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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	Monkfish (Anglerfish) <i>(Lophius piscatorius /L. budegassa)</i>
Date	April 2019
Assessor	Jim Daly

Application details and summary of the assessment outcome				
Name: Pelagia Ireland, UK				
Address: Killybegs (IE), Grimsby (UK)				
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 Ltd		
Assessor Name	Peer Reviewer	Assessment Days	Initial/Surveillance/Re-approval	Whole fish/ By-product
Jim Daly	Vito Romito	0.5	Surveillance 2	By-product
Assessment Period	2018			

Scope Details	
Management Authority (Country/State)	EU/Common Fisheries Policy
Main Species	Monkfish (Anglerfish)
Fishery Location	North East Atlantic (ICES IVa-c, Via,b,d-h,j)
Gear Type(s)	Demersal trawls, Gill and Tangle Nets; <i>Nephrops</i> trawl.
Outcome of Assessment	
Overall Outcome	Pass
Clauses Failed	None
Peer Review Evaluation	Pass
Recommendation	Approve

Assessment Determination
<p>Monkfish (Anglerfish) are a long-lived, late-maturing, slow-growing species with fluctuating levels of recruitment that may make it susceptible to overfishing. They are heavily targeted by bottom trawl fisheries in the North Atlantic where overfishing and habitat destruction has been documented. Two species are assessed separately but advised as a single stock since the EU issues a single TAC covering both species. ICES advice is based on the data-limited approach (ICES 2012).</p> <p>ICES considers several different units of anglerfish for assessment and management purposes:</p> <ul style="list-style-type: none"> • Anglerfish in Division IIIa (Kattegat and Skagerrak), Subarea IV (North Sea), and Subarea VI (West of Scotland and Rockall) (<i>Lophius piscatorius</i> and <i>L. budegassa</i>) (covered by this assessment). • Anglerfish (<i>L. piscatorius</i>) and blackbellied angler (<i>L. budegassa</i>) in Divisions VIIb-k and VIIa,b,d (Southern Celtic Sea and Bay of Biscay) (covered by this assessment). • Anglerfish and blackbellied angler in Divisions VIIIc and IXa (Cantabrian Sea and Atlantic Iberian waters, not covered by this assessment). <p>One TAC area covers Subarea IV and Division II a (EC); the second covers Division V.b (EC) and subareas VI, XII and XIV. There is no TAC for Division III a. As a result of this mismatch, there is a potential for catches to exceed advice. Discard levels were higher in 2013, 2016, and in 2017 owing to incoming high recruitment in these years. 2017 quota restrictions in both the demersal whitefish and the <i>Nephrops</i> fisheries have also resulted in discarding of marketable anglerfish.</p> <p>Management of <i>Lophius budegassa</i> and <i>L. piscatorius</i> (Divisions VII b-k, VIII .a-b, and VIII d) under a combined species TAC prevents effective control of the single-species exploitation rates and could lead to the overexploitation of either species. ICES is not aware of any currently agreed precautionary management plans for anglerfish (<i>L. budegassa</i>) in this assessment area.</p> <p>The European Commission has proposed a multiannual management plan (MAP) for Western Waters, which is not yet finalized. It is proposed (EU 2018) to replace five existing single-species based multi-annual plans (MAP) (and the anglerfish management plan in ICES VII b-k, VIII a-b, and VIII d) adopted</p>

by separate regulations by bringing all multi-annual plans (MAP) for the different demersal stocks into one Regulation. 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.

Anglerfish (*L.piscatorius*) is listed by IUCN as a species of least concern (accessed 01.04.19.). 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).

Monkfish/Anglerfish (*Lophius piscatorius* / *L. budegassa*) is approved by the assessment team for the production of fishmeal and fish oil under the IFFO-RS v 2.0 by-products standard.

Peer Review Comments

Monkfish (Anglerfish) are heavily targeted by bottom trawl fisheries in the North Atlantic. Two species are assessed separately but advised as a single stock since the EU issues a single TAC covering both species. ICES advice is based on the data-limited approach. Two units of assessment are considered here.

