

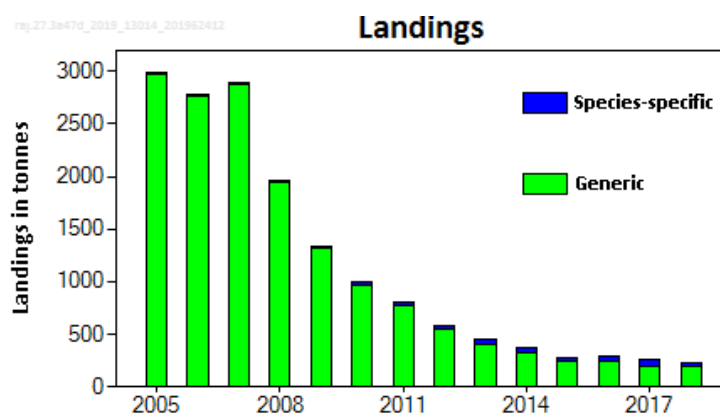
## Other rays and skates (*Rajidae*) in Subarea 4 and in divisions 3.a and 7.d (North Sea, Skagerrak, Kattegat, and eastern English Channel)

### ICES advice on fishing opportunities

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

### Stock development over time

The decrease in generic landings is due to the introduction and improvement in species-specific recording of the main commercial skate species.



**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.

### Stock and exploitation status

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

**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					
		2016	2017	2018	2016	2017	2018			
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	-	?	?	?	Unknown

### Catch scenarios

ICES cannot provide catch advice for these stocks due to a lack of reliable survey and catch data. Revised recent landings (ICES, 2016) 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. The basis for the catch scenarios.

Recent advised landings for 2018 and 2019			NA
Discard rate			Unknown
Precautionary buffer	Not applied		-
Landings advice			NA
% Advice change			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

The available survey and abundance data are insufficient to assess these species.

### Issues relevant for the advice

This advice 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*, sailray *Rajella lintea*, and blonde ray *Raja brachyura* (Division 4.b).

Some of the generic skate landings are likely to be commercial species for which ICES provides species-specific advice.

Fishing opportunities are managed through an overall TAC for skates and rays by management unit.

### 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 ( <a href="#">ICES, 2018</a> ).
Assessment type	No assessment (ICES, 2019).
Input data	None.
Discards and bycatch	Unknown.
Indicators	None.
Other information	None.
Working group	Working Group on Elasmobranch Fishes ( <a href="#">WGEF</a> ).

### 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. History of ICES advice, agreed TAC, and official landings. All weights are in tonnes.

Year	ICES advice	Landings corresp. to advice	Agreed TAC *			ICES landings **
			2.a and 4	7.d	3.a	
2011	No specific advice		1397	887	58	801
2012	No specific advice		1395	887	58	583
2013	No TAC, species-specific measures needed, catch to decrease by at least 20%	-	1256	798	52	444
2014	No new advice, same as 2013	-	1256	798	47	367
2015	No new advice, same as 2014	-	1382	798	47	270
2016	In the absence of reliable survey data and catch data, ICES currently cannot provide advice on the status of these bycatch species		1313	966	47	295
2017	Biennial advice	-	1378	1063	47	251
2018	In the absence of reliable survey data and catch data, ICES currently cannot provide advice on the status of these bycatch species	-	1654	1276	47	220
2019	Same advice as 2018	-	1654	1404	47	
2020	In the absence of reliable survey data and catch data, ICES currently cannot provide advice on the status of these bycatch species	-				
2021	Same advice as in 2020	-				

\* EU combined TAC for skates and rays.

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

## History of the catch and landings

Whilst various species may be caught in the NEAFC Regulatory Area, the quantities caught and the species composition are uncertain and cannot be quantified.

**Table 6** Other rays and skates in Subarea 4 and in divisions 3.a and 7.d. Catch distribution by fleet in 2018 as estimated by ICES.

Catch (2018)	Landings			Discards
	Beam trawl 5%	Bottom trawl 62%	Other 33%	
Unknown	220 tonnes			Unknown

**Table 7** Other rays and skates in Subarea 4 and in 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). Blank = no data reported; 0 = data below 0.5.\*

Taxa	Division	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<i>Amblyraja hyperborea</i>	4.a								0	1	0		0	0	3
<i>Leucoraja circularis</i>	4.a					1	0		0	3	13		16	14	14
	4.b				0	0	0		0	0	0	0	0		
	4.c													1	
	7.d			0	0		0	0	1	0	0				
<i>Leucoraja fullonica</i>	4.a	0	0	0	0	6	23	18	6	8	4	0	1	4	2
	4.b					1	1	0	0	0		0	0	0	
<i>Raja brachyura</i>	3.a										1				
	4.b				6	7	12	12	24	16	27	29	32	38	2
<i>Raja microocellata</i>	4.a						0	0							
	4.b													0	
	4.c													1	
<i>Rajella lintea</i>	3.a	2	1					0	2	4	3				
	4.a							0	0	0	0				
Unspecified rays and skates	3.a	168	93	33	33	46	44	67	44	67	52	59	87	55	52
	3.b											0	0		
	3.c											0	0		
	4.a	481	457	432	454	410	245	169	164	167	149	113	108	89	122
	4.b	260	269	311	125	58	46	49	28	31	53	43	15	17	8
	4.c	1133	1097	1063	376	210	193	96	62	39	28	9	12	10	14
	7.d	949	870	1049	970	603	436	389	251	108	35	18	25	20	4
<b>Subtotal (species)</b>		2	1	0	6	15	36	31	33	32	49	29	28	58	21
<b>Subtotal (unspecified)</b>		2991	2787	2888	1958	1327	965	770	550	412	318	241	246	194	198
<b>Total</b>	-	2993	2788	2888	1964	1341	1001	801	583	444	367	270	295	251	220

\* 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.

## Summary of the assessment

There are no assessments for these stocks.

## Sources and references

ICES. 2016. 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. Advice basis. *In* Report of the ICES Advisory Committee, 2018. ICES Advice 2018, Book 1, Section 1.2. <https://doi.org/10.17895/ices.pub.4503>.

ICES. 2019. Working Group on Elasmobranch Fishes (WGEF). ICES Scientific Reports. 1:25. <http://doi.org/10.17895/ices.pub.5594>

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