdf

IATCC (2025). The tuna fishery in the Eastern Pacific Ocean in 2024. https://www.iattc.org/GetAttachment/0f3c1e8c-0ae6-41f3-a3a9-5d5891b5cc4e/SAC-16-01_The-tuna-fishery-in-the-Eastern-Pacific-Ocean-in-2024.pdf

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Species name	*Thunnus alalunga* - Albacore tuna
Fishing area and stock	FAO 21, 27, 31, 34 (North and Central Atlantic)

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.

Stock assessments are carried out on behalf of the International Commission for the Conservation of Atlantic Tunas (ICCAT). The most recent stock assessment was conducted in 2023, when the data on size and age for North Atlantic Task 1 was thoroughly revised and catch rate information for northern albacore fisheries was updated to include data up to 2021. Two modelling approaches with varying complexity were applied in the stock assessment: the surplus production model, which forms part of the current Management Procedure (MP), and the more detailed Stock Synthesis model. The Stock Synthesis model incorporated a wider range of data and tested different assumptions. Despite these differences, both models produced comparable outcomes. The Committee decided to rely on the Stock Synthesis model to describe the stock status (ICCAT 2025).

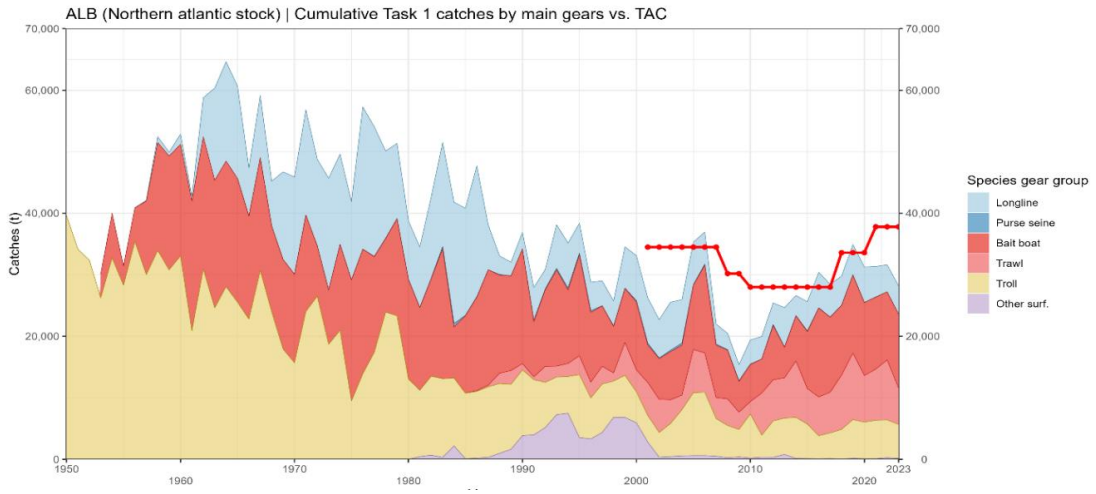

Figure 10. Total albacore catches reported to ICCAT (Task 1) by gear for the northern Atlantic stock including TAC (red dotted line) (ICCAT 2025).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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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 most recent stock assessment, conducted in 2023, concluded that "*the probability of the stock currently being in the green area of the Kobe plot (not overfished and not undergoing overfishing, FBMSY) is 99.6%*" (ICCAT 2025). The probability of being in the red area was estimated to be 0%. Taken together these outcomes provide strong evidence that the stock is above the target reference point, and therefore above any possible limit reference point.

