

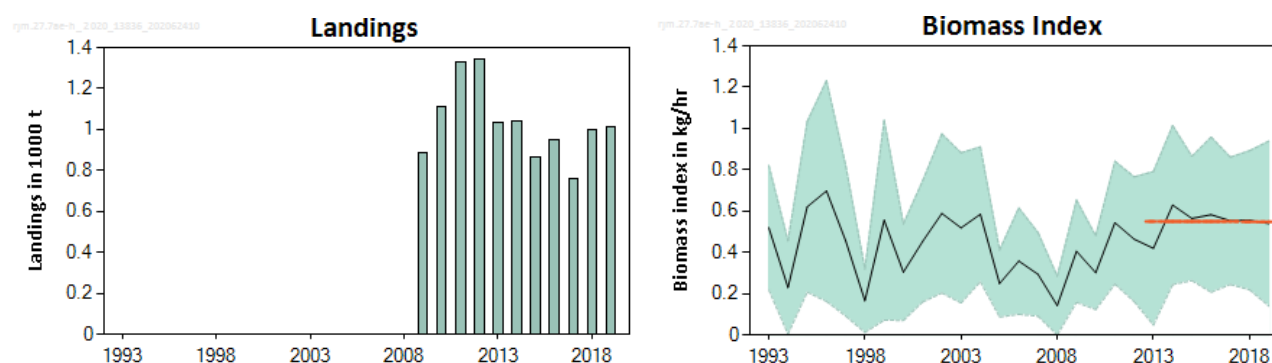
## Spotted ray (*Raja montagui*) in divisions 7.a and 7.e–h (southern Celtic Seas and western English Channel)

### 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.

Table 1. Spotted ray in divisions 7.A and 7.C. II: 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>.

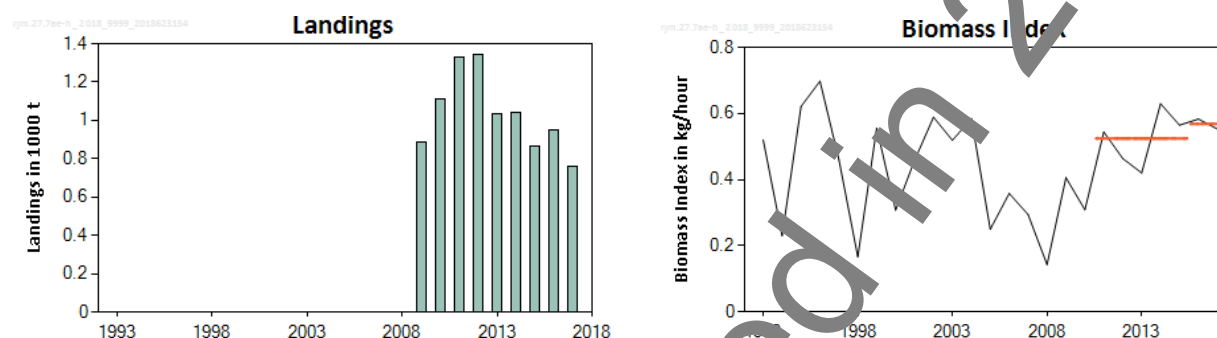
## Spotted ray (*Raja montagui*) in divisions 7.a and 7.e–h (southern Celtic Seas and western English Channel)

### ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, landings should be no more than 1296 tonnes in each of the years 2019 and 2020. ICES cannot quantify the corresponding catches.

### Stock development over time

The stock size indicator shows an increasing trend since 2008 and is at a high level compared to the rest of the time-series.



**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 total length). The horizontal lines show the mean stock indicators for 2016–2017 and 2011–2015.

### Stock and exploitation status

ICES cannot assess the stock and exploitation status relative to maximum sustainable yield (MSY) and precautionary approach (PA) reference points because the reference points are undefined.

**Table 1** Spotted ray in divisions 7.a and 7.e–h. State of the stock and fishery relative to reference points.

		Fishing pressure				Stock size				
		2015	2016	2017		2015	2016	2017		
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	-	↘	↗	↘	Decreasing

### Catch scenarios

The ICES framework for category 3 stocks was applied (ICES, 2012). The UK (E&W)-BTS-Q3 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 values (Index B), multiplied by the recent landings advice.

The index is estimated to have increased by less than 20% and thus the uncertainty cap was not applied. The precautionary buffer was last applied in 2014. Given the increasing trend in the stock size indicator since 2008, the precautionary buffer was not applied.

