MarinTrust Standard V2

By-product Fishery Assessment

Cod, ICES Subarea 4, Division 7d & Subdivision 20

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Cod (*Gadus morhua*)
	Geographical area:	ICES Subarea 4, Division 7d & Subdivision 20
	Country of origin of the product:	France
	Stock:	North Sea, Eastern English Channel & Skagerrak
Date		August 2022
Report Code		FRA05
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			
Country: France			
Email address: olivier.tanguy@saria.fr		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
Assessment Period		August 2021- August 2022	

Scope Details	
Main Species	Cod (*Gadus morhua*)
Stock	North Sea, Eastern English Channel & Skagerrak
Fishery Location	ICES Subarea 4, Division 7d & Subdivision 20
Management Authority (Country/ State)	EU & UK
Gear Type(s)	Demersal trawls, seines, gillnets, beam trawls
Outcome of Assessment	
Peer Review Evaluation	Pass
Recommendation	Approve byproduct

Table 2. Assessment Determination

Assessment Determination
Cod has been categorised by the IUCN Red List as Least Concern, and does not appear in the CITES appendices. Cod in the North Sea, English Channel and Skagerrak is managed using reference points and an annual quota and was therefore assessed under Category C. An annual stock assessment is conducted by ICES and makes use of the majority of landings data; however recreational landings are not included and discards may be under-reported. Additionally, the stock biomass was estimated in the most recent assessment to be below the limit reference point. For these reasons the by-product failed the Category C assessment. As per the MT by-product assessment guidance, the stock was subsequently assessed under Category D. With a productivity score of 1.71 and a susceptibility score of 2.25, the stock achieved a Pass rating against Table D4. Therefore, this by-product should be 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 the North Sea (NS), English Channel, Cod (*Gadus morhua*) fishery which is pursued by EU and UK vessels in ICES 4, 7d and 20. Cod is managed by the EU Common Fisheries Policy in EU waters and the UK's Fisheries act and devolved administrations in UK waters. For this Marin Trust assessment, NS Cod is scored as a category C species. The assessment of Cod as a category C species, failed the MT requirements but passed the Category D requirements. All species scoring tables have been completed by the auditor with sufficient evidence presented to support their final determination. The peer review supports the auditor's recommendation to Pass this 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

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]
Cod	*Gadus morhua*	North Sea, Eastern English Channel & Skagerrak	Yes	C	Least Concern[3]	No

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[1] https://www.iucnredlist.org/
[2] https://cites.org/eng/app/appendices.php
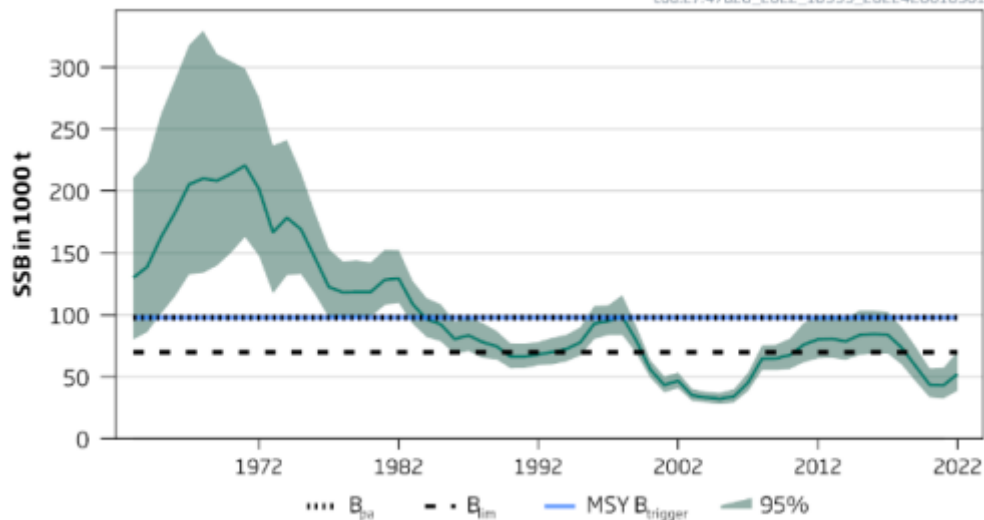[3] https://www.iucnredlist.org/species/8784/45097319

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	Cod (*Gadus morhua*)	
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.	Fail
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.	Fail
	Clause outcome:	Fail

This cod byproduct fails to meet the requirements of Category C. As per the MT byproduct assessment guidance, it should now be assessed under Category D.

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.

A stock assessment is conducted annually by the ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). The most recent assessment was an age-based analytical assessment which utilised international catch data and catch-at-age sampling data. The annual ICES advice includes a section on "issues relevant for the advice" where any concerns over the robustness of data are raised; in the most recent advice this section notes that discards may be under-reported, and that recreational catches, which account for 4.3-7.6% of total removals, are not included in the assessment due to high levels of uncertainty. On balance the assessor considers that not all fishery removals are included in the assessment and C1.1 is not met.

