

Cuckoo ray (*Leucoraja naevus*) in subareas 6 and 7, and in divisions 8.a–b and 8.d (West of Scotland, southern Celtic Seas, and western English Channel, Bay of Biscay)

ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, landings should be no more than 3150 tonnes in each of the years 2021 and 2022. ICES cannot quantify the corresponding catches.

Note: This advice sheet is abbreviated due to the COVID-19 disruption. The previous advice issued for 2019 and 2020 is attached as Annex 1.

Stock development over time

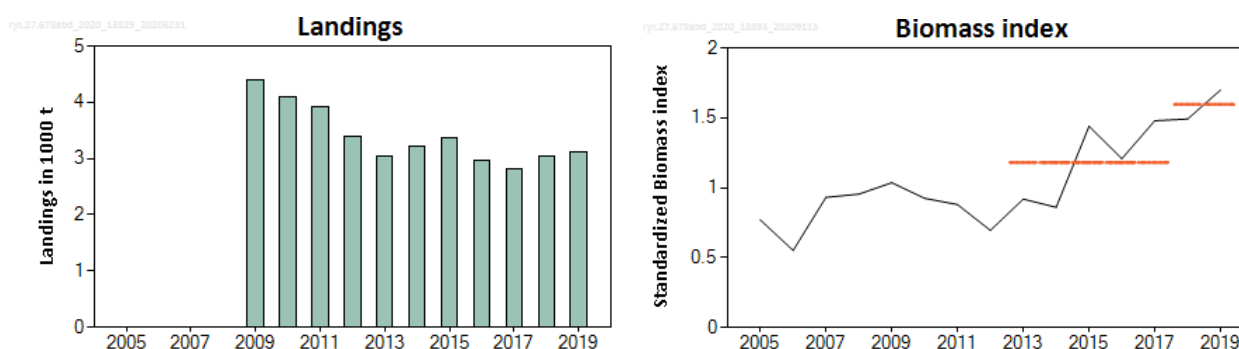


Figure 1 Cuckoo ray in subareas 6 and 7, and in divisions 8.a–b and 8.d. Left: ICES landings for the period 2009–2019. Right: combined biomass indices (standardized) from the IGFS-WIBTS-Q4 and EVHOE-WIBTS-Q4 surveys. Horizontal lines show the mean stock-size indicator for 2013–2017 and 2018–2019. Survey data from 2017 were only available for IGFS-WIBTS-Q4.

Stock and exploitation status

Table 1 Cuckoo ray in subareas 6 and 7, and in divisions 8.a–b and 8.d. State of the stock and the fishery relative to reference points.

		Fishing pressure			Stock size					
		2017	2018	2019	2017	2018	2019			
Maximum sustainable yield	F_{MSY}	?	?	?	Unknown	$MSY B_{trigger}$?	?	?	Undefined
Precautionary approach	F_{pa}, F_{lim}	?	?	?	Unknown	B_{pa}, B_{lim}	?	?	?	Undefined
Management plan	F_{MGT}	—	—	—	Not applicable	B_{MGT}	—	—	—	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	↗	→	↗	Increasing

Catch scenarios

The precautionary buffer was previously applied in 2014. While stock size is increasing, the fishing pressure status relative to reference points is unknown; therefore, the precautionary buffer was applied in 2020.

Discarding is known to take place; however, ICES cannot quantify the corresponding dead catch.

Table 2 Cuckoo ray in subareas 6 and 7, and in divisions 8.a–b and 8.d. The basis for the catch scenarios *.

Index A (2018–2019)		1.60
Index B (2013–2017)		1.18
Index ratio (A/B)		1.35
Uncertainty cap	Applied	1.2
Advised landings for 2019–2020 (issued in 2018)		3281 tonnes
Discard rate	Unknown	-
Precautionary buffer	Applied	0.8
Landings advice **		3150 tonnes
% advice change ***		-4%

* The figures in the table are rounded. Calculations were done with unrounded inputs and computed values may not match exactly when calculated using the rounded figures in the table.

** [Advised landings for 2019–2020] × [Uncertainty cap] × [PA buffer].

*** Advice value for 2021 and 2021 relative to the advice value for 2019 and 2020.

History of the advice, catch, and management

Table 3 Cuckoo ray in subareas 6 and 7, and in divisions 8.a–b and 8.d. History of ICES advice and ICES estimates of landings *. All weights are in tonnes.

Year	ICES advice	Landings corresp. to advice	ICES 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%	-	3028
2014	No new advice, same as 2013	-	3209
2015	Decrease landings by 34%	1998	3360 **
2016	No new advice, same as 2015	1998	2955 **
2017	Precautionary approach	≤ 2734	2804 **
2018	Precautionary approach (same value as advised catches for 2017)	≤ 2734	3037
2019	Precautionary approach	≤ 3281	3111
2020	Precautionary approach	≤ 3281	
2021	Precautionary approach	≤ 3150	
2022	Precautionary approach	≤ 3150	

* There is no a specific TAC for this stock. Fishing opportunities are managed through an overall TAC across each of the two management units (Subarea 6 and divisions 7.a–c and 7.e–k; and subareas 8–9), which includes all species of skates and rays.

** Data revised in 2020.

Summary of the assessment

Table 4 Cuckoo ray in subareas 6–7, and in divisions 8.a–b and 8.d. Time-series of the annual mean index based on two normalized biomass survey indices, IGFS-WIBTS-Q4 and EVHOE-WIBTS-Q4.

Year	Biomass index	Landings (tonnes)
2005	0.77	
2006	0.551	
2007	0.931	
2008	0.954	
2009	1.036	4408
2010	0.924	4096
2011	0.879	3916
2012	0.695	3388
2013	0.919	3028
2014	0.86	3209
2015	1.439	3360
2016	1.208	2955
2017	1.479	2804
2018	1.491	3037
2019	1.699	3111

Sources and references

ICES. 2020. Working Group on Elasmobranch Fishes (WGEF). ICES Scientific Reports, 2:77. <http://doi.org/10.17895/ices.pub.7470>.

Recommended citation: ICES. 2020. Cuckoo ray (*Leucoraja naevus*) in subareas 6–7, and in divisions 8.a–b and 8.d (West of Scotland, southern Celtic Seas, and western English Channel, Bay of Biscay). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, rjn.27.678abd. <https://doi.org/10.17895/ices.advice.5817>.