



By-Product assessment report

BP019

Calvo Conservas El Salvador SA de CV

Document TEM-003 (prev. FISH-1) - Version 3.1

Issued April 2025 – Effective April 2025

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|--------------------|-------|----------------------|-----------|
| Report code | BP019 | Date of issue | June 2026 |
|--------------------|-------|----------------------|-----------|

| 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 |
| Contact information for CB | mt-ca@lrqa.com |
| Assessor name | Blanca Gonzalez |
| CB internal peer reviewer name | Ayana Sabu |
| Internal peer review evaluation | Agree with evaluation |
| Number of Assessment days | 2.5 |

| | | |
|--|--|----------------------------|
| <p>Comments on the assessment</p> | <p>None of the byproduct species listed in this report are considered ETP species under the Marin Trust definition, thereby fulfilling this requirement for the assessment.</p> <p>Byproducts are caught by vessels flagged under 29 different flags grouped in two batches. One batch is composed of medium-risk flag states: Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco; therefore, the stocks caught by these vessels do not require a step 3 and approve the assessment, but should be sourced with caution.</p> <p>The other batch is composed of a combination of medium and high-risk flag states: El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India; Therefore, the stocks caught by these vessels required a step 3 assessment. Additional information was requested from the applicant, who provided information on the fishing areas and traceability data. All the fisheries passed the Category C assessment, and most were downgraded to medium risk given the traceability data. Approving these byproducts, but they should be sourced with caution.</p> | |
| <p>3. Approval validity</p> | <p>Valid from 06/2026</p> | <p>Valid until 06/2027</p> |
| <p>4. Assessment cycle</p> | <p>Re-Approval</p> | |

| <p>5. By-product assessment outcomes</p> | | | |
|--|---------------------------------|--|--|
| <p>By-product species name <i>Common and Latin names</i></p> | <p>Flag country(ies)</p> | <p>Fishing Areas <i>Only applicable to Step 3 assessed species</i></p> | <p>MarinTrust approval status</p> |
| | | | |

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

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

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 <i>Common and Latin names</i> | Flag country(ies) | IUCN Red List <i>Select IUCN red list category from dropdown</i> | CITES Appendices <i>Select CITES appendix status from dropdown</i> | Step 2 risk status <i>Low risk/ Medium risk/ High risk</i> | Step 3 required <i>Yes / No</i> |
|--|---|---|---|---|------------------------------------|
| Skipjack tuna (<i>Katsuwonus pelamis</i>) 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 |

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

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

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|---|--|---------------|------------|-------------|-----|
| Albacore tuna (<i>Thunnus alalunga</i>) 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 |
| Albacore tuna (<i>Thunnus alalunga</i>) 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 |

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|--|---|---------------|------------|-------------|----|
| Skipjack tuna (<i>Katsuwonus pelamis</i>) | Belize, Cape Verde, Curaçao/Netherlands, USA, Spain, | Least concern | Not listed | Medium risk | No |
| Yellowfin tuna (<i>Thunnus albacares</i>) | Philippines, France, Korea (Rep. South), Mauritius, Seychelles and Morocco. | Least concern | | | |
| Bigeye tuna (<i>Thunnus obesus</i>) | | Vulnerable | | | |
| FAO area 51 | | | | | |

Step 3 Assessment Outcomes

| By-product species name <i>Common and Latin names</i> | Flag country(ies) | Fishing Area | Stock name <i>(If applicable e.g. Eastern Pacific stock)</i> | Category C Assessment Outcome <i>Pass/Fail</i> | Traceability information <i>Path 1 – Yes OR Path 2 – Yes/No OR MT Approved Whole Fish</i> | Step 3 Risk Outcome <i>Risk downgraded to Medium Risk/ Remains High Risk</i> |
|---|--------------------------|---------------------|--|--|---|--|
|---|--------------------------|---------------------|--|--|---|--|

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|--|---|---|---|-------------|---------------------|----------------------------------|
| <p>Skipjack tuna (<i>Katsuwonus pelamis</i>)</p> | <p>El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India.</p> | <p>FAO 77 – Eastern Central Pacific FAO 87 – Southeast Pacific FAO 61 – Northwest Pacific Ocean FAO 71 - Western Central Pacific Ocean FAO 34 - Eastern Central Atlantic FAO 47 -Southeast Atlantic FAO 41 – Southwest Atlantic FAO 57 - Eastern Indian Ocean</p> | <p>Eastern Pacific stock Western and Central Pacific stock Eastern Atlantic stock Western Atlantic stock Indian Ocean Stock</p> | <p>Pass</p> | <p>Path 2 - Yes</p> | <p>Downgraded to medium risk</p> |
|--|---|---|---|-------------|---------------------|----------------------------------|

| | | | | | | |
|--|---|---|---|-------------|---------------------|----------------------------------|
| <p>Yellowfin tuna (<i>Thunnus albacares</i>)</p> | <p>El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India.</p> | <p>FAO 77 – Eastern central Pacific FAO 87 – Southeast Pacific FAO 61 – Northwest Pacific FAO 71 - Western Central Pacific FAO 34 - Easter Central Atlantic FAO 41 – Southwest Atlantic FAO 47 – Southeast Atlantic FAO 57 – Eastern Indian Ocean</p> | <p>Eastern Pacific stock Western and Central Pacific stock Atlantic Ocean stock Indian Ocean stock</p> | <p>Pass</p> | <p>Path 2 - Yes</p> | <p>Downgraded to medium risk</p> |
|--|---|---|---|-------------|---------------------|----------------------------------|

| | | | | | | |
|--|---|---|---|-------------|---------------------|----------------------------------|
| <p>Bigeye tuna (<i>Thunnus obesus</i>)</p> | <p>El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India.</p> | <p>FAO 77 – Eastern central Pacific FAO 87 – Southeast Pacific FAO 61 – Northwest Pacific FAO 71 - Western Central Pacific FAO 34 - Easter Central Atlantic FAO 41 – Southwest Atlantic FAO 47 – Southeast Atlantic FAO 57 – Eastern Indian Ocean</p> | <p>Eastern Pacific stock Western and Central Pacific stock Atlantic Ocean stock Indian Ocean stock</p> | <p>Pass</p> | <p>Path 2 - Yes</p> | <p>Downgraded to medium risk</p> |
|--|---|---|---|-------------|---------------------|----------------------------------|

| | | | | | | |
|---|---|--|---------------------------|------|--------------|------------------------------|
| Albacore tuna <i>(Thunnus alalunga)</i> | El Salvador, Brazil, China, Ecuador, Ghana, Guatemala, Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua, Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India. | FAO 81 - Southwest Pacific Ocean | Southern Pacific stock | Pass | Path 2 - Yes | Downgraded to medium risk |
| Comments on Step 3 Assessment: <i>NA</i> | | | | | | |

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 |
|-------------|-------------|------------|------------|---------------|--|----------------------------------|--------------------------|--|---------------------|
| El Salvador | High | 1.88 | 2.78 | 2.77 | 1 | 1 | 5 | 1 | 34.91% |
| Brazil | Medium | 1.42 | 1.86 | 2.2 | 1 | 1 | | 1 | 43.87% |
| China | High | 4.21 | 4.33 | 3.2 | 1 | 1 | 5 | 1 | 36.79% |
| Ecuador | High | 2.58 | 2.11 | 2.43 | 1 | 3 | 1 | 1 | 35.38% |
| Ghana | High | 1.67 | 2 | 2.23 | 1 | 3 | 1 | 1 | 44.81% |

| | | | | | | | | | |
|------------------|--------|------|------|------|---|---|---|---|--------|
| Guatemala | High | 1.83 | 2.78 | 2.22 | 1 | 1 | 5 | | 41.51% |
| Indonesia | Medium | 3.33 | 2.56 | 2.47 | 1 | 1 | 1 | 1 | 59.43% |
| Kenya | Medium | 1.63 | 1.83 | 2.63 | 1 | 1 | 1 | 1 | 39.15% |
| Kiribati | High | 1.79 | 3.11 | 1.96 | 1 | 1 | 5 | 1 | 42.92% |
| Nicaragua | High | 2.08 | 1.44 | 2.4 | 1 | 1 | 1 | 1 | 18.40% |
| Panama | High | 3.75 | 1.67 | 1.93 | 3 | 3 | 1 | 1 | 55.19% |
| Papua New Guinea | High | 2.04 | 2.94 | 2.07 | 1 | 1 | 5 | 1 | 26.42% |
| Senegal | Medium | 2.38 | 2.72 | 2.4 | 1 | 1 | 1 | 1 | 41.04% |
| Taiwan | High | 4.17 | 3.06 | 2.27 | 1 | 1 | 5 | 1 | 90.57% |
| Tanzania | High | 1.83 | 2.78 | 2.3 | 2 | 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 | 3.47 | 1 | 1 | | 5 | 50.94% |
| Belize | Medium | 2.29 | 1.57 | 2 | 1 | 1 | | 1 | 35.85% |
| Cape Verde | Medium | 1.58 | 1.83 | 2.2 | 1 | 1 | 1 | 1 | 60.85% |
| Netherlands | Medium | 2.21 | 2.44 | 1.87 | 1 | 1 | 1 | 1 | 96.70% |

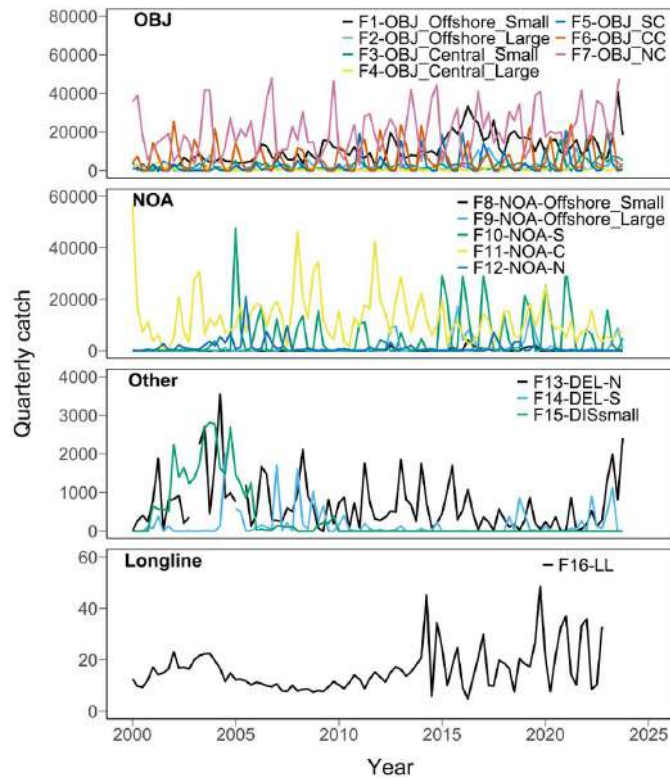
| | | | | | | | | | |
|--------------------|--------|------|------|------|---|---|---|---|--------|
| USA | Medium | 2.29 | 2.06 | 2.37 | 1 | 1 | 1 | 1 | 91.04% |
| Spain | Medium | 3.21 | 3.39 | 2.03 | 1 | 1 | 1 | 1 | 75.94% |
| Philippines | Medium | 2.04 | 2.06 | 2.53 | 1 | 1 | 1 | 1 | 53.77% |
| France | Medium | 3.17 | 2.39 | 1.67 | 1 | 1 | 1 | 1 | 85.38% |
| 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% |
| Seychelles | Medium | 1.79 | 2.39 | 1.57 | 1 | 1 | 1 | 1 | 62.26% |
| Morocco | Medium | 2.29 | 1.78 | 2.17 | 1 | 1 | 1 | 1 | 49.06% |

