

MarinTrust RS V2.0



BYPRODUCT FISHERY ASSESSMENT TEMPLATE REPORT

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TABLE 1 APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME

Fishery Under Assessment	Species:	Bonito/Kawakawa <i>Euthynnus affinis</i>
	Geographical area:	Thailand, FAO Fishing Areas 57, 71
	Country of origin of the product:	Thailand
	Stock:	Indian Ocean kawakawa
Date	August 2020	
Report Code	2020-142	
Assessor	Vito Romito	
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			
Name:			
Address:			
Country:		Zip:	
Tel. No.:		Fax. No.:	
Email address:		Applicant Code:	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body: SAI Global			
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval
Vito Romito	Virginia Polonio	0.5	SURV 1
Assessment Period		September 2020	

Scope Details	
Main Species	Bonito/Kawakawa, <i>Euthynnus affinis</i>
Stock	Indian Ocean kawakawa
Fishery Location	FAO Fishing Areas 57, 71 (Thailand)
Management Authority (Country/ State)	Indian Ocean Tuna Commission (IOTC) and Southeast Asian Fisheries Development Centre (SEAFDEC); Signatory countries Southeast
Gear Type(s)	Purse seine, gillnets, hand lines and trolling
Outcome of Assessment	
Peer Review Evaluation	Agree with determination
Recommendation	APPROVE

TABLE 2. ASSESSMENT DETERMINATION

Assessment Determination
<p>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 IFFO RS raw material. <i>Euthynnus affinis</i> does not appear as Endangered or Critically Endangered on IUCN’s Red List¹, nor does it appear in CITES appendices²; therefore, kawakawa is eligible for approval for use as IFFO RS by-product raw material.</p> <p>Indian Ocean kawakawa management is co-ordinated at an international level through the through the RFMO, the Indian Ocean Tuna Commission (IOTC, FAO 57) and the regional fishery body where the Client is based: South East Asian Fisheries Development Centre (SEAFDEC FAO 71). SEAFDEC have developed a Regional Plan Of Action (RPOA) in their area for the sustainable utilisation of neritic tunas including Kawakawa.</p> <p>Catch data is available from the IOTC Secretariat database for the period 1950-2018 (2019 in process). Gillnet fleets are responsible for the majority of reported catches of kawakawa, followed by purse seine gear and lines, with the majority of catches taken by coastal country fleets.</p> <p>Assessing the status of the stocks of neritic tuna species in the Indian Ocean is challenging due to the paucity of data. There is generally a lack of reliable information on stock structure, abundance and biological parameters. Stock assessments have been conducted for kawakawa (<i>Euthynnus affinis</i>) from 2013 to 2015 using data-limited methods (Zhou and Sharma, 2013; Zhou and Sharma, 2014; Martin and Sharma, 2015).</p> <p>The IOTC provided an update to these assessments in June 2020 based on the most recent catch information report to the IOTC, using two methods to assess the status of <i>E. affinis</i>: (i) an updated Catch-MSY method (Kimura and Tagart 1982; Walters et. al. 2006; Martell and Froese 2012; Froese et al. 2016) and (ii) a Bayesian biomass dynamic model, BSM (Froese et al. 2016), which utilised the recently available CPUE indices of the kawakawa developed from the Iranian gillnet fishery.</p> <p>Therefore Kawakawa in the Indian Ocean is APPROVED by SAI Global assessors in the assessment area for the production of fishmeal and fish oil under the current IFFO RS v 2.0 by-products standard.</p>
Peer Review Comments
<p>The IOTC target and limit reference points for kawakawa have not yet been defined, so the values applicable for other IOTC species are used. Management quantities (estimated means and 95% confidence ranges) are provided in the last stock assessment 2020, which shows an average MSY of about 145,000 t. The KOBE plot indicates that based on the C-MSY model results, kawakawa mackerel is currently overfished (B2018/BMSY=0.97) but is not subject to overfishing (F2018/FMSY = 1.16).</p> <p>The catches over the last five years are higher than the estimated MSY however one of the models is more optimistic and it considers that the stock is below F limit. Therefore, the PR agrees with the determination that the fishery passes clauses C1.1 and C1.2.</p>
Notes for On-site Auditor

¹ <https://www.iucnredlist.org/species/170336/6753804>

² <https://cites.org/sites/default/files/eng/app/2019/E-Appendices-2019-11-26.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 Redlist Category

Byproduct 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.

