

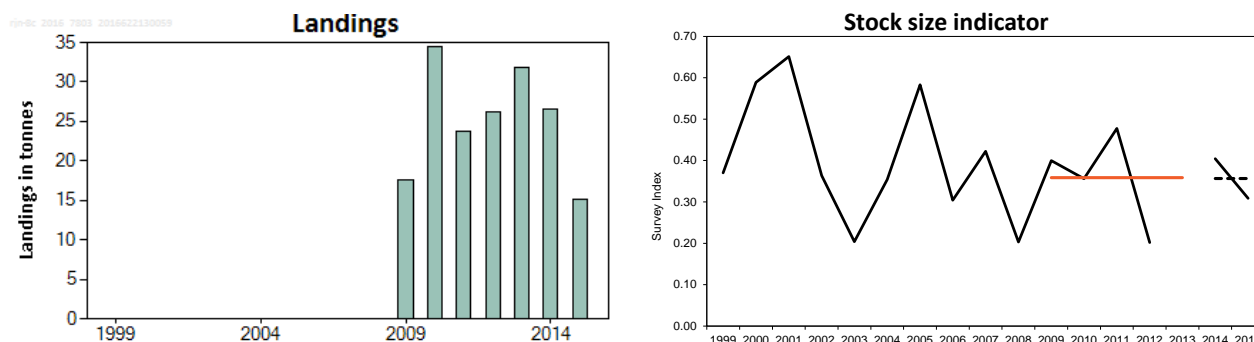
### 7.3.9 Cuckoo ray (*Leucoraja naevus*) in Division 8.c (Cantabrian Sea)

#### ICES stock advice

ICES advises that when the precautionary approach is applied, landings should be no more than 27 tonnes in each of the years 2017 and 2018. ICES cannot quantify the corresponding catches.

#### Stock development over time

Revised landings (2009–2015) ranged between 15–34 tonnes. The stock size indicator has been fluctuating with no trend.



**Figure 7.3.9.1** Cuckoo ray in Division 8.c. ICES estimated landings (in tonnes). Left: Estimated landings from Division 8.c. Right: Biomass index from the Spanish demersal trawl survey (SpGFS-WIBTS-Q4). The red and dotted horizontal lines show the mean stock indicators for 2009–2013 and 2014–2015.

#### Stock and exploitation status

**Table 7.3.9.1** Cuckoo ray in Division 8.c. 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	?	?	?
Precautionary approach	$F_{pa}$ , $F_{lim}$	?	?	?	Undefined	$B_{trigger}$	?	?	?
Management plan	$F_{MGT}$	-	-	-	Not applicable	$B_{pa}$ , $B_{lim}$	?	?	?
Qualitative evaluation	-	?	?	-	Unknown	$SSB_{MGT}$	-	-	-
							?	?	Decrease

#### Catch options

The ICES framework for category 3 stocks was applied (ICES, 2012). The Sp IBTS SPN-GFS 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 years (index B; 2013 data are unavailable), multiplied by the recent landings (as previous advice was based on misallocated landings).

The recent advised landings for 2011 to 2016 were originally derived using landings statistics from 2010–2013. 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 less than 20% and thus the uncertainty cap was not applied. For this stock the abundance is estimated to have decreased by 1% between the periods 2009–2012 and 2014–2015. Given the longer-term stability in the survey index, and that this is a bycatch species, the precautionary buffer was not 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 7.3.9.2** Cuckoo ray in Division 8.c. For stocks in ICES data categories 3–6, one catch option is provided.

Index A (2014–2015)		0.36
Index B (2009–2012)		0.36
Index ratio (A/B)		0.99
Uncertainty cap	Not applied	-
Recent landings (2011–2015)		343 t
Recent advised landings adjusted (2015–2016)* [25 t x 0.08]		27 t
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice**		27 t

\* Landings data revised in 2016, and average landings for 2011–2015 used instead of recent advised landings.

\*\* (average landings × index ratio).

### Basis of the advice

**Table 7.3.9.3** Cuckoo ray in Division 8.c. The basis of the advice.

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

### Quality of the assessment

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 improved in recent years, especially following the WKSHARKS workshop, leading to general revisions in elasmobranch landings data for the period 2009–2015 (ICES, 2016a, b). For the present stock, this has resulted in a large revision of the landings data. Although some misidentification at the species level is possible, it is unlikely to occur in significant amounts for this well-known and commercially important species.

The landings advice for 2017 and 2018 is based on revised landings data (ICES, 2016a, b), which resulted in a large reduction compared to the previous advice.

This species is a bycatch in demersal fisheries, especially for offshore trawl and gillnet fisheries targeting gadoids, hake, anglerfish, and megrim. As one of the smaller and less valuable species in the skate complex, it is not targeted. Discarding levels vary, depending on market value.

### Reference points

No reference points are defined for this stock.

## Basis of the assessment

**Table 7.3.9.4** Cuckoo ray in Division 8.c. The basis of the assessment.

ICES stock data category	3 ( <a href="#">ICES, 2016c</a> ).
Assessment type	Survey-based trends, (ICES, 2016b).
Input data	Survey: SpGFS-WIBTS-Q4.
Discards and bycatch	Discarding cannot be quantified.
Indicators	None.
Other information	None.
Working group	Working Group on Elasmobranch Fishes ( <a href="#">WGEF</a> ).

## Information from stakeholders

No information has been provided.

## History of the advice, catch, and management

**Table 7.3.9.5** Cuckoo ray in Division 8.c. 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		24
2012	No specific advice		26
2013	No TAC, species-specific measures needed, catch could increase by maximum 6%	-	32
2014	No new advice, same as 2013	-	27
2015	Catch could increase by maximum 1%	347***	15
2016	No new advice, same as 2015	347***	
2017	Precautionary approach	27^	
2018	Precautionary approach (same value as advised catches for 2017)	27^	

\* 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).

\*\*\* This advice was based on misallocated landings data.

^ This advice was based on revised landings data.

## 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 7.3.9.6** Cuckoo ray in Division 8.c. Catch distribution by fleet in 2015 as estimated by ICES.

Catch (2015)	Landings			Discards
Unknown	demersal trawl	gillnet	hooks and lines	Discarding is known to take place but cannot be quantified
	83%	17%	1%	
	15 tonnes			

**Table 7.3.9.7** Cuckoo ray in Division 8.c. Historical landings. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016a).

Year	Spain
2009	18
2010	34
2011	24
2012	26
2013	32
2014	27
2015	15

### Summary of the assessment

**Table 7.3.9.8** Cuckoo ray in Division 8.c. Normalized indices of biomass from trawl surveys (SP IBTS SPN-GFS, kg h<sup>-1</sup>). The survey data for 2013 are not included (see Quality of the assessment).

Year	Stock size indicator
1999	0.37
2000	0.59
2001	0.65
2002	0.36
2003	0.20
2004	0.35
2005	0.58
2006	0.30
2007	0.42
2008	0.20
2009	0.40
2010	0.36
2011	0.48
2012	0.20
2013	-
2014	0.40
2015	0.31

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