



MarinTrust Standard V2

By-product Fishery Assessment

Pacific chub mackerel in FAO Area 87

MarinTrust Programme

Unit C, Printworks

22 Amelia Street

London

SE17 3BZ

E: standards@marin-trust.com

T: +44 2039 780 819

Table 1 Application details and summary of the assessment outcome

| | | |
|---|-----------------------------------|--|
| Fishery Under Assessment | Species: | Pacific chub mackerel (<i>Scomber japonicus</i>) |
| | Geographical area: | FAO Area 87, Pacific South-East |
| | Country of origin of the product: | Spain, Portugal |
| | Stock: | FAO Area 87, Pacific South-East |
| Date | October 2022 | |
| Report Code | ESP30 | |
| Assessor | Sam Peacock | |
| Country of origin of the product - PASS | Spain, Portugal | |
| Country of origin of the product - FAIL | None | |

| Application details and summary of the assessment outcome | | | |
|---|-----------------------------|-----------------|-----------------------------------|
| Company Name(s): | | | |
| Country: Spain | | | |
| Email address: | | Applicant Code: | |
| Certification Body Details | | | |
| Name of Certification Body: | | LRQA | |
| Assessor | Peer Reviewer | Assessment Days | Initial/Surveillance/ Re-approval |
| Sam Peacock | Kate Morris | 0.25 | Surveillance |
| Assessment Period | October 2022 – October 2023 | | |

| Scope Details | |
|---------------------------------------|---|
| Main Species | Pacific chub mackerel (<i>Scomber japonicus</i>) |
| Stock | FAO Area 87, Pacific South-East |
| Fishery Location | FAO Area 87, Pacific South-East |
| Management Authority (Country/ State) | South Pacific Regional Fisheries Management Organisation (SPRFMO) |
| Gear Type(s) | Pelagic trawl, purse seine |
| Outcome of Assessment | |
| Peer Review Evaluation | Pass |
| Recommendation | Maintain approval |

Table 2. Assessment Determination

| Assessment Determination |
|---|
| <p>Pacific chub mackerel has been categorised by the IUCN Red List as Least Concern and does not appear in the CITES appendices. The extent of species-specific management measures varies between jurisdictions across the distribution of chub mackerel in the South-East Pacific, but there are no established reference points and no regional management strategy¹. For these reasons, the species has been assessed under Category D.</p> <p>Pacific chub mackerel in the South-East Pacific was awarded a Productivity score of 1.29 and a Susceptibility score of 2.5, leading to a Pass rating on Table D3. Therefore, this by-product meets the MT requirements and should remain approved for use as a raw material in MT-certified marine ingredients.</p> |
| Fishery Assessment Peer Review Comments |
| <p>The by-product fishery under assessment here is the Pacific chub mackerel (<i>Scomber japonicus</i>) fishery pursued by Spanish and Portuguese vessels in FAO fishing area 87. The fishery is managed by the South Pacific Regional Fisheries Management Organisation (SPRFMO) and local governments. For this Marin Trust assessment, Pacific chub mackerel is scored as a category D as it is not managed to reference points.</p> <p>All species scoring tables have been completed by the auditor with sufficient evidence presented to support their final determination.</p> <p>The peer review supports the auditor’s recommendation to Pass the fishery under the Marin Trust IFFO RS v2.0 by-fishery standard for the production of fishmeal and fish oil.</p> |
| Notes for On-site Auditor |
| |

¹ See, eg, <http://www.sprfmo.int/assets/2021-SC9/SC9-WP03-rev1-Chub-mackerel-Species-profile.pdf>

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 ² | CITES Appendix 1 ³ |
|-----------------------|--------------------------|---------------------------------|------------|----------|-------------------------------------|-------------------------------|
| Pacific chub mackerel | <i>Scomber japonicus</i> | FAO Area 87, Pacific South-East | No | D | Least Concern ⁴ | No |

² <https://www.iucnredlist.org/>

³ <https://cites.org/eng/app/appendices.php>

⁴ <https://www.iucnredlist.org/species/170306/6737373>

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 | | |
|--|---|--|
| 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. |
| | 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 outcome: |
| <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>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.</p> | | |
| References | | |
| Links | | |
| MarinTrust Standard clause | | 1.3.2.2 |
| FAO CCRF | | 7.5.3 |
| GSSI | | D.3.04, D5.01 |

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 | Pacific Chub Mackerel | | |
| | Productivity Attribute | Value | Score | |
| | Average age at maturity (years) | 2 years | 1 | |
| | Average maximum age (years) | 7.9 years | 1 | |
| | Fecundity (eggs/spawning) | 135,962 | 1 | |
| | Average maximum size (cm) | 64cm | 1 | |
| | Average size at maturity (cm) | 22cm | 1 | |
| | Reproductive strategy | Broadcast spawner | 1 | |
| | Mean trophic level | 3.4 | 3 | |
| | Average Productivity Score | | 1.29 | |
| | Susceptibility Attribute | Value | Score | |
| | Availability (area overlap) | <10% overlap | 1 | |
| | Encounterability (the position of the stock/species within the water column relative to the fishing gear) | Targeted | 3 | |
| | Selectivity of gear type | Retained | 3 | |
| | Post-capture mortality | Retained | 3 | |
| | Average Susceptibility Score | | 2.5 | |
| | PSA Risk Rating (From Table D3) | | Pass | |
| | Compliance rating | | Pass | |
| | Further justification for susceptibility scoring (where relevant) | | | |
| | <i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i> | | | |
| | | | | |
| | Pacific chub mackerel, computer-generated distribution map. From Fishbase, https://www.fishbase.se/summary/117 | | | |

References

Fishbase, Pacific chub mackerel. <https://www.fishbase.se/summary/117>

Standard clauses 1.3.2.2

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 | a Individuals < size at maturity are regularly caught. | a Individuals < size at maturity are frequently caught |
| | b Individuals < size at maturity can escape or avoid gear. | b Individuals < half the size at maturity can escape or avoid gear. | 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. |

| 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 | |