MarinTrust Standard V2

By-product Fishery Assessment, ARG03 Atlantic Chub Mackerel (*Scomber colias*),

FAO 41–Atlantic, Southwest.

Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Atlantic chub mackerel (*Scomber colias*)
	Geographical area:	FAO 41 - Atlantic, Southwest
	Country of origin of the product:	Argentina
	Stock:	Mar del Plata, North of 41°S
Date	October 2023	
Report Code	ARG03	
Assessor	Blanca Gonzalez	
Country of origin of the product - PASS	Argentina	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): Coomarpes Ltda			
Country: Argentina			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Blanca Gonzalez	Jose Peiro Crespo	0.5	Surveillance 2
Assessment Period	October 2023 - October 2024		

Scope Details	
Main Species	Atlantic chub mackerel (*Scomber colias*)
Stock	Mar del Plata, North of 41°S
Fishery Location	FAO 41 – Atlantic, Southwest
Management Authority (Country/ State)	Argentina
Gear Type(s)	Pelagic trawl
Outcome of Assessment	
Peer Review Evaluation	Pass
Recommendation	Approved

Table 2. Assessment Determination

Assessment Determination
Species Note: The Argentinian mackerel used to be identified as *Scomber japonicus*, but in 2017 genetic studies revealed that "the current specific name of Argentine mackerel *S. japonicus* should be changed to *S. colias*, in agreement with several genetic studies carried out with species of the genus *Scomber*" (Truco & Buratti 2017). Up to today the Argentinian National Institute of Fisheries Research and Development (INIDEP) only mentions *S.colias* in their species catalog, while *S. japonicus* is not even listed. Taking this information in consideration is that, as previously, the species assessed in this report is *S. colias*.
Stock note: Argentina recognizes two Atlantic chub mackerel stocks using as reference the parallel 39°S: the Northen stock and the Southern stock. This by-product assessment refers to the stock "North of 41°S", which includes the Northen stock and part of the Southern stock; however, the Southern stock that is included in this assessment is where most of the catches occurs.
Atlantic chub mackerel (*Scomber colias*) 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 Argentina, trough the INIDEP, manage the stock by setting reference points and quotas.
The Atlantic chub mackerel stock assessment is regularly done. The last assessment was carried out in 2021 and catch data were used to run an age-structured production model. Results indicate that the reproductive biomass was noticeably higher than the limit reference point.
The Atlantic chub mackerel by-product meets the Marin Trust requirements and it should remain approved for use as a raw material.
Trucco, M. I., & Buratti, C. C. (2017). Taxonomic review of Argentine mackerel Scomber japonicus (Houttuyn, 1782) by phylogenetic analysis. Molecular Biology Research Communications, 6(3), 141.
Fishery Assessment Peer Review Comments
The by-product fishery under assessment is the Atlantic chub mackerel (*Scomber colias*) pelagic trawl fishery in FAO 41 – Atlantic, Southwest. The species is classified as LC by the IUCN. The stock is managed using biomass reference points. Therefore, it is assessed under category C.
The most recent assessment conducted by the INIDEP indicates that the stock is above the limit reference point. Therefore, it passes category C.
The peer review supports the auditor's recommendation to pass the Atlantic chub mackerel pelagic trawl fishery in the Atlantic, Southwest (FAO area 41) under the Marin Trust IFFO RS v2.0 by-fishery standard for the production of fishmeal and fish oil.
Notes for On-site Auditor
The client still mentions that the species is *S. japonicus* as it was previously mistakenly called, but the species that is being fished is *S. colias*.

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]
Atlantic chub mackerel	*Scomber colias*	Mar del Plata, North of 41°S	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/170357/6767497

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		Atlantic chub mackerel (*Scomber colias*)	
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 stock assessment was publish in 2021 by the Instituto Nacional de Investigación y Desarrollo Pesquero (INIDEP) using an age-structured production model, where catches data are considered for the analysis (Orlando et al. 2021). Landings data are reported each year and used also for population parameters analysis (Orlando et al. 2022)(Figure 1).

Figure 1. Atlantic chub mackerel landings in tons for this stock (Orlando et al. 2022).

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 available information about biomass levels for the Northen stock was found; however, the 2021 assessment of the Southern stock (where Most of the catches occurs) indicates that the reproductive biomass estimated by the model (82,626t) was noticeably higher than the limit reference point (50,000t); Kobe plot indicates that the stock is not being overfished (Orlando et al. 2021) (figure 2).
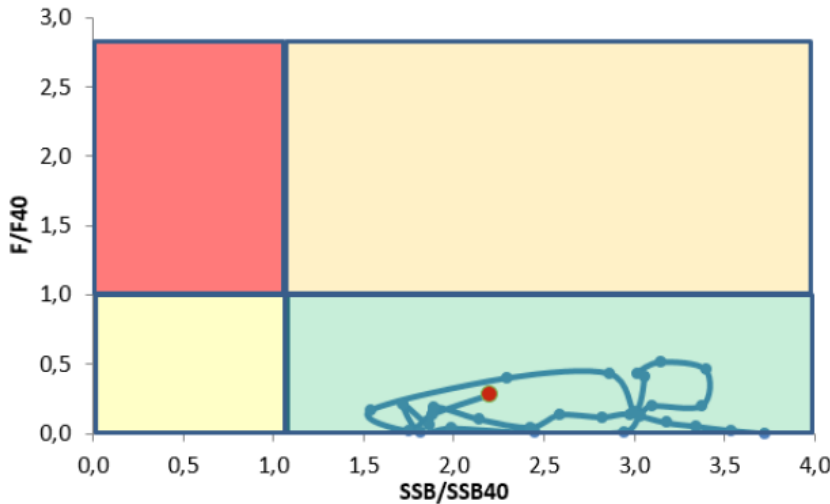

Figure 2. Atlantic chub mackerel kobe plot (Orlando et al. 2021)

References

Orlando P., Garciarena A.D., Buratti G.E. y Buratti C.C. 2022. Caballa (*Scomber colias*) capturas efectuadas por la flota comercial durante el año 2021 y estimación de parámetros poblacionales de interés biológico-pesquero. Inf Tec Oficial INIDEP N°052/22,11pp.https://marabiertonew.inidep.edu.ar/server/api/core/bitstreams/b6753721-25c6-4a04-962a-8aaa00afcc10/content

Orlando P., Buratti C.C., Garciarena A.D. and Buratti G.E. 2021. Evaluación del stock de caballa (Scomber colias) al sur del 39°S y recomendaciones de captura durante el año 2021. Instituto Nacional de Investigación y Dearrollo Pesquero

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	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	
	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