

# MarinTrust RS V2.0



## BYPRODUCT FISHERY ASSESSMENT TEMPLATE REPORT

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TABLE 1 APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME

<b>Fishery Under Assessment</b>	<b>Species:</b>	Saithe <i>Pollachius virens</i>
	<b>Geographical area:</b>	FAO 27 Northeast Atlantic
	<b>Country of origin of the product:</b>	Denmark
	<b>Stock:</b>	ICES Subareas 4 and 6, Division 3.a (North Sea, Rockall and West of Scotland, Skaggerak, Kattegat)
<b>Date</b>	February 2021	
<b>Report Code</b>	BP20	
<b>Assessor</b>	Conor Donnelly	
<b>Country of origin of the product - PASS</b>	Denmark	
<b>Country of origin of the product - FAIL</b>	NA	

Application details and summary of the assessment outcome			
<b>Name:</b>			
Address:			
Country: Denmark		<b>Zip:</b>	
<b>Tel. No.:</b>		<b>Fax. No.:</b>	
<b>Email address:</b>		<b>Applicant Code:</b>	
<b>Key Contact:</b>		<b>Title:</b>	
Certification Body Details			
<b>Name of Certification Body:</b>		Global Trust Certification	
<b>Assessor</b>	<b>Peer Reviewer</b>	<b>Assessment Days</b>	<b>Initial/Surveillance/ Re-approval</b>
Conor Donnelly	Virginia Polonio	0.5	Surveillance
<b>Assessment Period</b>		February 2021	

Scope Details	
<b>Main Species</b>	Saithe <i>Pollachius virens</i>
<b>Stock</b>	ICES Subareas 4 and 6, Division 3.a
<b>Fishery Location</b>	FAO 27 Northeast Atlantic
<b>Management Authority (Country/ State)</b>	EU, Norway
<b>Gear Type(s)</b>	Bottom trawl, gillnets, other
Outcome of Assessment	
<b>Peer Review Evaluation</b>	Agree with assessor's determination
<b>Recommendation</b>	<b>APPROVAL</b>

**TABLE 2. ASSESSMENT DETERMINATION**

<b>Assessment Determination</b>
<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. Saithe does not appear as Endangered or Critically Endangered on IUCN’s Red List, nor does it appear in CITES appendices; therefore, saithe in ICES Subareas 4 and 6, Division 3.a (North Sea, Rockall and West of Scotland, Skaggerak, Kattegat) is eligible for approval for use as MARINTRUST by-product raw material.</p> <p>An EU multiannual management plan (MAP) has been agreed by the EU for this stock (EU, 2018). This plan is not adopted by Norway; thus, it was not used as the basis of the advice for this shared stock. ICES was requested by the EC to provide advice based on the MSY approach and to include the MAP as a catch option. EU–Norway have requested an evaluation of multiple management strategies that are currently Advice under consideration (ICES, 2019a), therefore, there is a species-specific management plan and the species has been assessed under Category C.</p> <p>Fishery removals of the stock are considered in the ICES stock assessment process so the stock <b>PASSES</b> Clause C1.1.</p> <p>The stock is above <math>B_{lim}</math> (and <math>B_{pa}</math> and MSY <math>B_{trigger}</math>) reference points; therefore, the stock <b>PASSES</b> Clause C1.2.</p> <p>In order to be approved, the stock assessed must pass both Clause C1.1 and C1.2; therefore, as this is the case here, by-product covered by this report is <b>APPROVED</b> for the production of fishmeal and fish oil under the current MARINTRUST v2 by-product standard.</p>
<b>Peer Review Comments</b>
<p>The peer review agrees with the determination, the stock has a management plan therefore it has been assessed under category C. Spawning-stock biomass (SSB) has fluctuated without trend and has been above MSY <math>B_{trigger}</math> since 1996. Fishing mortality (F) has decreased and stabilized at or below FMSY since 2014. Recruitment (R) has shown an overall decreasing trend over time with lowest levels in the past 10 years. Removals are considered in the stock models.</p> <p>Therefore, the by-product covered by this report is <b>APPROVED</b> for the production of fishmeal and fish oil under the current MARINTRUST v2 by-product standard.</p>
<b>Notes for On-site Auditor</b>
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## 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

Byproduct 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.