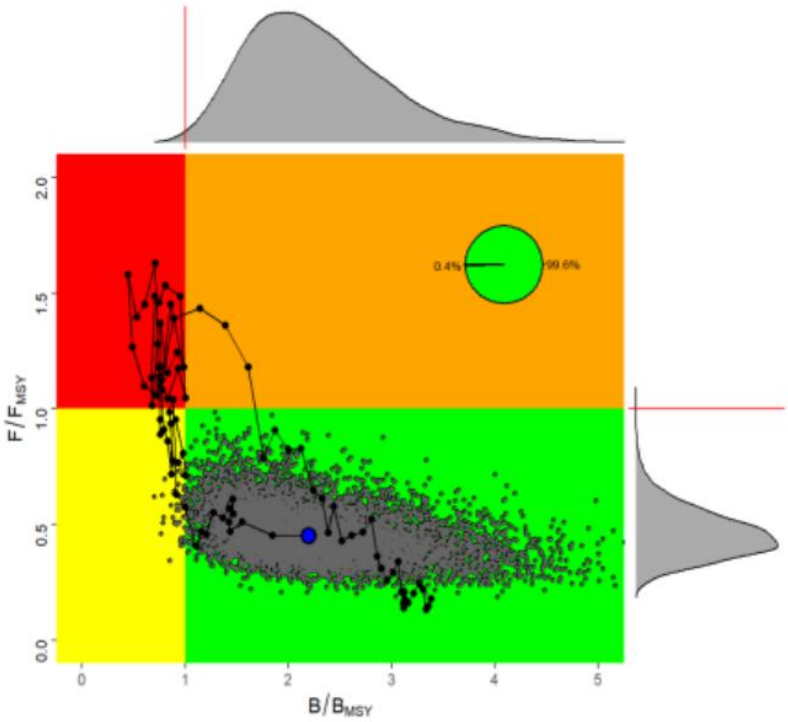

Figure 11. North Atlantic albacore (Kobe plot). Stock status trajectories of B/BMSY and F/FMSY over time (1930-2021), as well as uncertainty (grey dots) around the current (F2021/FMSY, B2021/BMSY) estimate (blue point) based on Stock Synthesis model with probability of being overfished and overfishing (red, 0%), of being neither overfished nor overfishing (green, 99.6%), and of being overfished (yellow, 0.4%) (ICCAT 2025).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met.

References

ICCAT (2025). Atlantic albacore tuna, stock assessment summary. https://www.iccat.int/Documents/SCRS/ExecSum/ALB_ENG.pdf

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Species name	*Thunnus alalunga* - Albacore tuna
Fishing area and stock	FAO 41, 47 (Southwest and southeast Atlantic)

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.

Stock assessments are carried out on behalf of the International Commission for the Conservation of Atlantic Tunas (ICCAT). The most recent stock assessment was conducted in 2020 (ICCAT 2025). The stock assessment utilised catch and effort data up to 2018, and no concerns were raised relating to the completeness of the data.

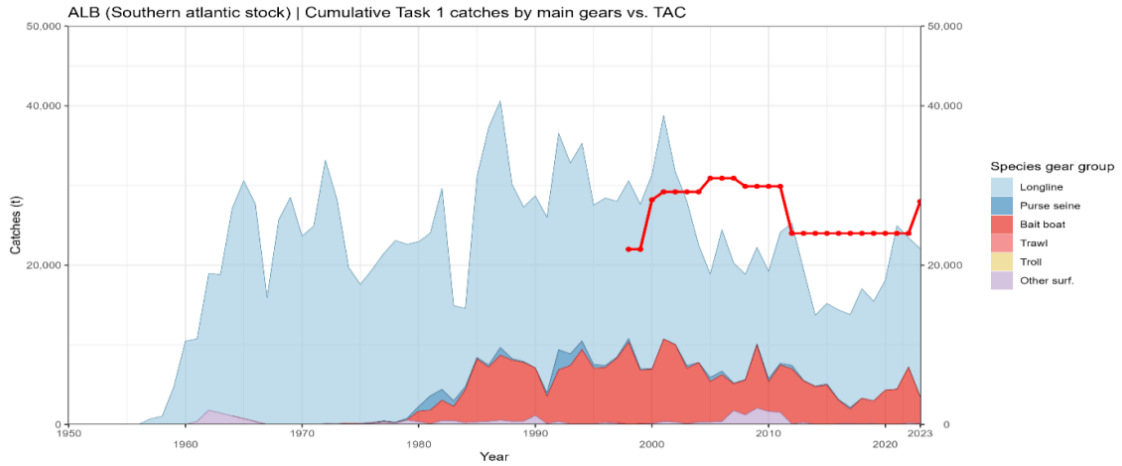

Figure 12. Total albacore catches reported to ICCAT (Task 1) by gear for the southern Atlantic stock including TAC (red dotted line) (ICCAT 2025).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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 most recent stock assessment, conducted in 2020, concluded that there was "*a 99.4% probability that the South Atlantic albacore stock is neither overfished nor subject to overfishing*" (ICCAT 2025). The median estimated MSY value was 27,264t, and the median estimate of

