MarinTrust Standard V2

By-product Fishery Assessment, VNM16- *Albacore tuna (Thunnus alalunga), FAO 77- Pacific, Eastern Central.*

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Albacore tuna (*Thunnus alalunga*)
	Geographical area:	FAO 77 – Pacific, Eastern Central
	Country of origin of the product:	Taiwan, Fiji, Solomon Islands
	Stock:	North and South Pacific
Date	September 2023	
Report Code	VNM16	
Assessor	Blanca Gonzalez	
Country of origin of the product - PASS	Taiwan, Fiji, Solomon Islands	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): Thien Quynh Co. Ltd, Thien Quynh Khanh Hoa Sole Member Limited Liability Company			
Country: Vietnam			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Blanca Gonzalez	Sam Peacock	0.5	Surveillance 1
Assessment Period	September 2023 – September 2024		

Scope Details	
Main Species	Albacore tuna (*Thunnus alalunga*)
Stock	North and South Pacific
Fishery Location	Eastern Central Pacific
Management Authority (Country/ State)	Inter-American Tropical Tuna Commission (IATTC) and Western and Central Pacific Fisheries Commission
Gear Type(s)	Longline, pole and line
Outcome of Assessment	
Peer Review Evaluation	Agree with recommendation
Recommendation	Approve

Table 2. Assessment Determination

Assessment Determination
Albacore tuna (*Thunnus alalunga*) was assessed as a category C species considering that it is a Least Concern species by the IUCN, it is not in included in any CITES Appendixes, and is managed relative to established reference points. There are two Pacific albacore tuna stocks: the North Pacific and the South Pacific, both stocks overlap within the FAO 77 fishing area; therefore, both stocks are included in this assessment. In both stocks fishery removals data are used for the stock assessments and biomass is above their corresponding reference points complying with the respective clauses. The albacore tuna byproduct meets the Marin Trust requirements; therefore, its approval is recommended for use as a raw material.
Fishery Assessment Peer Review Comments
The peer reviewer agrees that both stocks covered by this assessment should be assessed under Category C. The assessor has provided adequate evidence that both the Northern and Southern stock have been subjected to a full and credible stock assessment, which in both cases indicates that the stocks are above the limit reference point. PR agrees that the byproduct should remain approved for use as a raw material.
Notes for On-site Auditor
There are no concerns that requires attention from the on-site assessor.

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]
Albacore tuna	*Thunnus alalunga*	North and South Pacific	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/21856/46911332

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		**Albacore tuna (*Thunnus alalunga*)**	
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.

Clause is met, considering that:

The last North Pacific Stock assessment of albacore tune was carried out in July 2023, and all north Pacific albacore catch and size composition data from International Scientific Committee member (Canada, China, Chinese Taipei, Japan, Korea, and the USA) and non-member countries were compiled and used for the assessment using a length-based, age-, and sex-structured Stock Synthesis model over the 1994-2021 period (figure 1). (ISC 2023).

Most recent South Pacific albacore tuna stock assessment was carried out in 2021, and also uses albacore catch and size composition data for the assessment implements a size-based, age- and spatially-structured population model (figure 2). (Jordán et al. 2021).

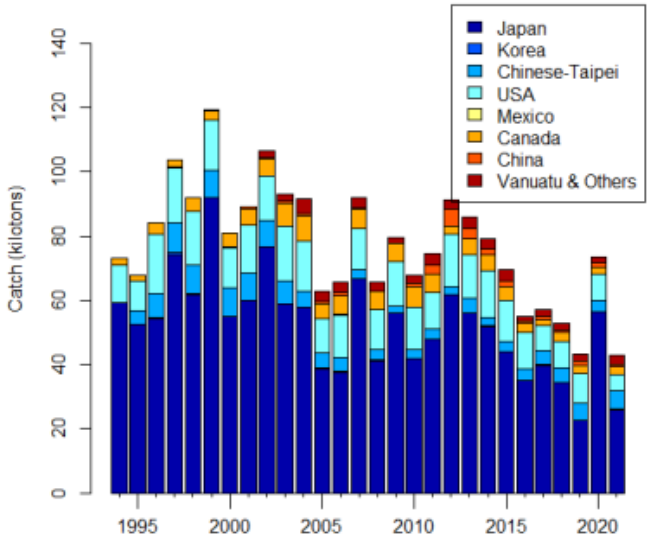

Figure 1. Estimated total annual catch of north Pacific albacore (Thunnus alalunga) by all countries harvesting the stock, 1994-2021. (ISC 2023).

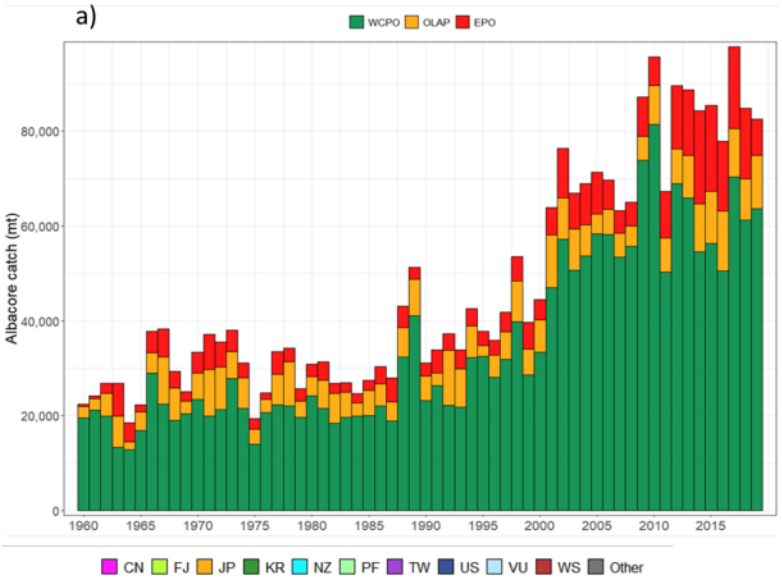

Figure 2. Annual catches of albacore from 1952-2019 separated by the WCPO, IATTC (EPO) and the convention area 'overlap'(OLAP) region. (Jordán et al. 2021).

