



By-Product assessment report

BP070

*Lucky Star St Helena Bay (Lucky Star
Operations)*

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

Issued April 2025 – Effective April 2025

Report code	BP070	Date of issue	April 2025
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1. Application details		
Applicant	Lucky Star St Helena Bay Ltd (Lucky Star Operations)	
Applicant country	South Africa	
2. Certification Body details		
Name of Certification Body (CB)	LRQA	
Contact information for CB	mt-ca@lrqa.com	
Assessor name	Blanca Gonzalez	
CB internal peer reviewer name	José Peiró Crespo	
Internal peer review evaluation	Agree with evaluation	
Number of Assessment days	2	
Comments on the assessment	<p>The three byproduct species listed in this report are not considered and ETP species according to Marin Trust definition fulfilling this requirement for the assessment.</p> <p>Two of them, European pilchard and Japanese pilchard, have a medium risk flag states approving the assessment, but should be source with caution, and do not require a step 3 assessment.</p> <p>California pilchard did require a step 3 assessment evaluation due to a high-risk flag state. Additional information was requested to the applicant and provided data included the fishing areas which was necessary for the Category C assessment. This allowed this species to be downgraded to medium risk approving this byproduct, but should be source with caution</p>	
3. Approval validity	Valid from 04/2025	Valid until 04/2026
4. Assessment cycle	Re-Approval	

1. Scope Extension Assessment	
Extension of the Scope	<p>For the scope extension, the following countries were added:</p> <ul style="list-style-type: none"> • For European pilchard: Russia, the Netherlands, Spain, Germany, Portugal, and Mauritania. • For Japanese sardine: Russia • And a sardine fishery from Namibia. <p>Mauritania and Russia are high-risk countries; thus, Category C assessments were required.</p>
Name of Certification Body (CB)	LRQA
Contact information for CB	mt-ca@lrqa.com
Assessor name	Blanca Gonzalez
CB internal peer reviewer name	Jose Peiro Crespo
Internal peer review evaluation	Agree with evaluation

<p>Comments on the assessment</p>	<p>The byproduct species listed in this report are not considered ETP species according to the Marin Trust definition, fulfilling this requirement for the assessment.</p> <p>European pilchard with flag countries from Morocco, Spain, Portugal, the Netherlands, and Germany, as well as the Japanese pilchard with flag countries from Thailand and Japan, have a medium risk flag states approving the assessment, but should be sourced with caution, and do not require a step 3 assessment.</p> <p>California pilchard, European pilchard with flag countries from Russia and Mauritania, as well as the Japanese pilchard with flag country from Russia, required a step 3 assessment evaluation due to a high-risk flag state. Additional information was requested from the applicant, and the provided data included the fishing areas, which were necessary for the Category C assessment.</p> <p>European pilchard fishery with flag countries from Russia and Mauritania in the Eastern Central Atlantic stocks (Central Zone A and B, and South zone C) fails the Category C assessment since both stocks are considered to be overexploited with biomass levels below the establish reference points, maintaining a high-risk status; therefore, these stocks caught by vessels with the flag countries mentioned above, remains high risk and are not approved to be used as byproduct.</p> <p>Japanese pilchard with flag country from Russia passed the Category C assessment; however, traceability information indicates that one of the offloading countries is China, which has a high-risk port score. This fishery, caught by vessels with the flag country mentioned above, remains high risk and is not approved for use as a byproduct.</p> <p>The California pilchard passed the Category C assessment, and traceability information allowed</p>
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	this fishery to be downgraded to medium risk, approving this byproduct, but it should be sourced with caution.
Approval validity	December 2025 - April 2026

2. 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
European pilchard - <i>Sardina pilchardus</i>	Morocco, Spain, Portugal	NA	Approved source with caution
Californian pilchard - <i>Sardinops sagax caeruleus</i>	Mexico	FAO 77 – Eastern Central Pacific	Approved source with caution
Japanese pilchard - <i>Sardinops sagax melanostictus</i>	Thailand, Japan	NA	Approved source with caution
Japanese pilchard - <i>Sardinops sagax melanostictus</i>	Russia	FAO 61 – Northwest Pacific	Not approved
Pilchard / Sardine - <i>Sardinops sagax</i>	Namibia	NA	Approved source with caution
European pilchard - <i>Sardina pilchardus</i>	Russia	FAO 34 - Eastern Central Atlantic	Not approved
European pilchard - <i>Sardina pilchardus</i>	Netherlands, Spain, Germany, Portugal	NA	Approved source with caution
European pilchard - <i>Sardina pilchardus</i>	Mauritania	FAO 34 - Eastern Central Atlantic, Central Zone (Zones A and B)	Not approved
European pilchard - <i>Sardina pilchardus</i>	Mauritania	FAO 34- Eastern Central Atlantic, South Zone (Zone C)	Not approved

