MarinTrust Standard V2

By-product Fishery Assessment

Anglerfish (Lophius budegassa and Lophius piscatorius) in FAO Area 27 Northeast Atlantic, Subareas 4 and 6, and Division 3.a (North Sea, Rockall and West of Scotland, and Skagerrak and Kattegat)

Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Anglerfish (*Lophius budegassa* and *Lophius piscatorius*)
	Geographical area:	FAO Area 27 Northeast Atlantic
	Country of origin of the product:	Flag country not supplied by client Fished by: France, Germany, Ireland, Spain (ICES 2020 Catch Data)
	Stock:	Anglerfish in Subareas 4 and 6, and Division 3.a (North Sea, Rockall and West of Scotland, and Skagerrak and Kattegat)
Date	25 July 2022	
Report Code	FRA14	
Assessor	Matthew Jew	
Country of origin of the product - PASS	Flag country not supplied by client Fished by: France, Germany, Ireland, Spain (ICES 2020 Catch Data)	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Bioceval			
Country: France			
Email address:		Applicant Code:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Matthew Jew	Léa Lebechnech	0.5	Re-approval
Assessment Period	Up to July 2022		

Scope Details	
Main Species	Anglerfish (*Lophius budegassa* and *Lophius piscatorius*)
Stock	Anglerfish in Subareas 4 and 6, and in Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat)
Fishery Location	FAO Area 27 Northeast Atlantic
Management Authority (Country/ State)	European Union (Common Fisheries Policy), France Direction des Pêches Maritimes et de l'Aquaculture, The Federal Ministry of Food and Agriculture (Germany), Sea Fisheries Protection Authority (Ireland), Ministry of Agriculture (Spain)
Gear Type(s)	2020 Estimates: Demersal Trawl (73%), Gillnets (18%), Norway Lobster Trawls (4%), Other (5%)
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor's determination
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. Anglerfish (*Lophius budegassa* and *Lophius piscatorius*) do not appear as Endangered or Critically Endangered on IUCN's Red List, nor do they appear in CITES appendices; therefore, *L. budegassa* and *L. piscatorius* are eligible for approval for use as Marin trust by-product raw material.   One stock is part of this assessment: 1) *Lophius budegassa* and *Lophius piscatorius* in FAO 27 Subareas 4 and 6, and Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat).   ICES cannot assess the stock and exploitation status relative to MSY and precautionary approach (PA) reference points because information to define reference points is not available. Therefore, following MarinTrust criteria, the species is assessed as Category D.   For the blackbellied anglerfish (*L. budegassa*), Table D1 (PSA) shows that the stock as an average productivity score of 1.71 and an average susceptibility score of 3. The PSA risk rating results (Table D3) determined that the species PASSES.   For the white anglerfish (*L. piscatorius*), Table D1 (PSA) shows that the stock as an average productivity score of 1.85 and an average susceptibility score of 3. The PSA risk rating results (Table D3) determined that the species did not pass Table D3 and needed to be further assessed under Clause D.4.   Although *L. budegassa* passed the PSA, both species are considered one stock in Subareas 4 and 6, and Division 3.a, so both species were considered when assessed under Clause D.4.   The potential impacts of the fishery are considered during the management process and reasonable measures are taken to minimize these impacts, therefore the fishery **PASSES CLAUSE D4.1**. There is no substantial evidence that the fishery has a significant negative impact on the species, thus is **PASSES Clause D4.2**.   Therefore, anglerfish (*L. budegassa* and *L. piscatorius*) in FAO 27 subareas 4 and 6, and Division 3.a is **APPROVED** for the production of fishmeal and fish oil under the current MarinTrust v2.0 by-products standard.
Fishery Assessment Peer Review Comments
The internal peer reviewer agrees with the classification of the species under Category D, clause D.4.   Therefore, anglerfish (*L. budegassa* and *L. piscatorius*) in FAO 27 subareas 4 and 6, and Division 3.a is **APPROVED.**
Notes for On-site Auditor
Determine which flag state(s) the plant is sourcing its anglerfish from.

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]
Anglerfish	*Lophius budegassa* and *Lophius piscatorius*	Anglerfish in subarea 4 and 6, and in division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat)	European Union (Common Fisheries Policy), France Direction des Pêches Maritimes et de l'Aquaculture, The Federal Ministry of Food and Agriculture (Germany), Sea Fisheries Protection Authority (Ireland), Ministry of Agriculture (Spain)	D	DD and LC respectively	No

---

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

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**	**Blackbellied anglerfish (*Lophius budegassa*)**	
Productivity Attribute		**Value**	**Score**
Average age at maturity (years)		9-10 years	2
Average maximum age (years)		21 years	2
Fecundity (eggs/spawning)		87,569-398,986 eggs	1
Average maximum size (cm)		<100 cm	1
Average size at maturity (cm)		>44.7 cm	2
Reproductive strategy		Pelagic Spawn (Broadcast spawner)	1
Mean trophic level		4.4	3
		Average Productivity Score	**1.71**
Susceptibility Attribute		**Value**	**Score**
Availability (area overlap)		>30%	3
Encounterability (the position of the stock/species within the water column relative to the fishing gear)		Demersal species being caught by demersal trawls	3
Selectivity of gear type		High Retention	3
Post-capture mortality		High Mortality	3
		Average Susceptibility Score	**3**
		PSA Risk Rating (From Table D3)	**Pass**
		Compliance rating	**PASS**

