

7.3.10 Cuckoo ray (*Leucoraja naevus*) in Division 9.a (Atlantic Iberian waters)

ICES stock advice

ICES advises that when the precautionary approach is applied landings should be no more than 58 tonnes in each of the years 2017 and 2018. ICES cannot quantify the corresponding catches.

Stock development over time

Estimated landings in 2009–2015 ranged from 19 to 68 tonnes and have been decreasing since 2011. The stock size indicator has increased over the time-series.

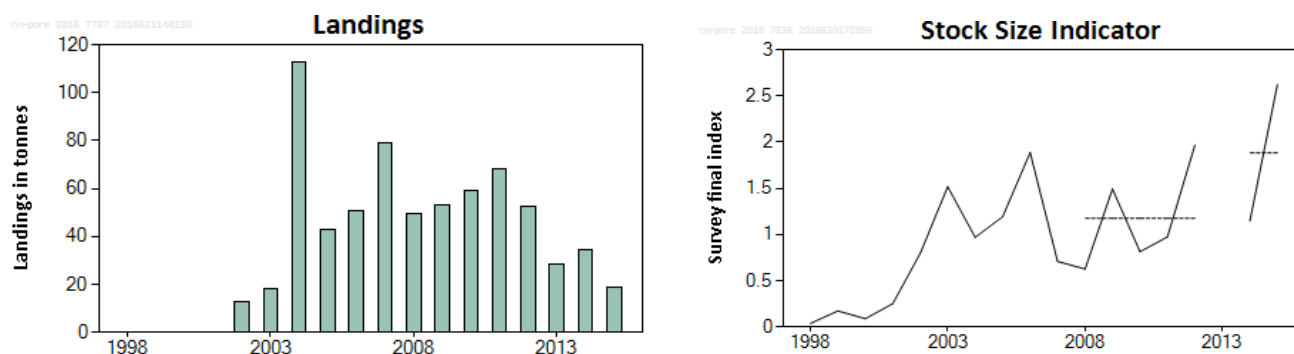


Figure 7.3.10.1 Cuckoo ray in Division 9.a. Left: ICES landings estimates (in tonnes). Right: Stock size indicator (solid line) is the combined biomass survey index (normalized) from the two Spanish groundfish surveys (SPGFS-cspr-WIBTS-Q1 and SpGFS-WIBTS-Q4). The dotted horizontal lines show the mean stock size indicators for 2009–2012 and 2014–2015.

Stock and exploitation status

Table 7.3.10.1 Cuckoo ray in Division 9.a. 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 indices from Spanish bottom trawl surveys (SpGFS-cspr-WIBTS-Q1 and SpGFS-WIBTS-Q4) carried out in the south of Spain (Gulf of Cadiz) in spring and autumn were used as the index of stock size. These surveys were normalized to their long-term mean for the common time period, and then averaged. The advice is based on a comparison of the two latest index values (index A) with the five preceding years (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 than 20%; thus, the uncertainty cap was applied. The precautionary buffer has been applied previously (ICES, 2014) and was not 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 7.3.10.2 Cuckoo ray in Division 9.a. For stocks in ICES data categories 3–6, one catch option is provided.

Index A (2014–2015)		1.98
Index B (2009–2012)		1.49
Index ratio (A/B)		1.33
Uncertainty cap	Applied	1.2
Recent advised landings (2015–2016)		46 t
Recent advised landings adjusted (2015–2016)* [46 t x 1.04]		48 t
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice**		58 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 7.3.10.3 Cuckoo ray in Division 9.a. 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 biomass index from surveys used as indicator of stock size. This survey covers a small portion of the stock area.

The time-series from the Portuguese crustacean survey is not suitable to estimate biomass trends of this stock, because of missing years (2009, 2010, and 2012), and the Portuguese groundfish survey has low and variable catch rates.

An overall increasing stock trend in ICES Division 9.a has been observed in recent years, particularly in the Gulf of Cadiz survey (southern part of Division 9.a). There is less information for the stock trends further north.

