

5.3.20 Small-eyed ray (*Raja microocellata*) in divisions 7.f and 7.g (Bristol Channel, Celtic Sea North)

ICES stock advice

ICES advises that when the precautionary approach is applied, landings should be no more than 154 tonnes in each of the years 2017 and 2018. ICES cannot quantify the corresponding catches.

Stock development over time

Estimated landings data (2009–2015) ranged from 166 to 348 tonnes. The stock size indicator is below average in recent years.

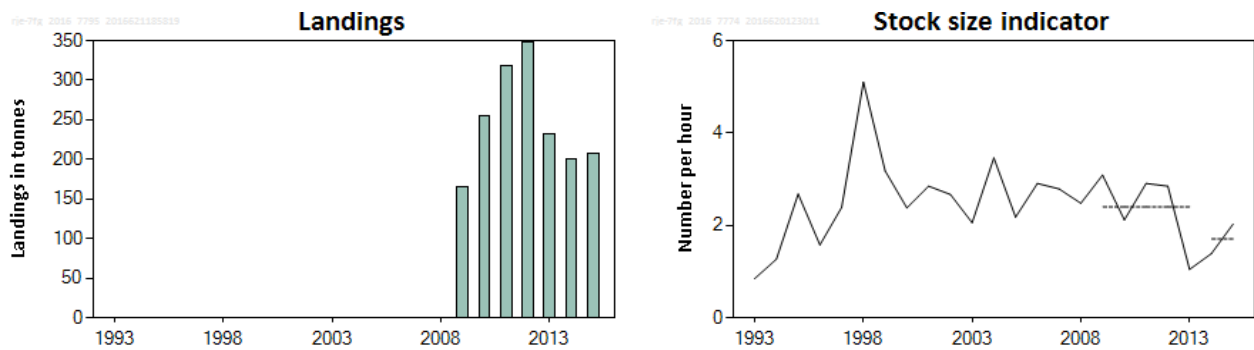


Figure 5.3.20.1 Small-eyed ray in divisions 7.f and 7.g. Left: ICES estimated landings (in tonnes). Right: Mean numbers per hour of *R. microocellata* derived from the UK (E&W)-BTS-Q3 survey in the Bristol Channel. Dashed lines indicate the mean annual CPUE for 2009–2013 and 2014–2015.

Stock and exploitation status

Table 5.3.20.1 Small-eyed ray in divisions 7.f and 7.g. State of the stock and fishery relative to reference points.

		Fishing pressure			Stock size					
		2013	2014	2015	2013	2014	2015			
Maximum sustainable yield	F_{MSY}	?	?	?	Undefined	MSY	?	?	?	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	-	↘	↗	↗	Increasing

Catch options

The ICES framework for category 3 stocks was applied (ICES, 2012). The UK (E&W)-BTS-Q3 was used as the index of stock size. The advice is based on a comparison of the two latest index values (index A) with the five preceding values (index B), multiplied by the recent advised landings.

The recent advised landings for 2015 and 2016 were originally derived using landings statistics from 2011-2013. In 2016, a review of the landing statistics of elasmobranchs (ICES, 2016a) was conducted. As a result, the basis which was used to provide advice in 2014 for 2015 and 2016 has been adjusted to account for the update in the landing statistics in the period 2011-2013.

The index is estimated to have decreased by more than 20% (29%) and thus the uncertainty cap was applied. The precautionary buffer was applied previously (ICES, 2014) and has not been applied again. This corresponds to landings of no more than 153 t in each of the years 2017 and 2018.

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 5.3.20.2 Small-eyed ray in divisions 7.f and 7.g. For stocks in ICES data categories 3–6, one catch option is provided.

Index A (2014-2015)		1.71
Index B (2009-2013)		2.40
Index ratio (A/B)		0.71
Uncertainty cap	Applied	0.8
Recent advised landings (2015–2016)		188 t
Recent advised landings adjusted (2015–2016)* [188 t x 1.02]		192 t
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice**		154 t

*Recent advised landings adjusted for the revision of the landings statistics in 2011-2013

** (Recent advised landings adjusted × uncertainty cap).

Basis of the advice

Table 5.3.20.3 Small-eyed ray in divisions 7.f and 7.g. The basis of the advice.

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

Quality of the assessment

The quality of landings data has improved in recent years, especially following the WKSHARKS workshop to revise available data. In particular, some official landings data from 7.f and 7.g attributed to *Leucoraja circularis* are considered to refer to *Raja microocellata*, due to confusion over the local name 'Sandy ray', and therefore have been reallocated to this stock, making landings data more reliable. Landings from the southern Irish Sea (division 7.a) are attributed to this stock.

