



By-Product assessment report

BP124

Universal de Comercio S.A. Unicorsa

Document TEM-003 (prev. FISH-1) - Version 3.1

Issued April 2025 – Effective April 2025

Report code	BP124	Date of issue	September 2026
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1. Application details		
Applicant		Universal de Comercio S.A. Unicors
Applicant country		Ecuador
2. Certification Body details		
Name of Certification Body (CB)		LRQA
Contact information for CB		mt-ca@lrqa.com
Assessor name		Jim Missen
CB internal peer reviewer name		Ayana Sabu
Internal peer review evaluation		Agree with evaluation
Number of Assessment days		0.6
Comments on the assessment		Multiple species are considered within this re-approval assessment, all of which are listed as Least Concern by the IUCN and not included in any CITES appendix. Thus, they are eligible for approval as a MarinTrust by-products. The species are sourced from Ecuador, a high-risk flag state and therefore require Step 3 assessments. All passed the Category C assessments, and were downgraded to medium risk; therefore, these by-products are approved but should be sourced with caution.
3. Approval validity		Valid from 09/2026Valid until 09/2027
4. Assessment cycle		Re-Approval

5. By-product assessment outcomes			
By-product species name <i>Common and Latin names</i>	Flag country(ies)	Fishing Areas <i>Only applicable to Step 3 assessed species</i>	MarinTrust approval status

Sardina redonda (<i>Etrumeus acuminatus</i>)	Ecuador	FAO 87	Approved source with caution
Chub mackerel (<i>Scomber japonicus</i>)	Ecuador	FAO 87	Approved source with caution
Pacific thread herring/ pinchagua (<i>Opisthonema spp.</i>)	Ecuador	FAO 87, FAO 77	Approved source with caution
Bullet tuna (<i>Auxis rochei</i>)	Ecuador	FAO 87	Approved source with caution
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Ecuador	FAO 87, FAO 77	Approved source with caution
Yellowfin tuna (<i>Thunnus albacares</i>)	Ecuador	FAO 87, FAO 77	Approved source with caution

Guidance for on-site auditor

For the audit, the auditor will check how the facility manages by-products deemed medium risk. Any by-products downrated from high to medium risk will require additional due diligence checks.

It is important that facilities check all raw materials from and verify their suppliers especially if there is a perceived risk of sourcing from known or suspected IUU fishing activity. This requires checking supplier records or procedures in place to understand how the supplier can ensure there is no IUU in the raw material they provide. For raw materials risk rated medium, additional or more frequent checks may be required until the facility is certain that the raw materials are not from IUU fishing activity.

The audit requirements are covered in clause 2.11.3 of the MarinTrust Global Standard for Responsible Supply of Marine Ingredients (the MarinTrust Standard) and associated interpretation guidance.

Approved by-products

- No further checks are required beyond those included in the MarinTrust Standard.

Additional checks of Approved Source with Caution by-products

- Review supplier records or procedures in place.

Additional checks of by-products Approved Source with Caution via Step 3 assessment

- In addition to checks for medium risk Approved Source with Caution by-products, by-products that have had risk downgraded from high to medium at Step 3 (use **Appendix 1** to identify these by-product species), confirm that the relevant traceability information continues to be collected for this by-product. During the audit, a traceability check on any by-products downgraded from high to medium risk shall be included as part of the required traceability checks (Section 4).

Guidance for the applicant/certificate holder

The applicant/certificate holder is responsible for ensuring the relevant actions are taken to comply with the MarinTrust Standard.

The certificate holder is responsible for communicating any changes to the by-products sourced by submitting a scope extension request through the MarinTrust online Application Portal.

Appendix 1 – assessment outcomes

Step 2 Assessment Outcomes

By-product species name <i>Common and Latin names</i>	Flag country(ies)	IUCN Red List <i>Select IUCN red list category from dropdown</i>	CITES Appendices <i>Select CITES appendix status from dropdown</i>	Step 2 risk status <i>Low risk/ Medium risk/ High risk</i>	Step 3 required <i>Yes / No</i>
Sardina redonda (<i>Etrumeus acuminatus</i>)	Ecuador	Least concern	Not listed	High risk	Yes
Chub mackerel (<i>Scomber japonicus</i>)	Ecuador	Least concern	Not listed	High risk	Yes
Pacific thread herring/ pinchagua (<i>Opisthonema spp.</i>)	Ecuador	Least concern	Not listed	High risk	Yes
Bullet tuna (<i>Auxis rochei</i>)	Ecuador	Least concern	Not listed	High risk	Yes
Skipjack tuna (<i>Katsuwonus pelamis</i>)	Ecuador	Least concern	Not listed	High risk	Yes

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| Approved by MarinTrust Fisheries Manager

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Yellowfin tuna (<i>Thunnus albacares</i>)	Ecuador	Least concern	Not listed	High risk	Yes
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Step 3 Assessment Outcomes

