



BYPRODUCT FISHERY ASSESSMENT TEMPLATE REPORT

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TABLE 1 APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME

	Species:	Sole, Solea solea		
	Geographical area:	FAO Area 27 Atlantic, Northeast		
Fishery Under Assessment	Country of origin of the product:	France		
	Stock:	Divisions 7.h-k (Celtic Sea South, southwest of Ireland)		
Date	January 2021			
Report Code		221-2020		
Assessor	Virginia Polonio			
Country of origin of the product - PASS		France		
Country of origin of the product - FAIL		NA		

Application details and	summary of the assessr	nent outcome	
Name:			
Address:			
Country: France		Zip:	
Tel. No.:		Fax. No.:	
Email address:		Applicant Code:	
Key Contact:		Title:	
Certification Body Details			
Name of Certification	n Body: Global Trust		
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Virginia Polonio	Géraldine Criquet	0.5	SURV 1
Assessment Period	January 2021		

Scope Details	
Main Species	Sole, Solea solea
Stock	Divisions 7.h–k (Celtic Sea South, southwest of Ireland)
Fishery Location	FAO 27 Atlantic, Northeast
Management Authority (Country/ State)	European Union Common Fisheries Policy and France Direction des pêches maritimes et de l'aquaculture
Gear Type(s)	Beam trawls, otter trawls
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's recommendation
Recommendation	APPROVED



TABLE 2. ASSESSMENT DETERMINATION

Assessment Determination

If any species is categorised as Endangered or Critically Endangered on IUCN's Red List, or if it appears in the CITES appendices, it cannot be approved for use as MarinTrust raw material. Sole (*Solea solea*) does not appear as Endangered or Critically Endangered on IUCN's Red List, nor does it appear in CITES appendices, therefore, Sole (*Solea solea*) is eligible for approval for use as MarinTrust by-product raw material.

The ICES framework for category 5 stocks is applied for stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented where there is no ancillary information clearly indicating that the current level of exploitation is appropriate for the stock. The precautionary buffer was applied in 2019 and has been applied again as the stock was downgraded after a benchmark in 2020 (ICES, 2020a). Discarding is considered negligible. ICES cannot assess the stock and the exploitation status relative to maximum sustainable yield (MSY) and precautionary approach (PA) reference points, because the reference points are undefined.

Therefore, due to lack of scientific information on the status of the West Ireland sole stock, a risk-assessment style approach has been taken using the PSA under Category D.

In order to be approved, the stock must achieve a pass in Table D3 using the results from table D1 and D2. Sole in divisions 7.h–k is **APPROVED** by the assessor for the production of fishmeal and fish oil under the current MarinTrust v 2.0 by-products standard.

Peer Review Comments

The assessor correctly classified the Celtic Sea South, southwest of Ireland sole stock as category D.

A PSA was performed. With an average productivity score of 1.71 and an average susceptibility score of 2.6, the stock passes the risk-based assessment (Table D3).

Therefore, the peer reviewer agrees with the assessor's determination that the fishery passes Table D3 and Celtic Sea South, southwest of Ireland sole is thus approved.

Notes for On-site Auditor



SPECIES CATEGORISATION

<u>NB</u>: 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 Redlist Category

Byproduct 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.

Byproduct 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 ¹	CITES Appendix 1 ²
Sole	Solea solea	divisions 7.h–k (Celtic Sea South, southwest of Ireland)	EU/CFP, France	D	DD	No

¹ <u>https://www.iucnredlist.org/</u>

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

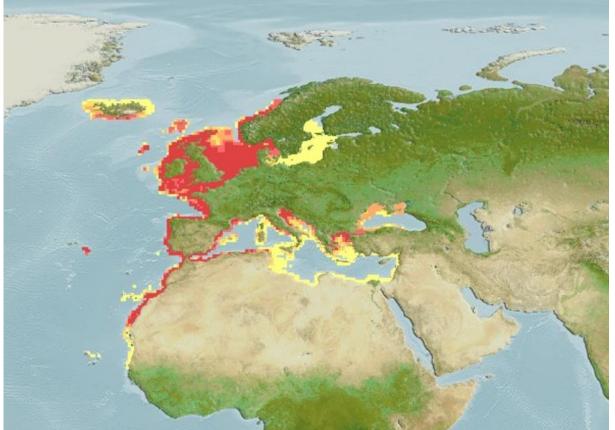


CATEGORY D SPECIES

Category D species are those which make up less than 5% of landings and 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.

Species Name	Sole (Solea solea)		
Productivity Attri	oute	Value	Scor
Average age at maturity (years)		2	2
Average maximum age (years)		7.9	2
Fecundity (eggs/spawning)		122,474 [100,000-150,000]	1
Average maximum size (cm)		70 cm	2
Average size at maturity (cm)		30.3	2
Reproductive strategy		nonguarders: open water/substratum egg scatterers	1
Mean trophic level		3.2	2
		Average Productivity Score	1.7
Susceptibility Attri	bute	Value	Scor
Overlap of adult species range with fis	shery	Not scored	Not sco
Distribution		Eastern Atlantic: southward from Trondheim Fjord (including North Sea and western Baltic) and Mediterranean Sea (including Sea of Marmara, Bosporus and southwestern Black Sea) *	1
Habitat		Demersal	3
Depth range		0-150 m	3
Selectivity		Species 2 times mesh size	3
Post-capture mortality		Most dead	3
		Average Susceptibility Score	2.6
		PSA Risk Rating (From Table D3)	PAS
		PSA RISK Rating (FIOIII Table DS)	I AJ





***Figure 1.** distribution maps for *Solea solea* (Common sole), with modelled year 2050 native range map based on IPCC RCP8.5 emissions scenario. www.aquamaps.org, version 10/2019.

