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IFFO RS
Global Standard for Responsible Supply
of Marine Ingredients

IFFO RS Limited

T: +44 (0) 2030 539 195
E: Standards@iffors.com
W: www.iffors.com

Unit C, Printworks | 22 Amelia Street
London, SE17 3BZ | United Kingdom



Global Standard for Responsible Supply of Marine Ingredients Fishery Assessment Methodology and Template Report V2.0



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Fishery Under Assessment	Lemon sole (<i>Microstomus kitt</i>) ICES Areas IVa-c, VIa, VIIa,b,d-h,j
Date	April 2019
Assessor	Jim Daly

Application details and summary of the assessment outcome				
Name: Pelagia Ireland and UK				
Address: Killybegs, Grimsby				
Country: Ireland, UK		Zip:		
Tel. No.:		Fax. No.:		
Email address:		Applicant Code		
Key Contact: Geraldine Fox		Title: Quality Manager		
Certification Body Details				
Name of Certification Body:		SAI Global		
Assessor Name	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval	Whole fish/ By-product
Jim Daly	Vito Romito	0.5	Surveillance 1	By-product
Assessment Period	2018			

Scope Details	
Management Authority (Country/State)	EU/Common Fisheries Policy
Main Species	Lemon sole (<i>Microstomus kitt</i>)
Fishery Location	ICES Areas IVa-c, VIa, VIIa,b,d-h,j
Gear Type(s)	Beam, Otter, Gillnet
Outcome of Assessment	
Overall Outcome	Pass
Clauses Failed	None
Peer Review Evaluation	Pass
Recommendation	APPROVE

Assessment Determination
<p>There is an effective fishery management framework in place at EU level, but there is no evidence of it being applied to all of the area under assessment. Fishery removals are included in the stock assessment process in some areas. There is currently no specific management plan for lemon sole in the assessment area. The management area (Fishery Location for which TAC's are allocated) does not correspond to the area for which ICES advice is given.</p> <p>The North Sea lemon sole stock assessment was benchmarked during the winter of 2017-2018 (ICES, WKNSEA 2018), during which available data, stock assessment methods and basis for advice were thoroughly revised and updated. It is assumed (on the basis of lack of evidence) that the assessment area covers one unit stock, and that there is no migration into or out of this area. Fishery removals of the species in the fishery under assessment are included in the stock assessment process.</p> <p>Regulations including minimum mesh size and restrictions on the permitted percentage of Lemon sole bycatch when targeting other, more valuable species should restrict fishing mortality. No reference points are defined in terms of absolute values however modelling suggests that fishing mortality is below and stock size above proxies of MSY reference points in the area assessed (North Sea, Skagerrak and Kattegat, Eastern English Channel). The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy).</p> <p>The European Commission (2018) has proposed a multiannual management plan (MAP) for all important demersal stocks in Western Waters (including Lemon sole) which is not yet finalized. The introduction of this new approach would allow achievement of conservation objectives while, at the same time, permitting elimination of fishing effort limitations meaning that numerous reporting and control obligations would not be required. This will result in a significant reduction of the administrative burden.</p> <p>Lemon sole has not yet been assessed on the IUCN Red List. The species also does not appear on the current CITES list of endangered species (both sites accessed 02.04.19).</p> <p>The assessment team recommends the approval of Lemon sole as a by-product species under the current IFFO RS By-products Standard.</p>
Peer Review Comments
<p>There is an effective fishery management framework in place at EU level, but there is no evidence of it being applied to all of the area under assessment.</p>

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, the species passes Clause C1.1.

The stock has also been assessed in 2017 by the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). Surveys (*IBTS, BTS) provided information on distribution, abundance and length frequency. A number of SPiCT model runs (Pedersen and Berg 2017) were also undertaken. On the basis of this final SPiCT analysis, WGNSSK concludes that there is sufficient evidence that $F < F(msy)$ and $B > B(msy)$ for lemon sole. The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy) and passes Clause C1.2.

The Peer Reviewer agrees with the approval of Lemon sole as a by-product species under the current IFFO RS By-products Standard.