European pilchard - <i>Sardina pilchardus</i>	Netherlands, Germany	NA	Approved source with caution
<p>Guidance for on-site auditor</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Approved by-products</p> <ul style="list-style-type: none"> No further checks are required beyond those included in the MarinTrust Standard. <p>Additional checks of Approved Source with Caution by-products</p> <ul style="list-style-type: none"> Review supplier records or procedures in place. <p>Additional checks of by-products Approved Source with Caution via Step 3 assessment</p> <ul style="list-style-type: none"> 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 checks on any by-products downgraded from high to medium risk shall be included as part of the required traceability checks (Section 4). <p>Guidance for the applicant/certificate holder</p> <p>The applicant/certificate holder is responsible for ensuring the relevant actions are taken to comply with the MarinTrust Standard.</p> <p>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.</p>			

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>
European pilchard - <i>Sardina pilchardus</i>	Morocco, Spain, Portugal	Least concern	Not listed	Medium risk	No
Californian pilchard - <i>Sardinops sagax caeruleus</i>	Mexico	Least concern	Not listed	High risk	Yes
Japanese pilchard - <i>Sardinops sagax melanostictus</i>	Thailand, Japan	Least concern	Not listed	Medium risk	No
Japanese pilchard - <i>Sardinops sagax melanostictus</i>	Russia	Least concern	Not listed	High risk	Yes
Pilchard / Sardine - <i>Sardinops sagax</i>	Namibia	Least concern	Not listed	Medium risk	No

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European pilchard - <i>Sardina pilchardus</i>	Russia	Least concern	Not listed	High risk	Yes
European pilchard - <i>Sardina pilchardus</i>	Netherlands, Spain, Germany, Portugal	Least concern	Not listed	Medium risk	No
European pilchard - <i>Sardina pilchardus</i>	Mauritania	Least concern	Not listed	High risk	Yes

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>
Californian pilchard - <i>Sardinops sagax caeruleus</i>	Mexico	FAO 77 – Eastern Central Pacific	Western coast of the Baja California Peninsula	Pass	<i>Path 2 – Yes</i>	Risk downgraded to Medium Risk
Japanese pilchard - <i>Sardinops sagax melanostictus</i>	Russia	FAO 61 – Northwest Pacific	Pacific	Pass	<i>Path 2 – Yes</i>	Remains High Risk
European pilchard - <i>Sardina pilchardus</i>	Russia	FAO 34 - Eastern Central Atlantic	Central Zone (Zones A and B)	Fail	N/A	Remains High Risk
European pilchard - <i>Sardina pilchardus</i>	Russia	FAO 34 - Eastern Central Atlantic	South Zone (Zone C)	Fail	N/A	Remains High Risk

European pilchard - <i>Sardina pilchardus</i>	Mauritania	FAO 34 - Eastern Central Atlantic	Central Zone (Zones A and B)	Fail	N/A	Remains High Risk
European pilchard - <i>Sardina pilchardus</i>	Mauritania	FAO 34- Eastern Central Atlantic	South Zone (Zone C)	Fail	N/A	Remains High Risk
Comments on Step 3 Assessment: <i>N/A</i>						

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
Morocco	Medium	2.29	1.78	2.17	1	1	1	1	49.06%
Spain	Medium	3.21	3.39	2.03	1	1	1	1	75.94%
Portugal	Medium	3	2.44	1.53	1	1	1	1	75.00%
Mexico	High	2.25	3.06	2.78	2	1	5	1	46.70%
Thailand	Medium	1.96	2.22	2.23	1	1	1	1	58.49%
Japan	Medium	2.92	2.06	1.93	1	1	1	1	91.51%
Russia	High	4.33	2.78	2.81	1	1	1	1	13.21%