By-product species name <i>Common and Latin names</i>	Flag country(ies)	Fishing Area	Stock name <i>(If applicable e.g. Eastern Pacific stock)</i>	Category C Assessment Outcome <i>Pass/Fail</i>	Traceability information <i>Path 1 – Yes OR Path 2 – Yes/No OR MT Approved Whole Fish</i>	Step 3 Risk Outcome <i>Risk downgraded to Medium Risk/ Remains High Risk</i>
Sardina redonda <i>(Etrumeus acuminatus)</i>	Ecuador	FAO 87	Eastern Pacific Ocean sardina redonda	Pass	Path 2- Yes	Risk downgraded to Medium Risk
Chub mackerel <i>(Scomber japonicus)</i>	Ecuador	FAO 87	Eastern Pacific Ocean chub mackerel	Pass	Path 2- Yes	Risk downgraded to Medium Risk
Pacific thread herring/pinchagua <i>(Opisthonema spp.)</i>	Ecuador	FAO 87, FAO 77	Eastern Pacific Ocean thread herring	Pass	Path 2- Yes	Risk downgraded to Medium Risk
Bullet tuna (<i>Auxis rochei</i>)	Ecuador	FAO 87	Eastern Pacific Ocean bullet tuna	Pass	Path 2- Yes	Risk downgraded to Medium Risk

Skipjack tuna (<i>Katsuwonus pelamis</i>)	Ecuador	FAO 87, FAO 77	Eastern Pacific Ocean skipjack tuna	Pass	Path 2- Yes	Risk downgraded to Medium Risk
Yellowfin tuna (<i>Thunnus albacares</i>)	Ecuador	FAO 87, FAO 77	Eastern Pacific Ocean yellowfin tuna	Pass	Path 2- Yes	Risk downgraded to Medium Risk
Comments on Step 3 Assessment: N/A						

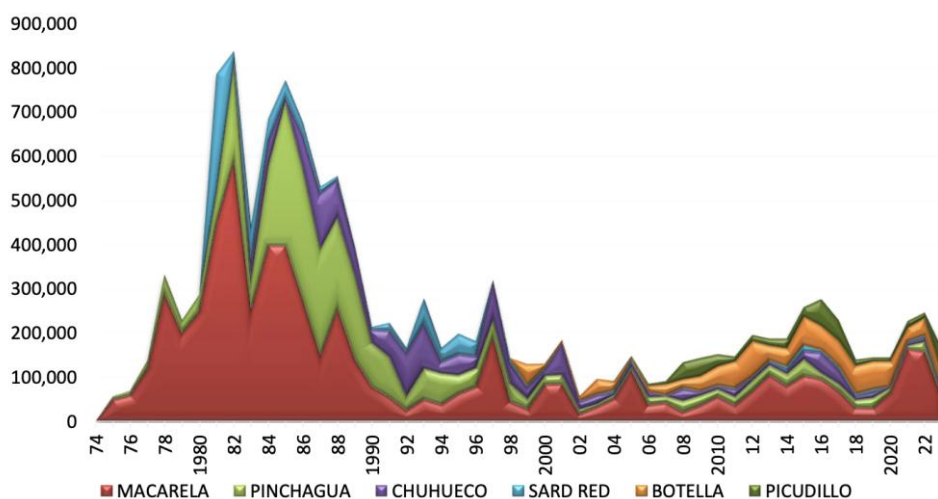
Appendix 2 – detailed assessment outcomes (step 2 and step 3 if applicable)

Step 2 outcomes

Flag state	Risk rating	Flag score	Port score	General score	Flag State is contracting party or cooperating non-contracting party to all relevant RFMOs	'Carded' under EU Carding system	Flag state party to PSMA	Flag state mandatory vessel tracking for commercial seagoing fleet	WGI Governance rank
Ecuador	High	2.58	2.11	2.43	1	3	1	1	35.38%

Step 3 outcomes

Category C assessment

Species name		Sardina redonda (<i>Etrumeus acuminatus</i>)	
Fishing area and stock		FAO 87, Eastern Pacific Ocean sardina redonda	
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.			
No fundamental changes have occurred since the initial assessment.			
Sardina redonda is assessed as part of the Ecuadorian Stock Assessment of Small Pelagic Resources, conducted by the Public Institute for Aquaculture and Fisheries Research (IPIAP). The most recent assessment was conducted in 2024 and considered data from 1975 to 2023 ¹ . The assessment compiled data from biological sampling, size composition, abundance indices, landings, acoustic surveys (with the most recent cruise conducted in 2022), and biological parameters ¹ . Landings of the species included in the Small Pelagic Resources stock assessment, including sardina redonda, are shown in Figure 1.			
			
Figure 1. Landings of major small pelagics in Ecuador, 1975 to 2023 ¹ .			

Based on the above, the fishery passes Clause C1.1.

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 fundamental changes have occurred since the initial assessment.

The 2024 assessment indicates that adult biomass is approximately 19,000 tonnes, compared with a biomass reference point (B_{MSY}), defined as 40% of unfished biomass, of approximately 11,800 tonnes. Current adult biomass represents 64% of virgin biomass, while average fishing mortality is 90% below the reference level, indicating no risk of overfishing or overexploitation (Figure 2).