Anglerfish (*Lophius budegassa*, *Lophius piscatorius*) in Subareas IV, VI and Division IIIa. 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 size indicator increased between 2011–2017 and decreased in 2018 from the historical high. The harvest rate has been relatively stable since 2014. ICES cannot assess the stock and exploitation status relative to the maximum sustainable yield (MSY) and precautionary approach (PA) reference points because the reference points are undefined. However, in spite of the lack of reference points, the use of the precautionary approach, the available information on the state of the stock (stock size indicator), the recent biomass size increase against the backdrop of a stable harvest rate, and a recent benchmarking exercise that has updated catch data has confirmed to the assessment team that the stock appears to have been managed sustainably. The species passes Clause C1.2

Black-bellied anglerfish (*Lophius budegassa*) in Divisions VII b-k, VIII a-b, and VIII d. Fishery removals of the species in the fishery under assessment are included in the stock assessment process: the species passes Clause C 1.1.

Fishing mortality is below proxies of the MSY reference points. Since 2002 fishing mortality has decreased while catches have increased. Stock size is unknown but showing a light increase in 2016. The species is considered, in its most recent stock assessment, likely to have a biomass above limit reference levels and passes Clause C 1.2.

The Peer Reviewer agrees that Monkfish/Anglerfish (*Lophius piscatorius* / *L. budegassa*) should be approved for the production of fishmeal and fish oil under the IFFO-RS v 2.0 by-products standard.

Notes for On-site Auditor

Species-Specific Results

Category	Species	% landings	Outcome (Pass/Fail)	
Category A			A1	
			A2	
			A3	
			A4	
Category B				
Category C	Monkfish (Anglerfish)		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
Monkfish/Anglerfish	<i>(Lophius piscatorius / L. budegassa)</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		Monkfish (Anglerfish) (<i>Lophius piscatorius /L. budegassa</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:			
ICES Advice: Anglerfish (<i>Lophius budegassa</i>, <i>Lophius piscatorius</i>) in Subareas IV, VI and Division IIIa (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat):			
<p>The ICES framework for Category 3 stocks was applied (ICES, 2012). The SCO-IV-VI-AMISS-Q2 survey was used as the index of stock development. The advice is based on a comparison of the two latest index values (Index A) with the three preceding values (index B), multiplied by the recent advised catch. The index is estimated to have increased by more than 20% and thus the uncertainty cap was applied. The stock status relative to candidate reference points is unknown.</p> <p>The precautionary buffer has not previously been applied for this stock, and with the increasing trend in the stock size indicator since 2011, the precautionary buffer was not applied this year either. Discard rate in 2017 was 3.4% of the total catch. Management advice by ICES is based on the precautionary approach. ICES is not aware of any agreed precautionary management plan for anglerfish in this area.</p> <p>Fishery removals of the species in the fishery under assessment are included in the stock assessment process, the species passes Clause C1.1.</p>			

C1.2:

ICES Advice: Anglerfish (*Lophius budegassa*, *Lophius piscatorius*) in Subareas IV, VI and Division III a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat):

The stock size indicator increased between 2011–2017 and decreased in 2018 from the historical high. The harvest rate has been relatively stable since 2014: (Figure 1):

