

Blonde ray (*Raja brachyura*) in divisions 4.c and 7.d (southern North Sea and eastern English Channel)

ICES stock advice

ICES advises that when the precautionary approach is applied, landings should be no more than 195 tonnes in each of the years 2018 and 2019. ICES cannot quantify the corresponding catches.

Stock development over time

The stock abundance has increased in recent years.

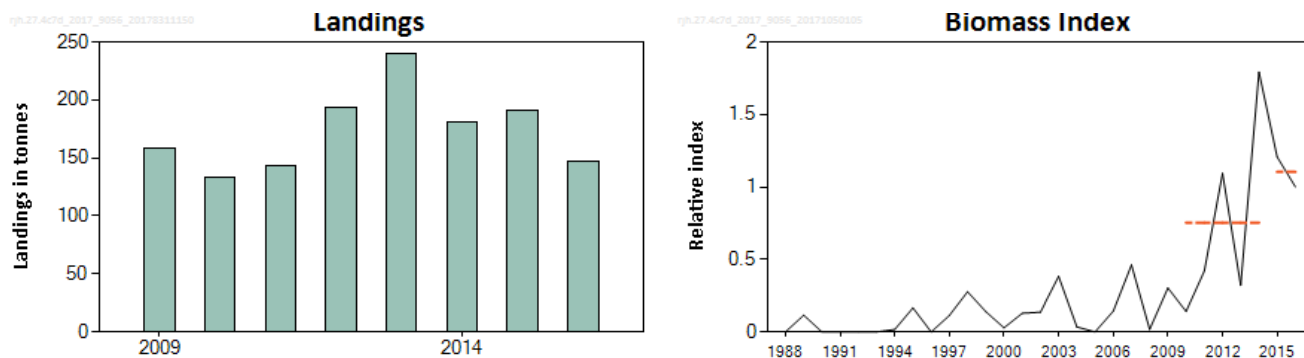


Figure 1 Blonde ray in divisions 4.c and 7.d. Summary of the stock assessment. Left: ICES estimates of species-specific landings of blonde ray since 2009. Right: biomass index from CGFS-Q4 survey (kg h^{-1}). The dotted horizontal lines show the mean stock indicators for 2015–2016 and 2010–2014.

Stock and exploitation status

Table 1 Blonde ray in divisions 4.c 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

The ICES framework for category 3 stocks was applied (ICES, 2012). A biomass index derived from the CGFS-Q4 survey was used to provide an overall index for the stock development.

The advice is based on a comparison of the two latest index values (index A) with the five preceding values (index B), multiplied by recent advised landings for the years 2016–2017. The index is estimated to have increased by more than 20% and thus the uncertainty cap was applied to calculate the landings advice. The stock size relative to candidate reference points is unknown. The precautionary buffer was applied in 2015 and therefore not applied again in 2017. Discarding is known to take place, but ICES cannot quantify the corresponding catches.

Table 2 Blonde ray in divisions 4.c and 7.d. The basis for the catch options.*

Index A (2015–2016)		1.10
Index B (2010–2014)		0.75
Index ratio (A/B)		1.46
Uncertainty cap	Applied	1.2
Advised landings for (2016, 2017)		162 tonnes
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice **		195 tonnes

* 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.

** [Advised landings for (2016, 2017)] × [uncertainty cap].

Basis of the advice

Table 3 Blonde ray in divisions 4.c and 7.d. The basis of the advice.

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

Quality of the assessment

There is insufficient information to present trends in species-specific landings for this stock prior to 2009. Since legal obligations to declare the main commercial skates to species level were introduced in 2008–2009, a greater proportion of data have been reported to this level, but data remain incomplete. Blonde ray account for 6–8% of the landings reported to species level in the last three years in this area.

Fishery-independent trawl surveys provide the longest time-series of species-specific information. Whilst trawl surveys cover most of the wider stock area, blonde ray has a patchy distribution and surveys may not sample their main habitats effectively. The CGFS-Q4 survey has used a larger trawl since 2015 and the results of intercalibration studies have been used to adjust the stock size indicator (ICES, 2017).