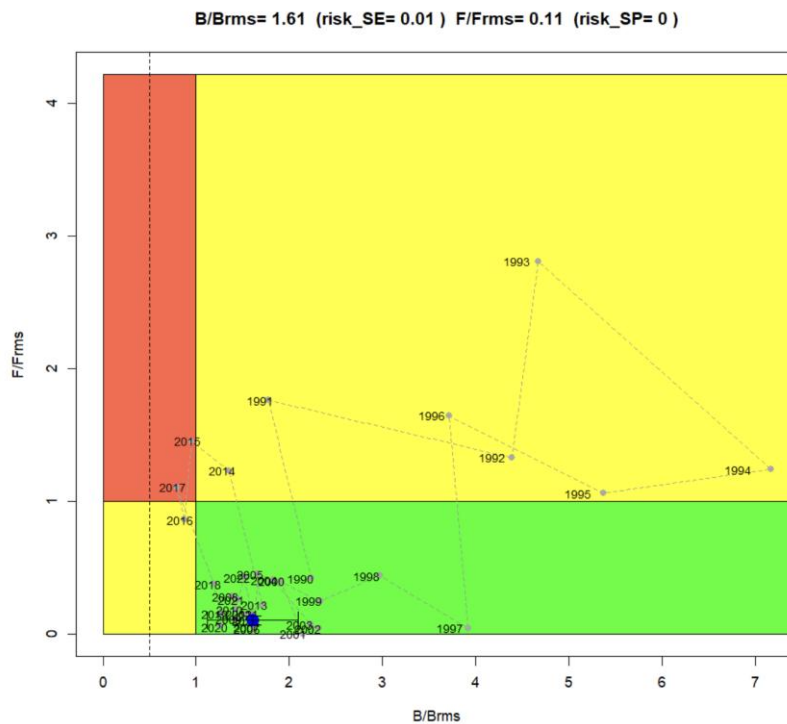


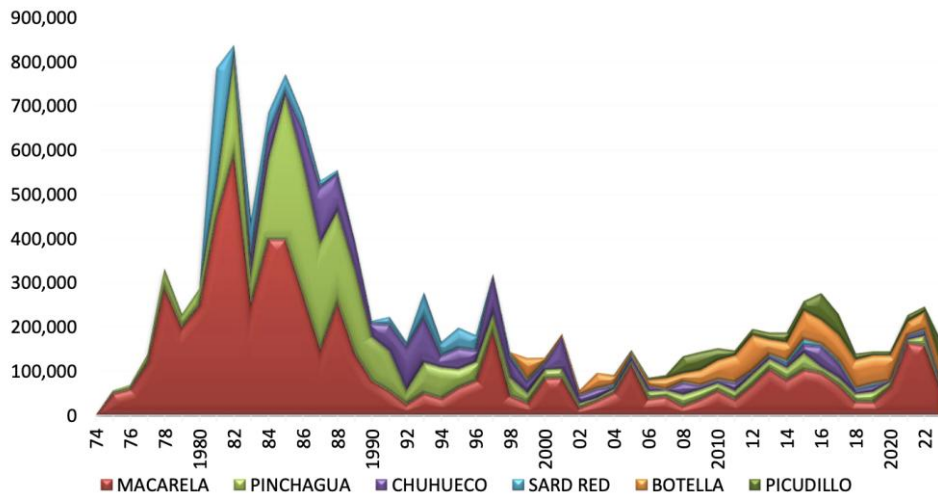
Figure 2. Kobe diagram for sardina redonda.

Based on the above, the fishery passes Clause C1.2.

References

1. Canales, C. M., & Jurado, V. (2024). Assessment of Ecuador's Small Pelagic Resource Stock 2023. Technical Report IPIAP. 150p. https://institutopesca.gob.ec/wp-content/uploads/2024/07/Informe_Evaluacion_2024.pdf

Species name	Chub mackerel (<i>Scomber japonicus</i>)
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Fishing area and stock		FAO 87, Eastern Pacific Ocean chub mackerel	
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.			
No fundamental changes have occurred since the initial assessment.			
Chub mackerel is assessed as part of the Ecuadorian Stock Assessment of Small Pelagic Resources, conducted by the Public Institute for Aquaculture and Fisheries Research (IPIAP). The most recent assessment was conducted in 2024 and considered data from 1975 to 2023 ¹ . The assessment compiled data from biological sampling, size composition, abundance indices, landings, acoustic surveys (with the most recent cruise conducted in 2022), and biological parameters ¹ . Landings of the species included in the Small Pelagic Resources stock assessment, including chub mackerel, are shown in Figure 3.			
			
Figure 3. Landings of major small pelagics in Ecuador, 1975 to 2023 ¹ .			
Based on the above, the fishery passes Clause C1.1.			

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 fundamental changes have occurred since the initial assessment.

The 2024 assessment indicates that adult biomass is approximately 352,000 tonnes, compared with a biomass reference point (B_{MSY}), defined as 40% of unfished biomass, of 374,000 tonnes¹. Current adult biomass represents 38% of virgin biomass, despite average fishing mortality being 64% below the reference level (Figure 4). However, accounting for uncertainty in the modelling, it is estimated that while there is no risk of overfishing, the risk of overexploitation stands at 61%¹.

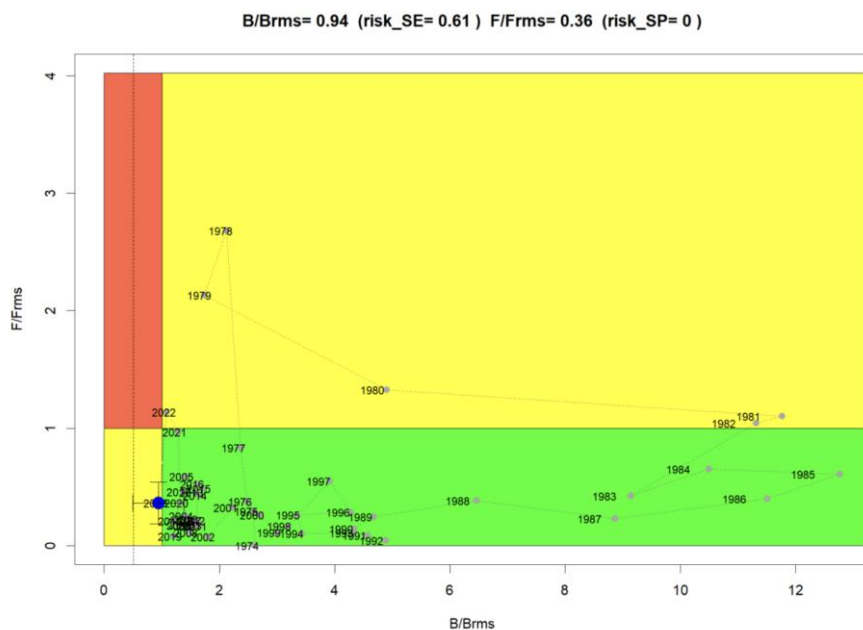


Figure 4. Kobe diagram for chub mackerel¹.

