



## MarinTrust Standard V2

# By-product Fishery Assessment *Whiting (Merlangius merlangus) in ICES Divisions 7.b-c and 7.e-k*

**MarinTrust Programme**

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

Fishery Under Assessment	Species:	Whiting ( <i>Merlangius merlangus</i> )
	Geographical area:	FAO 27, northeast Atlantic
	Country of origin of the product:	Denmark (Flag state: Denmark)
	Stock:	Whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel)
Date	16 March 2023	
Report Code	DNK06	
Assessor	Matthew Jew	
Country of origin of the product - PASS	Denmark (Flag state: Denmark)	
Country of origin of the product - FAIL	NA	

Application details and summary of the assessment outcome			
Company Name(s): FF Skagen: Skagen FF Skagen: Hanstholm			
Country:			
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	Surveillance 1
Assessment Period	Up to March 2023		

Scope Details	
Main Species	Whiting ( <i>Merlangius merlangus</i> )
Stock	Whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel)
Fishery Location	FAO 27, northeast Atlantic
Management Authority (Country/ State)	Ministry of Food, Agriculture and Fisheries of Denmark, EU CFP
Gear Type(s)	Demersal Trawl
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. Whiting (<i>Merlangius merlangus</i>) is not assessed on IUCN’s Red List, and does not appear in CITES appendices; therefore, <i>Merlangius merlangus</i> is eligible for approval for use as Marin trust by-product raw material.</p> <p>There is an EU MAP for this stock for which ICES considers to be precautionary. The stock is assessed under a SAM model which uses fishery removals in the stock assessment process, and it PASSES C1.1. The stock assessment process has produced two sets of reference points that align with the MSY and precautionary approaches. The stock was benchmarked in 2020 and, subsequently, the reference points were updated in 2021. The stock is considered, in its most recent stock assessment, to have biomass <b>below</b> both MSY and limit biomass reference points, it FAILS Clause C1.2.</p> <p>As the stock fails category C, it was assessed under category D. Table D1 (PSA) shows that the stock as an average productivity score of 1.42 and an average susceptibility score of 2.75. The PSA risk rating results (Table D3) determined that the species passes.</p> <p>Therefore, Whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel) is <b>APPROVED</b> for the production of fishmeal and fish oil under the current MarinTrust v2.0 by-products.</p>
Fishery Assessment Peer Review Comments
<p>The internal peer reviewer agrees with the assessor’s determination, who correctly classified and approved the stock of whiting in FAO 27, ICES divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel) under Category D. The stock is subject to a specific management regime in place and reference points are defined, so it has been first assessed under Category C, but failed it.</p> <p>Therefore, whiting in FAO 27, ICES divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel) is <b>APPROVED</b> for the production of fishmeal and fish oil under the current MarinTrust v 2.0 by-products standards.</p>
Notes for On-site Auditor
N/A

## 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>1</sup>	CITES Appendix 1 <sup>2</sup>
Whiting	<i>Merlangius merlangus</i>	Whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel)	Ministry of Food, Agriculture and Fisheries of Denmark, EU CFP	D (Failed 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 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		Whiting ( <i>Merlangius merlangus</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> Fail
<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>ICES advises that when the MSY approach is applied, catches in 2023 should be no more than 1715 tonnes.</p> <p>This stock is assessed using an age-based analytical assessment (SAM) that uses commercial catches in the model and in the forecast. Input data for the model are: Commercial catches (age composition of landings and discards); vector autoregressive spatiotemporal (VAST) standardized survey index (combined IGFS-WIBTS-Q4 [G7212] and EVHOE-WIBTS-Q4 [G9527]); maturity data (surveys and observer data; constant for all years); age-dependent natural mortalities (Lorenzen, 1996).</p> <div style="text-align: center;"> </div> <p>Figure 1. Long-term catch (including discards) trends for whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel) from 2002 to 2021. Source: ICES 2022.</p>			
<p><b>Therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process and therefore the stock PASSES clause C1.1</b></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>			

Whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel) is assessed as described above and has two sets of reference points defined that align with the MSY and precautionary approach. The stock was last benchmarked in 2015. Long-term trends in comparison with the sets of reference points can be found in Figure 1 below:

