# MarinTrust Standard V2

# By-product Fishery Assessment, USA02-
# *Yellowfin tuna (Thunnus albacares)*
# *FAO 21, 27, 31, 34, 41, 47*

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# Table 1 Application details and summary of the assessment outcome

| | | |
|---|---|---|
| Fishery Under Assessment | Species: | Yellowfin tuna (*Thunnus albacares*) |
| | Geographical area: | FAO areas 21, 27, 31, 34, 41, 47 |
| | Country of origin of the product: | Ghana (flag state(s): Ghana, Belize, Spain, France, Italy) |
| | Stock: | Atlantic Ocean yellowfin tuna |
| Date | 23/08/2024 | |
| Report Code | USA02 | |
| Assessor | Virginia Polonio | |
| Country of origin of the product - PASS | Ghana (flag state(s): Ghana, Belize, Spain, France, Italy) | |
| Country of origin of the product - FAIL | NA | |

| Application details and summary of the assessment outcome | | | |
|---|---|---|---|
| Company Name(s): Cosmo Seafoods, Pioneer Food Cannery Limited | | | |
| Country: Ghana | | | |
| Email address: | | Applicant Code: | |
| Certification Body Details | | | |
| Name of Certification Body: | | LQRA | |
| Assessor | Peer Reviewer | Assessment Days | Initial/Surveillance/ Re-approval |
| Virginia Polonio | Sam Peacock | 0.5 | Re-approval |
| Assessment Period | August 2024 - August 2025 | | |

| Scope Details | |
|---|---|
| Main Species | Yellowfin tuna (*Thunnus albacares*) |
| Stock | Atlantic Ocean yellowfin tuna |
| Fishery Location | FAO areas 21,27, 31, 34, 41, 47 (Atlantic Ocean) |
| Management Authority (Country/ State) | ICCAT |
| Gear Type(s) | Longline, baitboat, and purse seine |
| Outcome of Assessment | |
| Peer Review Evaluation | Agree with assessor |
| Recommendation | APPROVE |


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# Table 2. Assessment Determination

| Assessment Determination |
|---|
| If any species is categorised as Endangered or Critically Endangered on IUCN's Red List, or if it appears in the CITES appendices, it cannot be approved for use as Marin trust raw material. Yellowfin tuna (*Thunnus albacares*) does not appear as Endangered or Critically Endangered on IUCN's Red List, and does not appear in CITES appendices; therefore, *Thunnus albacares* is eligible for approval for use as Marin trust by-product raw material.<br><br>Tunas and other highly migratory species are managed by ICCAT in the Atlantic Ocean. There is a single stock of yellowfin tuna and it is assessed relative to a target reference point (BMSY). This stock is also MSC certified for several fisheries.<br><br>As the Atlantic Ocean stock of yellowfin tuna is subject to a management regime, it is assessed under category C. Fishery removals are included in the stock assessment and it PASSES Clause C1.1. T<br><br>The ratio of spawning biomass SSB2018/SSBMSY is estimated at 1.17 (range 0.75-1.62). This indicates that the stock in 2018 was not overfished. The SCRS cautioned that the differences between the 2016 and 2019 assessment results were not due to stock recovery as the 2019 models indicate that the stock biomass declined between 2014 and 2018. The perceived improvement is more likely due to changes in key data inputs and the assessment models applied in its most recent stock assessment, to have biomass above the limit reference point, therefore, it PASSES Clause C1.2.<br><br>Therefore, Atlantic ocean yellowfin tuna (*Thunnus albacares*) is APPROVED for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products. |
| **Fishery Assessment Peer Review Comments** |
| The peer reviewer agrees that this stock is eligible for MarinTrust approval, and that it should be assessed under Category C. The assessor has demonstrated, with references, that the stock is subject to a regular stock assessment which incorporates fishery removals, and that stock biomass is currently above the limit reference point level. For these reasons, the peer reviewer agrees that this byproduct should be re-approved for use as a raw material. |
| **Notes for On-site Auditor** |
| |


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# Species Categorisation

**NB:** If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in CITES Appendix 1, it **cannot** be approved for use as an MarinTrust raw material.

## IUCN Red list Category

By-product material from a species listed by IUCN (the International Union for Conservation of Nature) under the Red List for the following categories shall immediately fail the assessment;

- EXTINCT (E) AND EXTINCT IN THE WILD (EW)
- CRITICALLY ENDANGERED (CR) facing an extremely high risk of extinction in the wild.
- ENDANGERED (EN) facing a very high risk of extinction in the wild.

