

Undulate ray (*Raja undulata*) in divisions 7.b and 7.j (west and southwest of Ireland)

ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, there should be zero catches on this stock in each of the years 2021 and 2022.

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

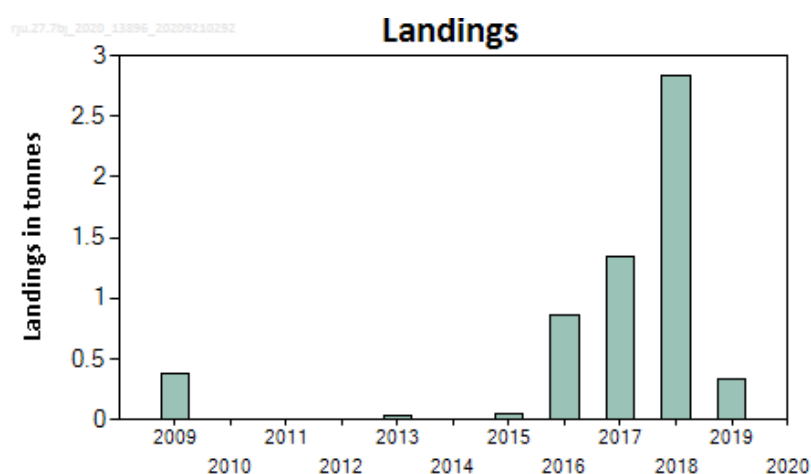


Figure 1 Undulate ray in divisions 7.b and 7.j. ICES estimates of landings.

Stock and exploitation status

Table 1 Undulate ray in divisions 7.b and 7.j. State of the stock and the fishery relative to reference points.

Table 1. Graduate key in divisions 7A and 7J: 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	$MSY B_{trigger}$?	?	?	Unknown
Precautionary approach	F_{pa}, F_{lim}	?	?	?	Unknown	B_{pa}, B_{lim}	?	?	?	Unknown
Management plan	F_{MGT}	—	—	—	Not applicable	B_{MGT}	—	—	—	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	✗	✗	✗	Very low

Catch scenarios

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

Table 2 Undulate ray in divisions 7.b and 7.j. The basis for the catch scenarios.

Advised catches for 2019–2020 issued in 2018		0 tonnes
Discard rate		Unknown
Precautionary buffer	Not applied	-
Catch advice		0 tonnes
% advice change *		0%

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

History of the advice, catch, and management

Table 3 Undulate ray in divisions 7.b and 7.j. History of ICES advice and ICES estimates of landings *. All weights are in tonnes.

Year	ICES advice	Catch corresp. to advice	ICES landings
2009	No target fishery	0	0.4
2010	No new advice, same as 2009	0	0
2011	No target fishery	0	0
2012	No new advice, same as 2011	0	0
2013	No target fishery	0	0.03
2014	No new advice, same as 2013	0	0
2015	No target fishery	0	0.04
2016	No new advice, same as 2015	0	0.86
2017	Precautionary approach	0	1.34
2018	Precautionary approach (same value as advised catches for 2017)	0	2.83
2019	Precautionary approach	0	0.3
2020	Precautionary approach	0	
2021	Precautionary approach	0	
2022	Precautionary approach	0	

* 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.

Summary of the assessment

There is no assessment for this stock in this area.

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. Undulate ray (*Raja undulata*) in divisions 7.b and 7.j (west and southwest of Ireland). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, rju.27.7bj. <https://doi.org/10.17895/ices.advice.5814>.

Undulate ray (*Raja undulata*) in divisions 7.b and 7.j (west and southwest of Ireland)

ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, there should be zero catches on this stock in each of the years 2019 and 2020. ICES cannot quantify the corresponding catches.

Stock development over time

Landings data are limited. There were no species-specific landings before 2009. Between 2009 and 2014 the species was on the prohibited species list of the EU. From 2015, no directed fishery has been allowed from this stock unit according to EU regulations.

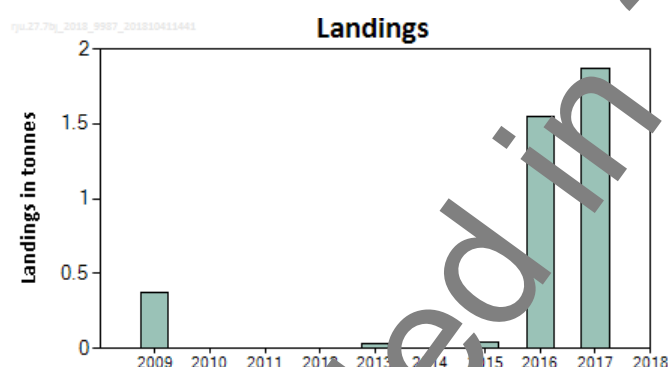


Figure 1 Undulate ray in divisions 7.b and 7.j. ICES estimates of landings.

