



By-Product assessment report

BP056

TCF Co. Ltd

Report code	BP056	Date of issue	August 2026
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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	
Assessor name	Sam Peacock	
CB internal peer reviewer name	Matthew Jew	
Internal peer review evaluation	Agree with evaluation	
Number of Assessment days	1	
Comments on the assessment	This assessment covers 14 byproducts, none of which meet the MT definition of an ETP species. 4 byproducts are sourced exclusively from Medium risk flag states, and can be Approved source with caution without the need for a Step 3 assessment. The 10 byproducts determined to be High risk in Step 2 all passed the Category C and traceability assessments, and were subsequently downgraded to Medium risk. This means that they were also Approved source with caution.	
3. Approval validity	Valid from 08/2026	Valid until 08/2027
4. Assessment cycle	Re-Approval	

5. By-product assessment outcomes			
By-product species name	Flag country(ies)	Fishing Areas	MarinTrust approval status
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Maldives	FAO 51, 57	Approved source with caution
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, South Korea, Taiwan, Tuvalu, Vanuatu, Indonesia, Philippines	FAO 61, 71	Approved source with caution
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Nauru, South Korea, USA, Kiribati	FAO 77	Approved source with caution
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Senegal	FAO 34	Approved source with caution
Yellowfin tuna (<i>Thunnus albacares</i>)	Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu	FAO 61, 71	Approved source with caution
Yellowfin tuna (<i>Thunnus albacares</i>)	Nauru, USA, Kiribati	FAO 77, 87	Approved source with caution
Yellowfin tuna (<i>Thunnus albacares</i>)	Senegal	FAO 34	Approved source with caution
Yellowfin tuna (<i>Thunnus albacares</i>)	Seychelles, South Korea, Spain	FAO 51,57	Approved source with caution
Albacore tuna (<i>Thunnus alalunga</i>)	Taiwan, Senegal	FAO 21, 27, 31, 34	Approved source with caution
Albacore tuna (<i>Thunnus alalunga</i>)	Taiwan	FAO 41, 47	Approved source with caution
Albacore tuna (<i>Thunnus alalunga</i>)	China, Taiwan, Kiribati, South Korea, Tuvalu	FAO 61, 71	Approved source with caution
Albacore tuna (<i>Thunnus alalunga</i>)	China, Taiwan, USA	FAO 77, 81, 87	Approved source with caution

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5. By-product assessment outcomes			
By-product species name	Flag country(ies)	Fishing Areas	MarinTrust approval status
Bigeye tuna (<i>Thunnus obesus</i>)	Seychelles, South Korea, Spain	FAO 51,57	Approved source with caution
Bigeye tuna (<i>Thunnus obesus</i>)	Micronesia, Japan, Kiribati, Nauru, Papua New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu, USA	FAO 71, 77	Approved source with caution

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.

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
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Maldives	Least concern	Not listed	High risk	Yes
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, South Korea, Taiwan, Tuvalu, Vanuatu, Indonesia, Philippines	Least concern	Not listed	High risk	Yes
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Nauru, South Korea, USA, Kiribati	Least concern	Not listed	High risk	Yes
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Senegal	Least concern	Not listed	Medium Risk	No

By-product species name	Flag country(ies)	IUCN Red List	CITES Appendices	Step 2 risk status	Step 3 required
Yellowfin tuna (<i>Thunnus albacares</i>)	Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu	Least concern	Not listed	High risk	Yes
Yellowfin tuna (<i>Thunnus albacares</i>)	Nauru, USA, Kiribati	Least concern	Not listed	High risk	Yes
Yellowfin tuna (<i>Thunnus albacares</i>)	Senegal	Least concern	Not listed	Medium Risk	No
Yellowfin tuna (<i>Thunnus albacares</i>)	Seychelles, South Korea, Spain	Least concern	Not listed	Medium Risk	No
Albacore tuna (<i>Thunnus alalunga</i>)	Taiwan, Senegal	Least concern	Not listed	High risk	Yes
Albacore tuna (<i>Thunnus alalunga</i>)	Taiwan	Least concern	Not listed	High risk	Yes
Albacore tuna (<i>Thunnus alalunga</i>)	China, Taiwan, Kiribati, South Korea, Tuvalu	Least concern	Not listed	High risk	Yes

By-product species name	Flag country(ies)	IUCN Red List	CITES Appendices	Step 2 risk status	Step 3 required
Albacore tuna (<i>Thunnus alalunga</i>)	China, Taiwan, USA	Least concern	Not listed	High risk	Yes
Bigeye tuna (<i>Thunnus obesus</i>)	Seychelles, South Korea, Spain	Vulnerable	Not listed	Medium Risk	No
Bigeye tuna (<i>Thunnus obesus</i>)	Micronesia, Japan, Kiribati, Nauru, Papua New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu, USA	Vulnerable	Not listed	High risk	Yes

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
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Maldives	FAO 51, 57	Indian Ocean skipjack	Pass	Path 2 - Yes	Downgrade to Medium Risk
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, South Korea, Taiwan, Tuvalu, Vanuatu, Indonesia, Philippines	FAO 61, 71	Western and Central Pacific skipjack	Pass	Path 2 - Yes	Downgrade to Medium Risk
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Nauru, South Korea, USA, Kiribati	FAO 77	EPO skipjack	Pass	Path 2 - Yes	Downgrade to Medium Risk

By-product species name	Flag country(ies)	Fishing Area	Stock name	Category C Assessment Outcome	Traceability information	Step 3 Risk Outcome
Yellowfin tuna (<i>Thunnus albacares</i>)	Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu	FAO 61, 71	Indian Ocean yellowfin	Pass	Path 2 - Yes	Downgrade to Medium Risk
Yellowfin tuna (<i>Thunnus albacares</i>)	Nauru, USA, Kiribati	FAO 77, 87	EPO yellowfin	Pass	Path 2 - Yes	Downgrade to Medium Risk
Albacore tuna (<i>Thunnus alalunga</i>)	Taiwan, Senegal	FAO 21, 27, 31, 34	North Atlantic albacore	Pass	Path 2 - Yes	Downgrade to Medium Risk
Albacore tuna (<i>Thunnus alalunga</i>)	Taiwan	FAO 41, 47	South Atlantic albacore	Pass	Path 2 - Yes	Downgrade to Medium Risk
Albacore tuna (<i>Thunnus alalunga</i>)	China, Taiwan, Kiribati, South Korea, Tuvalu	FAO 61, 71	North Pacific albacore	Pass	Path 2 - Yes	Downgrade to Medium Risk

By-product species name	Flag country(ies)	Fishing Area	Stock name	Category C Assessment Outcome	Traceability information	Step 3 Risk Outcome
Albacore tuna (<i>Thunnus alalunga</i>)	China, Taiwan, USA	FAO 77, 81, 87	South Pacific albacore	Pass	Path 2 - Yes	Downgrade to Medium Risk
Bigeye tuna (<i>Thunnus obesus</i>)	Micronesia, Japan, Kiribati, Nauru, Papua New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu, USA	FAO 71, 77	Western and Central Pacific bigeye; EPO bigeye	Pass	Path 2 - Yes	Downgrade to Medium Risk
Comments on Step 3 Assessment: N/A						

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
Maldives	High	2.25	1.67	2.13	1	1	1	1	26.89%
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%
Micronesia (FS of)	High	1.92	2.94	1.93	1	1	5	1	31.13%
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%
Korea (Rep. South)	Medium	3.67	3.11	1.97	1	1	1	1	83.96%
Taiwan	High	4.17	3.06	2.27	1	1	5	1	90.57%

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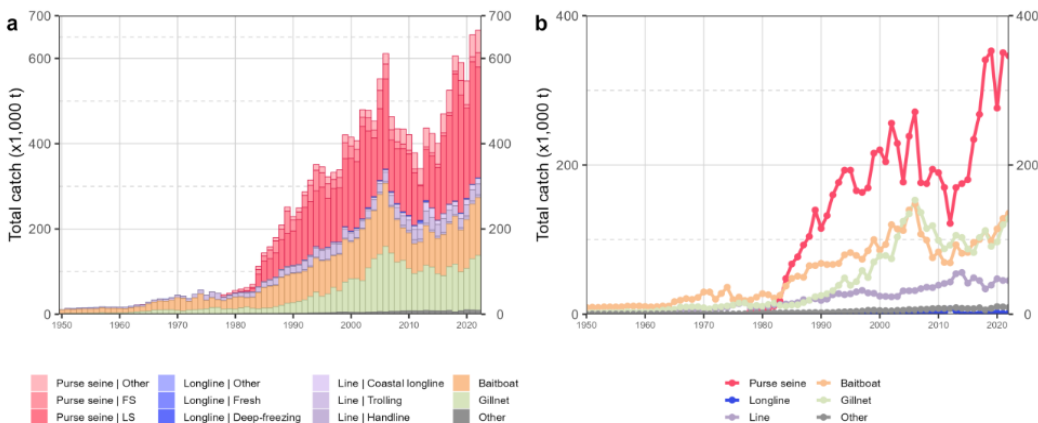
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Tuvalu	High	1.67	2.67	1.81	1	1	5	1	47.64%
Vanuatu	High	2.88	1.56	2.17	2	1	1	1	48.58%
Indonesia	Medium	3.33	2.56	2.47	1	1	1	1	59.43%
Philippines	Medium	2.04	2.06	2.53	1	1	1	1	53.77%
USA	Medium	2.29	3	2.37	1	1	1	1	91.04%
Senegal	Medium	2.38	2.72	2.4	1	1	1	1	41.04%
Seychelles	Medium	1.79	2.39	1.57	1	1	1	1	62.26%
Spain	Medium	3.21	3.39	2.03	1	1	1	1	75.94%
China	High	4.21	4.33	3.2	1	1	5	1	36.79%

