



## MarinTrust Standard V2

# By-product Fishery Assessment Report Template

**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:	FAO27 Northeast Atlantic
	Country of origin of the product:	Denmark
	Stock:	ICES Subarea 4, Divisions 7.d and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)
Date	13/09/2021	
Report Code	BP155	
Assessor	Virginia Polonio	
Country of origin of the product - PASS	NA	
Country of origin of the product - FAIL	Denmark	

Application details and summary of the assessment outcome			
Name: Triple Nine			
Address:			
Country: Denmark		Zip:	
Tel. No.:		Fax. No.:	
Email address:		Applicant Code:	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Global Certification Trust	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval
Virginia Polonio	Vito Romito	0.5	Initial
Assessment Period	To August 2021		

Scope Details	
Main Species	Cod, <i>Gadus morhua</i>
Stock	ICES Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)
Fishery Location	FAO27 Northeast Atlantic
Management Authority (Country/ State)	European Commission (EC), Ministry of Environment and Food of Denmark (MFVM)
Gear Type(s)	Demersal trawls, beam trawls and gillnets
Outcome of Assessment	
Peer Review Evaluation	<b>NOT APPROVED</b>
Recommendation	<b>NOT APPROVED</b>

**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 MARINTRUST raw material. Cod (<i>Gadus Morhua</i>) does not appear as Endangered or Critically Endangered on IUCN’s Red List, nor does it appear in CITES appendices; therefore, cod in ICES Subarea 4, Div. 7d, Subdiv. 20 is eligible for approval for use as MARINTRUST by-product raw material.</p> <p>ICES is aware of the EU multiannual management plan (MAP) that has been agreed for this stock (EU, 2018) and considers it to be precautionary. There is no agreement with Norway and the UK regarding this plan, and it is not used as the basis of the advice for this shared stock. ICES provides catch scenarios consistent with the FMSY ranges in the MAP. Therefore, there is a management plan for this stock, and it has been assessed under category C.</p> <p>Fisheries removals have been considered in the stock assessment and it PASSES clause C1.1.</p> <p>This stock was interbenchmarked in 2021, and this has changed the perception of the stock, which is now estimated to be below Blim. Fishing pressure on the stock is above FMSY but below Fpa and Flim; spawning-stock size is below MSY Btrigger, Bpa, and Blim. and removals are not considered negligible. Therefore, it FAILS clause C1.2</p> <p>As per guidance, the stock has been assessed under category D. The stock has not passed the PSA and it has been evaluated in table D4.</p> <p>Clause D4.1 it passed as MSY approach is applied, catches in 2022 should be no more than 14 276 tonnes. However, in the last stock assessment, due to the higher probability to be below Blim in the future years the stock FAILS D4.2 as there is no evidence that the fishery has no negative impact on the stock.</p> <p>Cod (<i>Gadus morhua</i>) is <b>NOT</b> recommended for <b>APPROVAL</b> for the production of fishmeal and fish oil under the current MarinTrust RS v 2.0 by-product standard.</p>
Fishery Assessment Peer Review Comments
<p>The peer reviewer agrees with the Assessor’s comments to not approve this stock for the production of fishmeal and fish oil under the current MarinTrust RS v 2.0 by-product standard.</p>

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 <sup>1</sup>	CITES Appendix 1 <sup>2</sup>
Cod	<i>Gadus morhua</i>	ICES Subarea 4, Division 7.d, and Subdivision 20 (North Sea, eastern English Channel, Skagerrak)	European Commission (EC), Ministry of Environment and Food of Denmark (MFVM)	C	VU Globally LC Europe	No