By-product material may be used from the following categories provided that all clauses in the MarinTrust standard are passed.

- VULNERABLE (VU) facing a high risk of extinction in the wild.
- NEAR THREATENED (NT) does not qualify for above now, but is close or is likely to qualify for, a threatened category in the near future.
- LEAST CONCERN (LC) Widespread and abundant.
- DATA DEFICIENT (DD) and NOT EVALUATED (NE)

# Table 3 Species Categorisation Table

| Common name | Latin name | Stock | Management | Category | IUCN Red List Category[1] | CITES Appendix 1[2] |
|---|---|---|---|---|---|---|
| Yellowfin tuna | *Thunnus albacares* | Atlantic Ocean yellowfin tuna | ICCAT | C | Least concern [3] | No |

[1] https://www.iucnredlist.org/ Thunnus albacares (Yellowfin Tuna) (iucnredlist.org)
[2] https://cites.org/eng/app/appendices.php
[3] Collette, B.B., Boustany, A., Fox, W., Graves, J., Juan Jorda, M. & Restrepo, V. 2021. *Thunnus albacares*. *The IUCN Red List of Threatened Species* 2021: e.T21857A46624561. https://dx.doi.org/10.2305/IUCN.UK.2021-2.RLTS.T21857A46624561.en. Accessed on 05 September 2024.


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# CATEGORY C SPECIES

In a by-product assessment, Category C species are those which are subject to a species-specific management regime and are usually targeted species in fisheries for human consumption.

Clause C1 should be completed for each Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it should be assessed as a Category D species instead.

| **Species Name** | **Yellowfin tuna (*Thunnus albacares*) in FAO 21, 27, 31, 34, 41, 47** | |
|---|---|---|
| **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. | Yes |
| **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. | Yes |
| | **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 yellowfin tuna was conducted in 2019 using catch and effort data through 2018, although catch reports for 2018 were incomplete at the time of the stock assessment meeting, with 42% of the total catch being estimated using the average of the previous three years, by CPC and gear type. Species composition and catch at size from Ghanaian baitboats and purse seiners has been thoroughly reviewed during the past few years. This review led to new estimates of Task 1 and Task 2 catch/effort and size data for the period 1973-2013. Task 1 and 2 estimations for the period 2012 to 2018 (Ortiz and Palma, 2019) were updated for the 2019 ICCAT Yellowfin Tuna Stock Assessment Meeting.

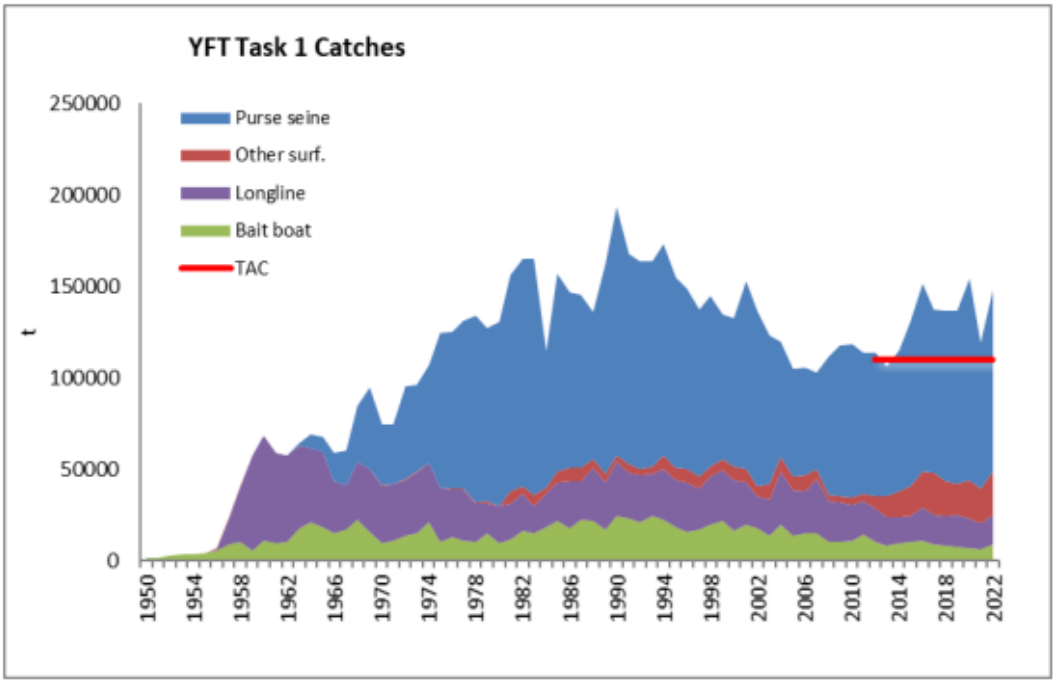


Figure 1. Yellowfin tuna total catch 1950 – 2022 by main fishing gear group. (ISSF 2024 through ICAAT report from 2022-2023)

Therefore, clause C1.1 is met.


