MarinTrust Standard V2

By-product Fishery Assessment

FRA19

Squid (*Loligo vulgaris*)

in ICES Divisions 4a-c, 6a,

and 7a, b, d-h and j

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Squid (*Loligo vulgaris*)
	Geographical area:	FAO 27
	Country of origin of the product:	France
	Stock:	ICES Divisions 4a-c, 6a, and 7a, b, d-h and j
Date	July 2024	
Report Code	FRA19	
Assessor	Sam Peacock	
Country of origin of the product - PASS	France	
Country of origin of the product - FAIL	n/a	

Application details and summary of the assessment outcome			
Company Name(s): Concarneau			
Country: France			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		NSF / Global Trust Certification Ltd.	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval
Sam Peacock	Matthew Jew	0.2	Surveillance 2
Assessment Period	July 2024 – July 2025		

Scope Details	
Main Species	Squid (*Loligo vulgaris*)
Stock	ICES Divisions 4a-c, 6a, and 7a, b, d-h and j
Fishery Location	FAO 27
Management Authority (Country/ State)	EU
Gear Type(s)	Demersal trawls, beam trawls, jigs
Outcome of Assessment	
Peer Review Evaluation	Agree with 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 Marin trust raw material. Squid (*Loligo vulgaris*) has been categorised by the IUCN as Data Deficient, and it does not appear in the CITES appendices. Therefore, *Loligo vulgaris* is eligible for approval for use as Marin trust by-product raw material. There are no biomass-based reference points established for squid in ICES Divisions 4a-c, 6a, and 7a, b, d-h and j, and the stock does not appear to be subjected to stock assessment. For this reason, it was assessed under Category D. Squid was assigned a Productivity score of 1.33 and a Susceptibility score of 2.75, leading to an outcome of Pass on Table D3. Therefore, squid (*Loligo vulgaris*) in ICES Divisions 4a-c, 6a, and 7a, b, d-h and j is **APPROVED** for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products.
Fishery Assessment Peer Review Comments
The assessor correctly classified squid (*Loligo vulgaris*) in ICES Divisions 4.a-c, 6.a, and 7.a-b, d-h, and j as Category D, the stock is not managed. The assessor correctly assigned attribute scores under the PSA and correctly calculated the average scores for Productivity and Susceptibility, respectively. The stock passes per Table D3. Squid (*Loligo vulgaris*) in ICES Divisions 4.a-c, 6.a, and 7.a-b, d-h, and j passes Category D and therefore should be approved under the MarinTrust Standard v.2.3
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 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[1]	CITES Appendix 1[2]
Squid	*Loligo vulgaris*	ICES Divisions 4a-c, 6a, and 7a, b, d-h and j	No	D	Data Deficient[3]	No

[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php
[3] https://www.iucnredlist.org/species/190946/1961958

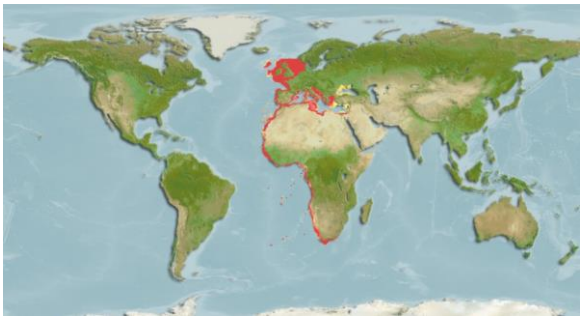
CATEGORY D SPECIES

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	Squid (*Loligo vulgaris*)	
	Productivity Attribute	**Value**	**Score**
	Average age at maturity (years)	<1 year (1)	1
	Average maximum age (years)	2-3.5 years (1)	1
	Fecundity (eggs/spawning)	1,441 – 14,886 (2)	2
	Average maximum size (cm)	64cm (1)	1
	Average size at maturity (cm)	16.9cm (1)	1
	Reproductive strategy	Demersal egg layer (1)	2
	Mean trophic level	Unknown	-
		Average Productivity Score	**1.33**
	Susceptibility Attribute	**Value**	**Score**
	Availability (area overlap)	10-30%	2
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Target	3
	Selectivity of gear type	Retained	3
	Post-capture mortality	Retained	3
		Average Susceptibility Score	**2.75**
		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



Squid, native range (Sealifebase, https://www.sealifebase.se/summary/Loligo-vulgaris.html)

References

(1) Sealifebase, squid: https://www.sealifebase.se/summary/Loligo-vulgaris.html

(2) M.L. Coelho, J. Quintela, V. Bettencourt, G. Olavo, H. Villa, Population structure, maturation patterns and fecundity of the squid Loligo vulgaris from southern Portugal, Fisheries Research, Volume 21, Issues 1–2, 1994, Pages 87-102. https://www.sciencedirect.com/science/article/abs/pii/0165783694900973

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