



MarinTrust Standard V2

By-product Fishery Assessment THA21 – Kawakawa in FAO 51, 57

MarinTrust Programme

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Table 1 Application details and summary of the assessment outcome

| | | |
|---|-----------------------------------|---------------------------------------|
| Fishery Under Assessment | Species: | Kawakawa (<i>Euthynnus affinis</i>) |
| | Geographical area: | FAO 51, 57 |
| | Country of origin of the product: | Thailand |
| | Stock: | Indian Ocean |
| Date | October 2024 | |
| Report Code | THA21 | |
| Assessor | Sam Peacock | |
| Country of origin of the product - PASS | Thailand | |
| Country of origin of the product - FAIL | n/a | |

| Application details and summary of the assessment outcome | | | |
|--|-------------------------------|-----------------|-----------------------------------|
| Company Name(s): South East Asian Packaging and Canning Ltd, Chotiwat Manufacturing Public Co. Ltd | | | |
| Country: Thailand | | | |
| Email address: | | Applicant Code: | |
| Certification Body Details | | | |
| Name of Certification Body: | | LRQA | |
| Assessor | Peer Reviewer | Assessment Days | Initial/Surveillance/ Re-approval |
| Sam Peacock | Sam Dignan | 0.2 | Surveillance 1 |
| Assessment Period | November 2024 – November 2025 | | |

| Scope Details | |
|---------------------------------------|--|
| Main Species | Kawakawa (<i>Euthynnus affinis</i>) |
| Stock | Indian Ocean |
| Fishery Location | FAO 51, 57 |
| Management Authority (Country/ State) | Indian Ocean Tuna Commission (IOTC) |
| Gear Type(s) | Purse seine, gillnet, handline, trolling |
| Outcome of Assessment | |
| Peer Review Evaluation | Approve |
| Recommendation | Approve |

Table 2. Assessment Determination

| Assessment Determination |
|--|
| <p>Kawakawa has been categorised by the IUCN Red List as Least Concern, and it does not appear in the CITES appendices. It is managed using regular stock assessments relative to established target reference points, and was therefore assessed under Category C.</p> <p>Regular stock assessments are conducted by the Indian Ocean Tuna Commission. The most recent of these was carried out in 2023, using all international landings data. The assessment concluded that stock biomass is very likely to be above the limit reference point level. For these reasons the byproduct continues to meet the MT requirements and should remain approved for use as a raw material.</p> |
| Fishery Assessment Peer Review Comments |
| <p>Based on the relevant species not being categorised as Endangered or Critically Endangered on the IUCN Red List or listed in CITES Appendix 1, fishery removals being appropriately included in stock assessment processes, and evidence that the stock biomass is above its limit reference point, continuing approval is appropriate.</p> |
| Notes for On-site Auditor |
| Empty space for notes |

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 a 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 |
|-------------|--------------------------|--------------|------------|----------|-------------------------------------|-------------------------------|
| Kawakawa | <i>Euthynnus affinis</i> | Indian Ocean | Yes | C | Least Concern ³ | No |

¹ <https://www.iucnredlist.org/>

² <https://cites.org/eng/app/appendices.php>

³ <https://www.iucnredlist.org/species/170336/46649050>

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.

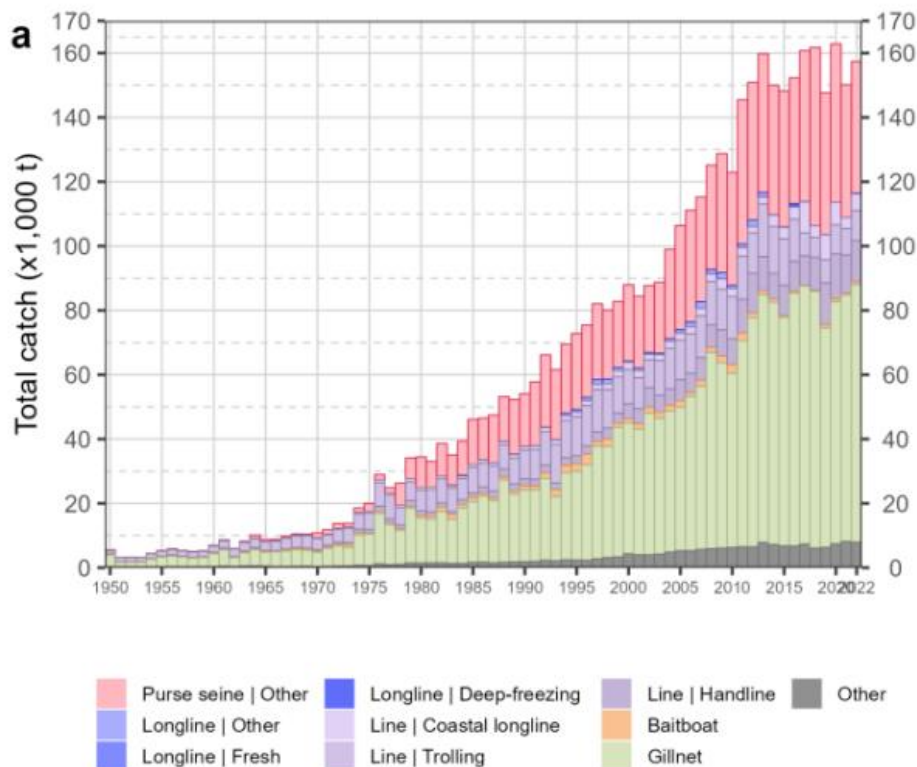
Clause C1 should be completed for each Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it should be assessed as a Category D species instead.

| Species Name | | Kawakawa (<i>Euthynnus affinis</i>) | |
|--------------|--|--|------|
| 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.