Based on the above, the fishery passes Clause C1.2.

References

1. Canales, C. M., & Jurado, V. (2024). Assessment of Ecuador's Small Pelagic Resource Stock 2023. Technical Report IPIAP. 150p. https://institutopesca.gob.ec/wp-content/uploads/2024/07/Informe_Evaluacion_2024.pdf

Species name		Pacific thread herring/pinchagua (<i>Opisthonema spp.</i>)
Fishing area and stock		FAO 87, 77, Eastern Pacific Ocean thread herring
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.

No fundamental changes have occurred since the initial assessment.

Thread herring is assessed as part of the Ecuadorian Stock Assessment of Small Pelagic Resources, conducted by the Public Institute for Aquaculture and Fisheries Research (IPIAP). The most recent assessment was conducted in 2024 and considered data from 1975 to 2023¹. The assessment compiled data from biological sampling, size composition, abundance indices, landings, acoustic surveys (with the most recent cruise conducted in 2022), and biological parameters¹. Landings of the species included in the Small Pelagic Resources stock assessment, including thread herring, are shown in Figure 5.

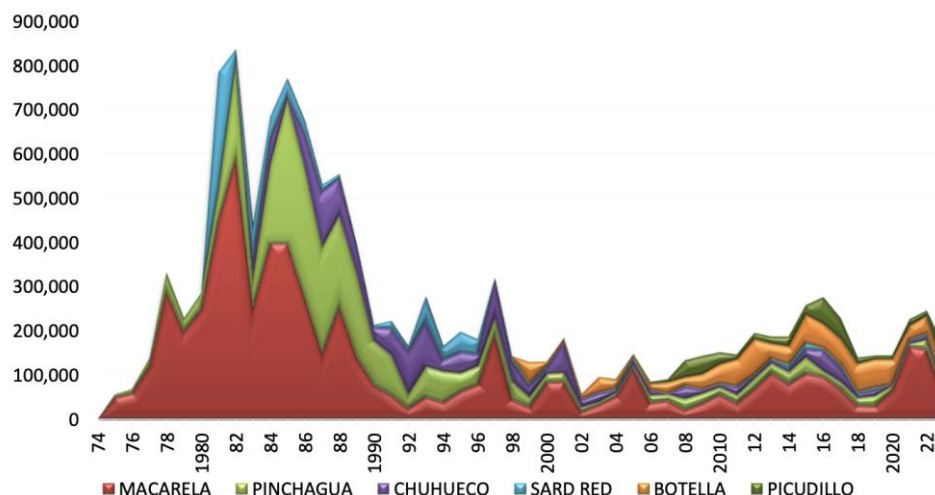


Figure 5. Landings of major small pelagics in Ecuador, 1975 to 2023¹.

Based on the above, the fishery passes Clause C1.1.

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 fundamental changes have occurred since the initial assessment.

The 2024 assessment indicates that adult biomass is approximately 86,000 tonnes, compared with a biomass reference point (B_{MSY}), defined as 40% of unfished biomass, of approximately 70,000 tonnes¹. Current adult biomass represents 49% of virgin biomass, while average fishing mortality is

82% below the reference level, indicating virtually no risk of overfishing or overexploitation (Figure 6)¹.

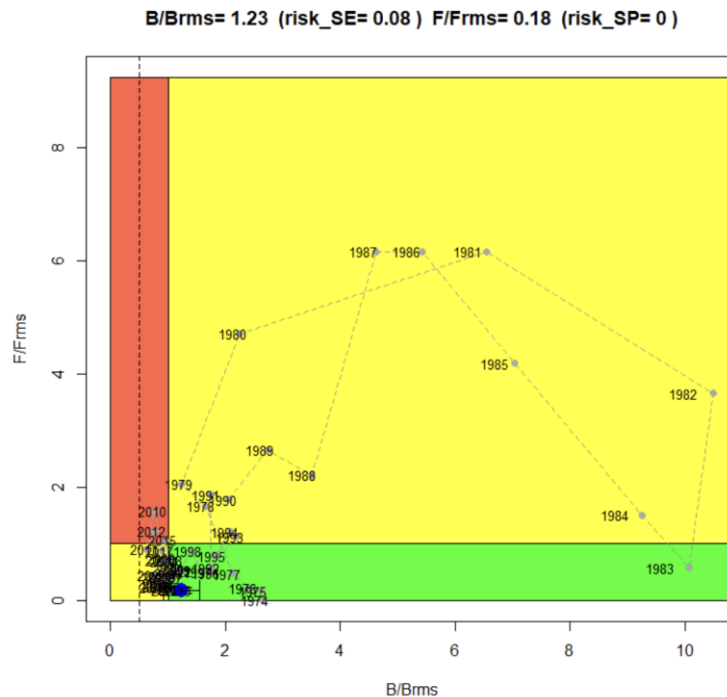


Figure 6. Kobe diagram for Pacific thread herring¹.