Scarponi, P., G. Coro, and P. Pagano. A collection of Aquamaps native layers in NetCDF format. Data in brief 17 (2018): 292-296.

Solea solea, Common sole : fisheries, aquaculture, gamefish, aquarium (fishbase.se)

Standard clauses 1.3.2.2



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 at	tribu	ites	High susceptibility/ High risk	Medium susceptibility/ Medium risk	Low susceptibility/ Low risk	
			Score 3	Score 2	Score 1 <25% of stock occurs in the area fished	
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		
	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 or<br="" size="">>5 m length</mesh>	
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.



D3		Average Susceptibility Score			
		1 - 1.75	1.76 - 2.24	2.25 - 3	
Average Productivity	1 - 1.75	PASS	PASS	PASS	
Score	1.76 - 2.24	PASS	PASS	TABLE D4	
	2.25 - 3	PASS	TABLE D4	TABLE D4	

D4	Spe	cies Name						
	Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements							
	D4.1							
		process, and reasonable measures are taken to minimise these impacts.						
	D4.2	There is no substantia species.	al evidence that the fishery has a significant negative impact on the					
			Outcome:					
Evider D4.1:		ential impacts of the fi	shery on this species are considered during the management proces	s, and				
D4.1: reaso	The pot nable mo	easures are taken to mir		ss, and				
D4.1: reason D4.2 T	The pot nable mo	easures are taken to mir	nimise these impacts.	ss, and				
D4.1: reason D4.2 1 Refere	The pot nable mo There is r ences	easures are taken to mir	nimise these impacts. that the fishery has a significant negative impact on the species.	ss, and				
D4.1: reason D4.2 1 Refere	The pot nable mo There is r ences	easures are taken to mir	nimise these impacts.	ss, and				

Fishery Assessment TEMPLATE April 2020



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.



Appendix B: From MARINTRUST Standard V2.0 Annex 2: Fish By-product Assessment Methodology

Definition of a Fish By-product

A by-product is a useful and marketable product that is not the primary product being produced. A marketable by-product is from a process that can technically not be avoided. This includes materials that may be traditionally defined as waste such as industrial scrap that is subsequently used as a raw material in a different manufacturing process.

"Fish By-products" refers to commodities that are manufactured from fish, including shellfish, and crustaceans in a form that is different than conventional foods and which are intended for human consumption (either directly or as a food ingredient). Fish By-products include, but are not limited to:

- By-products derived from fish, including fish cartilage, fish oils, and fish proteins; and
- By-products derived from the carapaces of crustaceans; but do not include marine plants or marine plant products.

(Canadian Food Inspection Agency Definition)

In addition, a whole fish which is rejected on an intrinsic quality ground e.g. does not meet the specification for human consumption due to physical damage or the quality is substandard. These whole fish shall in these cases be classified as a by-product from the human consumption fishery, and can be used for marine ingredients production.

A whole catch of fish that is rejected by a fish processing factory on economic grounds is not considered to be a fish by-product. This fish can only be used for marine ingredients production if the fishery has been assessed and approved under the requirements of the IFFO Responsible Sourcing Standard.

Why utilise Fish By-products?

FAO Code of Conduct for Responsible Fisheries

General Principles Article 6

6.7 The harvesting, handling, processing and distribution of fish and fishery products should be carried out in a manner which will maintain the nutritional value, quality and safety of the products, reduce waste and minimize negative impacts on the environment.

Responsible fish utilisation Article 11.1

11.1.8 States should encourage those involved in fish processing, distribution and marketing to reduce post-harvest losses and waste.

Benefits of Including Fish By-Products in the MARINTRUST Standard:

1. Improved fish resource utilisation

- 2. Reduction in waste for nutritional value
- 3. 35% of fish by-products are currently used to make quality fishmeal and oil
- 4. Excellent Economic return
- 5. Better compliance with FAO Code of Conduct for Responsible Fisheries

What Fish By-products cannot be used?



1. IUCN

Fishery By-products shall Not be taken from a species listed by IUCN (the International Union for Conservation of Nature) under the Red List for certain categories;

- 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.

Fish By-product material may be used from the vulnerable category, but it shall incur a fishery surveillance conducted by the certification body prior to it being included in the scope of this standard.

• VULNERABLE (VU) facing a high risk of extinction in the wild.

The Fish By-product material from these species will be acceptable for use in the scope of this standard;

- 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.

Fish By-product material may be used from the following category, but it shall incur a fishery surveillance prior to it being included in the scope of this standard;

• DATA DEFICIENT (DD) and NOT EVALUATED (NE)

The fishery surveillance conducted by the certification body will review the following areas: **Stock Assessment**

- From a recognised Institution
- Fisheries are recognised as legal
- Fisheries do not contradict scientific opinion

2. FAO Code of Conduct for Responsible Fisheries

In addition the Fish By-products shall not come from fisheries that do not comply with the following criteria;

1. Fisheries should prohibit dynamiting, poisoning and other comparable destructive fishing practices.

2. Fishery material shall not be from IUU fishing activity nor sourced from vessels officially listed as engaging in illegal, unreported and unregulated (IUU) fishing activity.

Sources of Information

1. Food Standards Agency

- 2. Canadian Food Inspection Agency
- 3. DEFRA
- 4. GAA Feed mill BAP standard gfio

5. EU Commission

6. IUCN