

Other rays and skates (*Rajidae*) in Subarea 4 and in divisions 3.a and 7.d (North Sea, Skagerrak, Kattegat, and eastern English Channel)

ICES stock advice

ICES cannot provide advice on the status of these stocks due to a lack of reliable survey and catch data. ICES advises that collection of species-specific landings data for more species of rays and skates should be introduced to help inform on the status of these stocks.

Stock development over time

The available survey and abundance data are insufficient to assess these species individually. There is insufficient information to present trends in species-specific landings.

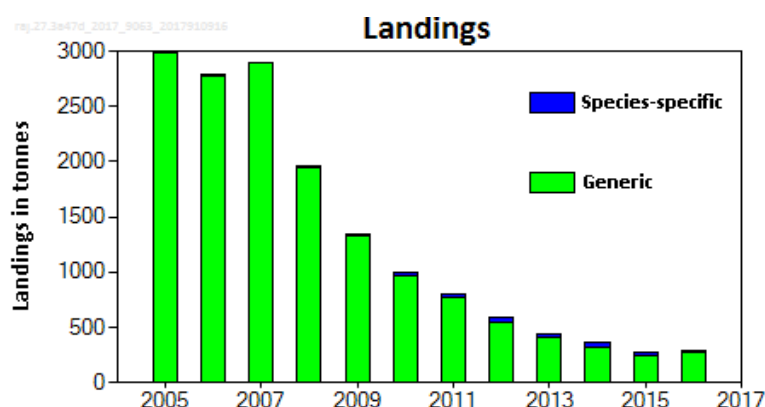


Figure 1 Other rays and skates in Subarea 4 and in divisions 3.a and 7.d. ICES estimated landings for species not reported elsewhere (*Amblyraja hyperborea*, *Leucoraja circularis*, *Leucoraja fullonica*, *Rajella lintea*, and *Raja brachyura* in Division 4.b) and the generic reported landings (indeterminate Rajiformes) in tonnes. The decrease in generic landings is due to the introduction and improvement in species-specific recording of the main commercial skate species.

Stock and exploitation status

Table 1 Other rays and skates in Subarea 4 and in divisions 3.a and 7.d. State of the stock and fishery relative to reference points.

		Fishing pressure				Stock size			
		2014	2015	2016		2014	2015	2016	
Maximum sustainable yield	F_{MSY}	?	?	?	Undefined	MSY	?	?	?
Precautionary approach	F_{pa} , F_{lim}	?	?	?	Undefined	B_{pa} , B_{lim}	?	?	?
Management plan	F_{MGT}	-	-	-	Not applicable	B_{MGT}	-	-	-
Qualitative evaluation	-	?	?	?	Unknown	-	?	?	?

Catch options

ICES cannot provide catch advice for these stocks due to a lack of reliable survey and catch data. Revised recent landings (ICES, 2016a) are not considered reliable to provide advice because of progressive changes in the level of species-specific reporting.

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

Table 2 Other rays and skates in Subarea 4 and in divisions 3.a and 7.d. For stocks in ICES data categories 3–6, one catch option is provided.

Recent advised landings for 2015 and 2016	NA	
Discard rate	Unknown	
Precautionary buffer	Not applied	-
Landings advice	NA	

Basis of the advice

Table 3 Other rays and skates in Subarea 4 and in divisions 3.a and 7.d. The basis of the advice.

Advice basis	Precautionary approach.
Management plan	ICES is not aware of any agreed precautionary management plans for other rays and skates in this area.

Quality of the assessment

There are no assessments for these species in the North Sea.

Issues relevant for the advice

This advice sheet relates to those skates (order Rajiformes) not specified elsewhere in the ICES advice for skate stocks in the Greater North Sea ecoregion, but does not refer to stingrays or electric rays. The skate species considered here include Arctic skate *Amblyraja hyperborea*, Norwegian skate *Dipturus nidarosiensis*, longnosed skate *Dipturus oxyrinchus*, sandy ray *Leucoraja circularis*, shagreen ray *Leucoraja fullonica*, round skate *Rajella fyllae*, and sailray *Rajella lintea*.

There is no legal requirement for EU Member States to report species-specific landings for these species in EU waters of Division 2.a and Subarea 4, or in Division 3.a. While some nations report species-specific landings of these species, other nations report them as generic skate landings; landings data by stock are therefore incomplete.

The North Sea is considered to be in the southern-most, or shallower, boundaries of the distribution of these species. These species are infrequent in scientific trawl surveys, as they are often found in deeper water than in the main survey area. Species-specific data for these skate species are limited and some have identification problems. Reported species-specific landings of this group of skates is less than 10 tonnes per year.