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B2018/BMSY was 1.58. Taken together these outcomes provide strong evidence that the stock is above the target reference point, and therefore above any possible limit reference point. The projected biomass for the stock was also expected to remain above 27,000t up to the projection horizon of 2033, with a probability of 90%.

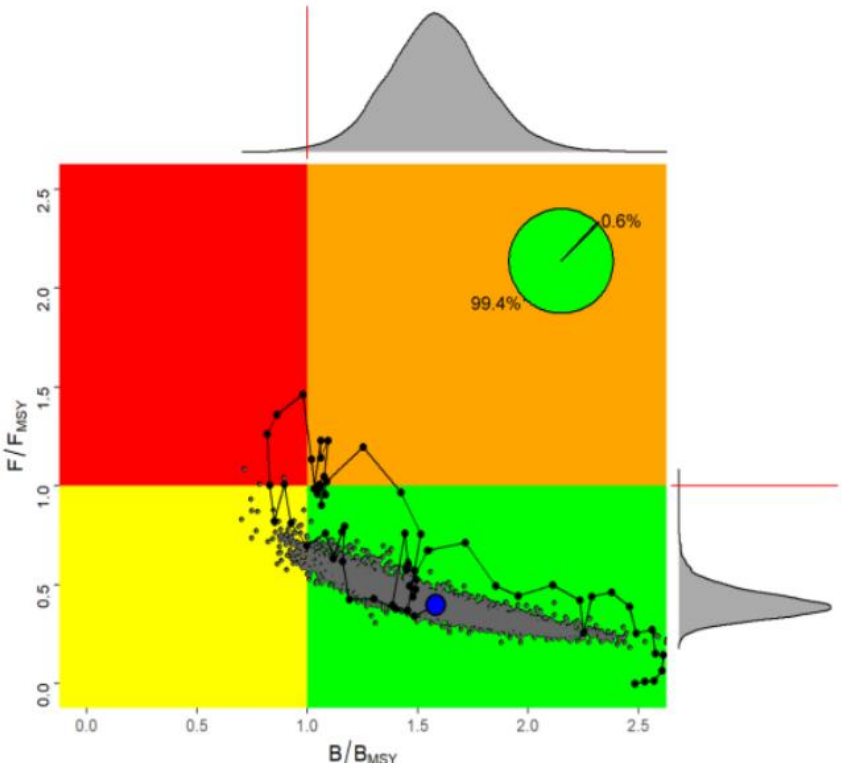

Figure 13. South Atlantic albacore tuna, Kobe plot. Stock status trajectories of B/BMSY and F/FMSY over time (1956-2018), as well as uncertainty (grey dots) around the current (2018) estimate (blue point) based on Bayesian surplus production model with probability of being overfished and overfishing (red, 0%), of being neither overfished nor overfishing (green, 99.4%), and of being overfished (yellow, 0.6%) (ICCAT 2025).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met.

References

ICCAT (2025). Atlantic albacore tuna, stock assessment summary. https://www.iccat.int/Documents/SCRS/ExecSum/ALB_ENG.pdf

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Species name	*Thunnus alalunga* - Albacore tuna
Fishing area and stock	FAO 61 and 71 (Northwest and Western Central 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:	

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 and Central Pacific Ocean (WCPO) yellowfin tuna is subject to regular stock assessments by the Western and Central Pacific Fisheries Commission (WCPFC). The most recent stock assessment was conducted in 2023 and utilised all available catch data, as summarised in the graph below. 54 models were used to provide a range of potential outcomes based on different key variables, a process which reduces the inherent level of uncertainty.

