

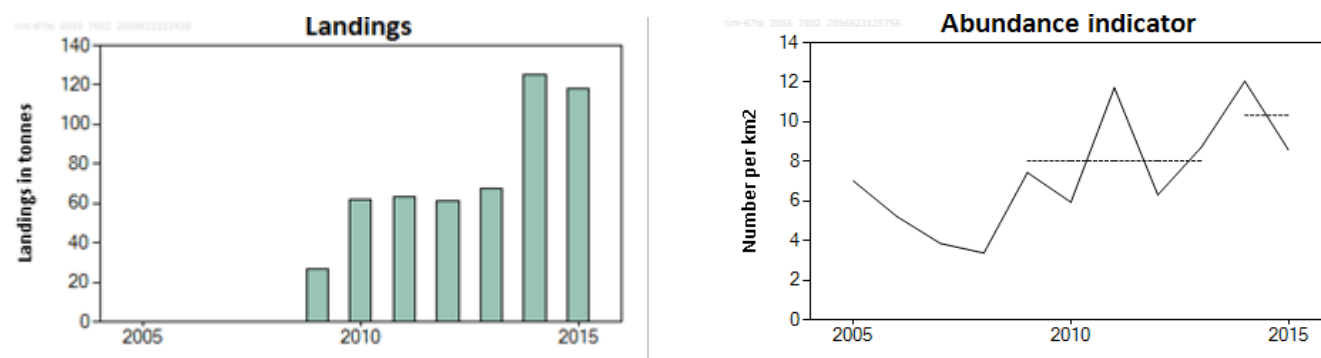
### 5.3.22 Spotted ray (*Raja montagui*) in Subarea 6 and divisions 7.b and 7.j (West of Scotland, west and southwest of Ireland)

#### ICES stock advice

ICES advises that when the precautionary approach is applied, landings should be no more than 67 tonnes in each of the years 2017 and 2018. ICES cannot quantify the corresponding catches.

#### Stock development over time

Landings (2009–2015) have ranged between 27 to 125. The stock size indicator for the last two years is 28% higher than for the preceding five-year average.



**Figure 5.3.22.1** Spotted ray (*Raja montagui*) in Subarea 6 and divisions 7.b and 7.j. Left: ICES estimated landings for 2009–2015 (tonnes). Right: Mean n/km2 from the IGFS-WIBTS-Q4 survey. Dashed lines indicate the mean annual indicator for 2009–2013 and the mean annual indicator for 2014–2015.

#### Stock and exploitation status

**Table 5.3.22.1** Spotted ray in Subarea 6 and divisions 7.b and 7.j. State of the stock and fishery relative to reference points.

		Fishing pressure			Stock size		
		2013	2014	2015	2013	2014	2015
Maximum sustainable yield	$F_{MSY}$	?	?	?	MSY	?	?
Precautionary approach	$F_{pa}$ , $F_{lim}$	?	?	?	$B_{pa}$ , $B_{lim}$	?	?
Management plan	$F_{MGT}$	-	-	-	$SSB_{MGT}$	-	-
Qualitative evaluation	-	?	?	?	-	↗	↗
							↘

## Catch options

The ICES framework for category 3 stocks was applied (ICES, 2012). The IGFS-WIBTS-Q4 survey was used as the index of stock development. 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 advice.

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 increased by more than 20% and thus the uncertainty cap was applied. The precautionary buffer was applied previously (ICES, 2014) and has not been applied again.

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

**Table 5.3.22.2** Spotted ray in Subarea 6 and divisions 7.b and 7.j. For stocks in ICES data categories 3–6, one catch option is provided.

Index A (2014-2015)		10.32
Index B (2009-2013)		8.03
Index ratio (A/B)		1.29
Uncertainty cap	Applied	1.2
Recent advised landings (2015–2016)		53 t
Recent advised landings adjusted (2015–2016)* [53 t x 1.05]		56 t
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice**		67

\*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 5.3.22.3** Spotted ray in Subarea 6 and divisions 7.b and 7.j. The basis of the advice.

