By-Product assessment report

Document TEM-003 (prev. FISH-1) - Version 3.0
Issued July 2024 – Effective July 2024

BP019: Calvo Conservas – El Salvador

Report code	BP019	Date of issue	June 2025

1. Application details	
Applicant	Calvo Conservas El Salvador SA de CV
Applicant country	El Salvador
2. Certification Body details	
Name of Certification Body (CB)	LRQA (Seafood) Limited
Contact information for CB	mt-ca@lrqa.com
Assessor name	Jose Peiro Crespo
CB internal peer reviewer name	Sam Peacock
Internal peer review evaluation	Agree with evaluation

Comments on the assessment	None of the byproduct species listed in this assessment meet the MT definition of an Endangered, Threatened, or Protected (ETP) species; therefore, all are eligible for byproduct assessment. Byproducts are caught by vessels flagged under 29 different flags. Since El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India received a High Risk rating in Step 2, Step 3 was required. The client provided information on the fisheries' operational areas and landing ports (coastal and port details). Based on this data, Step 3 was conducted, concluding that all listed byproducts (skipjack, yellowfin and bigeye tuna) from FAO areas 77, 87, 34, 47, 41, 61, 71, 57 and FAO area 81 (albacore) may be sourced with caution. However, for those countries byproducts from FAO Area 51 are not approved due to the presence of high-risk coastal countries in the region. In the case of the rest of countries, including Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco, which scored as Medium Risk countries in Step 2, all listed byproducts (skipjack, yellowfin and bigeye tuna) from FAO areas 77, 87, 34, 47, 41, 61, 71, 51, 57 and FAO area 81 (albacore) may be sourced with caution.	
3. Approval validity	Valid from 06/2025	Valid until 06/2026

1.	**2. By-product assessment outcomes**

By-product species name *Common and Latin names*	Flag country(ies)	FAO area	MarinTrust approval status
Skipjack tuna (*Katsuwonus pelamis*)	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India. Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco.	FAO 77, 87, 34, 47, 41, 61, 71 and 57	Approved source with caution
Yellowfin tuna (*Thunnus albacares*)	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India. Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco.	FAO 77, 87, 34, 47, 41, 61, 71 and 57	Approved source with caution

Bigeye tuna (*Thunnus obesus*)	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India. Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco.	FAO 77, 87, 34, 47, 41, 61, 71 and 57	Approved source with caution
Albacore tuna (*Thunnus alalunga*)	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India. Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco.	FAO 81	Approved source with caution
Skipjack tuna (Katsuwonus pelamis) Yellowfin tuna (Thunnus albacares) Bigeye tuna (Thunnus obesus)	Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco.	FAO 51	Approved source with caution

Skipjack tuna (Katsuwonus pelamis) Yellowfin tuna (Thunnus albacares) Bigeye tuna (Thunnus obesus)	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India.	FAO 51	Not approved

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

By-product species name *Common and Latin names*	**Flag country(ies)**	**IUCN Red List** *Select IUCN red list category from dropdown*	**CITES Appendices** *Select CITES appendix status from dropdown*	**Step 2 risk status** *Low risk/ Medium risk/ High risk*	**Step 3 required** *Yes / No*	**Step 3 risk Outcome** *Not applicable /Risk downgraded to Medium risk/ Remains High risk*
Skipjack tuna (*Katsuwonus pelamis*) FAO 77, 87, 34, 47, 41, 61, 71 and 57.	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Least concern	Not listed	High risk	Yes	Risk downgraded to Medium risk

Skipjack tuna (*Katsuwonus pelamis*) FAO 77, 87, 34, 47, 41, 61, 71 and 57.	Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco.	Least concern	Not listed	Medium risk	No	NA
Yellowfin tuna (*Thunnus albacares*) FAO 77, 87, 34, 47, 41, 61, 71 and 57.	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Least concern	Not listed	High risk	Yes	Risk downgraded to Medium risk
Yellowfin tuna (*Thunnus albacares*) FAO 77, 87, 34, 47, 41, 61, 71 and 57.	Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco.	Least concern	Not listed	Medium risk	No	NA

Bigeye tuna (*Thunnus obesus*) FAO 77, 87, 34, 47, 41, 61, 71 and 57	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Vulnerable	Not listed	High risk	Yes	Risk downgraded to Medium risk
Bigeye tuna (*Thunnus obesus*) FAO 77, 87, 34, 47, 41, 61, 71 and 57	Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco.	Least concern	Not listed	Medium risk	No	NA

Albacore tuna (*Thunnus alalunga*) FAO area 81	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Least concern	Not listed	High risk	Yes	Risk downgraded to Medium risk
Albacore tuna (*Thunnus alalunga*) FAO area 81	Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco.	Least concern	Not listed	Medium risk	No	NA

Skipjack tuna (*Katsuwonus pelamis*) Yellowfin tuna (*Thunnus albacares*) Bigeye tuna (Thunnus obesus) FAO area 51	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Least concern	Not listed	High risk	Yes	Remains high risk
Skipjack tuna (*Katsuwonus pelamis*) Yellowfin tuna (*Thunnus albacares*) Bigeye tuna (Thunnus obesus) FAO area 51	Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco.	Least concern	Not listed	Medium risk	No	NA

(step 2 and step 3 if applicable)

Step 2 outcomes

Assessor note: Copy and paste from Spreadsheet.

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
El Salvador	High	1.88	2.78	2.77	1	1	5	1	39.62%
Belize	Medium	2.29	1.57	2.00	1	1	n/ap	1	35.85%
Brazil	High	1.42	1.86	2.20	3	1	n/ap	1	43.87%
Cape Verde	Medium	1.58	1.83	2.20	1	1	1	1	60.85%
China	High	4.21	4.33	3.20	1	1	5	1	36.79%
Curaçao/Netherlands	Medium	2.21	2.44	1.87	1	1	1	1	96.70%
Ecuador	High	2.58	2.11	2.43	1	3	1	1	35.38%
USA	Medium	2.29	2.06	2.37	1	1	1	1	91.04%

Spain	Medium	3.21	3.39	2.03	1	1	1	1	75.94%
Philippines	Medium	2.04	2.06	2.53	1	1	1	1	53.77%
France	Medium	3.17	2.39	1.67	1	1	1	1	85.38%
Ghana	High	1.67	2.00	2.23	1	3	1	1	44.81%
Guatemala	High	1.83	2.78	2.22	1	1	5	n/av	41.51%
Indonesia	High	3.33	2.56	2.47	3	1	1	1	59.43%
Kenya	High	1.63	1.83	2.63	3	1	1	1	39.15%
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%
Mauritius	Medium	2.13	2.72	1.97	1	1	1	1	84.43%
Nicaragua	High	2.08	1.44	2.40	1	1	1	1	18.40%
Panama	High	3.75	1.67	1.93	1	3	1	1	55.19%
Papua Nueva Guinea	High	2.04	2.94	2.07	1	1	5	1	26.42%
Senegal	High	2.38	2.72	2.40	1	1*	1	1	41.04%
Seychelles	Medium	1.79	2.39	1.57	1	1	1	1	62.26%
Taiwan	High	4.17	3.06	2.27	1	1	5	1	90.57%

Tanzania	High	1.83	2.78	2.30	3	1	5	1	30.19
Venezuela	High	2.46	2.89	2.83	1	1	5	1	2.36
Mexico	High	2.25	3.06	2.78	2	1	5	1	46.70%
India	High	2.75	3.00	3.47	1	1	n/ap	5	50.94
Morocco	Medium	2.29	1.78	2.17	1	1	1	1	49.06%

Step 3 outcomes

Category C assessment

This section presents the relevant species categorized by ocean: Atlantic, Pacific, and Indian.

Atlantic Ocean

Species name		**Skipjack tuna**	
Fishing area and stock		**FAO Area 34 and 47, Eastern Atlantic 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.

Skipjack tuna stocks have been historically exploited by two major gears (purse seine on the eastern stock and baitboat on the western stock) and by many countries throughout their range. Skipjack catches in the eastern Atlantic Ocean in 2022 were about 271,400 tonnes, a 31% increase from 2021. Purse seine (88%) and pole-and-line (9%) dominate the catches. The purse seine catches had been decreasing from the early 1990s to 2009, but increased substantially since then, reaching a high peak in 2018 and again in 2022 (ISSF 2023, ICCAT 2024). Catches by other gears have remained stable. Catches of the stock were considered during the most recent assessment process. **C.1.1 is met.**

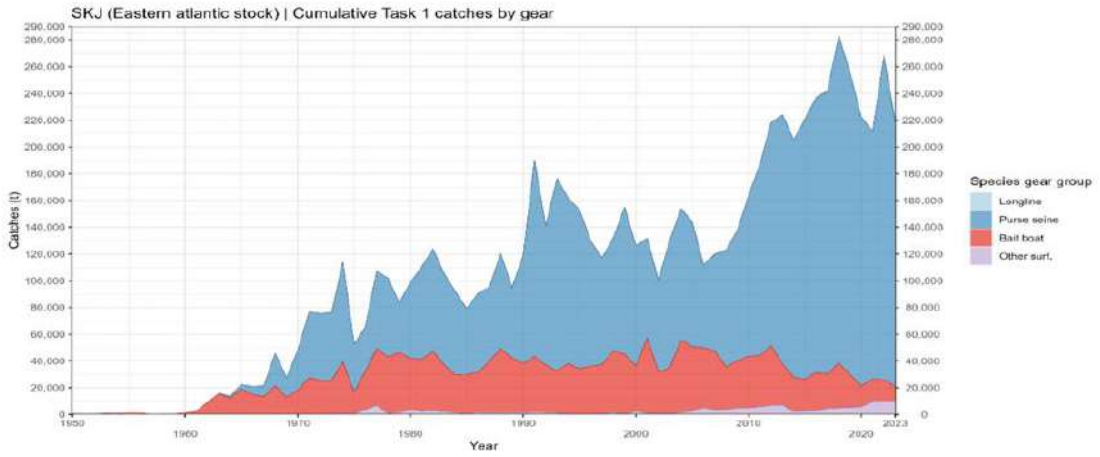

FIGURE 1. ***SKIPJACK CATCHES IN THE EASTERN ATLANTIC, BY GEAR (1950-2023). THE VALUES FOR 2023 ARE PRELIMINARY (ICCAT 2024).***

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.

The stock was last assessed by the International Commission for the Conservation of Atlantic Tunas (ICCAT) in 2022, using data up to 2020 and two different model platforms. The combined results of both assessment models, based on the median of an uncertainty grid with 18 scenarios in each model, show that (ISSF 2023):

1. The ratio of Fcurrent/FMSY is estimated to be 0.63 (95% C.I.: 0.18-2.35), indicating that overfishing is not occurring.

2. The ratio of spawning biomass SSBcurrent/SSBMSY is estimated to be 1.60 (95% C.I.: 0.50-5.79), indicating that the stock is not in an overfished state.

3. The estimate of MSY is 216,617 t (95% C.I.: 172,735-284,658 t). Current catch levels (271,400 t in 2022) are above the MSY.

Therefore, it is highly likely that the biomass is currently above the target reference point and any potential limit reference point. **C1.2 is met.**

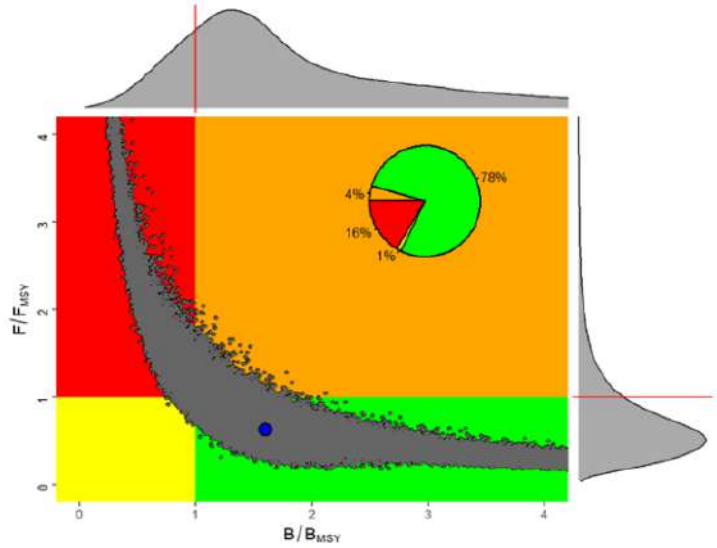

FIGURE 2. JOINT KOBE PHASE PLOT FOR THE 18 STOCK SYNTHESIS UNCERTAINTY GRID RUNS AND 18 JABBA UNCERTAINTY GRID RUNS FOR THE EASTERN ATLANTIC SKIPJACK STOCK (ICCAT 2022).

References

ICCAT 2024. Report of the Standing Committee on Research and Statistics (SCRS) (Hybrid / Madrid (Spain) – 23-27 September 2024). Available at: https://www.iccat.int/en/scrs.html

ICCAT REPORT 2022-2023 (I). Skipjack tuna (summary). Available at: https://www.iccat.int/Documents/SCRS/ExecSum/SKJ_ENG.pdf

International Seafood Sustainability Foundation ISSF 2023-12: Status of the World Fisheries for Tuna. Available at : https://www.iss-foundation.org/issf-downloads/download-info/issf-2023-12-status-of-the-world-fisheries-for-tuna-november-2023/

Species name		**Skipjack tuna**	
Fishing area and stock		**FAO Area 41, Western Atlantic 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.