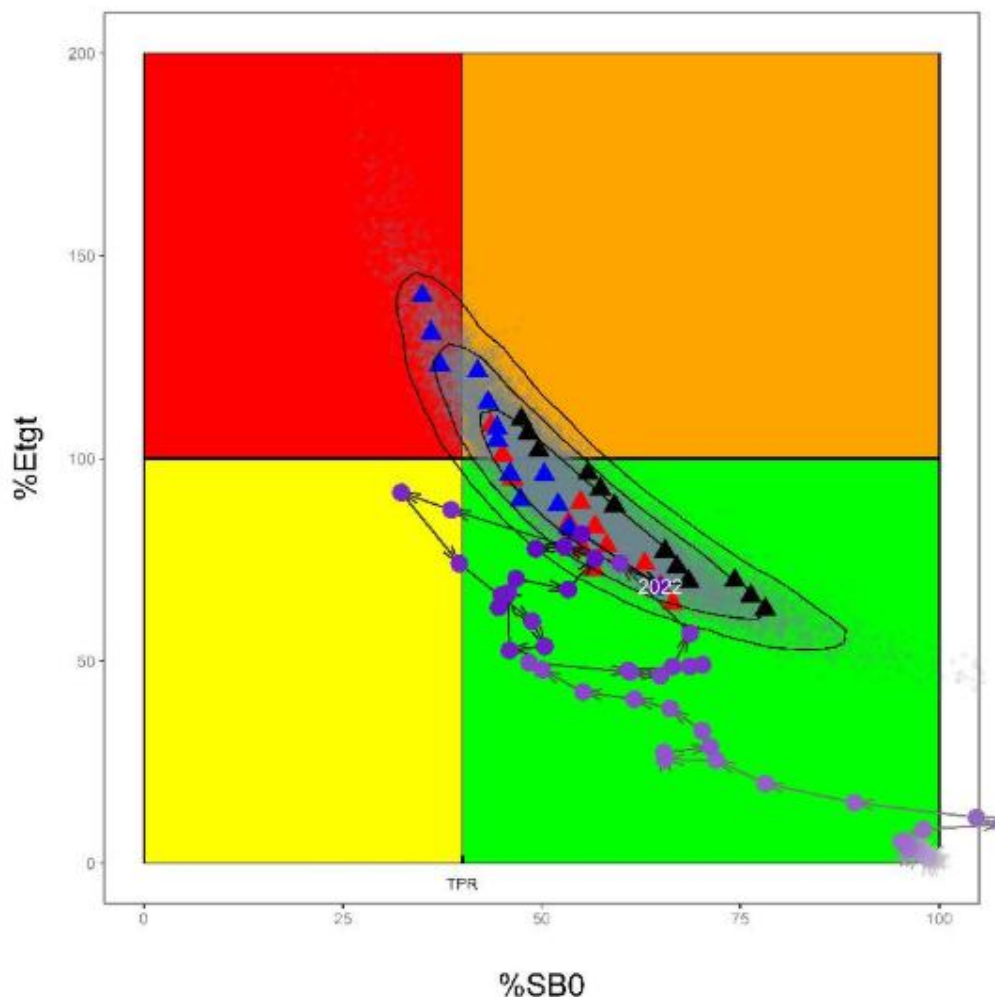
Step 3 outcomes

Category C assessment

Species name		<i>Katsuwonus pelamis</i> - Skipjack tuna
Fishing area and stock		Indian Ocean skipjack
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. Landings in recent years were reported as a total catch in 2022 of 666,408t, and an average catch 2018-2022 of 613,061t (IOTC 2024). Full catch datasets, including catch and effort by month, species, gear, and vessels flag, and size-frequency datasets, are made available on the IOTC website (IOTC 2025). Catches are shown in the charts below. C1.1 is met.  Chart (a) is a stacked area chart showing cumulative nominal catches (metric tonnes; t) by fishery from 1950 to 2022. The y-axis ranges from 0 to 700 (x1,000 t). The x-axis shows years from 1950 to 2022. The legend includes: Purse seine Other, Purse seine FS, Purse seine LS, Longline Other, Longline Fresh, Longline Deep-freezing, Line Coastal longline, Line Trolling, Line Handline, Baitboat, Gillnet, and Other. Chart (b) is a line chart showing individual nominal catches (metric tonnes; t) by fishery group from 1950 to 2022. The y-axis ranges from 0 to 400 (x1,000 t). The x-axis shows years from 1950 to 2022. The legend includes: Purse seine, Longline, Line, Baitboat, Gillnet, and Other. Annual time series of (a) cumulative nominal catches (metric tonnes; t) by fishery and (b) individual nominal catches (metric tonnes; t) by fishery group for Indian Ocean skipjack tuna during 1950-2022 (IOTC 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 most recent stock assessment was carried out in 2023, as reported in a 2025 stock status report published by the IOTC (IOTC 2025). 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 2025).

Biomass was estimated to be around 53% of the unfished level, which is above SB_{MSY} . The IOTC also notes that “Over the history of the fishery, biomass has been well above the adopted limit reference point ($20\%SB_0$)” (IOTC 2025). A Kobe plot summarising the outcomes of the most recent stock assessment is provided below. C1.2 is met.



Indian Ocean skipjack tuna, Kobe plot of the 2023 stock assessment. Triangles represent outputs from individual models, grey dots represent uncertainty from individual models (IOTC 2025)

References

IOTC (2025). Indian Ocean Skipjack Tuna Stock Status: Executive Summary.

https://iotc.org/sites/default/files/content/Stock_status/2025/English/IOTC-2025-SC28-ES03_SKJE.pdf

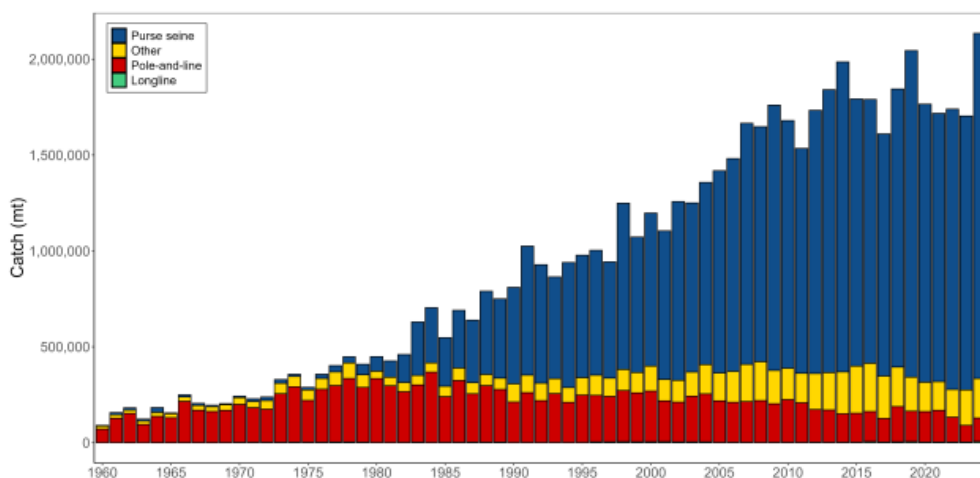
IOTC (2025). Available datasets. <https://www.iotc.org/data/datasets>

Species name		<i>Katsuwonus pelamis</i> - Skipjack tuna
Fishing area and stock		Western and Central Pacific skipjack
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 2025, using data up to the end of 2024. The assessment incorporated catch, effort- and length-frequency estimates, and tag-recapture data (WCPFC 2025). The stock assessment report does not raise major concerns about uncertainties due to lack of data.

Catches are presented in the figure below. C1.1 is met.

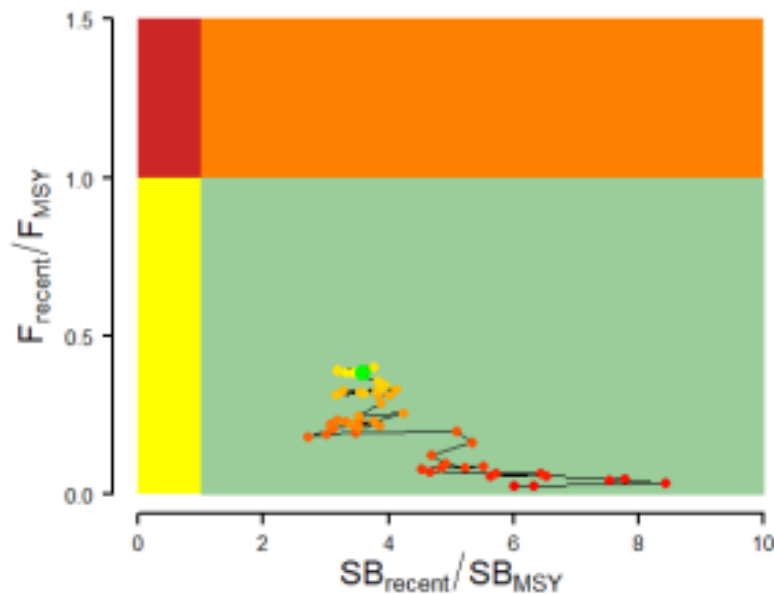


Annual catches of skipjack by gear type in the WCPO area covered by the stock assessment (WCPFC 2025a)

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 stock assessment for WCPO skipjack concluded that “Overall, the outcomes of this assessment suggest that the skipjack stock in the WCPO is not overfished nor undergoing overfishing” (WCPFC 2025). SB_{RECENT}/SB_{MSY} was estimated to be 3.90, with an 80% CI of 2.95 – 5.61,

suggesting biomass is highly likely to be above the MSY level. A Kobe plot illustrating current stock status is shown below. C1.2 is met.



