



MarinTrust Standard V2

By-product Fishery Assessment Skipjack Tuna - *Katsuwonus pelamis* in FAO 34, Atlantic eastern central

MarinTrust Programme

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Skipjack tuna (<i>Katsuwonus pelamis</i>)
	Geographical area:	FAO 34 - Atlantic eastern central
	Country of origin of the product:	Thailand Flag countries: Senegal, Ghana, Liberia
	Stock:	Skipjack tuna (<i>Katsuwonus pelamis</i>) in FAO 34 - Atlantic eastern central
Date	07 th February 2023	
Report Code	THA03	
Assessor	Ana Elisa Almeida Ayres	
Country of origin of the product - PASS	Thailand Flag countries: Senegal, Ghana, Liberia	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): TCF Co. Ltd, Chotiwat Manufacturing Public Co. Ltd, TC Union Agrotech Co. Ltd			
Country: Thailand Flag countries: Senegal, Ghana, Liberia			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		NSF International/Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval
Ana Elisa Almeida Ayres	Léa Lebechnech	0.5	Surveillance 2
Assessment Period	February 2024 – February 2025		

Scope Details	
Main Species	Skipjack tuna (<i>Katsuwonus pelamis</i>)
Stock	Skipjack tuna (<i>Katsuwonus pelamis</i>) in FAO 34 - Atlantic eastern central
Fishery Location	FAO 34 - Atlantic eastern central
Management Authority (Country/ State)	International Commission for the Conservation of Atlantic Tunas (ICCAT)
Gear Type(s)	Purse seine, longline and pole & line
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's determination
Recommendation	PASS

Table 2. Assessment Determination

Assessment Determination
<p>If any species is categorised as Endangered or Critically Endangered on Union for Conservation of Nature's Red List of Threatened Species - IUCN's Red List, or if it appears in the Convention on International Trade in Endangered Species of Wild Fauna and Flora - CITES appendices, it cannot be approved for use as Marin Trust raw material. Skipjack tuna (<i>Katsuwonus pelamis</i>) is not categorised as Endangered or Critically Endangered on IUCN's Red List and does not appear in CITES appendices; therefore, Skipjack tuna (<i>Katsuwonus pelamis</i>) is eligible for approval for use as Marin Trust by-product raw material.</p> <p>For assessment and management purposes, one discrete stock of skipjack tuna is recognised in Eastern Atlantic Ocean, when fished within Food and Agriculture Organization of the United Nations - FAO fishing areas 27, 34, and 47. There is a species-specific management regime in place for the stock, thus it was assessed under Category C.</p> <p>Fishery removals of the stock are considered in the International Commission for the Conservation of Atlantic Tunas – ICCAT stock assessment process and the latest assessment of stock status considers the stock being above the limit reference points, so the stock PASSES Clauses C1.1 and C1.2.</p> <p>Therefore, skipjack tuna (<i>Katsuwonus pelamis</i>) in FAO 27, 34, and 47 is APPROVED for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products standard.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified skipjack tuna (<i>Katsuwonus pelamis</i>) in FAO 34 Atlantic Eastern Central as Category C, the stock being subject to a specific management regime and reference points are defined.</p> <p>Fishery removals are considered in the stock assessment process and the most recent stock assessment shows that the stock is above limit reference point. Therefore, the stock is considered to satisfy C1.1. and C1.2.</p> <p>In conclusion, skipjack tuna (<i>Katsuwonus pelamis</i>) in FAO 34 Atlantic Eastern Central passes both clauses (C1.1 and C1.2) and therefore should be approved under the MarinTrust Standard v2.3.</p>
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 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
Skipjack tuna	<i>Katuswonus pelamis</i>	East Atlantic skipjack tuna	ICCAT	C	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.

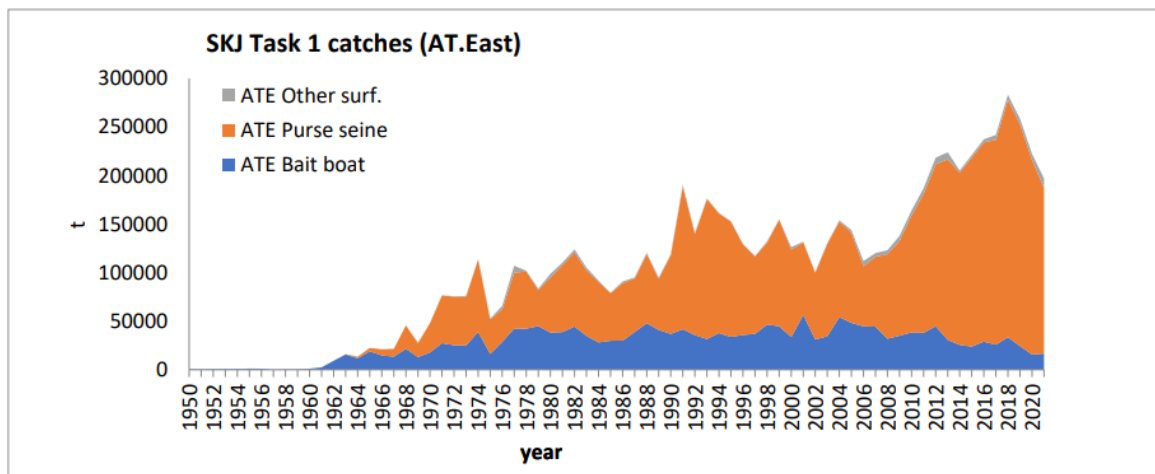
Clause C1 should be completed for each Category C species. If there are no Category C species in the fishery under assessment, this section can be deleted. Where a species fails this Clause, it should be assessed as a Category D species instead.

