



## MarinTrust Standard V2

# By-product Fishery Assessment DNK38 – Cod (*Gadus morhua*) in ICES Subdivision 3.a.21

### 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:	Kattegat
	Country of origin of the product:	Denmark
	Stock:	Cod in ICES Subdivision 21
Date	April 2024	
Report Code	DNK38	
Assessor	Sam Peacock	
Country of origin of the product - PASS	Denmark	
Country of origin of the product - FAIL	N/A	

Application details and summary of the assessment outcome			
Company Name(s): Thyborøn			
Country: Denmark			
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	Léa Lebechnech	0.2	Surveillance 2
Assessment Period	April 2024 – April 2025		

Scope Details	
Main Species	Cod ( <i>Gadus morhua</i> )
Stock	Cod in ICES Subdivision 21
Fishery Location	Kattegat
Management Authority (Country/ State)	Denmark / EU
Gear Type(s)	Active and passive gears
Outcome of Assessment	
Peer Review Evaluation	Agree with the assessor's determination
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>) does not appear as Endangered or Critically Endangered on IUCN’s Red List, and does not appear in CITES appendices; therefore, <i>Gadus morhua</i> is eligible for approval for use as Marin trust by-product raw material.</p> <p>Cod in ICES Subdivision 3.a.21 is subject to annual stock assessment by the ICES Baltic Fisheries Assessment Working Group (WGBFAS). Although a TAC is set for the stock, there are no established reference points, and ICES states that it “cannot assess the stock and exploitation status relative to MSY and precautionary approach”<sup>1</sup>. For this reason, the stock has been assessed under Category D.</p> <p>Cod was awarded a Productivity score of 1.71 and a Susceptibility score of 2.5, leading to a Pass rating in Table D3. Therefore, cod (<i>Gadus morhua</i>) in ICES Subdivision 3.a.21 is <b>APPROVED</b> for the production of fishmeal and fish oil under the current MarinTrust v2.3 by-products.</p>
Fishery Assessment Peer Review Comments
<p>The assessor correctly classified cod (<i>Gadus morhua</i>) in FAO 27 – ICES subdivision 3.a.21 (Kattegat) under Category D, the stock being subject to a set TAC, but not established reference points.</p> <p>It passed the PSA risk-rating with a productivity score of 1.71 and susceptibility score of 2.5.</p> <p>In conclusion, cod (<i>Gadus morhua</i>) in FAO 27 – ICES subdivision 3.a.21 (Kattegat) passes category D and therefore should be approved under the MarinTrust Standard v2.3.</p>
Notes for On-site Auditor

<sup>1</sup> ICES (2023). Cod (*Gadus morhua*) in Subdivision 21 (Kattegat). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.21820488.v1>

## 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 <sup>2</sup>	CITES Appendix 1 <sup>3</sup>
Cod	<i>Gadus morhua</i>	Cod in ICES Subdivision 21	No	D	Least Concern <sup>4</sup>	No

<sup>2</sup> <https://www.iucnredlist.org/>

<sup>3</sup> <https://cites.org/eng/app/appendices.php>

<sup>4</sup> <https://www.iucnredlist.org/species/8784/45097319>

## 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.

<b>D1</b>	<b>Species Name</b>	<b>Cod (<i>Gadus morhua</i>)</b>	
	<b>Productivity Attribute</b>	<b>Value</b>	<b>Score</b>
	Average age at maturity (years)	3.6 years	1
	Average maximum age (years)	16.9 years	2
	Fecundity (eggs/spawning)	1,610,435	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
	<b>Average Productivity Score</b>		<b>1.71</b>
	<b>Susceptibility Attribute</b>	<b>Value</b>	<b>Score</b>
	Availability (area overlap)	<10%	1
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)	Targeted	3
	Selectivity of gear type	Targeted	3
	Post-capture mortality	Retained	3
	<b>Average Susceptibility Score</b>		<b>2.5</b>
	<b>PSA Risk Rating (From Table D3)</b>		<b>PASS</b>
<b>Compliance rating</b>		<b>PASS</b>	
<p><b>Further justification for susceptibility scoring (where relevant)</b>  <i>For susceptibility attributes, please provide a brief rationale for scoring of parameters where there may be uncertainty affecting your decision</i></p>			
<p><b>Computer-generated map of cod distribution. From FishBase ( <a href="https://www.fishbase.se/summary/gadus-morhua">https://www.fishbase.se/summary/gadus-morhua</a> )</b></p>			
<b>References</b>			
Fishbase, Atlantic cod: <a href="https://www.fishbase.se/summary/gadus-morhua">https://www.fishbase.se/summary/gadus-morhua</a>			
<i>Standard clauses 1.3.2.2</i>			

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			
<b>Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements</b>			
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.		
<b>Outcome:</b>			
<b>Evidence</b>			
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.			
<b>References</b>			
<b>Links</b>			
MarinTrust Standard clause		1.3.2.2, 4.1.4	
FAO CCRF		7.5.1	
GSSI		D.5.01	