



## MarinTrust Standard V2

### By-product Fishery Assessment

### ESP11

### European pilchard

### in ICES Subarea 7 and Division 8a, b, d

**MarinTrust Programme**

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**Table 1 Application details and summary of the assessment outcome**

Fishery Under Assessment	Species:	European pilchard/sardine ( <i>Sardina pilchardus</i> )
	Geographical area:	FAO Area 27 - northeast Atlantic
	Country of origin of the product:	Spain (Flag countries: Portugal and Spain)
	Stock:	Sardine ( <i>Sardina pilchardus</i> ) in divisions 8.a–b and 8.d (Bay of Biscay) Sardine ( <i>Sardina pilchardus</i> ) in Subarea 7 (southern Celtic Seas and the English Channel)
Date	May 2024	
Report Code	ESP11	
Assessor	Ana Elisa Almeida Ayres	
Country of origin of the product - PASS	Spain (Flag countries: Portugal and Spain)	
Country of origin of the product - FAIL	N/A	

Application details and summary of the assessment outcome			
Company Name(s): Arteixo			
Country: Spain (Flag countries: Portugal and Spain)			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Certification Trust/NSF	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval
Ana Elisa Almeida Ayres	Matthew Jew	0.5	Reapproval
Assessment Period	May 2024 – May 2025		

Scope Details	
Main Species	European pilchard/sardine ( <i>Sardina pilchardus</i> )
Stock	Sardine ( <i>Sardina pilchardus</i> ) in divisions 8.a–b and 8.d (Bay of Biscay) Sardine ( <i>Sardina pilchardus</i> ) in Subarea 7 (southern Celtic Seas and the English Channel)
Fishery Location	FAO Area 27 - northeast Atlantic
Management Authority (Country/ State)	European Union (Common Fisheries Policy-CFP), Spain & Portugal management authority
Gear Type(s)	Purse seine and pelagic trawls
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor’s recommendation
Recommendation	<b>APPROVED</b>

## 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 MarinTrust raw material. European pilchard/sardine (<i>Sardina pilchardus</i>) is not categorised as Endangered or Critically Endangered on IUCN's Red List and does not appear in CITES appendices; therefore, European pilchard/sardine is eligible for approval for use as MarinTrust by-product raw material.</p> <p>This assessment covers two stocks: sardine (<i>Sardina pilchardus</i>) in divisions 8.a–b and 8.d (Bay of Biscay) and sardine (<i>Sardina pilchardus</i>) in Subarea 7 (southern Celtic Seas and the English Channel). These stocks are assessed separately by ICES.</p> <p>The sardine (<i>Sardina pilchardus</i>) in divisions 8.a–b and 8.d (Bay of Biscay) is managed relative to reference points and has been assessed under Category C. In the last stock assessment, removals are considered and the stock is just above its limit reference point <math>B_{lim}</math>, therefore the stock PASSES clauses C1.1 and C1.2.</p> <p>ICES cannot assess the stock and exploitation status relative to MSY reference points for the sardine (<i>Sardina pilchardus</i>) in Subarea 7 (southern Celtic Seas and the English Channel), because these are undefined. However, this stock was benchmarked in 2021 and ICES advice uses an index trigger value - <math>I_{stat}</math> for biomass safeguard, which is a precautionary approach reference point). Therefore, the stock can be assessed under Category C. In the last stock assessment, removals are considered and the stock size is above <math>I_{stat}</math>, thus it PASSES clauses C.1.1 and C.1.2.</p> <p>Therefore, sardine (<i>Sardina pilchardus</i>) in divisions 8.a–b and 8.d (Bay of Biscay) and sardine (<i>Sardina pilchardus</i>) in Subarea 7 (southern Celtic Seas and the English Channel) are <b>APPROVED</b> 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 sardine (<i>Sardina pilchardus</i>) in Subarea 7 and Divisions 8.a, b, and d appropriately. Both stocks are tracked by ICES, however reference points are only defined for the stock in Divisions 8.a, b, and d. Therefore, that stock is assessed under Category C, while the stock in Subarea 7 is assessed under Category D.</p> <p><u>Stock in Divisions 8.a, b, and d</u></p> <p>Fishery removals are considered in the stock assessment process. The most recent stock assessment shows that the stock is below <math>B_{MSY}</math> and <math>B_{pa}</math>, but above <math>B_{lim}</math>. Therefore, the stock is considered to have biomass above the limit reference point (or proxy). It passes Category C.</p> <p><u>Stock in Subarea 7</u></p> <p>Fishery removals are considered in the assessment process. The most recent survey trends-based assessment shows that the stock is above <math>I_{stat}</math>. Therefore, the stock is considered to have biomass above the proxy limit reference point. It passes Category C.</p> <p>The respective stocks of sardine pass their respective assessments and therefore should be approved under the MarinTrust Standard v.2.3.</p>
Notes for On-site Auditor
N/A

