

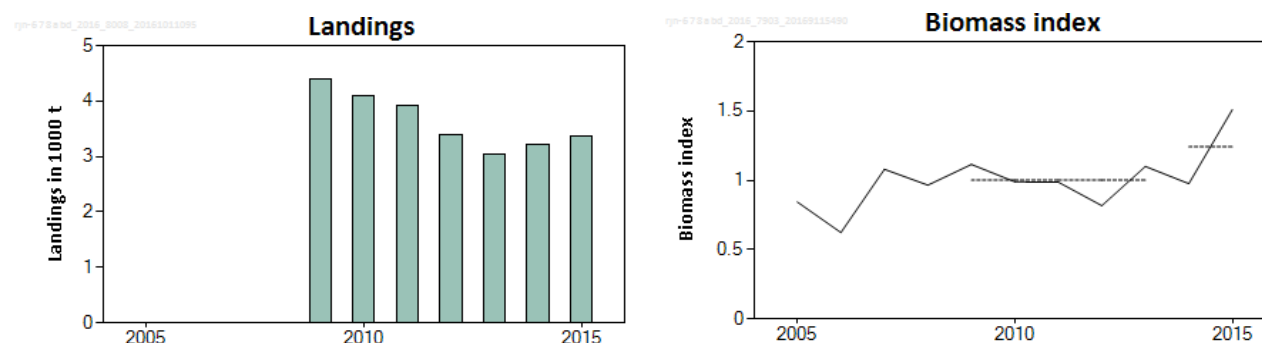
### 5.3.13 Cuckoo ray (*Leucoraja naevus*) in subareas 6 and 7 and divisions 8.ab and 8.d

#### ICES stock advice

ICES advises that when the precautionary approach is applied, landings should be no more than 2734 tonnes in each of the years 2017 and 2018. ICES cannot quantify the corresponding catches.

#### Stock development over time

Landings data (2009-2015) have ranged from 3028 to 4408 tonnes. The stock size indicator, based on two surveys, has been relatively stable with an increase in recent years.



**Figure 5.3.13.1** Cuckoo ray in Subareas 6 and 7 and Divisions 8.ab and 8.d. Left: ICES landings for the period 2009-2015. Right: combined swept area biomass indices from IGFS-WIBTS-Q4 and EVHOE-WIBTS-Q4 surveys. The dotted horizontal lines show the mean stock size indicators for 2014–2015 and 2009–2013.

#### Stock and exploitation status

**Table 5.3.13.1** Cuckoo ray in subareas 6 and 7 and divisions 8.ab and 8.d. 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	$F_{pa}$ , $F_{lim}$	?	?	?	$B_{trigger}$	?	?
Management plan	$F_{MGT}$	-	-	-	$B_{pa}$ , $B_{lim}$	?	?
Qualitative evaluation	-	✗	?	?	$SSB_{MGT}$	-	-
					-	↗	↘
							↗

#### Catch options

The ICES framework for category 3 stocks was applied (ICES, 2012). The average of the EVHOE-IBTS-Q4 and IGFS-WIBTS-Q4 swept area biomass indices was used as the stock size indicator. 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 increased by more and 20 % between 2009 and 2013 (average of the five years) and 2014–2015 (average of the two years), and thus the uncertainty cap was applied. The precautionary buffer was applied previously (ICES, 2014) and was not applied again.

Discarding is variable but has not been quantified and there is some discard survival; therefore, ICES cannot quantify the corresponding dead catch.

**Table 5.3.13.2** Cuckoo ray in subareas 6 and 7 and Divisions 8.ab and 8.d. For stocks in ICES data categories 3–6, one catch option is provided.

Index A (2014-2015)		1.24
Index B (2009-2013)		1.00
Index ratio (A/B)		1.24
Uncertainty cap	Applied	1.2
Recent advised landings (2015–2016)		1998 t
Recent advised landings adjusted (2015–2016)* [1998 t x 1.14]		2278 t
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice**		2734 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 5.3.13.3** Cuckoo ray in subareas 6 and 7 and Divisions 8.ab and 8.d. The basis of the advice.

