7.3.15 Spotted ray (*Raja montagui*) in Subarea 8 (Bay of Biscay)

ICES stock advice

ICES advises that when the precautionary approach is applied, landings should be no more than 115 tonnes in each of the years 2017 and 2018. ICES cannot quantify the corresponding catches.

Stock development over time

The stock size indicator is variable. Recent survey estimates are among the highest of the series. The increase in landings (2009-2015) may, at least in part, be due to improved species reporting.
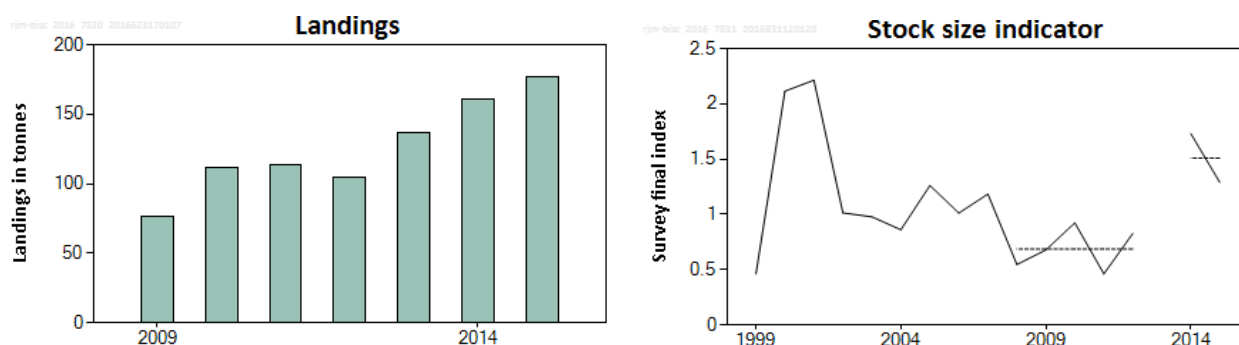

Figure 7.3.15.1   Spotted ray in Subarea 8. Left: total landings (in tonnes) in Subarea 8. Right: The SpGFS-WIBTS-Q4 biomass index is the stock size indicator (solid line). The dotted horizontal lines show the mean stock indicators for 2014–2015 and 2009–2012.

Stock and exploitation status

Table 7.3.15.1   Spotted ray in Subarea 8. 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 $B_{trigger}$		?	?	? 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	-		?	?	⬊ Decreasing

Catch options

The ICES framework for category 3 stocks was applied (ICES, 2012). Data from the SpGFS-WIBTS-Q4 survey were used as the index of stock development. The advice is based on a comparison of the two latest index values (index A) with the preceding five years (index B; note that the 2013 value is unavailable), 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.

For this stock the abundance is estimated to have increased by 109% between the periods 2009–2012 and 2014–2015. The estimated increase of the index is more than 20%, and thus the uncertainty cap was applied. The index ratio has increased by more than 50%, therefore, no additional precautionary buffer was applied.

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 7.3.15.2 Spotted ray in Subarea 8. For stocks in ICES data categories 3–6, one catch option is provided.

Index A (2014–2015)			1.51
Index B (2009–2012)			0.72
Index ratio (A/B)			2.09
Uncertainty cap	Applied		1.2
Recent advised landings (2015–2016)			94 t
Recent advised landings adjusted (2015–2016)* [94 t x 1.02]			96 t
Discard rate			Unknown
Precautionary buffer	Not applied		-
Landings advice**			115 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 7.3.15.3 Spotted ray in Subarea 8. The basis of the advice.

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

Quality of the assessment

Two long-term scientific trawl surveys take place in the ecoregion, one in Division 8.c and another in divisions 8.a and 8.b. Catch rates in the latter survey are highly variable and not considered indicative of stock size. The stock indicator used, therefore, only covers part of the stock area.

A different rigging of the trawl used in the survey, with potential changes in catchability, meant that the Spanish survey data for 2013 could not be included. Ongoing intercalibration work will address this issue with the expectancy that these data can be included in future years, once the potential bias is corrected for.

Issues relevant for the advice

The quality of landings data has generally improved in recent years, especially following the WKSHARKS workshop where ICES revised elasmobranch landings data for the period 2009–2015 (ICES, 2016a, b). However, commercial data might not be fully accurate as *Raja montagui* are confounded with the larger-bodied, but morphologically similar *Raja brachyura*.

Raja montagui is a coastal and inner-shelf species that is a bycatch in trawl and gillnet fisheries. It is one of the most commercially important skate species in this ecoregion.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 7.3.15.4   Spotted ray in Subarea 8. The basis of the assessment.

ICES stock data category	3 (ICES, 2016c).
Assessment type	Survey-based trends (ICES, 2016b).
Input data	Surveys: SpGFS-WIBTS-Q4 in Division 8.c.
Discards and bycatch	Discard rates are considered low 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 the advice, catch, and management

Table 7.3.15.5   Spotted ray in Subarea 8. History of ICES advice and ICES estimates of landings*. All weights are in tonnes.

Year	ICES advice	Predicted landings corresp. to the advice	ICES species-specific landings: minimum estimate based on reported landings**
2011	No specific advice		114
2012	No specific advice		105
2013	No TAC, species-specific measures needed, catch to decrease by at least 20%	-	137
2014	No new advice, same as 2013	-	161
2015	20% decrease from last 3 years' average	94	176
2016	No new advice, same as 2015	94	
2017	Precautionary approach	≤ 115	
2018	Precautionary approach (same value as advised catches for 2017)	≤ 115	

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

History of catch and landings

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

Table 7.3.15.6   Spotted ray in Subarea 8. Catch distribution by fleet in 2015 as estimated by ICES.

Catch (2015)	Landings				Discards
Unknown	bottom trawl	hooks & lines	nets	other	Discarding is known to take place but cannot be quantified
	25%	7%	67%	1%	
	176 tonnes				

Table 7.3.15.7   Spotted ray in Subarea 8. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016a).

Year	Belgium	Spain	France	UK	Total
2009	0.07	11	64	1	77
2010	0.05	26	86	0.38	112
2011	0.28	22	91	0.25	114
2012	0.001	19	86		105
2013		28	109		137
2014		40	121		161
2015		28	149	0.01	176

Summary of the assessment

Table 7.3.15.8   Spotted ray in Subarea 8. Assessment summary. Time-series of survey (SpGFS-WIBTS-Q4) index (kg haul^{-1}). The survey data for 2013 are not presented (see Quality of the assessment).

Year	Stock size index
1999	0.46
2000	2.11
2001	2.21
2002	1.01
2003	0.98
2004	0.86
2005	1.26
2006	1.01
2007	1.18
2008	0.55
2009	0.68
2010	0.92
2011	0.46
2012	0.83
2013	
2014	1.73
2015	1.29

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