Skipjack catches in the western Atlantic Ocean in 2022 were about 21,400 tonnes, a 7% increase from 2021. Pole-and-line fishing dominates the catches (70%), followed by purse seining (9%). Pole and line catches have remained relatively stable (although highly variable) during the last two decades and declined recently. Catches of the stock were considered during the most recent assessment process. **C1.1 is met.**

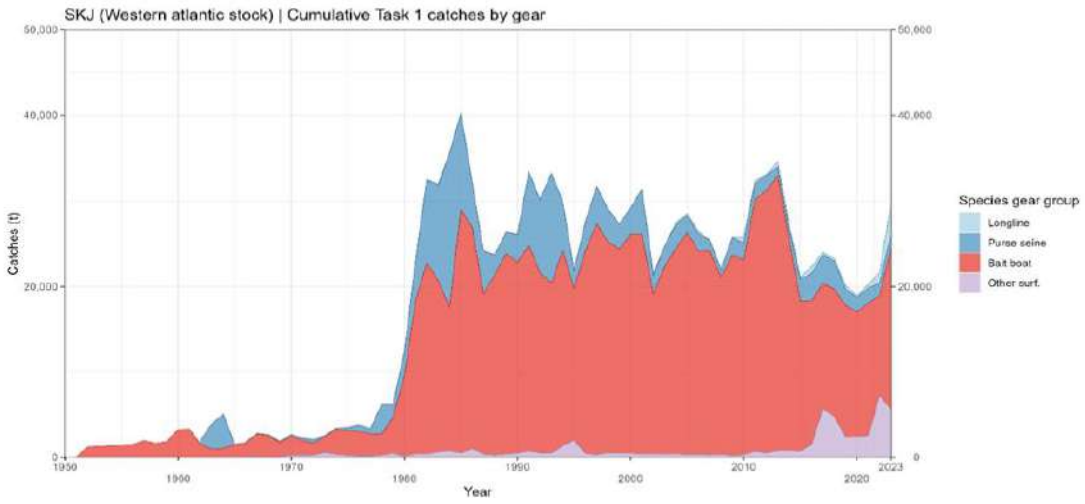

FIGURE 3. SKIPJACK CATCHES IN THE WESTERN ATLANTIC, BY GEAR (1950-2023). THE VALUES FOR 2023 ARE PRELIMINARY (ICCAT 2024).

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.

The stock was assessed by SCRS in 2022, using data up to 2020. Stock status was estimated by combining the results of the 9 scenarios in the uncertainty grid. The SCRS concluded that:

1. The ratio of Fcurrent/FMSY is around 0.41 (95% C.I.: 0.19-0.89), indicating that overfishing is not occurring.

2. The ratio of spawning biomass SSBcurrent/SSBMSY is 1.60 (95% C.I.: 0.90-2.87), indicating that the stock is not overfished.

3. The value of MSY is estimated as 35,277 tonnes (95% C.I.: 28,444-46,340 t), higher than current catch levels (21,400 t in 2022).

Therefore, it is highly likely that the biomass is currently above the target reference point and any potential limit reference point. **C1.2 is met.**

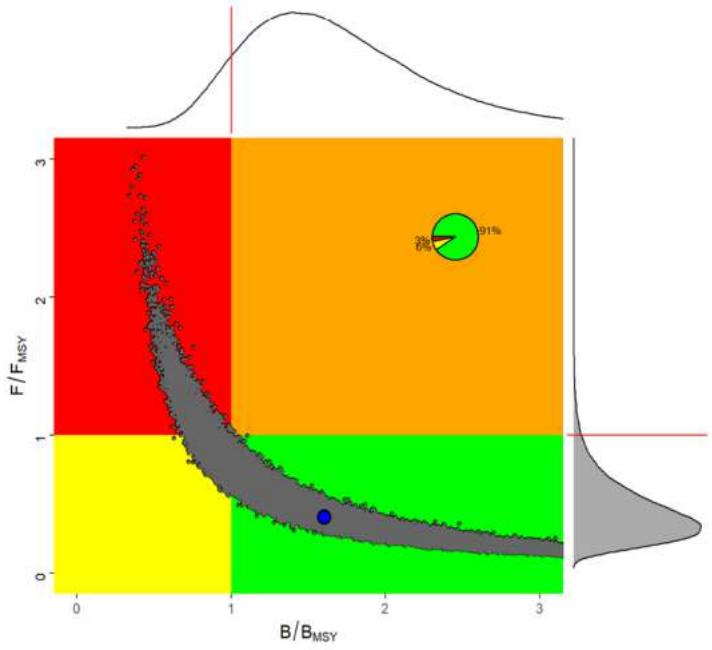

FIGURE 4.KOBE PHASE PLOT FOR THE 9 STOCK SYNTHESIS UNCERTAINTY GRID RUNS FOR THE WESTERN ATLANTIC SKIPJACK STOCK (ICCAT 2022).

References

ICCAT 2024. Report of the Standing Committee on Research and Statistics (SCRS) (Hybrid / Madrid (Spain) – 23-27 September 2024). Available at: https://www.iccat.int/en/scrs.html

ICCAT REPORT 2022-2023 (I). Skipjack tuna (summary). Available at: https://www.iccat.int/Documents/SCRS/ExecSum/SKJ_ENG.pdf

International Seafood Sustainability Foundation ISSF 2023-12: Status of the World Fisheries for Tuna. Available at : https://www.iss-foundation.org/issf-downloads/download-info/issf-2023-12-status-of-the-world-fisheries-for-tuna-november-2023/

Species name		**Yellowfin tuna (*Thunnus albacares*)**	
Fishing area and stock		**FAO Areas 34, 41, 47 (Atlantic yellowfin tuna)**	
C1	**Category C Stock Status - Minimum Requirements**		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	PASS
	C1.2	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	PASS
		Clause outcome:	**PASS**

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.

A full stock assessment was conducted for yellowfin tuna in 2024 using an age-structured model framework (Stock Synthesis) applied to the available data through 2022.

The assessment incorporated all available catch data along with three key abundance indices: a joint-CPC tropical Atlantic longline index; an acoustic echosounder buoy index; and a purse seine free school index (ICCAT 2024). **C1.1 is met.**

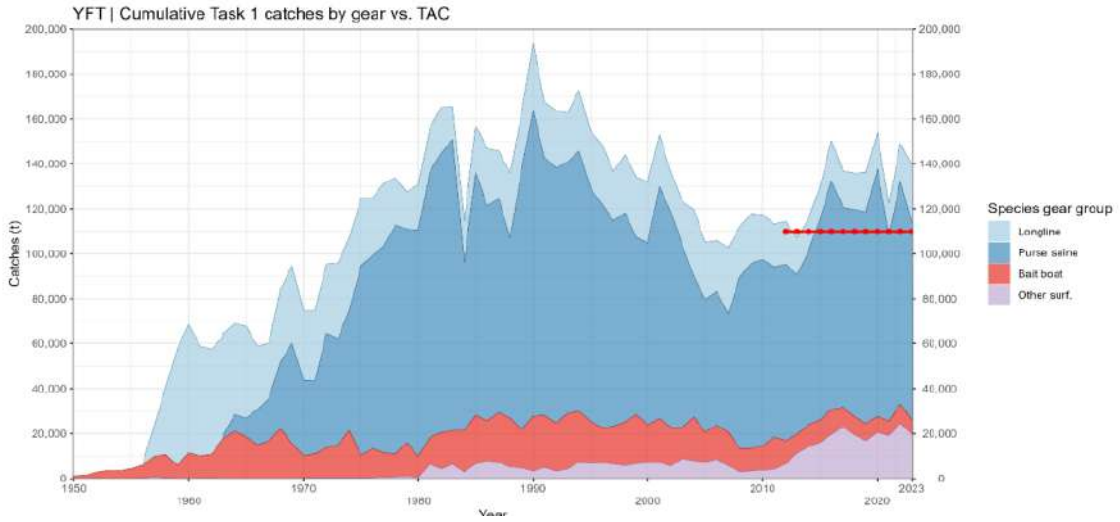

FIGURE 5. YELLOWFIN TUNA TOTAL CATCH 1950-2023 BY MAIN FISHING GEAR GROUP. THE RED DOTTED LINE REPRESENTS THE TAC (ICCAT 2024).

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.

The ICCAT stock assessment report includes an indication of the estimated stock status relative to target reference points. The median estimate of SSB2022/SSBMSY was 1.37 (80% confidence interval: 0.91 - 2.15), indicating the stock was not overfished in 2022 with 81% probability. The median estimate of F2022/FMSY was 0.89 (0.40 - 1.46), indicating that overfishing was not occurring in 2022 with 58% probability. The median MSY estimated was 121,661 t with 80% confidence intervals of 107,485 and 188,456 t. The probability of the stock being in each quadrant of the Kobe plot in 2022 is provided in figure below. There was a 58% probability that the stock was in the green quadrant (not overfished nor subject to overfishing) a 23% probability of being in the orange quadrant (subject to overfishing but not being overfished), and a 19% probability in the red quadrant (being both overfished and subject to overfishing). Therefore, the stock is likely that stock biomass was above the target reference point level, and therefore highly likely to be above the limit reference point level. **C1.2 is met.**

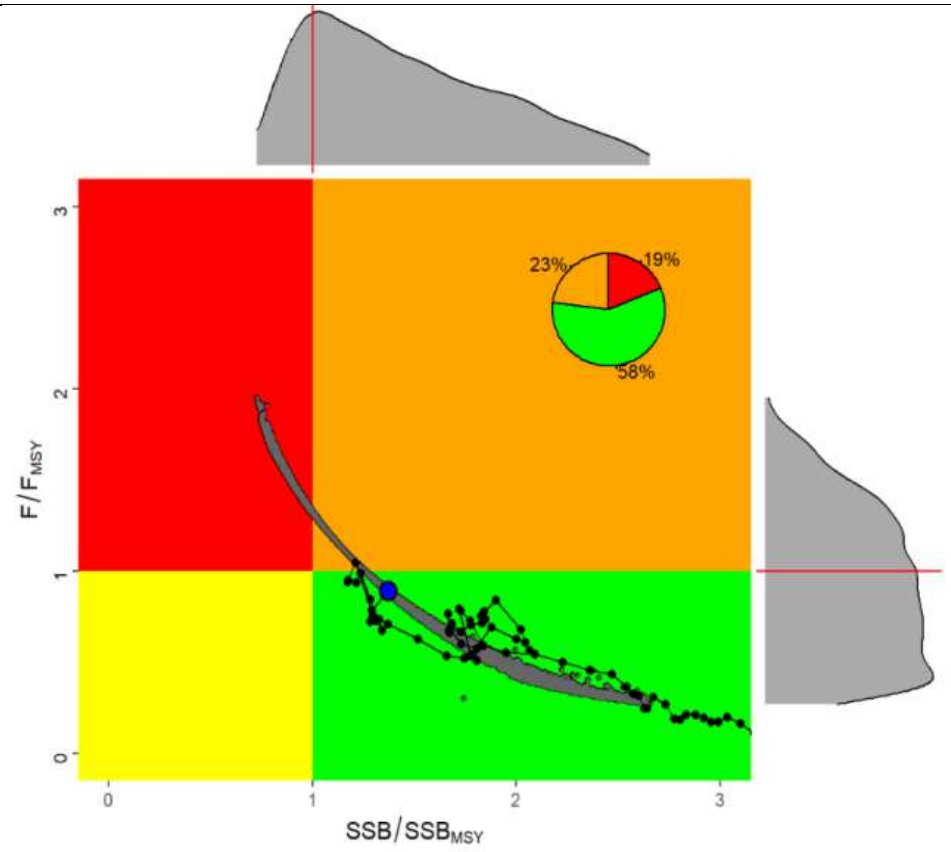

FIGURE 6. KOBE PLOT OF THE STOCK STATUS OF ATLANTIC YELLOWFIN TUNA IN 2022. GRAY DOTS ARE THE 4,000 STOCK SYNTHESIS MODEL RUNS; THE BLUE CIRCLE IS THE MEDIAN OF THESE RUNS AND MARGINAL HISTOGRAMS REPRESENT THE DISTRIBUTION OF EITHER SSB/SSBMSY OR F/FMSY. THE BLACK LINE INDICATES THE STOCK STATUS TRAJECTORY STARTING IN 1958. THE INSERTED PIE CHART INDICATES THE PROPORTION OF MODEL ITERATIONS WITHIN EACH KOBE COLOUR QUADRANT, 58% IN THE GREEN QUADRANT, 23% IN THE ORANGE QUADRANT, AND 19% IN THE RED QUADRANT (ICCAT 2024).

References

ICCAT (2024). Stock summary, yellowfin tuna.
https://www.iccat.int/Documents/SCRS/ExecSum/YFT_ENG.pdf

Species name		Bigeye tuna (*Thunnus obesus*)	
Fishing area and stock		**FAO Areas 34, 41, 47 (Atlantic bigeye tuna)**	
C 1	**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	PASS

		removals by the fishery under assessment are considered by scientific authorities to be negligible.	
			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.

