



MarinTrust Standard V2

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

MarinTrust Programme

Unit C, Printworks

22 Amelia Street

London

SE17 3BZ

E: standards@marin-trust.com

T: +44 2039 780 819

Table 1 Application details and summary of the assessment outcome

Fishery Under Assessment	Species:	Whiting (<i>Merlangius merlangus</i>)
	Geographical area:	FAO Area 27 North East Atlantic
	Country of origin of the product:	Denmark
	Stock:	Whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel)
Date	8 February 2022	
Report Code	BP025	
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			
Company Name(s): Skagen			
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
Geraldine Criquet	Ivan Mateo	0.5	Re-approval
Assessment Period	February 2022		

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 Area 27 Northeast Atlantic Ocean
Management Authority (Country/ State)	European Union / Denmark management authority
Gear Type(s)	Demersal trawls and seines mesh size \geq 120 mm (North Sea), demersal trawls mesh size 70-99 mm (North Sea and eastern English Channel), and others
Outcome of Assessment	
Peer Review Evaluation	Agree with assessor's recommendation
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 neither listed as Endangered or Critically Endangered on IUCN's Red List, nor listed in CITES appendices; therefore, whiting is eligible for approval for use as Marin Trust by-product raw material.</p> <p>The EU multiannual management plan (MAP) for stocks in Western waters and adjacent waters applies to 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 below the limit reference point, it FAILS Clause C1.2.</p> <p>As per Marin Trust's requirements, where a species fails Clause C, it should be assessed as a Category D species instead. The assessor further assessed the stock as category D, see Category D section.</p> <p>With an average productivity score of 1.71 and an average susceptibility score of 2.5, it PASSES Table D1.</p> <p>Therefore, whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel) is APPROVED 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 assessor correctly classified whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel) stock as category C, reference points are defined to assess the stock status relative to.</p> <p>The most recent stock assessment concluded that the stock is below the limit reference point. Moreover, removals are not considered negligible. Therefore, the fishery fails clause C1.2.</p> <p>As per guidelines, the stock was further assessed under category D</p> <p>A PSA was performed. With an average productivity score of 1.7.1 and an average susceptibility score of 2.5, the stock passes Table D3.</p> <p>Therefore, the peer reviewer agrees with the assessor's determination that the fishery passes Table D3 and ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel) is thus approved.</p>
Notes for On-site Auditor
NA

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
Whiting	<i>Merlangius merlangus</i>	Whiting in ICES Divisions 7.b-c and 7.e-k (southern Celtic Seas and western English Channel)	European Union / Denmark management authority	C	LC	No

¹ <https://www.iucnredlist.org/>

² <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>)																																																																																									
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.	No																																																																																								
			Clause outcome: FAIL																																																																																								
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<p>The stock assessment type is an analytical age-based assessment (SAM) that uses catches (age composition of landings and discards) in the model 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 PASSES Clause C1.1</p>																																																																																											
<p style="text-align: center;">Catches</p> <table border="1"> <caption>Estimated data for Figure 1: Whiting Catches (in 1000 t)</caption> <thead> <tr> <th>Year</th> <th>Landings</th> <th>Discards</th> <th>Total</th> </tr> </thead> <tbody> <tr><td>2001</td><td>20</td><td>5</td><td>25</td></tr> <tr><td>2002</td><td>15</td><td>5</td><td>20</td></tr> <tr><td>2003</td><td>13</td><td>10</td><td>23</td></tr> <tr><td>2004</td><td>13</td><td>9</td><td>22</td></tr> <tr><td>2005</td><td>10</td><td>20</td><td>30</td></tr> <tr><td>2006</td><td>12</td><td>14</td><td>26</td></tr> <tr><td>2007</td><td>10</td><td>8</td><td>18</td></tr> <tr><td>2008</td><td>6</td><td>4</td><td>10</td></tr> <tr><td>2009</td><td>6</td><td>5</td><td>11</td></tr> <tr><td>2010</td><td>9</td><td>6</td><td>15</td></tr> <tr><td>2011</td><td>10</td><td>4</td><td>14</td></tr> <tr><td>2012</td><td>11</td><td>5</td><td>16</td></tr> <tr><td>2013</td><td>12</td><td>4</td><td>16</td></tr> <tr><td>2014</td><td>13</td><td>5</td><td>18</td></tr> <tr><td>2015</td><td>13</td><td>7</td><td>20</td></tr> <tr><td>2016</td><td>15</td><td>8</td><td>23</td></tr> <tr><td>2017</td><td>12</td><td>3</td><td>15</td></tr> <tr><td>2018</td><td>9</td><td>2</td><td>11</td></tr> <tr><td>2019</td><td>7</td><td>1</td><td>8</td></tr> <tr><td>2020</td><td>6</td><td>1</td><td>7</td></tr> <tr><td>2021</td><td>6</td><td>1</td><td>7</td></tr> </tbody> </table>				Year	Landings	Discards	Total	2001	20	5	25	2002	15	5	20	2003	13	10	23	2004	13	9	22	2005	10	20	30	2006	12	14	26	2007	10	8	18	2008	6	4	10	2009	6	5	11	2010	9	6	15	2011	10	4	14	2012	11	5	16	2013	12	4	16	2014	13	5	18	2015	13	7	20	2016	15	8	23	2017	12	3	15	2018	9	2	11	2019	7	1	8	2020	6	1	7	2021	6	1	7
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<p>Figure 1. Whiting in ICES Subarea 4 and in Division 7.d. Long-term trends in catches. Discard estimates are available since 2003; prior to 2003, discards have been reconstructed from incomplete sampling data.</p>																																																																																											
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.																																																																																											
<p>The spawning-stock size is below MSY $B_{trigger}$, B_{pa} and B_{lim} (Figure 2).</p> <p>Therefore, the stock is considered, in its most recent stock assessment, to have a biomass below the limit reference point, C1.2 is met.</p>																																																																																											