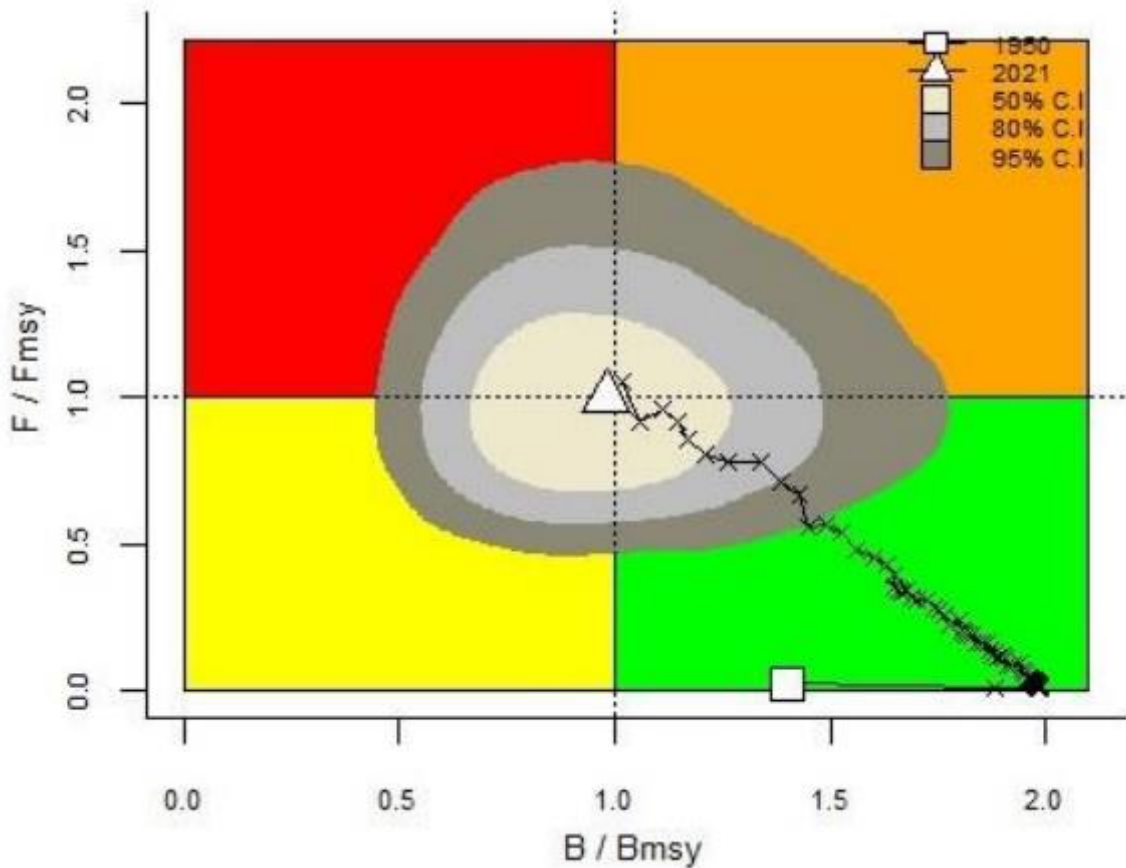
Kawakawa in the Indian Ocean is subject to regular stock assessment by the Indian Ocean Tuna Commission (IOTC). The most recent stock assessment was conducted in 2023, and incorporated all international landings using three stock assessment models. As the stock assessment uses catches only it is considered to have a high degree of uncertainty; however, this uncertainty is included in the assessment outputs (see Kobe chart below). Overall, the stock assessment meets the requirements of C1.1.



Catches of Kawakawa in the Indian Ocean by gear type, 1950 – 2022 (IOTC 2023).

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

As a result of the 2023 stock assessment, it was concluded that stock biomass is very close to B_{MSY} , with B/B_{MSY} estimated to be 0.99. Although this estimate includes a high degree of uncertainty, the 80% confidence interval for $B_{current}/B_{MSY}$ is 0.45 – 1.20, meaning there is a high degree of certainty that the biomass is currently more than $0.5B_{MSY}$, the default limit reference point value. As biomass is highly likely to be above the limit reference point level, C1.2 is met.



Kobe chart for Kawakawa in the Indian Ocean. Grey shaded areas represent 50%, 80% and 95% confidence intervals for stock status in 2022 (IOTC 2023).

References

IOTC (2023). Stock status executive summary: Kawakawa
https://iotc.org/sites/default/files/content/Stock_status/2023/Kawakawa_ES_2023.pdf

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 | n/a | |
| | 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) <i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i> | | |
| | References | | |
| 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 | | n/a | |
|---|---|----------------|-----------------|
| 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 | |