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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	Saithe (<i>Pollachius virens</i>) Norway
Date	February 2019
Assessor	Jim Daly

Application details and summary of the assessment outcome				
Name: Pelagia AS- Egersund Sildoljefabrikk; Pelagia AS- Bodo Sildoljefabrikk; Pelagia AS- Karmsund Fiskemel; Pelagia AS- Måløy Sildoljefabrikk; edde AS. Karmsund Protein				
Address:				
Country: Norway		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	Conor Donnelly	0.5	Surveillance Year 1	By-product
Assessment Period	2018			

Scope Details	
Management Authority (Country/State)	Norway/EU
Main Species	Saithe (<i>Pollachius virens</i>)
Fishery Location	FAO 27 (Barents Sea, Icelandic, Faroe Islands, North Sea (Skagerrak) Stocks.
Gear Type(s)	Primarily bottom-trawl; also gillnet, longline, purse-seine
Outcome of Assessment	
Overall Outcome	PASS
Clauses Failed	NONE
Peer Review Evaluation	APPROVE
Recommendation	PASS

Assessment Determination
<p>The management of fisheries in Norway falls under the jurisdiction of the Ministry of Trade, Industry and Fisheries (Department of Fisheries and Aquaculture). A Directorate of Fisheries and Aquaculture acts as the Ministry's advisory and executive body. The main research body is the Institute of Marine Research (IMR). Both Ministry and Directorate develop and apply fishery laws and regulations through an ongoing interactive process referred to as the Regulatory Chain. Scientific research and advice take key positions within the chain, ensuring understanding of the stock and broader ecosystem are taken into account. The Ministry is based in Oslo, the Directorate and Institute are located in Bergen. The Department for Fisheries and Aquaculture is responsible for matters related to fisheries, the fishing fleet and the aquaculture industry.</p> <p>For stocks including Saithe (<i>Pollachius virens</i>) fished in EU waters multiannual plans (MAPs) are in place and include targets of fishing at maximum sustainable yield (MSY) with deadlines for achieving these targets and also contain measures for the implementation of the landing obligation. MAPs may also include technical control measures. The European Commission (EC) have proposed (2016) a multi-annual plan for demersal fish stocks in the North Sea which has yet to be approved.</p> <p>Saithe is managed as a large number of distinct stocks in EU waters, each of which is subject to an annual TAC and a variety of other management measures. The specific nature of management mechanisms in place and the nature (and effectiveness) of management plans varies between management units. Management stocks are not identical to ICES advice areas. Only those stocks in the fishery from the assessment area are considered in this report.</p> <p>Four assessment units are considered within the NE Atlantic region for evaluation of the stock condition: (Figure 1):</p> <ul style="list-style-type: none"> • Barents Sea (Subareas I and II, Northeast Arctic), mainly along the coast of Norway south to 62°N (this profile). Haddock and cod are also targeted in this fishery. • Icelandic (Division Va). • North Sea, Skagerrak, west of Scotland and the Rockall (Divisions IIIa, IV and Subarea VI). • Faroe Islands (Division Vb).

There is a management plan which is consistent with the precautionary approach. Precautionary reference points have been defined. Several saithe fisheries are certified by the Marine Stewardship Council. Discards are low. Catches are below set TACs, and TACs have been in line with scientific advice. Fishery removals of the species in the fishery under assessment are included in the stock assessment process. The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy).

Saithe (*Pollachius virens*) has not yet been assessed for the IUCN Red List and is not on the current list of CITES endangered species (websites accessed 19.02.19).

Saithe (*Pollachius virens*) is approved by the assessment team for the production of fishmeal and fish oil under the IFFO-RS v 2.0 standard (by-products).

Peer Review Comments

Agree

Notes for On-site Auditor

Note: This table should be completed for whole fish assessments only.

Species-Specific Results

Category	Species	% landings	Outcome (Pass/Fail)	
Category A			A1	
			A2	
			A3	
			A4	
Category B				
Category C	Saithe (<i>Pollachius virens</i>)	N/A	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]

HOW TO COMPLETE THIS ASSESSMENT REPORT

This assessment template uses a modular approach to assessing fisheries against the IFFO RS standard.

