

Blonde ray (*Raja brachyura*) in Division 9.a (Atlantic Iberian waters)

ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, landings should be no more than 254 tonnes in each of the years 2021 and 2022. ICES cannot quantify the corresponding catches.

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

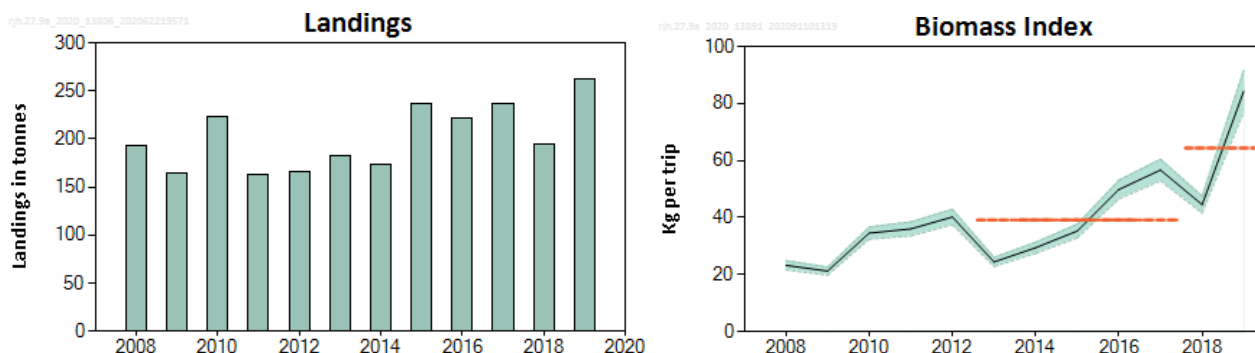


Figure 1 Blonde ray in Division 9.a. Left: ICES landings estimates (in tonnes). Right: Commercial standardized LPUE time-series with associated 95% confidence interval for the Portuguese polyvalent fleet (2008–2019). The horizontal lines indicate the average biomass indicator of the respective year range (last two and preceding five years) used to calculate the advice.

Stock and exploitation status

Table 1 Blonde ray in Division 9.a. 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}	?	?	?	MSY $B_{trigger}$?	?
Precautionary approach	F_{pa}, F_{lim}	?	?	?	B_{pa}, B_{lim}	?	?
Management plan	F_{MGT}	—	—	—	B_{MGT}	—	—
Qualitative evaluation	-	?	?	?	-	↗	↘
				Unknown			Increasing

Catch scenarios

The precautionary buffer was previously applied in 2014. The stock size and fishing pressure status relative to reference points is unknown. However, since 2013 there has been a consistent increase in the stock-size indicator and a significant decrease in the fishing effort; therefore, the precautionary buffer was not applied in 2020.

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

Table 2 Blonde ray in Division 9.a. The basis for the catch scenarios *.

Index A (2018–2019)		64
Index B (2013–2017)		39
Index ratio (A/B)		1.65
Uncertainty cap	Applied	1.2
Advised landings for 2019–2020 (issued in 2018)		212 tonnes
Discard rate	Unknown	
Precautionary buffer	Not applied	-
Landings advice **		254 tonnes
% advice change ***		+20%

* 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 for 2019–2020] × [uncertainty cap].

*** Advice value for 2021 and 2022 relative to the advice value for 2019 and 2020.

The advised landings have increased by 20% compared to last year's advice because the biomass index has increased.

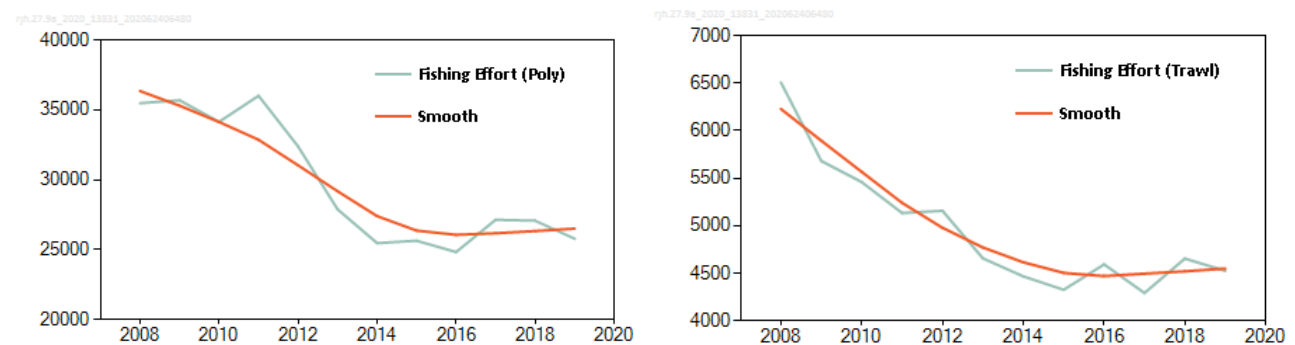


Figure 2 Blonde ray in Division 9.a. Left panel: Fishing effort (number of trips) from the Portuguese polyvalent fleet for all species of skates and rays in the period 2008–2019 (in both panels the red line is the smoothed effort). Right panel: Fishing effort (number of trips) from the Portuguese trawl fleet for all species of skates and rays in the period 2008–2019.