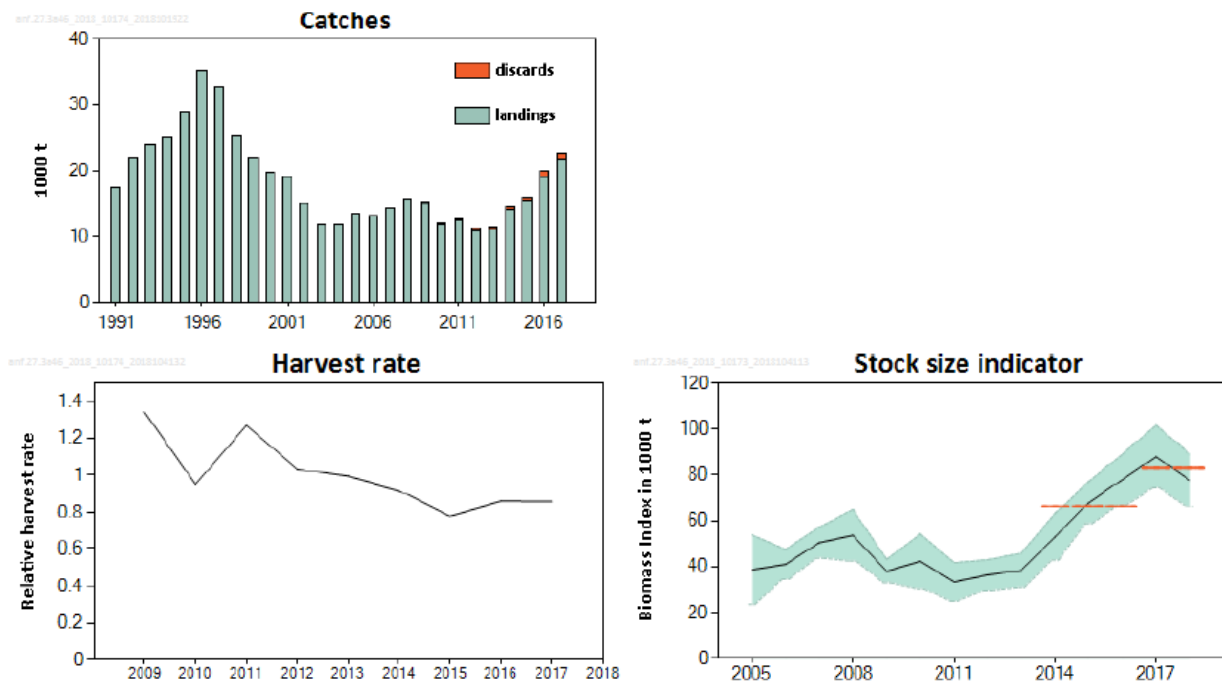


Figure 1 Anglerfish in subareas IV and VI and Division III a. Summary of the stock assessment. Top: ICES landings and discards (thousand tonnes). Bottom left: Relative harvest rate (total catch/stock size indicator; normalized to the average harvest rate). Bottom right: Stock biomass (thousands tonnes) from SCO-IV-VI-AMISS-Q2. The dashed horizontal lines indicate the average of the most recent two years and the previous three years. The shaded area represents the 95% confidence interval. **R1**

ICES cannot assess the stock and exploitation status relative to the maximum sustainable yield (MSY) and precautionary approach (PA) reference points because the reference points are undefined.

The ICES framework for category 3 stocks was applied (ICES, 2012). The SCO-IV-VI-AMISS-Q2 survey was used as the index of stock development. The advice is based on a comparison of the two latest index values (index A) with the three preceding values (index B), multiplied by the recent advised catch.

The index is estimated to have increased by more than 20% and thus the uncertainty cap was applied. The stock status relative to candidate reference points is unknown. The precautionary buffer has not previously been applied for this stock, and with the increasing trend in the stock size indicator since 2011, the precautionary buffer was not applied this year either. Discard rate in 2017 was 3.4% of the total catch.

The SCO-AMISS-IV-VI-Q2 survey does not cover divisions III a, IV b, and IV c, which collectively account for 9% of the landings. It is uncertain to what extent the lack of coverage of these areas affects the quality of the assessment. This stock was benchmarked at WKANGLER (ICES, 2018a). ICES estimates of catch were updated for the period 2002–2016 along with the estimation of discards for the period 2009–2016. No appropriate analytical assessment was agreed. Methods for setting proxy reference points, according to the

ICES technical guidelines for stocks in categories 3 and 4, remain unsuitable for this stock owing to its life history characteristics and uncertainties surrounding the historical catch data.

One TAC area covers Subarea IV and Division II a (EC); the second covers Division V.b (EC) and Subareas VI, XII and XIV. There is no TAC for Division III a. As a result of this mismatch, there is a potential for catches to exceed advice.

Official landings (2016, 2017) have followed the agreed TAC. The precautionary approach to TAC allocation (in use since 2016) continues to be used. Advised catch for 2019 is higher than the 2018 advice due to the increase in the stock size indicator.

In spite of the lack of reference points, the use of the precautionary approach, the available information on the state of the stock (stock size indicator), the recent biomass size increase against the backdrop of a stable harvest rate, and a recent benchmarking exercise that has updated catch data has confirmed to the assessment team that the stock appears to have been managed sustainably. **The species passes Clause C1.2**

ICES Advice: Black-bellied anglerfish (*Lophius budegassa*) in Divisions VII b-k, VIII a-b, and VIII d (west and southwest of Ireland, Bay of Biscay):

C 1.1:

ICES framework for category 3 stocks was applied (ICES, 2012). The combined IE-IGFS-WIBTS-Q4 and FR-EVHOE-WIBTS-Q4 biomass index was used as the index of stock development. The advice is based on a comparison of the two latest index values (index A) with the three preceding values (index B), multiplied by the recent advised landings and divided by $(1 - \text{discard rate})$. The index is estimated to have increased by less than 20% and thus the uncertainty cap was not applied.