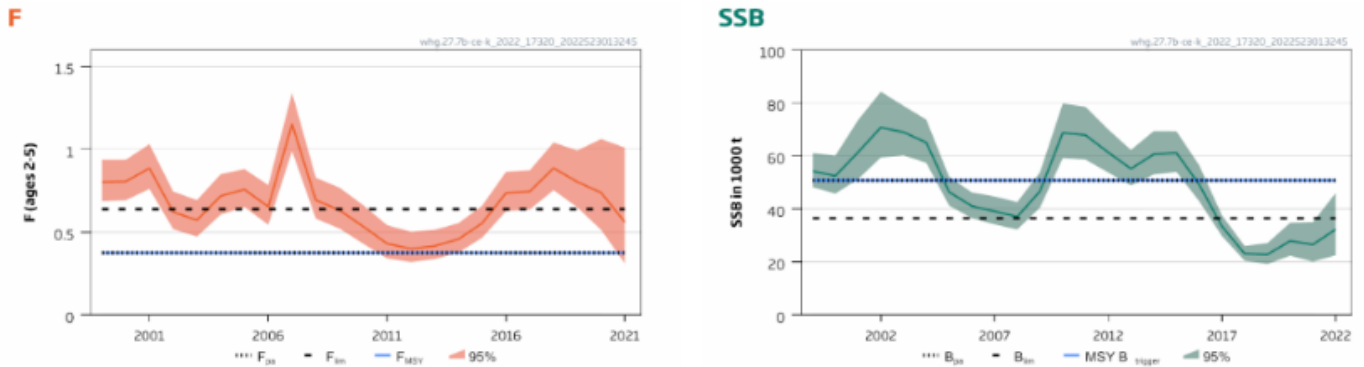


Figure 1. Whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel) summary of the stock assessment. The left panel shows the historical fishing pressure from 2002 to 2021 and the right panel show historical biomass over the same time period. Source: ICES 2022.

Fishing pressure on the stock is above FMSY and between Fpa and Flim, and spawning-stock size is below MSY Btrigger, Bpa, and Blim.

**Therefore, the species is considered, in its most recent stock assessment, to have a biomass BELOW the limit reference point and it FAILS clause C1.2.**

The stock will be assessed under category D.

**References**

ICES. 2022. Whiting (*Merlangius merlangus*) in divisions 7.b-c and 7.e-k (southern Celtic Seas and eastern English Channel). In Report of the ICES Advisory Committee, 2022. ICES Advice 2022, whg.27.7b-ce-k, <https://doi.org/10.17895/ices.advice.19458416>

**Links**

<b>MarinTrust Standard clause</b>	1.3.2.2
<b>FAO CCRF</b>	7.5.3
<b>GSSI</b>	D.3.04, D5.01

## 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>Whiting (<i>Merlangius merlangus</i>)</b>		
	<b>Productivity Attribute</b>		<b>Value</b>	<b>Score</b>	
	Average age at maturity (years)		2 years	1	
	Average maximum age (years)		8.4 years	1	
	Fecundity (eggs/spawning)		330,693	1	
	Average maximum size (cm)		91.5 cm	1	
	Average size at maturity (cm)		24.3 cm	1	
	Reproductive strategy		Broadcast Spawn	1	
	Mean trophic level		4.4	3	
	<b>Average Productivity Score</b>			<b>1.42</b>	
	<b>Susceptibility Attribute</b>		<b>Value</b>	<b>Score</b>	
	Availability (area overlap)		10-30%	2	
	Encounterability (the position of the stock/species within the water column relative to the fishing gear)		High Encounterability	3	
	Selectivity of gear type		High Selectivity	3	
	Post-capture mortality		Retained	3	
	<b>Average Susceptibility Score</b>			<b>2.75</b>	
	<b>PSA Risk Rating (From Table D3)</b>			<b>PASS</b>	
	<b>Compliance rating</b>			<b>PASS</b>	
	<b>Further justification for susceptibility scoring (where relevant)</b>				
	<p>1. Availability: The geographic range of the species encompasses the northeast Atlantic Ocean and Mediterranean Sea with the highest concentration appearing in the ICES subareas 4, 6, and 7. Although the fishing activity encompasses less than 10% of the distribution of the species, the overlap occurs in an area where the species is very populous. Score of 2 was awarded due to the high overlap with this populous region.</p>				
					
	<p>2. Gear types is demersal trawl. This species lives in the water column above the substrate as is uses the seafloor to hunt for desired prey (shrimps, crabs, mollusks, small fish, polychaetes and cephalopods). There is high overlap with species behavior and the gear type and would also receive a score of 3.</p>				
	<p>3. Demersal trawl gear typically has mesh size smaller than 12cm which is half of the size at maturity for this species.</p>				
<p>4. This species is retained and receives a score of 3.</p>					
<b>References</b>					
Fishbase – <i>Merlangius merlangus</i> <a href="https://www.fishbase.de/summary/Merlangius-merlangus.html">https://www.fishbase.de/summary/Merlangius-merlangus.html</a>					
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

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	