Based on the above, the fishery passes Clause C1.2.

References

1. Canales, C. M., & Jurado, V. (2024). Assessment of Ecuador's Small Pelagic Resource Stock 2023. Technical Report IPIAP. 150p. https://institutopesca.gob.ec/wp-content/uploads/2024/07/Informe_Evaluacion_2024.pdf

Species name		Bullet tuna (<i>Auxis rochei</i>)	
Fishing area and stock		FAO 87, Eastern Pacific Ocean bullet 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.

No fundamental changes have occurred since the initial assessment.

Bullet tuna is assessed as part of the Ecuadorian Stock Assessment of Small Pelagic Resources, conducted by the Public Institute for Aquaculture and Fisheries Research (IPIAP). The most recent assessment was conducted in 2024 and considered data from 1975 to 2023¹. The assessment compiled data from biological sampling, size composition, abundance indices, landings, acoustic surveys (with the most recent cruise conducted in 2022), and biological parameters¹. Landings of the species included in the Small Pelagic Resources stock assessment, including bullet tuna, are shown in Figure 7.

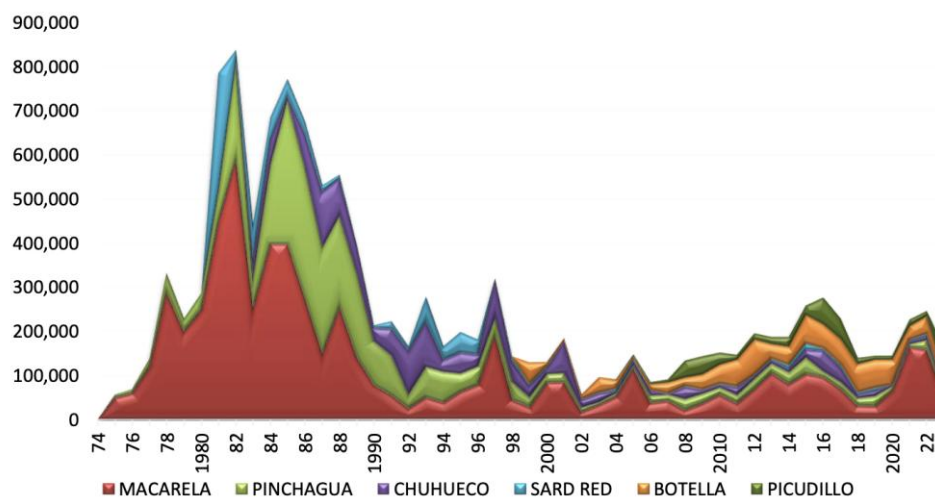


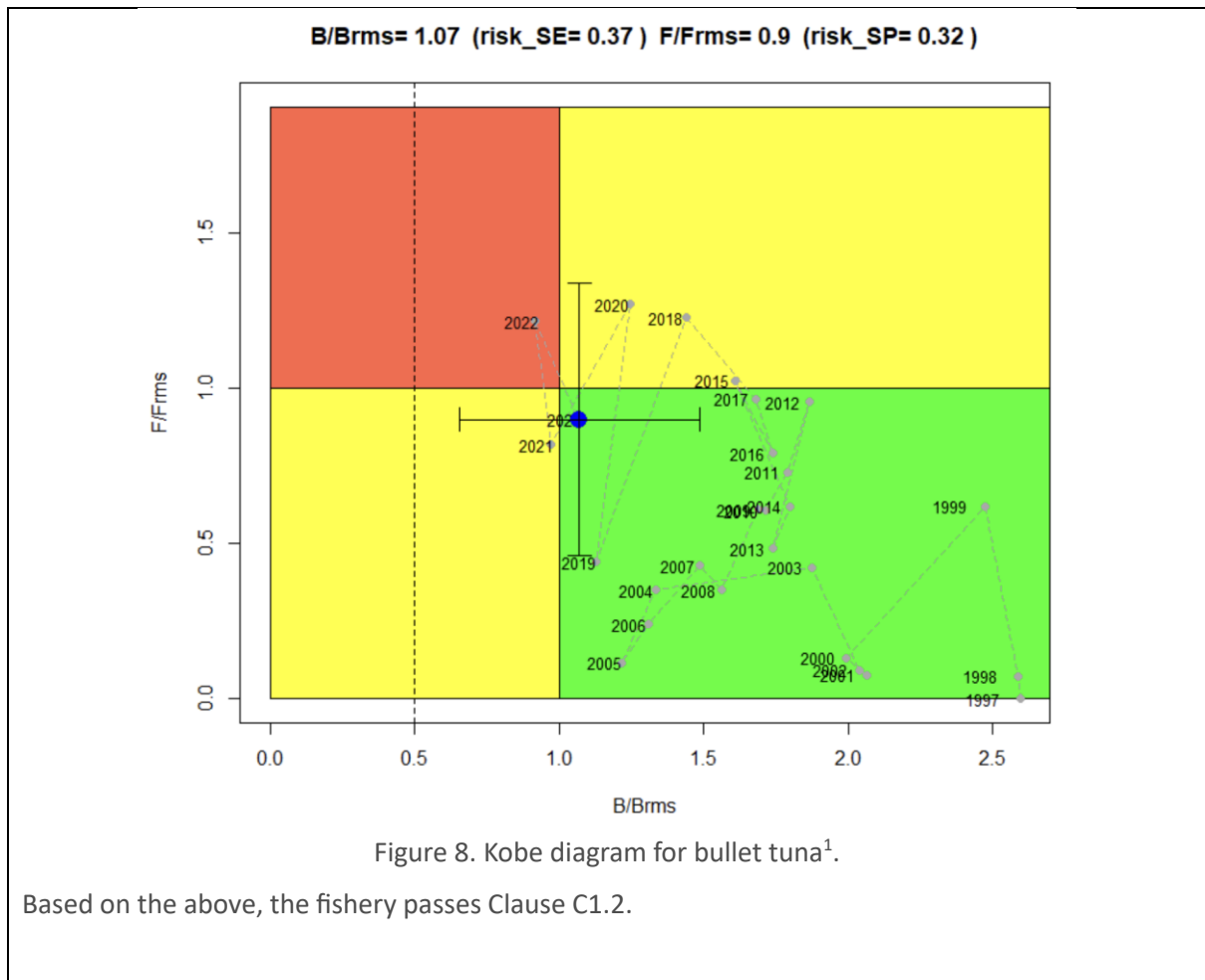
Figure 7. Landings of major small pelagics in Ecuador, 1975 to 2023¹.

