



## MarinTrust Standard V2

# By-product Fishery Assessment Report Template

**MarinTrust Programme**

Unit C, Printworks

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**Table 1 Application details and summary of the assessment outcome**

Fishery Under Assessment	Species:	European hake ( <i>Merluccius merluccius</i> )
	Geographical area:	FAO Area 27 North East Atlantic
	Country of origin of the product:	Denmark
	Stock:	European hake in subareas 4, 6, and 7, and in divisions 3.a, 8.a–b, and 8.d, Northern stock (Greater North Sea, Celtic Seas, and the northern Bay of Biscay)
Date	18 January 2022	
Report Code	BP002	
Assessor	Geraldine Criquet	
Country of origin of the product - PASS	Denmark	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Name: Marine Ingredients Denmark			
Address:			
Country: Denmark		Zip:	
Tel. No.:		Fax. No.:	
Email address:		Applicant Code:	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval
Geraldine Criquet	Vito Romito	0.5	Re-approval
Assessment Period	To January 2022		

Scope Details	
Main Species	European hake ( <i>Merluccius merluccius</i> )
Stock	European hake in subareas 4, 6, and 7, and in divisions 3.a, 8.a–b, and 8.d, Northern stock (Greater North Sea, Celtic Seas, and the northern Bay of Biscay)
Fishery Location	FAO Area 27 Northeast Atlantic Ocean
Management Authority (Country/ State)	European Union / Denmark management authority
Gear Type(s)	Trawl, gillnet, longline and other gears
Peer Review Evaluation	Agree with approval
Recommendation	<b>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 Marin Trust raw material. European hake (<i>Merluccius merluccius</i>) is neither listed as Endangered or Critically Endangered on IUCN’s Red List, nor listed in CITES appendices; therefore, European hake is eligible for approval for use as Marin Trust by-product raw material.</p> <p>The 2019 EU multiannual plan (MAP) for stocks in the Western Waters and adjacent has been agreed by the EU for this stock. Reference points are defined for the stock, therefore it was assessed under category C.</p> <p>Fishery removals are included in the stock assessment process, it PASSES Clause C1.1. The stock is considered, in its most recent stock assessment, to have a biomass above the limit reference point, it PASSES Clause C1.2.</p> <p>Therefore, European hake in subareas 4, 6, and 7, and in divisions 3.a, 8.a–b, and 8.d. is <b>APPROVED</b> for the production of fishmeal and fish oil under the current Marin Trust v 2.0 by-products.</p>
Fishery Assessment Peer Review Comments
<p>The stock is correctly assessed under category C. Catches are taken into account in the assessment model and the most recent biomass index is very high and well above target and limit reference point. Therefore, European hake in subareas 4, 6, and 7, and in divisions 3.a, 8.a–b, and 8.d. shall be approved for the production of fishmeal and fish oil under the current Marin Trust v 2.0 by-products.</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 Redlist 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>
European hake	<i>Merluccius merluccius</i>	Hake ( <i>Merluccius merluccius</i> ) in subareas 4, 6, and 7, and in divisions 3.a, 8.a–b, and 8.d, Northern stock (Greater North Sea, Celtic Seas, and the northern Bay of Biscay)	European Union / Denmark	C	LC	No