Byproduct 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>
Saithe	<i>Pollachius virens</i>	ICES Subareas 4 and 6, Division 3.a	EU, Norway	C	<a href="#">Least concern (European assessment)</a>	Not listed

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

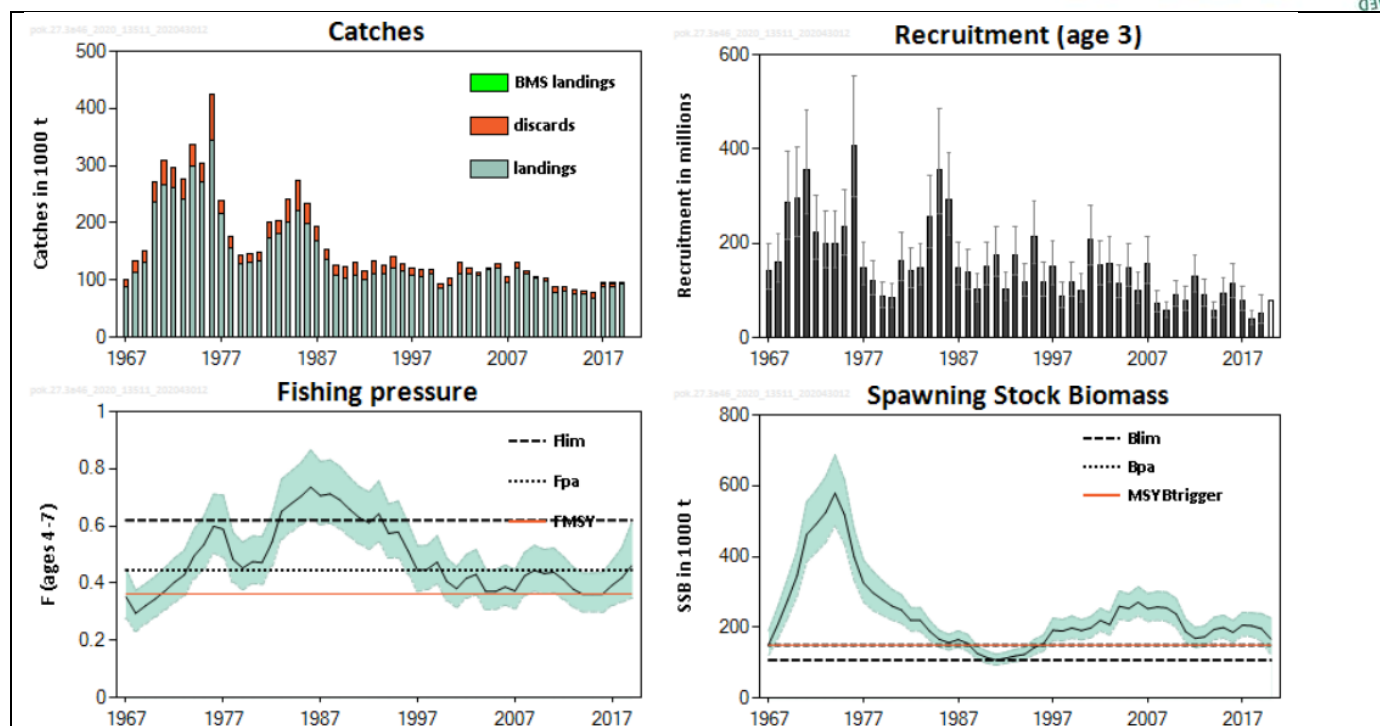
<sup>2</sup> <https://cites.org/eng/app/appendices.php>

## 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 may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

<b>Species Name</b>		<i>Saithe <i>Pollachius virens</i></i>	
<b>C1</b>	<b>Category C Stock Status - Minimum Requirements</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.	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
<b>Clause outcome:</b>			<b>PASS</b>
<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 is undertaken by ICES and input data includes: commercial catches (international landings, BMS landings, and discards, age frequencies from catch sampling); survey index (IBTS Q3, ages 3–8); combined commercial index scaled to the exploitable biomass (French, German, and Norwegian trawler fleets). Maturity-at-age and natural mortality are assumed to be constant. Stock weights are catch weights. Discards, BMS landings, and bycatch were included and 46% of the landings had associated discarding information; 85% of the discards were observed and 15% were raised. Of the imported discards, 99% had been sampled for age information. BMS landings for Norway are included with landings in the assessment since 2016; all other BMS landings are included with the discards. Logbook-registered discards were 0 kg. (ICES. 2020).</p> <p>Therefore, fishery removals of the species in the fishery under assessment are included in the stock assessment process and it PASSES clause C1.1.</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>A limit reference point is defined for the stock (Blim). ICES most recent stock assessment shows that the spawning stock biomass is above its Blim and also Bpa and MSY Btrigger reference points (see figure below).</p>			