Notes for On-site Auditor

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Species-Specific Results

Category	Species	% landings	Outcome (Pass/Fail)	
Category A			A1	
			A2	
			A3	
			A4	
Category B				
Category C	Lemon sole (<i>Microstomus kitt</i>)		PASS	
Category D				

[List all Category A and B species. List approximate total % age of landings which are Category C and D species; these do not need to be individually named here]

SPECIES CATEGORISATION

The following table should be completed as fully as the available information permits. Any species representing more than 0.1% of the annual catch should be listed, along with an estimate of the proportion of the catch each species represents. The species should then be divided into Type 1 and Type 2 as follows:

- **Type 1 Species** can be considered the ‘target’ or ‘main’ species in the fishery. They make up the bulk of annual landings and are subjected to a detailed assessment.
- **Type 2 Species** can be considered the ‘bycatch’ or ‘minor’ species in the fishery. They make up a small proportion of the annual landings and are subjected to relatively high-level assessment.

Type 1 Species must represent 95% of the total annual catch. Type 2 Species may represent a maximum of 5% of the annual catch (see Appendix B).

Species which make up less than 0.1% of landings do not need to be listed (NOTE: ETP species are considered separately). The table should be extended if more space is needed. Discarded species should be included when known.

The ‘stock’ column should be used to differentiate when there are multiple biological or management stocks of one species captured by the fishery. The ‘management’ column should be used to indicate whether there is an adequate management regime specifically aimed at the individual species/stock. In some cases it will be immediately clear whether there is a species-specific management regime in place (for example, if there is an annual TAC). In less clear circumstances, the rule of thumb should be that if the species meets the minimum requirements of clauses A1-A4, an adequate species-specific management regime is in place.

NOTE: If any species is categorised as Endangered or Critically Endangered on the IUCN Red List, or if it appears in the CITES appendices, it **cannot** be approved for use as an IFFO RS raw material. This applied to whole fish as well as by-products.

TYPE 1 SPECIES (Representing 95% of the catch or more)

Category A: Species-specific management regime in place.

Category B: No species-specific management regime in place.

TYPE 2 SPECIES (Representing 5% OF THE CATCH OR LESS)

Category C: Species-specific management regime in place.

Category D: No species-specific management regime in place.

Common name	Latin name	Stock	% of landings	Management	Category
Lemon sole	<i>Microstomus kitt</i>	North-East Atlantic	N/A	EU/CFP	C

CATEGORY C SPECIES

In a whole fish assessment, Category C species are those which make up less than 5% of landings, but which are subject to a species-specific management regime. In most cases this will be because they are a commercial target in a fishery other than the one under assessment. 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. A Category C species does not meet the minimum requirements of clause C1 should be re-assessed as a Category D species.

Species Name		Lemon sole <i>Microstomus kitt</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.	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
Evidence			
C1.1:			
Common Fisheries Policy:			
<p>Member States of the European Union implement the Common Fisheries Policy (CFP) in their waters. In force since 1983, the CFP aims to reconcile resource conservation with the preservation of income and jobs in coastal zones that offer few alternatives in terms of production or employment. It therefore covers not just resources but also markets and structures.</p>			
<p>With regard to resource management, the CFP regulations comprise:</p>			
<ul style="list-style-type: none"> • A traditional management tool based on Total Allowable Catches (TACs) and quotas; • Technical measures relating to gear or catch; • Effort-related management, based on vessel engine power and the number of days at sea. 			
<p>The CFP also provides for the introduction of measures to rebuild, over a period of several years, stocks that are threatened in terms of sustainable harvesting, and for recourse to effort-related management rules to supplement TACs and quotas.</p>			
<p>The CFP is periodically reviewed and reformed. The most recent CFP reform process was completed in 2013 and came into effect from the 1st January 2014. Key changes include:</p>			
<ul style="list-style-type: none"> • The introduction of an objective to ‘ensure high long-term fishing yields for all stocks at the latest by 2020’ (i.e. movement towards an MSY-based approach). • The gradual (2015-2019) introduction on a fishery-by-fishery basis of a ‘landing obligation’, which effectively bans discarding. • An overhaul of the management structure, including increased regionalisation and more extensive stakeholder consultation. 			

Species – Specific Management:

ICES Advice North Sea, Skagerrak and Kattegat, eastern English Channel (IIIa, IV, VIId):

The management area does not correspond to the area for which ICES advice is given. There is no specific management plan for lemon sole in this area. Lemon sole is mainly fished as a bycatch species in other, more valuable fisheries.

Catch data for the years 2002-2016 were provided by several participating nations following the 2017 WKNSEA data call, and were collated using the Inter Catch system. Commercial age samples for landings and discards proved to be sparse. They were only provided by two countries (Denmark and Belgium). ICES note that length data from commercial fleets have not been consistently provided, and age data are very sparse. Improved information on age and length distributions in landings and discards, from most countries participating in the fishery, would be required in order to conduct a fully analytical, catch-based assessment.