<sup>1</sup> <https://www.iucnredlist.org/>

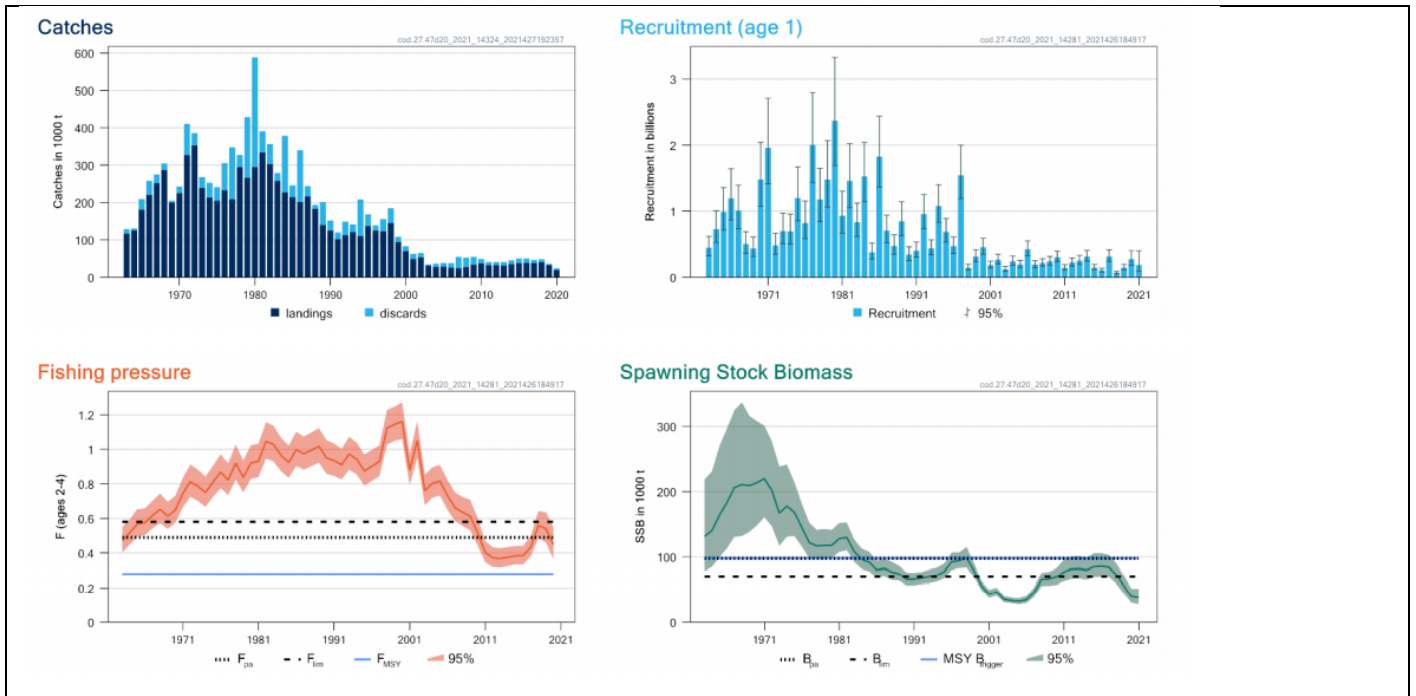
<sup>2</sup> <https://cites.org/eng/app/appendices.php>

## CATEGORY C SPECIES

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment.

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.

<b>Species Name</b>		Cod ( <i>Gadus morhua</i> )	
<b>C1</b>	<b>Category C Stock Status - Minimum Requirements</b>		
	<b>C1.1</b>	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.	Yes
	<b>C1.2</b>	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.	No
<b>Clause outcome:</b>			<b>FAIL</b>
<p><b>C1.1 Fishery removals of the species in the fishery under assessment are included in the stock assessment process.</b></p> <p>The input data used in the latest stock assessment are as follows: Commercial catches (international catches and ages from catch sampling by métier), two survey indices (IBTS Q1 [G1022] and IBTS Q3 [G2829]) derived by a Delta-GAM approach; a third index for recruits is derived from the same IBTS Q3 Delta-GAM approach. Annually varying maturity data from IBTS Q1 ([G1022]; 1978–2021). Annually varying natural mortalities from multispecies model (1974– 2019) with an ad hoc adjustment to mimic emigration of 3+ cod out of the assessment area from 2011. In 2020, 57% of the landings had associated discards reported to ICES and 43% were raised. Below minimum size (BMS) landings, where reported, are included with discards in the assessment from 2016.</p> <p><b>2016.C1.2 The species is not considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy).</b></p> <p>Fishing pressure on the stock is above FMSY but below Fpa and Flim; spawning-stock size is below MSY Btrigger, Bpa, and Blim.</p>			



**Figure 1.** Cod in Subarea 4, Division 7.d, and Subdivision 20. Summary of the stock assessment. Source: ICES 2021

This stock was interbenchmarked in 2021, and this has changed the perception of the stock, which is now estimated to be below Blim.