Whole Fish

The process for completing the template for a **whole fish** assessment is as follows:

1. ALL ASSESSMENTS: Complete the Species Characterisation table, to determine which categories of species are present in the fishery.
2. ALL ASSESSMENTS: Complete clauses M1, M2, M3: Management.
3. IF THERE ARE CATEGORY A SPECIES IN THE FISHERY: Complete clauses A1, A2, A3, A4 for **each** Category A species.
4. IF THERE ARE CATEGORY B SPECIES IN THE FISHERY: Complete the Section B risk assessment for **each** Category B species.
5. IF THERE ARE CATEGORY C SPECIES IN THE FISHERY: Complete clause C1 for **each** Category C species.
6. IF THERE ARE CATEGORY D SPECIES IN THE FISHERY: Complete Section D.
7. ALL ASSESSMENTS: Complete clauses F1, F2, F3: Further Impacts.

A fishery must score a pass in **all applicable clauses** before approval may be recommended. To achieve a pass in a clause, the fishery/species must meet **all** of the minimum requirements.

By-products

The process for completing the template for **by-product raw material** is as follows:

1. **ALL ASSESSMENTS:** Complete the Species Characterisation table with the names of the by-product species and stocks under assessment. The ‘% landings’ column can be left empty; all by-products are considered as Category C and D.
2. **IF THERE ARE CATEGORY C BYPRODUCTS UNDER ASSESSMENT:** Complete clause C1 for **each** Category C by-product.
3. **IF THERE ARE CATEGORY D BYPRODUCTS UNDER ASSESSMENT:** Complete Section D.
4. **ALL OTHER SECTIONS CAN BE DELETED.** Clauses M1 - M3, F1 - F3, and Sections A and B do not need to be completed for a by-product assessment.

By-product approval is awarded on a species-by-species basis. Each by-product species scoring a pass under the appropriate section may be approved against the IFFO RS Standard.

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
Saithe	<i>Pollachius virens</i>	NEA	N/A	EU/Norway	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		SAITHE <i>Pollachius virens</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			
C 1.1:			
Norway has a landing obligation and to avoid discarding, small quota overshoots are landed. The value of the catch is then administratively withdrawn from the vessel and counted against the TAC. If more serious quota infractions occur, the Directorate can administer fines, withdraw quota or submit a police report, which will hand the issue over to the criminal system. Fishing license and a license to purchase fish may also be withdrawn as can the value of the catch.			
Input data in the stock assessment is derived from commercial catches (international landings, BMS (Below Minimum Size) landings, and discards, age frequencies from catch sampling); survey indices; and a combined commercial index scaled to the exploitable biomass. Stock weights are catch weights.			

Table 1 Saithe in subareas 1 and 2. State of the stock and fishery relative to reference points. **R7**

		Fishing pressure			Stock size					
		2015	2016	2017	2016	2017	2018			
Maximum Sustainable Yield	F_{MSY}	?	?	?	Undefined	MSY $B_{Trigger}$?	?	?	Undefined
Precautionary Approach	F_{pa} F_{lim}	✓	✓	✓	Harvested sustainably	B_{pa} , B_{lim}	✓	✓	✓	Full reproductive capacity
Management plan	F_{MP}	✓	✓	✓	Below	SSB_{MGT}	✓	✓	✓	Above

The advised catch for 2019 is lower than that advised for 2018 because the stock is estimated to be lower than last year, partly due to a change in the methodology used for calculating survey indices. Due to the management plan, the downward trend in predicted catch causes the advised TAC to be lower than if based solely on the 2019 forecast. The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy) **and passes Clause C 1.2.**

Saithe (*Pollachius virens*) in Division 5.a (Iceland grounds):

The spawning-stock biomass (SSB) has been above MSY Btrigger since 1998 and is currently at the time-series maximum. The harvest rate (HR) has declined from 2009 and is presently below HRMSY. Recruitment (R) has been fluctuating and is estimated to be well above the average in every year of the last decade, except 2018. The reference biomass (B4+) has increased since 2015 due to the 2013 year class, which is estimated to be strong. ICES assesses that fishing pressure on this stock is below HRMSY, HRMGT, Fpa, Flim, and spawning stock size is above MSY Btrigger, MGT Btrigger, Bpa, and Blim (**Table 2**):

Table 2 Saithe in Division 5.a. State of the stock and fishery relative to reference points **R8**

		Fishing pressure			Stock size					
		2015	2016	2017	2016	2017	2018			
Maximum Sustainable Yield	HR_{MSY}	✓	✓	✓	Appropriate	MSY $B_{Trigger}$	✓	✓	✓	Above trigger
Precautionary Approach	F_{pa} F_{lim}	✓	✓	✓	Harvested sustainably	B_{pa} , B_{lim}	✓	✓	✓	Full reproductive capacity
Management plan	HR_{MGT}	✓	✓	✓	Within expected range	MGT $B_{trigger}$	✓	✓	✓	Above