Kobe plot summarising the results for the dynamic MSY analysis of WCPO skipjack by the 2025 stock assessment. Dot colours go from red to green over time, with the green dot being the most recent SB estimate (WCPFC 2025)

References

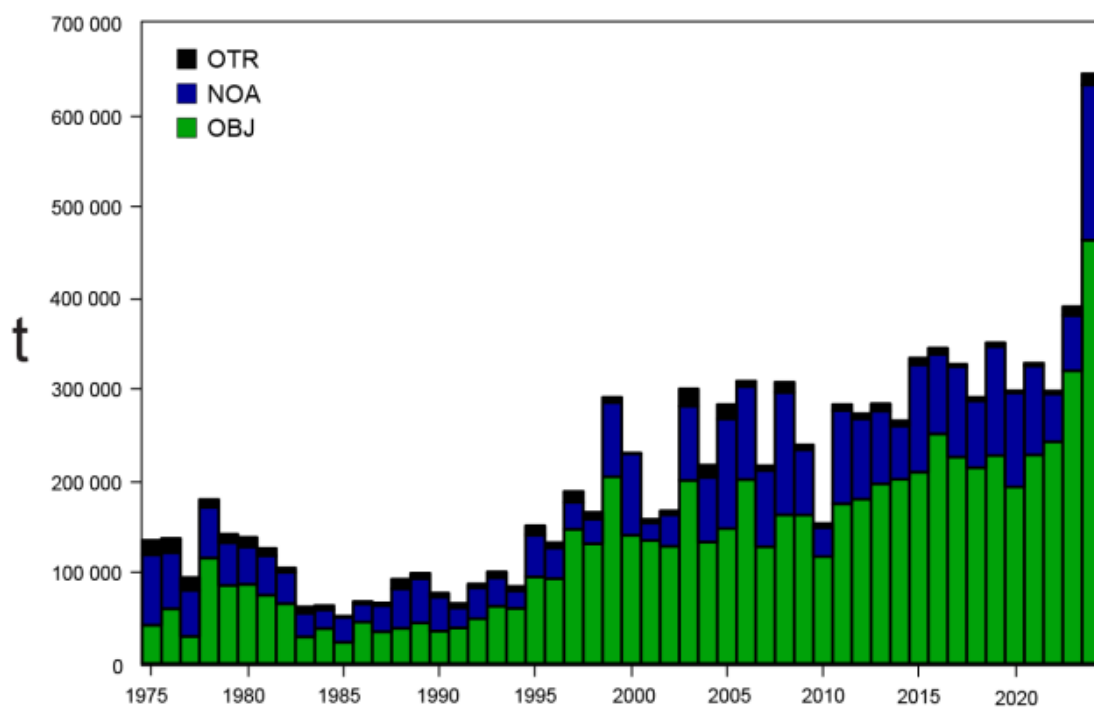
WCPFC (2025). WCPO skipjack tuna stock assessment 2025. <https://meetings.wcpfc.int/node/26679>

WCPFC (2025a). Overview of tuna fisheries in the Western and Central Pacific Ocean, including economic conditions – 2024. <https://meetings.wcpfc.int/node/26697>

Species name		<i>Katsuwonus pelamis</i> - Skipjack tuna
Fishing area and stock		EPO skipjack
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.

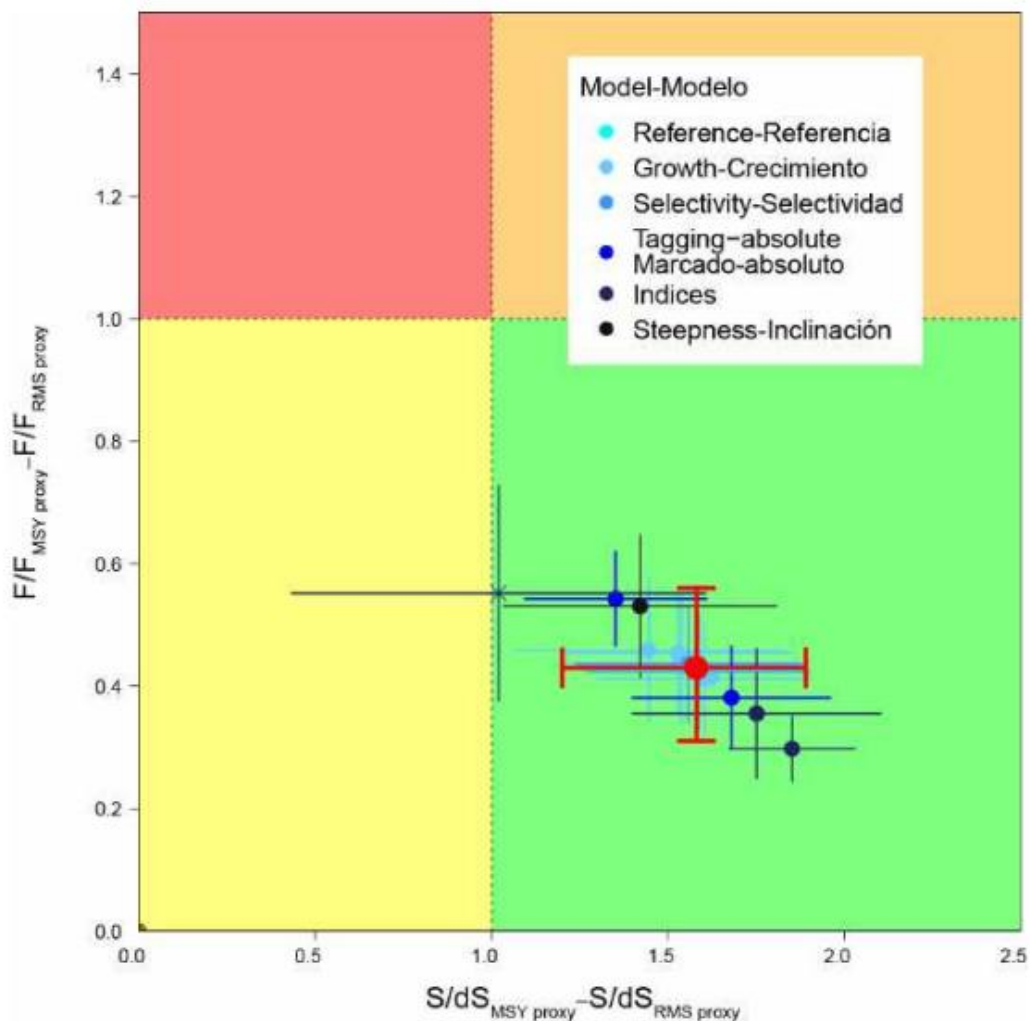
EPO skipjack has historically been subject to “interim” integrated statistical age-structured catch-at-length stock assessments carried out by the IATTC. In 2023, a benchmark stock assessment was conducted using an integrated statistical age-structured catch-at-length model in Stock Synthesis, which is considered by the IATTC to represent “a significant improvement from the initial interim assessment conducted in 2022” (IATTC 2025). The assessment incorporates all available data from across the EPO, including catch data but also size and age frequency data and other sources. Catches in the fishery are shown in the chart below. C1.1 is met.



Skipjack catches (retained plus discards) in the EPO, 1975-2023, by gear type (IATTC 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.

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 2025). 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. A Kobe chart summarising the current stock status is shown below. C1.2 is met.



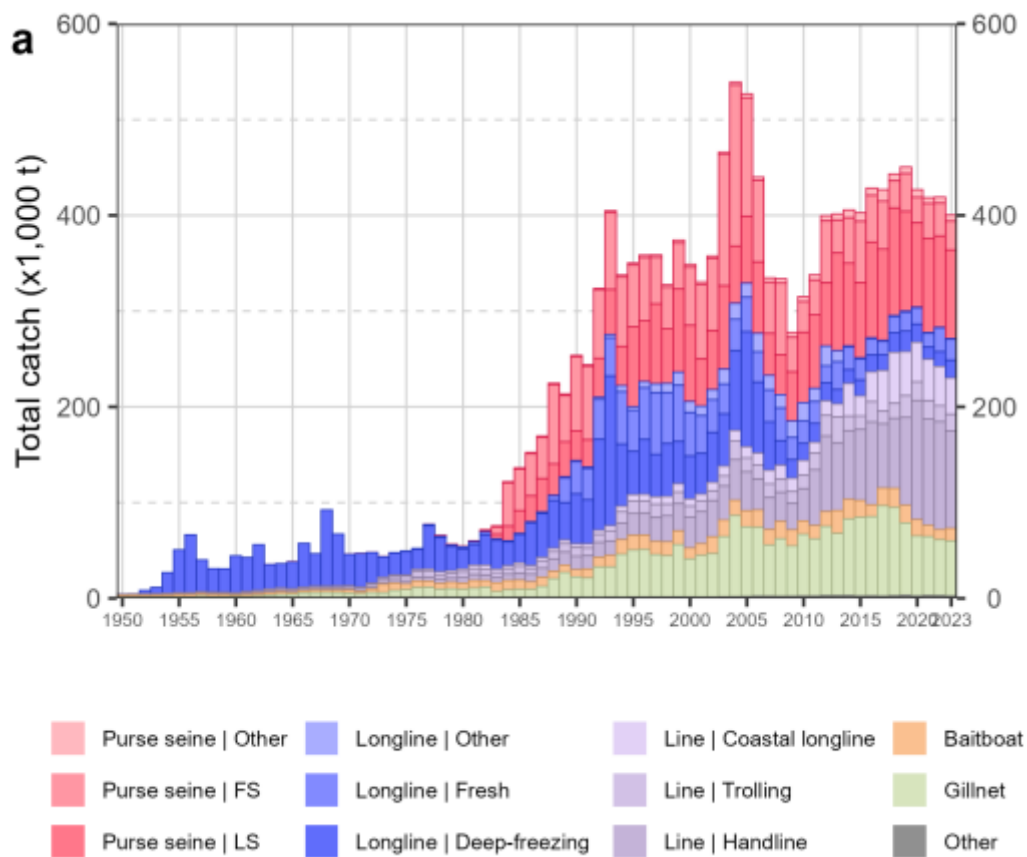
Kobe plot for skipjack tuna in the EPO (IATTC 2025).