Based on the above, the fishery passes Clause C1.1.

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 fundamental changes have occurred since the initial assessment.

The 2024 assessment indicates that adult biomass is approximately 74,000 tonnes, compared with a biomass reference point (B_{MSY}), defined as 40% of unfished biomass, of approximately 69,000 tonnes¹. Current adult biomass represents 43% of virgin biomass, while average fishing mortality at levels below the reference level, indicating moderate risk of overfishing or overexploitation, at 32% and 37%, respectively (Figure 8)¹.



References

- Canales, C. M., & Jurado, V. (2024). Assessment of Ecuador's Small Pelagic Resource Stock 2023. Technical Report IPIAP. 150p. https://institutopesca.gob.ec/wp-content/uploads/2024/07/Informe_Evaluacion_2024.pdf

Species name		Skipjack tuna (<i>Katsuwonus pelamis</i>)
Fishing area and stock		FAO 87, 77, Eastern Pacific Ocean skipjack 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.

The management of skipjack tuna in the eastern Pacific Ocean (EPO) is the responsibility of the Inter-American Tropical Tuna Commission (IATTC). The stock was most recently benchmarked in 2023 using an integrated statistical age-structured catch-at-length model in Stock Synthesis¹. The model integrated catch, size, and age-frequency data, as well as other sources of information, including tagging data collected through the Regional Tuna Tagging Program. This represents a significant improvement on previous assessments.

Catch data for the stock is shown in Figure 9.

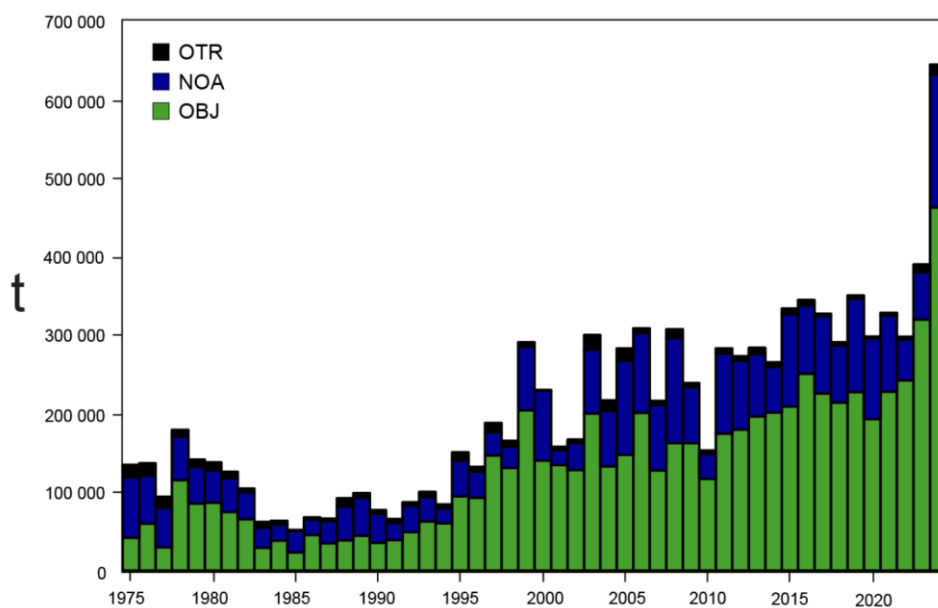


Figure 9. Total catches (retained catches plus discards) of skipjack tuna in the eastern Pacific Ocean, 1975 to 2024¹.

Based on the above, the fishery passes Clause C1.1.

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.

Given that MSY-based quantities and reference points cannot be generated using the model, a conservative proxy for target biomass of SBR = 0.3 was used¹. The fishing mortality corresponding to this target biomass was then used as the target reference point for fishing mortality.

A risk assessment incorporating a reference model and seventeen sensitivity models was conducted to provide management advice. The assessment indicated: a) a 4% probability that spawning biomass at the start of 2024 was below 30% of the unexploited level, according to the dynamic SBR (dSBR_{MSY proxy}); b) a zero probability that average fishing mortality during 2021 to 2023 exceeded the

level associated with the target biomass ($F_{MSY\ proxy}$); and c) a less than 1% probability that spawning biomass at the start of 2024 was below the limit reference point (S_{limit}) (Figure 10)¹.

