MarinTrust Standard V2

By-product Fishery Assessment

North Atlantic and South Atlantic Albacore Tuna in FAO Areas 21, 27, 31, 34

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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 21, 27, 31, 34 North Atlantic
	Country of origin of the product:	Taiwan, Ivory Coast, Namibia (Flag Country)
	Stock:	North Atlantic Albacore Tuna South Atlantic Albacore Tuna
Date	May 2022	
Report Code	THA18	
Assessor	Ivan Mateo	
Country of origin of the product - PASS	Taiwan, Ivory Coast, Namibia (Flag Country)	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Chotiwat Manufacturing Public Co., Ltd			
Country: Thailand			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Ivan Mateo	Vito Romito	0.5	Initial
Assessment Period	To May 2022		

Scope Details	
Main Species	Albacore tuna (*Thunnus alalunga*)
Stock	Atlantic Albacore Tuna
Fishery Location	FAO 21, 27, 31, 34 North Atlantic
Management Authority (Country/ State)	ICCAT
Gear Type(s)	Longline, pole & line and purse seine
Outcome of Assessment	
Peer Review Evaluation	Approve
Recommendation	Approve

Table 2. Assessment Determination

Assessment Determination
If a 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 RS raw material. Albacore Tuna (*Thunnus alalunga*) is listed on the IUCN Red List as globally Near Threatened (NT) and Least Concern (LC) in Europe and is not listed in CITES; therefore, byproducts derived for this stock are eligible for approval for use as MarinTrust RS by-product raw material. On the basis of currently available information, three albacore stocks are assumed to exist in the Atlantic: 1. Northern Atlantic stock (North of 5°N) 2. Southern Atlantic stock (South of 5°N) 3. Mediterranean stock. Given that FAO 34 Atlantic, Eastern Central straddles 5° N latitude, the northern and southern Atlantic stocks are included in this assessment. Fishery removals of both stocks are considered in the stock assessment processes so both stocks PASS Clause C1.1. As of the latest assessments of stock status biomass for both stocks are considered to be above the corresponding limit reference such that both stocks PASS Clause C1.2. As the stocks passes both Clause C1.1 and C1.2, the by-products covered by this report is recommended for APPROVAL for the production of fishmeal and fish oil under the current MarinTrust RS v 2.2 by-product standard
Fishery Assessment Peer Review Comments
Notes for On-site Auditor

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 Atlantic	ICCAT	C	Globally: Near Threatened (NT) Europe: Least Concern (LC)	No
Albacore tuna	*Thunnus alalunga*	South Atlantic	ICCAT	C	Globally: Near Threatened (NT) Europe: Least Concern (LC)	No

[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php

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**	
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.

Fishery removals of both stocks in the fishery under assessment are included in the ICCAT stock assessment process (**FIGURE 1**). Thailand is not directly responsible for any landings from the relevant stock with product instead being exported to Thailand for processing. 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

