

**IFFO RS** Global Standard for Responsible Supply of Marine Ingredients

#### **IFFO RS Limited**

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





**IFFO RS** Global Standard for Responsible Supply of Marine Ingredients

Fishery Under Assessment	Turbot <i>Scophthalmus maximus</i> North East Atlantic
Date	July 209
Assessor	Vito Romito

Application details and summary of the assessment outcome					
Name: Bioceval	Name: Bioceval				
Address: France					
Country:		Zip:			
Tel. No.:		Fax. No.:			
Email address:		Applicant Code			
Key Contact:		Title:			
Certification Body Do	etails	-			
Name of Certification	ı Body:	SAI Global Ltd	l		
Assessor Name	Peer Reviewer	Assessment Days	Initial/Surveillance/Re- approval	Whole fish/ By- product	
Vito Romito	Jim Daly	0.5	Initial	By-product	
Assessment Period	2018				

Scope Details	
Management Authority (Country/State)	EU/Common Fisheries Policy
Main Species	Turbot (Scophthalmus maximus)
Fishery Location	North East Atlantic
Gear Type(s)	Bycatch in beam trawl, otter trawl and static gear fisheries. Small targeted gillnet fishery
Outcome of Assessment	
Overall Outcome	PASS
Clauses Failed	None
Peer Review Evaluation	Approve
Recommendation	PASS

**Assessment Determination** 

ICES advice for turbot in the North East Atlantic is given for two units:

- Turbot (Scophthalmus maximus) in Subarea 4 (North Sea)
- Turbot (*Scophthalmus maximus*) in Division 3.a (**Skagerrak and Kattegat**)

In the context of the EU multiannual plan for demersal fisheries in the North Sea, turbot is considered a bycatch species. ICES advise (2019) that turbot should be managed using a single-species TAC (independent from Brill) covering an area appropriate to the relevant stock distribution (ICES Subarea 4).

Discarding for this stock (North Sea) has historically been very limited; however, there are now indications that in the past years discarding has increased, partly as a result of Producer Organization (PO) measures (including a minimum landing size) which aim to prevent early exhaustion of the landing quota.

Turbot in Subarea 4 was benchmarked in 2017 and 2018, changing the perception of stock status and trends compared with previous advice. The age composition of the Dutch landings is available for most of the years, being derived almost entirely from the Dutch beam trawl fishery. Two age-structured index time-series of fisheries-independent surveys (BTS-ISIS and SNS) were used in the assessment. Fishery removals of the species in the fishery under assessment are included in the stock assessment process.

There is a species-specific management regime in place including TAC and minimum landing size in the North Sea stock. The spawning-stock biomass (SSB) has increased since 2005 and has been above MSY Btrigger since 2013. The North Sea stock is considered, in its most recent stock assessment, to have a biomass above limit reference point (or proxy) and passes Clause C1.2.

ICES do not provide advice for the species in the Skagerrak and Kattegat (Division 3a). No reference points are defined for this stock. The comparative lack of scientific information on the status of the population in the assessment area means that a risk-assessment style approach must be taken. The fishery was assessed using the risk-based Productivity, Susceptibility Analysis (PSA) as per IFFO-RS v 2.0 procedures for Category D species and was classified as vulnerable. The species has passed the risk-based assessment (**Table D4**). Potential impacts of the fishery on this species are considered during the management process, and reasonable measures (minimum landing size in Denmark) are taken to minimise these impacts. There is no substantial evidence that the fishery has a significant negative impact on the species.

IUCN has categorised turbot as vulnerable based on a 2013 assessment (accessed 09.07.19). The species does not appear in the CITES appendices (accessed 09.07.19).

Turbot is recommended for use as a by-product species under the current IFFO-RS Standard.

