



# BYPRODUCT FISHERY ASSESSMENT TEMPLATE REPORT

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TABLE 1 APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME

	Species:	Greenland halibut (Reinhardtius hippoglossoides)	
et de contra de c	Geographical area:	FAO 27 North Atlantic	
Fishery Under Assessment	Country of origin of the product:	UK & Ireland	
	Stock:	ICES Subareas 5,6, 12 and 14	
Date	September 2020		
Report Code	140-2020		
Assessor	Virginia Polonio		
Country of origin of the product - PASS	UK & Ireland		
Country of origin of the product - FAIL	NA		

Application details	and summary of the as	sessment outcome			
Name:					
Address:					
Country: UK & Ireland		Zip:			
Tel. No.:		Fax. No.:			
Email address:		Applicant Code:			
Key Contact:		Title:			
<b>Certification Body Deta</b>	ils				
Name of Certification	on Body: SAI Global				
Assessor	Peer Reviewer	Assessment Days	Initial/Surveillance/ Re-approval		
Virginia Polonio	Jim Daly	0.5	Re-approval		
<b>Assessment Period</b>	September 2020	<sup>_</sup>			

Scope Details				
Main Species	Greenland halibut (Reinhardtius hippoglossoides)			
Stock	ICES Subareas 5,6, 12 and 14			
Fishery Location	FAO 27 North Atlantic			
ManagementAuthority (Country/ State)	European Union and national legislation of UK and Ireland			
Gear Type(s)	Demersal trawls			
Outcome of Assessment				
Peer Review Evaluation	AGREE			
Recommendation	APPROVE			



#### 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 MarinTrust raw material. Greenland halibut (*Reinhardtius hippoglossoides*) do not appear as Endangered or Critically Endangered on IUCN's Red List, nor do they appear in CITES appendices; therefore, Greenland halibut is eligible for approval for use as MarinTrust by-product raw material.

One stock complex forms part of this assessment:

1) Greenland halibut (*Reinhardtius hippoglossoides*) in the area ICES Subareas 5,6, 12 and 14.

ICES is not aware of any agreed precautionary management plan for Greenland halibut in this area, Greenland halibut in the area ICES Subareas 5,6, 12 and 14 is managed with a multiannual plan using the MSY approach.. The stock complex is managed under the EU multiannual plan for the Northeast Atlantic Ocean framework of the EU Common Fisheries Policy and it is assessed under Clause C.

Fishery removals of the stock complex are included in the stock assessment process so the stock complex **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 complex **PASSES** Clause C1.2.

In order to be approved, the stock assessed must pass all Clauses in category C. As it is the case for Greenland halibut. Hence, Greenland halibut (*Reinhardtius hippoglossoides*) in the area ICES Subareas 5,6, 12 and 14 is **APPROVED** by SAI Global assessors in the assessment area for the production of fishmeal and fish oil under the current MarinTrust v 2.0 by-products standard.

#### **Peer Review Comments**

ICES assess that fishing pressure on the stock is above FMSY and below Flim, and spawning stock size above MSY Btrigger and Blim. Biomass 2021 (B/BMSY) was estimated by the model at 0.76; Fishing mortality 2020 F/FMSY was estimated at 1.06 with F corresponding to catches of 25,000 tonnes (Table 2 ICES 2020).

PR agrees with the assessment.

#### Notes for On-site Auditor



## SPECIES CATEGORISATION

<u>NB</u>: 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>
Greenland halibut	Reinhardtius hippoglossoides	ICES Subareas 5,6, 12 and 14	EU, UK and Ireland	1C	NT	No

<sup>&</sup>lt;sup>1</sup> <u>https://www.iucnredlist.org/</u>

<sup>&</sup>lt;sup>2</sup> <u>https://cites.org/eng/app/appendices.php</u>



## **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.

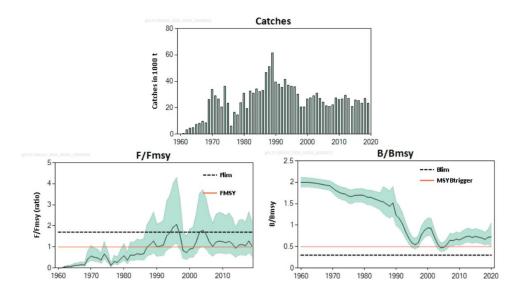
Species Name Greenland halibut, Reinhardtius hippoglossoides							
<b>C1</b>	Category C Stock Status - Minimum Requirements						
	C1.1		removals of the species in the fishery under assessment are included in the stock PASS ment process, OR are considered by scientific authorities to be negligible.				
	C1.2	reference	is is considered, in its most recent stock assessment, to have a biomass above the limit point (or proxy), OR removals by the fishery under assessment are considered by uthorities 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 assessment type is a probabilistic (Bayesian) version of a surplus production model that uses catches in the model and in the forecast (ICES, 2019). Commercial catches (international landings), one combined survey index (GRL-deep 1998–2016, and IS-SMH since 1996) are included in the stock assessment models. One commercial index (Icelandic trawlers) has been included since 1985. Discards and bycatch are considered negligible. Fishery removals of the species in the fishery under assessment are included 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.

ICES assess that fishing pressure on the stock is above FMSY and below Flim, and spawning stock size is above MSY Btrigger and Blim. It can be observed in Figure 1 below the stock biomass is stable and is above MSY Btrigger and recent fishing mortality (F) is estimated to be above  $F_{MSY}$ .



**Figure 1.** Greenland halibut in subareas 5, 6, 12, and 14. Summary of the stock assessment. Top: Catches. Bottom: Fishing mortality relative to FMSY (left) and biomass relative to BMSY (right), with medians and 90% confidence intervals. 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

Munroe, T., Costa, M., Nielsen, J., Herrera, J. & de Sola, L. 2015. *Reinhardtius hippoglossoides*. The IUCN Red List of Threatened Species 2015: e.T18227054A45790364. Downloaded on 29 September 2020. www.iucn.org

ICES. 2020. North-Western Working Group (NWWG). ICES Scientific Reports. 2:51. 431 pp. http://doi.org/10.17895/ices.pub.6051http://www.ices.dk/sites/pub/Publication%20Reports/Forms/DispForm.aspx?ID=366 95

ICES. 2019. Greenland halibut (*Reinhardtius hippoglossoides*) in subareas 5, 6, 12, and 14 (Iceland and Faroes grounds, West of Scotland, North of Azores, East of Greenland). In Report of the ICES Advisory Committee, 2019 Advice . ICES Advice 2019, ghl.27.561214, <u>https://doi.org/10.17895/ices.advice.4737</u>

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 <sub>max</sub> (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 <sub>m</sub> (years)	< 1	2 - 4	5 - 10	> 10
t <sub>max</sub> (years)	1 - 3	4 - 10	11 - 30	> 30

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



## 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

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5. EU Commission

6. IUCN



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