References

IATTC (2025). The tuna fishery in the Eastern Pacific Ocean in 2024.

https://www.iattc.org/GetAttachment/02c5d8e6-6d9b-42b3-a943-a6873f75deac/No-23-2025_The-tuna-fishery-in-the-Eastern-Pacific-Ocean-in-2024_EN.pdf

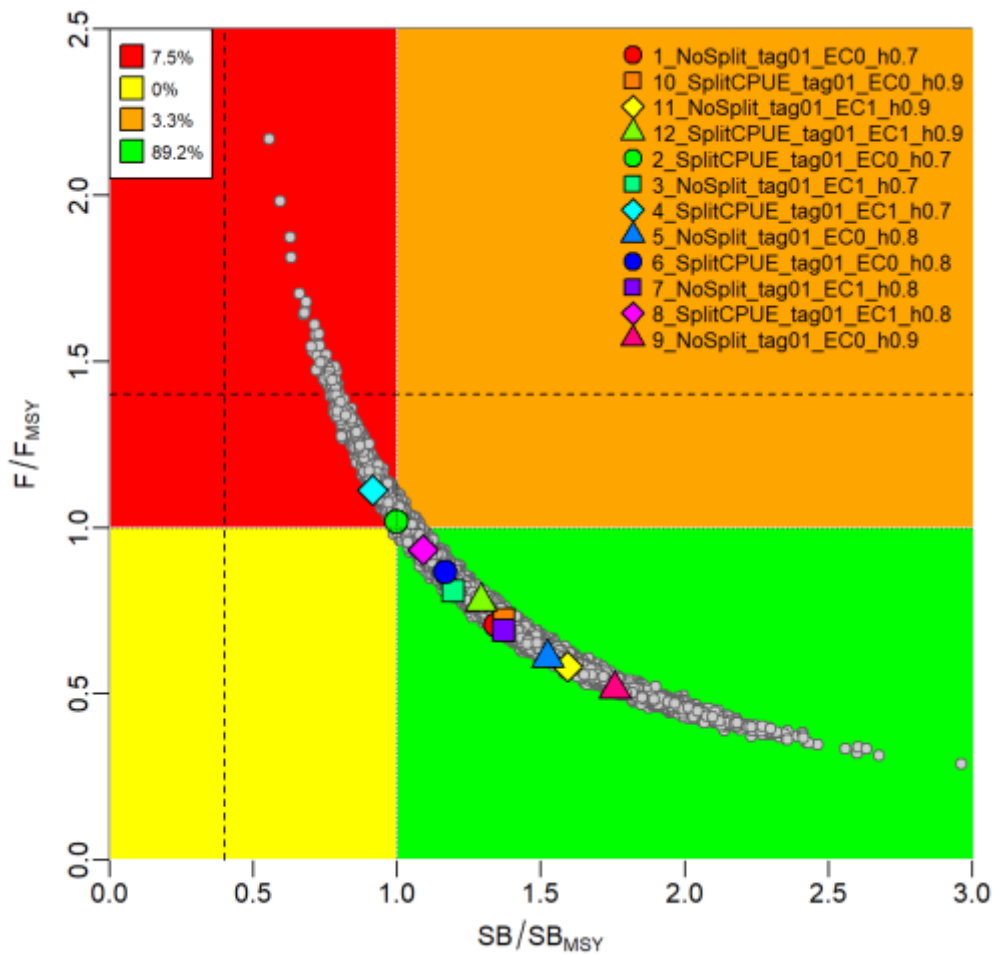
Species name		Thunnus albacares -Yellowfin Tuna	
Fishing area and stock		Indian Ocean yellowfin	
C1	Category C Stock Status - Minimum Requirements		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities 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 2024. Landings in recent years were reported as a total catch in 2023 of 400,950t, and an average catch 2019-2023 of 423,142t (IOTC 2025). Full catch datasets, including catch and effort by month, species, gear, and vessels flag, and size-frequency datasets, are made available on the IOTC website (IOTC 2025a). Catches are shown in the chart below. C1.1 is met.			



Catches of yellowfin tuna in the Pacific Ocean by gear type, 1950 – 2023 (IOTC 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 most recent stock assessment was carried out in 2024 using data from 1975-2023, as reported in a 2024 stock status report published by the IOTC (IOTC 2025). The stock assessment conclusion states that “overall stock status estimates do not differ substantially from the previous assessment”. Spawning biomass in 2023 was estimated to be around 44% of the unfished level and 32% higher than B_{MSY} . The biomass is therefore estimated to be above the target reference point, and therefore the stock is considered to have a biomass above the limit reference point in its most recent stock assessment (IOTC 2025). A Kobe plot summarising the outcomes of the stock assessment is shown below. C1.2 is met.



Yellowfin tuna in the Pacific Ocean: Kobe chart estimating current stock status. Coloured symbols represent estimates from individual models. Grey dots represent statistical uncertainty from individual models. Dashed lines represent limit reference points (IOTC 2025)

References

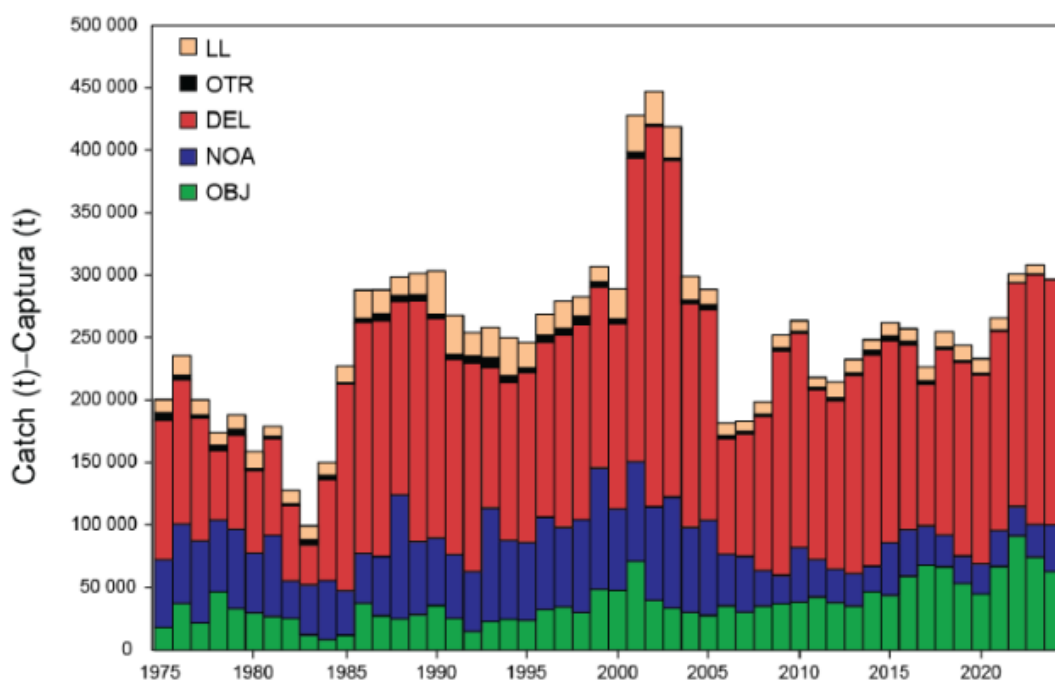
IOTC (2025). Indian Ocean Yellowfin Tuna Stock Status: Executive Summary. https://iotc.org/sites/default/files/content/Stock_status/2025/English/IOTC-2025-SC28-ES04_YFTE.pdf

IOTC (2025a). Available datasets. <https://www.iotc.org/data/datasets>

Species name		<i>Thunnus albacares</i> -Yellowfin Tuna
Fishing area and stock		EPO yellowfin
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.

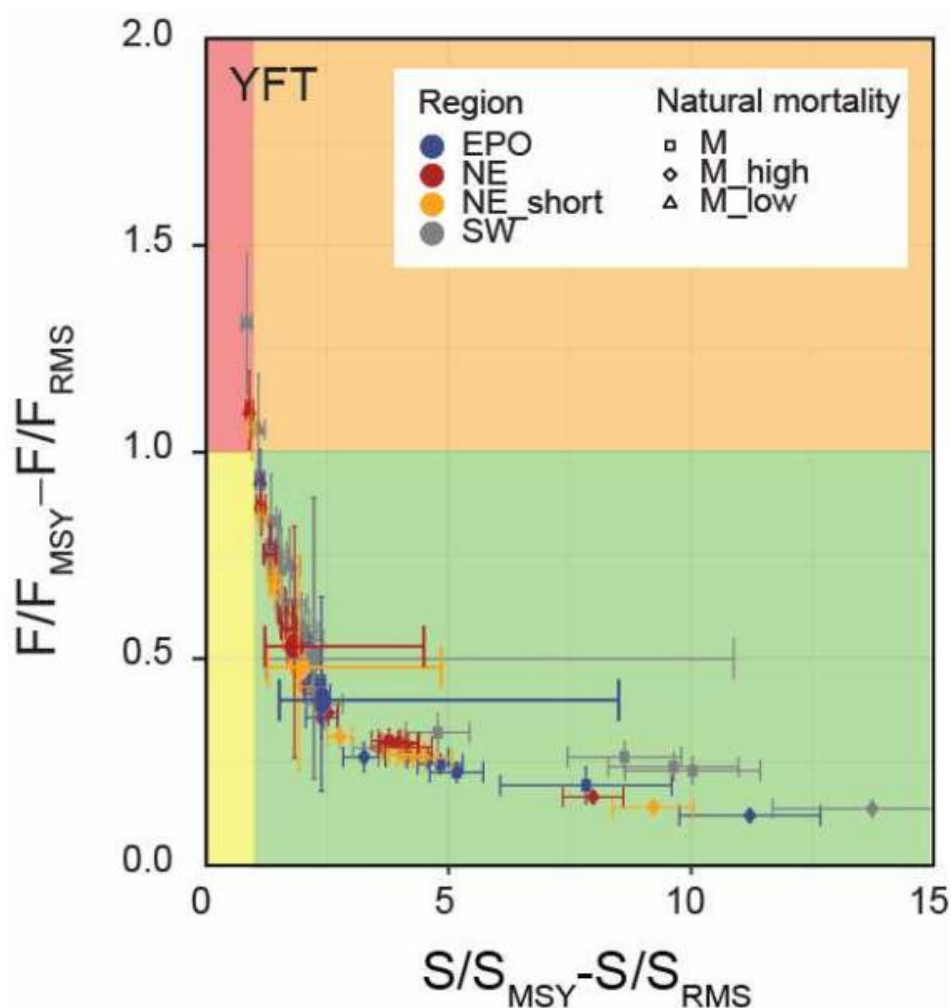
The Eastern Pacific Ocean (EPO) yellowfin tuna stock is managed and assessed by the Inter-American Tropical Tunas Commission (IATTC). A full benchmark of the stock was conducted in 2025, specifically aiming to tackle one of the main sources of uncertainty in the stock, that of stock structure (IATTC 2025). Catches of yellowfin in the EPO are shown in the chart below. The most recent full stock assessment was conducted in 2025 and C1.1 is met.