**Peer Review Comments** 

Agree with determination

**Notes for On-site Auditor** 

# Species-Specific Results

Category	Species	% landings	Outcome (Pass/Fail)
			A1
Cotogory A			A2
Category A			A3
			A4
Category B			
Category C	Turbot Scophthalmus maximus (North		PASS
	Sea)		
Category D	Turbot Scophthalmus maximus (Skagerrak		PASS
	and Kattegat)		

[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
Turbot	Scophthalmus maximus	North East Atlantic (North Sea stock)		Species-specific management regime in place	С
Turbot	Scophthalmus maximus	North East Atlantic (Skagerrak and Kattegat)		No species-specific management regime in place	D

Species Name		ame T	urbot Scophthalmus maximus	
<b>C</b> 1	Categ	ory C Stock Status - Minimum Re	quirements	
	C1.1	Fishery removals of the species in	the fishery under assessment are included in the	PASS
		stock assessment process, OR are c	onsidered by scientific authorities to be negligible.	
	C1.2	The species is considered, in its r	nost recent stock assessment, to have a biomass	PASS
		above the limit reference point	(or proxy), OR removals by the fishery under	
		assessment are considered by scient	tific authorities to be negligible.	
Clause	e outcor	ne:		PASS

# Evidence

#### C1.1:

In the context of the EU multiannual plan for demersal fisheries in the North Sea, turbot (*Scophthalmus maximus*) in Subarea 4 (North Sea) is considered a bycatch species, and the EC requested that ICES provide advice based on the precautionary approach in 2019. ICES advises that turbot should be managed using a single-species TAC (independent from Brill) covering an area appropriate to the relevant stock distribution (ICES Subarea 4). Accordingly, ICES advised that catches of up to 4538 tonnes are considered to be precautionary.

Since 1 January 2019, turbot in Subarea 4 is under the EU landing obligation, without exemptions. Discarding for this stock has historically been very limited; however, there are now indications that in the past years discarding has increased, partly as a result of Producer Organization (PO) measures (including a minimum landing size) which aim to prevent early exhaustion of the landing quota. The current landing size for turbot is 32 cm.

Turbot in Subarea 4 was benchmarked in 2017 and 2018, changing the perception of stock status and trends compared with previous advice. The age composition of the Dutch landings is available for most of the years, being derived almost entirely from the Dutch beam trawl fishery. This creates uncertainty in the assessment, because a large proportion (~33%) of the catch comes from other gears. Danish age-structured data are available from 2014, suggesting a higher average age of turbot in the Danish landings compared to the Dutch beam trawl fishery.

The two age-structured index time-series of fisheries-independent surveys (BTS-ISIS and SNS) used in the assessment show a poor internal consistency, especially for older ages, leading to a poor tracking of cohorts over time. A fisheries independent survey, having both adequate catchability of large flatfish and covering the entire distribution area of the stock, is needed to improve the assessment. To address this issue in future assessments, a Dutch science–industry partnership initiated a new fisheries-independent beam trawl survey for turbot and brill in 2019. An age-aggregated landing per unit of effort index has been available since 1995 and is derived from landings and effort data for the Dutch beam trawl fleet. This index has the most weight in estimating the final biomass and strongly influences the trend in the assessment. Discards are not included in the current assessment but are used to provide advice.

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

## C1.2:

Recruitment (R) is variable without a trend. Fishing mortality (F) has decreased since the mid-1990s, and has been just below FMSY since 2012. The spawning-stock biomass (SSB) has increased since 2005 and has been above MSY Btrigger since 2013: **Figure 1 (ICES 2019):** 



Figure 1. Turbot in Subarea 4. Summary of the stock assessment (weights in thousand tonnes). Catches only represent landings up to 2012. Shaded areas represent 95% confidence intervals. Assumed recruitment is unshaded. ICES 2019

ICES assesses that fishing pressure on the stock is below FMSY, Fpa, and Flim; spawning stock size is above MSY Btrigger, Bpa, and Blim. For the North Sea stock 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.

#### References

ICES. 2019. Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). ICES Scientific Reports. 1:7. <u>http://doi.org/10.17895/ices.pub.5402</u>

EU. 2018. Regulation (EU) 2018/973 of the European Parliament and of the Council of 4 July 2018 establishing a multiannual plan for demersal stocks in the North Sea and the fisheries exploiting those stocks, specifying details of the implementation of the landing obligation in the North Sea and repealing Council Regulations (EC) No 676/2007 and (EC) No 1342/2008. Official Journal of the European Union, L. 179. 13 pp. http://data.europa.eu/eli/reg/2018/973/oj.

ICES. 2019. Turbot (Scophthalmus maximus) in Subarea 4 (North Sea). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, tur.27.4, <u>https://doi.org/10.17895/ices.advice.4876</u>

Munroe, T., Costa, M., Nielsen, J., Herrera, J., de Sola, L., Rijnsdorp, A.D. & Keskin, Ç. 2015. *Scophthalmus maximus. The IUCN Red List of Threatened Species* 2015: e.T198731A45790581. Downloaded on 09 July 2019.