## 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 <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
European pilchard/sardine	<i>Sardina pilchardus</i>	Sardine ( <i>Sardina pilchardus</i> ) in divisions 8.a–b and 8.d (Bay of Biscay)	Yes	C	LC <sup>3</sup>	No
European pilchard/sardine	<i>Sardina pilchardus</i>	Sardine ( <i>Sardina pilchardus</i> ) in Subarea 7 (southern Celtic Seas and the English Channel)	Yes	C	LC <sup>3</sup>	No

<sup>1</sup> <https://www.iucnredlist.org/>

<sup>2</sup> <https://cites.org/eng/app/appendices.php>

<sup>3</sup> <https://www.iucnredlist.org/species/198580/15542481>

## 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		Sardine ( <i>Sardina pilchardus</i> ) in divisions 8.a–b and 8.d (Bay of Biscay)																																																	
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																																																
<p><b>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.</b></p> <p>ICES advises that when the MSY approach is applied, catches in 2024 should be no more than 19,811 tonnes.</p> <p>The assessment type is an Analytical assessment (Stock Synthesis Model 3; SS3) that uses catches in the model and in the Forecast. The input data includes commercial catches (international landings; ages frequencies from catch sampling). Three survey indices: PELGAS (acoustic biomass, [A4150], 2000–2019, 2021–2023), BIOMAN (egg counts, [I9143], 2000–2023), and DEPM Triennial surveys (BIOMAN [I9143] and SP-DEPM [I9787], 2011, 2014, 2017; BIOMAN [I9143], 2020, 2023) and age composition in the PELGAS survey. Discarding and bycatch are considered negligible.</p> <div data-bbox="363 1182 1289 1704" data-label="Figure"> <table border="1"> <caption>Estimated data for Figure 1: Long term catches for European pilchard/sardine (Sardina pilchardus) in divisions 8.a–b and 8.d (Bay of Biscay) from 2000 to 2022 (ICES, 2023a).</caption> <thead> <tr> <th>Year</th> <th>Catches (in 1000 t)</th> </tr> </thead> <tbody> <tr><td>2000</td><td>15</td></tr> <tr><td>2001</td><td>15</td></tr> <tr><td>2002</td><td>18</td></tr> <tr><td>2003</td><td>17</td></tr> <tr><td>2004</td><td>14</td></tr> <tr><td>2005</td><td>16</td></tr> <tr><td>2006</td><td>17</td></tr> <tr><td>2007</td><td>18</td></tr> <tr><td>2008</td><td>22</td></tr> <tr><td>2009</td><td>21</td></tr> <tr><td>2010</td><td>20</td></tr> <tr><td>2011</td><td>23</td></tr> <tr><td>2012</td><td>31</td></tr> <tr><td>2013</td><td>33</td></tr> <tr><td>2014</td><td>35</td></tr> <tr><td>2015</td><td>29</td></tr> <tr><td>2016</td><td>30</td></tr> <tr><td>2017</td><td>31</td></tr> <tr><td>2018</td><td>32</td></tr> <tr><td>2019</td><td>25</td></tr> <tr><td>2020</td><td>31</td></tr> <tr><td>2021</td><td>26</td></tr> <tr><td>2022</td><td>26</td></tr> </tbody> </table> </div> <p>Figure 1. Long term catches for European pilchard/sardine (<i>Sardina pilchardus</i>) in divisions 8.a–b and 8.d (Bay of Biscay) from 2000 to 2022 (ICES, 2023a).</p> <p>Fishery removals of the species in the fishery under assessment are included in the stock assessment process. C.1.1 is met.</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>				Year	Catches (in 1000 t)	2000	15	2001	15	2002	18	2003	17	2004	14	2005	16	2006	17	2007	18	2008	22	2009	21	2010	20	2011	23	2012	31	2013	33	2014	35	2015	29	2016	30	2017	31	2018	32	2019	25	2020	31	2021	26	2022	26
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ICES defines the reference points in accordance with the MSY (target) and precautionary (target/limit) approaches. MSY  $B_{trigger}$  and  $B_{pa}$  are set at 78,700 tonnes,  $B_{lim}$  is set at 56,300 tonnes,  $F_{MSY}$  and  $F_{pa}$  is 0.45, and  $F_{lim}$  is 0.76.