Issues relevant for the advice

The quality of landings data has improved in recent years, following a Portuguese Pilot Study on Skates (2010–2013) and the WKSHARKS workshop, where ICES revised elasmobranch landings data for the period 2005–2015 (ICES, 2016a).

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, 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. This species is usually caught as a bycatch in artisanal fisheries and in trawl fisheries for hake and crustaceans by Portuguese and Spanish fleets.

On 22 August 2014 the Portuguese government adopted a national legislation (Portaria no. 170/2014) that established a minimum landing size of 520 mm (total length) for specimens of the genus *Leucoraja* or *Raja*, covering all of the continental Portuguese EEZ.

The national legislation adopted on 29 December 2011 (Portaria no. 315/2011) was updated by the Portuguese government on 21 March 2016 (Portaria no. 47/2016). The new legislation prohibits, throughout the whole of the continental Portuguese EEZ, the catch, retention on board, and landing of any skate species belonging to Rajiformes during the months of May and June. For each fishing trip during these two months it is allowed to retain on board and to land a maximum of 5% bycatch, in weight, of the Rajiformes species.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 7.3.10.4 Cuckoo ray in Division 9.a. The basis of the assessment.

ICES stock data category	3 (ICES, 2016b).
Assessment type	Survey-based trends (ICES, 2016c).
Input data	Survey indices: SPGFS-cspr-WIBTS-Q1 and SpGFS-WIBTS-Q4.
Discards and bycatch	The discard rate is unquantified.
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 7.3.10.5 Cuckoo ray in Division 9.a. 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		68
2012	No specific advice		53
2013	No TAC, species-specific measures needed, catch to decrease by at least 20%	-	29
2014	No new advice, same as 2013	-	35
2015	4% decrease from the last 3 years' average	46	19
2016	No new advice, same as 2015	46	
2017	Precautionary approach	≤ 58	
2018	Precautionary approach (same value as advised catches for 2017)	≤ 58	

* 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 7.3.10.6 Cuckoo ray in Division 9.a. Catch distribution by fleet in 2015 as estimated by ICES. Portuguese official landings are not discriminated at the métier level; all polyvalent landings are assigned to “other gears” (ICES, 2016a).

Catch (2015)	Landings		Discards
Unknown	otter trawl	other gears	Discarding is known to take place but cannot be quantified
	48%	51%	
	19 tonnes		

Table 7.3.10.7 Cuckoo ray in Division 9.a. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016a). Species-specific landings data are only presented for Portugal between 2003 and 2008, because in this period Spanish species-specific landings are not available.

Year	Spain	Portugal	Total
2002	-	12.7	12.7
2003	-	18.0	18.0
2004	-	113.0	113.0
2005	-	42.8	42.8
2006	-	50.8	50.8
2007	-	78.8	78.8
2008	-	49.8	49.8
2009	2.8	50.2	53.1
2010	4.4	55.0	59.4
2011	11.5	56.4	68.0
2012	13.4	39.2	52.6
2013	2.1	26.5	28.6
2014	0.2	34.5	34.6
2015	0.1	18.9	19.0

Summary of the assessment

Table 7.3.10.8 Cuckoo ray in Division 9.a. Assessment summary. Normalized indices of biomass from trawl surveys (SP GCGFS-Q1, SP GCGFS-Q4) and mean combined stock size indicator. The survey data for 2013 are not included (see Quality of the assessment).

Year	Spanish ARSA-Q1	Spanish ARSA-Q4	mean index
	SP GCGFS-Q1	SP GCGFS-Q4	
1999	0.07	0.27	0.17
2000	0.14	0.04	0.09
2001	0.37	0.13	0.25
2002	1.46	0.13	0.80
2003	-	1.52	1.52
2004	0.46	1.48	0.97
2005	1.98	0.41	1.19
2006	1.70	2.08	1.89
2007	0.99	0.43	0.71
2008	0.50	0.75	0.63
2009	0.84	2.14	1.49
2010	1.05	0.58	0.81
2011	1.09	0.86	0.97
2012	1.33	2.61	1.97
2013	-	-	-
2014	1.81	0.48	1.14
2015	2.16	3.09	2.62

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.
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