



MarinTrust Standard V2

By-product Fishery Assessment Cod (*Gadus morhua*) in FAO 27, ICES Division 3.21: Kattegat

MarinTrust Programme

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Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Cod (<i>Gadus morhua</i>)
	Geographical area:	FAO 27 Northeast Atlantic
	Country of origin of the product:	Flag country not supplied by client Fished by: Denmark, Sweden, and Germany (ICES 2022 Catch Data)
	Stock:	Cod in ICES subdivision 27.3.21 (Kattegat)
Date	25 July 2022	
Report Code	DNK38	
Assessor	Matthew Jew	
Country of origin of the product - PASS	Flag country not supplied by client Fished by: Denmark, Sweden, and Germany (ICES 2022 Catch Data)	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): Not provided			
Country: Denmark			
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 August 2022		

Scope Details	
Main Species	Cod (<i>Gadus morhua</i>)
Stock	Cod in ICES subdivision 27.3.21 (Kattegat)
Fishery Location	FAO 27 Northeast Atlantic
Management Authority (Country/ State)	European Union (Common Fisheries Policy), The Ministry of Food, Agriculture and Fisheries (Denmark), Swedish Agency for Marine and Water Management, and The Federal Ministry of Food and Agriculture (Germany).
Gear Type(s)	Estimates from 2009-2020: Bottom trawl (92%), Gillnets (5%), and other passive lobster gear
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's recommendation of approval
Recommendation	APPROVED

Table 2. Assessment Determination

Assessment Determination
<p>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. Cod (<i>Gadus morhua</i>) do not appear as Endangered or Critically Endangered on IUCN’s Red List, nor do they appear in CITES appendices; therefore, <i>Gadus morhua</i> is eligible for approval for use as Marin trust by-product raw material.</p> <p>On the basis of currently available information, ICES provides advice for four cod ‘stocks’ in the FAO Subarea 27.3:</p> <ol style="list-style-type: none"> 1. Cod in Subarea 4, Division 7.d and Subarea 3, Subdivision 20 (North Sea, eastern English Channel, and Skaggerak) 2. Cod in Subarea 3, Subdivision 21 (Kattegat) 3. Cod in Subarea 3, Subdivisions 22-24 (western Baltic Sea) 4. Cod in Subarea 3, Subdivisions 24-32 (eastern Baltic Sea) <p>Only one stock is part of this assessment: Cod (<i>Gadus morhua</i>) in Subarea 3, Subdivision 21 (Kattegat).</p> <p>There is no targeted cod fishery in Kattegat (Subdivision 21), and cod is mainly taken as bycatch in the Norway lobster fishery. 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. Although there are no defined reference points, it should be noted that SSB is considered to be below possible biomass reference points. Because of the lack of defined reference points, following MarinTrust criteria, the species is assessed as Category D.</p> <p>Table D1 (PSA) shows that the stock as an average productivity score of 1.57 and an average susceptibility score of 2.75. The PSA risk rating results (Table D3) determined that the species passes.</p> <p>Therefore, cod in FAO 27 Subdivision 3.21 (Kattegat) is APPROVED for the production of fishmeal and fish oil under the current MarinTrust v2.0 by-products standard.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified cod in FAO 27 Subdivision 3.21 (Kattegat) under Category D, as the stock is not subject to a specific management regime and information to define reference points are not available.</p> <p>Cod in FAO 27 Subdivision 3.21 (Kattegat) passes the PSA risk rating results and therefore should be approved under the Marin Trust Standard v.2.</p>
Notes for On-site Auditor
<p>Determine which flag state(s) the plant is sourcing its cod from.</p>

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 a 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

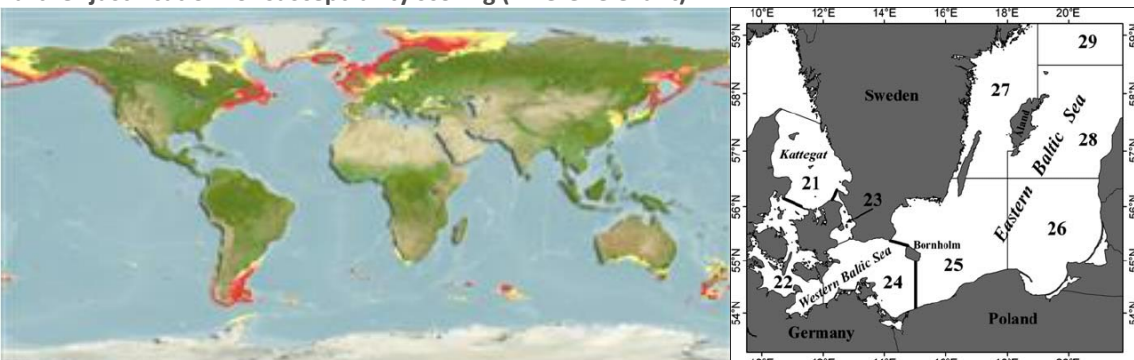
Common name	Latin name	Stock	Management	Category	IUCN Red List Category ¹	CITES Appendix 1 ²
Cod	<i>Gadus morhua</i>	Cod in ICES subdivision 27.3.21 (Kattegat)	European Union (Common Fisheries Policy), The Ministry of Food, Agriculture and Fisheries (Denmark), Swedish Agency for Marine and Water Management, and The Federal Ministry of Food and Agriculture (Germany).	D	VU	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	Cod (<i>Gadus morhua</i>)	
	Productivity Attribute	Value	Score
	Average age at maturity (years)	3.6 years	1
	Average maximum age (years)	16.9 years	2
	Fecundity (eggs/spawning)	1,610,435 eggs (estimated geometric mean)	1
	Average maximum size (cm)	200 cm	2
	Average size at maturity (cm)	55 cm	2
	Reproductive strategy	Non-guarder open water (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)	High Overlap : depth range 0-600m, usually 150-200m, benthopelagic	3
	Selectivity of gear type	Frequent captures and retained by gear	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)		
			
References			
<p>ICES. 2021. EU standing request on catch scenarios for zero-TAC stocks: cod (<i>Gadus morhua</i>) in Subdivision 21. In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, sr.2021.07d, https://doi.org/10.17895/ices.advice.8217.</p> <p>ICES. 2022. Cod (<i>Gadus morhua</i>) in Subdivision 21 (Kattegat). In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, cod.27.21. https://doi.org/10.17895/ices.advice.19447865.</p>			

Fishbase. *Gadus morhua* Linnaeus, 1758. Atlantic cod:
<https://fishbase.mnhn.fr/summary/SpeciesSummary.php?ID=69&AT=Cod>

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