Byproduct 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 ³	CITES Appendix 1 ⁴
Kawakawa	<i>Euthynnus affinis</i>	Indian Ocean Kawakawa	Yes	Category C	LC	No

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 may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

³ <https://www.iucnredlist.org/>

⁴ <https://cites.org/eng/app/appendices.php>

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
<p>C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process.</p> <p>Assessing the status of the stocks of neritic tuna species in the Indian Ocean is challenging due to the paucity of data. There is generally a lack of reliable information on stock structure, abundance and biological parameters. Stock assessments have been conducted for kawakawa (<i>Euthynnus affinis</i>) from 2013 to 2015 using data-limited methods (Zhou and Sharma, 2013; Zhou and Sharma, 2014; Martin and Sharma, 2015). Catch data is available from the IOTC Secretariat database for the period 1950-2018 (2019 in process). Gillnet fleets are responsible for the majority of reported catches of kawakawa, followed by purse seine gear and lines, with the majority of catches taken by coastal country fleets. The IOTC provided an update to these assessments in June 2020⁵ based on the most recent catch information report to the IOTC, using two methods to assess the status of <i>E. affinis</i>: (i) an updated Catch-MSY method (Kimura and Tagart 1982; Walters et. al. 2006; Martell and Froese 2012; Froese et al. 2016) and (ii) a Bayesian biomass dynamic model, BSM (Froese et al. 2016), which utilised the recently available CPUE indices of the kawakawa developed from the Iranian gillnet fishery.</p> <p>Therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process and the fishery PASSES clause C1.1</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).</p> <p>Based on the Catch-MSY method and Bayesian biomass dynamic model, BSM, as last reported in a data limited stock assessment update in 2020, it can be seen that the species is subject to some overfishing (both models) and is somewhat overfished (CMSY model). However, it can be seen that the stocks are quite close to the MSY level and although limit reference points are not explicitly defined, it can be assumed that ½BMSY is a reasonable limit proxy. Resilience⁶ and productivity for this stock is considered at least moderate. Figures of stock status from the 2019 stock status update are shown below:</p>			