Step 3 outcomes

Category C assessment

SKIPJACK TUNA

| | | | |
|---|---|--|------|
| Species name | | Skipjack tuna - <i>Katsuwonus pelamis</i> | |
| Fishing area and stock | | FAO 77 – Eastern Central Pacific FAO 87 – Southeast Pacific Eastern 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 removals by the fishery under assessment are considered by scientific authorities to be negligible. | Pass |
| Clause outcome: | | | Pass |
| <p>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.</p> <p>The clause is met considering that:</p> <p>The most recent skipjack tuna stock assessment by the Inter-American Tropical Tuna Commission (IATTC) for the Eastern Pacific Ocean (EPO) was a benchmark assessment completed in 2024 using an integrated age-structured catch-at-length model implemented in Stock Synthesis (SS3). The assessment included catch data, standardized CPUE indices, echosounder buoy biomass indices, extensive tagging-based biomass estimates, and fishery-dependent length-composition data (IAATC 2024).</p> | | | |

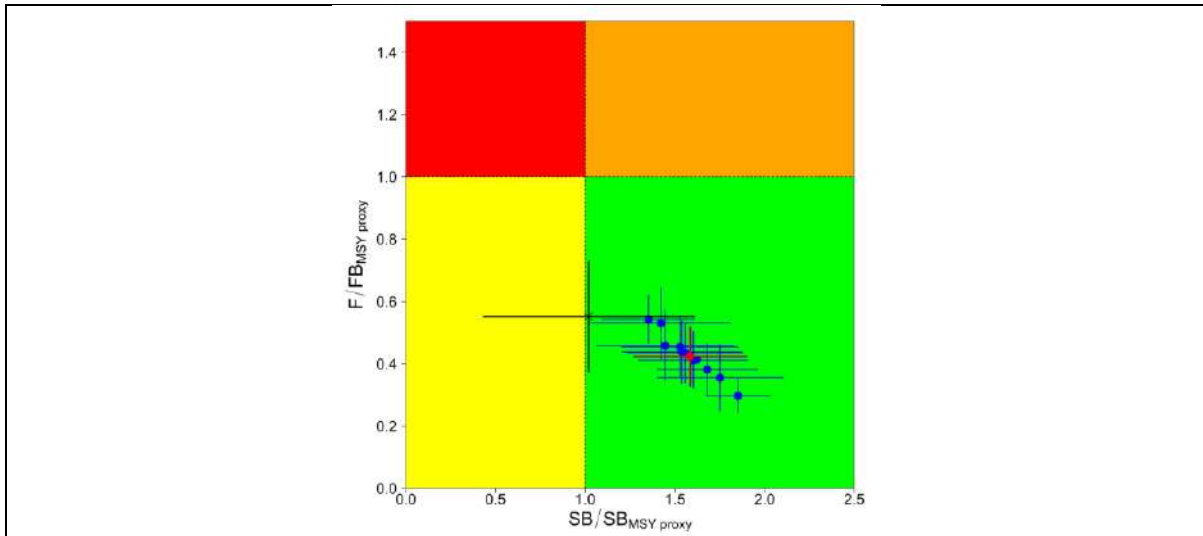


Quarterly catches of skipjack tuna, in tons, in the EPO, 2000-2023, by fishery. NOTE: The y-axis scale varies by plot. The unit for longline fishery catch is thousand fish, while it is metric tons for other fisheries. The actual data used in the assessment only includes 2006 to 2023 (IATTC 2024).

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 clause is met considering that:

In the most recent stock assessment of skipjack tuna in the Eastern Pacific Ocean, the reference model estimates that the spawning biomass is currently above the target proxy of 30% of the unexploited spawning biomass under either the static (SBR) or the dynamic (dSBR) spawning biomass ratio. Also, the probability that spawning biomass is below the limit reference point is less than 10%, and this conclusion is robust across all sensitivity analyses. Based on this, the stock is considered not overfished under the current fishing regime (IATTC 2024).



Kobe plot showing the most recent stock status estimates from all the models. The x-axis is $SB_{current}/0.3 \times \text{dynamic SBO}$. Each dot represents the average F for the most recent three years, 2021-2023, and the error bars show the 80% confidence intervals of the model estimates. The red dot and error bars represent the reference model's estimates. The black cross and error bars represent model estimates excluding the ECHO index (IATTC 2024)

References

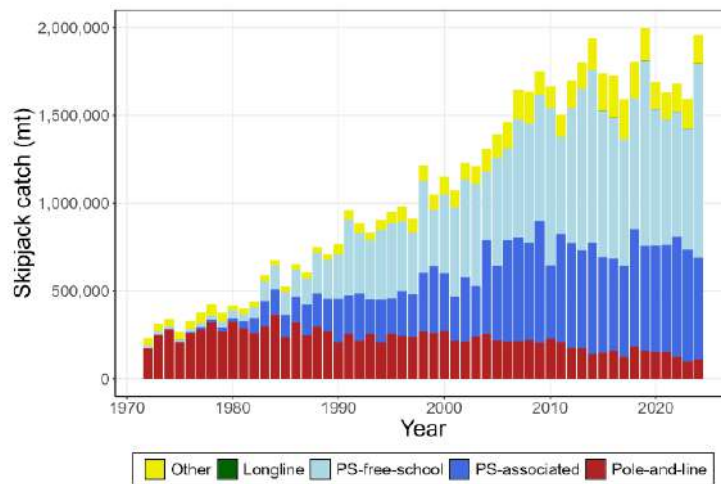
IATTC. 2024. Inter-American Tropical Tuna Commission. Skipjack tuna benchmark assessment 2024. 15th Meeting of the Scientific Advisory Committee, Eastern Pacific Ocean. https://www.iattc.org/GetAttachment/f57dece1-81ba-4771-8fa8-3362320a368a/SAC-15-04_Skipjack-tuna-benchmark-assessment-2024.pdf

| | | | |
|-------------------------------|---|--|------|
| Species name | | Skipjack tuna - <i>Katsuwonus pelamis</i> | |
| Fishing area and stock | | FAO 61 – Northwest Pacific Ocean FAO 71 - Western Central Pacific Ocean Western and 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 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 clause is met considering that:

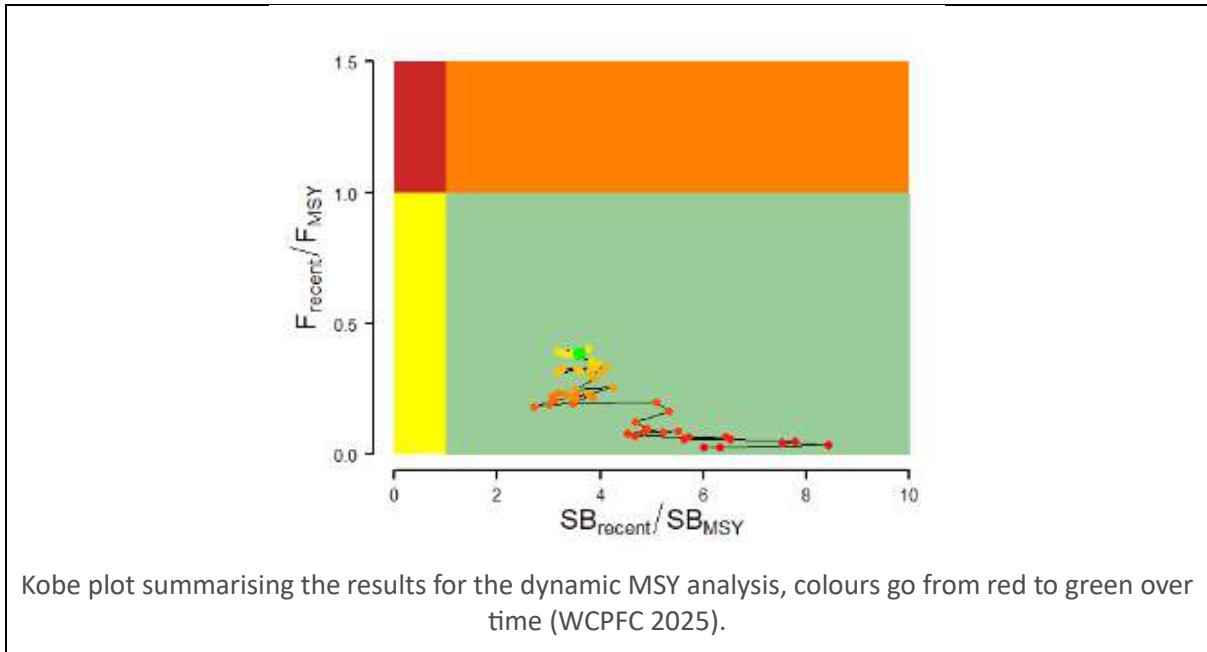
The Western and Central Pacific Fisheries Commission (WCPFC) assesses the skipjack tuna stock in the Western and Central Pacific Ocean every three years. The last stock assessment was conducted in 2025 using a MULTIFAN-CL model. Data consist of catch, effort, length & weight-frequency data for the fisheries defined in the analysis, and tag-recapture data (WCPFC 2025).



Annual catches of skipjack tuna by gear in the WCPO area covered by the stock assessment. (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 2025 WCPO skipjack tuna stock assessment indicates that spawning potential has remained stable as have fishing mortality rates, with a spawning biomass is about 51% of unfished levels ($SB_{\text{recent}}/SB_{F=0}=0.51$), a fishing pressure below F_{MSY} ($F_{\text{recent}}/F_{\text{MSY}}=0.35$), and spawning biomass is far above SB_{MSY} ($SB_{\text{recent}}/SB_{F=0}=3.90$), with no model suggesting depletion below the 20% limit reference point. Therefore, the stock is not considered to be overfished nor undergoing overfishing (WCPFC 2025).

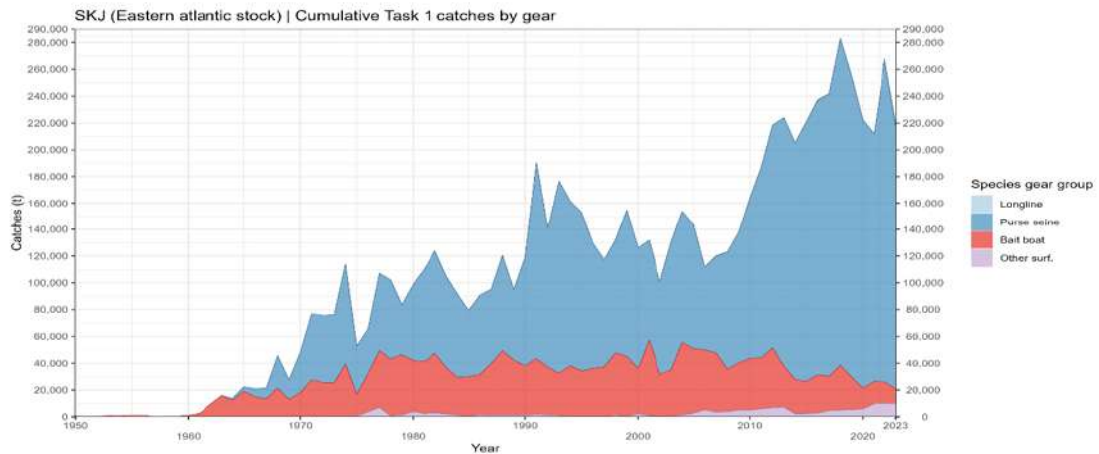


References

WCPFC. 2025. Stock assessment of skipjack tuna in the western and central Pacific Ocean: 2025. <https://meetings.wcpfc.int/node/26679>

| | | | |
|--|---|--|------|
| Species name | | Skipjack tuna - <i>Katsuwonus pelamis</i> | |
| Fishing area and stock | | FAO 34 - Eastern Central Atlantic FAO 47 -Southeast Atlantic Eastern Atlantic 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 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. | | | |
| Clause is met considering that: | | | |
| The last stock assessment for eastern and western Atlantic skipjack was conducted in 2022 through a process that included a data preparatory meeting and a stock assessment meeting. These new assessments for the eastern and western Atlantic skipjack stocks used fishery data from 1950-2020 and 1952-2020, respectively, and indices of relative abundance used in the assessments were | | | |

calculated through 2020. In both cases, Surplus Production models and Statistically Integrated models were used (ICCAT 2025).

