

## Four-spot megrim (*Lepidorhombus boscii*) in divisions 7.b–k and 8.a,b,d (West and Southwest of Ireland, Bay of Biscay)

### ICES stock advice

ICES advises that when the precautionary approach is applied, catches in 2018 should be reduced by at least 20% relative to the average catches of 2014–2016. ICES is not able to quantify the corresponding catch value.

### Stock development over time

The available information from two surveys, while broadly informative, is not considered sufficient to evaluate the stock biomass and exploitation status. The state and exploitation status of the stock are presently unknown.

### Stock and exploitation status

**Table 1** Four-spot megrim in divisions 7.b–k and 8.a,b,d. State of the stock and fishery relative to reference points.

		Fishing pressure				Stock size				
		2014	2015	2016		2014	2015	2016		
Maximum sustainable yield	F <sub>MSY</sub>	?	?	?	Undefined	MSY B <sub>trigger</sub>	?	?	?	Undefined
Precautionary approach	F <sub>pa</sub> , F <sub>lim</sub>	?	?	?	Undefined	B <sub>pa</sub> , B <sub>lim</sub>	?	?	?	Undefined
Management plan	F <sub>MGT</sub>	—	—	—	Not applicable	B <sub>MGT</sub>	—	—	—	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	?	?	?	Unknown

### Catch options

The ICES framework for category 5 stocks was applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented unless there is ancillary information clearly indicating that the current level of exploitation is appropriate for the stock. The stock status relative to reference points is unknown and, therefore, the precautionary buffer is applied this year. This implies that catches in 2018 should be reduced by at least 20% relative to the average catch of 2014–2016. ICES does not presently have catch data for this stock and is not able to quantify the corresponding catch value.

Discarding rates are unknown but considered to be non-negligible (>5%).

**Table 2** Four-spot megrim in divisions 7.b–k and 8.a,b,d. The basis for the catch options.

Recent catch (2014–2016 average)	Not available	
Discard rate	Unknown	
Precautionary buffer	Applied	0.8
Catch advice*	Value not quantified	

\* [recent catch] × [precautionary buffer].

### Basis of the advice

**Table 3** Four-spot megrim in divisions 7.b–k and 8.a,b,d. The basis of the advice.

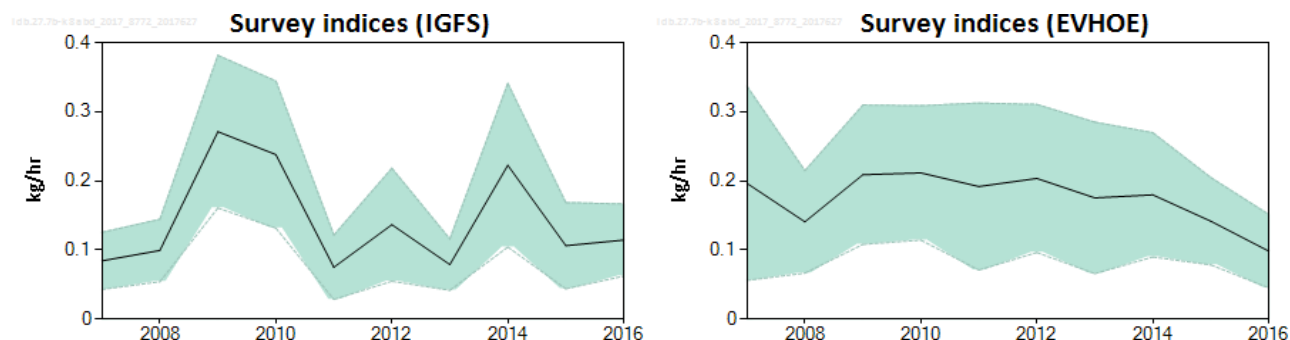
Advice basis	Precautionary approach.
Management plan	There is no management plan for four-spot megrim in this area.

## Quality of the assessment

ICES does not presently have catch data (landings or discards) for this stock. The stock was not included in the ICES data call for the assessments in 2017, but will be included in future data calls.

Survey indices from French and Irish groundfish surveys (Figure 1), while broadly informative of stock trends, are considered to be preliminary for the purpose of stock assessment. Further investigation is required in order to develop a stock size indicator.

The stock unit definition of four-spot megrim is not clear.



**Figure 1** Four-spot megrim in divisions 7.b–k and 8.a,b,d. Available survey indices and confidence intervals (IGFS and EVHOE are kg h<sup>-1</sup>). The shaded areas represent 95% confidence intervals.

## Issues relevant for the advice

This is the first time that ICES provides advice for four-spot megrim in this area. Further investigation of available data sources will take place in coming years.

The ICES advice is for *L. boscii*, whereas the TAC is for *L. whiffiagonis* and *L. boscii* combined.

The two megrim species (*L. whiffiagonis* and *L. boscii*) are not separated in the landings and a single TAC covers both species. ICES considers that management of the two megrim species under a combined TAC prevents effective control of the single-species exploitation rates and could lead to overexploitation of either species. ICES does not presently have catch data for *L. boscii* in this area and, therefore, does not know how much this species contributes to the overall megrim landings. Data from research surveys indicate a strong predominance of *L. whiffiagonis*. More information will be available next year, when both megrim species are included in the ICES data call.

## Reference points

No reference points are defined for this stock.

## Basis of the assessment

**Table 4** Four-spot megrim in divisions 7.b–k and 8.a,b,d. The basis of the assessment.

ICES stock data category	5 ( <a href="#">ICES, 2016</a> ).
Assessment type	No assessment (ICES, 2017).
Input data	None.
Discards and bycatch	Unknown.
Indicators	Two survey indices (EVHOE-WIBTS-Q4 and IGFS-WIBTS-Q4 2007–2016).
Other information	None.
Working group	Working Group for the Bay of Biscay and the Iberian Waters Ecoregion ( <a href="#">WGBIE</a> )

## Information from stakeholders

There is no information available.

## History of the advice, catch, and management

**Table 5** Four-spot megrim in divisions 7.b–k and 8.a,b,d. ICES advice and catches. All weights are in tonnes.

Year	ICES advice	Predicted catch / landings corresponding to advice	Agreed TAC*	ICES landings ^	Discards ^	ICES catch ^
2010	No advice	-	20425	-	-	-
2011	No advice	-	20106	-	-	-
2012	No advice	-	19101	-	-	-
2013	No advice	-	19101	-	-	-
2014	No advice	-	19101	-	-	-
2015	No advice	-	19101	-	-	-
2016	No advice	-	20056	-	-	-
2017	No advice	-	15043			
2018	Precautionary approach: 20% reduction in catch	-				

\* Combined *Lepidorhombus whiffiagonis* and *Lepidorhombus boscii* TAC(for Subarea 7 and divisions 8.a–b,d–e).

^ No catch data available at present. The stock will be included in future ICES data calls.

## History of the catch and landings

**Table 6** Four-spot megrim in divisions 7.b–k and 8.a,b,d. Catch distribution by fleet in 2016 as estimated by ICES.

Catch (2016)	Landings	Discards
Unknown	Unknown	Unknown

## Summary of the assessment

There is no assessment for four-spot megrim in this area.

## Sources and references

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

ICES. 2016. Advice basis. In Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2.

ICES. 2017. Report of the Working Group for the Bay of Biscay and the Iberian waters Ecoregion (WGBIE ), 4–9 May 2017, Cadiz, Spain. ICES CM 2017/ACOM:12.