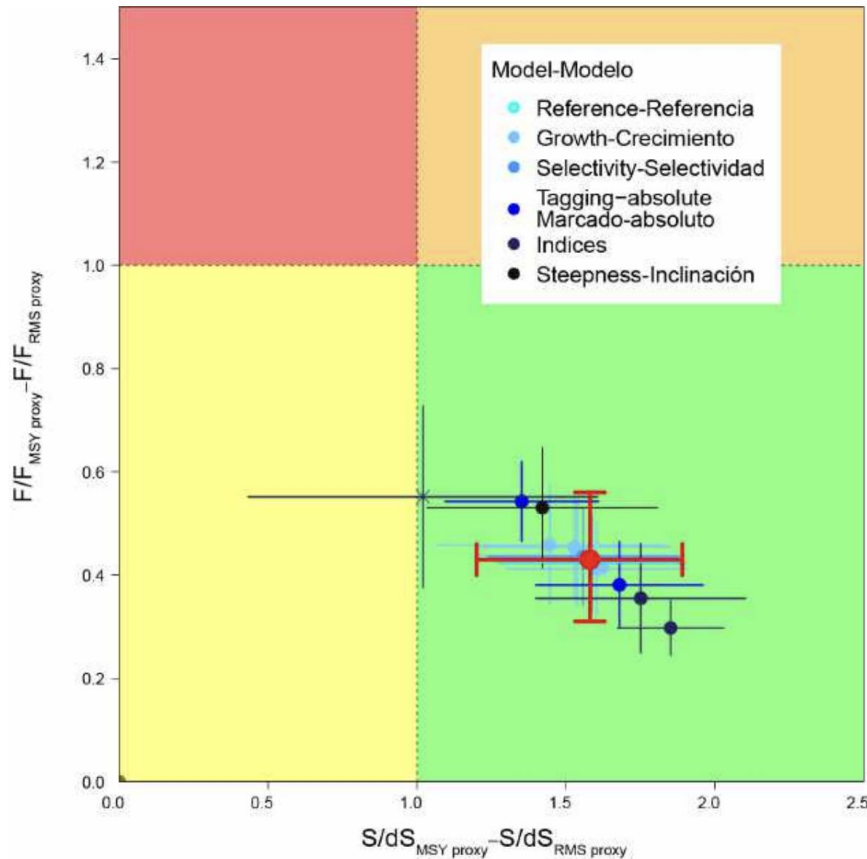


Figure 10. Kobe plot showing the stock status estimates from all the models¹.

Based on the above, the fishery passes Clause C1.2.

References

1. Inter-American Tropical Tuna Commission. (2025). The tuna fishery in the Eastern Pacific Ocean in 2024 (Document SAC-16-01). https://www.iattc.org/GetAttachment/02c5d8e6-6d9b-42b3-a943-a6873f75deac/No-23-2025_The-tuna-fishery-in-the-Eastern-Pacific-Ocean-in-2024_EN.pdf

Species name	Yellowfin tuna (<i>Thunnus albacares</i>)
Fishing area and stock	FAO 87, 77, Eastern Pacific Ocean yellowfin tuna
Category C Stock Status - Minimum Requirements	

C1	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.

The management of yellow tuna in the eastern Pacific Ocean (EPO) is the responsibility of the Inter-American Tropical Tuna Commission (IATTC). Purse seine represents the majority of catches at 294,000 tonnes in 2024 with other gears comprising approximately 5% of total catches (Figure 11)¹. The stock was most recently benchmarked in 2025 using Stock Synthesis, an integrated statistical age-structured stock assessment modelling platform². The main data types used by the model were catch, length composition, and indices of relative abundance.

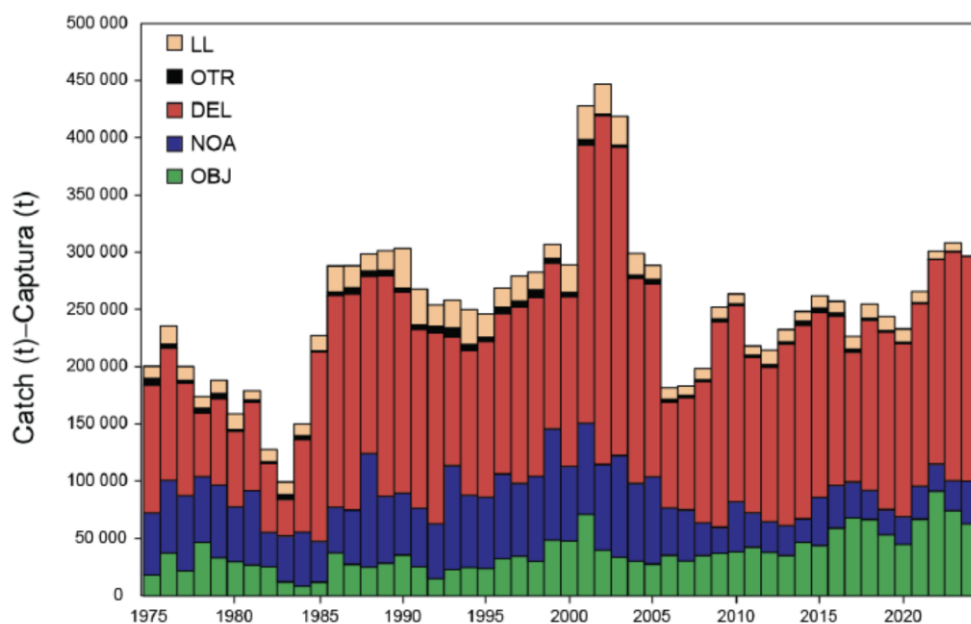


Figure 11. Total catches (retained catches plus discards) for the purse-seine fisheries and retained catches for the longline and other fisheries, of yellowfin tuna in the eastern Pacific Ocean, 1975 to 2024. The data for 2023 and 2024 are preliminary.