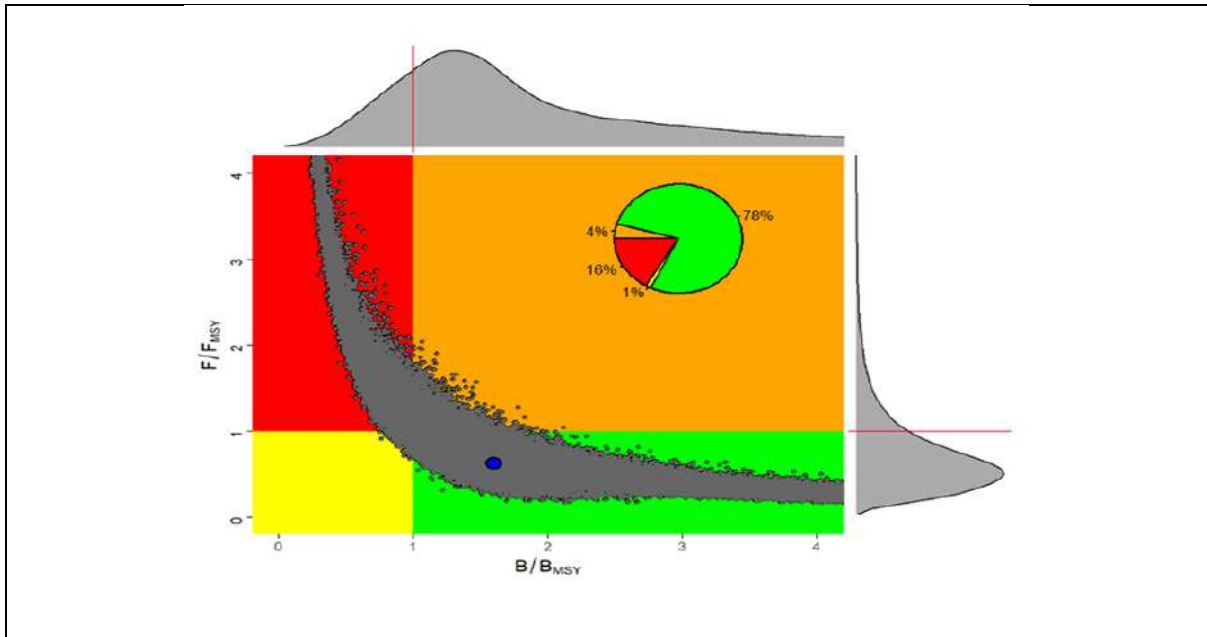


Skipjack catches in the eastern Atlantic, by gear (1950-2023). The values for 2023 are preliminary. (ICCAT 2025).

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.

Clause is met considering that:

The stock status of eastern Atlantic skipjack tuna in 2020 was estimated with a high probability (78%) to be in a sustainable condition, meaning the stock was neither overfished nor subjected to overfishing. According to the Kobe II Strategy Matrix, a future constant catch using the median MSY of 216,617 t will have about 55% probability of maintaining the stock in the green quadrant of the Kobe plot through 2028. Assuming a constant catch at MSY1, the probability of the stock biomass being below 20% of BMSY in 2028 was about 17%, and the probability of stock biomass being below 10% in 2028 was about 14% (ICCAT 2025).



Joint Kobe phase plot for the 18 Stock Synthesis uncertainty grid runs and 18 JABBA uncertainty grid runs for the eastern Atlantic skipjack stock. For each run the benchmarks are calculated from the year-specific selectivity and fleet allocations, and based on 90,000 MVLN iterations for Stock Synthesis and 90,000 MCMC iterations for JABBA. The blue point shows the median of 180,000 iterations for SSB_{2020}/SSB_{MSY} or B_{2020}/B_{MSY} and F_{2020}/F_{MSY} for the entire set of runs in the grid. Grey points represent the 2020 estimates of relative fishing mortality and relative spawning stock biomass for 2020 for each of the 180,000 iterations. The upper graph represents the smoothed frequency distribution of SSB_{2020}/SSB_{MSY} or B_{2020}/B_{MSY} estimates for 2020. The right graph represents the smoothed frequency distribution of F_{2020}/F_{MSY} estimates for 2020. The inserted pie graph represents the percentage of each 2020 estimate that fall in each quadrant of the Kobe plot. All SSB for Stock Synthesis showed the values at the end of years. (ICCAT 2025).

References

ICCAT. 2025. INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS. Report for biennial period, 2024-2025. PART I (2024) – Vol.2. English version. SCRS. Madrid, Spain. https://www.iccat.int/Documents/BienRep/REP_EN_24-25-I-2.pdf

| | | | |
|-------------------------------|---|---|------|
| Species name | | Skipjack tuna - <i>Katsuwonus pelamis</i> | |
| Fishing area and stock | | FAO 41 – Southwest Atlantic Western Atlantic 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 |

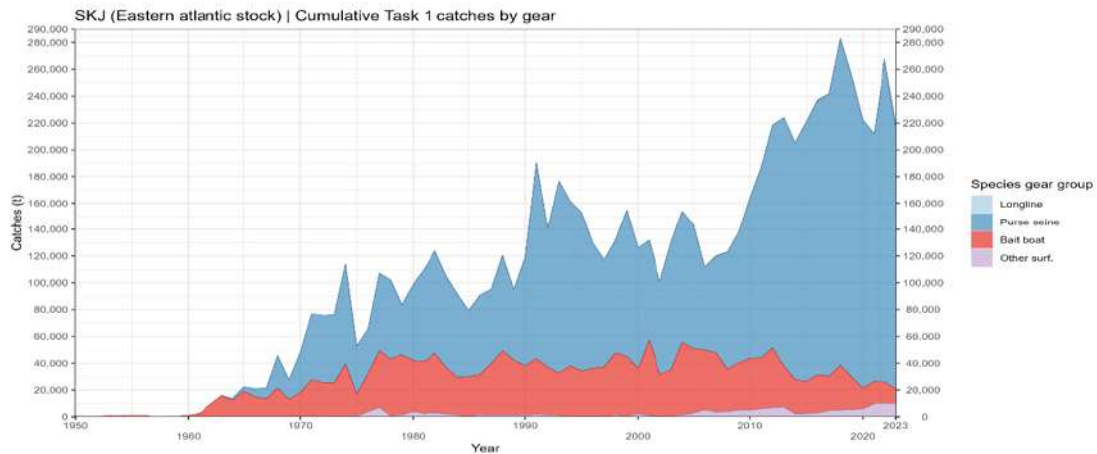
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| | removals by the fishery under assessment are considered by scientific authorities to be negligible. | |
|--|---|--|

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.

The clause is met considering that:

The last stock assessment for eastern and western Atlantic skipjack was conducted in 2022 through a process that included a data preparatory meeting and a stock assessment meeting. These new assessments for the eastern and western Atlantic skipjack stocks used fishery data from 1950-2020 and 1952-2020, respectively, and indices of relative abundance used in the assessments were calculated through 2020. In both cases, Surplus Production models and Statistically Integrated models were used (ICCAT 2025).

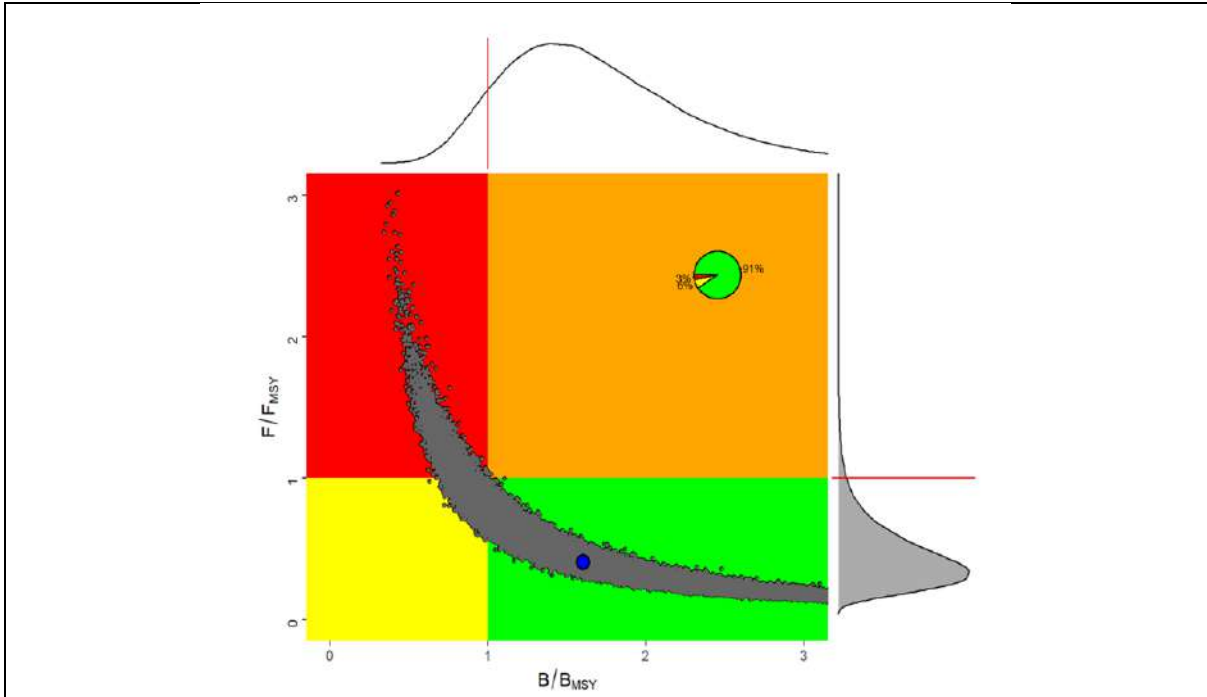


Skipjack catches in the eastern Atlantic, by gear (1950-2023). The values for 2023 are preliminary. (ICCAT 2025).

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 clause is met considering that:

The stock status of western Atlantic skipjack tuna in 2020 was estimated with a high probability (91%) to be in healthy condition and is not overfished nor undergoing overfishing. According to the Kobe II Strategy Matrix, a future constant catch at the median MSY of 35,277 t has about a 70% probability of keeping the stock in the green quadrant of the Kobe plot through 2028. Assuming a constant catch at MSY, the probability of the stock biomass being below 20% or 10% of the B_{MSY} until 2028 are less than 1% (ICCAT 2025).



