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IFFO RS
Global Standard for Responsible Supply
of Marine Ingredients

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



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Fishery Under Assessment	Ling (<i>Molva molva</i>) ICES Areas IVa-c, VIa, VIIa,b,d-h,j
Date	May 2019
Assessor	Jim Daly

Application details and summary of the assessment outcome				
Name: Copalis Industrie				
Address:				
Country: France		Zip:		
Tel. No.:		Fax. No.:		
Email address:		Applicant Code		
Key Contact:		Title:		
Certification Body Details				
Name of Certification Body:		SAI Global Ltd		
Assessor Name	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval	Whole fish/ By-product
Jim Daly	Virginia Polonio	0.5	SURV 2	By-product
Assessment Period	2018			

Scope Details	
Management Authority (Country/State)	EU/Common Fisheries Policy
Main Species	Ling (<i>Molva molva</i>)
Fishery Location	ICES Areas IVa-c, VIa, VIIa,b,d-h,j
Gear Type(s)	Longlines, trawls
Outcome of Assessment	
Overall Outcome	Pass
Clauses Failed	None
Peer Review Evaluation	Agree with the final conclusion
Recommendation	Pass

Assessment Determination
<p>There is no specific management plan for ling in the assessment area. No biomass reference points are defined in terms of absolute values. However, regulations including minimum mesh size and restrictions on the permitted percentage of ling bycatch when targeting other, more valuable species should restrict fishing mortality. Through quota management in part of the assessment area, reasonable measures are taken to minimise the impact of the fishery on this species. There is currently no substantial evidence that the fishery has a significant negative impact on the species.</p> <p>Landings have been stable for the last five years, with an increase in discards in the last three years. A standardized catch per unit effort (CPUE) based on data from the Norwegian longline fleet shows a positive trend since 2004.</p> <p>Using the Productivity-Susceptibility Analysis (PSA) for Category D species ling is approved by the assessment team under the current IFFO-RS Standard with a medium compliance rating due to susceptibility and post-capture attributes. The potential impacts of the fishery on this species are considered during the management process; there is no substantial evidence that the fishery has a significant negative impact on the species.</p> <p>Ling 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 22.05.19).</p> <p>Ling is recommended for approval as by-product material under the IFFO RS Standard.</p>
Peer Review Comments
Notes for On-site Auditor

Species-Specific Results

Category	Species	% landings	Outcome (Pass/Fail)	
Category A			A1	
			A2	
			A3	
			A4	
Category B				
Category C				
Category D	Ling (<i>Molva molva</i>)		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:

Common name	Latin name	Stock	% of landings	Management	Category
Ling	<i>Molva molva</i>	North East Atlantic		No specific management regime in place	D

CATEGORY D SPECIES

In a whole fish assessment, 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. In a by-product assessment, Category D species are those which are not subject to a species-specific management regime. In both cases, 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.

The process for assessing Category D species involves the use of a Productivity-Susceptibility Analysis (PSA) to further subdivide the species into ‘Critical Risk’, ‘Major Risk’ and ‘Minor Risk’ groups. If there are no Category D species in the fishery under assessment, this section can be deleted.

Productivity and susceptibility ratings are calculated using a process derived from the APFIC document “Regional Guidelines for the Management of Tropical Trawl Fisheries, which in turn was derived from papers by Patrick *et al* (2009) and Hobday *et al* (2007). Table D1 should be completed for each Category D species as follows:

- Firstly, the best available information should be used to fill in values for each productivity and susceptibility attribute.
- Table D2 should be used to convert each attribute value into a score between 1 and 3.
- The average score for productivity attributes and the average for susceptibility attributes should be calculated.
- Table D3 should be used to determine whether the species is required to meet the requirements of Table D4. A species which does not need to meet the requirements of D4 is automatically awarded a pass.
- Table D4 should be used to assess those species indicated by Table D3 to determine a pass/fail rating.
- Any Category D species which has been categorised by the IUCN Red List as Endangered or Critically Endangered, or which appears in the CITES appendices, automatically results in a fail.

D1	Species Name:	LING <i>Molva</i>	
	Productivity Attribute	Value	Score
	Average age at maturity (years)	5-6	3
	Average maximum age (years)	25	2
	Fecundity (eggs/spawning)	20-60 x 10 ⁶	1
	Average maximum size (cm)	106	2
	Average size at maturity (cm)	90	2
	Reproductive strategy	Broadcast	1
	Mean trophic level	4.4	3
	Average Productivity Score		2.0
	Susceptibility Attribute	Value	Score
	Overlap of adult species range with fishery	>50% in area	3
	Distribution	Not scored if overlap scored	
	Habitat	Demersal	3
	Depth range	100-400m	1
	Selectivity	*Mesh size ≥100mm	3
	Post-capture mortality		3
	Average Susceptibility Score		3
	PSA Risk Rating (From Table D3)		FAIL
	Compliance rating		Medium
	References R1-R4:		
	R1 Fishbase Species Search:		
	<ul style="list-style-type: none"> http://www.fishbase.org/Summary/SpeciesSummary.php?ID=33&AT=ling 		
	*R2 EU Technical Measures (Consolidated):		
	<ul style="list-style-type: none"> 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 CITES Species Endangered list: http://checklist.cites.org/#/en		
	R4 IUCN Red list: http://www.iucnredlist.org/search		
	<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		
		1.00 – 1.75	1.76 – 2.24	2.25 – 3.00
Average Productivity Score	1.00 – 1.75	PASS	PASS	PASS
	1.76 – 2.24	PASS	PASS	TABLE D4
	2.25 – 3.00	PASS	TABLE D4	TABLE D4

D4	Species Name		LING <i>Molva molva</i>
	Impacts On Species Categorised as Vulnerable by D1-D3 - Minimum Requirements		
	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.	PASS
	D4.2	There is no substantial evidence that the fishery has a significant negative impact on the species.	PASS
Outcome:			PASS
<p>Evidence: D4.1-D4.2</p> <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>ICES Advice (2017, 2018) Northeast Atlantic and Arctic Ocean: R5-R6:</p> <p>Landings have been stable for the last five years, with an increase in discards in the last three years. A standardized catch per unit effort (CPUE) based on data from the Norwegian longline fleet shows a positive trend since 2004. The index is estimated to have increased by more than 20%, and the uncertainty cap was applied in estimating the catch advice. Fishing mortality is below the proxy of the MSY reference points. The stock size relative to candidate reference points is unknown, but the stock has been increasing since 2004. Therefore, the precautionary buffer was not applied.</p> <p>ICES advises that when the precautionary approach is applied, catches should be no more than 17,695 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 16,793 tonnes.</p> <p>The potential impacts of the fishery on this species are considered during the management process; there is no substantial evidence that the fishery has a significant negative impact on the species.</p>			
<p>References R5-R6</p> <p>R5 EU Fishing Quotas (2019): Council Regulation (EU) No. 2019/124 fixing for 2019 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: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R0124</p>			

R6 ICES Advice Ling (2017, 2018):

- Subareas VI-IX, XII, and XIV, Divisions IIIa, IVa (Northeast Atlantic and Arctic Ocean):
<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/lin.27.3a4a6-91214.pdf>

Standard clause 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.