Fishing pressure on the stock is above  $F_{MSY}$  and  $F_{pa}$  and below  $F_{lim}$ ; spawning-stock size is below  $MSY B_{trigger}$  and  $B_{pa}$ , but above  $B_{lim}$ .

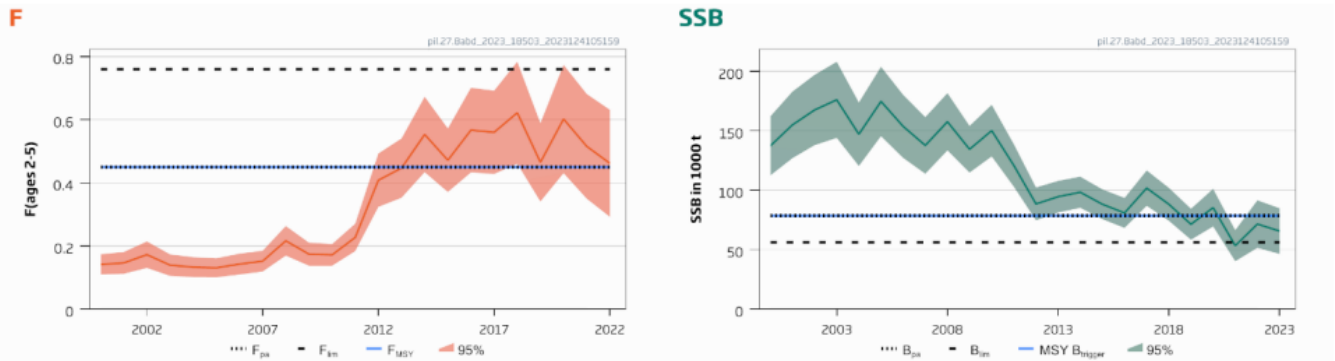


Figure 2. European pilchard/sardine in divisions 8.a–b and 8.d. Summary of the stock assessment (ICES, 2023a).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy). C.1.2 is met.