Kobe phase plot for the 9 Stock Synthesis uncertainty grid runs for the western Atlantic skipjack stock. For each run the benchmarks are calculated from the year-specific selectivity and fleet allocations and based on 200,000 MVLN iterations. The blue point shows the median of 200,000 iterations for SSB_{2020}/SSB_{MSY} and F_{2020}/F_{MSY} for the entire set of runs in the grid. Black line with black symbols represents the historical evolution of the median of all runs. Grey points represent the 2020 estimates of relative fishing mortality and relative spawning stock biomass for 2020 for each of the 200,000 iterations. The upper graph represents the smoothed frequency distribution of SSB/SSB_{MSY} estimates for 2020. The right graph represents the smoothed frequency distribution of F/F_{MSY} estimates for 2020. The inserted pie graph represents the percentage of each 2020 estimate that fall in each quadrant of the Kobe plot. All SSB showed the values at the end of years.

References

ICCAT. 2025. INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS. Report for biennial period, 2024-2025. PART I (2024) – Vol.2. English version. SCRS. Madrid, Spain. https://www.iccat.int/Documents/BienRep/REP_EN_24-25-I-2.pdf

| | | |
|-------------------------------|--|---|
| Species name | Skipjack tuna - <i>Katsuwonus pelamis</i> | |
| Fishing area and stock | FAO 51 - Western Indian Ocean FAO 57 - Eastern Indian Ocean Indian Ocean 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. |

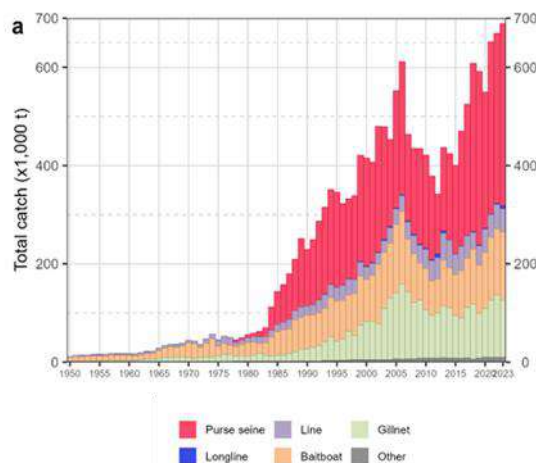
| | | |
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| | C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. |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

The most recent assessment was conducted in 2023 by the Indian Ocean Tuna Commission (IOTC) using a Stock Synthesis model, which uses four types of data: catch, size frequency, tagging, and CPUE indices (IOTC 2024); thus, the stock assessment process includes removals of the species.

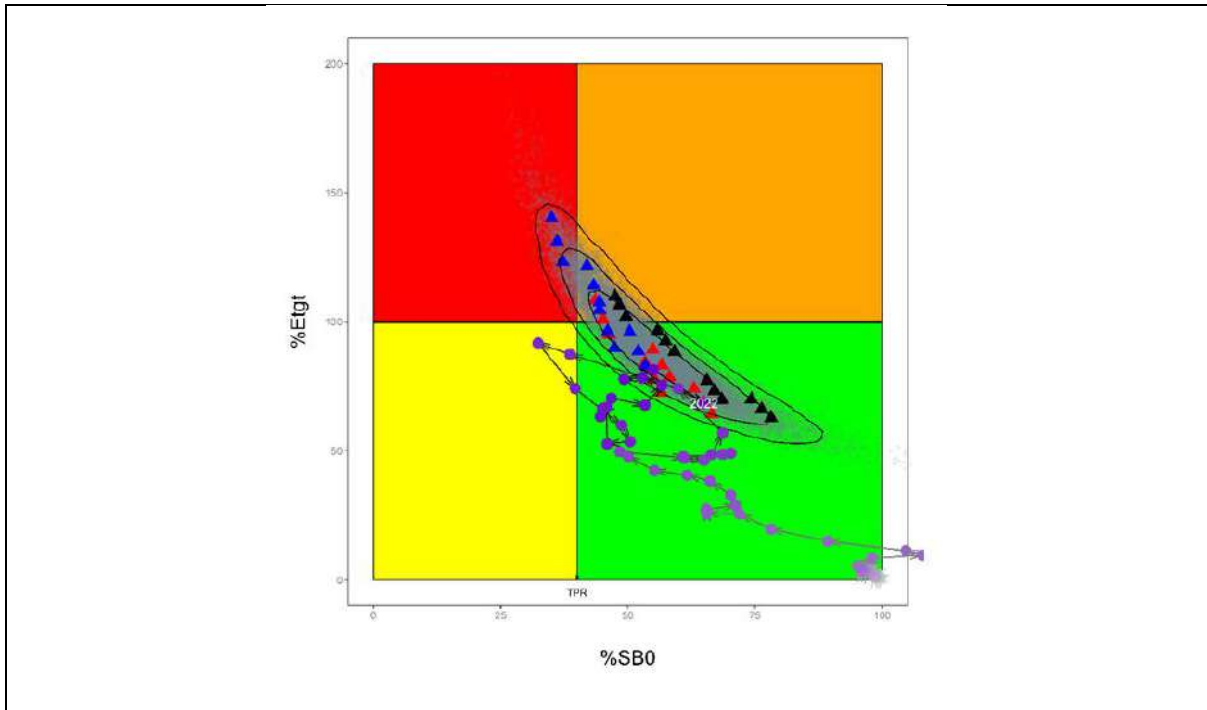


Skipjack tuna annual time series of cumulative nominal catches (metric tonnes; t) by fishery in the Indian Ocean from 1950 to 2023 (IOTC 2024).

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 clause is met considering that:

The latest stock assessment indicates that the skipjack tuna stock's current spawning biomass is estimated at 53% of unexploited levels, well above the adopted target reference point of 40% SB_0 , and the current exploitation rate is below the target rate with a 70% probability. Spawning biomass remains above SB_{MSY} , and fishing mortality is below F_{MSY} with a 98.4% probability. Historically, biomass has remained well above the reference limit of 20% SB_0 . Therefore, the stock is considered neither overfished nor subject to overfishing (IOTC 2024).



Skipjack tuna Indian Ocean stock 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 both PSLs and ABBI index). Grey dots represent uncertainty from individual models. The arrowed line represents the historical stock trajectory for model PSLs. Contours represent 50, 80, and 90% confidence regions (IOTC 2024).

References

IOTC. 2024. Indian Ocean Tuna Commission. Indian Ocean Skipjack Tuna Stock Status: Executive Summary. https://iotc.org/sites/default/files/content/Stock_status/2024/English/IOTC-2024-SC27-ES03_SKJE.pdf

YELLOWFIN TUNA

| | | | |
|-------------------------------|---|---|------|
| Species name | Yellowfin Tuna - <i>Thunnus albacares</i> | | |
| Fishing area and stock | FAO 77 – Eastern central Pacific FAO 87 – Southeast Pacific Eastern 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. | |
|--|---|--|

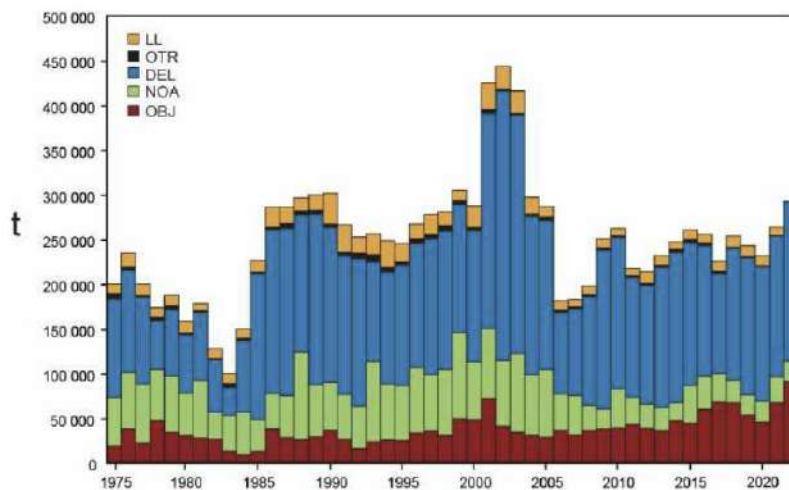
Clause outcome: Pass

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.

The clause is met considering that:

The yellowfin tuna stock in the Eastern Pacific Ocean is managed and assessed by the Inter-American Tropical Tunas Commission (IATTC). The last benchmark assessment for yellowfin tuna was conducted in 2020 and followed a risk assessment framework, which was considered sufficiently reliable to serve as the basis for providing management advice. This framework utilizes Stock Status Indicators (SSIs), which have become particularly important as supplemental information to, or a temporary replacement for, formal stock assessments for yellowfin, as the staff considered the assessments' results at that time insufficiently reliable to serve as the basis for management advice. SSIs are simply time series of raw or lightly processed data for a stock that may reflect trends in its abundance or exploitation. SSIs' estimations include quantities such as fishing effort, catch, catch per unit effort, and the size of fish in the catch (IATTC 2023a). Thus, species removals are included in the stock assessment process.

In 2024, an exploratory benchmark assessment was carried out, but unresolved issues prevented a full benchmark (IATTC2024).

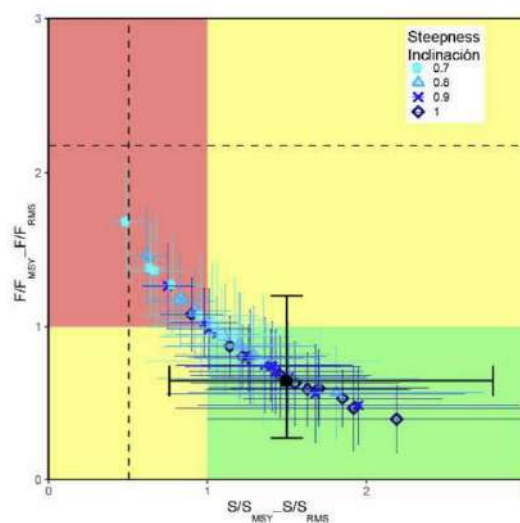


Total catches (retained catches plus discards) for the purse-seine fisheries, by set type (DEL, NOA, OBJ), and retained catches for the longline (LL) and other (OTR) fisheries, of yellowfin tuna in the eastern Pacific Ocean, 1975-2022. The purse-seine catches are adjusted to the species composition estimate obtained from sampling the catches (IATTC 2023b).

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 Clause is met considering that:

The results from multiple reference models are combined in a risk analysis to provide management advice. The most recent results published in 2023 indicate that the probability of the spawning biomass being below S_{MSY_d} is low (12%) and the probability of the spawning biomass exceeding S_{LIMIT} is zero (IATTC 2023b).



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. The colored panels are separated by the target reference points (S_{MSY} and F_{MSY}). Limit reference points (dashed lines), which correspond to a 50% reduction in recruitment from its average unexploited level, based on a conservative steepness (h) of 0.75 for the Beverton-Holt stock-recruitment relationship, are merely indicative, since they vary by model and are based on all models combined. The center point for each model indicates the current stock status, based on the average fishing mortality (F) over the last three years; The solid black circle represents all models combined; to be consistent with the probabilistic nature of the risk analysis and the HCR, it is based on $P(S_{cur}/S_{LIMIT} < x) = 0.5$ and $P(F_{cur}/F_{MSY} > x) = 0.5$. The lines around each estimate represent its approximate 95% confidence interval (IATTC 2023b).

