MarinTrust Standard V2

By-product Fishery Assessment

Albacore tuna in the Mediterranean

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Albacore tuna (*Thunnus alalunga*)
	Geographical area:	Mediterranean Sea
	Country of origin of the product:	Spain, Portugal
	Stock:	Mediterranean albacore
Date	September 2022	
Report Code	ESP29	
Assessor	Sam Peacock	
Country of origin of the product - PASS	Spain, Portugal	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): Sarval Bio-industries Noroeste; S.A.U: Arteixo			
Country: Spain			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Sam Peacock	Kate Morris	0.25	Re-approval
Assessment Period	September 2022 – September 2023		

Scope Details	
Main Species	Albacore tuna (*Thunnus alalunga*)
Stock	Mediterranean albacore
Fishery Location	Mediterranean Sea
Management Authority (Country/ State)	International Commission for the Conservation of Atlantic Tunas (ICCAT)
Gear Type(s)	Longlines & seines
Outcome of Assessment	
Peer Review Evaluation	Pass
Recommendation	Approve byproduct

Table 2. Assessment Determination

Assessment Determination
Albacore tuna has been categorised by the IUCN Red List as Least Concern, and does not appear in the CITES appendices. The Mediterranean albacore stock is managed relative to target reference points and was therefore assessed under Category C. The most recent stock assessment was conducted in 2021 using data up to 2019. The stock assessment report notes that the available data is incomplete and some catch indices contradict each other. Additionally, the stock assessment concluded that there is a high probability that stock biomass is below the target reference point. Although no formal limit reference point is established, the low estimated biomass and the high degree of uncertainty in the available data mean the byproduct failed the Category C assessment. As per the MT byproduct assessment guidance, it was subsequently assessed under Category D. Albacore in the Mediterranean was awarded a productivity score of 1.71 and a susceptibility score of 2.25, leading to a Pass rating against Table D3. Therefore, the byproduct meets the MT requirements and should be re-approved for use as a raw material.
Fishery Assessment Peer Review Comments
The by-product fishery under assessment here is the Albacore tuna (*Thunnus alalunga*) fishery, which is pursued by Spanish and Portugal vessels in FAO 37. The Albacore fishery under assessment is managed by the EU common fisheries policy, Spanish and Portuguese governments. For this Marin Trust assessment, Albacore was assessed as a category C species, but did not meet the requirements. It was subsequently assessed as a category D species and passed. All species scoring tables have been completed by the auditor with sufficient evidence presented to support their final determination. The peer review supports the auditor's recommendation to Pass this fishery under the Marin Trust IFFO RS v2.0 by-fishery standard for the production of fishmeal and fish oil.
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*	Mediterranean	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/21856/18208821

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.	FAIL
	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:	FAIL

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.