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

### Quality of the assessment

The advice is based on a stock indicator derived from a swept-area biomass index from two surveys (IGFS-WIBTS-Q4 (in divisions 7.a-k) and EVHOE-WIBTS-Q4 (in divisions 7.g-k, 8.a-b, and 8.d)) that cover extensive shelf areas of the stock range. Catchability of the gears are unknown and currently assumed to be equal. The data were normalized to the long-term mean.

Since legal obligations to declare most demersal elasmobranchs to species level were introduced, a greater proportion of data are reported to this level. ICES revised estimated landings in 2016 (ICES 2016a,b).

### Issues relevant for the advice

This is a common offshore species of varying commercial value. This species is a bycatch in demersal fisheries, especially for offshore trawl and gillnet fisheries targeting gadoids, 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.

Indices from the Spanish Porcupine Bank survey and the English beam trawl survey have not been used in the calculation of the stock size indicator because these survey areas are smaller parts of the stock distribution. These data should be incorporated in future assessments.

Data from the French on-board observation programme (2007-2015) indicated that cuckoo ray occurs in about 80% of hauls for the twin-rig trawlers targeting demersal fish (OTT\_DEF), with no apparent variation.

### Reference points

No reference points are defined for this stock

## Basis of the assessment

**Table 5.3.13.4** Cuckoo ray in subareas 6 and 7 and Divisions 8.ab and 8.d. The basis of the assessment.

ICES stock data category	3 (ICES, 2016c)
Assessment type	Survey-based trends (ICES, 2016b)
Input data	Surveys (EVHOE-WIBTS-Q4, and IGFS-WIBTS-Q4)
Discards and bycatch	Discarding is known to take place but cannot be quantified.
Indicators	None
Other information	French onboard observation programme
Working group	Working Group on Elasmobranch Fishes (WGEF)

## Information from stakeholders

No information has been provided.

## History of advice, catch, and management

**Table 5.3.13.5** Cuckoo ray in subareas 6 and 7 and divisions 8.a-b and 8.d. 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*
2009	No specific advice		4408
2010	No specific advice		4096
2011	No specific advice		3916
2012	No specific advice		3388
2013	Decrease catch by at least 36%	-	3029
2014	No new advice, same as 2013	-	3212
2015	Decrease landings by 34%	1998	3355
2016	No new advice, same as 2015	1998	
2017	Precautionary approach	≤ 2734	
2018	Precautionary approach (same value as advised catches for 2017)	≤ 2734	

\* 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 5.3.13.6** Cuckoo ray in subareas 6 and 7 and Divisions 8.ab and 8.d. Catch distribution by fleet in 2015 as estimated by ICES.

Catch (2015)	Landings				Discards
Unknown	% bottom trawl	% beam trawl	% nets	% other gears	Discarding is known to take place but cannot be quantified
	91%	4%	4%	1%	
	3355 tonnes				

**Table 5.3.13.7** Cuckoo ray in subareas 6 and 7 and Divisions 8.ab and 8.d. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016a).

Country	Belgium	Spain	UK	Ireland	Netherlands	France	Total
2009	81	778	321	12		3217	4408
2010	70	480	421	55	0.0	3070	4096
2011	112	387	402	106		2910	3916
2012	93	311	306	108		2571	3388
2013	97	374	269	93	0.1	2195	3029
2014	48	300	262	83	0.1	2515	3209
2015	51	355	264	76		2609	3355

## Summary of the assessment

**Table 5.3.13.8** Cuckoo ray in subareas 6–7 and divisions 8.a-b and 8.d. Time-series of normalised IGFS-WIBTS-Q4 and EVHOE-WIBTS-Q4 survey indices (biomass), and annual mean index based on the two surveys.

Year	IGFS (swept area biomass)	EVHOE (swept area biomass)	Stock size indicator
2005	0.68	1.01	0.84
2006	0.55	0.70	0.62
2007	1.05	1.11	1.08
2008	1.12	0.81	0.97
2009	0.71	1.52	1.11
2010	0.81	1.16	0.99
2011	1.19	0.79	0.99
2012	0.86	0.77	0.82
2013	1.26	0.94	1.10
2014	0.99	0.96	0.98
2015	1.79	1.22	1.51

## Sources and references

ICES. 2014. Cuckoo ray (*Leucoraja naevus*) in Subareas and Divisions VI, VII, and VIIIa,b,d. In Report of the ICES Advisory Committee, 2014. ICES Advice 2014, Book 5, Section 5.3.29.15.

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.