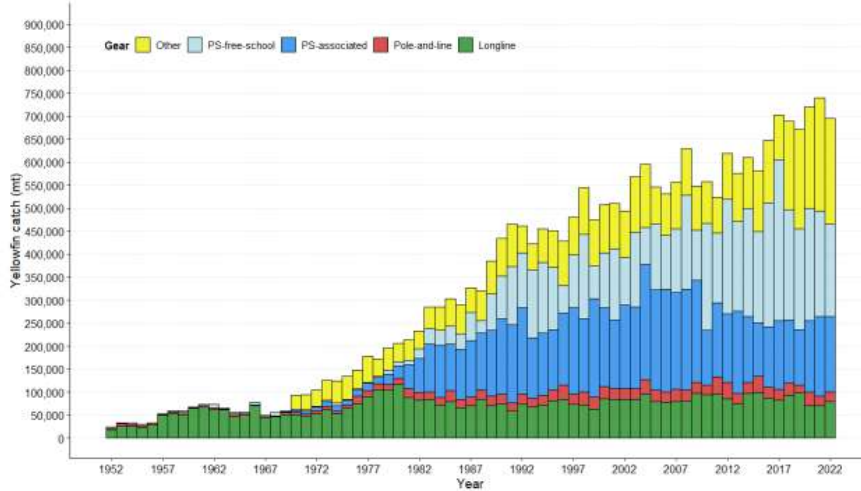
References

IATTC. 2023a. Stock Status Indicators (SSIs) for tropical tunas in the Eastern Pacific Ocean. Document SAC-14-04. May 2023. [https://www.iattc.org/GetAttachment/663cdcd-df599-4802-b9fd-6611959ff893/SAC-14-04_Stock-status-indicators-\(SSIs\)-for-tropical-tunas-in-the-EPO.pdf](https://www.iattc.org/GetAttachment/663cdcd-df599-4802-b9fd-6611959ff893/SAC-14-04_Stock-status-indicators-(SSIs)-for-tropical-tunas-in-the-EPO.pdf)

IATTC. 2023b. The tuna fishery in the Eastern Pacific Ocean in 2022.
https://www.iattc.org/GetAttachment/Of48f889-2aa5-437f-8d03-648d62ecfb75/No-21-2023_Tunas,-stocks-and-ecosystem-in-the-eastern-Pacific-Ocean-in-2022.pdf

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

| | | | |
|---|---|--|------|
| Species name | | Yellowfin tuna - <i>Thunnus albacares</i> | |
| Fishing area and stock | | FAO 61 – Northwest Pacific FAO 71 - Western Central Pacific Western and 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 removals by the fishery under assessment are considered by scientific authorities to be negligible. | Pass |
| Clause outcome: | | | Pass |
| <p>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.</p> <p>The clause is met considering that:</p> <p>The Western and Central Pacific Fisheries Commission (WCPFC) assesses the yellowfin tuna stock in the Western and Central Pacific Ocean every three years. The last stock assessment occurred in 2023, where a MULTIFAN-CL model was used. Data include catch, effort, length & weight-frequency data for the fisheries included in the analysis, and tag-recapture data. Conditional age-at-length data are also used directly as data in the assessment model; thus, removals of the species are included in the stock assessment process (WCPFC 2023).</p> | | | |

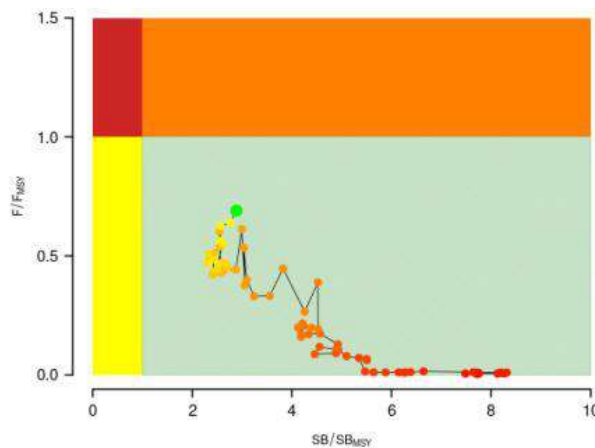


Annual catches of yellowfin tuna by gear in the WCPO area covered by the stock assessment (WCPFC 2023).

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.

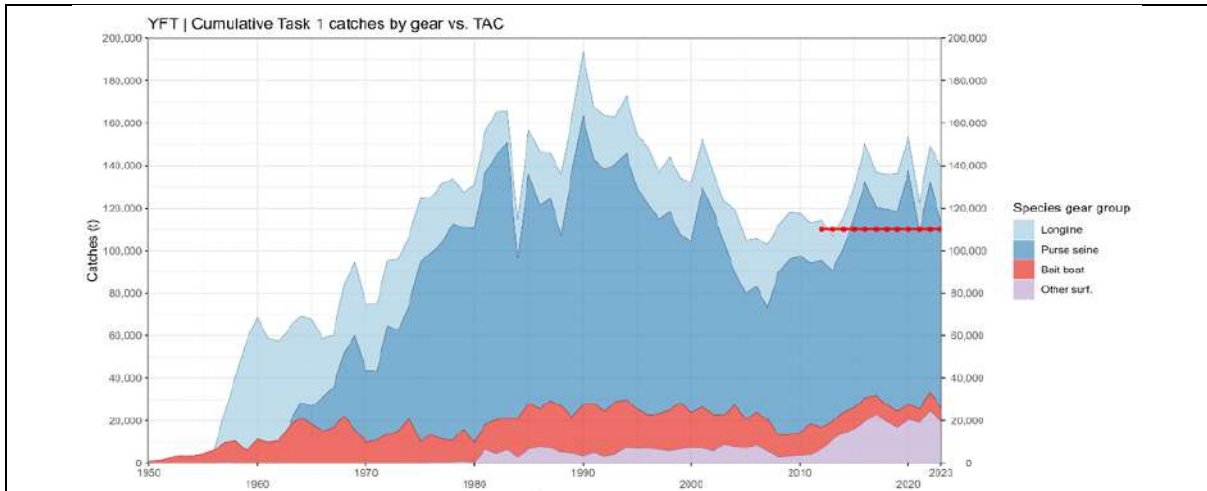
The clause is met considering that:

The 2023 WCPO yellowfin tuna stock assessment estimated that the median recent spawning depletion is well above the limit reference point. The reference points calculated from the uncertainty grid results suggest that the median $SB_{recent}/SB_{F=0}$ is 0.47 and F/F_{MSY} is less than one, with a median value of 0.50; thus, the terminal spawning potential is well above both SB_{MSY} and $20\%SB_{F=0}$, and the fishing mortality is well below F_{MSY} indicating that the yellowfin stock in the WCPO is not overfished or undergoing overfishing (WCPFC 2023).



| |
|--|
| Kobe plot summarising the result for the diagnostic case model over the model period. The green point is the estimated 2021 status; the redder the point, the further back in time (WCPFC 2023). |
| References |
| WCPFC. 2023. Western and Central Pacific Fisheries Commission. Stock assessment of yellowfin tuna in the western and central Pacific Ocean: 2023 https://meetings.wcpfc.int/node/19352 |

| | | | |
|--|--|--|------|
| Species name | Yellowfin Tuna - <i>Thunnus albacares</i> | | |
| Fishing area and stock | FAO 34 - Easter Central Atlantic FAO 41 – Southwest Atlantic FAO 47 – Southeast Atlantic Atlantic Ocean 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 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 Clause is met considering that: | | | |
| The most recent yellowfin tuna assessment for this stock was conducted in 2024 by the International Commission for the Conservation of Atlantic Tunas (ICCAT) using an age-structured model framework. The stock assessment used fishery data from the period 1950-2022. A single stock for the entire Atlantic Ocean is currently assumed based on conventional tagging and longline catch data that indicate yellowfin are distributed continuously throughout the tropical Atlantic Ocean (ICCAT 2025). | | | |

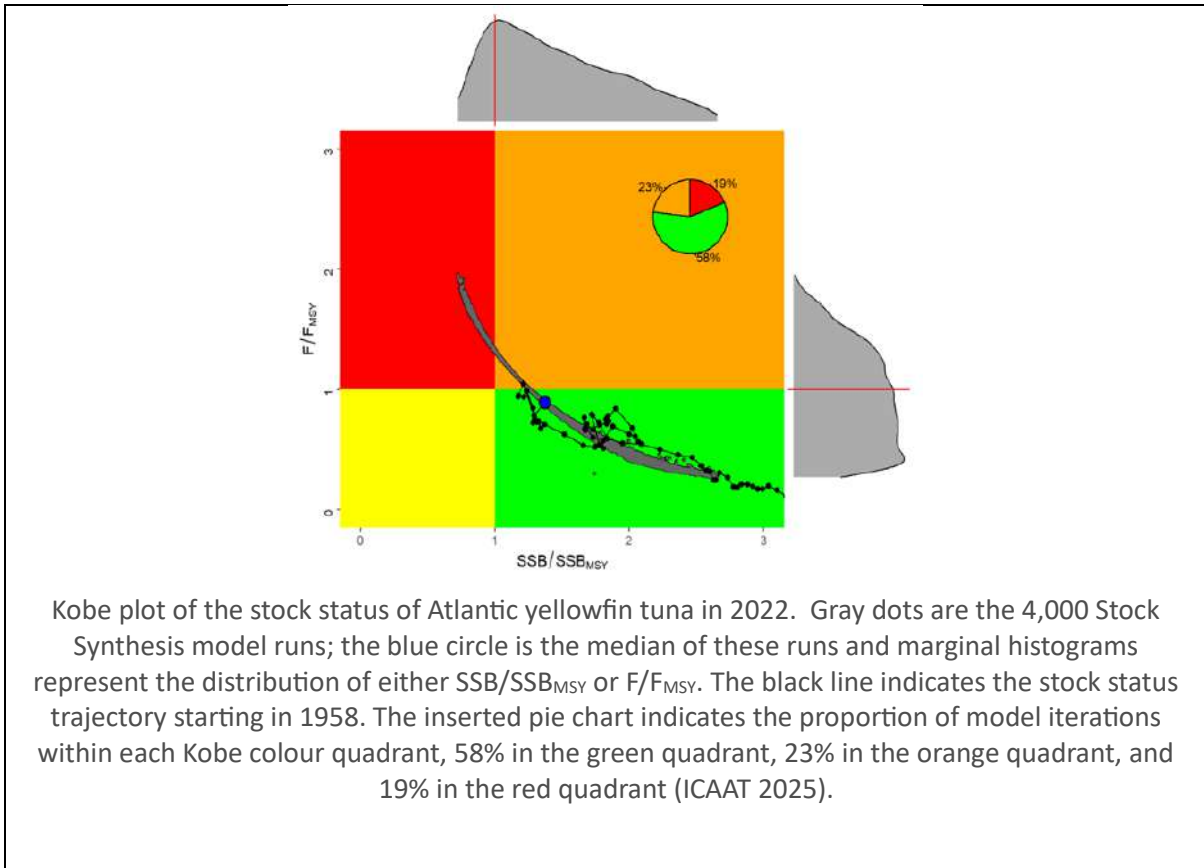


Yellowfin tuna total catch 1950-2023 by main fishing gear group. The red dotted line represents the TAC. (ICCAT 2025).

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 Clause is met considering that:

The yellow fin trend in the spawning stock biomass (SSB) and the SSB relative to the level that would produce Maximum Sustainable Yield (MSY) (SSB^{MSY}) shows a general continuous decline over time. However, spawning stock biomass has remained above SSB_{MSY} over the entire time series, and in the most recent years showed a slightly increasing trend. The median estimate of SSB_{2022}/SSB_{MSY} 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 F_{2022}/F_{MSY} was 0.89 (0.40 - 1.46), indicating that overfishing was not occurring in 2022 with a 58% probability (ICCAT 2025).