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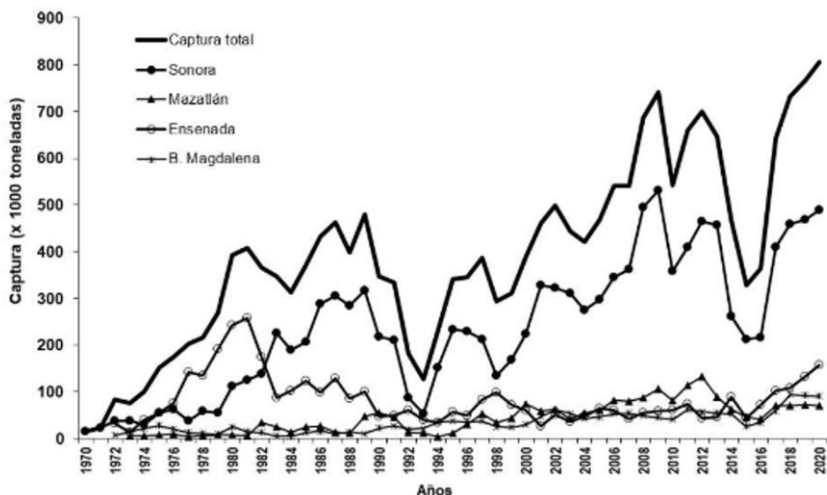
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Namibia	Medium	1.96	2.33	2	1	1	1	1	52.36%
Netherlands	Medium	2.21	2.44	1.87	1	1	1	1	96.70%
Germany	Medium	2.17	2.22	1.83	1	1	1	1	92.45%
Mauritania	High	1.75	3	2.43	1	1	1	1	14.62%

Step 3 outcomes

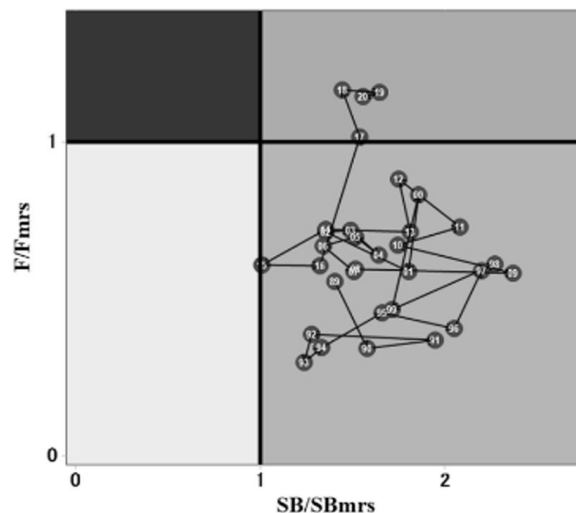
Category C assessment

Species name		Californian pilchard - <i>Sardinops sagax caeruleus</i>
Fishing area and stock		FAO 77 – Eastern Central Pacific Western coast of the Baja California Peninsula
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		
<p>The Clause is met considering that:</p> <p>The last official stock assessment was published in 2023 as part of the update of the fisheries management plan for the small pelagic fishery of northwest Mexico. This assessment includes catch data from 1989- 2020 from the landing ports in Ensenada and Bahía Magdalena, where this stock is fished (DOF 2023).</p> 		
<p>Figure 1. Total annual catch of small pelagic fish from 1970 to 2020 (Captura total), as well as the breakdown for the Western coast of the Baja California Peninsula stock which includes Ensenada and Bahía Magdalena (stock assessed in this report); and the Gulf of California stock (not part of this assessment), Sonora and Mazatlán (DOF 2023).</p>		

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 Clause is met considering that:

The total biomass has ranged between 673,143 and 1,527,488 t, with an average of 957,875 t; all exploitable biomass values have been above the maximum sustainable yield biomass, which was estimated at 385,000 t. The Kobe plot shows that the stock biomass level has been maintained at sustainable exploitation levels throughout the entire period evaluated (DOF 2023).