⁵ <https://www.iotc.org/documents/WPNT/10/15>

⁶ <https://www.fishbase.se/summary/96>

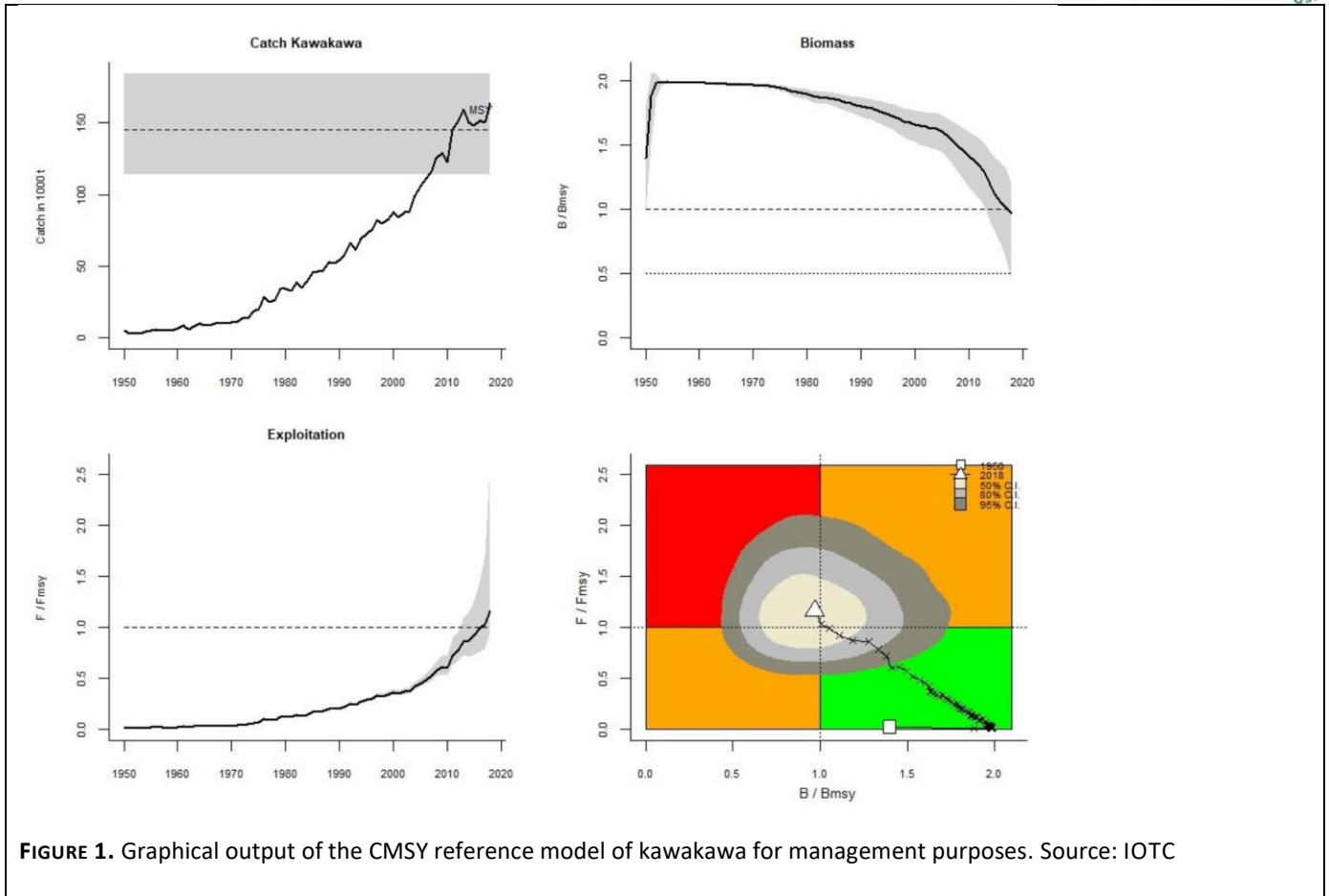


FIGURE 1. Graphical output of the CMSY reference model of kawakawa for management purposes. Source: IOTC