References

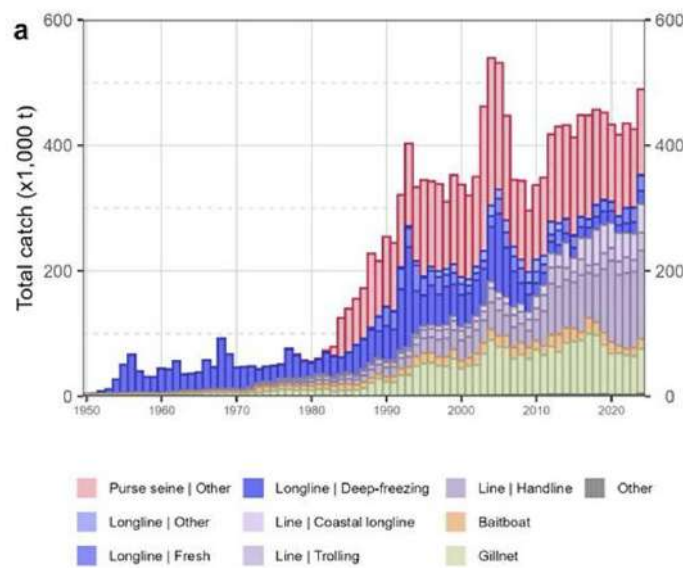
ICCAT. (2025). INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS. Report for biennial period, 2024-2025. PART I (2024) – Vol.2. English version. SCRS. Madrid, Spain. https://www.iccat.int/Documents/BienRep/REP_EN_24-25-I-2.pdf

| | | | |
|-------------------------------|---|--|------|
| Species name | | Yellowfin tuna - <i>Thunnus albacares</i> | |
| Fishing area and stock | | FAO 51 – Western Indian Ocean FAO 57 – Eastern Indian Ocean Indian Ocean 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 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 clause is met considering that:

The most recent assessment was conducted in 2024 by the Indian Ocean Tuna Commission (IOTC) using a Stock Synthesis III (SS3) model, which uses four types of data: catch, size frequency, tagging, and CPUE indices (IOTC 2025); thus, the stock assessment process includes removals of the species.

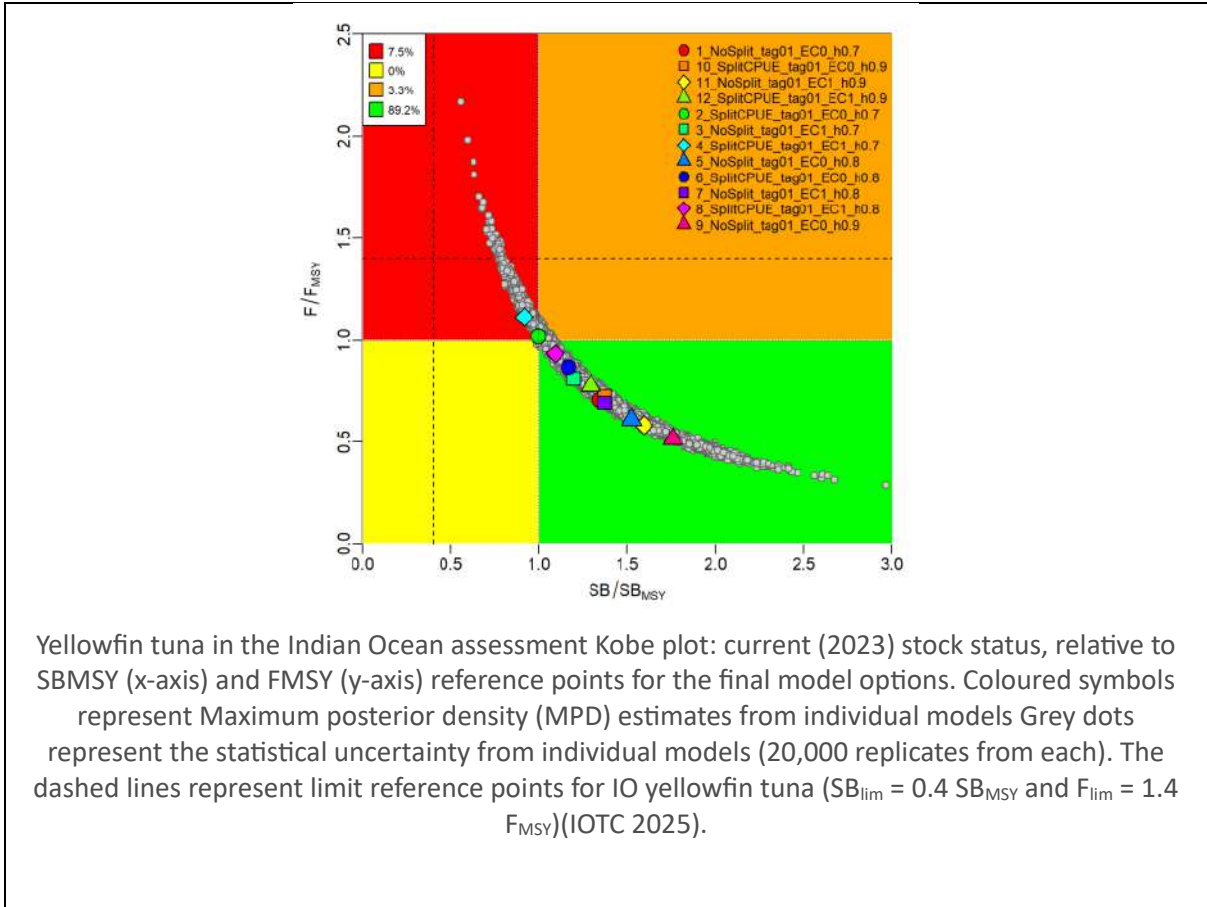


Yellowfin tuna annual time series of cumulative nominal catches (metric tonnes; t) by fishery in the Indian Ocean from 1950 to 2024 (IOTC 2025).

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 clause is met considering that:

The latest stock assessment indicates that spawning biomass in 2023 was 32% above the level that supports the maximum sustainable yield ($SB_{2023}/SB_{MSY} = 1.32$), and current fishing mortality is 25% below F_{MSY} ($F_{2023}/F_{MSY} = 0.75$). The stock is considered to be not overfished and not subject to overfishing, since the probability of the stock being in the green Kobe quadrant in 2023 is 89% (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

BIGEYE TUNA

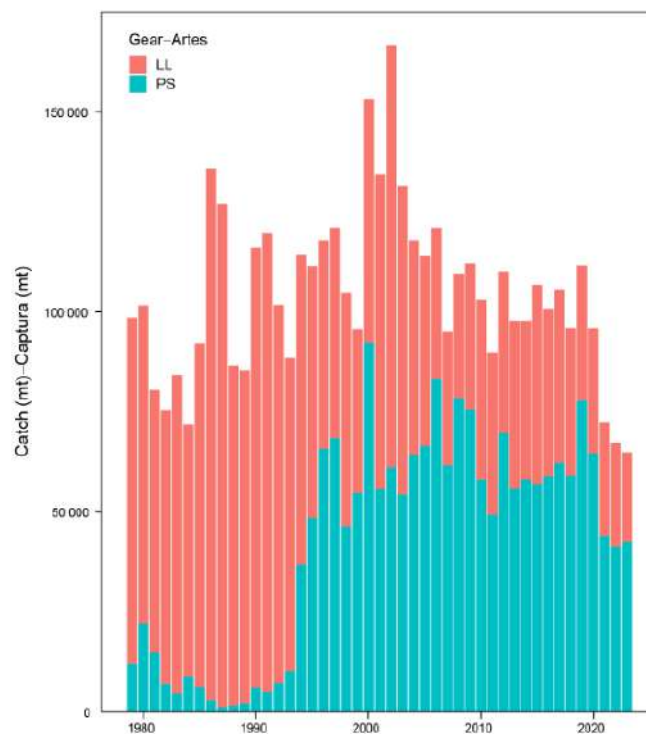
| | | | |
|-------------------------------|---|--|------|
| Species name | | Bigeye tuna - <i>Thunnus obesus</i> | |
| Fishing area and stock | | FAO 77 – Eastern Central Pacific FAO 87 – Southeast Pacific Eastern Pacific stock | |
| C1 | Category C Stock Status - Minimum Requirements | | |
| | C1.1 | 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 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 clause is met considering that:

The 2024 benchmark stock assessment of bigeye tuna in the Eastern Pacific Ocean, carried out by the Inter-American Tropical Tuna Commission (IATTC), uses catch data from purse-seine and longline fleets, along with size-composition information and abundance indices to run a length- and age-structured Stock Synthesis (SS3) model (IATTC 2024).

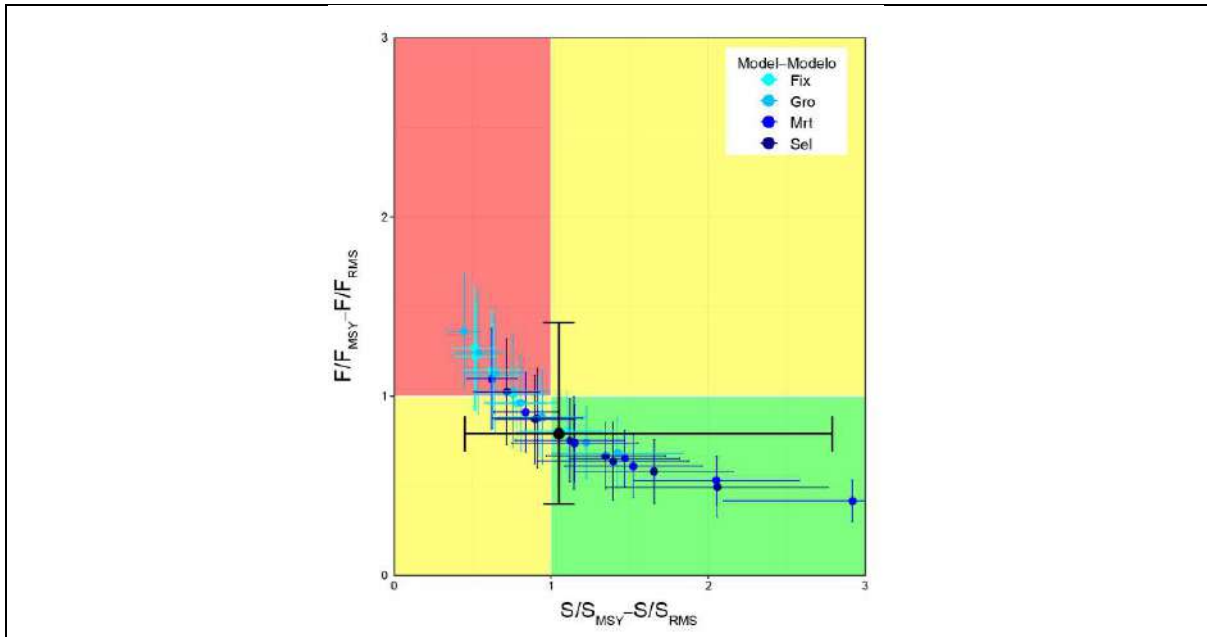


Annual catches (metric tons) of bigeye tuna in the eastern Pacific Ocean by gear type in 1979-2023 (IATTC 2024).

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 clause is met considering that:

The assessment estimated SB/SB_{MSY} at approximately 0.86 and F/F_{MSY} at about 0.74. These results indicate that the stock is above the limit reference point and therefore not overfished, although spawning biomass remains below the level associated with maximum sustainable yield (B_{MSY}) (IATTC 2024).



Kobe plot of the most recent estimates of spawning biomass (S) and fishing mortality (F) relative to their MSY reference points ($S_{MSY,d}$ and F_{MSY}) 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 (IAATC 2024).