Total catches of yellowfin tuna in the EPO by set type. Data for 2023 and 2024 are preliminary. (IATTC 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.

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 2025, indicated that “the spawning biomass ratio...has been above the limit reference point for all the assessment periods” (IATTC 2025), and that the probability of the biomass of fishing mortality currently breaching the limit reference points is zero. A Kobe plot summarising current stock status is provided below. C1.2 is met.

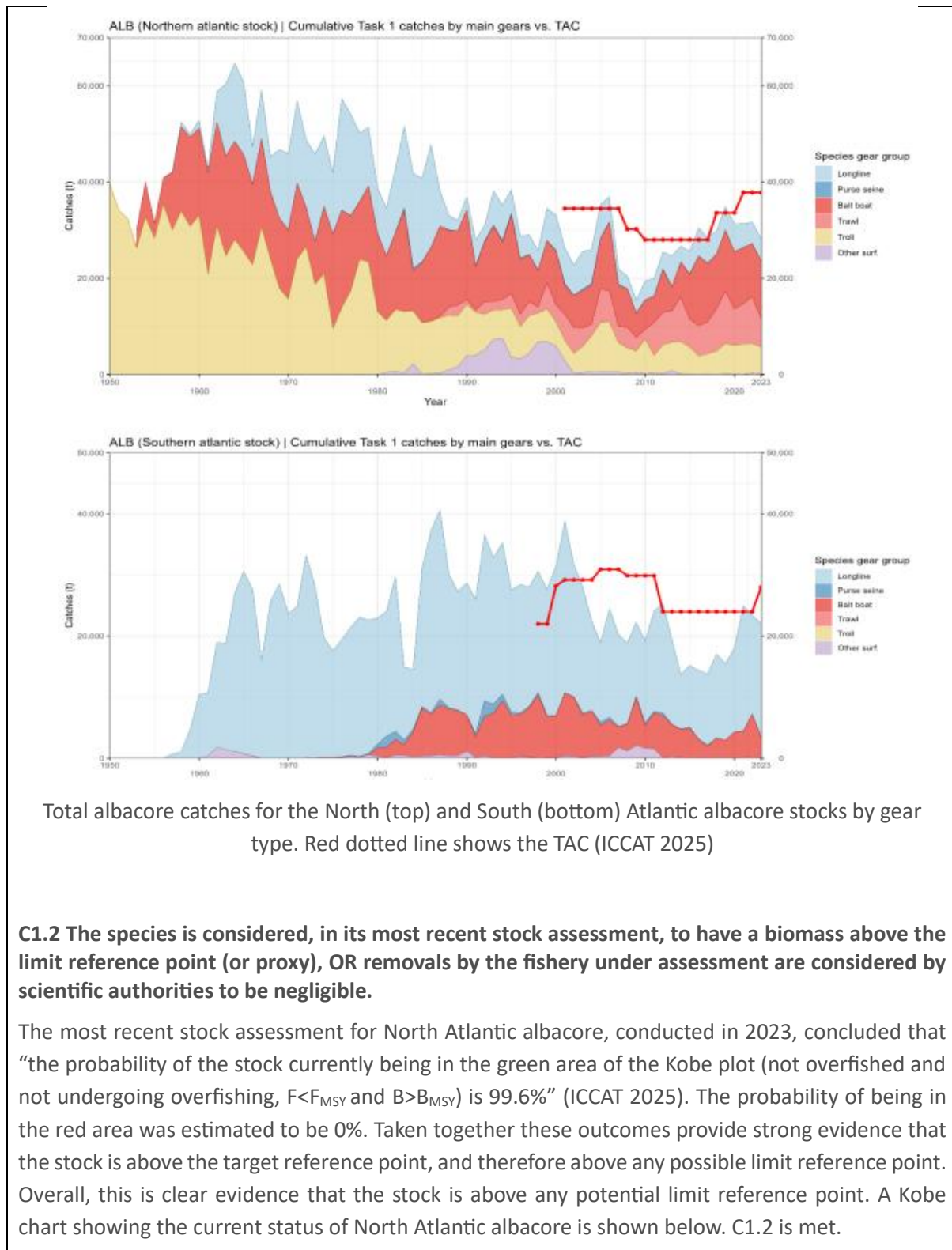


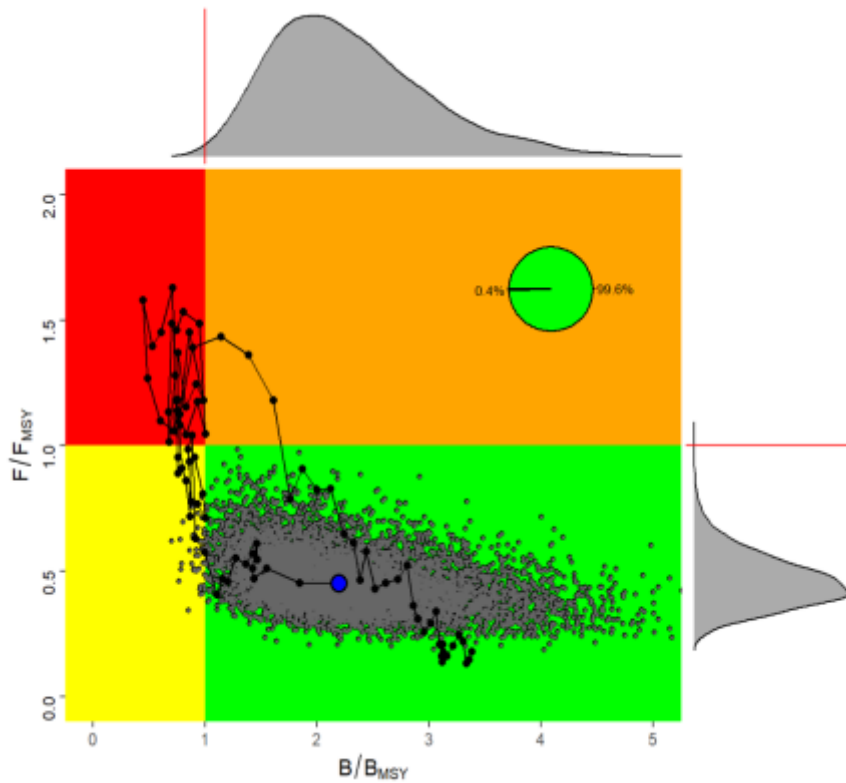
Kobe plot for yellowfin tuna in the EPO of estimates of spawning biomass (S) and fishing mortality (F) relative to their target reference points. (IATTC 2025).

References

IATTC (2025). The tuna fishery in the Eastern Pacific Ocean in 2024.
https://www.iattc.org/GetAttachment/02c5d8e6-6d9b-42b3-a943-a6873f75deac/No-23-2025-The-tuna-fishery-in-the-Eastern-Pacific-Ocean-in-2024_EN.pdf

Species name		Thunnus alalunga - Albacore tuna	
Fishing area and stock		North Atlantic albacore	
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 for North Atlantic albacore was conducted in 2023 (ICCAT 2025). The stock assessment utilised catch and effort data up to 2018 and 2021 respectively, and no concerns were raised relating to the completeness of the data. Catches of albacore in the Atlantic Ocean are shown in the chart below. C1.1 is met.			



