

Greater-spotted dogfish (*Scyliorhinus stellaris*) in subareas 6 and 7 (West of Scotland, southern Celtic Sea, and the English Channel)

ICES advice on fishing opportunities

ICES cannot provide advice on fishing opportunities for this stock owing to a lack of reliable catch or landings data. ICES notes that the change in stock size indicator implies that catches for the years 2020 and 2021 should be reduced by 20% compared to catches in 2017 and 2018. ICES cannot quantify the resulting catches or landings.

Stock development over time

The abundance index has increased over the longer time-series, but has generally declined since 2011.

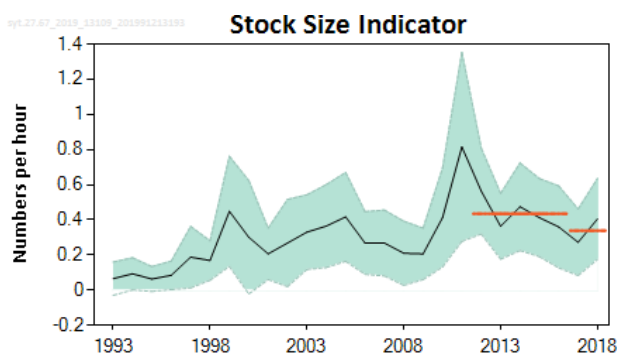


Figure 1 Greater spotted dogfish in subareas 6 and 7. Summary of the stock assessment. Abundance index ($n\ h^{-1}$) from the UK(E&W)–BTS–Q3 survey in divisions 7.a and 7.f. The dotted horizontal lines indicate mean catch rates for 2017–2018 and 2012–2016. The shaded area represents the 95% confidence interval.

Stock and exploitation status

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

Table 1 Greater spotted dogfish in subareas 6 and 7. State of the stock and fishery relative to reference points.

		Fishing pressure			Stock size					
		2016	2017	2018	2016	2017	2018			
Maximum sustainable yield	F_{MSY}	?	?	?	Unknown	$MSY\ B_{trigger}$?	?	?	Unknown
Precautionary approach	F_{pa}, F_{lim}	?	?	?	Unknown	B_{pa}, B_{lim}	?	?	?	Unknown
Management plan	F_{MGT}	—	—	—	Not applicable	B_{MGT}	—	—	—	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	↘	↘	↗	Increasing

Catch scenarios

The ICES framework for category 3 stocks (ICES, 2012) was applied. An abundance index derived from the UK(E&W)–BTS–Q3 survey was used to provide an overall stock size indicator. The advice is based on a comparison of the last two values (index A) with the five preceding values (index B). The stock size indicator has decreased by more than 20% and therefore the uncertainty cap was applied. Since the precautionary buffer was applied in 2017, it has not been applied again. Because landings or catches are not known, ICES cannot provide advice on fishing opportunities but provides an indication of the relative change in catch implied.

Discarding is known to take place, but ICES cannot quantify the corresponding catch. In addition, discard survival, which is likely to occur, has not been estimated.

Table 2 Greater spotted dogfish in subareas 6 and 7. The basis of the advice.*

Index A (2017–2018)		0.34
Index B (2012–2016)		0.43
Index ratio (A/B)		0.79
Uncertainty cap	Applied	0.8
Advised landings for 2018–2019 issued in 2017		-
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice		-
% Relative change **		-20%

* The figures in the table are rounded. Calculations were done with unrounded inputs and computed values may not match exactly when calculated using the rounded figures in the table.

** Advice for 2020 relative to the advice for 2019.

Basis of the advice

Table 3 Greater spotted dogfish in subareas 6 and 7. The basis of the advice.

Advice basis	Precautionary approach.
Management plan	ICES is not aware of any agreed precautionary management plan for greater spotted dogfish in this area.

Quality of the assessment

Landings and catch data are too unreliable to be used for advice.

One survey (UK(E&W)–BTS–Q3) is currently used to inform on stock status, and this survey covers an important part of the species distribution.

Issues relevant for the advice

Scyliorhinids are considered to be productive species in comparison to other demersal elasmobranchs (McCully Phillips *et al.* 2015).

Reference points

Reference points are not defined for this stock.

Basis of the assessment

Table 4 Greater spotted dogfish in subareas 6 and 7. Basis of the assessment and advice.

ICES stock data category	3 (ICES, 2018).
Assessment type	Survey trends-based assessment (3(ICES, 2019).
Input data	UK(E&W)–BTS–Q3 survey.
Discards and bycatch	Unknown.
Indicators	None.
Other information	None.
Working group	Working Group on Elasmobranch Fishes (WGEF).

Information from stakeholders

There is no additional available information.

History of the advice, catch, and management

Table 5 Greater spotted dogfish in subareas 6 and 7. History of ICES advice, the agreed TAC and official landings. All weights are in tonnes. (NA = Not available.)

Year	ICES advice	Catch corresp. to advice	Agreed TAC	Landings (tonnes)
2009	<i>Status quo</i> catch			NA
2010	-			NA
2011	No advice	-	No TAC	NA
2012	No advice	-	No TAC	NA
2013	-	-	No TAC	NA
2014	-	-	No TAC	NA
2015	-	-	No TAC	NA
2016	Decrease by 6% compared to the average catches in 2012–2014	-	No TAC	NA
2017	Same catch value advised for 2016	-	No TAC	NA
2018	Precautionary approach: decrease by 36% compared to the average catches in 2014–2016	-	No TAC	NA
2019	Precautionary approach (same advice as for 2018)	-	No TAC	
2020	No advice	-		
2021	No advice	-		

History of the catch and landings

The distribution of this stock does not extend into the NEAFC Regulatory Area.

Table 6 Greater spotted dogfish in subareas 6 and 7. Catch distribution by fleet in 2018 as estimated by ICES.

Catch (2018)	Landings	Discards
Unknown	Unknown	Unknown

Summary of the assessment

Table 7 Greater spotted dogfish in subareas 6 and 7. Assessment summary. An abundance index ($n\ h^{-1}$) derived from the UK(E&W)–BTS–Q3 survey was used as the stock size indicator.

Year	Stock size indicator ($n\ h^{-1}$)
1993	0.07
1994	0.09
1995	0.06
1996	0.08
1997	0.19
1998	0.17
1999	0.45
2000	0.3
2001	0.21
2002	0.27
2003	0.33
2004	0.36
2005	0.42
2006	0.27
2007	0.27
2008	0.21
2009	0.21
2010	0.41
2011	0.81
2012	0.56
2013	0.36
2014	0.47

Year	Stock size indicator (n h ⁻¹)
2015	0.41
2016	0.36
2017	0.27
2018	0.41

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. 2018. Advice basis. *In* Report of the ICES Advisory Committee, 2018. ICES Advice 2018, Book 1, Section 1.2. <https://doi.org/10.17895/ices.pub.4503>.

ICES. 2019. Working Group on Elasmobranch Fishes (WGEF). ICES Scientific Reports. 1:25. <http://doi.org/10.17895/ices.pub.5594>.

McCully Phillips, S. R., Scott, F. and Ellis, J. R. 2015. Having confidence in Productivity Susceptibility Analyses: A method for underpinning scientific advice on skate stocks? *Fisheries Research*, 171: 87–100.

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