**Figure 1.** Saithe in subareas 4 and 6, and in Division 3.a. Summary of the stock assessment. Assumed recruitment value is unshaded. Shaded areas (F, SSB) and error bars (R) indicate 95% confidence intervals. Landings and discards are for ages 3–10+ only, as used in the assessment. Landings below minimum conservation reference size (BMS) are those officially reported (source: ICES. 2020)

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

**References**

ICES. 2020. Saithe (*Pollachius virens*) in subareas 4 and 6, and in Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, pok.27.3a46. <https://doi.org/10.17895/ices.advice.5830>.

ICES. 2019. Saithe (*Pollachius virens*) in subareas 4 and 6, and in Division 3.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, pok.27.3a46, <https://doi.org/10.17895/ices.advice.4872>

EU. 2018. Regulation (EU) 2018/973 of the European Parliament and of the Council of 4 July 2018 establishing a multiannual plan for demersal stocks in the North Sea and the fisheries exploiting those stocks, specifying details of the implementation of the landing obligation in the North Sea and repealing Council Regulations (EC) No 676/2007 and (EC) No 1342/2008. Official Journal of the European Union, L. 179. 13 pp. <http://data.europa.eu/eli/reg/2018/973/o>

ICES. 2019a. EU and Norway request concerning the long-term management strategy of cod, saithe, and whiting, and of North Sea autumn-spawning herring. In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, sr.2019.06, <https://doi.org/10.17895/ices.advice.4895>.

**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 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>	<b>Score</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>	<b>Score</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>			
<b>References</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.



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	

## SOCIAL CRITERION

In addition to the scored criteria listed above, applicants must commit to ensuring that vessels operating in the fishery adhere to internationally recognised guidance on human rights. They must also commit to ensuring there is no use of enforced or unpaid labour in the fleet(s) operating upon the resource.

## Appendix A - Determining Resilience Ratings

The assessment of Category B species described in this assessment report template utilises a resilience rating system suggested by the American Fisheries Society. This approach was chosen because it is also used by FishBase, and so the resilience ratings for many thousands of species are freely available online. As described by FishBase, the following is the process used to arrive at the resilience ratings:

*“The American Fisheries Society (AFS) has suggested values for several biological parameters that allow classification of a fish population or species into categories of high, medium, low and very low resilience or productivity (Musick 1999). If no reliable estimate of  $r_m$  (see below) is available, the assignment is to the lowest category for which any of the available parameters fits. For each of these categories, AFS has suggested thresholds for decline over the longer of 10 years or three generations. If an observed decline measured in biomass or numbers of mature individuals exceeds the indicated threshold value, the population or species is considered vulnerable to extinction unless explicitly shown otherwise. If one sex strongly limits the reproductive capacity of the species or population, then only the decline in the limiting sex should be considered. We decided to restrict the automatic assignment of resilience categories in the Key Facts page to values of  $K$ ,  $t_m$  and  $t_{max}$  and those records of fecundity estimates that referred to minimum number of eggs or pups per female per year, assuming that these were equivalent to average fecundity at first maturity (Musick 1999). Note that many small fishes may spawn several times per year (we exclude these for the time being) and large live bearers such as the coelacanth may have gestation periods of more than one year (we corrected fecundity estimates for those cases reported in the literature). Also, we excluded resilience estimates based on  $r_m$  (see below) as we are not yet confident with the reliability of the current method for estimating  $r_m$ . If users have independent  $r_m$  or fecundity estimates, they can refer to Table 1 for using this information.”*