Removals in 2020 were estimated at 24,224t, therefore removals cannot be considered negligible and the stock **FAILS** the clause C1.2.

As per guidance, the stock has been assessed under category D.

**References**

ICES. 2021. 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, 2021. ICES Advice 2021, cod.27.47d20. <https://doi.org/10.17895/ices.advice.7746>. Sobel, J. 1996. *Gadus morhua*. The IUCN Red List of Threatened Species 1996: e.T8784A12931575. <https://dx.doi.org/10.2305/IUCN.UK.1996.RLTS.T8784A12931575.en>.

**Links**

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

## CATEGORY D SPECIES

Category D species are those which make up less than 5% of landings and 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>	Cod ( <i>Gadus morhua</i> )	
	<b>Productivity Attribute</b>	<b>Value</b>	<b>Score</b>
	Average age at maturity (years)	3.6	2
	Average maximum age (years)	16.9	2
	Fecundity (eggs/spawning)	1,610,435 [ 285,000-9,100,000 ]	1
	Average maximum size (cm)	200	3
	Average size at maturity (cm)	55	2
	Reproductive strategy	Non-guarders: open water/substratum egg scatterers	1
	Mean trophic level	4.1	3
	<b>Average Productivity Score</b>		<b>2</b>
	<b>Susceptibility Attribute</b>	<b>Value</b>	<b>Score</b>
	Overlap of adult species range with fishery	>50 % of stocks occurs in the area fished	3
	Distribution	Not scored	Not scored
	Habitat	Benthopelagic	3
	Depth range	0-600 (150-200)	2
	Selectivity	Species > 2 times mesh size	3
	Post-capture mortality	Most dead	3
	<b>Average Susceptibility Score</b>		<b>2.8</b>
	<b>PSA Risk Rating (From Table D3)</b>		<b>D4</b>
	<b>Compliance rating</b>		<b>Go to table D4</b>
	<b>References</b>		
<a href="https://www.fishbase.se/Summary/SpeciesSummary.php?ID=69&amp;AT=cod">https://www.fishbase.se/Summary/SpeciesSummary.php?ID=69&amp;AT=cod</a>			
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	Cod, <i>Gadus morhua</i>
<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.	Yes	
D4.2	There is no substantial evidence that the fishery has a significant negative impact on the species.	No	
<b>Outcome:</b>			<b>FAILS</b>
<p><b>Evidence</b></p> <p><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.</b>            ICES advises that when the MSY approach is applied, catches in 2022 should be no more than 14,276 tonnes. ICES notes the existence of a precautionary management plan, developed and adopted by one of the relevant management authorities for this stock. It <b>PASSES</b> D4.1</p> <p><b>D4.2 There is no substantial evidence that the fishery does not have a significant negative impact on the species.</b>            The catch advice for 2022 is sensitive to assumptions on fishing mortality and associated catches in 2021, for which there are no quantitative estimates available at the time of the assessment. Fishing mortality in 2021 was assumed to be at the level of the lowest of the time-series. It is recognized that this will give a 71% overshoot of the TAC. This corresponds to a reduction in fishing mortality (from 0.45 to 0.37) which was considered to be realistic given the technical measures in place in 2021.</p> <p>Because the SSB is currently below Blim, ICES has provided the probability of SSB being below Blim in 2023 for each of the scenarios presented in the last stock assessment. Given the advised catch of 14,276 tonnes, the probability of SSB being below Blim in 2023 is 37%. In comparison, the scenario with 0 catches in 2022 has a 13.7% probability of SSB being below Blim in 2023.</p> <p>The below minimum size (BMS) landings of cod reported to ICES are currently negligible, and are much lower than the discards below the minimum conservation reference size (MCRS) estimated by observer programmes and it <b>FAILS</b> D4.2</p>			
<p><b>References</b></p> <p>ICES. 2021. Cod (<i>Gadus morhua</i>) in subdivisions 22-24, western Baltic stock (western Baltic Sea). In Report of the ICES Advisory Committee, 2021.            ICES Advice 2021, cod.27.22-24, <a href="https://doi.org/10.17895/ices.advice.7744">https://doi.org/10.17895/ices.advice.7744</a></p>			
<b>Links</b>			

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