



# BYPRODUCT FISHERY ASSESSMENT TEMPLATE REPORT

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TABLE 1 APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME

	Species: Albacore tuna ( <i>Thunnus alalonga</i> )		
	Geographical area:	FAO 71,77 & 81 South Pacific	
Fishery Under		Ocean	
Fishery Under Assessment	Country of origin of the product:	Thailand	
	Stock:	South Pacific Ocean	
Date	September 2020		
Report Code	118-2020		
Assessor	Virginia Polonio		
Country of origin of	Thailand		
the product - PASS	manana		
Country of origin of the product - FAIL	NA		

Application details and summary of the assessment outcome						
Name:						
Address:	Address:					
Country: Thailand		Zip:	Zip:			
Tel. No.:		Fax. No.:	Fax. No.:			
Email address:		Applicant Code:				
Key Contact:		Title:				
<b>Certification Body Detai</b>	ls					
Name of Certificatio	n Body: SAI Global					
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval			
Virginia Polonio	Jim Daly	0.5	Re-approval			
Assessment Period	September 2020					

Scope Details				
Main Species	Albacore tuna (Thunnus alalunga)			
Stock	South Pacific Ocean stock unit			
Fishery Location	FAO 71,77 & 81 South Pacific Ocean			
ManagementAuthority (Country/ State)	Western and Central Pacific Fisheries Commission (WCPFC), Inter-American Tropical Tuna Commission (IATTC) and domestically Thailand Department of fisheries			
Gear Type(s)	Longline, troll, and pole-and-line			
Outcome of Assessment				
Peer Review Evaluation	AGREE			
Recommendation	APPROVE			



#### 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 MarinTrust raw material. Albacore tuna (*Thunnus alalunga*) do not appear as Endangered or Critically Endangered on IUCN's Red List, nor do they appear in CITES appendices; therefore, albacore is eligible for approval for use as MarinTrust by-product raw material.

Management entities for the South Pacific Ocean Albacore stock are: Inter-American Tropical Tuna Commission (IATTC) and the Western and Central Pacific Fisheries Commission (WCPFC). The Convention texts from these two RFMO's calls for cooperation in the management of albacore throughout its migratory range. Consequently, the stock complex is managed under measures established for the South Pacific Ocean framework and it is assessed under Clause C.

Fishery removals of the stock complex are included in the stock assessment process so the stock complex **PASSES** Clause C1.1. Further, the species is considered, in its most recent stock assessment, to have a biomass above the limit reference point so the stock complex **PASSES** Clause C1.2.

In order to be approved, the stock assessed must pass all Clauses in category C. As it is the case for Albacore tuna. Hence, Albacore tuna (*Thunnus alalunga*) in the South Pacific Ocean, FAO areas 71,77 & 81 is **APPROVED** by SAI Global assessors in the assessment area for the production of fishmeal and fish oil under the current MarinTrust v 2.0 by-products standard.

#### **Peer Review Comments**

No stock assessments were conducted for South Pacific albacore in 2019. Therefore stock status descriptions from SC14 (2018) are still current. SC15 (2019) noted that under recent fishery conditions of assuming that the 2018 catch remains constant, the albacore stock is initially projected to increase as recent estimated relatively high recruitments support adult stock biomass, then decline as future recruitment is sampled from the long-term historical estimates.

In support of these conclusions the median, 10 and 90 percentile values of recent (2013-2016) spawning biomass ratio (SBrecent/ SBF=0) and recent fishing mortality in relation to FMSY (Frecent/FMSY) over the structural uncertainty grid were used to characterize uncertainty and describe stock status. A description of the structural sensitivity grid used to characterize uncertainty in the assessment is set out in Table SPA-1 (SC14 Summary Report 2018).

Notes for On-site Auditor



### SPECIES CATEGORISATION

<u>NB</u>: 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 <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
Albacore tuna	Thunnus alalunga	South Pacific Ocean	Thailand	1C	NT	No

<sup>&</sup>lt;sup>1</sup> <u>https://www.iucnredlist.org/</u>

<sup>&</sup>lt;sup>2</sup> <u>https://cites.org/eng/app/appendices.php</u>



## **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.

Species Name Albacore tuna, Thunnus alalunga						
<b>C1</b>	Category C Stock Status - Minimum Requirements					
CI	C1.1		Fishery removals of the species in the fishery under assessment are included in the stockPASSassessment 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:	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.

SC15 noted that the total provisional Pacific Ocean catch south of the equator in 2018 was 80,820 mt, a 13% decrease from 2017 and a 2% decrease from the average 2013-2017. Longline catch in 2018 (77,776 mt) was a 14% decrease from 2017 and an 8% decrease from the 2013-2017 average.

Data and CPUE of the main gear types are considered in the stock assessment and therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process, and it **PASSES** clause C1.1.

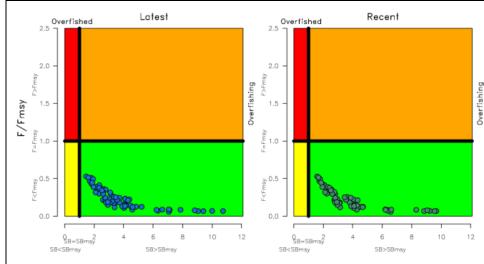
C1.2 The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), OR removals by the fishery under assessment are considered by scientific authorities to be negligible. WCPFC SC15 noted that no stock assessments were conducted for South Pacific albacore in 2019. Therefore, the stock status descriptions from SC14 (2018) are still current for South Pacific albacore.

