

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

ICES stock advice

ICES advises that when the precautionary approach is applied, landings should be no more than 1386 tonnes in each of the years 2017 and 2018. ICES cannot quantify the corresponding catches.

Stock development over time

Available landings data (2009–2015) ranged from 670 to 1165 tonnes. The stock size indicator shows an increasing trend since 1994.

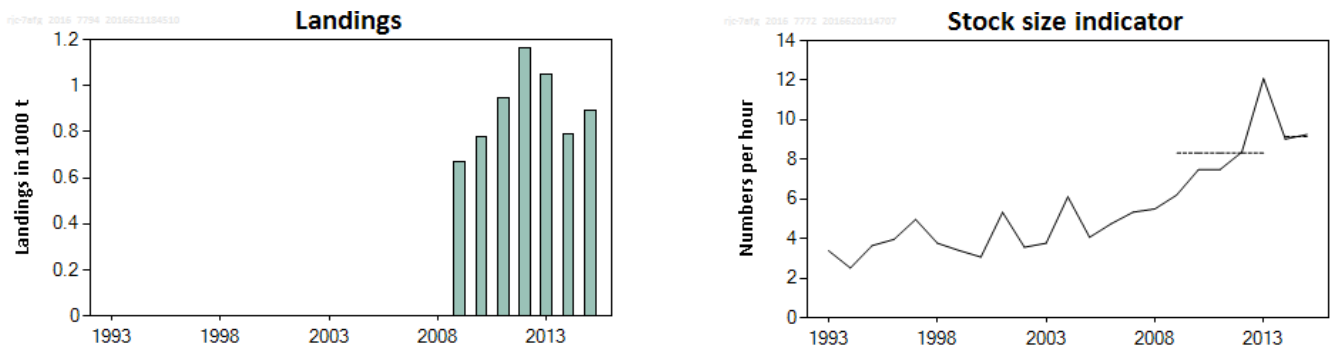


Figure 5.3.24.1 Thornback ray in divisions 7.a, 7.f–g. ICES estimated landings (in tonnes). Right: UK (E&W) – BTS – Q3 survey index (numbers per hour). The dotted horizontal lines show the mean stock indicators for 2014–2015 and 2009–2013.

Stock and exploitation status

Table 5.3.24.1 Thornback ray in divisions 7.a, 7.f–g. 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	?	?	?	Undefined
Precautionary approach	F_{pa} , F_{lim}	?	?	?	B_{pa} , B_{lim}	?	?	?	Undefined
Management plan	F_{MGT}	-	-	-	SSB_{MGT}	-	-	-	Not applicable
Qualitative evaluation	-	✓	?	?	-	↗	↘	↗	Increase

Catch options

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 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 less than 20% and thus the uncertainty cap was not applied. For this stock the abundance is estimated to have increased by 10% between 2009–2013 (average of the five years) and 2014–2015 (average of the two years). As there has been an increasing trend in the stock indicator over the longer time-series, the precautionary buffer has not been applied.

Discarding is known to take place, but ICES cannot quantify the corresponding catch. In addition, discard survival, which is likely to occur, has not been estimated.

Table 5.3.24.2 Thornback ray in divisions 7.a, 7.f–g. For stocks in ICES data categories 3–6, one catch option is provided.

Index A (2014–2015)		9.15
Index B (2009–2013)		8.32
Index ratio (A/B)		1.10
Uncertainty cap	Not applied	-
Recent advised landings (2015–2016)		1235 t
Recent advised landings adjusted (2015–2016)* [1235 t *1.02]		1260 t
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice**		1386 t

*Recent advised landings adjusted for the revision of the landings statistics in 2011–2013

** (Recent advised landings adjusted × index ratio).

Basis of the advice

Table 5.3.24.3 Thornback ray in divisions 7.a, 7.f–g. The basis of the advice.

Advice basis	Precautionary approach.
Management plan	There is no management plan for this stock.

Quality of the assessment

The survey used in the assessment covers a large proportion of the stock area, but the gear has a low selectivity for adult fish.

Issues relevant for the advice

The quality of landings data has improved in recent years, especially following the WKSHARKS workshop in which ICES revised elasmobranch landings data for the period (2009–2015) (ICES, 2016a). Although some misidentification at the species level is possible, it is unlikely to occur in significant amounts for this well-known and commercially important species.

Raja clavata is a coastal and inner shelf species that is a bycatch of trawl and gillnet fisheries. It is one of the most commercially important skate species in this ecoregion. It is mainly caught close to the eastern side of the Irish Sea by beam and otter trawlers and in the Bristol Channel. Other landings come from inshore fisheries on the south coast of Ireland. As one of the larger species in the skate complex, it may be targeted in some local, seasonal fisheries.

Reference points

No reference points are defined for this stock

Basis of the assessment

Table 5.3.24.4 Thornback ray (*Raja clavata*) in divisions 7.a, 7.f–g (Irish Sea, Bristol Channel, Celtic Sea North). The basis of the assessment.

ICES stock data category	3 (ICES, 2016b)
Assessment type	Survey-based trends (ICES, 2016c)
Input data	Surveys: UK (E&W)–BTS–Q3
Discards and bycatch	Discarding is known to take place but cannot be quantified.
Indicators	None
Other information	None
Working group	Working Group on Elasmobranch Fishes (WGEEF)

Information from stakeholders

No information has been provided.

History of advice, catch, and management

Table 5.3.24.5 Thornback ray in divisions 7.a, 7.f–g. 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		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 last 3 years’ average	1235	893
2016	No new advice, same as 2015	1235	
2017	Precautionary approach	≤1386	
2018	Precautionary approach (same value as advised catches for 2017)	≤1386	

* Data revised in 2016 (ICES, 2016a).

** 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.

History of catch and landings

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

Table 5.3.24.6 Thornback ray in divisions 7.a, 7.f–g. Catch distribution by fleet in 2015 as estimated by ICES.

Catch (2015)	Landings				Discards
	% beam trawl	% bottom trawls	% fixed nets	% other gear	
Unknown	36%	57%	4%	3%	Discarding is known to take place but cannot be quantified.
893 tonnes					

Table 5.3.24.7 Thornback ray in divisions 7.a, 7.f–g. History of landings. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016a).

Year	Belgium	UK	Ireland	France	Total Landings
2009	216	300	8	147	671
2010	197	371	80	131	780
2011	302	384	126	133	944
2012	441	483	134	106	1165
2013	391	416	146	95	1048
2014	240	252	191	107	790
2015	350	304	169	70	893

Summary of the assessment

Table 6.3.52.8 Thornback ray in Divisions 7.a, 7.f–g. Assessment summary. Index of abundance from trawl survey UK (E&W)–BTS–Q3 in $n\ hr^{-1}$.

Year	Stock size indicator ($n\ hr^{-1}$)
1993	3.39
1994	2.52
1995	3.65
1996	3.96
1997	4.97
1998	3.77
1999	3.4
2000	3.07
2001	5.33
2002	3.57
2003	3.77
2004	6.11
2005	4.07
2006	4.76
2007	5.34
2008	5.5
2009	6.2
2010	7.48
2011	7.49
2012	8.37
2013	12.08
2014	9.03
2015	9.26

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 (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.

ICES. 2016c. Report of the Working Group on Elasmobranch Fishes (WGEF), 15–24 June 2016, Lisbon, Portugal. ICES CM 2016/ACOM:20.