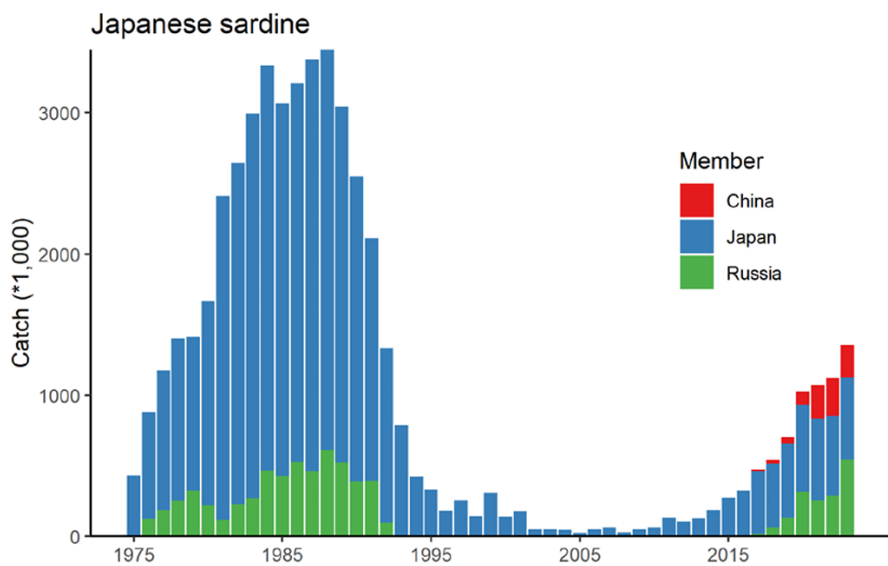


Kobe plot showing the evolution and current status of the west coast of the Baja California Peninsula Californian pilchard stock (DOF 2023).

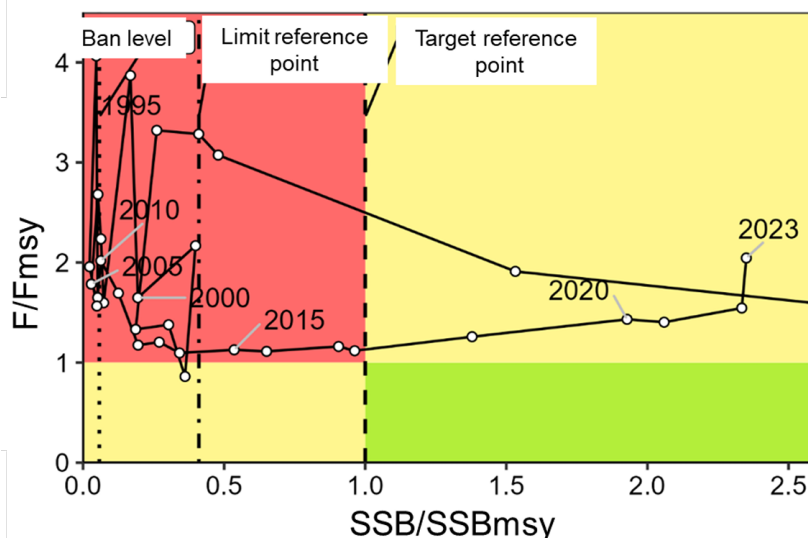
References

DOF. 2023. Diario Oficial de la Federación. Agreement announcing the update of the Fisheries Management Plan for the small pelagic fishery (sardines, anchovies, mackerel and related species) in northwestern Mexico. <https://www.gob.mx/imipas/documentos/plan-de-manejo-pesquero-para-la-pesqueria-de-pelagicos-menores-del-noroeste-de-mexico>

Species name		Japanese pilchard - <i>Sardinops sagax melanostictus</i>	
Fishing area and stock		FAO 61 – Northwest Pacific, Pacific stock	
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.	Passs
Clause outcome:			Pass
<p>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</p> <p>The Clause is met considering that:</p> <p>The North Pacific Fisheries Commission (NPFC) is responsible for managing fisheries for fish and invertebrate species (not including tuna, tuna-like species and Pacific salmon) in international waters of the North Pacific, however, there is currently no stock assessment for Japanese Sardine conducted by NPFC for the Convention Area. Since the Japanese sardine primary stock distribution is inside Japan's domestic waters, Japan conducts a domestic stock assessment annually using a virtual population analysis, which includes annual catch amount from the Commission Area components of the fishery (NPFC 2025).</p> <div data-bbox="343 981 1236 1545" data-label="Figure">  </div> <p>Historical catch of Japanese Sardine Pacific stock by Members from 1975 to 2023 by country (NPFC 2025).</p>			
<p>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.</p> <p>The Clause is met considering that:</p>			

In the last Japan's stock assessment of the Japanese Sardine it is stated that the estimated catch and biomass have both been increasing since 2010, and that the spawning stock biomass is currently estimated to be higher than SSB_{msy}.