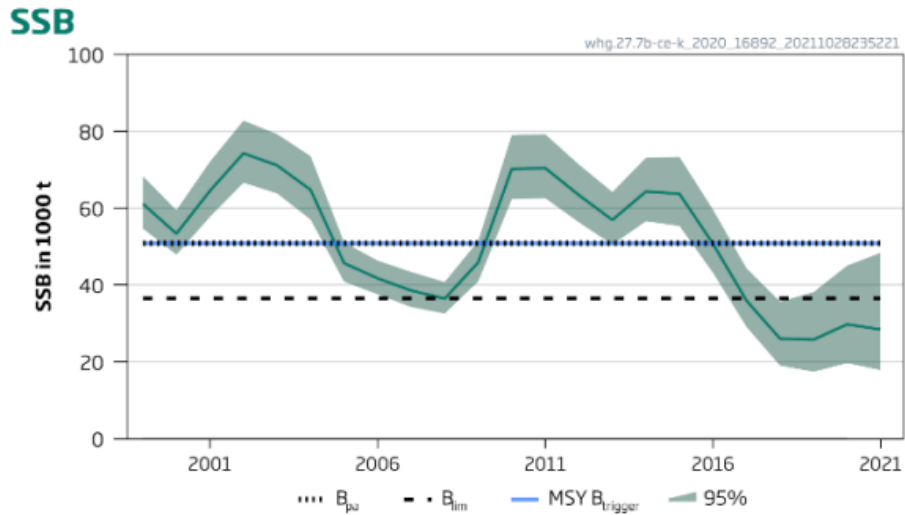


Figure 2. Whiting in ICES Divisions 7.b–c and 7.e–k. Spawning stock biomass.

As per Marin Trust’s requirements, where a species fails Clause C, it should be assessed as a Category D species instead. The assessor further assessed the stock as category D, see Category D section.

References

ICES. 2020. Whiting (*Merlangius merlangus*) in divisions 7.b–c and 7.e–k (southern Celtic Seas and western English Channel). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, whg.27.7b-ce-k. <https://doi.org/10.17895/ices.advice.9576> <https://www.ices.dk/sites/pub/Publication%20Reports/Advice/2020/2020/whg.27.7b-ce-k.pdf>

Nedreaas, K., Florin, A., Cook, R., Fernandes, P. & Lorance, P. 2014. *Merlangius merlangus*. *The IUCN Red List of Threatened Species* 2014: e.T198585A45097610. <https://dx.doi.org/10.2305/IUCN.UK.2014-3.RLTS.T198585A45097610.en>. Accessed on 08 February 2022. <https://www.iucnredlist.org/species/198585/45097610>

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 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	Whiting (<i>Merlangius merlangus</i>)		
		Productivity Attribute	Value	Score
	Average age at maturity (years)	2 to 4 years	2	
	Average maximum age (years)	20 years	2	
	Fecundity (eggs/spawning)	83,900-1,000,000	1	
	Average maximum size (cm)	91.5 cm	2	
	Average size at maturity (cm)	27.8 cm	1	
	Reproductive strategy	Broadcast spawner	1	
	Mean trophic level	4.4	3	
		Average Productivity Score	1.71	
		Susceptibility Attribute	Value	Score
	Overlap of adult species range with fishery	Information not available	NA	
	Distribution	Limited range in the region	2	
	Habitat	Benthopelagic	3	
	Depth range	10-200 m	3	
	Selectivity	Species 1 to 2 times mesh size	2	
	Post-capture mortality	Most dead or retained	3	
		Average Susceptibility Score	2.5	
		PSA Risk Rating (From Table D3)	PASS	
		Compliance rating	PASS	
References				
Fishbase – <i>Merlangius merlangus</i> https://www.fishbase.de/summary/Merlangius-merlangus.html				
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			
Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements			
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.		
Outcome:			
Evidence			
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.			
References			
Links			
MarinTrust Standard clause		1.3.2.2, 4.1.4	
FAO CCRF		7.5.1	
GSSI		D.5.01	