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

In 2018, the ratio of F2018/FMSY was estimated at 0.96 (range 0.56-1.50), indicating that overfishing was not occurring. Additionally, the ratio of spawning biomass SSB2018/SSBMSY was estimated at 1.17 (range 0.75-1.62), suggesting that the stock in 2018 was not overfished. However, the SCRS cautioned that the differences between the 2016 and 2019 assessment results were not due to stock recovery, as the 2019 models indicated a decline in stock biomass between 2014 and 2018. The perceived improvement was more likely due to changes in key data inputs and the assessment models applied. The estimate of MSY was 121,300 tonnes (range 90,400-267,400), which was lower than in previous decades due to a shift in overall fishery selectivity towards smaller yellowfin, mainly through fishing on FADs. Despite this, the current catch of 148,200 tonnes was above both the MSY and the adopted catch limit of 110,000 tonnes.

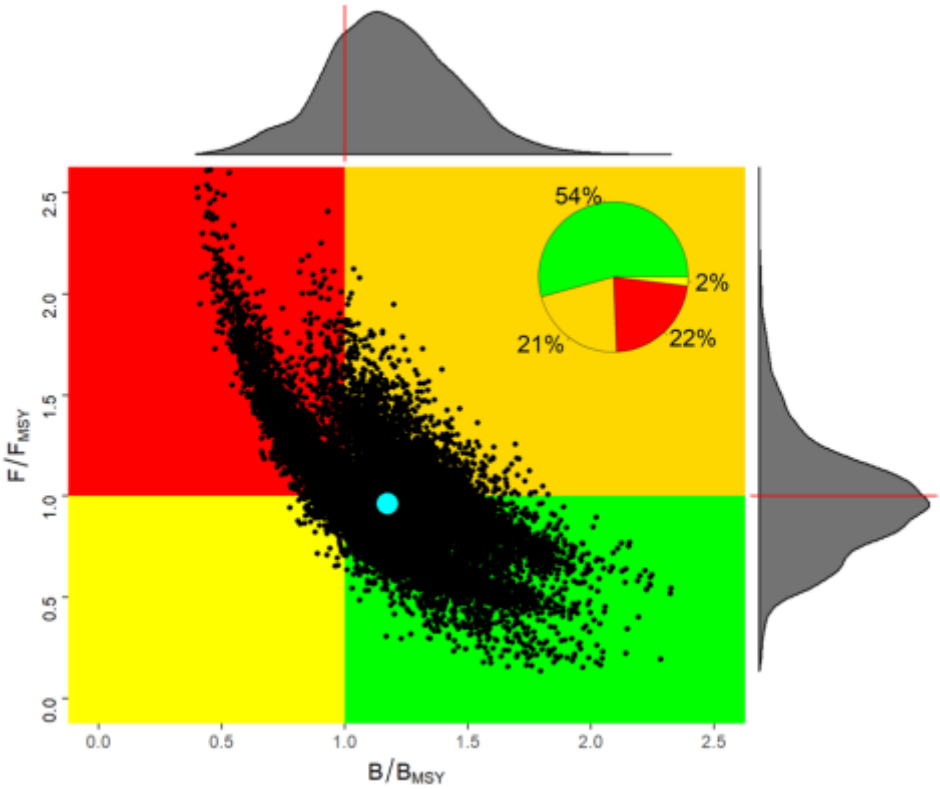


Figure 2. Kobe plot estimated from the combination of Stock Synthesis, JABBA and MPB model runs chosen to develop the management advice. Note that source and the trajectory of individual runs are shown in the detailed report of ICCAT 2022-2023

Therefore clause C1.2 is met.