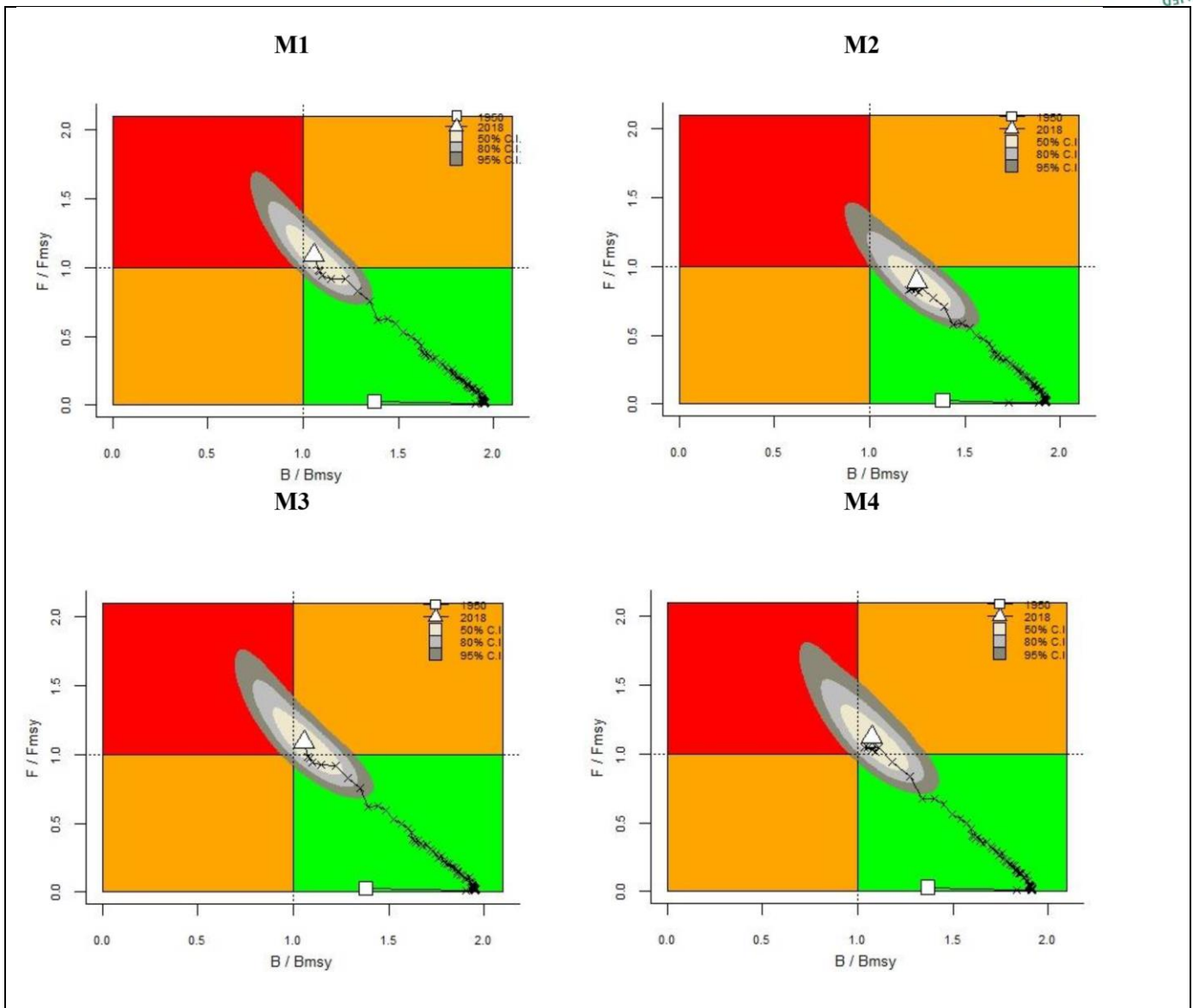


FIGURE 2. Kobe plots for the BDM models M1 – M4. Source: IOTC

Therefore, the species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy) and it **PASSES** clause C1.2

References

CITES. 2020. CITES Appendices I, II and III valid from 26 November 2019. Convention on International Trade in Endangered Species of Wild Fauna and Flora. <https://www.cites.org/eng/app/appendices.php>.

Collette, B., Chang, S.-K., Fox, W., Juan Jorda, M., Miyabe, N., Nelson, R. & Uozumi, Y. 2011. *Euthynnus affinis*. The IUCN Red List of Threatened Species 2011: e.T170336A6753804. <https://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T170336A6753804.en>

Dan Fu. 2020. Assessment of Indian Ocean kawakawa (*Euthynnus affinis*) using data-limited methods. Report IOTC–2020–WPNT10–15. Indian Ocean Tuna Commission. 19 pp. <https://www.iotc.org/documents/WPNT/10/15>

Links

MARINTRUST Standard clause	1.3.2.2
FAO CCRF	7.5.3
GSSI	D.3.04, D5.01

SOCIAL CRITERION

In addition to the scored criteria listed above, applicants must commit to ensuring that vessels operating in the fishery adhere to internationally recognised guidance on human rights. They must also commit to ensuring there is no use of enforced or unpaid labour in the fleet(s) operating upon the resource.