Species Name		Skipjack tuna (<i>Katsuwonus pelamis</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.	Yes
	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.	Yes
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.

The eastern skipjack stock was reassessed in 2022 (ICCAT, 2022) and resulted in a similar picture of stock status to the previous (2014) assessment, reiterating that the stock is in a healthy condition. The stock assessment applied non-equilibrium and Bayesian state-space production models to integrated statistical assessment models using the available catch data up to and including 2020. Multiple models were used to represent potential population dynamic scenarios, and to account for uncertainty in outputs. The International Commission for the Conservation of Atlantic Tunas - ICCAT stock assessment group decided to combine the results of several models to capture all major uncertainties. There was a high degree of uncertainty in the resultant estimates of stock biomass; however, the group were able to produce management advice and have made several recommendations for the improvement of future stock assessments.

The nominal catches for the eastern stock had shown a generally increasing trend since the 1960s (Figure 1). The total catches increase from 1,171 metric tons in 1960 to more than 280,000 metric tons in 2018. Since 2018 the total catches of the eastern stock have gradually declined to 196,987 t in 2021. In 2020 the East Atlantic skipjack tuna stock was not overfished (median $B_{2020}/B_{MSY} = 1.60$) and was not undergoing overfishing (median $F_{2020}/F_{MSY} = 0.63$).



SKJ-Figure 5. Skipjack catches in the eastern Atlantic, by gear (1950-2021). The values for 2021 are preliminary.

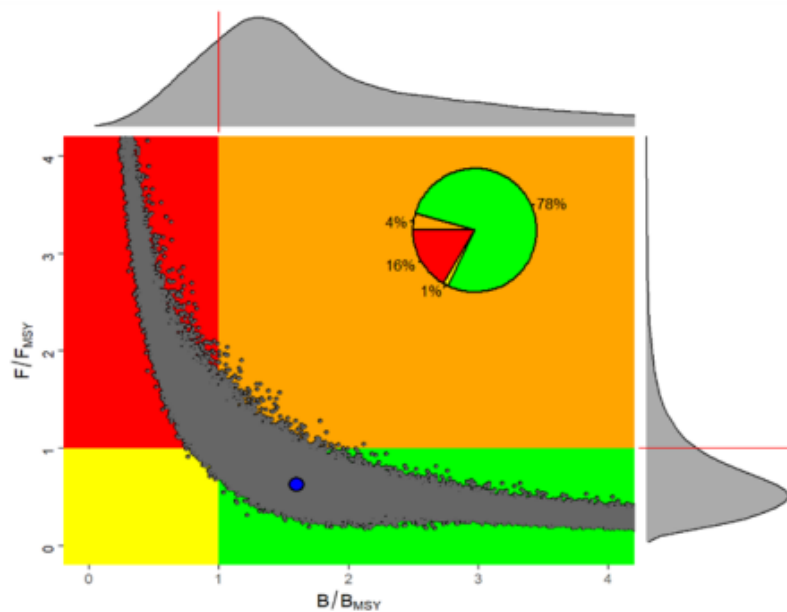
Figure 1. Source: ICCAT (2022).

Fishery removals are incorporated into the stock assessment process and therefore C1.1 is met.

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.

The 2022 stock assessment of Eastern Atlantic skipjack tuna concluded that there was a 78% probability that the stock is neither overfished nor subject to overfishing (ICCAT 2022). Relative biomass (B_{2020}/B_{MSY}) was estimated to be 1.60, although there is large uncertainty in biomass estimates reflected in the long tails of the biomass distribution relative to B_{MSY} (95% confidence interval of 0.5 to 5.79 B/B_{MSY}). As the biomass is likely to be above the target reference point, it is highly likely to be above any potential limit reference point.

According to ICCAT (2022): “The median MSY was estimated as 216,617 t from the uncertainty grid of the deterministic runs. Probabilities of the stock being in each quadrant of the Kobe plot (SKJ-Figure 14) are 78% in the green (not overfished, not subject to overfishing), 4% in the orange (subject to overfishing but not overfished), 1% in the yellow (overfished but not subject to overfishing) and 16% in the red (overfished and subject to overfishing). In summary, the results indicated a stock status of not overfished (83% probability), with no overfishing (80% probability)” [Figure 2].



SKJ-Figure 14. E-SKJ Joint Kobe phase plot for the 18 Stock Synthesis uncertainty grid runs and 18 JABBA uncertainty grid runs for the eastern Atlantic skipjack stock. For each run the benchmarks are calculated from the year-specific selectivity and fleet allocations, and based on 90,000 MVLN iterations for Stock Synthesis and 90,000 MCMC iterations for JABBA. The blue point shows the median of 180,000 iterations for SSB_{2020}/SSB_{MSY} or B_{2020}/B_{MSY} and F_{2020}/F_{MSY} for the entire set of runs in the grid. Grey points represent the 2020 estimates of relative fishing mortality and relative spawning stock biomass for 2020 for each of the 180,000 iterations. The upper graph represents the smoothed frequency distribution of SSB_{2020}/SSB_{MSY} or B_{2020}/B_{MSY} estimates for 2020. The right graph represents the smoothed frequency distribution of F_{2020}/F_{MSY} estimates for 2020. The inserted pie graph represents the percentage of each 2020 estimate that fall in each quadrant of the Kobe plot. All SSB for Stock Synthesis showed the values at the end of years.

Figure 2. Source: ICAAT (2022).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy), C1.2 is met.

References

ICCAT (2022). Species executive summary, skipjack tuna. https://www.iccat.int/Documents/SCRS/ExecSum/SKJ_ENG.pdf

Links

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