CITES. 2017. Appendices I, II and III, valid from 4 October 2017. Convention on International Trade in Endangered Species of Wild Fauna and Flora. Accessed on 09 July 2019 https://www.cites.org/eng/app/appendices.php

Standard clauses 1.3.2.2

# 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.

<b>D1</b>	Species Name:	Turbot Scophthalmus maximus				
	Productivity Attribute		Value	Score		
	Average age at maturity (ye	ars)	*3-5	2		
	Average maximum age (yea	rs)	*25	2		
	Fecundity (eggs/spawning)		*>10,000	1		
	Average maximum size (cm	)	*62.75	2		
			(averaged)	2		
	Average size at maturity (cm	n)	*34.7	2		
	Reproductive strategy		*Eggs pelagic	1		
	Mean trophic level		*4.4	3		
		Average Productivity S	core	1.86		
	Susceptibility Attribute		Value	Score		
	Overlap of adult species ran	ge with fishery	*>50% stock	2		
			in area	5		
	Distribution					
	Habitat		*Demersal	3		
	Depth range		*20-70m	3		
	Selectivity		**70 mm			
			mesh size	3		
			minimum			
	Post-capture mortality		Tows > 3	3		
			hours	5		
		Average Susceptibility Sc	ore	3		
		PSA Risk Rating (From Tabl	e D3)	FAIL		
		Co	mpliance rating			
Refer	rences		<u>F8</u>			
*R1 F	FISHBASE: <u>https://www.fishb</u>	base.se/Summary/SpeciesSummary.php?II	D=1348&AT=turbo	ot%20EU		
**R2	**R2 Annex I COUNCIL REGULATION (EC) No 850/98 of 30 March 1998 for the conservation of fishery					
resou	rces through technical measur	es for the protection of juveniles of marine	e organism			
https:	//eur-lex.europa.eu/legal-conte	ent/EN/TXT/?uri=CELEX%3A31998R08	<u>50</u>			

Standard clauses 1.3.2.2

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	

# Table D2 - Productivity / Susceptibility attributes and scores.

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 or<br="" size="">&gt;5 m length</mesh>
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.

D2		Average Susceptibility Score			
D3		1.00 - 1.75	1.76 - 2.24	2.25 - 3.00	
Average Producti	vity 1.00 – 1.75	PASS	PASS	PASS	
Score	1.76 – 2.24	PASS	PASS	TABLE D4	
	2.25 - 3.00	PASS	TABLE D4	TABLE D4	

<b>D4</b>	Species Name		Turbot Scophthalmus maximus	
	Impac	cts On Species Categ	orised as Vulnerable by D1 - D3 - Minimum Requirements	
	D4.1	The potential impa-	cts of the fishery on this species are considered during the	PASS
		management process	s, and reasonable measures are taken to minimise these impacts.	
	D4.2	There is no substant	ial evidence that the fishery has a significant negative impact on	PASS
		the species.		
				PASS

#### **Outcome:**

#### Evidence

Denmark, the UK and Ireland are Member States of the European Union, and therefore in Community waters implement the Common Fisheries Policy (CFP). 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.

Turbot in Skagerrak and Kattegat has not been provided with advice for by ICES and only has survey biomass index indicators, but no reference points are defined for this stock. The biomass indexes from the Q1 and Q3 survey are highly variable but somehow stable if an average is taken.

The EU multiannual plan (MAP) for stocks in the North Sea (EU, 2018) and adjacent waters applies to bycatches of this stock. There is no minimum landing size (MLS) at EU level, but there is a minimum landing size of 30 cm in Denmark and all recorded discards are below this value.

Catches have been quite low in recent years, generally averaging 200 tonnes. Potential impacts of the fishery on this species are considered during the management process, and reasonable measures (minimum landing size in Denmark) are taken to minimise these impacts. There is no substantial evidence that the fishery has a significant negative impact on the species.

The stock passes the D4 requirements.

#### References

Mesh Sizes: Annex I COUNCIL REGULATION (EC) No 850/98 (30.03.98) for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms.

ICES. 2019. Turbot (*Scophthalmus maximus*) in Division 3.a (Skagerrak and Kattegat). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, tur.27.3a, <u>https://doi.org/10.17895/ices.advice.4875</u>

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.