Appendix B: From MARINTRUST Standard V2.0 Annex 2: Fish By-product Assessment Methodology

Definition of a Fish By-product

A by-product is a useful and marketable product that is not the primary product being produced. A marketable by-product is from a process that can technically not be avoided. This includes materials that may be traditionally defined as waste such as industrial scrap that is subsequently used as a raw material in a different manufacturing process.

"Fish By-products" refers to commodities that are manufactured from fish, including shellfish, and crustaceans in a form that is different than conventional foods and which are intended for human consumption (either directly or as a food ingredient). Fish By-products include, but are not limited to:

- By-products derived from fish, including fish cartilage, fish oils, and fish proteins; and
- By-products derived from the carapaces of crustaceans; but do not include marine plants or marine plant products.

(Canadian Food Inspection Agency Definition)

In addition, a whole fish which is rejected on an intrinsic quality ground e.g. does not meet the specification for human consumption due to physical damage or the quality is substandard. These whole fish shall in these cases be classified as a by-product from the human consumption fishery, and can be used for marine ingredients production.

A whole catch of fish that is rejected by a fish processing factory on economic grounds is not considered to be a fish by-product. This fish can only be used for marine ingredients production if the fishery has been assessed and approved under the requirements of the IFFO Responsible Sourcing Standard.

Why utilise Fish By-products?

FAO Code of Conduct for Responsible Fisheries

General Principles Article 6

6.7 The harvesting, handling, processing and distribution of fish and fishery products should be carried out in a manner which will maintain the nutritional value, quality and safety of the products, reduce waste and minimize negative impacts on the environment.

Responsible fish utilisation Article 11.1

11.1.8 States should encourage those involved in fish processing, distribution and marketing to reduce post-harvest losses and waste.

Benefits of Including Fish By-Products in the MARINTRUST Standard:

1. Improved fish resource utilisation
2. Reduction in waste for nutritional value
3. 35% of fish by-products are currently used to make quality fishmeal and oil
4. Excellent Economic return

5. Better compliance with FAO Code of Conduct for Responsible Fisheries

What Fish By-products cannot be used?

1. IUCN

Fishery By-products shall Not be taken from a species listed by IUCN (the International Union for Conservation of Nature) under the Red List for certain categories;

- 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.

Fish By-product material may be used from the vulnerable category, but it shall incur a fishery surveillance conducted by the certification body prior to it being included in the scope of this standard.

- VULNERABLE (VU) facing a high risk of extinction in the wild.

The Fish By-product material from these species will be acceptable for use in the scope of this standard;

- 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.

Fish By-product material may be used from the following category, but it shall incur a fishery surveillance prior to it being included in the scope of this standard;

- DATA DEFICIENT (DD) and NOT EVALUATED (NE)

The fishery surveillance conducted by the certification body will review the following areas:

Stock Assessment

- From a recognised Institution
- Fisheries are recognised as legal
- Fisheries do not contradict scientific opinion

2. FAO Code of Conduct for Responsible Fisheries

In addition the Fish By-products shall not come from fisheries that do not comply with the following criteria;

1. Fisheries should prohibit dynamiting, poisoning and other comparable destructive fishing practices.
2. Fishery material shall not be from IUU fishing activity nor sourced from vessels officially listed as engaging in illegal, unreported and unregulated (IUU) fishing activity.

Sources of Information

1. Food Standards Agency
2. Canadian Food Inspection Agency
3. DEFRA

4. GAA Feed mill BAP standard

5. EU Commission

6. IUCN