References

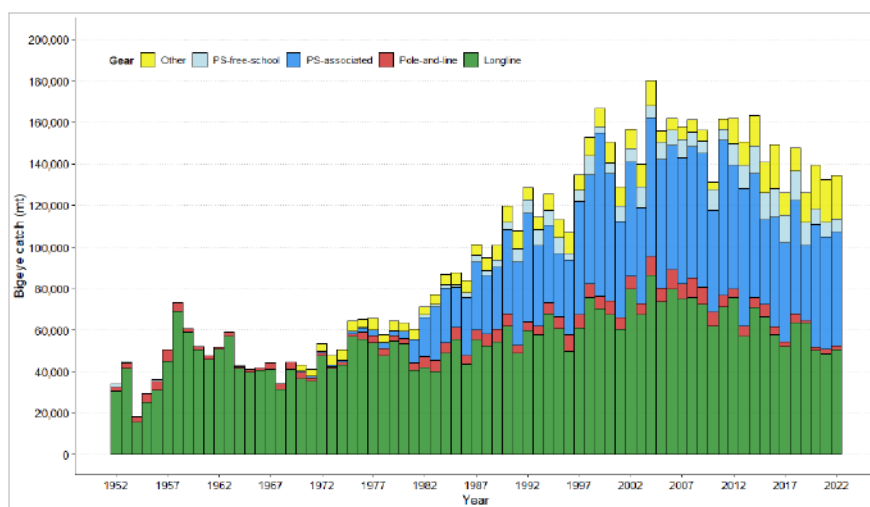
IATTC. 2024. Inter-American Tropical Tuna Commission. Stock assessment of bigeye tuna in the Eastern Pacific Ocean: 2024 benchmark assessment. June 2024. https://www.iattc.org/GetAttachment/23cfd40e-2865-451a-b63a-b22132a760ab/SAC-15-02_Bigeye-tuna-benchmark-assessment-2024.pdf

| | | | |
|-------------------------------|---|--|------|
| Species name | | Bigeye tuna - <i>Thunnus obesus</i> | |
| Fishing area and stock | | FAO 61- Northwest Pacific FAO 71 – Western Central Pacific Western and 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 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 clause is met considering that:

The Western and Central Pacific Fisheries Commission (WCPFC) assesses the bigeye tuna stock in the Western and Central Pacific Ocean every three years. The last stock assessment occurred in 2023, where a MULTIFAN-CL model was used. Data consist of catch, effort, length & weight-frequency data for the fisheries defined in the analysis, and tag-recapture data. Conditional age-at-length data are also used directly as data in the assessment model; thus, removals of the species are included in the stock assessment process (WCPFC 2023). Next assessment should be published in 2026.

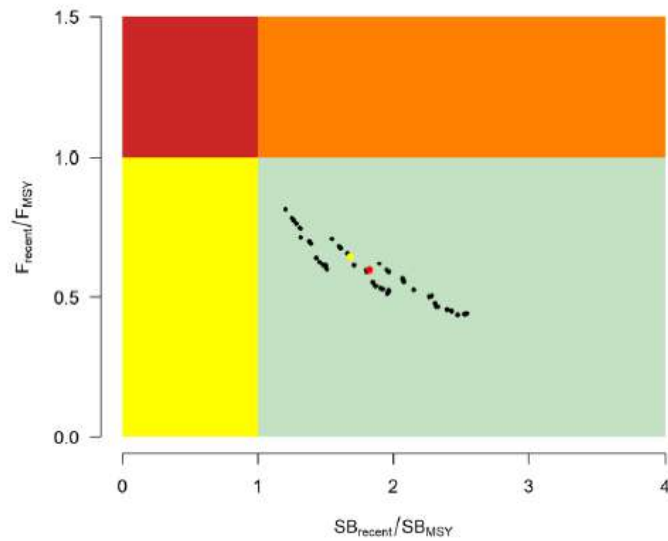


Annual catches of bigeye tuna by gear in the WCPO area covered by the stock assessment (WCPFC 2023).

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 clause is met considering that:

The 2023 WCPO bigeye tuna stock assessment estimated that the median recent spawning depletion is well above the limit reference point. The reference points calculated from the uncertainty grid results suggest that the median $SB_{recent}/SB_{F=0}$ is 0.35 and F/F_{MSY} is less than one, with a median value of 0.59; thus, the terminal spawning potential is well above both SB_{MSY} and $20\%SB_{F=0}$, and the fishing mortality is well below F_{MSY} indicating that the bigeye stock in the WCPO is not overfished nor undergoing overfishing (WCPFC 2023).



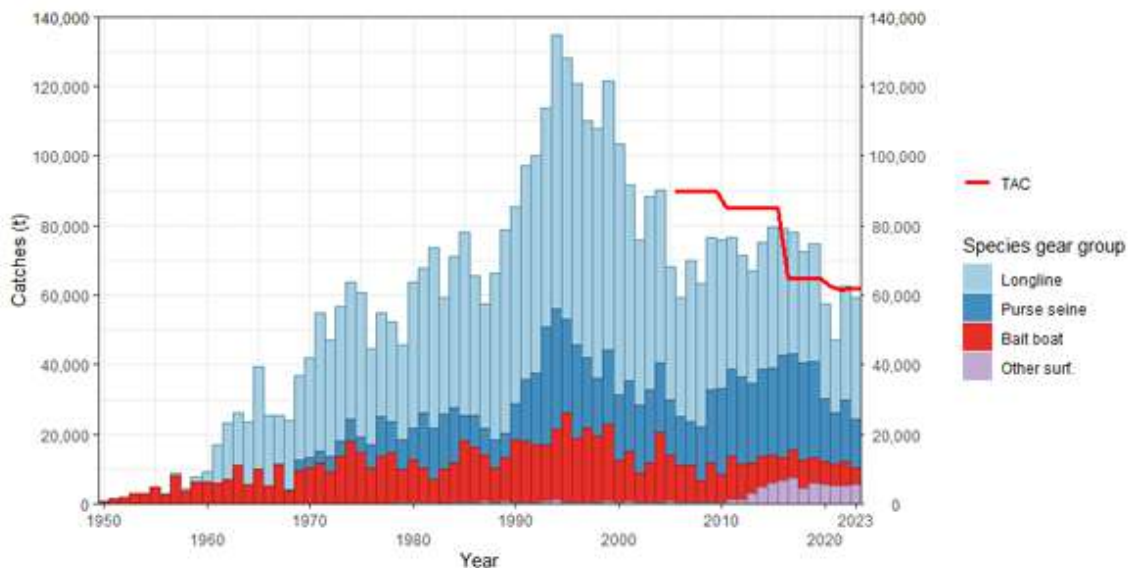
Kobe plot summarizing the results for each of the models in the structural uncertainty grid. The plots represent estimates of stock status in terms of spawning biomass depletion and fishing mortality. The yellow point is the 2023 diagnostic model and red point is the median (WCPFC 2023).

References

WCPFC. 2023. Western and Central Pacific Fisheries Commission. Stock assessment of bigeye tuna in the western and central Pacific Ocean: 2023 <https://meetings.wcpfc.int/node/19353>

| | | | |
|---|---|--|------|
| Species name | | Bigeye tuna - <i>Thunnus obesus</i> | |
| Fishing area and stock | | FAO 34 - Easter Central Atlantic FAO 41 – Southwest Atlantic FAO 47 – Southeast Atlantic Atlantic Ocean 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 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 Clause is met considering that: | | | |

The most recent bigeye tuna assessment for this stock was conducted in 2025 by the International Commission for the Conservation of Atlantic Tunas (ICCAT) using fisheries data through 2023. Stock status and management advice were based on an ensemble approach integrating uncertainty from natural mortality, steepness and alternative versions of juvenile index of abundance within the stock synthesis platform (ICCAT 2025).

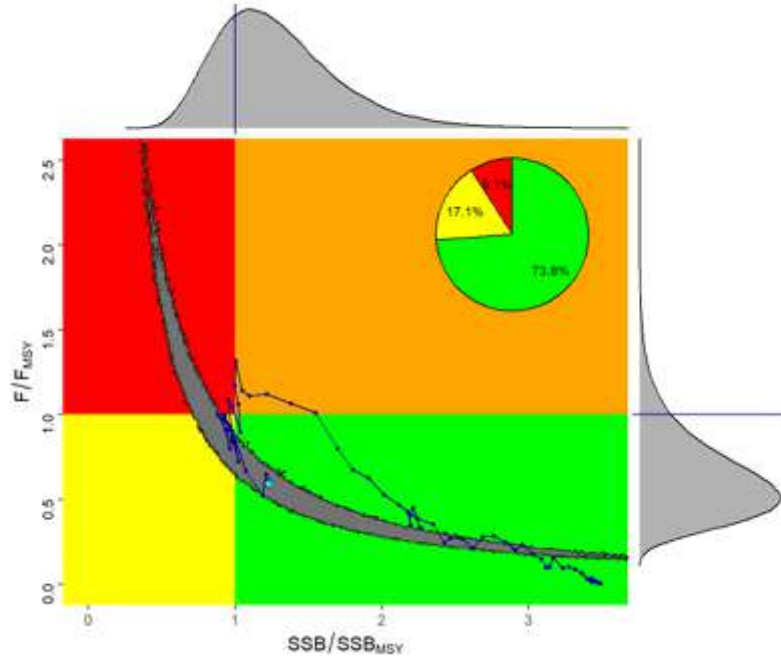


Cumulative Atlantic Bigeye tuna nominal catches (t) by major gear in the Atlantic and Mediterranean (A+M) between 1950–2023. (ICCAT 2025).

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 Clause is met considering that:

The bigeye tuna stock assessment results indicated that the relative biomass stock was above SSB_{MSY} and relative fishing mortality below F_{MSY} , indicating that the stock was not overfished and overfishing was not occurring in 2023. The estimated MSY was 86,030 t, and the stock had a 73.8% probability of being in the green Kobe quadrant (ICCAT 2025).



Kobe plot for the 2025 Atlantic bigeye tuna Stock Synthesis 18 uncertainty grid models by MVLN (20,000 iterations). The line indicates the stock status trajectory starting in 1950. The inserted pie indicates the proportion of MVLN trials within each quadrant of the Kobe plot (ICAAAT 2025).

References

ICCAT. (2025). Report of the 2025 ICCAT Atlantic Bigeye tuna Stock Assessment Meeting. Madrid, Spain. 14-18 July 2025. https://www.iccat.int/Documents/SCRS/ExecSum/BET_ENG.pdf

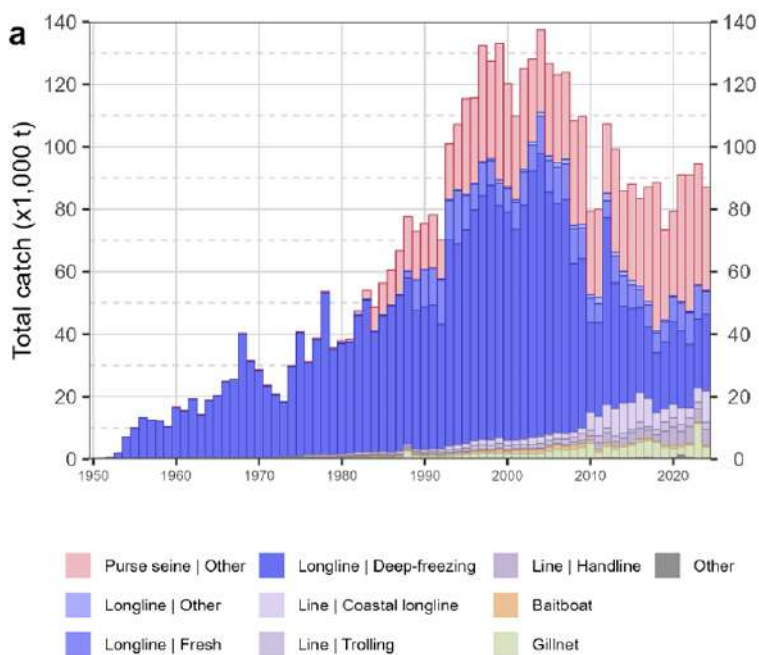
| | | | |
|-------------------------------|---|--|------|
| Species name | | Bigeye tuna - <i>Thunnus obesus</i> | |
| Fishing area and stock | | FAO 51 – Western Indian Ocean FAO 57 – Eastern Indian Ocean Indian Ocean stock | |
| C1 | Category C Stock Status - Minimum Requirements | | |
| | C1.1 | Fishery 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 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 clause is met considering that:

The most recent assessment was conducted in 2025 by the Indian Ocean Tuna Commission (IOTC), using a Stock Synthesis (SS3) to provide scientific advice. The reported stock status is based on a grid of 36 model configurations designed to capture the uncertainty on stock recruitment relationship, longline selectivity, natural mortality and catchability dynamics (IOTC 2025).