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy) **and passes Clause C 1.2.**

Saithe (*Pollachius virens*) Divisions IIIa, IV and Subarea VI (North Sea, Skagerrak, west of Scotland and Rockall):

Spawning-stock biomass (SSB) has fluctuated without trend and has been above MSY Btrigger since 1996. Fishing mortality (F) has been decreasing and has been below FMSY since 2013. Recruitment (R) has fluctuated over time and has been below the long-term average since 2003. ICES assesses that fishing pressure on the stock is below FMSY, Fpa, and Flim; spawning-stock size is above MSY Btrigger, Bpa, and Blim (Table 3):

Table 3 Saithe in subareas 4 and 6, and in Division 3.a. State of the stock and fishery relative to reference points **R9**

		Fishing pressure			Stock size		
		2015	2016	2017	2016	2017	2018
Maximum Sustainable Yield	F_{MSY}	✓	✓	✓ Below	MSY $B_{Trigger}$	✓	✓ Above trigger
Precautionary Approach	F_{pa} , F_{lim}	✓	✓	✓ Harvested sustainably	B_{pa} , B_{lim}	✓	✓ Full reproductive capacity
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 C 1.2.**

NEAFC request on updated advice for Saithe (*Pollachius virens*) in Division 5.b (Faroes grounds)
ICES advice:

The spawning-stock biomass (SSB) was below MSY Btrigger from 2012 to 2013, but is estimated to have been above MSY Btrigger since 2014. Recruitment has fluctuated without trend since 2000; in 2018 recruitment is estimated to be below the historical average. Fishing mortality (F) has been above FMSY since 1981. ICES assesses that fishing pressure on the stock is above FMSY and below Fpa and Flim, while spawning stock size is above MSY Btrigger, Bpa, and Blim: **Table 4:**

Table 4 Saithe in Division 5.b. State of the stock and fishery relative to reference points. **R10**

		Fishing pressure			Stock size		
		2015	2016	2017	2016	2017	2018
Maximum sustainable yield	F_{MSY}	✗	✗	✗ Above	MSY $B_{trigger}$	✓	✓ Above trigger
Precautionary approach	F_{pa} , F_{lim}	⚠	✓	✓ Harvested sustainably	B_{pa} , B_{lim}	✓	✓ Full reproductive capacity
Management plan	F_{MGT}	—	—	— Not applicable	B_{MGT}	—	— Not applicable

The stock was benchmarked in 2017 and the assessment model and input data were changed. As a result, the historical stock perception has changed markedly. In the assessment SSB tends to be overestimated while F tends to be underestimated. The combination of uncertain survey indices, particularly for recruitment, leads to high uncertainty in the estimates of current SSB and fishing mortality.

The species is considered, in its most recent stock assessment, to have a biomass above the limit reference point (or proxy) **and passes Clause C 1.2.**

References

- R1:** Directorate of Fisheries: Norwegian-Fisheries-Management
<https://www.fiskeridir.no/English/Fisheries/Norwegian-Fisheries-Management>
- R2:** Ministry of Trade Industry and Fisheries
<https://www.regjeringen.no/en/id4/>
- R3:** Institute of Marine Research (IMR)
<http://www.imr.no/en>
- R4:** Norwegian Fisheries Management pdf 20pp www.fisheries.no (EN)

R5 Northeast Atlantic ICES Areas (adapted from Collinsseafoods.co.uk):

<https://www.bing.com/images/search/collinsseafoods.co.uk>

R6 Fishsource Saithe *Pollachius virens* https://www.fishsource.org/stock_page/1119

R7 ICES Advice (June 2018) Barents Sea (Subareas I and II, Northeast Arctic):

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2018/2018/pok.27.1-2.pdf>

R8 ICES Advice (June 2018) Saithe (*Pollachius virens*) in Division 5.a (Iceland grounds)

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2018/2018/pok.27.5a.pdf>

R9 ICES Advice (June 2018) Saithe (*Pollachius virens*) Subareas IV and VI, Division IIIa

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2018/2018/pok.27.3a46.pdf>

R10 ICES Advice (June 2018) Saithe (*Pollachius virens*) Division 5.b (Faroes Grounds)

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2018/2018/pok.27.5b.pdf>

R11 IUCN Red List: www.iucn.org

Standard clauses 1.3.2.2