**References**

ICCAT2019-2024 Yellowfin Tuna. *Thunnus albacares* Summary of Stock Synthesis (V3.30.13.09), JABBA (v1.5 Beta) and mpb (FLR).
2646-19_ENG.pdf (iccat.int)
ICCAT·CICTA·CICAA
ISSF Technical Report – 2024-02 Status of the Stocks - International Seafood Sustainability Foundation (iss-foundation.org)

**Links**

| | |
|---|---|
| **MarinTrust Standard clause** | 1.3.2.2 |
| **FAO CCRF** | 7.5.3 |
| **GSSI** | D.3.04, D5.01 |


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## CATEGORY D SPECIES

Category D species are those which are not subject to a species-specific management regime. In the case of mixed trawl fisheries, Category D species may make up the majority of landings. The comparative lack of scientific information on the status of the population of the species means that a risk-assessment style approach must be taken.

| **D1** | **Species Name** | | |
|---|---|---|---|
| | **Productivity Attribute** | **Value** | **Score** |
| | Average age at maturity (years) | | |
| | Average maximum age (years) | | |
| | Fecundity (eggs/spawning) | | |
| | Average maximum size (cm) | | |
| | Average size at maturity (cm) | | |
| | Reproductive strategy | | |
| | Mean trophic level | | |
| | | **Average Productivity Score** | |
| | **Susceptibility Attribute** | **Value** | **Score** |
| | Availability (area overlap) | | |
| | Encounterability (the position of the stock/species within the water column relative to the fishing gear) | | |
| | Selectivity of gear type | | |
| | Post-capture mortality | | |
| | | **Average Susceptibility Score** | |
| | | **PSA Risk Rating (From Table D3)** | |
| | | **Compliance rating** | |
| | **Further justification for susceptibility scoring (where relevant)**<br>*For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision* | | |
| **References** | | | |
| *Standard clauses 1.3.2.2* | | | |


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# Table D2 - Productivity / Susceptibility attributes and scores.

| Productivity attributes | High productivity (Low risk, score = 1) | Medium productivity (medium risk, score = 2) | Low productivity (high risk, score = 3) |
|---|---|---|---|
| Average age at maturity | <5 years | 5-15 years | >15 years |
| Average maximum age | <10 years | 10-25 years | >25 years |
| Fecundity | >20,000 eggs per year | 100-20,000 eggs per year | <100 eggs per year |
| Average maximum size | <100 cm | 100-300 cm | >300 cm |
| Average size at maturity | <40 cm | 40-200 cm | >200 cm |
| Reproductive strategy | Broadcast spawner | Demersal egg layer | Live bearer |
| Mean Trophic Level | <2.75 | 2.75-3.25 | >3.25 |

| Susceptibility attributes | Low susceptibility (Low risk, score = 1) | Medium susceptibility (medium risk, score = 2) | High susceptibility (high risk, score = 3) |
|---|---|---|---|
| Areal overlap (availability) Overlap of the fishing effort with the species range | <10% overlap | 10-30% overlap | >30% overlap |
| Encounterability The position of the stock/species within the water column relative to the fishing gear, and the position of the stock/species within the habitat relative to the position of the gear | Low overlap with fishing gear (low encounterability). | Medium overlap with fishing gear. | High overlap with fishing gear (high encounterability). Default score for target species |
| Selectivity of gear type Potential of the gear to retain species | a Individuals < size at maturity are rarely caught<br>b Individuals < size at maturity can escape or avoid gear. | a Individuals < size at maturity are regularly caught.<br>b Individuals < half the size at maturity can escape or avoid gear. | a Individuals < size at maturity are frequently caught<br>b Individuals < half the size at maturity are retained by gear. |
| Post-capture mortality (PCM) The chance that, if captured, a species would be released and that it would be in a condition permitting subsequent survival | Evidence of majority released post-capture and survival. | Evidence of some released post-capture and survival. | Retained species or majority dead when released. |


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| D3 | | Average Susceptibility Score | | |
|---|---|---|---|---|
| | | 1 - 1.75 | 1.76 - 2.24 | 2.25 - 3 |
| Average Productivity Score | 1 - 1.75 | PASS | PASS | PASS |
| | 1.76 - 2.24 | PASS | PASS | TABLE D4 |
| | 2.25 - 3 | PASS | TABLE D4 | TABLE D4 |

| D4 | Species Name | |
|---|---|---|
| | Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements | |
| | D4.1 | The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts. |
| | D4.2 | There is no substantial evidence that the fishery has a significant negative impact on the species. |
| | | Outcome: |

**Evidence**

**D4.1: The potential impacts of the fishery on this species are considered during the management process, and reasonable measures are taken to minimise these impacts.**

**D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.**

**References**

| Links | |
|---|---|
| MarinTrust Standard clause | 1.3.2.2, 4.1.4 |
| FAO CCRF | 7.5.1 |
| GSSI | D.5.01 |


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