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 is met, considering that:

The albacore tuna SSB in 2021 was estimated to be approximately 54% times greater than the estimated threshold reference point (figure 3) and the estimated current fishing intensity was lower than reference point; thus, the status of the north Pacific albacore stock is likely not overfished relative to the threshold reference points adopted by the WCPFC and IATTC (ISC 2023).

In the South Pacific stock assessment, all models indicated that the stock is not overfished nor subject to overfishing, and SB estimates tend to be above 35% of the reference point (figure 4). (Jordán et al. 2021)

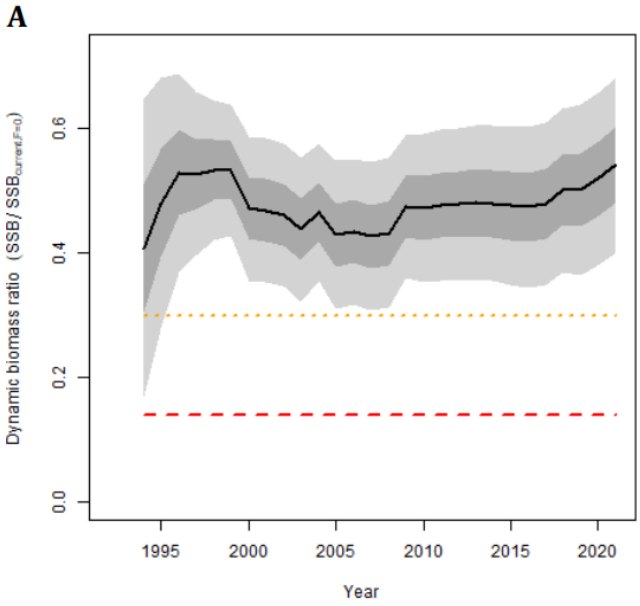

Figure 3. Estimated dynamic biomass ratio (SSB/SSBcurrent, F=0) of north Pacific albacore relative to biomass-based threshold (30%SSBcurrent, F=0) (orange dotted line) and limit (14%SSBcurrent, F=0) reference points (red dashed line) over the modeling period (1994 – 2021). Light and dark gray areas indicate 95% and 60% confidence intervals respectively. (ISC 2023). (Jordán et al. 2021).

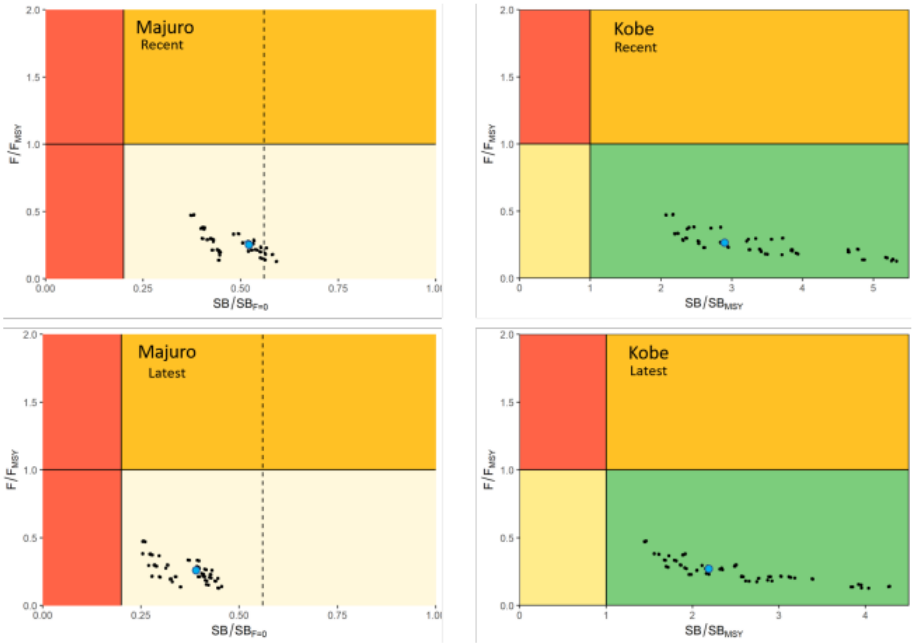

Figure 4. Majuro (left) and Kobe (right) plots summarising the results for each of the models in the structural uncertainty grid for the recent (2016-2019) and latest (2019) periods. The vertical dotted line on the Majuro plots is included to indicate the interim TRP of 0.56 SBF =0 for the WCPFC-CA albacore fishery, but note that these data represent the estimates for the entire model area. The blue point is the diagnostic case model. (Jordán et al. 2021).

References

ISC 2023. International Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean. Stock Assessment of Albacore Tuna in the North Pacific Ocean in 2023. July 2023. https://isc.fra.go.jp/working_groups/albacore.html

Castillo Jordán, C., Hampton, J., Ducharme-Barth, N., Xu, H., Vidal, T., Williams, P., ... & Hamer, P. 2021. Stock assessment of South Pacific albacore tuna (Vol. 2). WCPFC-SC17-2021/SA-WP. https://meetings.wcpfc.int/node/12551

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**	**NA**	
	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) *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			

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	NA	
	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