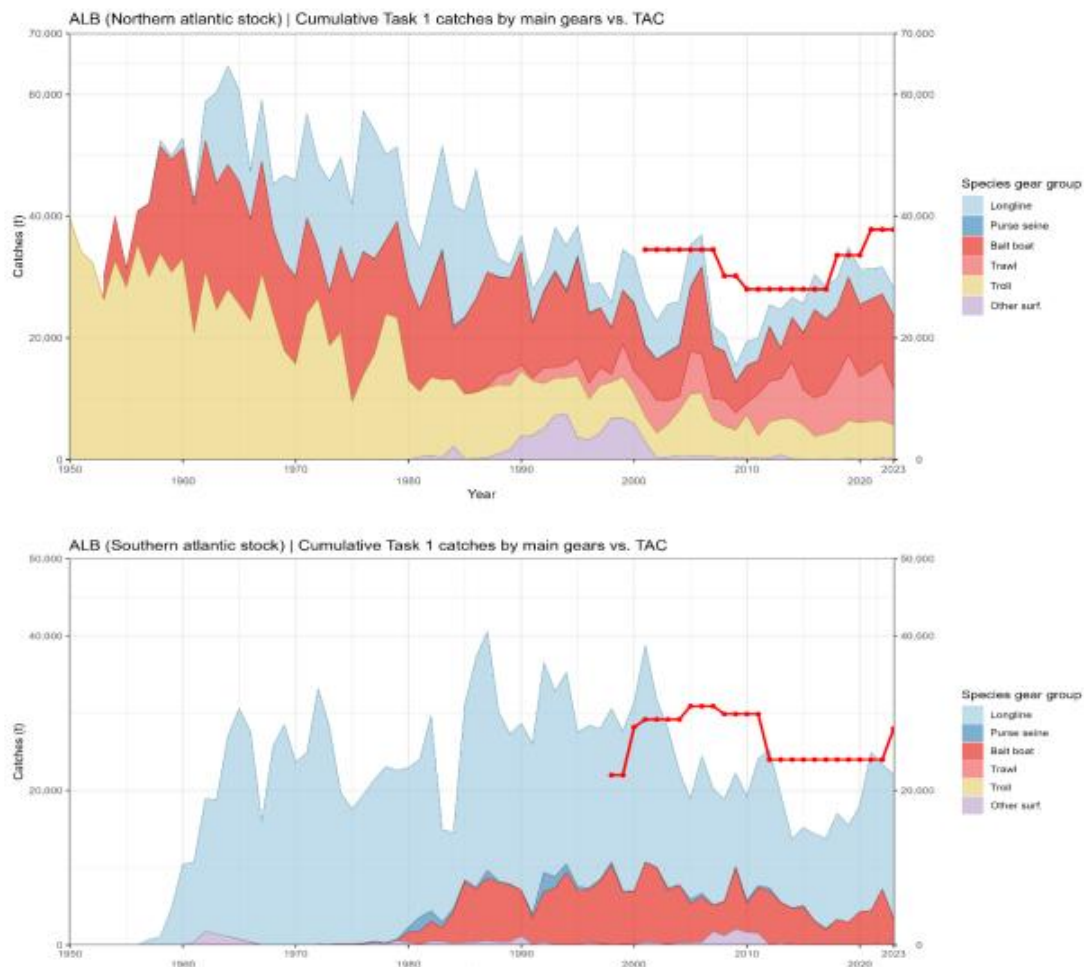


North Atlantic albacore (Kobe plot). Stock status trajectories of B/B_{MSY} and F/F_{MSY} over time (1930-2021), as well as uncertainty (grey dots) around the current (F_{2021}/F_{MSY} , B_{2021}/B_{MSY}) estimate (blue point) based on Stock Synthesis model with probability of being overfished and overfishing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

References

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

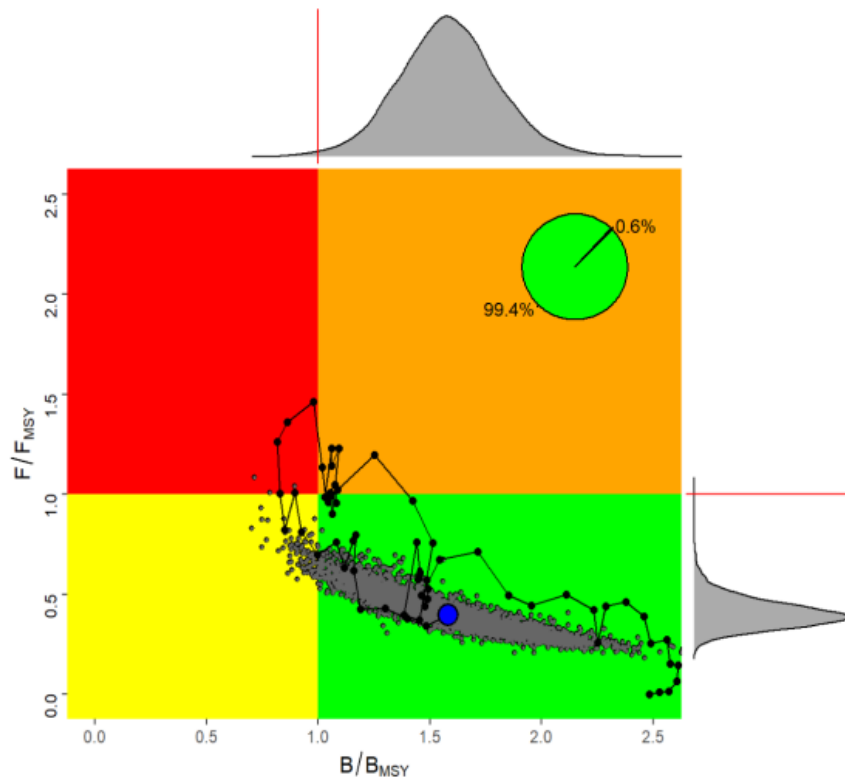
Species name		Thunnus alalunga - Albacore tuna	
Fishing area and stock		South Atlantic albacore	
C1	Category C Stock Status - Minimum Requirements		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities 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 for South Atlantic albacore was conducted in 2020 (ICCAT 2025). The stock assessment utilised catch and effort data up to 2018 and 2021 respectively, and no concerns were raised relating to the completeness of the data. Catches of albacore in the Atlantic Ocean are shown in the chart below. C1.1 is met.			



Total albacore catches for the North (top) and South (bottom) Atlantic albacore stocks by gear type. Red dotted line shows the TAC (ICCAT 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 most recent stock assessment for South Atlantic albacore, 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 B_{2018}/B_{MSY} 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%. Overall, this is clear evidence that the stock is above any potential limit reference point. A Kobe chart summarising the current status of South Atlantic albacore is shown below. C1.2 is met.



South Atlantic albacore tuna, Kobe plot. Stock status trajectories of B/B_{MSY} and F/F_{MSY} 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).

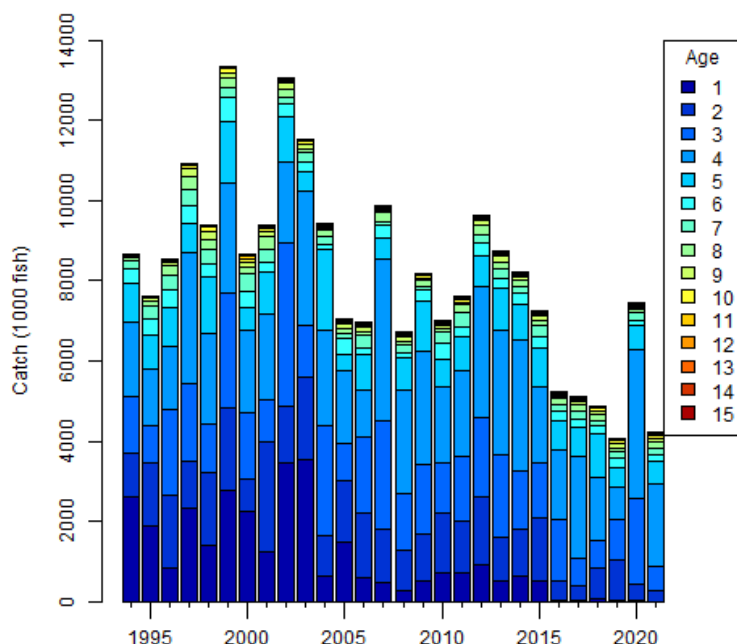
References

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

Species name		<i>Thunnus alalunga</i> - Albacore tuna
Fishing area and stock		North Pacific albacore
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.

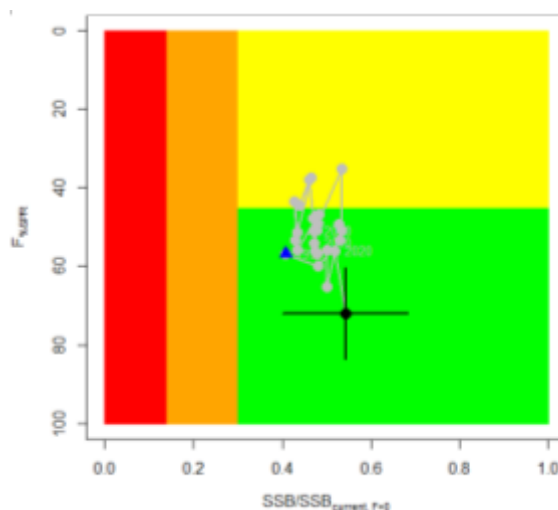
The most recent available stock assessment for the northern Pacific albacore stock was conducted in 2023 and utilised all available data up to 2021. Catch and size composition data were used to inform a length-based, age- and sex-structured Stock Synthesis model. No concerns were raised in the reporting documentation as to the completeness of the catch data (WCPFC 2024). Catches of albacore in the North Pacific are shown in the chart below. C1.1 is met.



Historical catch-at-age of North Pacific Albacore estimated by the base case stock assessment model (WCPFC 2024)

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.

A limit reference point is established for the northern Pacific albacore stock, and is based on dynamic biomass estimates and therefore fluctuates according to changes in recruitment. The limit reference point $14\%SSB_{current, F=0}$ is calculated as 14% of the unfished dynamic female spawning biomass in the terminal year of the assessment (WCPFC 2024). SSB in the most recent stock assessment, conducted in 2023 and providing an indication of stock status in 2021, was estimated to be 54% of $SSB_{current, F=0}$, considerably above the limit reference point. The conclusion reached at the time of the stock assessment was that the stock is likely not overfished relative to the limit reference point. A Kobe plot summarising the current status of the stock is shown below. C1.2 is met.



Stock status phase plot showing the status of the north Pacific albacore (*Thunnus alalunga*) stock relative to the biomass-based threshold and limit reference points, and fishing intensity-based target reference point ($F_{45\%SPR}$) over the modelling period (1994 – 2021). (WCPFC 2024).