The combined IE-IGFS-WIBTS-Q4 and FR-EVHOE-WIBTS-Q4 surveys cover a large part of the stock distribution and most of the depth range of the stock (< 500 m). However, catch rates are low, leading to notable uncertainty around the index. The FR-EVHOE-WIBTS-Q4 survey was not completed in 2017 due to a vessel breakdown; therefore, the advice is based on the most recent data available (2012-2016).

Fishery removals of the species in the fishery under assessment are included in the stock assessment process: **the species passes Clause C 1.1.**

C 1.2:

Although stock size is unknown and uncertainty around the biomass is large, some additional information suggests that the stock size may have increased in recent years (**Figure 2**):

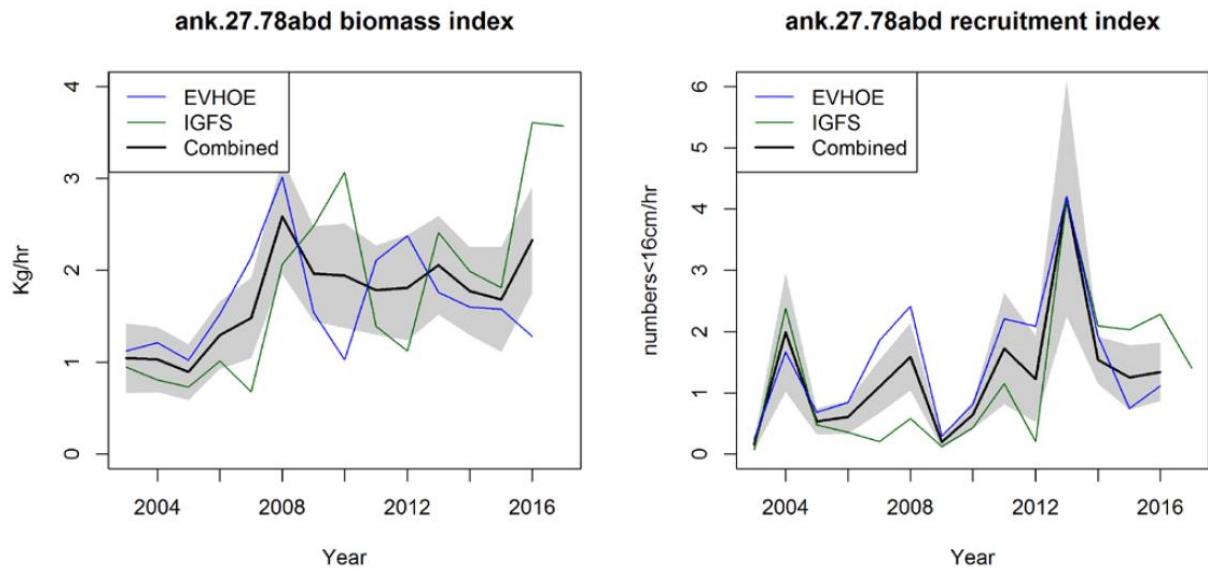


Figure 2 Black-bellied anglerfish in Subarea VII and Divisions VIII a-b and VIII.d. Biomass and recruitment indices of the IE-IGFS-WIBTS-Q4 and FR-EVHOE-WIBTS-Q4 surveys and the combined index with 95% confidence intervals
R4

The stock size index has been relatively stable since 2009. In the most recent year available (2016) the index showed an increase in biomass. Fishing pressure has decreased in recent years and is now below FMSY **Figure 3:**