Further justification for susceptibility scoring (where relevant)

This map was computer-generated and has not yet been reviewed.
Lophius budegassa   AquaMaps   Data sources: GBIF OBIS

References

Duarte R, Azevedo M, Landa J, Pereda P. 2001. Reproduction of anglerfish (Lophius budegassa Spinola and Lophius piscatorius Linnaeus) from the Atlantic Iberian coast. *Fisheries Research* 51(2-3):349-61.

Fishbase. 2022. *Lophius piscatorius*. https://www.fishbase.se/summary/Lophius-piscatorius.html. Accessed 26 July 2022.

ICES. 2019. Anglerfish (*Lophius budegassa*, *Lophius piscatorius*) in subareas 4 and 6 and Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, anf.27.3a46. https://doi.org/10.17895/ices.advice.4778.

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	White Anglerfish (*Lophius piscatorius*)	
Productivity Attribute		**Value**	**Score**
Average age at maturity (years)		6-14 years	2
Average maximum age (years)		16 years	2
Fecundity (eggs/spawning)		>1,000,000	1
Average maximum size (cm)		106 cm	2
Average size at maturity (cm)		50 cm	2
Reproductive strategy		Pelagic Spawn	1
Mean trophic level		4.5	3
		Average Productivity Score	**1.85**
Susceptibility Attribute		**Value**	**Score**
Availability (area overlap)		>30% Overlap	3
Encounterability (the position of the stock/species within the water column relative to the fishing gear)		Demersal species being caught by demersal trawls	3
Selectivity of gear type		High Retention	3
Post-capture mortality		High Mortality	3
		Average Susceptibility Score	**3**
		PSA Risk Rating (From Table D3)	**Table D4**
		Compliance rating	**See Rationale in Table D4**

Further justification for susceptibility scoring (where relevant)
The stock under assessment overlaps with the geographic range of the species by more than 30%.

This map was computer-generated and has not yet been reviewed.
Lophius piscatorius   AquaMaps   Data sources: GBIF OBIS

References

Arnold, R. 2015. *Lophius piscatorius*. *The IUCN Red List of Threatened Species* 2015: e.T198610A21911225. https://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T198610A21911225.en. Accessed 26 July 2022.

Duarte R, Azevedo M, Landa J, Pereda P. 2001. Reproduction of anglerfish (*Lophius budegassa* Spinola and *Lophius piscatorius* Linnaeus) from the Atlantic Iberian coast. *Fisheries Research* 51(2-3):349-61.

Fishbase. 2022. *Lophius piscatorius*. https://www.fishbase.se/summary/Lophius-piscatorius.html. Accessed 26 July 2022.

Hislop JR, Gallego A, Heath MR, Kennedy FM, Reeves SA, Wright PJ. 2001. A synthesis of the early life history of the anglerfish, *Lophius piscatorius* (Linnaeus, 1758) in northern British waters. *ICES Journal of Marine Science* 58(1):70-86.

ICES. 2019. Anglerfish (*Lophius budegassa*, *Lophius piscatorius*) in subareas 4 and 6 and Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, anf.27.3a46. https://doi.org/10.17895/ices.advice.4778.

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		White Anglerfish (*Lophius piscatorius*)	
	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.		Yes
	D4.2	There is no substantial evidence that the fishery has a significant negative impact on the species.		Yes
			Outcome:	**PASS**

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.

The ICES framework for category 3 stocks was applied. ICES advises that when a precautionary approach is applied, catches in 2022 should not be more than 14,116 t. In 2019 and 2020, the agreed TAC was set in line with the ICES advice, however in 2021, TAC was set 1000 t higher than the ICES advice to allow for increased catch for EU vessels fishing in the Norwegian zone of Subarea 4.

Therefore, the potential impacts of the fishery on the stock are considered during the management process, and reasonable measures are taken to minimize these impacts. The fishery **PASSES Clause D4.1.**

D4.2 There is no substantial evidence that the fishery has a significant negative impact on the species.

Although the stock size indicator has decreased between 2017 and 2021, the 2021 stock size indicator remains in the 50th percentile since the survey data has been collected. The survey being cancelled in 2020 due to the COVID-19 pandemic creates uncertainty in the trend of the stock-size indicator and his value should be closely monitored to ensure it does not continue to decline.

Therefore, there is not substantial evidence that the fishery has a significant negative impact on the species. It **PASSES CLAUSE D4.2.**

References

ICES. 2021. Anglerfish (*Lophius budegassa, Lophius piscatorius*) in Subareas 4 and 6, and Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, anf.27.3a46. https://doi.org/10.17895/ices.advice.7723.

Links	
MarinTrust Standard clause	1.3.2.2, 4.1.4
FAO CCRF	7.5.1
GSSI	D.5.01