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.

The June 2022 ICES catch advice provides a summary of the status of the stock. Several biomass-based reference points are established; the target reference points B_{pa} and MAP MSY $B_{trigger}$ are set at 97,777t, and the limit reference points B_{lim} and MAP B_{lim} are set at 69,841t. The most recent stock assessment projected that SSB would be 69,023t in 2023, below the target and limit reference points. The catch advice states that "spawning-stock size is below MSY $B_{trigger}$, B_{pa}, and B_{lim}. The stock biomass is currently considered to be below the limit reference point and the byproduct does not meet C1.2.

Cod in ICES Subarea 4, Divisions 7d and Subdivision 20, current and historical SSB estimates relative to current reference points (ICES, 2022)

References
ICES (2022). Cod (*Gadus morhua*) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak). In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, cod.27.47d20. https://doi.org/10.17895/ices.advice.19447880

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

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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	Cod (*Gadus morhua*)	
Productivity Attribute		**Value**	**Score**
Average age at maturity (years)		3.6 years	1
Average maximum age (years)		16.9 years	2
Fecundity (eggs/spawning)		285,000 – 9,100,000	1
Average maximum size (cm)		200cm	2
Average size at maturity (cm)		55cm	2
Reproductive strategy		Broadcast spawner	1
Mean trophic level		4.1	3
		Average Productivity Score	**1.71**
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		Undersized individuals regularly caught	2
Post-capture mortality		Retained	3
		Average Susceptibility Score	**2.25**
		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 distribution map for Cod (*Gadus morhua*). From fishbase https://www.fishbase.se/summary/69 |

References

Catches of undersized individuals from ICES (2022). Cod (*Gadus morhua*) in Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak). In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, cod.27.47d20. https://doi.org/10.17895/ices.advice.19447880
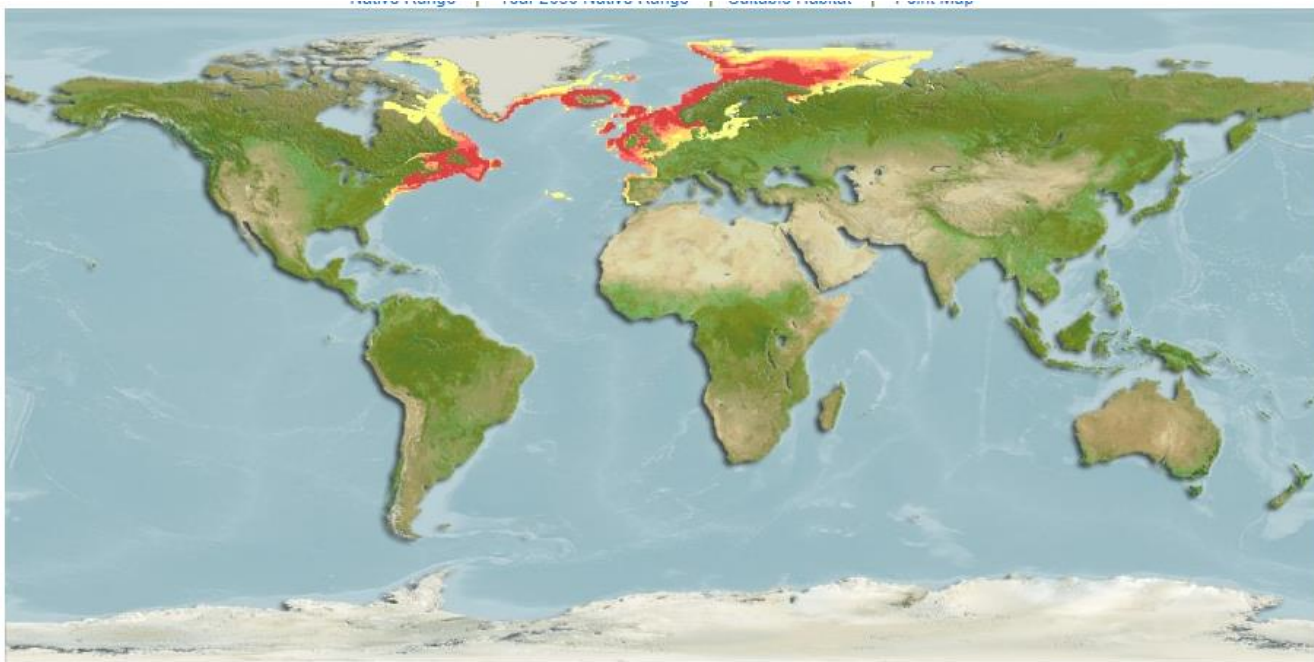
All other information from Fishbase, Atlantic cod. https://www.fishbase.se/summary/69

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 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.

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