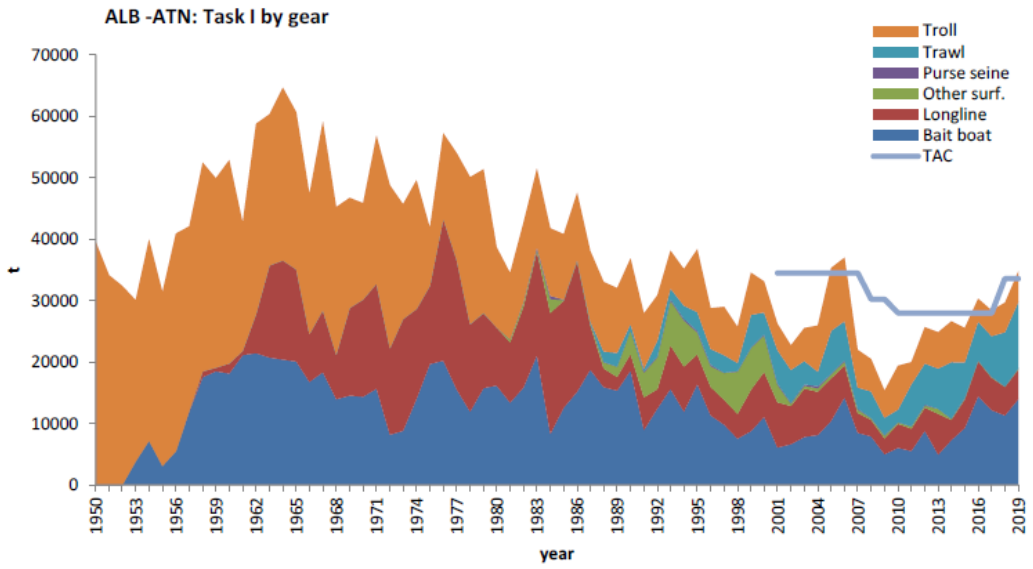

FIGURE 1. TOTAL ALBACORE CATCHES REPORTED TO ICCAT (TASK I) BY GEAR FOR THE NORTHERN ATLANTIC STOCKS.

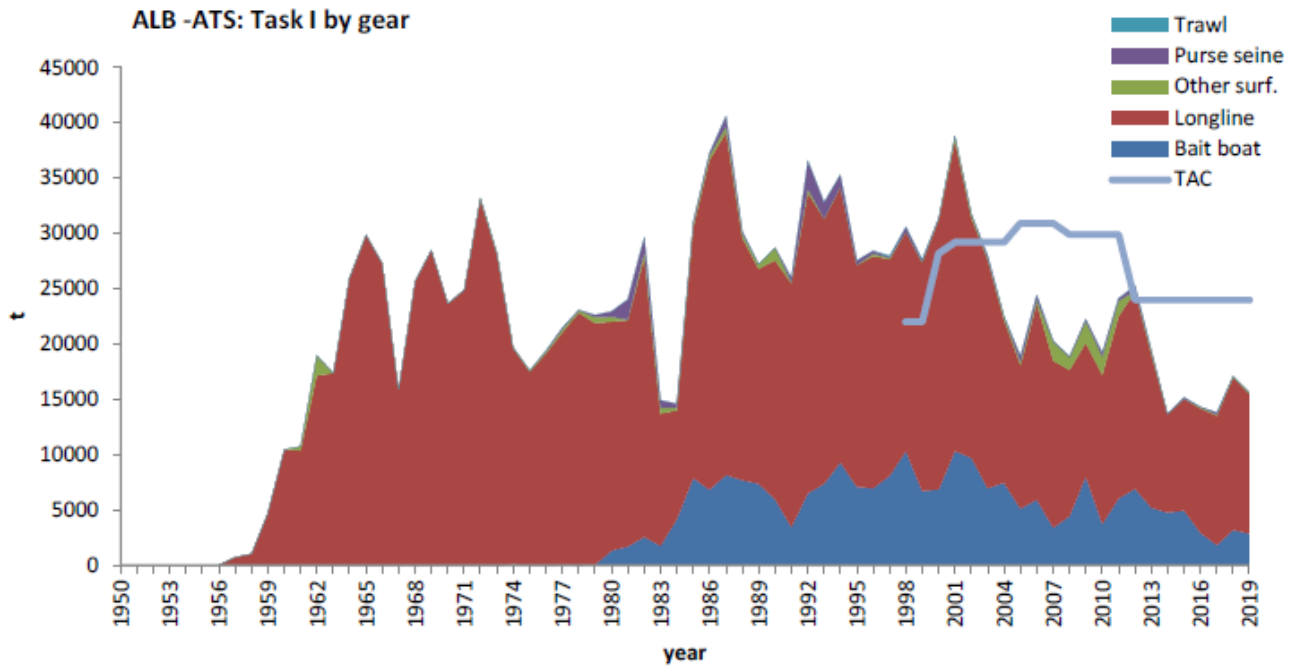

FIGURE 2. TOTAL ALBACORE CATCHES REPORTED TO ICCAT (TASK I) BY GEAR FOR THE SOUTHERN ATLANTIC STOCKS

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.