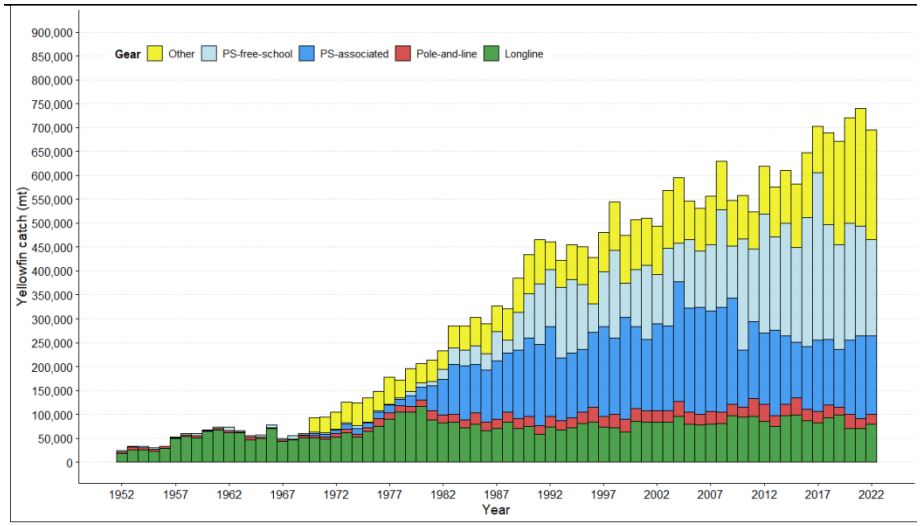

Figure 14. WCPO yellowfin catches, 1952-2022 (WCPFC 2024).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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 2023 stock assessment produced a series of estimates of the current status of the stock relative to the target reference point BMSY. Biomass in 2021 was estimated to be between 1.91 and 3.11

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times larger than BMSY with an 80% certainty; none of the model results indicated that biomass was below BMSY. Biomass is estimated by the most recent stock assessment to be above the target reference point with a high degree of certainty, and therefore also above any potential limit reference point (WCPFC 2024).

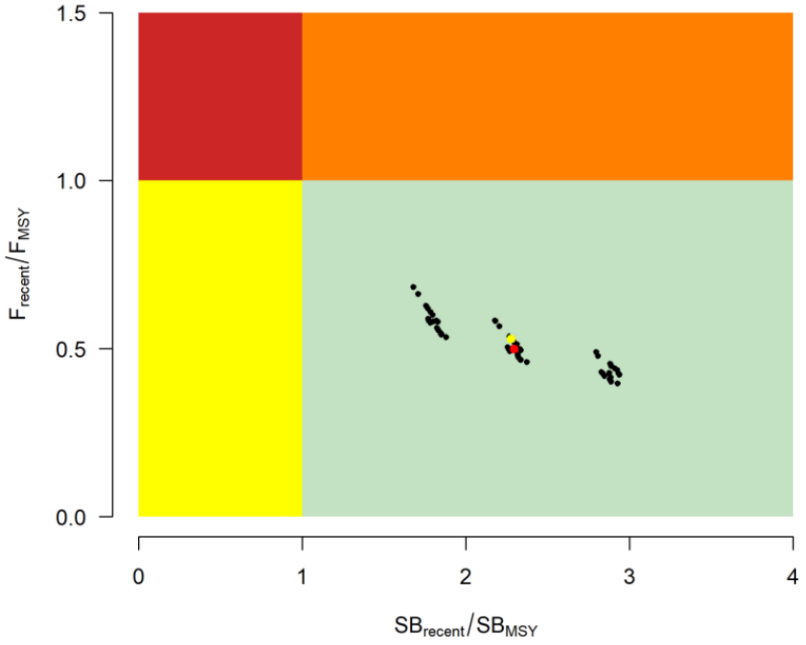

Figure 15. WCPO yellowfin tuna, Kobe plot summarising the results of each of the stock assessment models. The yellow dot is the 2023 diagnostic model and the red dot is the median (WCPFC 2024).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met.

