MarinTrust Standard V2

By-product Fishery Assessment

Sole, ICES Divisions 7h-k

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Sole, *Solea solea*
	Geographical area:	ICES Divisions 7h-k
	Country of origin of the product:	France
	Stock:	Sole in the Celtic Sea South and Southwest of Ireland
Date	December 2022	
Report Code	FRA42	
Assessor	Sam Peacock	
Country of origin of the product - PASS	France	
Country of origin of the product - FAIL	None	

Application details and summary of the assessment outcome			
Company Name(s): BIOCEVAL SAS Concarneau			
Country: France			
Email address: info@bioceval.de		Applicant Code:	
Certification Body Details			
Name of Certification Body:		LRQA	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Sam Peacock	Kate Morris	0.25	Surveillance 1
Assessment Period	December 2022 – December 2023		

Scope Details	
Main Species	Sole, *Solea solea*
Stock	Sole in the Celtic Sea South and Southwest of Ireland
Fishery Location	ICES Divisions 7h-k
Management Authority (Country/ State)	EU
Gear Type(s)	Bottom trawl
Outcome of Assessment	
Peer Review Evaluation	Pass
Recommendation	Approve for use as MT raw material

Table 2. Assessment Determination

Assessment Determination
Sole has been categorised by the IUCN as Least Concern and does not appear in the CITES appendices. There are no reference points established for sole in the Celtic Sea South and Southwest of Ireland, and despite there being a MAP in place for the stock, catch recommendations are based on the precautionary approach[1]. For this reason, the stock has been assessed under Category D. Sole in the Celtic Sea South and Southwest of Ireland was awarded a Productivity score of 1.14 and a Susceptibility score of 2.5, leading to a Pass rating on Table D3. Therefore, the by-product continues to meet the MT requirements and should remain approved for use as a raw material in MT-certified marine ingredients.
Fishery Assessment Peer Review Comments
The by-product fishery under assessment here is Sole (*Solea solea*) fishery, pursued by French fishing vessels in FAO fishing area 27, ICES subdivision 7h-k. Sole is managed by the EU Common Fisheries Policy and the French government, in French waters, the Irish Government and the UK fisheries act in the UK. For this Marin Trust assessment, the Sole stock is scored as a category D species as it's not managed to species specific reference points. The species scoring table has been completed by the auditor with sufficient evidence presented to support their final determination. The peer review supports the auditor's recommendation to the ICES 27, Sub7h-k, Sole stock pursued by the fishery under the Marin Trust IFFO RS v2.0 by-fishery standard for the production of fishmeal and fish oil.
Notes for On-site Auditor

[1] ICES (2022). Sole (*Solea solea*) in Divisions 7.h-k (Celtic Sea South, southwest of Ireland). In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, sol.27.7h-k. https://doi.org/10.17895/ices.advice.19453832

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[2]	CITES Appendix 1[3]
Sole	*Solea solea*	Celtic Sea South & Southwest of Ireland	No	D	Least Concern[4]	No

[2] https://www.iucnredlist.org/
[3] https://cites.org/eng/app/appendices.php
[4] https://www.iucnredlist.org/species/198739/87698320

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		**n/a**	
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.	
	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.	
			Clause outcome:

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.

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.

References

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

CATEGORY D SPECIES

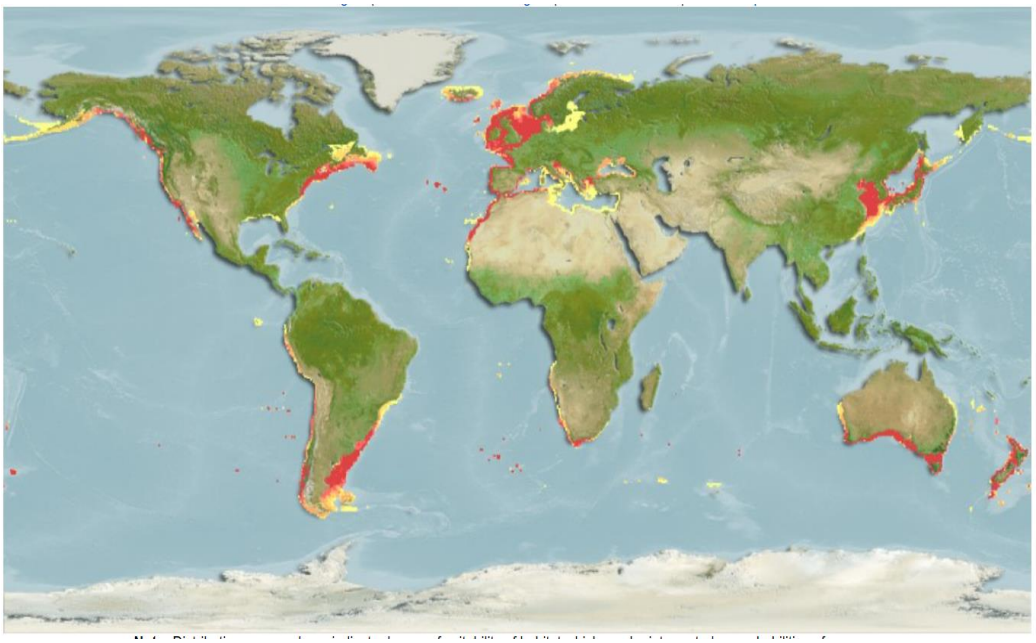
Category D species are those which are not subject to a species-specific management regime. In the case of mixed trawl fisheries, Category D species may make up the majority of landings. The comparative lack of scientific information on the status of the population of the species means that a risk-assessment style approach must be taken.

D1

Species Name	**Sole**	
Productivity Attribute	**Value**	**Score**
Average age at maturity (years)	1.7 years	1
Average maximum age (years)	6.9 years	1
Fecundity (eggs/spawning)	122,474	1
Average maximum size (cm)	70cm	1
Average size at maturity (cm)	20.8cm	1
Reproductive strategy	Broadcast spawner	1
Mean trophic level	3.2	2
	Average Productivity Score	**1.14**
Susceptibility Attribute	**Value**	**Score**
Availability (area overlap)	<10% overlap	1
Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Targeted	3
Selectivity of gear type	Retained	3
Post-capture mortality	Retained	3
	Average Susceptibility Score	**2.5**
	PSA Risk Rating (From Table D3)	**PASS**
	Compliance rating	**PASS**

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.



Computer-generated map of global sole distribution. From fishbase (https://www.fishbase.se/summary/525)

References Fishbase, Sole: https://www.fishbase.se/summary/525	
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	n/a	
	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