

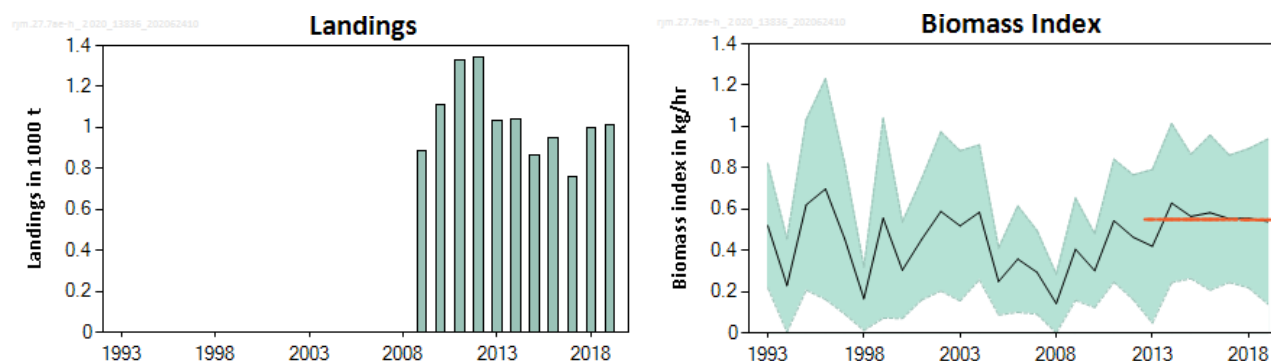
## Spotted ray (*Raja montagui*) in divisions 7.a and 7.e–h (southern Celtic Seas and western English Channel)

### ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, landings should be no more than 1041 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** Spotted ray in divisions 7.a and 7.e–h. Left: ICES estimated landings (in tonnes). Right: UK (E&W)-BTS-Q3 survey index (kg hr<sup>-1</sup>) (individuals of ≥ 50 cm in total length) and 95% CI. The horizontal lines show the mean stock indicators for 2013–2017 and 2018–2019.

### Stock and exploitation status

**Table 1** Spotted ray in divisions 7.a and 7.e–h. 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	-	↘	↔	↔	Stable

### Catch scenarios

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

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

**Table 2** Spotted ray in divisions 7.a and 7.e–h. The basis for the catch scenario \*.

Index A (2018–2019)		0.55
Index B (2013–2017)		0.55
Index ratio (A/B)		1.00
Uncertainty cap	Not applied	-
Advised landings for 2019 and 2020 issued in 2018		1296 tonnes
Discard rate	Unknown	-
Precautionary buffer	Applied	0.8
Landings advice **		1041 tonnes
% advice change ***		-20%

\* 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.

\*\* [Advice for 2019–2020] × [index ratio] × [precautionary buffer].

\*\*\* Advice value for 2021 and 2022 relative to the advice value for 2019 and 2020.

The advised landings have decreased by 20% owing to the application of the precautionary buffer.

### History of the advice, catch, and management

**Table 3** Spotted ray in divisions 7.a and 7.e–h. History of ICES advice and ICES estimates of landings \*. All weights are in tonnes.

Year	ICES advice	Landings corresp. to advice	ICES species-specific landings: minimum estimate based on reported landings
2011	No specific advice	-	1332
2012	No specific advice	-	1343
2013	No TAC, species-specific measures needed, catch could increase by up to 20%	-	1032
2014	No new advice, same as 2013	-	1042
2015	4% decrease from the average of the last three years	1118	864
2016	No new advice, same as 2015	1118	947
2017	Precautionary approach	≤ 1197	762
2018	Precautionary approach (same value as advised catches for 2017)	≤ 1197	1001
2019	Precautionary approach	≤ 1296	1011
2020	Precautionary approach	≤ 1296	
2021	Precautionary approach	≤ 1041	
2022	Precautionary approach	≤ 1041	

\* There is no specific TAC for this stock. Fishing opportunities are managed through an overall TAC by management unit, which includes all species of skates and rays.

## Summary of the assessment

**Table 4** Spotted ray in divisions 7.a and 7.e–h. Time-series of the UK (E&W)-BTS-Q3 survey (kg hr<sup>-1</sup>) (individuals of ≥ 50 cm in total length) used for the advice.

Year	Biomass index tonnes	High CI 95%	Low CI 95%	Landings tonnes
1993	0.52	0.82	0.22	
1994	0.23	0.46	0.00	
1995	0.62	1.03	0.21	
1996	0.70	1.23	0.16	
1997	0.46	0.82	0.09	
1998	0.17	0.32	0.01	
1999	0.56	1.04	0.07	
2000	0.30	0.54	0.07	
2001	0.45	0.75	0.16	
2002	0.59	0.97	0.20	
2003	0.52	0.88	0.16	
2004	0.58	0.91	0.26	
2005	0.25	0.41	0.09	
2006	0.36	0.62	0.10	
2007	0.29	0.50	0.09	
2008	0.14	0.29	0.00	
2009	0.41	0.65	0.16	887
2010	0.30	0.48	0.12	1110
2011	0.54	0.84	0.25	1332
2012	0.46	0.77	0.16	1343
2013	0.42	0.79	0.05	1032
2014	0.63	1.01	0.24	1042
2015	0.56	0.87	0.26	864
2016	0.58	0.96	0.21	947
2017	0.55	0.86	0.24	762
2018	0.56	0.89	0.22	1001
2019	0.54	0.94	0.14	1011

## Sources and references

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

*Recommended citation:* ICES. 2020. Spotted ray (*Raja montagui*) in divisions 7.a and 7.e–h (southern Celtic Seas and western English Channel). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, rjm.27.7ae-h. <https://doi.org/10.17895/ices.advice.5813>.