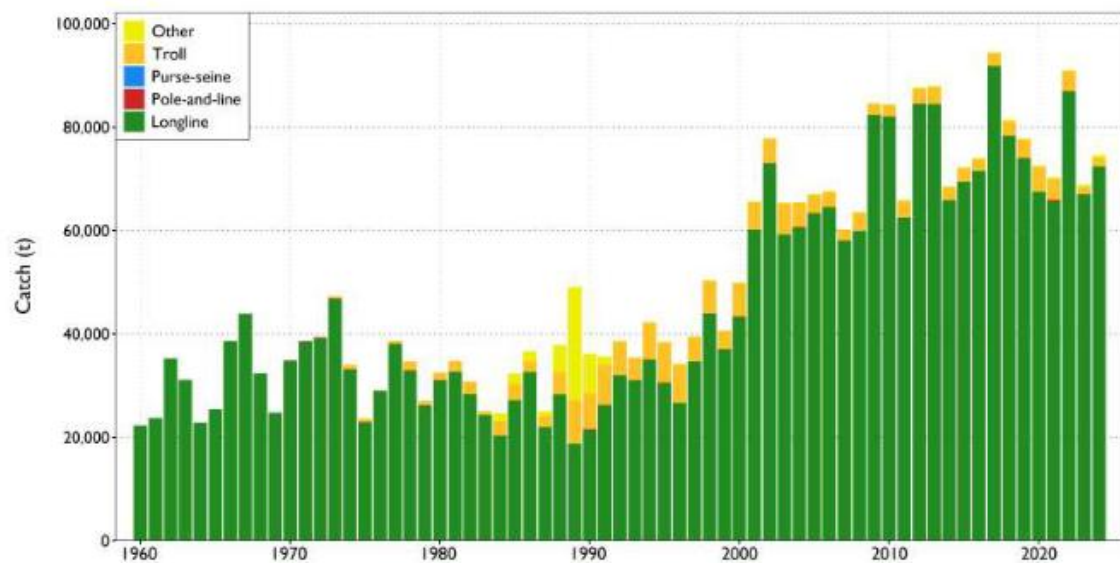
References

WCPFC (2024). North Pacific albacore tuna, stock assessment summary. <https://www.wcpfc.int/doc/05/north-pacific-albacore-tuna>

Species name		<i>Thunnus alalunga</i> - Albacore tuna
Fishing area and stock		South Pacific albacore
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.

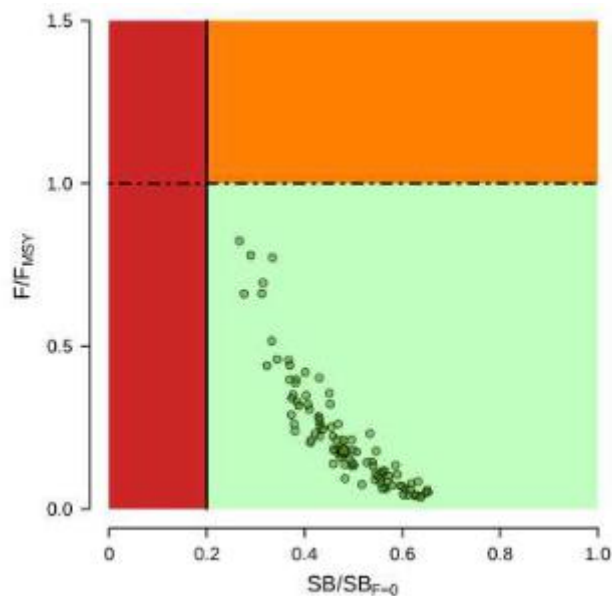
The most recent stock assessment for albacore tuna in the south Pacific was conducted in 2024, using data up to 2022. The assessment used catch data including international catches by fishing gear. The published stock assessment summary (WCPFC 2025) does not appear to include any concerns relating to the availability of catch data. Catches of South Pacific albacore by gear type are shown below. C1.1 is met.



Historical catches of South Pacific albacore from 1960-2024 by gear type (WCPFC 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 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 $20\%SB_{F=0}$. 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... $SB_{recent}/SB_{F=0}$ was above the limit reference point of 0.2” (WCPFC 2025). The most recent stock assessment concluded that the stock biomass is highly likely above the target and limit reference points. A Kobe plot summarising the outcomes of the most recent stock assessment is provided below. C1.2 is met.



Kobe plot for Southern Pacific albacore tuna (WCPFC 2025).

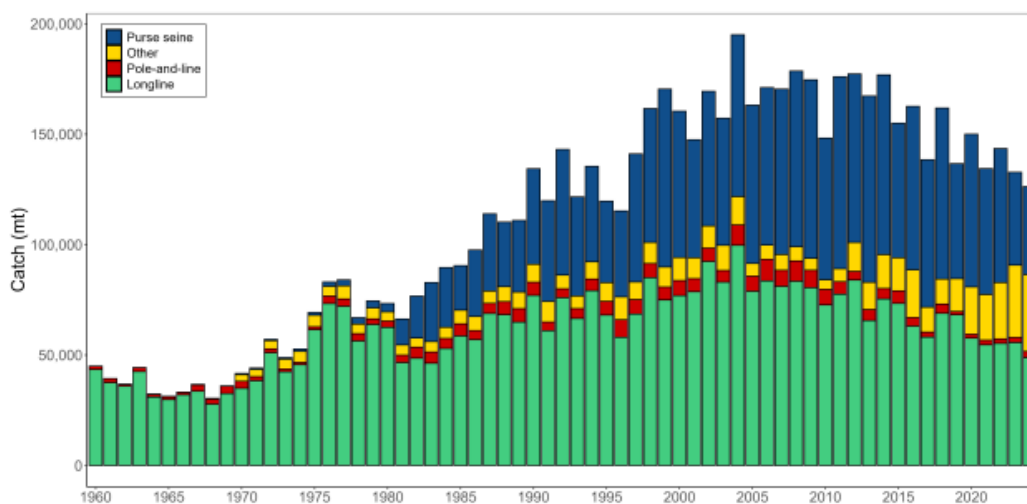
References

WCPFC (2025). The Western and Central Pacific Tuna Fishery: 2024 Overview and Status of Stocks. <https://meetings.wcpfc.int/node/28825>

Species name		<i>Thunnus obesus</i> - Bigeye tuna
Fishing area and stock		Western and Central Pacific bigeye
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.

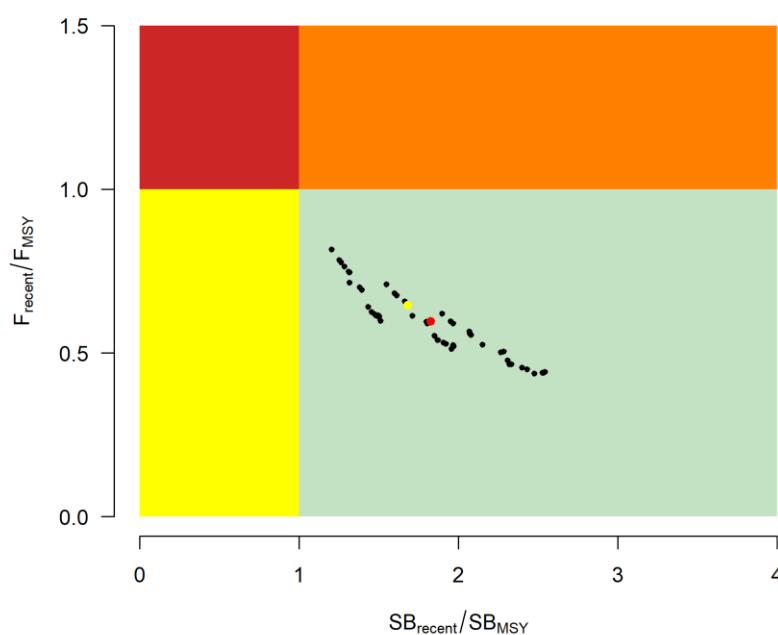
Bigeye tuna in the Western and Central Pacific Ocean is subject to regular stock assessment by the Western and Central Pacific Fisheries Commission. The most recent stock assessment was conducted in 2023, using data up to 2021. The assessment utilised all international catch data. 54 models were applied to take into account the main sources of uncertainty, and the results are presented alongside the likely confidence intervals (WCPFC 2024). All available catch data are incorporated into the assessment, and a chart summarising these data is provided below. C1.1 is met.



Western and Central Pacific bigeye catch (mt) by gear (WCPFC 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 results of the most recent stock assessment produced an estimate of the current status of the stock relative to target reference point SB_{MSY} . The assessment concluded across all 54 models that the mean value of SB_{latest}/SB_{MSY} was 1.76, with an 80% certainty that it was between 1.28 and 2.31 (WCPFC 2024). This translates to a very high probability that stock biomass is above the target reference point SB_{MSY} , and therefore also above any potential limit reference point. The most recent stock assessment summary also states that “For all models in the grid $SB_{recent}/SB_{F=0}$ was above the biomass limit reference point” (WCPFC 2024). A Kobe plot summarising the outcomes of the stock assessment is provided below. C1.2 is met.



