MarinTrust RS V2.0



BYPRODUCT FISHERY ASSESSMENT TEMPLATE REPORT

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TABLE 1 APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME

	Species: European hake, (Merluccius merluccius)		
	Geographical area:	FAO Area 27 North Atlantic	
Fishery Under	Country of origin of the product:	France	
Assessment	Stock:	ICES 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	November 2020		
Report Code		165-2020	
Assessor	Virginia Polonio		
Country of origin of the product - PASS	FRANCE		
Country of origin of the product - FAIL	NA		

Application details and summary of the assessment outcome					
Name:					
Address:					
Country: France		Zip:			
Tel. No.:		Fax. No.:			
Email address:		Applicant Code:			
Key Contact:		Title:	Title:		
Certification Body Detail	ls				
Name of Certification	Body: SAI Global				
Assessor Peer Reviewer		Assessment Days	Initial/Surveillance/ Re-approval		
Virginia Polonio	Virginia Polonio Géraldine Criquet 0.5 SURV1				
Assessment Period November 2020					

Scope Details		
Species European hake (Merluccius merluccius)		
Stock	ICES 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 North Atlantic	
ManagementAuthority (Country/ State)	European Union Direction des Pêches Maritimes et de l'Aquaculture (DPMA)	



Gear Type(s) Bottom trawls, gillnets and longline		
Outcome of Assessment		
Peer Review Evaluation	Agree with the assessor's determination	
Recommendation	APPROVED	

TABLE 2. ASSESSMENT DETERMINATION

Assessment Determination

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 IFFO RS raw material. European hake (*Merluccius merluccius*) do not appear as Endangered or Critically Endangered on IUCN's Red List, nor do they appear in CITES appendices; therefore, European hake is eligible for approval for use as IFFO RS by-product raw material.

One stock forms part of this assessment:

1. ICES 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).

The EU multiannual plan (MAP) for stocks in the Western Waters and adjacent has been agreed by the EU for this stock (EU, 2019). 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 to provide advice based on the MSY approach and to include the MAP as a catch option. Consequently, the stock has been assessed under category C as there is a management plan for this species and reference points are known.

Fishery removals of the stock are included in the stock assessment process so the stock **PASSES** Clause C1.1. Further, the species is considered, in its most recent stock assessment, to have a biomass above the limit reference point so the stock **PASSES** Clause C1.2.

Hence, European hake (*M. merluccius*) in ICES 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) is **APPROVED** by SAI Global assessors in the assessment area for the production of fishmeal and fish oil under the current IFFO RS v 2.0 by-products standard.

Peer Review Comments

The assessor correctly classified the hake in ICES 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 as category C species as the stock is subject to specific management regime. The stock is assessed and stock status is assessed relative to reference points.

Fisheries removals are considered in the stock assessment. According to the last stock assessment, the spawning stock biomass is considered to be well above the limit reference point.

Therefore, the peer reviewer agrees with the assessor's determination that the fishery passes both C1.1 and C1.2.

Notes for On-site Auditor

Fishery Assessment TEMPLATE	
April 2020	

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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 ¹	CITES Appendix 1 ²
European hake	Merluccius merluccius	ICES 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).	EU and Norway internationally and domestically, France	1C	NT	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 may be assessed as a Category D species instead, EXCEPT if there is evidence that it is currently below the limit reference point.

Species Name European hake (Merluccius merluccius)					
C1	Category C Stock Status - Minimum Requirements				
CI	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.	PASS		
	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.	PASS		
		Clause outcome:	PASS		

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.

The stock assessment has used different input data such as; commercial landings, four survey indices (FR-EVHOE-WIBTS-Q4, SP-PORC-WIBTS-Q3, IE-IGFS-WIBTS-Q4 and RESSGASC), maturity data: constant maturity (Martin, 1991) and natural mortality: constant value of 0.4 are used in the models. Therefore, all removals are considered in the stock assessment process and the fishery **PASSES** clause C1.1.

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.

In the last stock assessment carried out by ICES in 2020 the state of the stock and the fishery relative to reference point was resulted in having FMSY below limits and MSY Btrigger, Bpa, and Blim well above limits. (Figure 1).

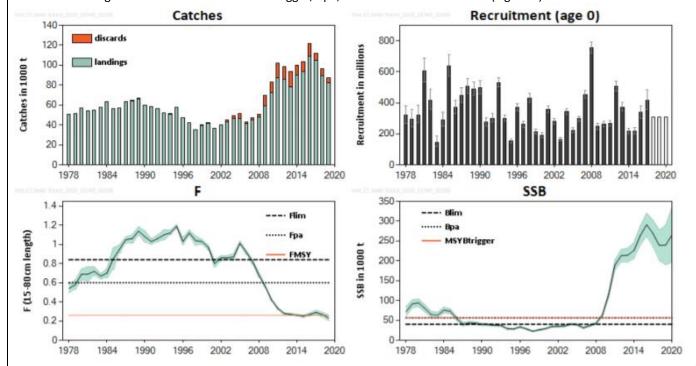


Figure 1. Hake in subareas 4, 6, and 7, and in divisions 3.a, 8.a-b, and 8.d, Northern stock. Summary of the stock assessment. Complete discard estimates are available only since 2003. Plots show 95% confidence intervals (shaded area). Fishing mortality

Fishery Assessment TEMPLATE April 2020



(F) confidence intervals derived from standard deviations, calculated internally by the model for F-at-age values. Assumed recruitment (R) values are unshaded. Source: ICES 2020.

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

References

ICES. 2020. Hake (*Merluccius merluccius*) in subareas 4, 6, and 7, and 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, 2020. ICES Advice 2020, hke.27.3a46-8abd. https://doi.org/10.17895/ices.advice.5945.

ICES. 2019. Hake (*Merluccius merluccius*) in subareas 4, 6, and 7, and divisions 3.a, 8.ab, and 8.d, Northern stock (Greater N orth Sea, Celtic Seas, and the northern Bay of Biscay). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, hk e.27.3a46-8abd, https://do Advice i.org/10.17895/ices.advice.4759

ICES. 2019a. Inter-benchmark of Hake (*Merluccius merluccius*) in subareas 4, 6, and 7 and divisions 3.a, 8.a–b, and 8.d, Northern stock (Greater North Sea, Celtic Seas, and the northern Bay of Biscay) (IB-Phake). ICES Scientific Reports. 1:4. 28 pp. https://doi.org/10.17895/ices.pub.4707

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



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 rm. 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