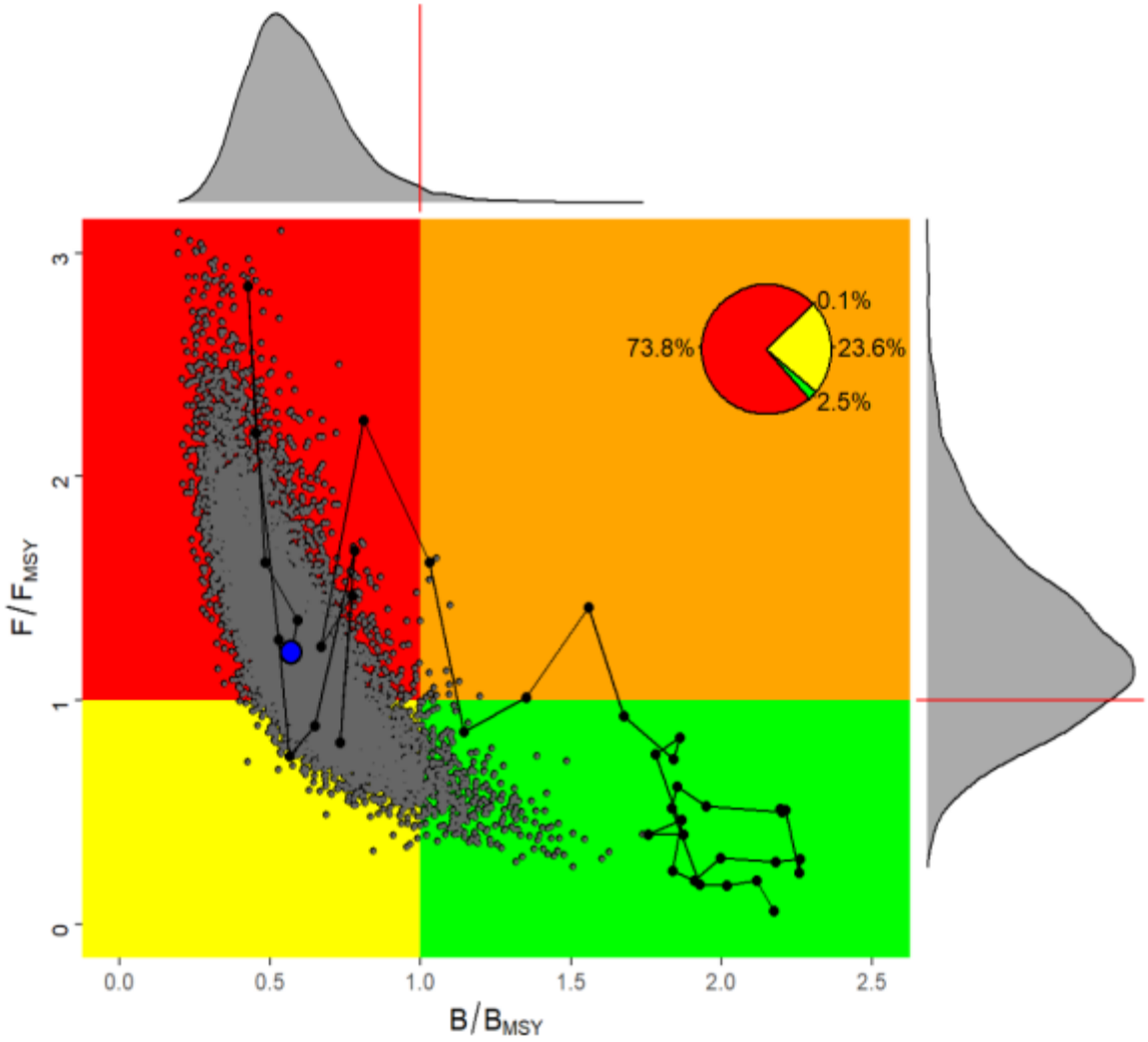
Stock assessments are carried out on behalf of the International Commission for the Conservation of Atlantic Tunas (ICCAT). The most recent stock assessment was conducted in 2021 using the 2019 catch and CPUE data as the terminal year (ICCAT 2021). The stock assessment was a Bayesian state space surplus production model, utilising eight catch data indices and larval survey data. The ICCAT report notes that "overall, the data inputs to the model remain uncertain", noting that there is possible under-reporting of the catch and also that some indices contradict each other. Additionally, there is limited CPUE data available to monitor stock trends. Due to this high degree of uncertainty and the gaps in the stock assessment data, and taking into account the likelihood that the stock biomass is close to the limit reference point (see C1.2 below), C1.1 is not 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.

No limit reference points are established for this stock, and status is monitored relative to target reference points. The most recent stock assessment, conducted in 2021, concluded that the current biomass is below the target reference point B_{MSY} with a high degree of probability. The probability that the stock is both overfished ($B<B_{MSY}$) and subject to overfishing ($F>F_{MSY}$) was 73.8%.

As no limit reference point is established for the stock, the MT byproduct assessment guidance indicates that an assumed limit reference point of $0.5B_{MSY}$ should be used. The ICCAT stock assessment concluded that the median value for B_{2019}/B_{MSY} was 0.570, slightly above 0.5; however, the 95% confidence interval for B_{2019}/B_{MSY} was 0.322 – 1.004.

As the stock biomass is more likely than not to be above the presumed point where recruitment would be impaired (PRI), C1.2 is met. However, see above for the ways this outcome affects C1.1.



Mediterranean albacore. Stock status trajectories of B/B_{MSY} and F/F_{MSY} over time (1980- 2019) with uncertainty around the current estimate (Kobe plots) for Bayesian surplus production model, as well as probability of being overfished and overfishing (red, 73.8%), of being neither overfished nor overfishing (green (2.5%), of being overfished but not overfishing (yellow, 23.6%) and of overfishing but not overfished (orange, 0.1%). The probability distributions shown in each axis represent uncertainty around current B/B_{MSY} and F/F_{MSY} (ICCAT 2021)

References

ICCAT (2021). International Commission for the Conservation of Atlantic Tunas, Report for biennial period, 2020-21. Part II (2021) – Vol 2. English version. https://www.iccat.int/Documents/BienRep/REP_EN_20-21_II-2.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.