A stock assessment for bigeye tuna was conducted by the ICCAT in 2021. That assessment was conducted using similar assessment models to those used in 2018, updating the data until 2019, including catch data. The stock has been exploited by three major gears (longline, baitboat and purse seine fisheries) and by many countries throughout its range. Catches of all tropical tunas declined considerably in 2021, and the reported catch of bigeye tuna was only 47,209 t. The preliminary catch reported for 2023 was 61,320 t. **C1.1. is met.**

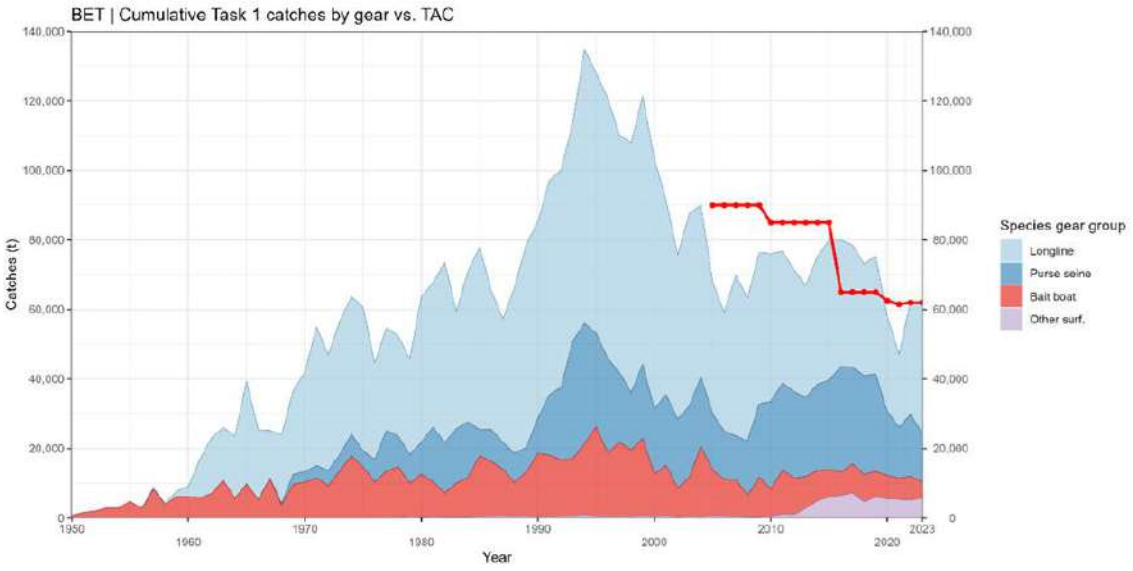

FIGURE 7. BIGEYE TUNA ESTIMATED AND REPORTED CATCHES FOR ALL THE ATLANTIC STOCK (T). THE RED DOTTED LINE INDICATES THE TAC (ICCAT 2025).

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 age structured model (SS3) was the primary source of information used to evaluate this stock and shows a substantially more optimistic stock status than estimated in 2018 due to improving longline abundance indices and incorporating new mortality-at-age vectors (Medley & Gascoigne 2024). The results of the assessment, based on the median of the entire uncertainty grid shows that in 2019 the Atlantic bigeye tuna stock was overfished (median SSB2019/SSBMSY = 0.94 and 80% confidence interval (CI) of 0.71 and 1.37) and was not undergoing overfishing (median F2019/FMSY=1.00 and 80% CI of 0.63 and 1.35). The average of MSY was estimated as 86,833 t with (80% CI of 72,210 t and 106,440 t) from the uncertainty grid deterministic runs (ICCAT 2025). Based on that information it seems that the stock is closed to the target point and therefore over any potential limit point. **C1.2 is met.**

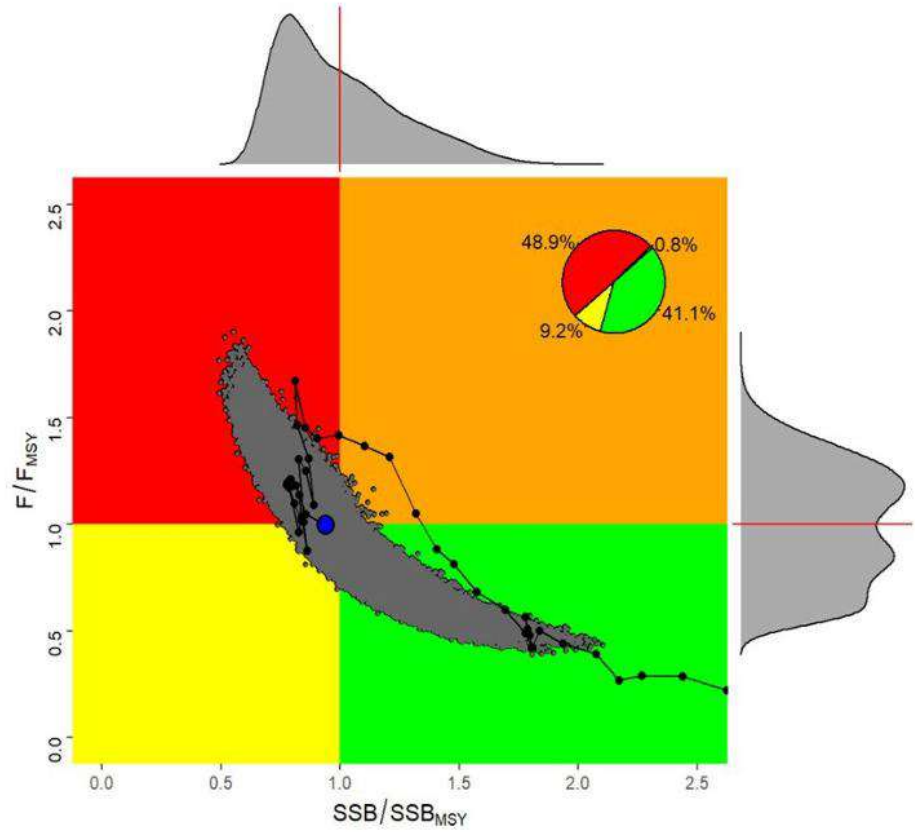

FIGURE 8. STOCK SYNTHESIS: KOBE PLOT OF SSB/SSBMSY AND F/FMSY FOR STOCK STATUS OF ATLANTIC BIGEYE TUNA IN 2019 BASED ON THE LOG MULTIVARIATE NORMAL APPROXIMATION ACROSS THE 27 UNCERTAINTY GRID MODEL RUNS OF STOCK SYNTHESIS WITH AN INSERT PIE CHART SHOWING THE PROBABILITY OF BEING IN THE RED QUADRANT (48.9%), GREEN QUADRANT (41.1 %), ORANGE (0.8%) AND IN YELLOW (9.2 %). BLUE CIRCLE IS THE MEDIAN AND MARGINAL HISTOGRAMS REPRESENT DISTRIBUTION OF EITHER SSB/SSBMSY OR F/FMSY (ICCAT 2025).

References

ICCAT (2024-2025). BIGEYE TUNA. EXECUTIVE SUMMARY. Available at: https://www.iccat.int/en/assess.html

Medley, P.A.H. & Gascoigne, J. (2024). An Evaluation of the Sustainability of Global Tuna Stocks Relative to Marine Stewardship Council Criteria (Version 11). ISSF Technical Report 2024-06. International Seafood Sustainability Foundation, Pittsburgh, PA, USA.

Pacific Ocean: western

Species name	Skipjack tuna (*Katsuwonus pelamis*)
Fishing area and stock	**FAO 61 and 71 (Western Central Pacific stock)**
	Category C Stock Status - Minimum Requirements

C1	**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 Central Pacific Skipjack Tuna removals in the fishery under assessment are included in the stock assessment process via Western and Central Pacific Fisheries Commission (WCPFC) processes. SC18 noted that the total catch in 2021 was 1,547,945t, a 10% decrease from 2020 and a 14% decrease from the 2016-2020 average. Purse seine catch in 2021 (1,254,022t) was a 11% decrease from 2020 and a 13% decrease from the 2016-2020 average. Pole and line catch (97,908t) was a 39% decrease from 2020 and a 37% decrease from the 2016-2020 average catch. Catch by other gears totalled 192,182t and was a 25% increase from 2020 and 5% decrease from the average catch in 2016-2020 (see figure below).

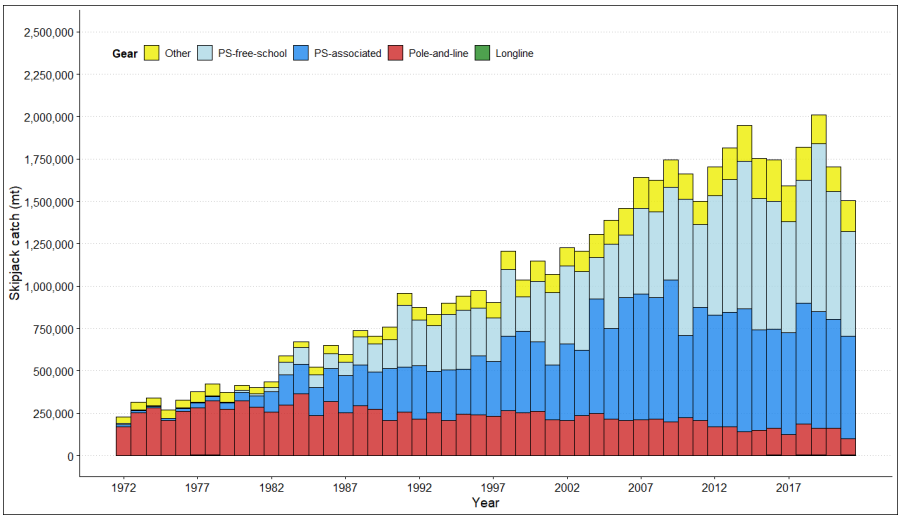

FIGURE 9 ANNUAL CATCHES OF SKIPJACK BY GEAR TYPE IN THE WCPO AREA COVERED BY THE ASSESSMENT (WCPO 2022)

Therefore, fishery removals of the stock are included in the stock assessment process such that the fishery passes **C1.1.**

C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.

The last stock assessment for the stock was conducted in 2022 (WCPO 2022). a structural uncertainty grid was used to develop management advice which included axes for tag mixing (three options), growth (two options) and steepness (three options), resulting in 18 models (Table SKJ-01). All models within the grid were equally weighted. The assessment grid of models estimated that the

overall median recent spawning depletion (SBrecent/SBF=0) is 0.51 (80th percentile 0.43-0.64), which is close to the interim target reference point (TRP) of 0.50 (CMM 2021-01). No grid models were below the limit reference point (LRP) of 0.20 SBF=0. The median of Frecent/FMSY was 0.32 (80th percentile 0.18-0.45) (Table SKJ-02). The 2022 stock assessment of skipjack tuna for the WCPO, indicated that according to WCPFC reference points the stock is not overfished, nor undergoing overfishing (see figure below).

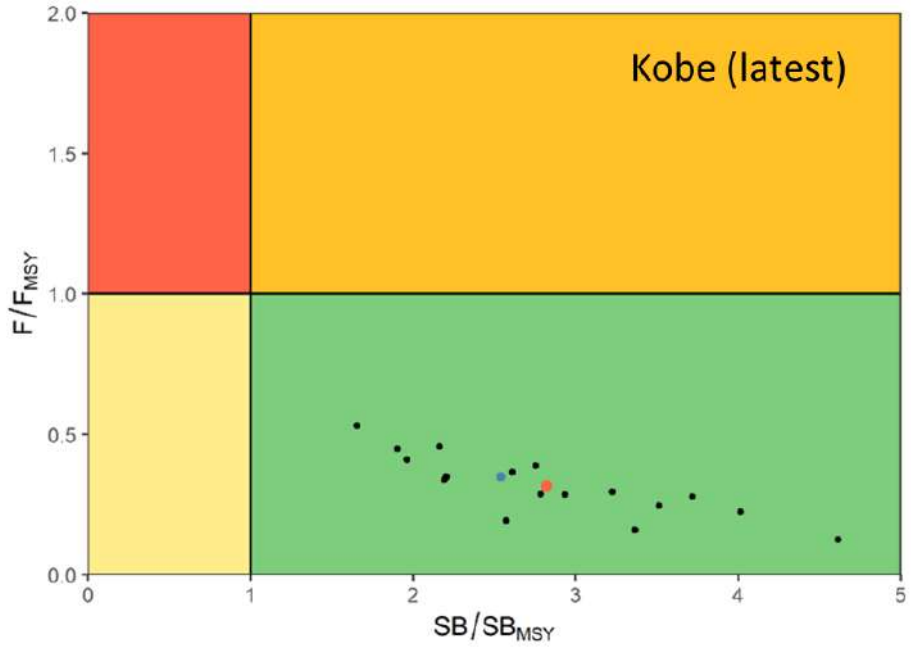

FIGURE 10 KOBE (TOP) PLOT SUMMARISING THE RESULTS FOR EACH OF THE MODELS IN THE STRUCTURAL UNCERTAINTY GRID FOR THE 'LATEST' (2021) PERIOD. THE BLUE POINT IS THE DIAGNOSTIC MODEL, AND THE RED POINT IS THE MEDIAN (WCPO 2022).

Therefore, the fishery passes **C1.2.**

References

WCPO (2022). SKIPJACK TUNA (*Katsuwonus pelamis*). STOCK STATUS AND MANAGEMENT ADVICE. WESTERN AND CENTRAL PACIFIC OCEAN SCIENTIFIC COMMITTEE. Available at: https://www.wcpfc.int/current-stock-status-and-advice

Species name		Yellowfin tuna (*Thunnus albacares*)	
Fishing area and stock		**FAO 61 and 71 (Western Central Pacific stock)**	
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	PASS

		removals by the fishery under assessment are considered by scientific authorities to be negligible.	
			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.

Two discrete stocks of yellowfin are recognised in the Pacific Ocean delimited:

1. Western Central Pacific Ocean (WCPO) yellowfin, managed via the Western and Central Pacific Fisheries Commission (WCPFC).

2. Eastern Pacific Ocean (EPO) yellowfin, managed by the Inter-American Tropical Tuna Commission (IATTC).

Those stocks are assessed by the WCPFC and the IATTC respectively using reference points. As this assessment refers to FAO area 71, only the WCPO stock is considered:

WCPO stock

Western Central Pacific Yellowfin Tuna removals in the fishery under assessment are included in the stock assessment process via Western and Central Pacific Fisheries Commission (WCPFC) processes. SC19 noted that the preliminary estimate of total catch of WCPO yellowfin tuna for 2022 was 721,169 mt which was lower than the 2021 level. Longline catch in 2022 (84,232 mt) was higher than the 2021 catch, but lower than the recent 10-year average. Purse-seine catch in 2022 (379,715 mt) was similar to the 2021 catch, and higher than the recent 10-year average (see figure below).