Northern Atlantic Stock

The 2020 Atlantic Albacore tuna biomass dynamic model implemented by ICCAT resulting in the kobe plot shown below suggests a biomass drop between 1930 and the 1990s and a recovery since then, while fishing mortality decreases. Relative to MSY benchmarks, the base case scenario estimates that the stock remained slightly overfished with B below B_{MSY} between the late 1970s and the 2000s, but has now recovered to levels well above B_{MSY} (Figure 3). Peak relative fishing mortality levels in the order of 1.66 were observed in the early 1980s but overfishing stopped in the early 2000s, with the current F_{2018}/F_{MSY} ratio being 0.62. The uncertainty around the current stock status has a clear shape determined by the strong correlation between parameters estimated by the production model. The probability of the stock currently being in the green area of the Kobe plot (not overfished and not undergoing overfishing, $F<F_{MSY}$ and $B>B_{MSY}$) is 98.4% while the probability of being in the yellow area (overfished, $B<B_{MSY}$) is 1.66%. The probability of being in the red area (overfished and undergoing overfishing, $F>F_{MSY}$ and $B<B_{MSY}$) is 0%. (Figure 3).

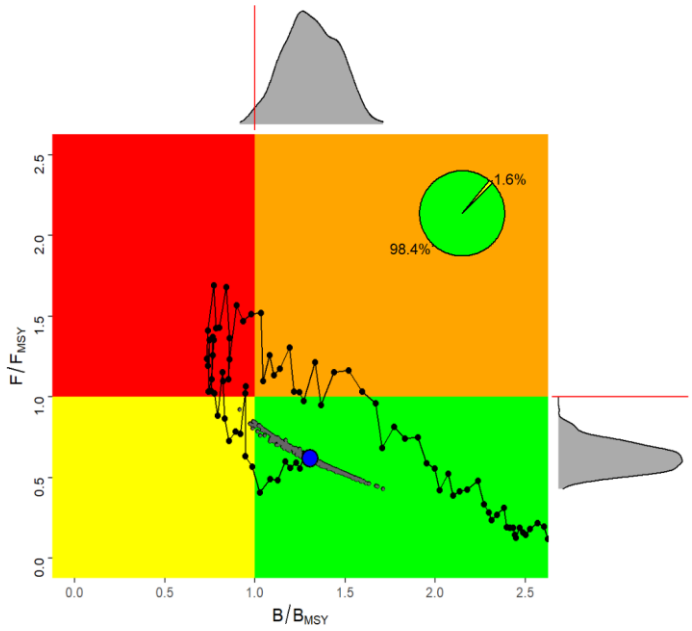

FIGURE 3. NORTH ATLANTIC ALBACORE (KOBE PLOT). STOCK STATUS TRAJECTORIES OF B/BMSY AND F/FMSY OVER TIME (1930-2018), AS WELL AS UNCERTAINTY (GREY DOTS) AROUND THE CURRENT (F2018/FMSY, B2018/BMSY) ESTIMATE (BLUE POINT) BASED ON SURPLUS PRODUCTION MODEL WITH PROBABILITY OF BEING OVERFISHED AND OVERFISHING (RED, 0%), OF BEING NEITHER OVERFISHED NOR OVERFISHING (GREEN, 98.4%), AND OF BEING OVERFISHED (YELLOW, 1.6%).

With respect to the status of the stock with respect to its limit reference point (or proxy), an official limit reference point is not defined but with Bcurrent comfortably above BMSY the stock can be considered, in its most recent stock assessment, to have a biomass above any limit reference point (or proxy); therefore, the stock achieves a **PASS** against C1.2

Southern Atlantic Stock

In the 2020 assessment the Committee selected a base case to best represent the population dynamics of albacore and uncertainty around stock status as well as impact of alternative fishing scenarios. Base case model results suggest that biomass increased since fishing mortality started to decrease in the early 2000s, and currently there is a 99.4% probability that the South Atlantic albacore stock is neither overfished nor subject to overfishing, with only 0.6% probability for the stock to be overfished(Figure 4). The median MSY value was 27,264 t (ranging between 23,734 t and 31,567 t), the median estimate of current B2018/BMSY was 1.58 (ranging between 1.14 and 2.05) and the median estimate of current F2018/FMSY was 0.40 (ranging between 0.28 and 0.59). The wide confidence intervals reflect the large uncertainty around the estimates of stock status

With respect to the status of the stock with respect to its limit reference point (or proxy), an official limit reference point is not defined but with Bcurrent comfortably above BMSY the stock can be considered, in its most recent stock assessment, to have a biomass above any limit reference point (or proxy); therefore, the stock achieves a **PASS** against C1.2