Official landings data are available from 1950 onwards, while ICES landings and discard estimates are available for the years 2013–2016 (**Figure 1**):

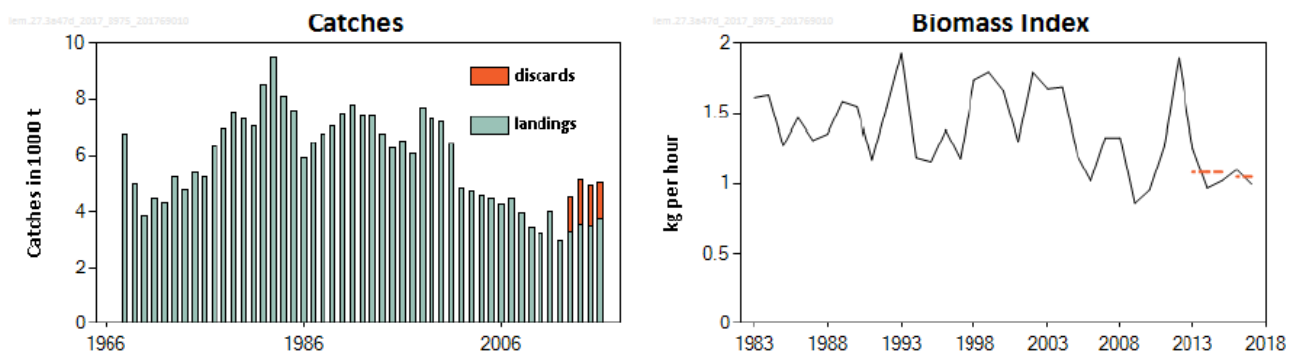


Figure 1. Lemon sole in Subarea IV and Divisions IIIa and VIId. Summary of the stock assessment. Left: Official landings (1983–2012), and ICES estimated landings and discards (2013–2016; tonnes). Official landings for 2012 are low because some data were not submitted. Right: Abundance indices (trend in catch per unit effort since 1966 (kg h⁻¹) from IBTS Q1), including horizontal lines showing the DLS 3.2 decision rule. Source: **R3**

Fishery removals of the species in the fishery under assessment are included in the stock assessment process, **the species passes Clause C1.1.**

C1.2: ICES Advice: North Sea, Skagerrak and Kattegat, eastern English Channel ICES IIIa, IV, VIId

ICES apply their framework for Category 3 stocks (stocks for which survey based assessments indicate trends, ICES, 2012). The Surplus Production in Continuous Time (SPiCT; Pedersen and Berg, 2017) analysis suggests that fishing mortality is below and stock size above proxies of MSY reference points (**Figure 2, Table 1**). No reference points are defined for this stock in terms of absolute values.

In the opinion of ICES management of lemon sole under a combined species TAC prevents effective control of the single-species exploitation rates and could potentially lead to over-exploitation of either species. ICES advises that a single-species TAC could be more appropriate.

The stock has also been assessed in 2017 by the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). Surveys (*IBTS, BTS) provided information on distribution, abundance and length frequency. A number of SPiCT model runs (Pedersen and Berg 2017) were also undertaken. On the basis of this final SPiCT analysis, WGNSSK concludes that there is sufficient evidence that $F < F(\text{msy})$ and $B > B(\text{msy})$ for lemon sole.