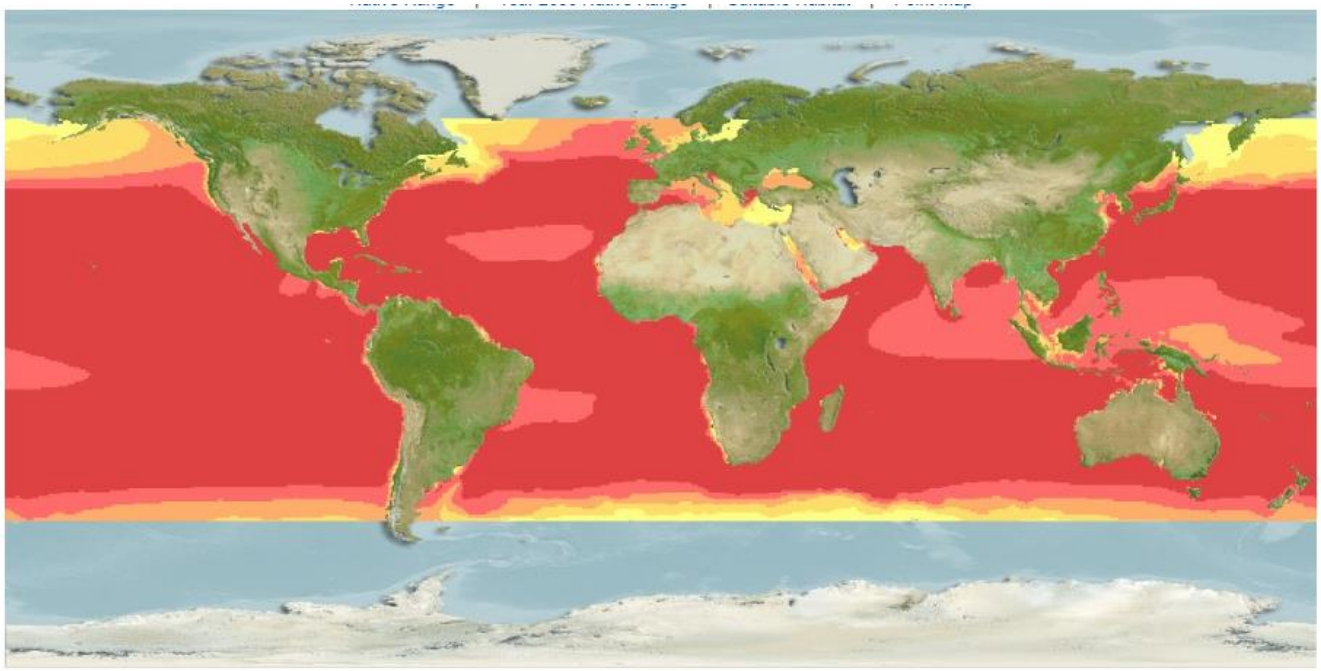
D1

Species Name	**Albacore tuna (*Thunnus alalunga*)**

Productivity Attribute	Value	Score
Average age at maturity (years)	4.5 years	1
Average maximum age (years)	22.2 years	2
Fecundity (eggs/spawning)	2.5 million	1
Average maximum size (cm)	140cm	2
Average size at maturity (cm)	79.3cm	2
Reproductive strategy	Broadcast spawner	1
Mean trophic level	4.3	3
	Average Productivity Score	**1.71**
Susceptibility Attribute	**Value**	**Score**
Availability (area overlap)	<10% overlap	1
Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Targeted (high overlap)	3
Selectivity of gear type	Small individuals sometimes caught	2
Post-capture mortality	Retained	3
	Average Susceptibility Score	**2.25**
	PSA Risk Rating (From Table D3)	**PASS**
	Compliance rating	**PASS**

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



	Computer-generated distribution for albacore tune (Fishbase, https://www.fishbase.se/summary/142)
References Fishbase, albacore tuna. https://www.fishbase.se/summary/142	
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	n/a	
	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