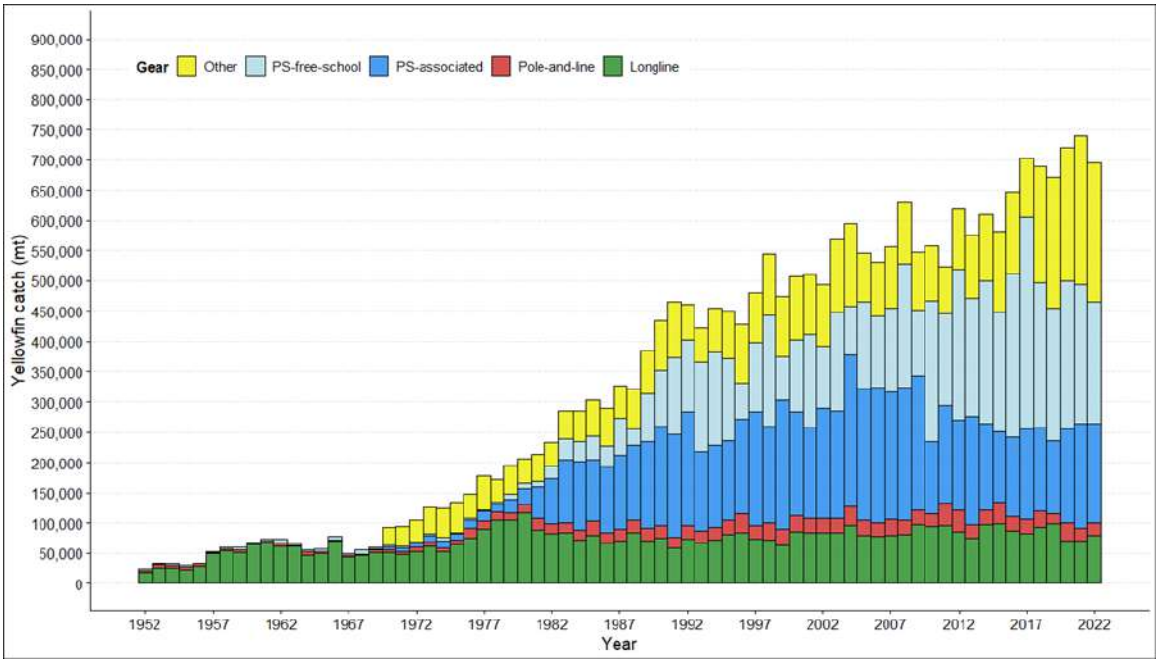

FIGURE 11 : ANNUAL CATCHES OF YELLOWFIN BY GEAR TYPE IN THE WCPO AREA COVERED BY THE ASSESSMENT (FIGURE 3 FROM SC19-SA-WP-04) (WCPFC 2023).

Therefore, fishery removals of the stock are included in the stock assessment process such that the fishery passes **C1.1.**

C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.

The 2023 WCPO yellowfin tuna assessment provides stock status based upon a 54-model structural uncertainty grid with four axes: steepness with three levels, tag mixing period with two levels, and size and age composition data with three levels each. The 2023 WCPO yellowfin tuna stock assessment median depletion from the model grid for the recent period (2018–2021; SBrecent/SBF=0) was estimated at 0.47 (10th to 90th percentile interval of 0.42 to 0.52, including estimation and structural uncertainty). For all models in the grid SBrecent/SBF=0 was above the biomass limit reference point. The recent median fishing mortality (2017–2020; Frecent/FMSY) was 0.50 (10th to 90th percentile interval of 0.41 to 0.62, including estimation and structural uncertainty, Table YFT-02). For all models in the grid, Frecent/FMSY was less than one. The stock is above Blim.

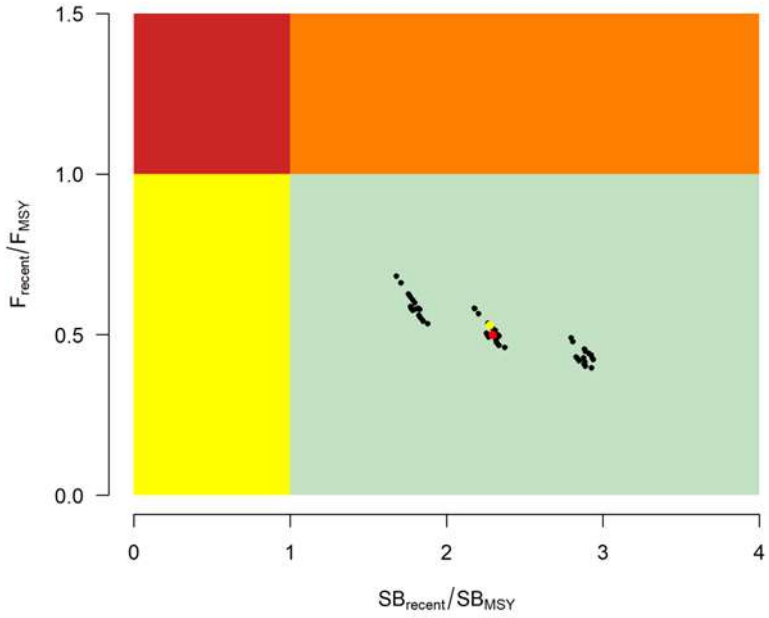

FIGURE 12 KOBE PLOT SUMMARISING THE RESULTS FOR EACH OF THE MODELS IN THE STRUCTURAL UNCERTAINTY GRID FOR THE RECENT PERIOD (2018-2021). THE YELLOW POINT IS THE 2023 DIAGNOSTIC MODEL AND THE RED POINT IS THE MEDIAN (FIGURE 64 FROM SC19-SA-WP-04) (WCPFC 2023).

Therefore, the fishery passes **C1.2.**

References

WCPFC 2023. WCPO YELLOWFIN TUNA (*Thunnus albacares*). STOCK STATUS AND MANAGEMENT ADVICE. Available at: https://www.wcpfc.int/doc/02/yellowfin-tuna

Species name	Bigeye tuna (*Thunnus obesus*)
Fishing area and stock	**FAO Areas 61 and 71 (Western Pacific bigeye tuna)**

C1	Category C Stock Status - Minimum Requirements		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	PASS
	C1.2	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	PASS
		Clause outcome:	**PASS**

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.

A stock assessment for bigeye tuna was conducted by the WCPO scientific committee in 2023. The assessment provides stock status based upon a 54-model structural uncertainty grid with four axes: steepness with three levels, tag mixing period with two levels, and size and age composition data with three levels each. Time series of total annual catch by fishing gear over the full assessment period is shown in figure below. SC19 noted that the preliminary estimate of total catch of WCPO bigeye tuna for 2022 was 140,664 mt which was similar to the 2021 level. Longline catch in 2022 (54,800 mt) was similar to the 2021 catch and lower than the recent ten-year average and understood to be partly due to the impacts of the COVID-19 pandemic. Purse-seine catch in 2022 (62,811 mt) was also similar to the 2021 catch, and lower than the recent ten-year average. **C1.1. is met.**

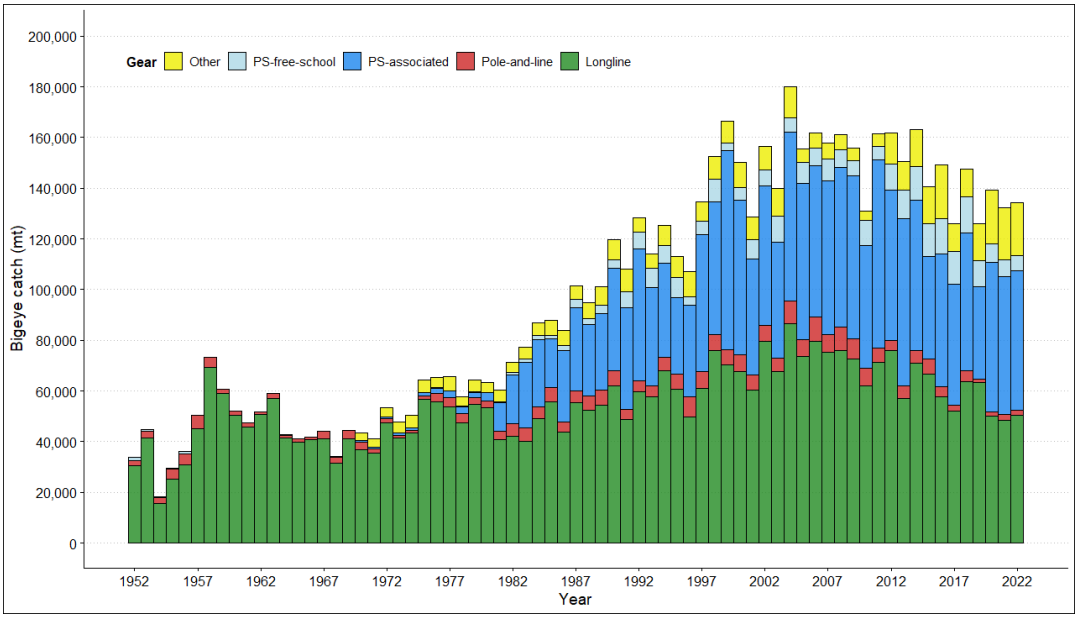

Figure 13. Time series of total annual catch (1000s mt) by fishing gear for the diagnostic model over the full assessment period. The different colors refer to longline (green), pole-and-line (red), purse seine (blue), purse seine associated (dark blue), purse seine unassociated (light blue), miscellaneous (yellow), and index (gray). Note that the catch by longline gear has been converted into catch-in-weight from catch-in-numbers and so may differ from the annual catch estimates presented in (Williams et al., 2023), however these catches enter the model as catch-in-numbers (Figure 3 from SC19-SA-WP-05) (WCPO 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 2023 WCPO bigeye tuna stock assessment median depletion from the model grid for the recent period (2018-2021; SBrecent/SBF=0) was 0.35 (10th to 90th percentile interval of 0.30 to 0.40). **For all models in the grid SBrecent/SBF=0 was above the biomass limit reference point**. SC19 noted that the results show that both total and spawning potential has been continuously declining since the late 1950s through until the mid-1970's, followed by a more gradual decline through to the present. The recent median fishing mortality (2017-2020; Frecent/FMSY) was 0.59 (10th to 90th percentile interval of 0.46 to 0.74). For all models in the grid, Frecent/FMSY was less than one. The catch in the last year of the assessment (2021) was less than the median MSY (164,640 mt), which is a 17% increase in the estimated MSY for bigeye tuna from the 2020 stock assessment (140,720 mt). although SSB has declined, the stock is over the limit reference point, **C1.2 is met.**

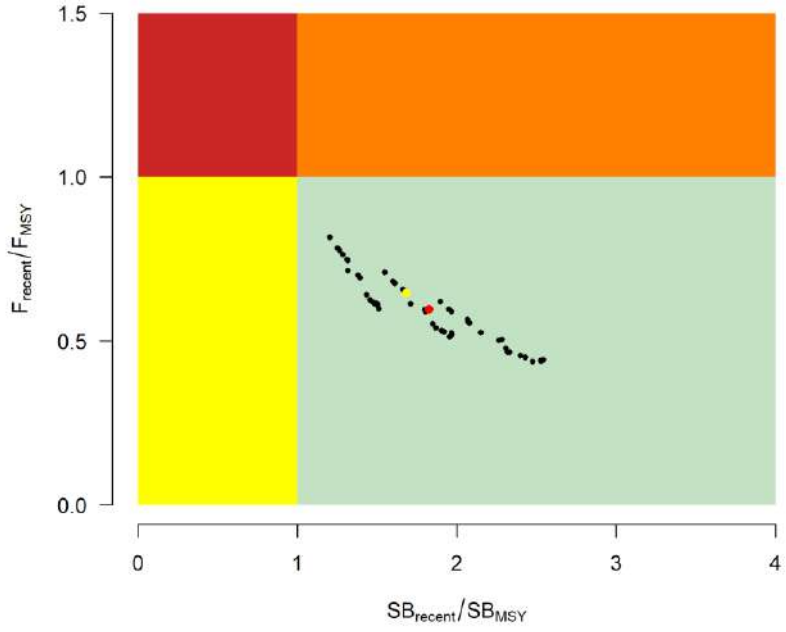

FIGURE 14. KOBE PLOT FOR THE RECENT SPAWNING POTENTIAL (2018–2021) SUMMARIZING THE RESULTS FOR EACH OF THE MODELS IN THE STRUCTURAL UNCERTAINTY GRID. THE PLOTS REPRESENT ESTIMATES OF STOCK STATUS IN TERMS OF SPAWNING BIOMASS DEPLETION AND FISHING MORTALITY. THE YELLOW POINT IS THE 2023 DIAGNOSTIC MODEL AND RED POINT IS THE MEDIAN (FIGURE 68 FROM SC19-SA-WP-05) (WCPO 2025)

References

WCPO (2025). WCPO BIGEYE TUNA (*Thunnus obesus*). STOCK STATUS AND MANAGEMENT ADVICE CAT (2024-2025). Available at: https://www.wcpfc.int/doc/01/bigeye-tuna

Species name	Albacore tuna (*Thunnus alalunga)*

Fishing area and stock		FAO area 81 (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 2021 by the Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC) using catch (and other) data up to 2019 (see figure below). The previous (2018) stock assessment was restricted to the convention area under the jurisdiction of the WCPFC (Tremblay-Boyer et al., 2018a). The assessment considers the existence of only one stock of albacore tuna in the southern Pacific Ocean. It was the first complete attempt at a spatially structured South Pacific wide assessment (covering the entire stock including both the WCPFC and IATTC convention areas), although a previous assessment applied an areas-as-fleets approach to the stock across the entire South Pacific (Hoyle et al., 2012). Fishery removals are incorporated into the stock assessment, and **C1.1 is met.**