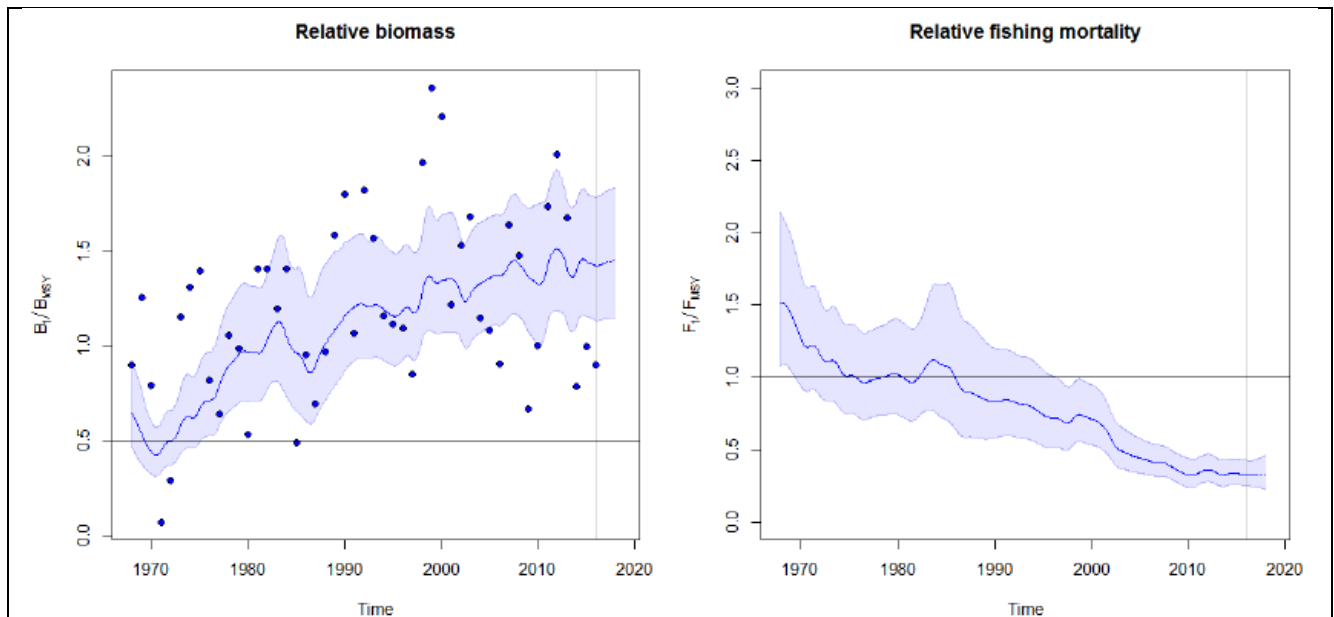


Figure 2. Lemon sole in Subarea IV0 and Divisions IIIa and VIIId. SPiCT analysis showing exploitable biomass relative to BMSY and fishing mortality relative to FMSY. The symbols in the relative biomass plot indicate observed biomass indices (blue dots = IBTS Q1) while the shaded areas in both plots indicate 95% confidence intervals. The horizontal lines indicate levels relative to the FMSY and MSY Btrigger proxies. A subset of the IBTS Q1 index (Dutch and Scottish surveys only) is used for the SPiCT analysis, which differs from the full IBTS used for the index ratio. Source: **R3**.

ICES advises that when the precautionary approach is applied, catches should be no more than 5,484 tonnes in each of the years 2018 and 2019. If discard rates do not change from the average of the last three years (2014–2016), this implies landings of no more than 3,924 t in each of the years 2018 and 2019.

Table 1 Lemon sole in Subarea 4 and divisions 3.a and 7.d. State of the stock and fishery relative to reference points. **R3**

		Fishing pressure			Stock size					
		2014	2015	2016	2015	2016	2017			
Maximum sustainable yield	F_{MSY} proxy	✓	✓	✓	Below	$MSY B_{trigger}$ proxy	✓	✓	✓	Above trigger
Precautionary approach	F_{pa} , F_{lim}	✓	✓	✓	Below possible reference points	B_{pa} , B_{lim}	✓	✓	✓	Above possible reference points
Management plan	F_{MGT}	—	—	—	Not applicable	B_{MGT}	—	—	—	Not applicable

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy) **and passes Clause C1.2**.

Lemon sole is currently listed on the IUCN Red List as a species of least concern (accessed 02.04.19).

R1-R7

References

R1 EU Fishing Quotas (2018):

- Council Regulation (EU) No. 2018/120 fixing for 2018 the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R0120>

R2 EU Technical Measures (Consolidated):

- Annex I Council Regulation (EC) No 850/98 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01998R0850>

R3 ICES Advice: (2017,2018):

- Subarea IV; Divisions IIIa and VIId:
<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/lem.27.3a47d.pdf>

R4 Implementation of Advice for Data-limited Stocks in 2012 ICES CM 2012/ACOM: 68. 42 pp.

R5 ICES WGNSSK REPORT (2017): Lemon sole in Subarea 4, Divisions 3.a and 7.d (North Sea, Skagerrak, Kattegat and Eastern English Channel) pp 301-328:

- <http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2017/WGNSSK/11%20WGNSSK%>

R6 ICES Stock Annex (April 2018): Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) 7pp

http://www.ices.dk/sites/pub/Publication%20Reports/Stock%20Annexes/2018/lem.27.3a47d_SA.pdf

R7 IUCN Red list: <http://www.iucnredlist.org/search>

Standard clauses 1.3.2.2

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.