

Thornback ray (*Raja clavata*) in divisions 7.a and 7.f–g (Irish Sea, Bristol Channel, Celtic Sea North)

ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, landings should be no more than 1596 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

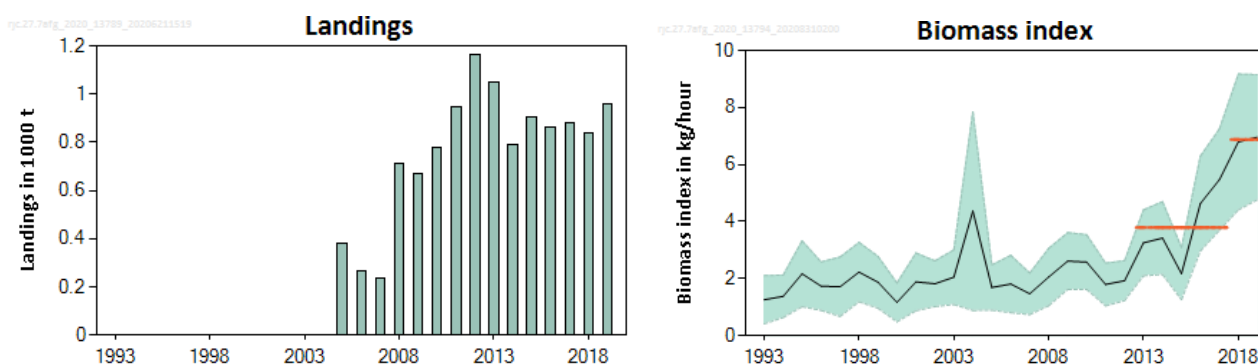


Figure 1 Thornback ray in divisions 7.a and 7.f–g. ICES estimated landings (in tonnes). Right: UK (E&W)–BTS–Q3 survey index (kg hr⁻¹, individuals of ≥ 50 cm in total length) with 95% confidence intervals (shaded area). The horizontal lines show the mean stock-size indicators for 2013–2017 and 2018–2019.

Stock and exploitation status

Table 1 Thornback ray in divisions 7.a and 7.f–g. 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 has not been previously applied for this stock. Despite a large increase in the biomass index in recent years, the fishing pressure status relative to reference points is unknown. Therefore, the precautionary buffer is applied in 2020.

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

Table 2 Thornback ray in divisions 7.a and 7.f–g. The basis for the catch scenarios.*

Index A (2018–2019)		6.87
Index B (2013–2017)		3.79
Index ratio (A/B)		1.81
Uncertainty cap	Applied	1.2
Advised landings for 2019–2020 issued in 2018		1663 tonnes
Discard rate	Unknown	
Precautionary buffer	Applied	0.8
Landings advice **		1596 tonnes
% advice change ***		-4.0%

* 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] × [uncertainty cap] × [precautionary buffer] = 1596 tonnes.

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

History of the advice, catch, and management

Table 3 Thornback ray in divisions 7.a and 7.f–g. 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		944
2012	No specific advice		1165
2013	No TAC, species-specific measures needed, catch could be increased by up to 20%	-	1048
2014	No new advice, same as 2013		790
2015	Increase by up to 20% from the average of the last three years	1235	903
2016	No new advice, same as 2015	1235	861
2017	Precautionary approach	≤ 1386	878
2018	Precautionary approach (same value as advised catches for 2017)	≤ 1386	840
2019	Precautionary approach	≤ 1663	960
2020	Precautionary approach	≤ 1663	
2021	Precautionary approach	≤ 1596	
2022	Precautionary approach	≤ 1596	

* 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.

** In 2020, landings data were revised.

Summary of the assessment

Table 4 Thornback ray in divisions 7.a and 7.f–g. Assessment summary. Index of biomass from trawl survey UK (E&W)–BTS–Q3 in kg hr⁻¹ of individuals of ≥ 50 cm in total length.

Year	Biomass index (kg h ⁻¹)	Upper 95% CI	Lower 95% CI	Landings (tonnes)
1993	1.26	2.1	0.41	
1994	1.38	2.12	0.64	
1995	2.17	3.33	1.02	
1996	1.74	2.59	0.89	
1997	1.72	2.76	0.67	
1998	2.23	3.27	1.19	
1999	1.87	2.78	0.96	
2000	1.17	1.85	0.49	
2001	1.89	2.9	0.87	
2002	1.82	2.62	1.02	
2003	2.05	3.01	1.09	
2004	4.37	7.85	0.88	
2005	1.69	2.48	0.89	379
2006	1.81	2.82	0.81	264
2007	1.47	2.2	0.74	238
2008	2.06	3.06	1.05	713
2009	2.62	3.61	1.62	671
2010	2.58	3.54	1.62	780
2011	1.79	2.54	1.05	944
2012	1.93	2.63	1.23	1165
2013	3.26	4.41	2.1	1048
2014	3.42	4.7	2.14	790
2015	2.18	3.09	1.26	903
2016	4.64	6.3	2.97	861
2017	5.47	7.25	3.69	878
2018	6.79	9.17	4.41	840
2019	6.96	9.15	4.77	960

Sources and references

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

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