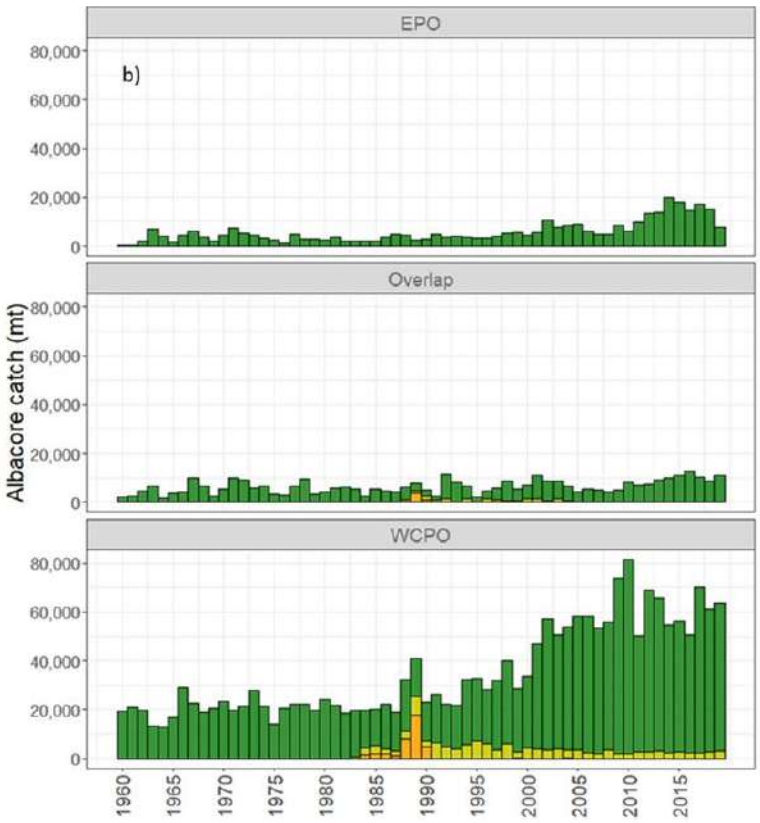

FIGURE 15 HISTORICAL CATCHES OF ALBACORE ACROSS THE MODEL REGION FROM 1952-2019 BY GEAR TYPE (ADAPTED FROM WCPFC 2022).

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 2021). The main conclusions of the 2021 assessment are:

– Spawning potential has generally declined across the model period, with that decline increasing in the most recent years**.** The assessment indicates the stock is not overfished, and there was zero estimated risk of the stock being below 20%SBF =0 (*reference point used to indicate overfishing*). However, decline in the latest estimated SBlatest/SBF =0 (median 0.36; 0.27 - 0.44, 10th and 90th percentiles) are notably more pessimistic than those of SBrecent/SBF =0 (median 0.47; 0.40 - 0.56, 10th and 90th percentiles). The general trends are consistent for estimates across all regions of the South Pacific stock, and for the WCPFC-CA only. The most recent stock assessment concluded that the stock biomass is currently above the limit reference point, and therefore **C1.2 is met.**

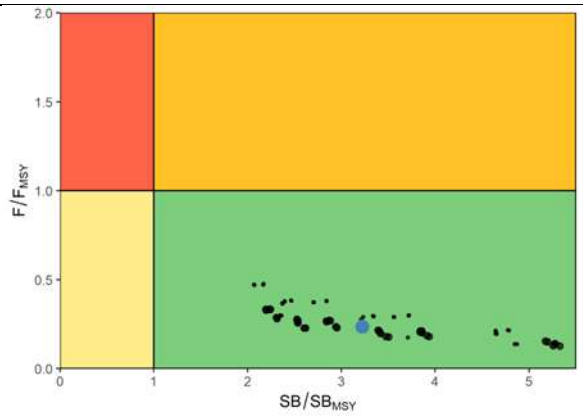

FIGURE 16 KOBE PLOT SUMMARIZING THE PACIFIC-WIDE RESULTS FOR EACH OF THE MODELS IN THE STRUCTURAL UNCERTAINTY GRID FOR THE 'LATEST' (2019) PERIOD (WCPFC 2022).

References

WCPFC (2021). Stock assessment of South Pacific albacore tuna. https://meetings.wcpfc.int/node/12551

WCPFC (2022). Stock status and advice key documents, South Pacific albacore tuna. https://www.wcpfc.int/doc/04/south-pacific-albacore-tuna

Pacific Ocean: eastern

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

One stock of skipjack is defined in the eastern Pacific Ocean (EPO). Catch data is available and it is used by the IATTC to assess the stock status of skipjack tuna in the EPO. Catch of the stock is primarily taken by the purse-seine fisheries, especially from the Floating-object associated (OBJ) and Unassociated (NOA) sets. **C1.1. is met.**

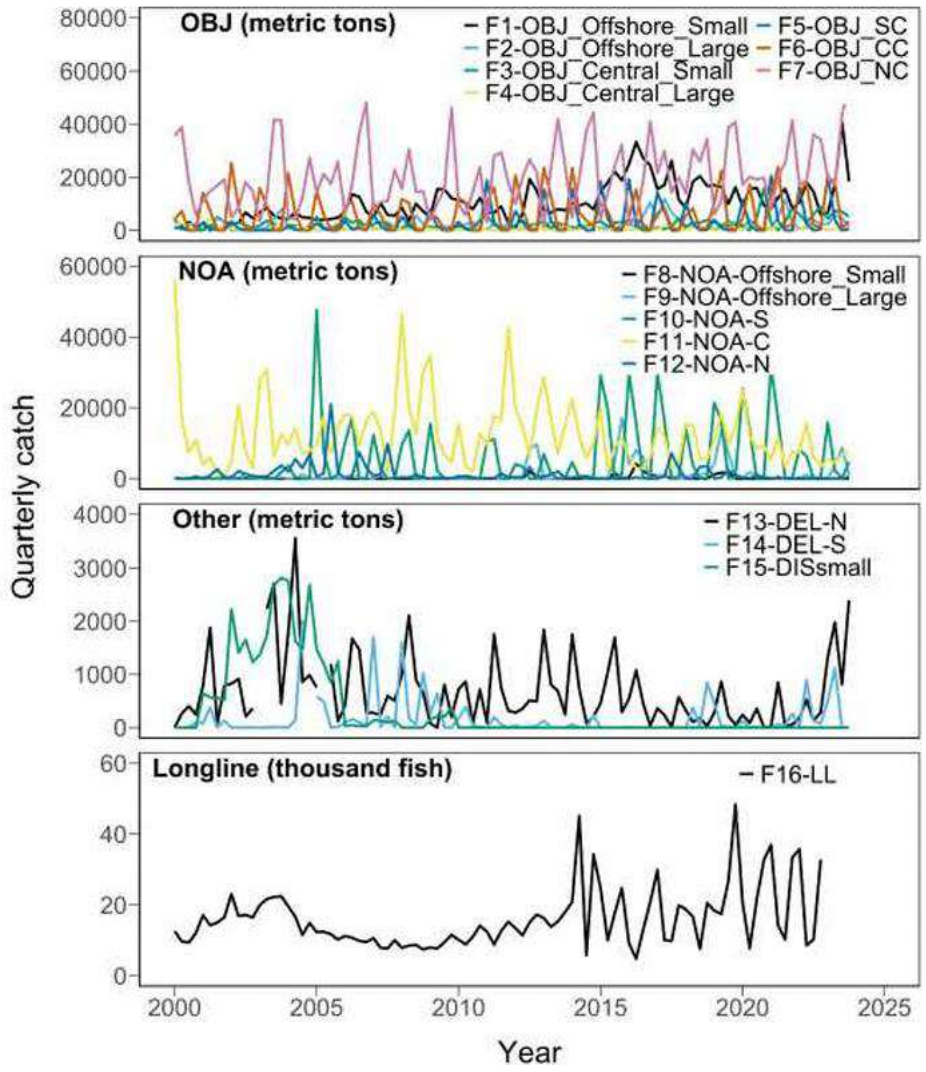

FIGURE 17. **CATCH OF SKIPJACK FROM DIFFERENT FLEETS (IATTC 2024).**

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.

The first benchmark assessment for skipjack tuna in the EPO was conducted in 2024. That assessment represents a significant improvement from the interim assessment conducted in 2022. It reflects major advancements in the assessment methodologies and incorporates new data sets, including an updated index of relative abundance based on recently developed echosounder buoy data, and an absolute biomass estimate derived from the tagging data collected under the Regional Tuna Tagging Program in the EPO. It was based on Stock Synthesis (v3.30.22.beta), an integrated age-structured assessment model. A dynamic spawning biomass ratio (dSBR) of 0.3, which accounts for variability in recruitment was used, as a target reference point. The limit reference point was set at SBR 0.077. There is substantial uncertainty about several model assumptions and sensitivity analyses were conducted and determined that the management advice is robust to the uncertainty.

The reference model and most sensitivity models estimate that the spawning biomass (SB) is currently above the target proxy of 30% of the unexploited SB under dSBR. The conclusion that the skipjack stock is healthy is generally robust to data usage and model assumption (IATTC 2024).

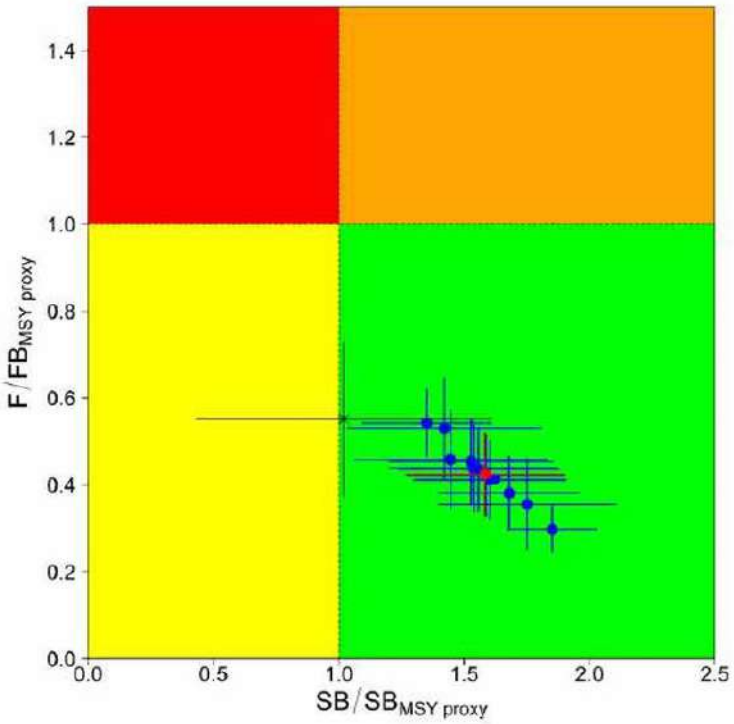

FIGURE 18. SKIPJACK TUNA, STOCK STATUS (IATTC 2024).

The biomass of the stock is above the limit reference point. **C1.2 is met.**

References

IATTC (2023). The tuna fishery in the Eastern Pacific Ocean in 2022. https://www.iattc.org/GetAttachment/0f48f889-2aa5-437f8d03-648d62ecfb75/No-21-2023_Tunas,-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2022.pdf

Species name		Yellowfin tuna (*Thunnus alalunga*)	
Fishing area and stock		**FAO Areas 77 and 87 (Eastern Pacific bigeye tuna)**	
C1	**Category C Stock Status - Minimum Requirements**		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	PASS

	C1.2	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	PASS
		Clause outcome:	**PASS**

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.

Two discrete stocks of yellowfin are recognised in the Pacific Ocean delimited:

1. Western Central Pacific Ocean (WCPO) yellowfin, managed via the Western and Central Pacific Fisheries Commission (WCPFC).

2. Eastern Pacific Ocean (EPO) yellowfin, managed by the Inter-American Tropical Tuna Commission (IATTC).

Those stocks are assessed by the WCPFC and the IATTC respectively using reference points. As this assessment refers to FAO areas 77 and 87, only the EPO stock is considered:

Eastern Pacific Ocean (EPO) yellowfin tuna

The last benchmark assessment for yellowfin tuna was conducted in 2020 and followed a risk assessment framework. A new risk-based approach was introduced to the management of the stock in 2022, with Stock Status Indicators (SSIs) developed using catch and other data collected from the EPO as a whole. Data on annual catches of yellowfin in the Pacific Ocean during 1993-2022 are available. The 2022 EPO catch of 292 thousand t is 20% higher than the average of 243 thousand t for the previous 5-year period (2017-2021). In the WCPO, the catches of yellowfin reached a record

high of 771 thousand t in 2021 (IATTC 2023). Catches are considered in the assessment, **C1.1. is met.**

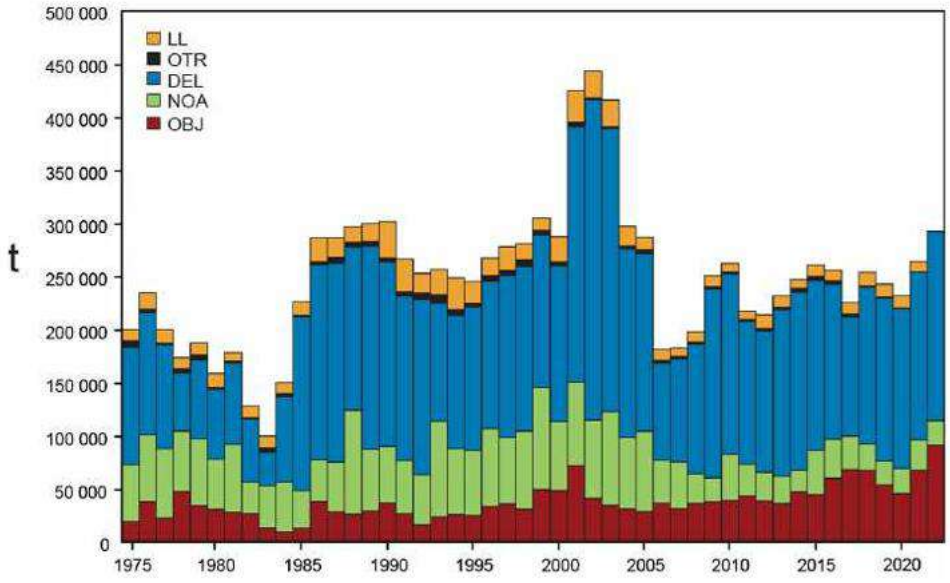

FIGURE 19. TOTAL CATCHES (RETAINED CATCHES PLUS DISCARDS) FOR THE PURSE-SEINE FISHERIES, BY SET TYPE (DEL, NOA, OBJ), AND RETAINED CATCHES FOR THE LONGLINE (LL) AND OTHER (OTR) FISHERIES, OF YELLOWFIN TUNA IN THE EASTERN PACIFIC OCEAN, 1975-2021. THE PURSE-SEINE CATCHES ARE ADJUSTED TO THE SPECIES COMPOSITION ESTIMATE OBTAINED FROM SAMPLING THE CATCHES (IATTC 2023).