This advice sheet also includes landings of those skate species that are reported outside their defined stock boundaries, but within the North Sea area, and for which ICES provides advice (e.g. blonde ray in Division 4.b). Furthermore, some skate landings are still reported generically that likely refer to commercial species for which ICES provides species-specific advice.

Discarding is known to occur but has not been quantified. Discard survival has not been estimated.

Reference points

Reference points are not defined for these stocks.

Basis of the assessment

Table 4 Other rays and skates in Subarea 4 and in divisions 3.a and 7.d. Basis of the assessment and advice.

ICES stock data category	6 (ICES, 2016b).
Assessment type	No assessment (ICES, 2017).
Input data	None.
Discards and bycatch	Unknown.
Indicators	None.
Other information	None.
Working group	Working Group on Elasmobranch Fishes (WGEF)

Information from stakeholders

There is no additional available information for these stocks.

History of the advice, catch, and management

Table 5 Other rays and skates in Subarea 4 and in divisions 3.a and 7.d. ICES advice and official landings. All weights are in tonnes.

Year	ICES advice	Predicted landings corresp. to advice	* ICES <i>Rajidae</i> landings: minimum estimate based on reported landings
2011	No specific advice		801
2012	No specific advice		583
2013	No TAC, species-specific measures needed, catch to decrease by at least 20%	-	443
2014	No new advice, same as 2013	-	367
2015	No new advice, same as 2014	-	270
2016	In the absence of reliable survey data and catch data, ICES currently cannot provide advice on the status of these bycatch species		295
2017	Biennial advice	-	-
2018	In the absence of reliable survey data and catch data, ICES currently cannot provide advice on the status of these bycatch species	-	-
2019	Same advice as 2018	-	-

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

History of the catch and landings

Table 6 Other rays and skates in Subarea 4 and in divisions 3.a and 7.d. Catch distribution by fleet in 2016 as estimated by ICES.

Catch (2016)	Landings			Discards
Unknown	Beam trawl 9%	Bottom trawl 65%	Other 26%	Unknown
	295 tonnes			

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Table 7 Other rays and skates in Subarea 4 and divisions 3.a and 7.d. ICES estimates of landings by species (for stocks not included in separate advice sheets) and unallocated skate and ray landings by year (in tonnes). Data revised in 2016 (ICES, 2016a).

Taxa	Division	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>Amblyraja hyperborea</i>	4.a								0.1	1.1	0.1		
<i>Leucoraja circularis</i>	4.a					0.6	0.1		0.2	2.9	13.1		
	4.b				0.1	0.0	0.0		0.1	0.0	0.0	0.0	0.0
	7.d			0.0	0.0		0.0	0.0	1.3	0.0	0.1		
<i>Leucoraja fullonica</i>	4.a	0.0	0.0	0.0	0.0	6.0	23.2	18.4	6.0	8.2	4.3	0.0	0.0
	4.b					0.7	0.6	0.4	0.0	0.0			
<i>Raja brachyura</i>	3.a										1.0		
	4.b				6.2	7.4	11.9	12.2	23.6	15.8	27.2	28.9	28.5
<i>Raja microocellata</i>	4.a						0.4	0.0					
<i>Rajella lintea</i>	3.a	1.9	1.1					0.3	1.5	4.0	2.9		
	4.a							0.0	0.0	0.2	0.3		
Unspecified rays and skates	3.a	167.8	93.4	32.6	33.0	45.7	43.9	66.9	44.0	67.2	51.9	58.6	86.9
	3.b											0.0	0.0
	3.c											0.0	0.0
	4.a	480.8	457.2	432.2	453.7	409.7	245.1	168.5	164.1	167.5	149.2	113.0	125.0
	4.b	259.6	268.9	310.7	124.7	57.8	46.4	49.0	28.2	30.6	53.5	43.0	18.2
	4.c	1133.3	1096.8	1062.7	376.1	210.3	193.2	96.0	62.5	38.7	28.2	8.6	11.7
	7.d	949.3	870.4	1049.4	970.0	603.1	436.3	389.3	251.4	107.5	35.1	18.3	24.8
Subtotal (other species)		1.9	1.1	0.0	6.3	14.6	36.3	31.4	32.8	32.3	49.1	28.9	28.5
Subtotal (generic)		2990.7	2786.8	2887.5	1957.5	1326.6	964.9	769.8	550.2	411.5	317.9	241.4	266.6
Total	-	2992.7	2788.0	2887.5	1963.9	1341.2	1001.2	801.1	583.0	443.8	367.0	270.4	295.1

Summary of the assessment

There are no assessments for these stocks.

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. Advice basis. *In* Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2.
- ICES. 2017. Report of the Working Group on Elasmobranch Fishes (WGEF), 31 May–7 June 2017, Lisbon, Portugal. ICES CM 2017/ACOM:16. 1018 pp.