7.3.4 Black-mouth dogfish (*Galeus melastomus*) in Subarea VIII and Division IXa (Bay of Biscay, Atlantic Iberian waters)

ICES stock advice

ICES advises that when the precautionary approach is applied, catches in 2016 should be decreased by 4% compared to the average of 2012–2014, with the catch value advised for 2016 also applicable to 2017. ICES is not able to quantify the resulting catches or landings. The exact levels of catch are unreliable as discard levels are considered to be high and highly variable and a substantial part of the landings is not reported at species level.

Stock development over time

The stock size indicator shows that the stock has been relatively stable in the last two decades.

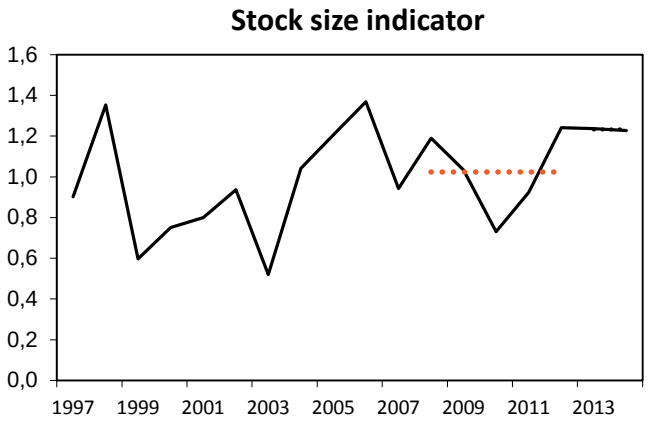

Figure 7.3.4.1 Black-mouth dogfish in Subarea VIII and Division IXa. Average of survey indices of abundance (kg h^{-1}, relative to the time-series mean) from the trawl surveys EVHOE-WIBTS-Q4, Portuguese survey, and Spanish ARSA IBTS-GC-Q1-Q4. The dashed horizontal lines indicate the average stock size indicator of the respective year range used to calculate the advice.

Stock and exploitation status

Table 7.3.4.1 Black-mouth dogfish in Subarea VIII and Division IXa. State of the stock and fishery relative to reference points.

		Fishing pressure					Stock size				
		2012	2013	2014			2012	2013	2014		
Maximum sustainable yield	F_{MSY}	?	?	?	Undefined		MSY $B_{trigger}$	?	?	?	Undefined
Precautionary approach	F_{pa}, F_{lim}	?	?	?	Undefined		B_{pa}, B_{lim}	?	?	?	Undefined
Management plan	F_{MGT}	-	-	-	Not applicable		SSB_{MGT}	-	-	-	Not applicable
Qualitative evaluation	-	?	?	?	Unknown		-	↗	→	→	Stable

Catch options

The ICES framework for category 3 stocks (ICES, 2012) was applied. Indices from the ARSA survey (kg h^{-1} averaged across Q1 and Q4 surveys), the Portuguese survey in Division IXa (kg h^{-1}), and the EVHOE survey (biomass indicator) were combined to provide an overall indicator of stock size. The advice is based on a comparison of the last two values (index A) with the five preceding values (index B), combined with the average catches in 2012–2014.

The stock indicator is estimated to have increased by 20% and therefore the uncertainty cap not was applied. The level of exploitation for this species in unknown; thus the precautionary buffer is applied, which corresponds to a total decrease of 4%.

ICES is not able to quantify the resulting catches or landings. The exact levels of catch are unreliable as discard levels are considered to be high and highly variable, with a substantial part of the landings not reported at species level.

Table 7.3.4.2 Black-mouth dogfish in Subarea VIII and Division IXa. For stocks in ICES data categories 3–6, one catch option is possible.

Index A (2013—2014)		1.23
Index B (2008—2012)		1.03
Index ratio (A/B)		1.20
Uncertainty cap	Not applied	-
Average catches (2012, 2013, 2014)		Unknown
Discard rate		Unquantified, high discarding rates have been reported
Precautionary buffer	Applied	0.8
Catch advice *		Decrease by 4% compared to the average catches in 2012–2014

* [Average catches (2012, 2013, 2014)] × (indicator ratio) × (PA buffer).

Basis of the advice

Table 7.3.4.3 Black-mouth dogfish in Subarea VIII and Division IXa. The basis of the advice.

Advice basis	Precautionary approach.
Management plan	There is no management plan for this stock.

Quality of the assessment

Landings data are unreliable for this species, because part of the landings of this species is reported in the generic “dogfish” category, which is not disagreggated at the species level and, therefore, not included in the landings of black-mouth dogfish. Misidentification problems are likely to exist, especially in Division IXa, where the congener *G. atlanticus* also occurs.