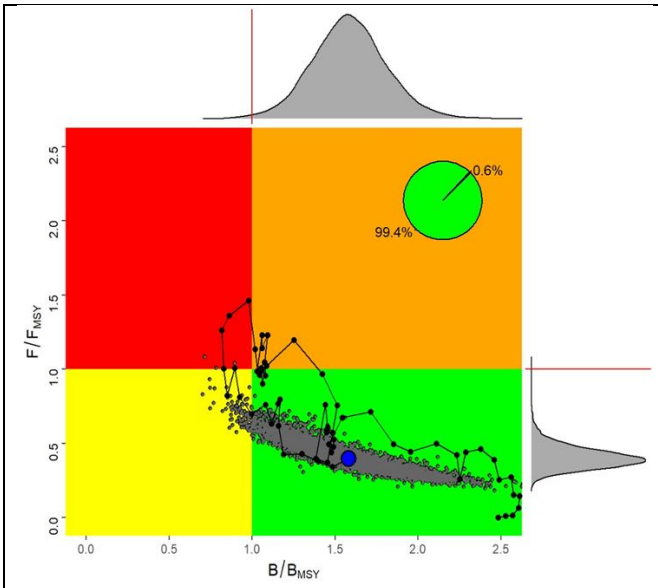

FIGURE 4. SOUTH ATLANTIC ALBACORE (KOBE PLOT). STOCK STATUS TRAJECTORIES OF B/BMSY AND F/FMSY OVER TIME (1956-2018), AS WELL AS UNCERTAINTY (GREY DOTS) AROUND THE CURRENT (2018) ESTIMATE (BLUE POINT) BASED ON BAYESIAN SURPLUS PRODUCTION MODEL WITH PROBABILITY OF BEING OVERFISHED AND OVERFISHING (RED, 0%), OF BEING NEITHER OVERFISHED NOR OVERFISHING (GREEN, 99.4%), AND OF BEING OVERFISHED (YELLOW, 0.6%).

References

ICCAT Atlantic Albacore tuna stock assessment summary. https://www.iccat.int/Documents/SCRS/ExecSum/ALB_ENG.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**		
	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	Low productivity/ High risk	Medium productivity/ Medium risk	High productivity/ Low risk
	Score 3	Score 2	Score 1
Average age at maturity (years)	>4	2 to 4	<2
Average maximum age (years)	>30	10 to 30	<10
Fecundity (eggs/spawning)	<1 000	1 000 to 10 000	>10 000
Average maximum size (cm)	>150	60 to 150	<60
Average size at maturity (cm)	>150	30 to 150	<30
Reproductive strategy	Live bearer, mouth brooder or significant parental investment	Demersal spawner "berried"	Broadcast spawner
Mean trophic level	>3.25	2.5–3.25	<2.5

Susceptibility attributes		High susceptibility/ High risk	Medium susceptibility/ Medium risk	Low susceptibility/ Low risk
		Score 3	Score 2	Score 1
Availability	1) Overlap of adult species range with fishery	>50% of stock occurs in the area fished	Between 25% and 50% of the stock occurs in the area fished	<25% of stock occurs in the area fished
	2) Distribution	Only in the country/ fishery	Limited range in the region	Throughout region/ global distribution
Encounterability	1) Habitat	Habitat preference of species make it highly likely to encounter trawl gear (e.g. demersal, muddy/sandy bottom)	Habitat preference of species make it moderately likely to encounter trawl gear (e.g. rocky bottom/reefs)	Depth or distribution of species make it unlikely to encounter trawl gear (e.g. epi-pelagic or meso-pelagic)
	2) Depth range	High overlap with trawl fishing gear (20 to 60 m depth)	Medium overlap with trawl fishing gear (10 to 20 m depth)	Low overlap with trawl fishing gear (0 to 10 m, >70 m depth)
Selectivity		Species >2 times mesh size or up to 4 m length	Species 1 to 2 times mesh size or 4 to 5 m length	Species <mesh size or >5 m length
Post capture mortality		Most dead or retained Trawl tow >3 hours	Alive after net hauled Trawl tow 0.5 to 3 hours	Released alive Trawl tow <0.5 hours

Note: Availability 2 is only used when there is no information for Availability 1; the most conservative score between Encounterability 1 and 2 is used.

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