The average stock status in 2016 (the last year of the assessment) across the 72 model runs was SBlatest/SBF=0 = 0.52, below the interim target reference point (SBlatest/SBF=0 = 0.56) established by the WCPFC in 2018. The probability of being below the TRP in 2016 is 63%. The stock is not overfished nor is overfishing occurring.

SC15 noted that under recent fishery conditions of assuming that the 2018 catch remains constant, the albacore stock is initially projected to increase as recent estimated relatively high recruitments support adult stock biomass, then decline as future recruitment is sampled from the long-term historical estimates The projections indicate that median F2020/FMSY = 0.24; median SB2020/SBF=0 = 0.43; and median SB2020/SBMSY = 3.2. The risk that SB2020/SBF=0 < LRP = 0%, SB2020 < SBMSY = 0% and F2020 > FMSY = 0%.

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SB/SBmsy

**Figure 1.** Kobe plots summarising the results for each of the models in the structural uncertainty grid under the *SBlatest/SBF*=0 and the *SBrecent/SBF*=0 reference points. Source: WCPFC SC-14

# Therefore, it can be said that the species is above limits in the last stock assessment and the fishery **PASSES** clause C1.2. **References**

Collette, B., Acero, A., Amorim, A.F., Boustany, A., Canales Ramirez, C., Cardenas, G., Carpenter, K.E., Chang, S.-K., de Oliveira Leite Jr., N., Di Natale, A., Die, D., Fox, W., Fredou, F.L., Graves, J., Guzman-Mora, A., Viera Hazin, F.H., Hinton, M., Juan Jorda, M., Minte Vera, C., Miyabe, N., Montano Cruz, R., Masuti, E., Nelson, R., Oxenford, H., Restrepo, V., Salas, E., Schaefer, K., Schratwieser, J., Serra, R., Sun, C., Teixeira Lessa, R.P., Pires Ferreira Travassos, P.E., Uozumi, Y. & Yanez, E. 2011. Thunnus alalunga. The IUCN Red List of Threatened Species 2011:

e.T21856A9325450. <u>https://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T21856A9325450.en</u> Downloaded on 30 September 2020.

Stock Status and management advice. Scientific Committee south pacific Albacore tuna (*Thunnus alalunga*). Commission for the conservation and management of highly migratory fish stocks in the western and central pacific ocean. SC15 2019. https://www.wcpfc.int/meetings/sc15

The Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean Fourteenth Regular Session of the Scientific Committee. SC14 2018. Busan, South Korea 8–16 August 2018. https://www.wcpfc.int/meetings/14th-regular-session-scientific-committee

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 A - Determining Resilience Ratings

The assessment of Category B species described in this assessment report template utilises a resilience rating system suggested by the American Fisheries Society. This approach was chosen because it is also used by FishBase, and so the resilience ratings for many thousands of species are freely available online. As described by FishBase, the following is the process used to arrive at the resilience ratings:

"The American Fisheries Society (AFS) has suggested values for several biological parameters that allow classification of a fish population or species into categories of high, medium, low and very low resilience or productivity (Musick 1999). If no reliable estimate of  $r_m$  (see below) is available, the assignment is to the lowest category for which any of the available parameters fits. For each of these categories, AFS has suggested thresholds for decline over the longer of 10 years or three generations. If an observed decline measured in biomass or numbers of mature individuals exceeds the indicated threshold value, the population or species is considered vulnerable to extinction unless explicitly shown otherwise. If one sex strongly limits the reproductive capacity of the species or population, then only the decline in the limiting sex should be considered. We decided to restrict the automatic assignment of resilience categories in the Key Facts page to values of K,  $t_m$  and  $t_{max}$  and those records of fecundity estimates that referred to minimum number of eggs or pups per female per year, assuming that these were equivalent to average fecundity at first maturity (Musick 1999). Note that many small fishes may spawn several times per year (we exclude these for the time being) and large live bearers such as the coelacanth may have gestation periods of more than one year (we corrected fecundity estimates for those cases reported in the literature). Also, we excluded resilience estimates based on  $r_m$  (see below) as we are not yet confident with the reliability of the current method for estimating rm. If users have independent  $r_m$  or fecundity estimates, they can refer to Table 1 for using this information."

Parameter	High	Medium	Low	Very low
Threshold	0.99	0.95	0.85	0.70
r <sub>max</sub> (1/year)	> 0.5	0.16 - 0.50	0.05 - 0.15	< 0.05
K (1/year)	> 0.3	0.16 - 0.30	0.05 - 0.15	< 0.05
Fecundity (1/year)	> 10,000	100 - 1000	10 - 100	< 10
t <sub>m</sub> (years)	< 1	2 - 4	5 - 10	> 10
t <sub>max</sub> (years)	1 - 3	4 - 10	11 - 30	> 30

[Taken from the FishBase manual, "Estimation of Life-History Key Facts", <a href="http://www.fishbase.us/manual/English/key%20facts.htm#resilience">http://www.fishbase.us/manual/English/key%20facts.htm#resilience</a>]



### 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

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5. EU Commission

6. IUCN



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