C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.

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

The results from the reference models are combined in a risk analysis to provide management advice. The probabilities of exceeding the reference points where computed using each model result and its associated weight. There is a low probability of Fcur being above FMSY (9%). The probability of Fcur being above FLIMIT is zero. The probability of the spawning biomass being below SMSY_d is low (12%). The probability of the spawning biomass exceeding SLIMIT is zero. The combined expected risk of F exceeding FMSY is below 50% for six closure durations, varying from

26% (no 50 closure) to 5% (100 days), with a low risk (9%) for the current closure (72 days) (IATTC 2023).

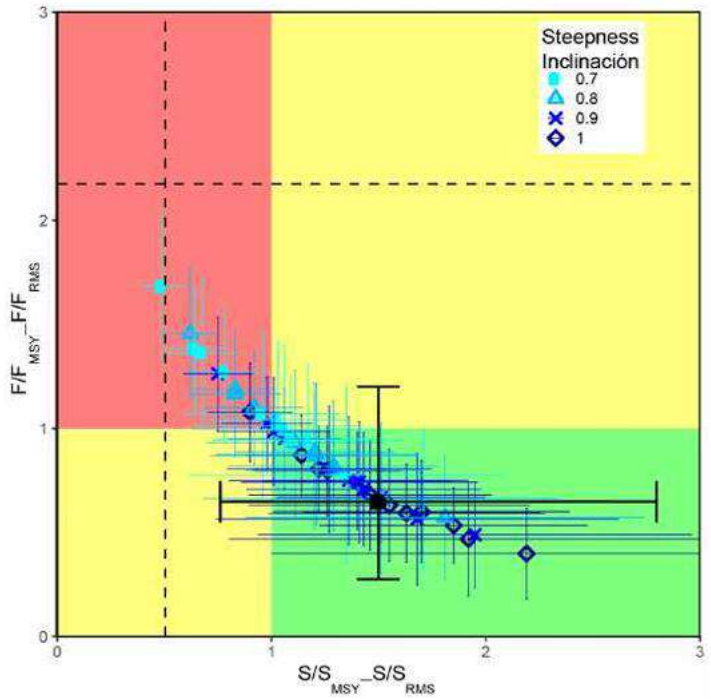

FIGURE 20. KOBE (PHASE) PLOT OF THE TIME SERIES OF ESTIMATES OF SPAWNING STOCK SIZE (S) AND FISHING MORTALITY (F) OF YELLOWFIN TUNA RELATIVE TO THEIR MSY REFERENCE POINTS (IATTC 2023).

References

IATTC (2023). The tuna fishery in the Eastern Pacific Ocean in 2022. https://www.iattc.org/GetAttachment/0f48f889-2aa5-437f8d03-648d62ecfb75/No-21-2023_Tunas,-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2022.pdf

Species name		Bigeye tuna (*Thunnus obesus*)	
Fishing area and stock		**FAO Areas 77 and 87 (Eastern Pacific bigeye tuna)**	
C1	**Category C Stock Status - Minimum Requirements**		
	C1.1	Fishery removals of the species in the fishery under assessment are included in the stock assessment process, OR are considered by scientific authorities to be negligible.	PASS
	C1.2	The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible.	PASS
		Clause outcome:	**PASS**

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 bigeye tuna (Th*unnus obesus*) stock in the Eastern Pacific Ocean is regularly evaluated by the Inter-American Tropical Tuna Commission (IATTC). The most recent comprehensive stock assessment took place in 2023, utilizing catch data from the purse seine and longline fisheries. To address key uncertainties, 54 models were applied, with results presented alongside confidence intervals to reflect probable outcomes. In 2023, risk-based Stock Status Indicators (SSIs) were introduced as valuable alternatives to formal stock assessments, especially when such assessments may be too uncertain to guide management decisions (IATTC 2022). The assessment includes all available catch data, ensuring that criterion **C1.1 is met.**

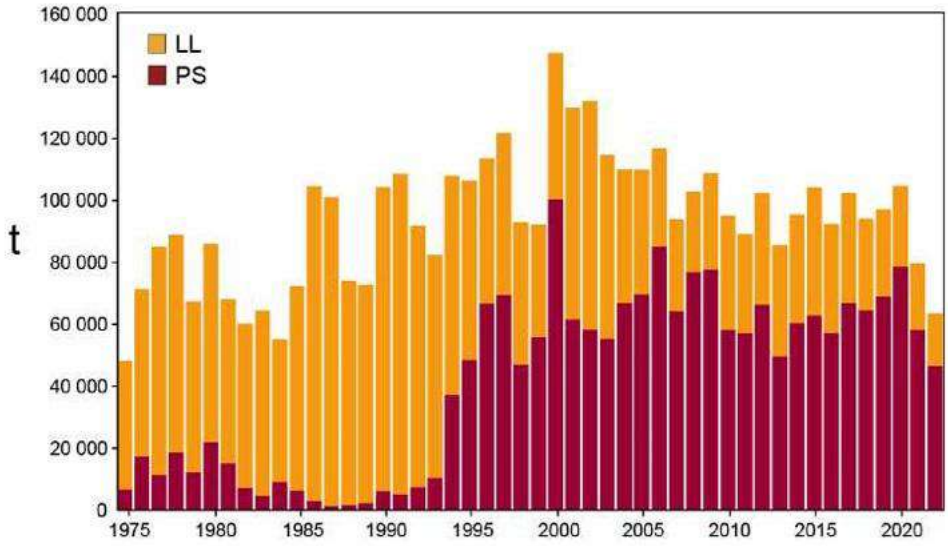

FIGURE 21. TOTAL CATCHES (RETAINED CATCHES PLUS DISCARDS) BY THE PURSE-SEINE (PS) FISHERIES, AND RETAINED CATCHES BY THE LONGLINE (LL) FISHERIES, OF BIGEYE TUNA IN THE EASTERN PACIFIC OCEAN, 1975-2022. THE PURSESEINE CATCHES ARE ADJUSTED TO THE SPECIES COMPOSITION ESTIMATE OBTAINED FROM SAMPLING THE CATCHES. 2020 AND 2021 DATA ARE PRELIMINARY (IATCC 2023).

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 2020 stock assessment produced statistical probabilities for the status of the stock relative to target and limit reference points. The key conclusion of the assessment were: (1) the probabilities of fishing mortality during 2017-2019 ($Fcur$) being higher than the target and limit reference levels are 50% and 5%, respectively; (2) the probabilities of spawning biomass at the beginning of 2020 ($Scur$) being lower than the target and limit reference levels are 53% and 6%, respectively (IATTC 2023). Therefore, there was a very low probability of the biomass being below the limit reference point, and **C1.2 is met.**

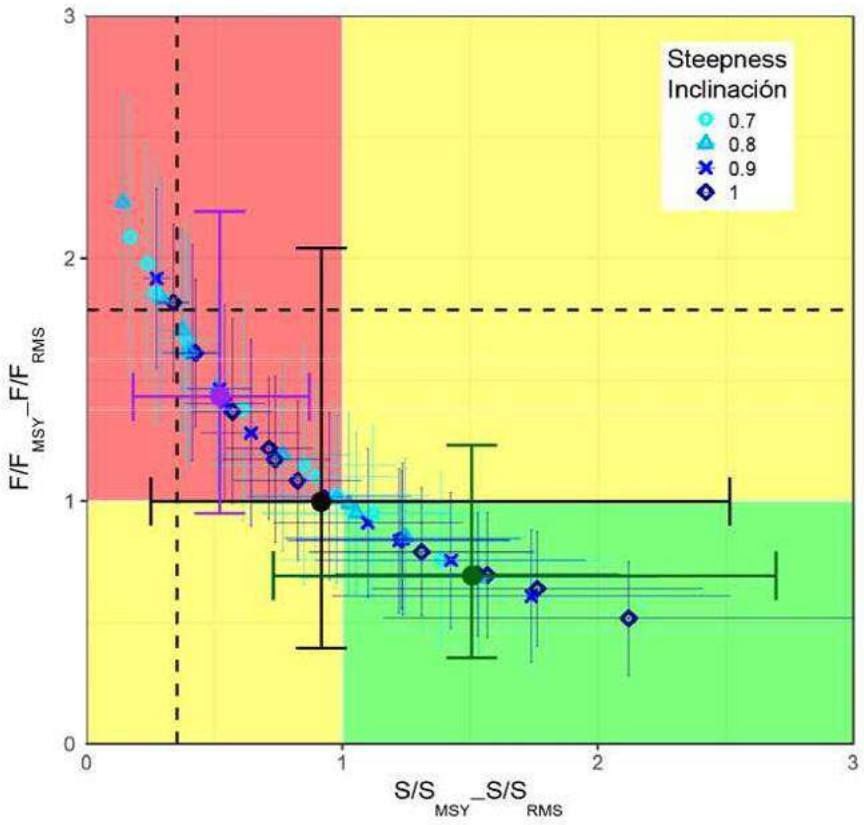

FIGURE 22 KOBE PLOT OF THE MOST RECENT ESTIMATES OF SPAWNING BIOMASS (S) AND FISHING MORTALITY (F) RELATIVE TO THEIR MSY REFERENCE POINTS (SMSY_D AND FMSY) ESTIMATED BY THE 44 CONVERGED REFERENCE MODEL RUNS. THE DASHED LINES REPRESENT THE LIMIT REFERENCE POINTS AVERAGED FOR THE 44 CONVERGED REFERENCE MODEL RUNS. THE ERROR BARS REPRESENT THE 95% CONFIDENCE INTERVAL OF THE ESTIMATES. THE BLACK, PURPLE, AND GREEN DOTS ARE THE COMBINED ESTIMATES ACROSS ALL MODELS, ALL PESSIMISTIC MODELS, AND ALL OPTIMISTIC MODELS, RESPECTIVELY (IATTC 2023).

References

IATTC (2023). The tuna fishery in the Eastern Pacific Ocean in 2022. https://www.iattc.org/GetAttachment/0f48f889-2aa5-437f8d03-648d62ecfb75/No-21-2023_Tunas,-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2022.pdf

Indian Ocean

Species name		Skipjack tuna (*Katsuwonus pelamis*)	
Fishing area and stock		**FAO 51 and 57 (Indian Ocean skipjack)**	
C 1	**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.

A singular stock of skipjack tuna is found in the Indian Ocean. The stock is managed by the Indian Ocean Tuna Commission (IOTC) relative to target and limit reference points. In the most recent assessment conducted in 2023, fisheries removals of the species were considered.

Main fisheries (mean annual catch 2018-2022): skipjack tuna are caught using purse seine (54.4%), followed by baitboat (19.2%) and gillnet (17.9%). The remaining catches taken with other gears contributed to 8.6% of the total catches in recent years. Although pole-and-line, purse seine, and gillnet catches had been on a declining trend since the mid-2000s, there has been an upward trajectory since 2012, particularly for purse seine

Main fleets (mean annual catch 2018-2022): the majority of skipjack tuna catches are attributed to vessels flagged to Indonesia (19.6%) followed by Maldives (17.6%) and EU (Spain) (16.9%). The 31 other fleets catching skipjack tuna contributed to 45.8% of the total catch in recent years.