References

WCPFC (2024). WCPO Yellowfin Tuna, Stock Status and Management Advice. https://www.wcpfc.int/file/1008665/download?token=wFUhc7q7

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Species name	*Thunnus alalunga* - Albacore tuna
Fishing area and stock	FAO 77, 81, 87 (Eastern Central, Southwest 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 most recent stock assessment for albacore tuna in the south Pacific was conducted in 2024, using data up to 2022. The assessment used catch data including international catches by fishing gear. The published stock assessment summary (WCPFC 2025) does not appear to include any concerns relating to the availability of catch data.

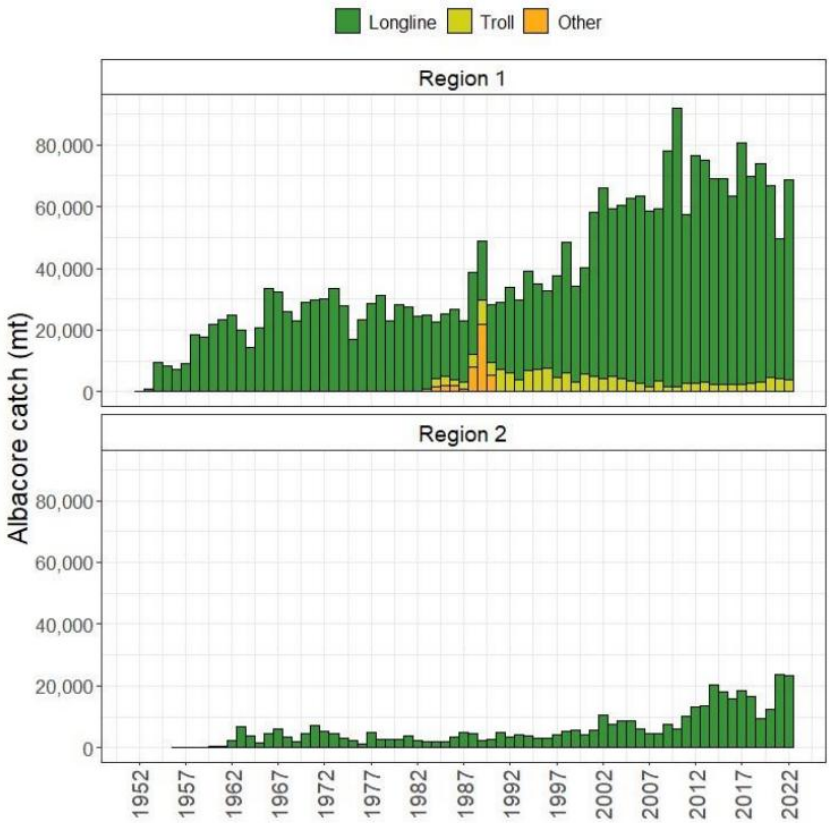

Figure 16. Historical catches of South Pacific albacore in each model region (WCPFC-CA = region 1, EPO = region 2) from 1952-2022 by gear type (WCPFC 2025).

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Fishery removals of the species in the fishery under assessment are included in the stock assessment process, C1.1 is met.

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 stock is assessed relative to a range of potential reference points (WCPFC 2025), with the key reference point used to determine whether the stock was overfished being 20%SBF=0. The 2024 stock assessment concluded that "the median recent spawning biomass from the model ensemble with estimation uncertainty is well above the spawning biomass to achieve MSY" (WCPFC 2025), and that in "all models…SBrecent/SBF=0 was above the limit reference point of 0.2" (WCPFC 2025).

