



BYPRODUCT FISHERY ASSESSMENT TEMPLATE REPORT

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TABLE 1 APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME

	Species: Lemon sole (<i>Microstomus kitt</i>)		
	Geographical area: FAO 27 Atlantic, Northeast		
	Country of origin of the	Denmark	
Fishery Under Assessment	product:	Denmark	
Assessment		Subarea 4 and divisions 3.a and 7.d	
	Stock:	(North Sea, Skagerrak and Kattegat,	
		eastern English Channel)	
Date	January 2021		
Report Code	174-2020		
Assessor	Virginia Polonio		
Country of origin of	Denmark		
the product - PASS	Denmark		
Country of origin of	NA		
the product - FAIL			

Application details and summary of the assessment outcome					
Name:					
Address:					
Country: Denmark		Zip:			
Tel. No.:		Fax. No.:			
Email address:		Applicant Code:			
Key Contact:		Title:			
Certification Body Details					
Name of Certificatio Certification					
Assessor Peer Reviewer		Assessment Days	Initial/Surveillance/ Re-approval		
Virginia Polonio Géraldine Criquet		0.5	SURV 2		
Assessment Period	Assessment Period January 2021				

Scope Details				
Main Species	Lemon sole (<i>Microstomus kitt</i>)			
Stock	Subarea 4 and divisions 3.a and 7.d (North Sea, Skagerrak and Kattegat, eastern English Channel)			
Fishery Location	FAO 27 Atlantic, Northeast			
Management Authority (Country/ State)	European Union Common Fisheries Policy, Denmark government			
Gear Type(s)	Beam, Otter, Gillnet			
Outcome of Assessment				
Peer Review Evaluation	Agree with the assessor's recommendation			
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 MarinTrust raw material. Lemon sole (*Microstomus kitt*) does not appear as Endangered or Critically Endangered on IUCN's Red List, nor does it appear in CITES appendices, therefore, lemon sole is eligible for approval for use as MarinTrust by-product raw material.

One stock forms part of this assessment:

1) Lemon sole (*M. kitt*) in Subarea 4 and divisions 3.a and 7.d (North Sea, Skagerrak and Kattegat, eastern English Channel)

The EU multiannual plan (MAP) for stocks in the North Sea (EU, 2018) and adjacent waters applies to bycatches of this stock. The MAP stipulates that when the FMSY ranges are not available, fishing opportunities should be based on the best available scientific advice, therefore the species is subject to a species-specific management plan and is assessed under Category C.

Fishery removals of the stock are considered in the various stock assessment processes so the stock **PASSES** Clause C1.1.

For lemon sole in the assessment area the most recent estimated spawning stock biomass (SSB) is likely to be above Blim and removals are not considered to be negligible therefore, the stock **PASSES** Clause C1.2.

In order to be approved, the stock assessed must pass both Clause C1.1 and C1.2; therefore, Lemon sole (*M. kitt*) in Subarea 4 and divisions 3.a and 7.d (North Sea, Skagerrak and Kattegat, eastern English Channel) is **APPROVED** by the assessor for the production of fishmeal and fish oil under the current MarinTrust v 2.0 by-products standard.

Peer Review Comments

The assessor correctly classified western the North Sea, Skagerrak and Kattegat, eastern English Channel lemon sole stock as category C, the stock is managed and reference points are defined to assess the stock status against.

Fishery removals from the stock are considered in the stock assessment process. The most recent stock assessment shows that the stock is considered to have a biomass above the limit reference point.

The western the North Sea, Skagerrak and Kattegat, eastern English Channel lemon sole passes both C1.1 and C1.2 and is therefore approved.

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)

Common name	Latin name	Stock	Management	Category	IUCN Red List Category ¹	CITES Appendix 1 ²
Lemon sole	Microstomus kitt	Lemon sole (<i>Microstomus kitt</i>) in Subarea 4 and divisions 3.a and 7.d (North Sea, Skagerrak and Kattegat, eastern English Channel)	EU/CFP, Denmark	C	LC	No

¹ <u>https://www.iucnredlist.org/</u>

² <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.

Spe	Species Name Lemon Sole, Microstomus kitt			
C1 Category C Stock Status - Minimum Requirements				
CI	C1.1		movals of the species in the fishery under assessment are included in the stock It process, OR are considered by scientific authorities to be negligible.	PASS
	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.

Input data used are commercial catches (international landings and discards), three survey indices (IBTS Q1 and Q3, BTS Q3), fixed maturity estimates, and annual weight-at-age data from the surveys. Discarding is known to take place and discards have been quantified for 2002–2018 (average rate for 2016–2018 = 15.72%).

Therefore, 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.

Total mortality Z3–5 has fluctuated without trend. Spawning-stock biomass (SSB) increased from 2007 to 2012, and has remained stable since, albeit with a small decline in 2018. Recruitment has shown a mostly downwards trend since a peak in 2011. (Figure 1).

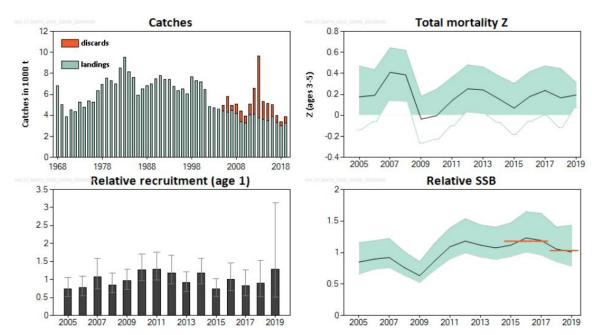


Figure 1. Lemon sole in Subarea 4 and divisions 3.a and 7.d. Summary of the stock assessment. Left: Official landings (1968–2004) and ICES-estimated landings and discards (2005–2019 only). Upper right: SURBAR-estimated relative recruitment with 90% confidence intervals. Lower left: SURBAR-estimated mean Z over ages 3–5, with 90% confidence intervals. Lower right:



SURBAR-estimated relative SSB with 90% confidence intervals. The red horizontal lines show the mean stock indicators for 2018–2019 and 2015–2017. Source: ICES 2020

Consequently, exploitation is below the FMSY proxy and the Flim proxy, and relative SSB is just below the all-time high, it is likely that the stock is above Blim.

Therefore, 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

Monroe, T., Costa, M., Nielsen, J., Herrera, J. & de Sola, L. 2015. *Microstomus kitt*. The IUCN Red List of Threatened Species 2015: e.T18227047A45790333.

CITES. 2020. CITES Appendices I, II and III valid from 26 November 2019. Convention on International Trade in Endangered Species of Wild Fauna and Flora.

ICES. 2019a. Lemon sole (*Microstomus kitt*) in Subarea 4 and divisions 3.a and 7.d (North Sea, Skagerrak and Kattegat, eastern English Channel). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, lem.27.3a47d, https://doi.org/10.17895/ices.advice.4862

ICES. 2020. Lemon sole (*Microstomus kitt*) in Subarea 4 and divisions 3.a and 7.d (North Sea, Skagerrak and Kattegat, eastern English Channel). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, lem.27.3a47d. https://doi.org/10.17895/ices.advice.5833.

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

Fishery Assessment TEMPLATE April 2020



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 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 gfio
- 5. EU Commission

6. IUCN