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

## Quality of the assessment

The Irish groundfish survey (IGFS-WIBTS-Q4) is considered to have appropriate coverage of the stock area and is the main input to the assessment. The survey started in 2003 however index values for 2003 and 2004 are not presented because of catchability issues.

## Issues relevant for the advice

The quality of landings data has improved in recent years, especially following the WKSHARKS workshop where ICES has revised elasmobranch landings data for the period (2009-2015) (ICES, 2016a,b). Commercial data for *Raja montagui* are confounded with the larger-bodied but morphologically similar *Raja brachyura*.

The increase in landings from 2009 to 2015 might have also been influenced by the introduction of mandatory species-specific reporting of skate landings.

*Raja montagui* is a shelf species that is a bycatch in trawl and gillnet fisheries, including in mixed demersal fisheries for groundfish and fisheries targeting the overall skate complex. As one of the smaller and less valuable species in the skate complex, it is not targeted, and a relatively high proportion of the catch may be discarded.

## Reference points

No reference points are defined for this stock

## Basis of the assessment

**Table 5.3.22.4** Spotted ray in Subarea 6 and divisions 7.b and 7.j. The basis of the assessment.

ICES stock data category	3 (ICES, 2016c)
Assessment type	Survey-based trends (ICES, 2016b)
Input data	IGFS-WIBTS-Q4 survey
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 5.3.22.5** Spotted ray in Subarea 6 and divisions 7.b and 7.j. History of ICES advice and ICES estimates of landings\*\*. All weights are in tonnes.

Year	ICES advice	Predicted landings corresp. to advice	ICES species-specific landings: minimum estimate based on reported landings*
2011	No specific advice		63
2012	No specific advice		60
2013	No TAC, species-specific measures needed, catch to decrease by at least 23% (reduction of 4% followed by 20% PA buffer)	-	67
2014	No new advice, same as 2013	-	125
2015	Reduce catches by 10 %.	53	119
2016	No new advice, same as 2015	53	
2017	Precautionary approach	≤ 67	
2018	Precautionary approach (same value as advised catches for 2017)	≤ 67	

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

\*\* There is no a specific TAC for this stock. Fishing opportunities are managed through an overall TAC by management unit, which includes all species of skates and rays.

## History of catch and landings

This stock is distributed primarily in EU waters, and whilst catches from the NEAFC area are not quantified, they are assumed negligible.

**Table 5.3.22.6** Spotted ray in Subarea 6 and divisions 7.b and 7.j. Catch distribution by fleet in 2015 as estimated by ICES.

Catch (2015)	Landings		Discards
Unknown	bottom trawl	% other	Discarding is known to take place but cannot be quantified
	97%	3%	
	119 tonnes		

**Table 5.3.22.7** Spotted ray in Subarea 6 and divisions 7.b and 7.j. History of landings. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016a).

Year	Spain	UK	Ireland	France	Total
2009	7	16	2	2	27
2010	10	27	20	4	62
2011	5	32	18	7	63
2012	0	30	25	5	61
2013	0	27	24	17	68
2014	0	29	43	53	125
2015	0	42	40	36	119

## Summary of the assessment

**Table 5.3.22.8** Spotted ray in Subarea 6 and divisions 7.b and 7.j. Assessment summary. Time-series of survey indices used for the advice. Series are the annual mean n/km<sup>2</sup> from the Irish Groundfish Survey (IGFS-WIBTS-Q4).

Year	Stock size indicator
2005	7.01
2006	5.22
2007	3.86
2008	3.38
2009	7.44
2010	5.94
2011	11.72
2012	6.31
2013	8.72
2014	12.06
2015	8.59

## 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. 2014. Spotted ray (*Raja montagui*) in Subarea VI and Divisions VIIb,j (west of Scotland and Ireland). In Report of the ICES Advisory Committee, 2014. ICES Advice 2014, Book 5, Section 5.3.29.9.

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

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