The UK Beam Trawl Survey covers a large part of the stock area.

Issues relevant for the advice

This is a coastal species that is a bycatch of trawl and gillnet fisheries. Although not usually targeted, it is one of the important components of the Bristol Channel directed skate fishery. Displacement of effort from beam trawls to twin rigging in coastal waters may have increased fishing pressure on this species in this area.

The potential effects of other human activities (e.g. aggregate extraction) on this species have not been evaluated. The distribution of the juveniles of this species covers large areas of Carmarthen Bay (7.f). These grounds are often fished by whelk potters, and the presence of such static gear may limit the impacts of trawling on the nursery grounds.

Reference points

No reference points are defined for this stock

Basis of the assessment

Table 5.3.20.4 Small-eyed ray in divisions 7.f and 7.g. The basis of the assessment.

ICES stock data category	3 (ICES, 2016b).
Assessment type	Survey-based trends (ICES, 2016c).
Input data	Surveys (UK (E&W)-BTS-Q3)
Discards and bycatch	Discarding is known to take place but cannot be quantified.
Indicators	None
Other information	None
Working group	Working Group on Elasmobranch Fishes (WGEF)

Information from stakeholders

No information has been provided.

History of advice, catch, and management

Table 5.3.20.5 Small-eyed ray in divisions 7.f and 7.g. History of ICES advice and ICES estimates of landings**. All weights are in tonnes.

Year	ICES advice	Predicted catch corresp. to advice	ICES species-specific landings: minimum estimate based on reported landings*
2011	No specific advice		318
2012	No specific advice		348
2013	No TAC, species-specific measures needed, catch to decrease by at least 36 % (reduction of 20% followed by 20% PA buffer).	-	233
2014	No new advice, same as 2013.	-	200
2015	Reduce catches by 36 %.	188	208
2016	No new advice, same as 2015.	188	
2017	Precautionary approach	≤154	
2018	Precautionary approach (same value as advised catches for 2017)	≤154	

*Data revised in 2016 (ICES, 2016a).

**Fishing opportunities are managed through an overall TAC by management unit, which includes all species of skates and rays. Since 2015-2016, there has been a specified TAC for this species in the management unit.

History of catch and landings

The distribution of this stock does not extend into the NEAFC regulatory area.

Table 5.3.20.6 Small-eyed ray in divisions 7.f and 7.g. Catch distribution by fleet in 2015 as estimated by ICES. Landings data for division 7.a also allocated to this stock.

Catch (2015)	Landings				Discards
	% beam trawl	% otter trawl	% nets	% other	
Unknown	33%	63%	4%	<1%	Discarding is known to take place but cannot be quantified.
	208 tonnes				

Table 5.3.20.7 Small-eyed ray in divisions 7.a, 7.f, and 7.g. History of landings. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016a).

Year	Belgium	UK	Ireland	France	Total landings
2009		157.4		8.9	166.2
2010	37.4	213.8	0.1	3.3	254.6
2011	117.4	188.7	0.2	11.6	317.9
2012	124.0	208.3	0.0	16.1	348.4
2013	99.5	116.6		16.7	232.9
2014	83.2	78.6		38.2	200.1
2015	106.1	74.7		27.3	208.1

Summary of the assessment

Table 5.3.20.8 Small-eyed ray in divisions 7.f and 7.g. Time-series of survey index used for the advice. Series are the mean numbers per hour from the UK (E&W)-BTS-Q3 .

Year	Stock index indicator
1993	0.85
1994	1.27
1995	2.68
1996	1.58
1997	2.39
1998	5.10
1999	3.18
2000	2.38
2001	2.85
2002	2.67
2003	2.06
2004	3.46
2005	2.18
2006	2.91
2007	2.79
2008	2.48
2009	3.09
2010	2.12
2011	2.91
2012	2.85
2013	1.05
2014	1.39
2015	2.03

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

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ICES. 2016a. Report of the Workshop to compile and refine catch and landings of elasmobranchs (WKSHARKS), 19–22 January 2016, Lisbon, Portugal. ICES CM 2016/ACOM:40. 69 pp.

ICES 2016b. General context of ICES advice. *In* Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2.

ICES. 2016c. Report of the Working Group on Elasmobranch Fishes (WGEF), 15–24 June 2016, Lisbon, Portugal. ICES CM 2016/ACOM:20.