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

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

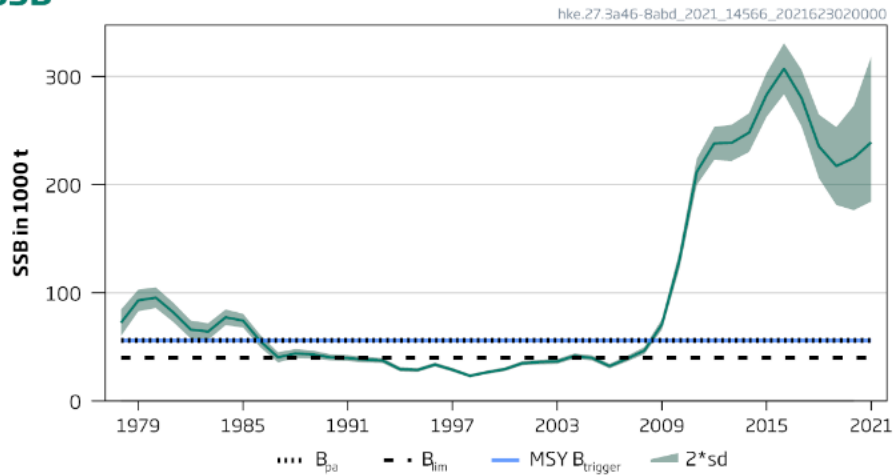
## CATEGORY C SPECIES

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.

Species Name		European hake ( <i>Merluccius merluccius</i> )	
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.	Yes
	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.	Yes
			Clause outcome: PASS
<p><b>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.</b></p> <p>The stock assessment type is a length-based model that uses landings and discards in the assessment and the forecast. Catches are presented in Figure 1.</p> <p>Therefore, fishery removals of the stock, including from the fishery under assessment, are included in the stock assessment process, it <b>PASSES Clause C1.1</b></p>			
<div style="text-align: center;"> <p>hke.27-3a46-8abd_2021_14556_2021629020000</p> </div>			
<p><b>Figure 1.</b> Hake in subareas 4, 6, and 7, and in divisions 3.a, 8.a–b, and 8.d, Northern stock. Long-term trends in catches; discards are available since 2003.</p>			
<p><b>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.</b></p> <p>The spawning-stock size is above MSY <math>B_{trigger}</math>, <math>B_{pa}</math> and <math>B_{lim}</math> (Figure 2).</p> <p>Therefore, the stock is considered, in its most recent stock assessment, to have a biomass above the limit reference point, <b>C1.2 is met.</b></p>			

### SSB



**Figure 2.** Hake in subareas 4, 6, and 7, and in divisions 3.a, 8.a–b, and 8.d, Northern stock spawning stock biomass.

#### References

- ICES. 2021. Hake (*Merluccius merluccius*) in subareas 4, 6, and 7, and in divisions 3.a, 8.a–b, and 8.d, Northern stock (Greater North Sea, Celtic Seas, and the northern Bay of Biscay). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, hke.27.3a46-8abd, <http://doi.org/10.17895/ices.advice.7775>. <https://www.ices.dk/sites/pub/Publication%20Reports/Advice/2021/2021/hke.27.3a46-8abd.pdf>
- Fernandes, P., Cook, R., Florin, A.-B., Lorange, P. & Nedreaas, K. 2016. *Merluccius merluccius*. The IUCN Red List of Threatened Species 2016: e.T198562A84946555. <https://dx.doi.org/10.2305/IUCN.UK.2016-1.RLTS.T198562A84946555.en>. Accessed on 18 January 2022. <https://www.iucnredlist.org/species/198562/84946555>

#### 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>		
	<b>Productivity Attribute</b>		<b>Value</b>
	Average age at maturity (years)		
	Average maximum age (years)		
	Fecundity (eggs/spawning)		
	Average maximum size (cm)		
	Average size at maturity (cm)		
	Reproductive strategy		
	Mean trophic level		
	<b>Average Productivity Score</b>		
	<b>Susceptibility Attribute</b>		<b>Value</b>
	Overlap of adult species range with fishery		
	Distribution		
	Habitat		
	Depth range		
	Selectivity		
	Post-capture mortality		
	<b>Average Susceptibility Score</b>		
	<b>PSA Risk Rating (From Table D3)</b>		
	<b>Compliance rating</b>		
<i>Standard clauses 1.3.2.2</i>			

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.



<b>D3</b>		<b>Average Susceptibility Score</b>		
		<b>1 - 1.75</b>	<b>1.76 - 2.24</b>	<b>2.25 - 3</b>
<b>Average Productivity Score</b>	<b>1 - 1.75</b>	PASS	PASS	PASS
	<b>1.76 - 2.24</b>	PASS	PASS	TABLE D4
	<b>2.25 - 3</b>	PASS	TABLE D4	TABLE D4