Parameter	High	Medium	Low	Very low
Threshold	0.99	0.95	0.85	0.70
$r_{max}$ (1/year)	> 0.5	0.16 - 0.50	0.05 - 0.15	< 0.05
$K$ (1/year)	> 0.3	0.16 - 0.30	0.05 - 0.15	< 0.05
Fecundity (1/year)	> 10,000	100 - 1000	10 - 100	< 10
$t_m$ (years)	< 1	2 - 4	5 - 10	> 10
$t_{max}$ (years)	1 - 3	4 - 10	11 - 30	> 30

[Taken from the FishBase manual, “Estimation of Life-History Key Facts”, <http://www.fishbase.us/manual/English/key%20facts.htm#resilience>]

## Appendix B: From MARINTRUST Standard V2.0 Annex 2: Fish By-product Assessment Methodology

### Definition of a Fish By-product

A by-product is a useful and marketable product that is not the primary product being produced. A marketable by-product is from a process that can technically not be avoided. This includes materials

that may be traditionally defined as waste such as industrial scrap that is subsequently used as a raw material in a different manufacturing process.

"Fish By-products" refers to commodities that are manufactured from fish, including shellfish, and crustaceans in a form that is different than conventional foods and which are intended for human consumption (either directly or as a food ingredient). Fish By-products include, but are not limited to:

- By-products derived from fish, including fish cartilage, fish oils, and fish proteins; and
- By-products derived from the carapaces of crustaceans; but do not include marine plants or marine plant products.

(Canadian Food Inspection Agency Definition)

In addition, a whole fish which is rejected on an intrinsic quality ground e.g. does not meet the specification for human consumption due to physical damage or the quality is substandard. These whole fish shall in these cases be classified as a by-product from the human consumption fishery, and can be used for marine ingredients production.

A whole catch of fish that is rejected by a fish processing factory on economic grounds is not considered to be a fish by-product. This fish can only be used for marine ingredients production if the fishery has been assessed and approved under the requirements of the IFFO Responsible Sourcing Standard.

### **Why utilise Fish By-products?**

#### **FAO Code of Conduct for Responsible Fisheries**

##### **General Principles Article 6**

**6.7** The harvesting, handling, processing and distribution of fish and fishery products should be carried out in a manner which will maintain the nutritional value, quality and safety of the products, reduce waste and minimize negative impacts on the environment.

##### **Responsible fish utilisation Article 11.1**

**11.1.8** States should encourage those involved in fish processing, distribution and marketing to reduce post-harvest losses and waste.

#### **Benefits of Including Fish By-Products in the MARINTRUST Standard:**

1. Improved fish resource utilisation
2. Reduction in waste for nutritional value
3. 35% of fish by-products are currently used to make quality fishmeal and oil
4. Excellent Economic return
5. Better compliance with FAO Code of Conduct for Responsible Fisheries

#### **What Fish By-products cannot be used?**

##### **1. IUCN**

Fishery By-products shall Not be taken from a species listed by IUCN (the International Union for Conservation of Nature) under the Red List for certain categories;

- 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.

Fish By-product material may be used from the vulnerable category, but it shall incur a fishery surveillance conducted by the certification body prior to it being included in the scope of this standard.

- VULNERABLE (VU) facing a high risk of extinction in the wild.

The Fish By-product material from these species will be acceptable for use in the scope of this standard;

- 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.

Fish By-product material may be used from the following category, but it shall incur a fishery surveillance prior to it being included in the scope of this standard;

- DATA DEFICIENT (DD) and NOT EVALUATED (NE)

The fishery surveillance conducted by the certification body will review the following areas:

#### **Stock Assessment**

- From a recognised Institution
- Fisheries are recognised as legal
- Fisheries do not contradict scientific opinion

#### **2. FAO Code of Conduct for Responsible Fisheries**

In addition the Fish By-products shall not come from fisheries that do not comply with the following criteria;

1. Fisheries should prohibit dynamiting, poisoning and other comparable destructive fishing practices.
2. Fishery material shall not be from IUU fishing activity nor sourced from vessels officially listed as engaging in illegal, unreported and unregulated (IUU) fishing activity.

#### **Sources of Information**

1. Food Standards Agency
2. Canadian Food Inspection Agency
3. DEFRA
4. GAA Feed mill BAP standard
5. EU Commission
6. IUCN