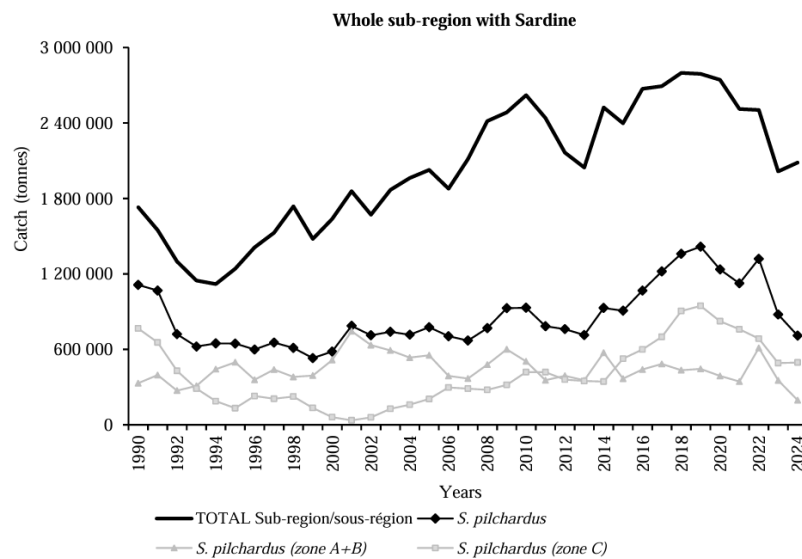
Kobe plot indicating historical and current status of Japanese sardine in relation to MSY-based reference points (NPFC 2024).

References

NPFC. 2024. Scientific Committee. 2024. 9th Meeting Report. NPFC-2024-SC09-Final Report. 405 pp. <https://www.npfc.int/sites/default/files/2025-01/SC09%20Report.pdf>

Species name		European pilchard - <i>Sardina pilchardus</i>
Fishing area and stock		FAO 34 - Eastern Central Atlantic, Central Zone (Zones A and B)
C1 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. Fail
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 The Clause is met considering that:		

The preliminary results from the FAO working group on the assessment of small pelagic fish off northwest Africa in 2025 were obtained using the dynamic version of the Schaefer (1954) model as in previous years, which uses historical fishing mortality and/or catch data for simple medium-term projections of future yields and stock development (FAO 2025).



Total catch of small pelagic species and sardine catch in the whole subregion from 1990 to 2024 (FAO 2025).

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 Clause is NOT met considering that:

The stock is considered to be overexploited, which means that the fishery is in an undesired state in terms of biomass or/and fishing mortality, and fishing pressure should be reduced to allow the stock to grow. Results indicate that the current biomass was 71% of the target reference point ($B_{cur}/B_{0.1} = 71\%$) for zones A and B stock; therefore, the stock is below its target level. Target reference point used for this fishery ($B_{0.1}$) is more conservative than MSY, and it is used due to inconsistencies of some data since environmental factors strongly influence this stock and show fluctuations in biomass that are independent of fishing, because abundance indices in this area are not regularly assessed, and to be in line with the precautionary approach (FAO 2025)

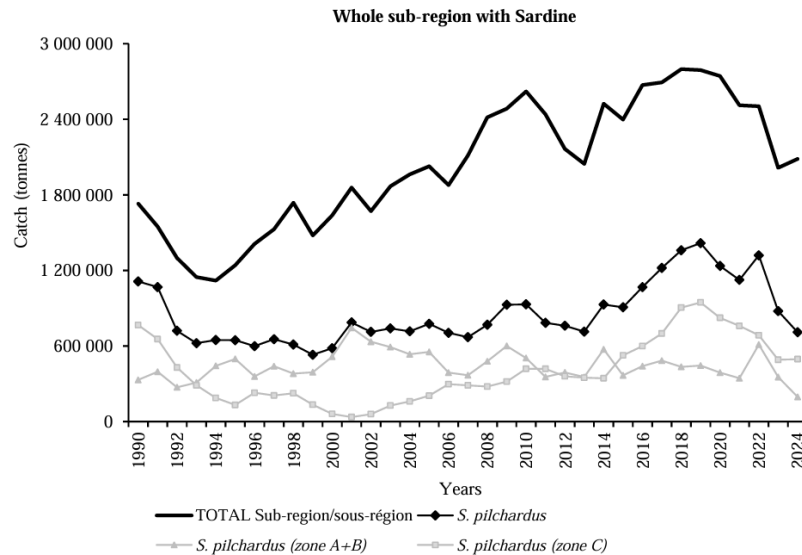
Stock	Catch 2024 In tonnes (avg. 2020-2024)	B _{CUR} /B _{0.1}	F _{CUR} /F _{0.1}	Assessment
Sardine <i>S. pilchardus</i> Zone A+B	196 000 (379 000)	71% (Biodyn)	37% (Biodyn)	Overexploited

Summary of the assessment for *S. pilchardus* in zona A and B by the 2024 Working Group on the Assessment of Small Pelagic Fish off Northwest Africa (FAO 2025).