Fishery removals are considered in the assessment process, **C1.1. is met.**

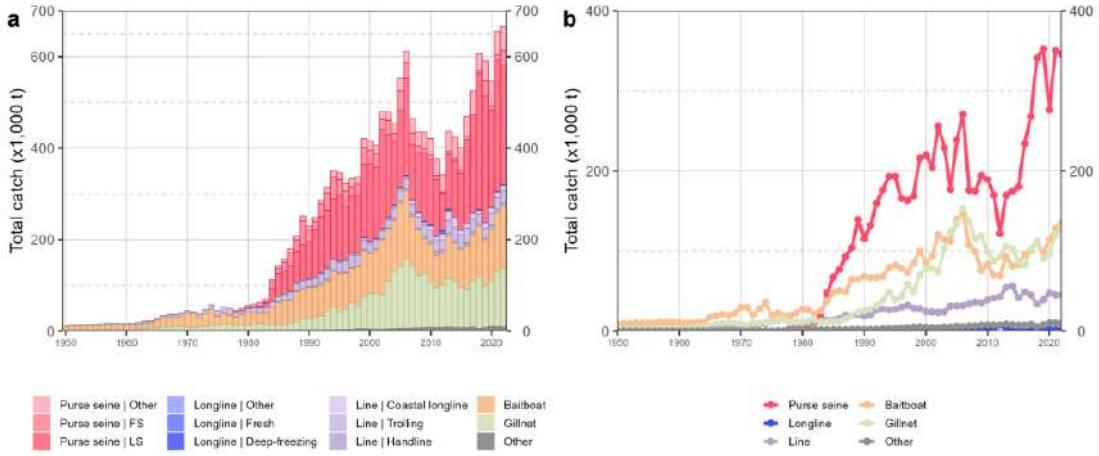

FIGURE 23 ANNUAL TIME SERIES OF (A) CUMULATIVE NOMINAL CATCHES (METRIC TONNES; T) BY FISHERY AND (B) INDIVIDUAL NOMINAL CATCHES (METRIC TONNES; T) BY FISHERY GROUP FOR SKIPJACK TUNA DURING 1950-2022. FS = FREE-SWIMMING SCHOOL; LS = SCHOOL ASSOCIATED WITH DRIFTING FLOATING OBJECTS. PURSE SEINE | OTHER: COASTAL PURSE SEINE, PURSE SEINE OF UNKNOWN ASSOCIATION TYPE, RING NET; LONGLINE | OTHER: SWORDFISH AND SHARKS-TARGETED LONGLINES; OTHER: ALL REMAINING FISHING GEARS (IOTC 2023).

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.

For this stock the limit reference point (Interim limit reference points) and target reference point (interim limit and target reference points) are 0.2*SSB0 and F0.2SSB0 and 0.4*SSB0 and F0.4SSB0

respectively (Resolutions 21/03 and 15/10). The most recent stock assessment indicated that the value of SSB2022/SSB0 is 0.53, which is above both the SSB target and limit. The 2023 stock assessment concluded that the stock biomass was above SBMSY and the fishing mortality remains below FMSY with a probability of 98.4 % ; and that "over the history of the fishery, biomass has been well above the adopted limit reference point (0.2*SB0)" (70% of probability of being in the green quadrant of the Kobe plot) (IOTC 2023), **C1.2 is met.**

TABLE 1. PROBABILITY OF STOCK STATUS WITH RESPECT TO EACH OF FOUR QUADRANTS OF THE KOBE PLOT. PERCENTAGES ARE CALCULATED AS THE PROPORTION OF MODEL TERMINAL VALUES THAT FALL WITHIN EACH QUADRANT WITH MODEL WEIGHTS TAKEN INTO ACCOUNT (IOTC 2023)

	Stock overfished (SB_{2022} / $SB_{40\%SB0}$<1)	Stock not overfished (SB_{2022} / $SB_{40\%SB0}$≥ 1)
Stock subject to overfishing (F_{2022} / $F_{40\%SB0}$≥ 1)	8%	21%
Stock not subject to overfishing (F_{2022} / $F_{40\%SB0}$≤ 1)	1%	70%
Not assessed / Uncertain / Unknown		

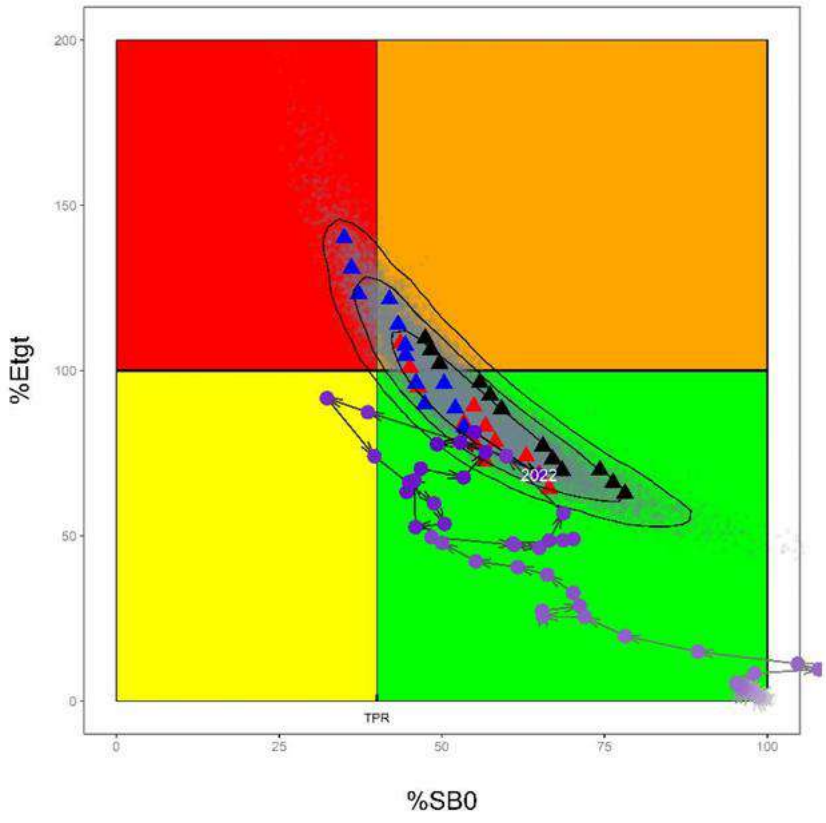

FIGURE 24. SKIPJACK TUNA: SS3 AGGREGATED INDIAN OCEAN ASSESSMENT KOBE PLOT OF THE 2023 UNCERTAINTY GRID. LEFT - CURRENT STOCK STATUS, RELATIVE TO SB0 AND F (X-AXIS) AND F40%B0 (Y-AXIS) REFERENCE POINTS FOR THE FINAL MODEL GRID. TPR INDICATES 40% B0; TRIANGLES REPRESENT MPD ESTIMATES FROM INDIVIDUAL MODELS (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 2023)

The summary or the stock status is shown in the table below:

TABLE 2 STATUS OF SKIPJACK TUNA (KATSUWONUS PELAMIS) IN THE INDIAN OCEAN (IOTC 2023)

Area[1]	Indicators		2023 stock status determination[3]
Indian Ocean	Catch 2022[2] (t)	666,408	70%*
	Mean annual catch 2018-2022 (t)	613,061	
	$E_{40\%SB0}$ [4] (80% CI)	0.55 (0.48–0.65)	
	SB_0 (t) (80% CI)	2 177 144 (1 869 035–2 465 671)	
	SB_{2022} (t) (80% CI)	1 142 919 (842 723–1 461 772)	
	SB_{2022} / SB_0 80% CI)	0.53 (0.42–0.68)	
	SB_{2022} / $SB_{40\%SB0}$ (80% CI)	1.33 (1.04–1.71)	
	SB_{2022} / $SB_{20\%SB0}$ (80% CI)	2.67 (2.08–3.42)	
	SB_{2022} / SB_{MSY} (80% CI)	2.30 (1.57–3.40)	
	F_{2022} / F_{MSY} (80% CI)	0.49 (0.32–0.75)	
	F_{2022} / $F_{40\%SSB0}$ (80% CI)	0.90 (0.68–1.22)	
	MSY (t) (80% CI)	584 774 (512 228–686 071)	

[1]Boundaries for the Indian Ocean stock assessment are defined as the IOTC area of competence
[2] Proportion of 2022 catch fully or partially estimated by IOTC Secretariat: 18.1%
[3]2022 is the final year that data were available for this assessment.
[4] $E_{40\%SB0}$ is the equilibrium annual exploitation rate (Etarg) associated with the stock at Btarg, and is a key control parameter in the skipjack harvest control rule as stipulated in Resolution 21/03. Note that Resolution 23/03 did not specify the exploitation rate associated with the stock at Blim
*Estimated probability that the stock is in the respective quadrant of the Kobe plot (defined in resolution 21/03 and shown below), derived from the confidence intervals associated with the current stock status

References

IOTC (2023). APPENDIX 3 EXECUTIVE SUMMARY: SKIPJACK TUNA (2023). Available at: https://iotc.org/node/3379

Species name		Yellowfin tuna (*Thunnus albacares*)	
Fishing area and stock		**FAO 51 and 57 (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.

A new stock assessment was carried out for yellowfin tuna in 2024. The 2024 stock assessment was carried out using Stock Synthesis III (SS3), a fully integrated model that is currently used to provide scientific advice for the three tropical tunas stocks in the Indian Ocean. The model uses four types of data: catch, size frequency, tagging and CPUE indices (IOTC 2024). Fishery removals are included in the stock assessment process, **C1.1. is met.**

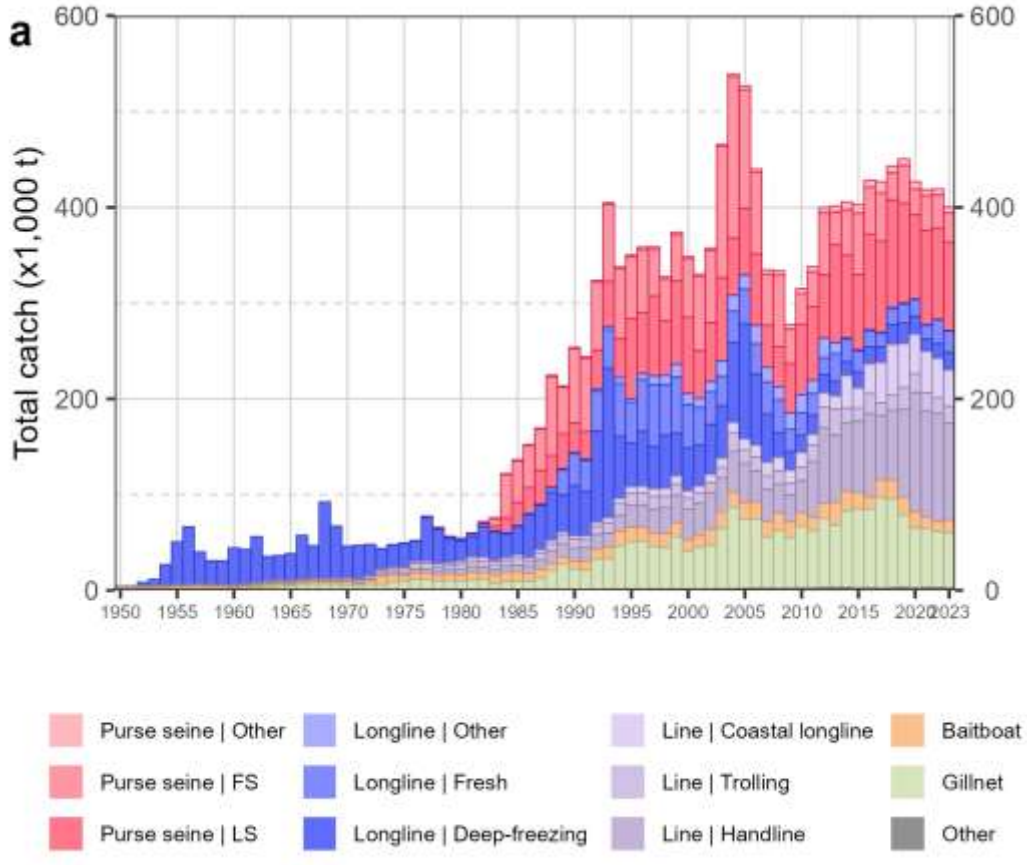

FIGURE 25 CATCHES OF YELLOWFIN TUNA IN THE PACIFIC OCEAN BY GEAR TYPE, 1950 – 2023 (IOTC 2024)

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.

The stock assessment in 2021 fully updated previous assessments using an age structured model (SS3). Stock status is based on the SS3 model formulation. The stock status was overfished and subject to overfishing in 2020 where: B_{2020} = 87%B_{MSY} (80%CI 63%-110%); F_{2020} = 132%F_{MSY} (80%CI 68%-195%) and B_{2020} = 31%B_0 (80%CI 24%-38%) (IOTC SC4 YFT-SS 2021).