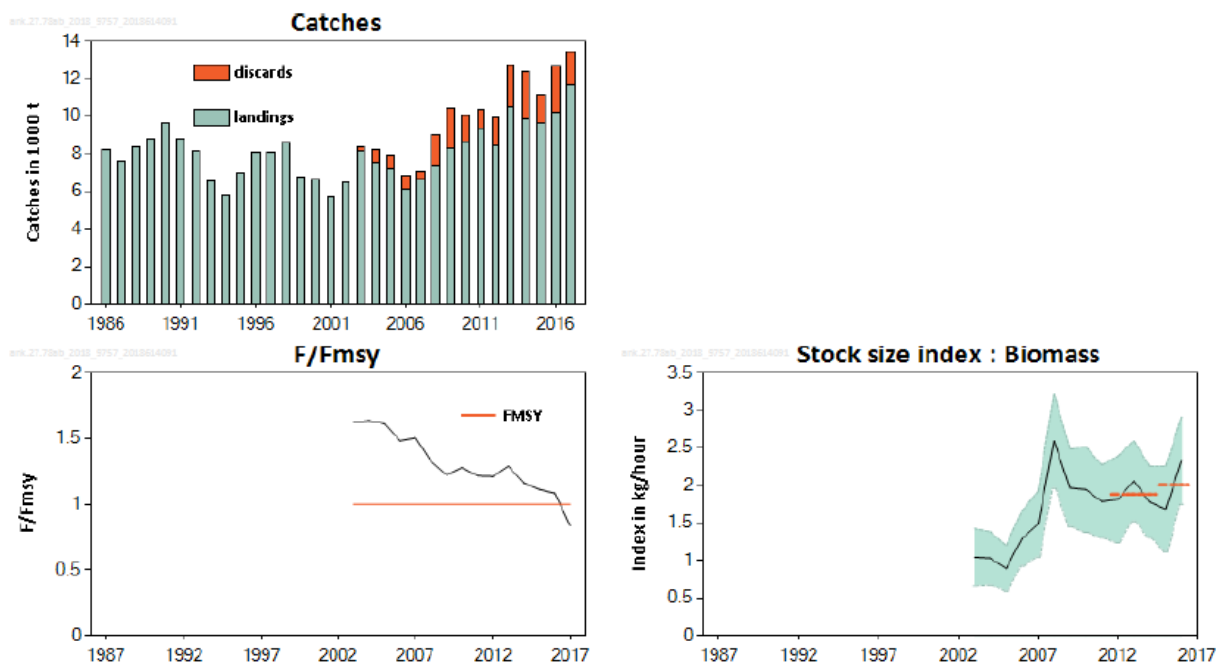


Figure 3: Black-bellied anglerfish in Subarea VII and Divisions VIII a-b and VIII.d. Summary of the stock assessment. ICES estimated landings and discards (no discard data available prior to 2003). The stock biomass index is calculated from the combined IE-IGFS-WIBTS-Q4 and FR-EVHOE-WIBTS-Q4 surveys. This index was not available for 2017 because the French survey did not take place in that year. **R4**

Fishing mortality is below proxies of the MSY reference points. Since 2002 fishing mortality has decreased while catches have increased. Stock size is unknown but showing a light increase in 2016. Following ICES (2016a) - since the stock size is unknown, the fishing mortality only reduced below FMSY in the last year, and

it is not a bycatch species - the precautionary buffer was applied to the advice. The discard rate is 15% of the total catch (average of the last three years). The species is considered, in its most recent stock assessment, likely to have a biomass above limit reference levels **and passes Clause C 1.2.**

References

R1 ICES Advice (Oct 2018) Anglerfish (*Lophius budegassa*, *Lophius piscatorius*) in Subareas IV, VI and Division III.a (North Sea, Rockall and West of Scotland, Skagerrak and Kattegat)

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

R2 ICES. 2012. ICES Implementation of Advice for Data-limited Stocks in 2012 in its 2012 Advice. ICES CM 2012/ACOM 68. 42 pp.

R3 ICES. 2018a. Report of the Benchmark Workshop on Anglerfish Stocks in the ICES Area (WKANGLER), 12-16 February 2018, Copenhagen, Denmark. ICES CM 2018/ACOM:31. 180 pp.

R4 ICES Advice (June 2018) Black-bellied anglerfish (*Lophius budegassa*) in Divisions VIIb-k, VIII a-b, and VIII d (west and southwest of Ireland, Bay of Biscay)

<http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2018/2018/ank.27.78abd.pdf>

R5 North Western Waters Multi-annual Plan Proposal: (March 2018)

Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a multiannual plan for fish stocks in the Western Waters and adjacent waters, and for fisheries exploiting those stocks, amending Regulation (EU) 2016/1139 establishing a multiannual plan for the Baltic Sea, and repealing Regulations (EC) No 811/2004 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018PC0149&from=EN>

Standard clauses 1.3.2.2