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Global Standard for Responsible Supply
of Marine Ingredients

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Global Standard for Responsible Supply of Marine Ingredients Fishery Assessment Methodology and Template Report V2.0



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R1

Fishery Under Assessment	European Pilchard (<i>Sardina pilchardus</i>) North East Atlantic
Date	April 2019
Assessor	Jim Daly

Application details and summary of the assessment outcome				
Name: Pelagia Ireland, UK				
Address: Killybegs; Grimsby				
Country: Ireland, UK		Zip:		
Tel. No.:		Fax. No.:		
Email address:		Applicant Code		
Key Contact: Geraldine Fox		Title: Quality Manager		
Certification Body Details				
Name of Certification Body:		SAI GLOBAL LTD		
Assessor Name	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval	Whole fish/ By-product
Jim Daly	Virginia Polonio	0.5	Surveillance 1	By-product
Assessment Period	2018			

Scope Details	
Management Authority (Country/State)	EU/Common Fisheries Policy
Main Species	Pilchard (<i>Sardina pilchardus</i>)
Fishery Location	North East Atlantic
Gear Type(s)	Mixed pelagic trawl and purse seine
Outcome of Assessment	
Overall Outcome	PASS
Clauses Failed	NONE
Peer Review Evaluation	Agree
Recommendation	Approve

Assessment Determination
<p>There are no international quotas in place for pilchards. No EU-wide species-specific management measures are in place. In some areas exploitation is limited by bycatch restrictions when targeting other fisheries e.g. herring. The gradual (2015-2019) introduction on a fishery-by-fishery basis of a landing obligation in EU waters will effectively ban discarding.</p> <p>The comparative lack of scientific information on the status of the population in the assessment area means that a risk-assessment style approach must be taken. The fishery was assessed using the risk-based Productivity, Susceptibility Analysis (PSA) approach as per IFFO-RS v 2.0 procedures for Category D stocks. The species has passed this risk-based assessment (Table D1).</p> <p>IUCN has categorised pilchards as a species of least concern (Figure 1). The species does not appear in CITES appendices (both sites accessed 19.04.19).</p> <p>Pilchard (<i>Sardina pilchardus</i>) is approved by the assessment team for the production of fishmeal and fish oil under the IFFO-RS v 2.0 by-products standard.</p>
Peer Review Comments
Notes for On-site Auditor

Species-Specific Results

Category	Species	% landings	Outcome (Pass/Fail)
Category A			A1
			A2
			A3
			A4
Category B			
Category C			
Category D	Pilchard (<i>Sardina pilchardus</i>)	N/A	PASS

[List all Category A and B species. List approximate total % age of landings which are Category C and D species; these do not need to be individually named here]

SPECIES CATEGORISATION

The following table should be completed as fully as the available information permits. Any species representing more than 0.1% of the annual catch should be listed, along with an estimate of the proportion of the catch each species represents. The species should then be divided into Type 1 and Type 2 as follows:

- **Type 1 Species** can be considered the ‘target’ or ‘main’ species in the fishery. They make up the bulk of annual landings and are subjected to a detailed assessment.
- **Type 2 Species** can be considered the ‘bycatch’ or ‘minor’ species in the fishery. They make up a small proportion of the annual landings and are subjected to relatively high-level assessment.

Type 1 Species must represent 95% of the total annual catch. Type 2 Species may represent a maximum of 5% of the annual catch (see Appendix B).

Species which make up less than 0.1% of landings do not need to be listed (NOTE: ETP species are considered separately). The table should be extended if more space is needed. Discarded species should be included when known.

The ‘stock’ column should be used to differentiate when there are multiple biological or management stocks of one species captured by the fishery. The ‘management’ column should be used to indicate whether there is an adequate management regime specifically aimed at the individual species/stock. In some cases it will be immediately clear whether there is a species-specific management regime in place (for example, if there is an annual TAC). In less clear circumstances, the rule of thumb should be that if the species meets the minimum requirements of clauses A1-A4, an adequate species-specific management regime is in place.

NOTE: If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in the CITES appendices, it **cannot** be approved for use as an IFFO RS raw material. This applied to whole fish as well as by-products.

TYPE 1 SPECIES (Representing 95% of the catch or more)

Category A: Species-specific management regime in place.

Category B: No species-specific management regime in place.

TYPE 2 SPECIES (Representing 5% OF THE CATCH OR LESS)

Category C: Species-specific management regime in place.

Category D: No species-specific management regime in place.

Common name	Latin name	Stock	% of landings	Management	Category
Pilchard	<i>Sardina pilchardus</i>	North East Atlantic		No species specific management regime	D

D1	Species Name:	European Pilchard <i>Sardina pilchardus</i>	
	Productivity Attribute	Value	Score
	Average age at maturity (years)	<2	1
	Average maximum age (years)	<10	1
	Fecundity (eggs/spawning)	50,000-60,000	1
	Average maximum size (cm)	20 cm	1
	Average size at maturity (cm)	14.8	1
	Reproductive strategy	Open water batch spawning	1
	Mean trophic level	3.1	2
	Average Productivity Score		1.14
	Susceptibility Attribute	Value	Score
	Overlap of adult species range with fishery	Full overlap	3
	Distribution	N/A	
	Habitat	Neritic-Pelagic	1
	Depth range	10-100m	1
	Selectivity	**Mesh size towed gear 16-31mm	3
	Post-capture mortality	Alive when hauled	2
	Average Susceptibility Score		2.00
	PSA Risk Rating (From Table D3)		PASS
	Compliance rating		MEDIUM
References			
<p>R1 Image of <i>Sardina pilchardus</i> by Mariano Garc: http://fishbase.org/photos.</p> <p>R2 About the Common Fisheries Policy: http://ec.europa.eu/fisheries/cfp/index_en.htm</p> <p>R3 Fishbase http://www.fishbase.org/summary (accessed 19.04.19)</p> <p>R4 EU Technical Measures (minimum mesh size) http://eur-lex.europa.eu/legal-content/EN/TXT/PDF (accessed 19.04.19)</p> <p>R5 FAO Species Factsheet: http://www.fao.org/fishery/factsheets/en</p> <p>R6 IUCN red list: http://www.iucnredlist.org/ (accessed 19.04.19)</p> <p>R7: CITES Appendices: www.cites.org (accessed 19.04.19)</p>			
<i>Standard clauses 1.3.2.2</i>			



European Pilchard

Sardina pilchardus

CITATION

Tous, P., Sidibé, A, Mbye, E., de Morais, L., Camara, Y.H., Adeofe, T.A., Munroe, T., Camara, K., Cissoko, K., Djiman, R., Sagna, A. & Sylla, M. 2015. *Sardina pilchardus*. *The IUCN Red List of Threatened Species* 2015 e.T198580A15542481.

<http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T198580A15542481.en>. Downloaded on 19 April 2019.



Figure 1 IUCN Screenshot <https://www.iucnredlist.org/species/198580/15542481> R6

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.

	Average Susceptibility Score
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D3		1.00 – 1.75	1.76 – 2.24	2.25 – 3.00
Average Productivity Score	1.00 – 1.75	PASS	PASS	PASS
	1.76 – 2.24	PASS	PASS	TABLE D4
	2.25 – 3.00	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				
References				
<i>Standard clause 1.3.2.2</i>				

SOCIAL CRITERION

In addition to the scored criteria listed above, applicants must commit to ensuring that vessels operating in the fishery adhere to internationally recognised guidance on human rights. They must also commit to ensuring there is no use of enforced or unpaid labour in the fleet(s) operating upon the resource.