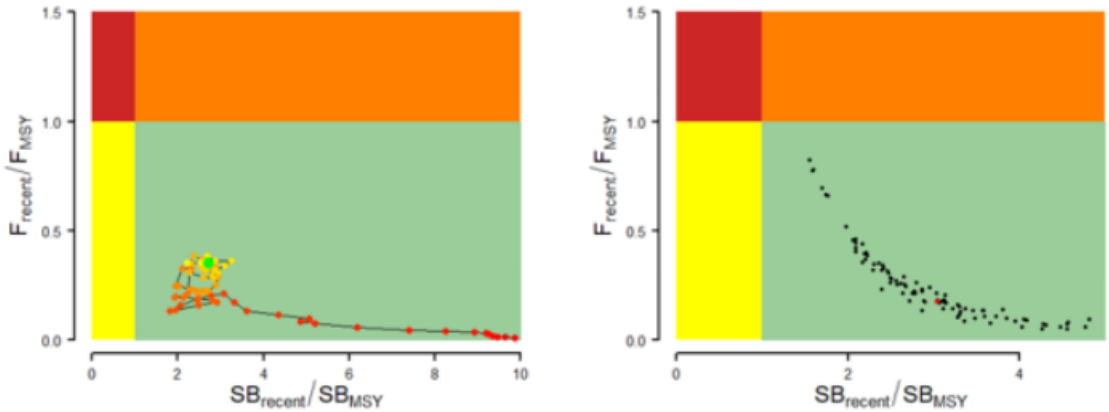

Figure 17. Kobe plots for Southern Pacific albacore tuna the results for the dynamic MSY analysis (left) and each of the models in the model ensemble for the recent period (2019– 2022; right). Colours for dynamic MSY go from red to green over time. The red point in the model ensemble (right) represents the median (WCPFC 2022).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference points (or proxy), C1.2 is met

References

WCPFC (2025). Stock status and advice key documents, South Pacific albacore tuna. https://www.wcpfc.int/doc/04/south-pacific-albacore-tuna

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Traceability information

Information provided for Step 3 Path 1 or Path 2

Species name	*Katsuwonus pelamis* - Skipjack tuna stock in FAO 51 and 57 areas caught by vessels from Maldives			
Path 1	Yes ☒ No ☐			
Confirm all KDEs are provided	Yes ☒ No ☐			
Path 2	Yes ☐ No ☒ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
				Choose an item.
				Choose an item.

Species name	*Katsuwonus pelamis* - Skipjack tuna stock in FAO 61 and 71 areas caught by vesels from Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu, Indonesia			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu, Indonesia	Multiple coastal states, highest risk level Medium	Medium (Micronesia, Marshall Islands)	Downgraded to medium risk

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Species name	*Katsuwonus pelamis* - Skipjack tuna stock in FAO 77 caught by vessels from Micronesia, Nauru, South Korea, USA			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Micronesia, Nauru, South Korea, USA	Multiple coastal states, highest risk level Medium	Medium (Kiribati)	Downgraded to medium risk

Species name	*Thunnus albacares* - Yellowfin tuna stock in FAO 61 and 71 areas caught by vessels from Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu			
Path 1	Yes ☒ No ☐			
Confirm all KDEs are provided	Yes ☒ No ☐			
Path 2	Yes ☐ No ☒ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
				Choose an item.
				Choose an item.

Species name	*Thunnus albacares* - Yellowfin tuna stock in FAO 77 and 87 areas caught by vessels from Micronesia, Nauru and USA			
Path 1	Yes ☒ No ☐			
Confirm all KDEs are provided	Yes ☒ No ☐			
Path 2	Yes ☐ No ☒ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
				Choose an item.
				Choose an item.

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Species name	*Thunnus albacares* - Yellowfin tuna stock in FAO 21, 27, 31 and 34 caught by vessels from Taiwan			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Taiwan	Multiple coastal states, highest risk level Medium	Low (Trinidad and Tobago)	Downgraded to medium risk

Species name	*Thunnus albacares* - Yellowfin tuna stock in FAO 41 and 47 caught by vessels from Taiwan			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	Taiwan	Multiple coastal states, highest risk level Medium	Medium (Uruguay)	Downgraded to medium risk

Species name	*Thunnus alalunga* - Albacore tuna caught in FAO 61 and 71 caught by vessels from China and Taiwan			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	China, Taiwan	Multiple coastal states, highest risk level Medium	Medium (Solomon Islands)	Downgraded to medium risk
	China, Taiwan	Multiple coastal states, highest risk level Medium	Medium (Solomon Islands)	Downgraded to medium risk

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Species name	*Thunnus alalunga* - Albacore tuna caught in FAO 77, 81 and 87 caught by vessels from China			
Path 1	Yes ☒ No ☐			
Confirm all KDEs are provided	Yes ☒ No ☐			
Path 2	Yes ☐ No ☒ *If yes for Path 2, complete the next section*			
Path 2 outcome	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
				Choose an item.
				Choose an item.

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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