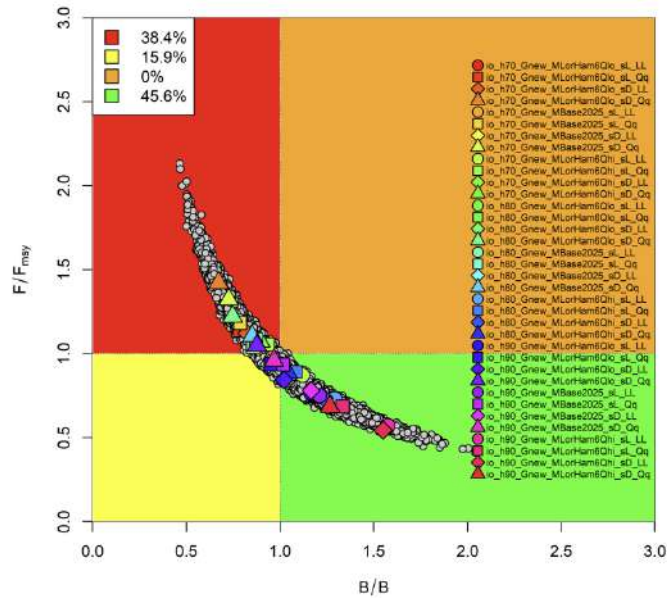
Skipjack tuna annual time series of cumulative nominal catches (metric tonnes; t) by fishery in the Indian Ocean from 1950 to 2024 (IOTC 2025).

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 clause is met considering that:

The most recent stock assessment indicates that the bigeye tuna spawning biomass is close to the maximum sustainable yield (SB_{MSY}), with a value of 0.98, with an uncertainty range of 0.71–1.25 SB_{MSY} , indicating that the stock is near the target reference point. Although the stock is formally classified as overfished due to the probability that biomass may be slightly below SB_{MSY} , the estimated biomass remains well above the established limit reference ($SB_{lim} \approx 0.5 SB_{MSY}$). Therefore, given that the current biomass is close to SB_{MSY} , it can be inferred that the stock is above the limit

reference point, indicating a low risk of the stock being in a severely depleted state. On the weight-of-evidence available in 2025, the bigeye tuna stock is determined to be overfished and not subject to overfishing.



Bigeye tuna: SS3 Aggregated Indian Ocean assessment Kobe plot. The coloured points represent stock status estimates from the 36 model options. Coloured symbols represent Maximum Posterior Density (MPD) estimates from individual models which varied in terms of steepness (h), natural mortality (M), selectivity on the LL2+LL3 fleets (sL vs sD), and gear creep applied to the LL CPUE indices (LL vs Qq, where Qq represents 0.5% of effort creep adjustment on the indices). (IOTC 2025).

References

IOTC (2025). Indian Ocean Bigeye Tuna Stock Status: Executive Summary. https://iotc.org/sites/default/files/content/Stock_status/2025/English/IOTC-2025-SC28-ES02_BETE.pdf

ALBACORE TUNA

| | | | |
|-------------------------------|---|---|------|
| Species name | | Albacore tuna - <i>Thunnus alalunga</i> | |
| Fishing area and stock | | FAO 81 - Southwest Pacific Ocean Southern 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 |

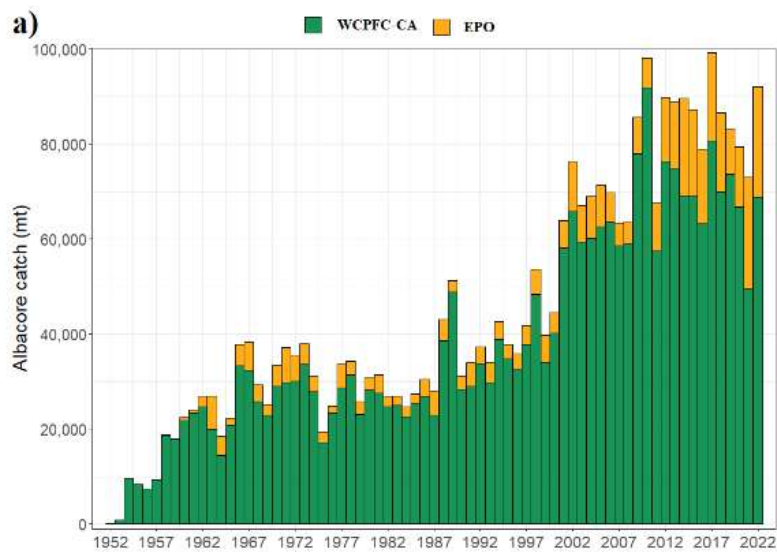
| | | |
|--|--|------|
| | C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. | Pass |
|--|--|------|

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 clause is met considering that:

The South Pacific Commission (SPC), through the Western and Central Pacific Fisheries Commission (WCPFC), assesses the albacore tuna stock in the South Pacific, including both the WCPFC and the Inter-American Tropical Tuna Commission (IATTC). The last stock assessment occurred in 2024, using a MULTIFAN-CL model. Data include catch, effort, length & weight-frequency data for the fisheries included in the analysis, and tag-recapture data. Conditional age-at-length data are also used directly as data in the assessment model; thus, removals of the species are included in the stock assessment process (WCPFC 2024).



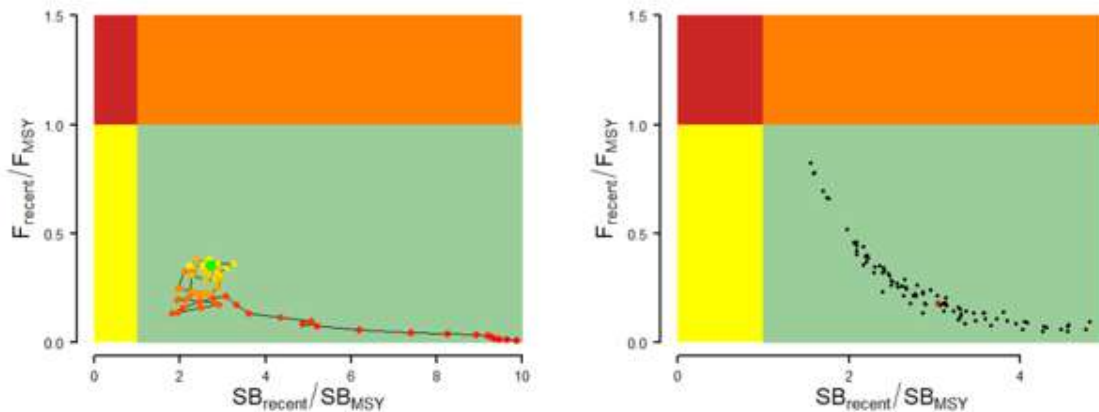
Annual catches of albacore tuna by the convention area covered by the stock assessment (WCPFC 2024).

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.

The clause is met considering that:

According to the most recent stock assessment, the South Pacific albacore tuna stock biomass is estimated to be above the limit reference point. The assessment estimated the recent spawning biomass relative to unfished spawning biomass ($SB_{recent}/SB_{F=0}$) at a median value of 0.48, with an

uncertainty range (10th–90th percentile) of 0.36–0.62. The adopted LRP for the stock is 0.20 $SB/SB_{F=0}$, and results from the model ensemble indicate that all models estimate $SB_{recent}/SB_{F=0}$ above this limit reference point; also, the spawning biomass is estimated to be above the biomass level associated with MSY (SB_{MSY}) indicating that this stock is not experiencing overfishing (WCPFC 2024).



Kobe plots for Southern Pacific albacore tuna the results for the dynamic MSY analysis (left) and each of the models in the model ensemble for the recent period (2019– 2022; right). Colours for dynamic MSY go from red to green over time. The red point in the model ensemble (right) represents the median (WCPFC 2024).

References

WCPFC (2024). Western and Central Pacific Fisheries Commission. WCPFC. 2024. Stock assessment of south Pacific albacore: 2024. <https://meetings.wcpfc.int/node/23119>

Traceability information

Information provided for Step 3 Path 1 or Path 2

| | | | | |
|--|---|--|-----------------------------|---------------------------|
| Species name | | Skipjack tuna (<i>Katsuwonus pelamis</i>) | | |
| Path 1 | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | |
| Confirm all KDEs are provided | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | |
| Path 2 | | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>If yes for Path 2, complete the next section</i> | | |
| Path 2 outcome <i>Countries may be different for Coastal State and Port State.</i> | 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 | | | |
|--|---------------------------------------|--|--|--|

| | | | | |
|--|--|--|-----------------------------------|---------------------------|
| Species name | | Yellowfin tuna (<i>Thunnus albacares</i>) | | |
| Path 1 | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | |
| Confirm all KDEs are provided | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | |
| Path 2 | | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>If yes for Path 2, complete the next section</i> | | |
| Path 2 outcome <i>Countries may be different for Coastal State and Port State.</i> | 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, 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, | Multiple medium risk states | Australia (1.94, Low Risk) | Downgraded to medium risk |

| | | | | |
|--|--|---------------------------------------|---|---------------------------|
| | Indonesia, Kenya, Kiribati, Nicaragua, Panama, Papua Nueva Guinea, Senegal, Taiwan, Tanzania, Venezuela, Mexico and India | in FAO 61 and 71 | | |
| | 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 |

| | | | | |
|--|--|--|-----------------------------------|---------------------------|
| Species name | | Bigeye tuna (<i>Thunnus obesus</i>) | | |
| Path 1 | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | |
| Confirm all KDEs are provided | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | |
| Path 2 | | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>If yes for Path 2, complete the next section</i> | | |
| Path 2 outcome <i>Countries may be different for Coastal State and Port State.</i> | 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, | Multiple medium-risk states in FAO 34 & 47 | Cote d'Ivoire (2.83, 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 | 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 |

| | | | | |
|-------------------------------|--|----------------------|-------------------|---------------------|
| Species name | Albacore tuna (<i>Thunnus alalunga</i>) | | | |
| Path 1 | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | |
| Confirm all KDEs are provided | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | |
| Path 2 | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>If yes for Path 2, complete the next section</i> | | | |
| Path 2 outcome | Flag country | Coastal score | Port score | Risk outcome |

| | | | | |
|---|---|---|--|---------------------------|
| <i>Countries may be different for Coastal State and Port State.</i> | 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, Tanzania, Venezuela, Mexico and India | 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.