References

FAO. 2025. Fishery Committee for the Eastern Central Atlantic. Summary report of the FAO working group on the assessment of small pelagic fish off northwest Africa 2025. <https://openknowledge.fao.org/server/api/core/bitstreams/48572e26-38ef-40b9-8f89-9cbf92efc545/content>

Species name		European pilchard - <i>Sardina pilchardus</i>	
Fishing area and stock		FAO 34 - Eastern Central Atlantic, South Zone (Zone C)	
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.	Fail
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			
The Clause is met considering that:			
The preliminary results from the FAO working group on the assessment of small pelagic fish off northwest Africa in 2025 were obtained using the dynamic version of the Schaefer (1954) model, as in previous years, which uses historical fishing mortality and/or catch data for simple medium-term projections of future yields and stock development (FAO 2025).			



Total catch of small pelagic species and sardine catch in the whole subregion from 1990 to 2024 (FAO 2025).

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 Clause is NOT met considering that:

The stock is considered to be overexploited, which means that the fishery is in an undesired state in terms of biomass or/and fishing mortality, and fishing pressure should be reduced to allow the stock to grow. Results indicate that the current biomass was 66% the target reference point ($B_{cur}/B_{0.1} = 66\%$) for the zone C stock; therefore, the stock is below its target level. Target reference points used for this fishery ($B_{0.1}$) is more conservative than MSY, and it is used due to inconsistencies of some data since environmental factors strongly influence this stock and shows fluctuations in biomass that are independent of fishing, because abundance indices in this area are not regularly assessed, and to be in line with the precautionary approach (FAO 2025)

Stock	Catch 2024 In tonnes (avg. 2020-2024)	$B_{cur}/B_{0.1}$	$F_{cur}/F_{0.1}$	Assessment
Sardine				
<i>S. pilchardus</i>	496 000 (651 000)	66% (Biodyn)	109% (Biodyn)	Overexploited
Zone C				

Summary of the assessment for *S.pilchardus* in Zones A + B and C by the 2024 Working Group on the Assessment of Small Pelagic Fish off Northwest Africa (FAO 2025).

References

DOF. 2023. Diario Oficial de la Federación. Agreement announcing the update of the Fisheries Management Plan for the small pelagic fishery (sardines, anchovies, mackerel and related species) in northwestern Mexico. <https://www.gob.mx/imipas/documentos/plan-de-manejo-pesquero-para-la-pesqueria-de-pelagicos-menores-del-noroeste-de-mexico>

Traceability information

Information provided for Step 3 Path 1 or Path 2

Assessor note: Duplicate for each species/stock

Species name	Californian pilchard - <i>Sardinops sagax caeruleus</i>			
Path 1	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Confirm all KDEs are provided	Yes <input type="checkbox"/> No <input type="checkbox"/>			
Path 2	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes for Path 2, complete the next section			
Path 2 outcome Countries may be different for Coastal State and Port State.	Flag country	Coastal score	Port score	Risk outcome
	Mexico	2.86	3.06	Downgraded to medium risk

Species name	Japanese pilchard - <i>Sardinops sagax melanostictus</i>			
Path 1	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Confirm all KDEs are provided	Yes <input type="checkbox"/> No <input type="checkbox"/>			
Path 2	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes for Path 2, complete the next section			
Path 2 outcome Countries may be different for Coastal State and Port State.	Flag country	Coastal score	Port score	Risk outcome
	China	3.13	4.33	Remains high risk
	Korea	2.69	3.33	
	Rusia	2.57	2.78	

Guidance for Applicants/Certificate holders on improved traceability

When by-product origin cannot be made more granular than major FAO Areas, or when the source fishery is taking place in the High Seas (i.e. outside of EEZs of all relevant nations), an assessor must evaluate the Coastal and Port scores for each nation that straddles that FAO Area. This may lead to higher risk outcomes for an applicant. To mitigate that risk, better practice involves securing KDEs from the source fishery of the by-products, thereby meeting Path 1 instead of Path 2.

What does better practices look like?

Comprehensive data collection and sharing: Collect detailed information using Key Data Elements (KDEs) including vessel identification and authorisation, species, catch areas, fishing method and dates. These are defined in the MarinTrust Standard clauses 2.11.2.2 and 3.2.5.

Supply chain transparency: Maintain detailed records at each step of the supply chain, from capture to final sale, to ensure traceability.

Interoperable systems and technologies to support the collection and transfer of this information.