Based on the above, the fishery passes Clause C1.1.

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 results of the most recent assessment indicate that the stock is currently estimated to be well above the spawning biomass corresponding to MSY (S_{MSY}) and the 30% S_{proxy} , with a low probability of falling below either level¹. Fishing mortality is estimated to be well below the level corresponding to MSY and the MSY proxy, $F_{30\%}$, with a low probability of exceeding either level. The assessment estimates a zero probability that either the spawning biomass or fishing mortality limit reference points have been breached (Figure 12)¹.

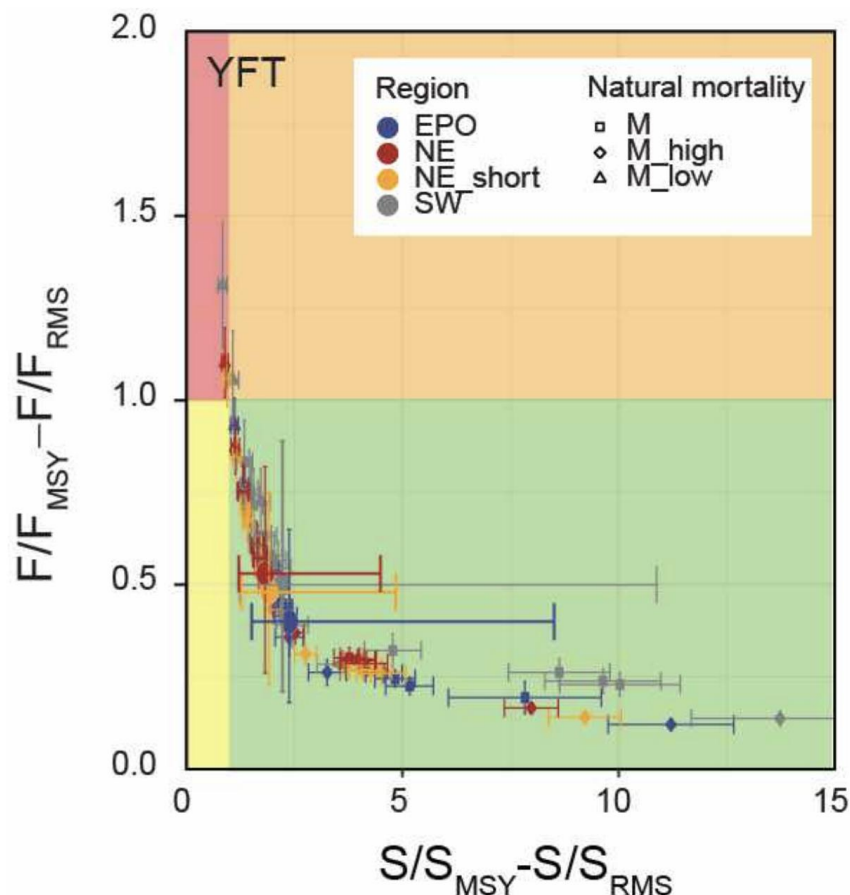


Figure 12. Kobe plot of the most recent estimates of spawning biomass and fishing mortality relative to their target reference points for each hypothesis of spatial structure¹.

Based on the above, the fishery passes Clause C1.2.

References

1. Inter-American Tropical Tuna Commission. (2025). The tuna fishery in the Eastern Pacific Ocean in 2024 (Document SAC-16-01). https://www.iattc.org/GetAttachment/02c5d8e6-6d9b-42b3-a943-a6873f75deac/No-23-2025_The-tuna-fishery-in-the-Eastern-Pacific-Ocean-in-2024_EN.pdf
2. Minte-Vera, C., Maunder, M. N., Xu, H., & Bi, R. (2025). Stock assessment of yellowfin tuna in the Eastern Pacific Ocean: 2025 benchmark assessment (Document SAC-16-03). Inter-American Tropical Tuna Commission. https://www.iattc.org/GetAttachment/11b8757d-ad0f-435c-b2c6-40f5658c56c0/SAC-16-03_Yellowfin-benchmark-assessment---2025.pdf

Traceability information

Information provided for Step 3 Path 1 or Path 2

Species name	Pacific thread herring, skipjack tuna, yellowfin tuna			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome <i>Countries may be different for Coastal State and Port State.</i>	Flag country	Coastal score	Port score	Risk outcome
	Ecuador	Multiple Pacific states, highest risk is medium	Medium risk (2.11), Ecuador	Downgraded to medium risk

Species name	Sardina redonda, chub mackerel, bullet tuna,			
Path 1	Yes ☐ No ☒			
Confirm all KDEs are provided	Yes ☐ No ☐			
Path 2	Yes ☒ No ☐ <i>If yes for Path 2, complete the next section</i>			
Path 2 outcome <i>Countries may be different for Coastal State and Port State.</i>	Flag country	Coastal score	Port score	Risk outcome
	Ecuador	Medium risk (2.69)	Medium risk (2.11)	Downgraded to medium risk