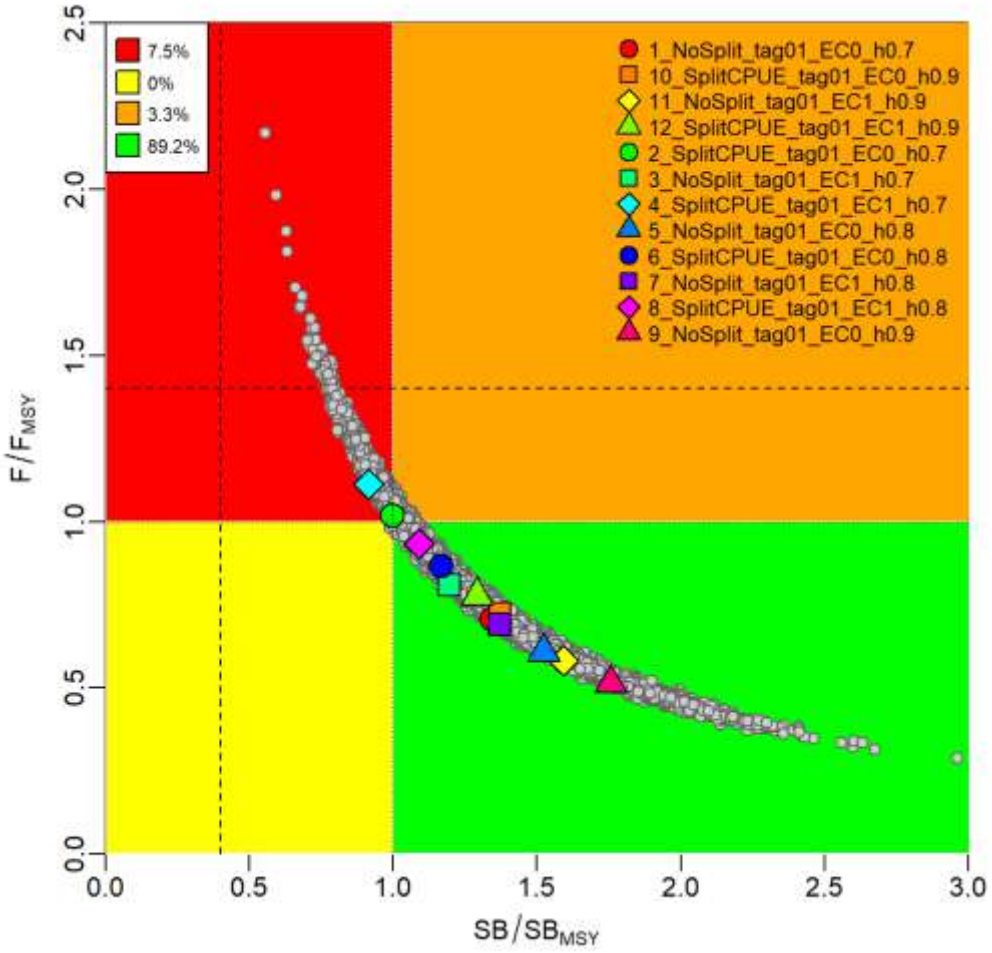

FIGURE 26 YELLOWFIN TUNA IN THE PACIFIC OCEAN: KOBE CHART ESTIMATING CURRENT STOCK STATUS. COLOURED SYMBOLS REPRESENT ESTIMATES FROM INDIVIDUAL MODELS. GREY DOTS REPRESENT STATISTICAL UNCERTAINTY FROM INDIVIDUAL MODELS. DASHED LINES REPRESENT LIMIT REFERENCE POINTS (IOTC 2024)

References

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

IOTC (2024). Indian Ocean Yellowfin Tuna Stock Status: Executive Summary. https://iotc.org/sites/default/files/content/Stock_status/2024/Engish/IOTC-2024-SC27-ES04_YFTE.pdf

Species name	Bigeye tuna (*Thunnus obesus*)
Fishing area and stock	**FAO 51 and 57 (Indian Ocean bigeye)**
	Category C Stock Status - Minimum Requirements

C1	**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 Indian Ocean is subject to regular stock assessment by the Indian Ocean Tuna Commission (IOTC). The most recent stock assessment was carried out in 2022. Two models were applied to the bigeye stock (Statistical Catch at Size (SCAS) and Stock Synthesis (SS3)), with the SS3 stock assessment selected to provide scientific advice. The reported stock status is based on a grid of 24 model configurations designed to capture the uncertainty on stock recruitment relationship, longline selectivity, growth and natural mortality. The assessment incorporated catch data from several fisheries working in the Indian Ocean (see figure below) (IOTC 2023). The assessment includes all available catch data, ensuring that criterion **C1.1 is met**.

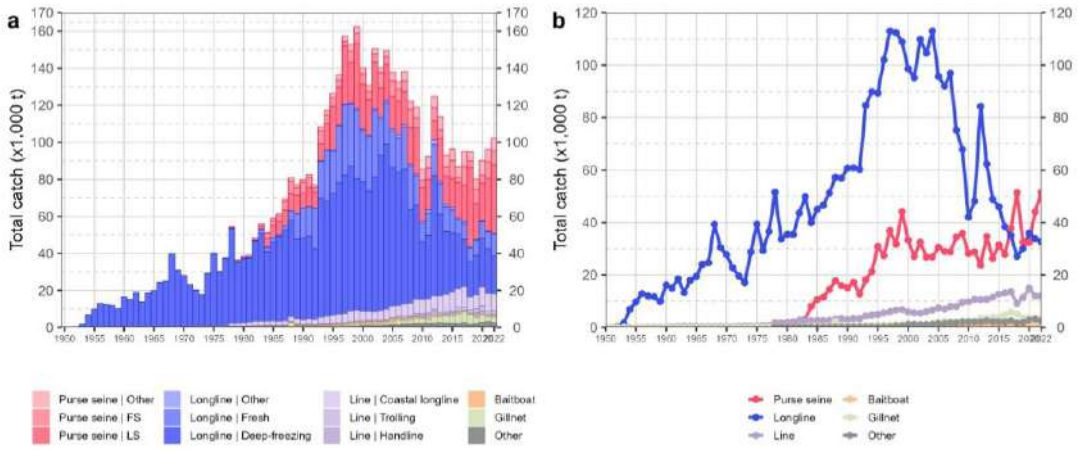

FIGURE 27 ANNUAL TIME SERIES OF (A) CUMULATIVE NOMINAL CATCHES (METRIC TONNES; T) BY FISHERY AND (B) INDIVIDUAL NOMINAL CATCHES (METRIC TONNES; T) BY FISHERY GROUP FOR BIGEYE TUNA DURING 1950-2022 (IOTC 2023)

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.

No new stock assessment was carried out for bigeye tuna in 2023 and so the advice is based on the 2022 assessment. As indicated, in 2022 two models were applied to the bigeye stock (Statistical Catch at Size (SCAS) and Stock Synthesis (SS3)), with the SS3 stock assessment selected to provide scientific advice. The reported stock status was based on a grid of 24 model configurations designed to capture the uncertainty on stock recruitment relationship, longline selectivity, growth and natural mortality. Spawning biomass in 2021 was estimated to be 25% (80% CI: 23-27%) of the unfished levels and 90% (75-105%) of the level that can support MSY. Fishing mortality was estimated at 1.43 (1.1-1.77) times the FMSY level. Considering the characterized

uncertainty, the assessment indicates that SB2021 is below SBMSY and that F2021 is above FMSY (79%). On the weight-of-evidence available in 2022, the bigeye tuna stock was determined **to be overfished and subject to overfishing.** However, for the MT purposes, the stock is considered to be over SBlim (0.5 SBMSY). Therefore, there is a very low probability of the biomass being below the limit reference point, and **C1.2 is met.**

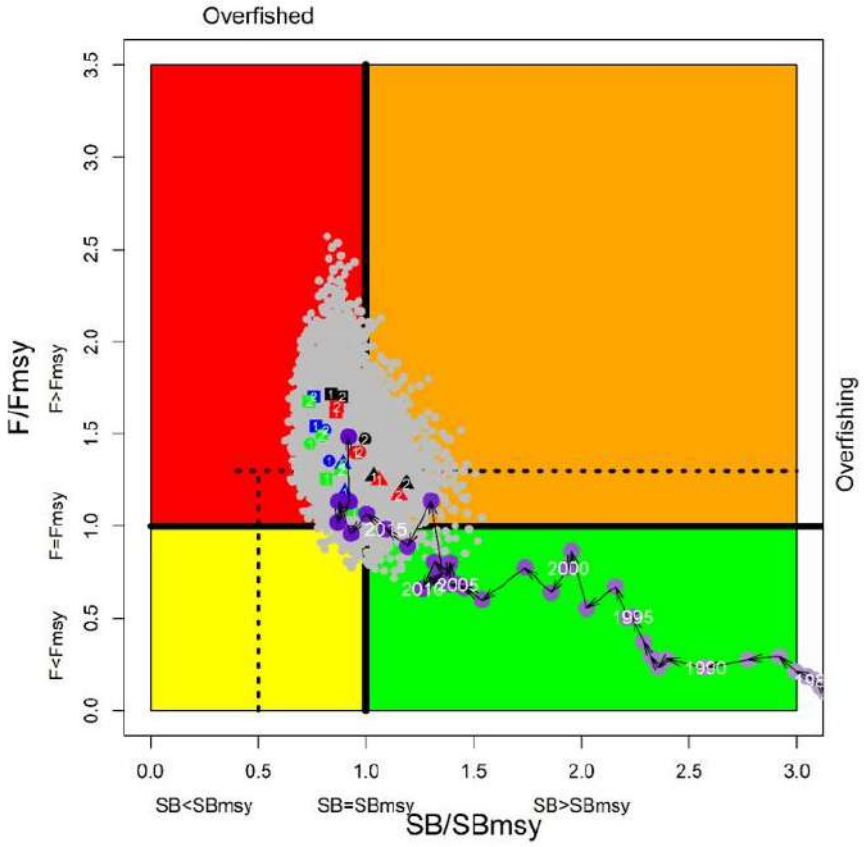

FIGURE 28 BIGEYE TUNA: SS3 AGGREGATED INDIAN OCEAN ASSESSMENT KOBE PLOT. THE COLOURED POINTS REPRESENT STOCK STATUS ESTIMATES FROM THE 24 MODEL OPTIONS. COLOURED SYMBOLS REPRESENT MAXIMUM POSTERIOR DENSITY (MPD) ESTIMATES FROM INDIVIDUAL MODELS: SQUARE, CIRCLE, AND TRIANGLES REPRESENTS ALTERNATIVE STEEPNESS OPTIONS; BLACK, RED, BLUE, AND GREEN REPRESENTS ALTERNATIVE GROWTH AND NATURAL MORTALITY OPTION COMBINATION; 1,2, REPRESENTS ALTERNATIVE SELECTIVITY OPTIONS. THE PURPLE DOT AND ARROWED LINE REPRESENT ESTIMATES OF THE REFERENCE MODEL (THE LAST PURPLE DOT REPRESENTS THE TERMINAL YEAR OF 2021). GREY DOTS REPRESENT UNCERTAINTY FROM INDIVIDUAL MODELS. THE DASHED LINES REPRESENT LIMIT REFERENCE POINTS FOR IO BIGEYE TUNA (SBLIM = 0.5 SBMSY AND FLIM = 1.4 FMSY) (IOTC 2023).

Area[1]	Indicators		2022 stock status determination[4]
Indian Ocean	Catch 2022[2] (t) Mean annual catch 2018-2022 (t)[3]	102,266 92,687	79%
	MSY (1,000 t) (80% CI) F_{MSY} (80% CI) SB_{MSY} (1,000 t) (80% CI) F_{2021}/F_{MSY} (80% CI) SB_{2021}/B_{MSY} (80% CI)	96 (83 – 108) 0.26 (0.18 – 0.34) 513 (332 – 694) 1.43 (1.10–1.77) 0.25 (0.23 – 0.27)	

[1]Boundaries for the Indian Ocean stock assessment are defined as the IOTC area of competence
[2]Proportion of 2022 catch fully or partially estimated by IOTC Secretariat: 18.7%
[3]Including re-estimations of EU PS species composition for 2018 (only requested for stock assessment purposes)
[4]2021 is the final year that data were available for this assessment
*Estimated probability that the stock is in the respective quadrant of the Kobe Plot (**Table 2**), derived from the confidence intervals associated with the current stock status.

FIGURE 29 STATUS OF BIGEYE TUNA (THUNNUS OBESUS) IN THE INDIAN OCEAN (IOTC 2023)

References

IOTC (2023). Indian Ocean bigeye tuna stock status and advice. Executive summary. https://iotc.org/sites/default/files/content/Stock_status/2023/Bigeye_ES_2023.pdf

Traceability information

Information provided for Step 3 Path 1 or Path 2

Assessor note: Duplicate for each species/stock

Species name	Skipjack tuna (*Katsuwonus pelamis*)			
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 *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan,	Ecuador - Multiple medium-risk states in FAO 87	Ecuador (2.11, Medium Risk)	Downgraded to medium risk

	Tanzania, Venezuela, Mexico and India			
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple medium-risk states in FAO 34 & 47	Cote d'Ivoire (2.83, Medium Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple medium-risk states in FAO 34 & 47	Cape Verde (1.83, Low Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple medium risk states in FAO 61 and 71	Australia (1.94, Low Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple medium risk states in FAO 57	Australia (1.94, Low Risk), Madagascar (1.83, Low Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya,	High Risk country (Yemen) in FAO 51	Madagascar (1.83, Low Risk)	Remains high risk

	Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India			

Species name	Yellowfin tuna (*Thunnus albacares*)			
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 *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Ecuador - Multiple medium-risk states in FAO 87	Ecuador (2.11, Medium Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple medium-risk states in FAO 34 & 47	Cote d'Ivoire (2.83, Medium Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan,	Multiple medium-risk states in FAO 34 & 47	Cape Verde (1.83, Low Risk)	Downgraded to medium risk

	Tanzania, Venezuela, Mexico and India			
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple medium risk states in FAO 61 and 71	Australia (1.94, Low Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple medium risk states in FAO 57	Australia (1.94, Low Risk), Madagascar (1.83, Low Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	High Risk country (Yemen) in FAO 51	Madagascar (1.83, Low Risk)	Remains high risk

Species name	Bigeye tuna (*Thunnus obesus*)			
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 *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala,	Ecuador - Multiple medium-	Ecuador (2.11, Medium Risk)	Downgraded to medium risk

	Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	risk states in FAO 87		
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple medium-risk states in FAO 34 & 47	Cote d'Ivoire (2.83, Medium Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple medium-risk states in FAO 34 & 47	Cape Verde (1.83, Low Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple medium risk states in FAO 61 and 71	Australia (1.94, Low Risk)	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan,	Multiple medium risk states in FAO 57	Australia (1.94, Low Risk), Madagascar (1.83, Low Risk)	Downgraded to medium risk

	Tanzania, Venezuela, Mexico and India			
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	High Risk country (Yemen) in FAO 51	Madagascar (1.83, Low Risk)	Remains high risk

Species name	Albacore tuna (*Thunnus alalunga*)			
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 *Countries may be different for Coastal State and Port State.*	**Flag country**	**Coastal score**	**Port score**	**Risk outcome**
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India	Multiple low and medium-risk states in FAO 81	Ecuador (2.11, Medium Risk)[1]	Downgraded to medium risk
	El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan,	Multiple low and medium risk states in FAO 81	Australia (1.94, Low Risk)	Downgraded to medium risk

[1] For albacore tuna, since the species is exclusively caught in FAO Area 81, only the two potential landing ports—one to the west and one to the east of the Pacific Ocean—included in the client's list have been considered.

	Tanzania, Venezuela, Mexico and India			