Western and Central Pacific bigeye tuna, Kobe plot for recent spawning potential (2018-2021) summarising the results for each of the models in the structural uncertainty grid. Median value is shown in red (WCPFC 2024)

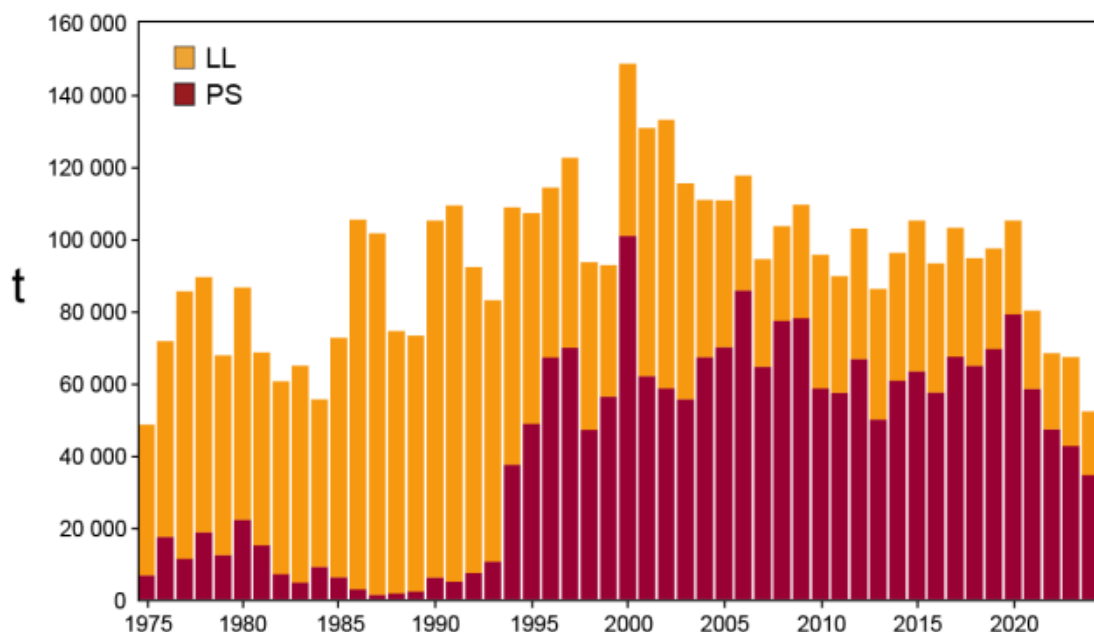
References

- WCPFC (2024). WCPO bigeye tuna stock status and management advice. <https://www.wcpfc.int/doc/01/bigeye-tuna>
- WCPFC (2025). Overview of tuna fisheries in the Western and Central Pacific Ocean, including economic conditions – 2024. <https://meetings.wcpfc.int/node/26697>

Species name		<i>Thunnus obesus</i> - Bigeye tuna
Fishing area and stock		EPO bigeye
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.

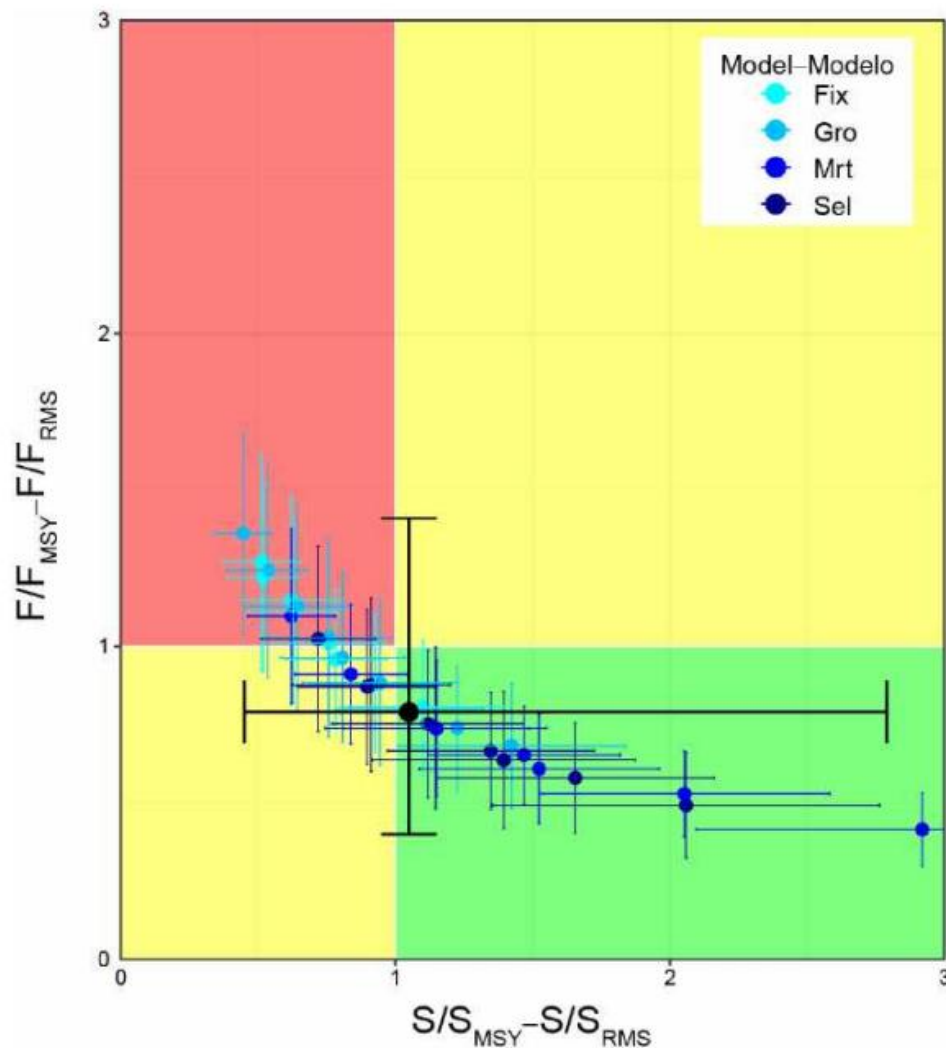
Bigeye tuna in the EPO is subject to regular stock assessment by the Inter-American Tropical Tuna Commission (IATTC). The most recent full stock assessment was conducted in 2024. The assessment utilised all international catch data. 33 models were applied to take into account the main sources of uncertainty, and the results are presented alongside the likely confidence intervals. In 2023, risk-based Stock Status Indicators (SSIs) were introduced. 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. In the case of bigeye, they are incorporated into the annual stock status review (IATTC 2025). Catches of EPO bigeye are shown in the chart below. C1.1 is met.



Total EPO bigeye catch by purse seine gears (PS), and retained catches by longline gears (LL), 1975 – 2023. 2020 and 2021 data are preliminary (IATTC 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 2024 stock assessment produced statistical probabilities for the status of the stock relative to target and limit reference points. The key conclusion for the purposes of this byproduct assessment were that there is a “46.6% probability that the spawning biomass at the beginning of 2024 is below the target reference point”, and a “0.2% probability that the spawning biomass at the beginning of 2024 is below the limit reference point” (IATTC 2025). Therefore, there was a very low probability of the biomass being below the limit reference point. A Kobe plot summarising the current status of the stock is provided below. C1.2 is met.



Kobe plot of the most recent estimates of spawning biomass (S) and fishing mortality (F) relative to their MSY reference points (SMSY_d and FMSY) from the thirty-three reference models. Each dot is based on the average F over the most recent three years, 2021-2023, and the error bars represent the 95% confidence interval of model estimates. The black dot and error bars represent the medium and 95% confidence interval of combined values, respectively. (IATTC 2025)

References

IATTC (2025). The tuna fishery in the Eastern Pacific Ocean in 2024.
https://www.iattc.org/GetAttachment/02c5d8e6-6d9b-42b3-a943-a6873f75deac/No-23-2025_The-tuna-fishery-in-the-Eastern-Pacific-Ocean-in-2024_EN.pdf

Traceability information

Information provided for Step 3 Path 1 or Path 2

Species name	Indian Ocean skipjack			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome.	Flag country	Coastal score	Port score	Risk outcome
	Maldives	Multiple coastal states, highest risk Medium	Maldives (Medium risk)	Downgraded to medium risk

Species name	WCPO skipjack			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome	Flag country	Coastal score	Port score	Risk outcome
	Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, South Korea, Taiwan, Tuvalu, Vanuatu, Indonesia, Philippines	Multiple coastal states, highest risk Medium	Micronesia, Marshall Islands (Medium risk)	Downgraded to medium risk

Species name		EPO skipjack		
Path 1		Yes ☐ No ☒		
Confirm all KDEs are provided		Yes ☐ No ☐		
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome	Flag country	Coastal score	Port score	Risk outcome
	Nauru, South Korea, USA, Kiribati	Multiple coastal states, highest risk Medium	Kiribati, Marshall Islands, Tuvalu (Medium risk)	Downgraded to medium risk

Species name		Indian Ocean yellowfin		
Path 1		Yes ☐ No ☒		
Confirm all KDEs are provided		Yes ☐ No ☐		
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome	Flag country	Coastal score	Port score	Risk outcome
	Japan, Kiribati, Micronesia, Nauru, Papa New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu	Multiple coastal states, highest risk Medium	Multiple port states, highest risk Medium	Downgraded to medium risk

Species name		EPO yellowfin		
Path 1		Yes ☐ No ☒		
Confirm all KDEs are provided		Yes ☐ No ☐		
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome	Flag country	Coastal score	Port score	Risk outcome
	Nauru, USA, Kiribati	Multiple coastal states, highest risk Medium	Kiribati, Marshall Islands, Tuvalu (Medium risk)	Downgraded to medium risk

Species name	North Atlantic albacore			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome.	Flag country	Coastal score	Port score	Risk outcome
	Taiwan, Senegal	Multiple coastal states, highest risk Medium	Trinidad and Tobago (Low risk)	Downgraded to medium risk

Species name	South Atlantic albacore			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome	Flag country	Coastal score	Port score	Risk outcome
	Taiwan	Multiple coastal states, highest risk Medium	Uruguay (Medium risk)	Downgraded to medium risk

Species name	North Pacific albacore			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome.	Flag country	Coastal score	Port score	Risk outcome
	China, Taiwan, Kiribati, South Korea, Tuvalu	Multiple coastal states, highest risk Medium	Tuvalu, Solomon Islands (Medium risk)	Downgraded to medium risk

Species name	South Pacific albacore			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome	Flag country	Coastal score	Port score	Risk outcome
	China, Taiwan, USA	Multiple coastal states, highest risk Medium	Taiwan, Kiribati (Medium risk)	Downgraded to medium risk

Species name	WCPO & EPO bigeye			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome	Flag country	Coastal score	Port score	Risk outcome
	Micronesia, Japan, Kiribati, Nauru, Papua New Guinea, Philippines, South Korea, Taiwan, Tuvalu, Vanuatu, USA	Multiple coastal states, highest risk Medium	Micronesia, Marshall Islands (Medium risk)	Downgraded to medium risk

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.