Issues relevant for the advice

Blonde ray is a highly marketable species and can be a locally and seasonally important species for inshore fleets. Given the limitations of existing data, further studies to better monitor stock status across its main habitats are required.

Discarding is known to occur. Improved estimates of discard rates and discard survival are required.

Species identification issues between blonde ray and spotted ray may affect landings, observer, and survey data.

Blonde ray is a larger-bodied coastal species that is taken in recreational fisheries, but the quantities of retained catch are unknown.

Reference points

Reference points are not defined for this stock.

Basis of the assessment

Table 4 Blonde ray in divisions 4.c and 7.d. Basis of the assessment and advice.

ICES stock data category	3 (ICES, 2016a).
Assessment type	Survey-based trends (ICES, 2017).
Input data	Landings, survey CGFS-Q4.
Discards and bycatch	Unknown.
Indicators	None.
Other information	Life history.
Working group	Working Group on Elasmobranch Fishes (WGEF)

Information from stakeholders

As yet unpublished industry data from the Dutch pulse fisheries has shown that in quarter 4 of 2016 more than 80% of the total catch (in biomass) of blonde ray in the southern North Sea are discarded (ICES, 2017). This species has a high commercial value and larger individuals are an important catch component for some inshore fleets.

History of the advice, catch, and management

Table 5 Blonde ray in divisions 4.c and 7.d. ICES advice and species-specific estimated landings. All weights are in tonnes.

Year	ICES advice	Predicted landings corresp. to advice	ICES species-specific estimated landings*
2012	No specific advice		194
2013*	No TAC, species-specific measures needed, catch to decrease by at least 20%	-	239
2014	No new advice, same as 2013	-	181
2015	No new advice, same as 2014	-	191
2016	Precautionary approach	162	147
2017	Same advice as 2016	162	
2018	Precautionary approach	≤ 195	
2019	Precautionary approach (Same advice as 2018)	≤ 195	

* The data were revised in 2016 (ICES, 2016b) and represent minimum estimates, based on reported landings.

History of the catch and landings

Table 6 Blonde ray in divisions 4.c and 7.d. Catch distribution by fleet in 2016 as estimated by ICES.

Bronze ray in divisions 4.0 and 7.0: Catch distribution by fleet in 2016 as estimated by ICES.				
Catch (2016)	Landings			Discards
Unknown	Beam trawl 67%	Bottom trawls 18%	Other 15%	Unknown
	147 tonnes			

Table 7 Blonde ray in divisions 4.c and 7.d. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016b).

Year	Belgium	France	UK	Netherlands	Total
2009	104.3	12.9	35.1	5.9	158.2
2010	63.1	20.9	38.9	9.9	132.8
2011	45.5	26.9	58.5	12.8	143.6
2012	72.4	22.7	45.3	53.1	193.6
2013	109.1	23.9	70.6	35.7	239.4
2014	69.3	30.4	57.4	24.3	181.4
2015	90.2	30.9	36.1	33.8	191.1
2016	65.2	35.6	21.6	24.8	147.2

Summary of the assessment

Table 8 Blonde ray in divisions 4.c and 7.d. Summary of the assessment. Biomass index from the CGFS-Q4 trawl survey (individuals larger than 50 cm total length) relative to the time-series mean.

Year	Biomass index
1988	0.000
1989	0.116
1990	0.000
1991	0.000
1992	0.000
1993	0.000
1994	0.017
1995	0.166
1996	0.000
1997	0.114
1998	0.277
1999	0.140
2000	0.029
2001	0.129
2002	0.136
2003	0.384
2004	0.035
2005	0.000
2006	0.144
2007	0.462
2008	0.018
2009	0.303
2010	0.142
2011	0.421
2012	1.094
2013	0.322
2014	1.792
2015	1.207
2016	1.001

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. 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. 2017. Report of the Working Group on Elasmobranch Fishes (WGEF), 31 May–7 June 2017, Lisbon, Portugal. ICES CM 2017/ACOM:16. 1018 pp.