Discarding is known to take place, but 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 (2016–2017)		0.568
Index B (2011–2015)		0.524
Index ratio (A/B)		1.08
Uncertainty cap	Not applied	-
Advised landings for 2017 and 2018 issued in 2016		1197 t
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice **		1296 t
% Advice change ***		+8%

\* 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 2017–2018] × index ratio.

\*\*\* Advice value for 2019 and 2020 relative to advice value for 2018.

The advised landings are higher than advised for 2017 and 2018 because the biomass indicator has increased.

### Basis of the advice

**Table 3** Spotted ray in divisions 7.a and 7.e–h. The basis of the advice.

Advice basis	Precautionary approach
Management plan	ICES is not aware of any agreed precautionary management plan for spotted ray in this area.

### Quality of the assessment

Previous advice was based on an abundance stock indicator but is now based on a biomass index.

The UK (E&W)-BTS-Q3 covers a representative portion of the stock area and the survey gear samples the full size range of the species. The Irish groundfish survey (IGFS-IBTS-Q4) and the (UK-Q1SWBeam) both cover a part of the stock area and both show a similar trend to the stock size indicator used (ICES, 2018).

The quality of landings data has improved in recent years, especially following the WKSHARKS workshop where ICES has revised elasmobranch landings data for the period (2009–2015) (ICES, 2016a) and with increased species-specific reporting. However, commercial landings data may not be entirely accurate as *Raja montagui* can be confounded with the larger-bodied but morphologically similar *Raja chelyura*.

### Issues relevant for the advice

*Raja montagui* is a shelf species that is a bycatch in trawl and gillnet fisheries, including in mixed demersal fisheries for groundfish and fisheries targeting the overall skate complex. As one of the smaller and less valuable species in the skate complex, it is not targeted, and a relatively high proportion of the catch may be discarded.

### Reference points

No reference points are defined for this stock

## Basis of the assessment

**Table 4** Spotted ray in divisions 7.a and 7.e–h. Basis of assessment and advice.

ICES stock data category	3 (ICES, 2016b)
Assessment type	Survey-based trends (ICES, 2018)
Input data	UK (E&W)-BTS-Q3
Discards and bycatch	Discarding is known to take place but has not been fully quantified.
Indicators	None
Other information	IGFS-IBTS-Q4, UK-Q1SWBeam
Working group	Working Group on Elasmobranch Fishes (WGEF)

## Information from stakeholders

No additional information is available.

## History of the advice, catch, and management

**Table 5** 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. 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 last 3 years' average	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	
2019	Precautionary approach	≤ 1296	
2020	Precautionary approach	≤ 1296	

\* Data revised in 2018.

\*\* 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.

## History of the catch and landings

The distribution of this stock does not extend into the NEAFC regulatory area.

**Table 6** Spotted ray in divisions 7.a and 7.e–h. Catch distribution by fleet in 2017 as estimated by ICES.

Catch (2017)	Landings			Discards
Unknown	bottom trawl	trawl	other	Unquantified
	4%	71%	25%	
	762 tonnes			

**Table 7** Spotted ray in divisions 7.a and 7.e–h. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016a).

Year	Belgium	Spain	UK	Ireland	Netherlands	France	Total
2009	63		38	0.4		785	887
2010	54	0.4	102	19		93	1110
2011	120		88	63	0.2	102	1332
2012	70		85	53		1135	1343
2013	2.6		90	40	0.1	899	1032
2014	0.3	0.1	80	49		91	1042
2015	0.7	0.1	70	48		745	864
2016	6.9		80	41	0.2	819	947
2017	1.8		89	10		61	762

## Summary of the assessment

**Table 8** Spotted ray in divisions 7.a and 7.e–h. Time-series of the UK (E&W)-BTS-Q3 survey ( $\text{kg hr}^{-1}$ ) (individuals of  $\geq 50$  cm total length) used for the advice.

Year	Biomass index ( $\text{kg hr}^{-1}$ )
1993	0.52
1994	0.23
1995	0.62
1996	0.70
1997	0.46
1998	0.166
1999	0.56
2000	0.31
2001	0.46
2002	0.59
2003	0.59
2004	0.59
2005	0.25
2006	0.36
2007	0.29
2008	0.143
2009	0.41
2010	0.31
2011	0.54
2012	0.46
2013	0.42
2014	0.63
2015	0.57
2016	0.58
2017	0.55

## 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 (WKSHARK2), 19–22 January 2016, Lisbon, Portugal. ICES CM 2016/ACOM:40. 69 pp.

ICES 2016. Advice basis. In Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2.

ICES. 2018. Report of the Working Group on Elasmobranch Fishes (WGEF), 19–28 June 2018, Lisbon, Portugal. ICES CM 2018/ACOM:16.