Discarding is known to occur and is very high and variable between fishing fleets, but it has not been fully quantified and discard survival has not been estimated. The discard rate was higher between 2010 and 2013, when EU regulations listed this species as a deep-water shark for which there were no landings. Since 2013, this species has been removed from this list and, while landings have increased, discards remain high.

Issues relevant for the advice

Scyliorhinids are generally productive species in comparison to other demersal elasmobranchs and are typically discarded or of low value as a bycatch. Given that the species is usually discarded and is a common bycatch on shelf edge fisheries, discard survival should be quantified.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 7.3.4.4 Black-mouth dogfish in Subarea VIII and Division IXa. The basis of the assessment.

ICES stock data category	3.20 (ICES, 2015a).
Assessment type	Survey-based trends (ICES, 2015b).
Input data	EVHOE-WIBTS-Q4, Portuguese survey, Spanish ARSA IBTS-GC-Q1&Q4.
Discards and bycatch	Unquantified.
Indicators	None.
Other information	Spanish IBTS SP-NSGFS, discard rates for some fleets.
Working group	Working Group on Elasmobranch Fishes (WGEF).

Information from stakeholders

No information has been provided.

History of advice, catch, and management

Table 7.3.4.5 Black-mouth dogfish in Subarea VIII and Division IXa. History of ICES advice, the agreed TAC, and officially reported landings. Weights in tonnes.

Year	ICES advice	Predicted catch corresp. to advice	Agreed TAC	Official landings
2007	No advice		No TAC	32
2008	No advice		No TAC	58
2009	No advice		No TAC	20
2010	No advice		(TAC = 0)	11
2011	No advice		(TAC = 0)	6
2012	No advice		(TAC = 0)	10
2013	No advice	-	(TAC = 0)	6
2014	No advice	-	No TAC	23
2015	No advice	-	No TAC	
2016	Precautionary approach	Decrease by 4% compared to the average catches in 2012–2014		
2017	Biennial	Same catch value advised for 2016		

History of catch and landings

This is a bycatch species in bottom trawl, gillnet, trammelnet, and longline fisheries.

Table 7.3.4.6 Black-mouth dogfish in in Subarea VIII and Division IXa. Catch distribution by fleet in 2014 as estimated by ICES.

Total catch (2014)	Landings	Discards
Unknown	Landings are not fully quantified Proportion by fleet is unquantified	Unknown

Table 7.3.4.7 Black-mouth dogfish in Subarea VIII and Division IXa. History of official commercial landings is presented by country. Weights in tonnes.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Portugal	17	17	16	20	37	29	35	29	57	38	35
Spain							4	3	6	2	3
Spain (Basque Country)	4	3	6	2	3	1	1	1	1	4	4
France											
Total	21	20	22	22	40	30	40	33	64	44	42

	2007	2008	2009	2010	2011	2012	2013	2014
Portugal	25	28	15	7	2	2	1	21
Spain	1	26	1	1	4	8	5	2
Spain (Basque Country)	6	4	4	3				
France								
Total	32	58	20	11	6	10	6	23

Summary of the assessment

Table 7.3.4.8 Black-mouth dogfish in in Subarea VIII and Division IXa. Assessment summary. The annual combined stock size indicator is calculated as the average across surveys (French EVHOE-WIBTS-Q4, Portuguese survey, and Spanish ARSA IBTS-GC-Q1/Q4 surveys; all indices in kg hr^{-1}), where each individual survey index has been previously scaled to its long-term average.

Year	WIBTS-Q4 EVHOE	ARSA IBTS-GC-Q1-Q4 (average)	Portuguese survey	Stock size indicator
1997	0.3	0.3	2.1	0.9
1998	0.2	1.8	2.1	1.4
1999	0.4	0.3	1.0	0.6
2000	0.3	1.2	0.7	0.8
2001	0.7	1.1	0.6	0.8
2002	1.5	0.7	0.6	0.9
2003	0.3	0.5	0.8	0.5
2004	1.1	1.0		1.0
2005	1.4	2.0	0.3	1.2
2006	1.6	1.9	0.6	1.4
2007	1.4	0.5	0.9	0.9
2008	1.6	0.9	1.1	1.2
2009	1.4	0.7	1.0	1.0
2010	1.1	0.4		0.7
2011	1.4	0.4	0.9	0.9
2012	1.3	1.2		1.2
2013	0.8	1.9	1.0	1.2
2014	1.3	1.2	1.2	1.2

Sources and references

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

ICES. 2015a. Advice basis. *In* Report of the ICES Advisory Committee, 2015. ICES Advice 2015, Book 1, Section 1.2.

ICES. 2015b. Report of the Working Group on Elasmobranch Fishes (WGEF), 17–23 June 2015, Lisbon, Portugal. ICES CM 2015/ACOM:19.