**References**

ICES. 2023a. Sardine (*Sardina pilchardus*) in divisions 8.a-b and 8.d (Bay of Biscay). In Report of the ICES Advisory Committee, 2023. ICES Advice 2022, pil.27.8abd. Published 08 December 2023 <https://doi.org/10.17895/ices.advice.21975206>

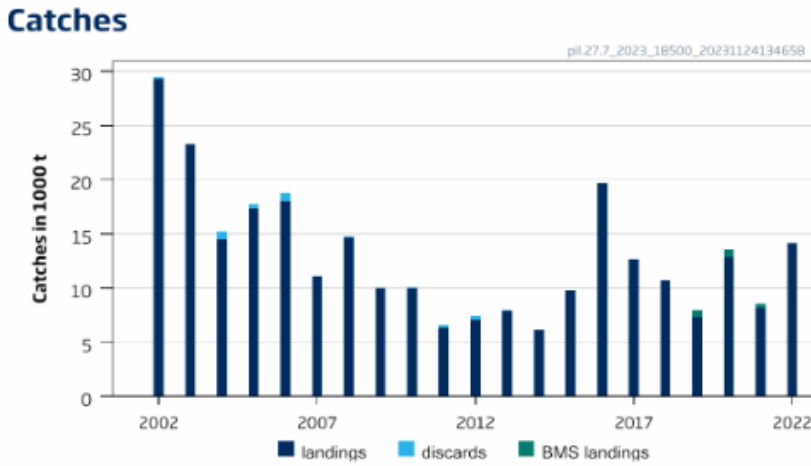
**Links**

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

## 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		Sardine ( <i>Sardina pilchardus</i> ) in Subarea 7 (southern Celtic Seas and the English Channel)	
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
<p><b>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.</b></p> <p>ICES advises that when the precautionary approach is applied, catches in 2024 should be no more than 13,459 tonnes.</p> <p>The assessment type is a survey trends-based assessment. The input data includes commercial catch and biomass estimates from the total area of the acoustic survey PELTIC. Discards were not included as discarding is considered negligible.</p> <div style="text-align: center;">  </div>			

### Biomass Index

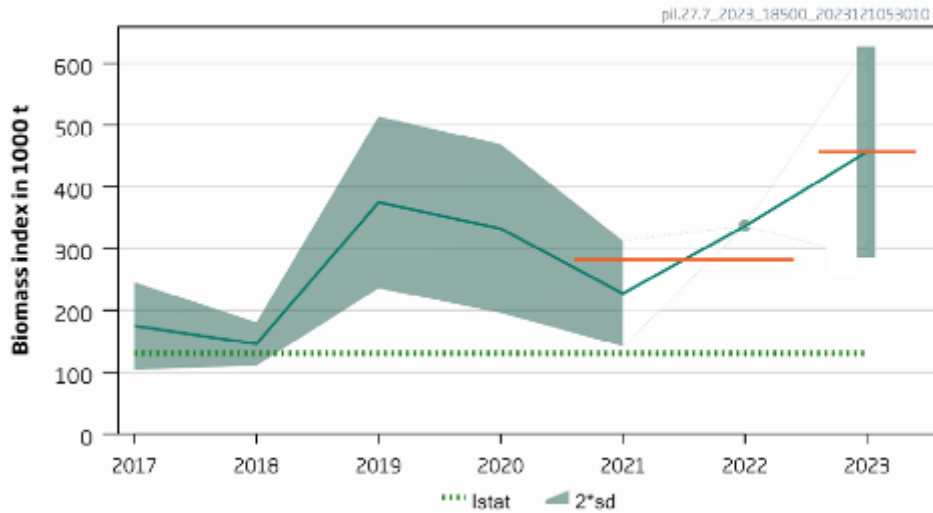


Figure 4. Biomass index from the PELTIC acoustic survey, with 95% confidence interval (shaded area; the calculation of the 2022 value did not allow to produce a confidence interval). The horizontal orange lines indicate the biomass index for 2023 and the average for 2021–2022 (ICES, 2023b).

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy). C.1.2 is met.

#### References

ICES. 2023b. Sardine (*Sardina pilchardus*) in Subarea 7 (Southern Celtic Seas, English Channel). In Report of the ICES Advisory Committee, 2022. ICES Advice 2023, pil.27.7, <https://doi.org/10.17895/ices.advice.21975203>

#### Links

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