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 Undulate ray in divisions 7.b and 7.j. 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	$MSY B_{trigger}$?	?	?	Unknown
Precautionary approach	F_{pa}, F_{lim}	?	?	?	Unknown	B_{pa}, B_{lim}	?	?	?	Unknown
Management plan	F_{MGT}	—	—	—	Not applicable	B_{MGT}	—	—	—	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	✗	✗	✗	Very Low

Catch scenarios

The ICES framework for category 6 was applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented unless there is ancillary information clearly indicating that the current level of exploitation is appropriate for the stock. This corresponds to zero catch in both 2019 and 2020.

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

Table 2 Undulate ray in divisions 7.b and 7.j. The basis for the catch scenarios*.

Advised landings for 2017–2018 issued in 2016		0 t
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice		0 t
% Advice change **		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 value for 2019 and 2020 relative to advice value for 2018.

The advised landings are the same as those advised for 2017 and 2018.

Basis of the advice

Table 3 Undulate ray in divisions 7.b and 7.j. The basis of the advice.

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

Quality of the assessment

There is no stock size indicator, and stock specific landings data are not available before 2009.

The number of fish tagged per year in the sport fishery is the only proxy of abundance and has shown a decline since the mid-1970s. While accurate data are unavailable, tagging effort is assumed to have been relatively constant between the 1970s and early 2000s, and although effort may have declined towards the end of the time-series, given the life history of the species, it is unlikely that the stock has increased notably in abundance since then.

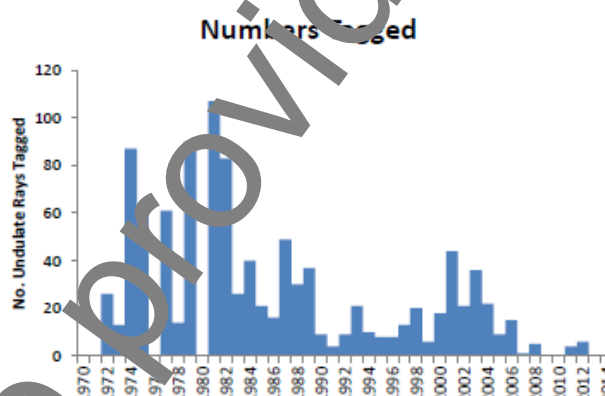


Figure 2 Undulate ray in divisions 7.b and 7.j. Numbers of *Raja undulata* tagged in Tralee Bay and surroundings under the Irish Marine Sportfish Tagging Programme (1972–2014). Data are not standardized, but effort is assumed to be relatively constant until the early 2000s (ICES, 2018).

Issues relevant for the advice

This isolated coastal stock has a very local distribution, mainly in Tralee Bay on the Southwest Irish coast. There is no targeted fishery; reported landings are generated from bycatches in near-shore mixed-trawl fisheries. There is also thought to be notable bycatch in localized tangle net fisheries targeting spiny lobster in the vicinity of Tralee Bay. There is a prohibition on tangle-netting in Tralee Bay and its vicinity, but it is difficult to enforce. Measures to mitigate bycatch should be developed and implemented in consultation with the stakeholders. In divisions 7.b and 7.j, ICES considers that it is appropriate that the species continues to be promptly released if caught.

Reference points

No reference points are defined for this stock

Basis of the assessment

Table 4 Undulate ray in divisions 7.b and 7.j. Basis of assessment and advice.

ICES stock data category	6 (ICES, 2016a).
Assessment type	No assessment (ICES, 2018).
Input data	None.
Discards and bycatch	Discarding is known to take place but has not been quantified.
Indicators	None.
Other information	Recreational catch and recapture numbers from tagging programme
Working group	Working Group on Elasmobranch Fishes (WGEF).

Information from stakeholders

There is no additional available information.

History of the advice, catch, and management

Table 5 Undulate ray in divisions 7.b and 7.j. 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
2009	No target fishery	0	0.4
2010	No new advice, same as 2009	0	0
2011	No target fishery	0	0
2012	No new advice, same as 2011	0	0
2013	No target fishery	0	0
2014	No new advice, same as 2013	0	0
2015	No target fishery	0	0
2016	No new advice, same as 2015	0	1.6
2017	Precautionary approach	0	1.8
2018	Precautionary approach (same values as advised catches for 2017)	0	
2019	Precautionary approach	0	
2020	Precautionary approach	0	

* 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 the catch and landings

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

Table 6 Undulate ray in divisions 7.b and 7.j. Catch distribution by fleet in 2017 as estimated by ICES.

Catch (2017)	Landings (t)	Discards
Unknown	Otter Trawl	Unquantified
	100%	
	1.8 tonnes	

Table 7 Undulate ray in divisions 7.b and 7.j. History of landings. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016b).

Year	Spain	France	Total
2009		0.4	0.4
2010			
2011			
2012			
2013		0.0	0.0
2014			
2015		0.0	0.0
2016	0.7	0.9	1.6
2017	0.5	1.3	1.8

Summary of the assessment

There is no assessment for this stock.

Sources and references

ICES. 2012. ICES Implementation of Advice for Data-limited Stocks in 2012 in the 2012 Advice. ICES CM 2012/ACOM:68. 42 pp.

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

ICES. 2016b. 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. 2018. Report of the Working Group on Elasmobranch Fishes (WGEF), 19–28 June 2018, Lisbon, Portugal. ICES CM 2018/ACOM:16.