History of the advice, catch, and management

Table 3 Blonde ray in Division 9.a. History of ICES advice and ICES estimates of landings *. All weights are in tonnes.

Year	ICES advice	Landings corresp. to advice	ICES landings
2011	No specific advice		162
2012	No specific advice		165
2013	No TAC, species-specific measures needed, catch to decrease by at least 20%	-	182
2014	No new advice, same as 2013	-	174
2015	Stable compared to the last 3 years' average	200	236
2016	No new advice, same as 2015	200	222
2017	Precautionary approach	177	236
2018	Precautionary approach (same value as advised catches for 2017)	177	195
2019	Precautionary approach	≤ 212	263
2020	Precautionary approach	≤ 212	
2021	Precautionary approach	≤ 254	
2022	Precautionary approach	≤ 254	

* There is no 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

Table 4 Blonde ray in Division 9.a. Time-series of standardized commercial LPUE ($\text{kg} \times \text{trip}^{-1}$) and ICES landing estimates used for the advice calculation.

Year	Biomass index kilograms per trip	Upper 95% CI	Lower 95% CI	Landings tonnes
2008	23	25	22	193
2009	21	23	20	164
2010	35	37	32	223
2011	36	39	34	162
2012	40	43	38	165
2013	24	26	23	182
2014	29	31	27	174
2015	35	38	33	236
2016	50	53	47	222
2017	57	60	53	236
2018	45	48	42	195
2019	84	92	77	263

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. Blonde ray (*Raja brachyura*) in Division 9.a (Atlantic Iberian waters). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, rhj.27.9a. <https://doi.org/10.17895/ices.advice.5794>.

Blonde ray (*Raja brachyura*) in Division 9.a (Atlantic Iberian waters)

ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, landings should be no more than 212 tonnes in each of the years 2019 and 2020. ICES cannot quantify the corresponding catches.

Stock development over time

The stock size indicator has been increasing over the time-series. The current level is the highest one observed.

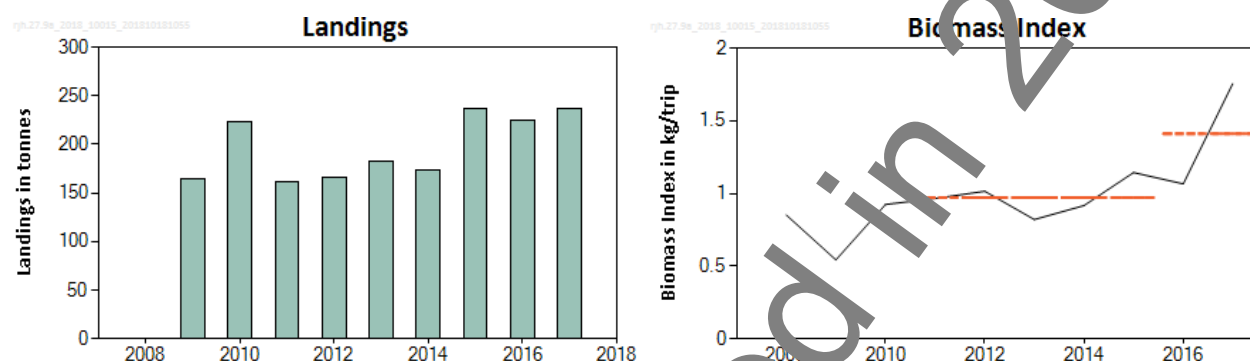


Figure 1 Blonde ray in Division 9.a. Left: ICES landing estimates (in tonnes). Right: Commercial standardized LPUE time-series for the Portuguese polyvalent segment (2008–2018). The dotted horizontal lines indicate the average biomass indicator of the respective year range (last two and preceding five years) used to calculate the advice.

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 Blonde ray in Division 9.a. 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	$MSY B_{trigger}$?	?	?	Undefined
Precautionary approach	F_{pa}	?	?	?	Unknown	B_{pa}	?	?	?	Undefined
Management plan	F_{MGT}	—	—	—	Not applicable	B_{MGT}	—	—	—	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	↗	↘	↗	Increasing

Catch scenarios

The ICES framework for category 3 stocks was applied (ICES, 2012). The standardized commercial LPUE of the polyvalent fleet was used as an 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 index is estimated to have increased by more than 20% between 2011 and 2015 (average of the five years) and 2016–2017 (average of the two years); the uncertainty cap was therefore applied. The precautionary buffer was last applied in

2014. Given the consistent increase in the stock size indicator over the time-series, the precautionary buffer was not applied in 2018.

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

Table 2 Blonde ray in Division 9.a. The basis for the catch scenarios*.

Index A (2016–2017)		1.41
Index B (2011–2015)		0.97
Index ratio (A/B)		1.45
Uncertainty cap	Applied	1.2
Advised landings for 2017–2018 (issued in 2016)		177 t
Discard rate		Unknown
Precautionary buffer	Not applied	-
Landings advice **		212 t
% Advice change ***		+20%

* 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 2017–2018] × [uncertainty cap].

*** Advice value for 2019 and 2020 relative to the advice value for 2018.

The landings advised for 2019 and 2020 are higher than those advised for 2016 and 2017 because the biomass index has increased.

Basis of the advice

Table 3 Blonde ray in Division 9.a. 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

The quality of landings data has improved in recent years following a Portuguese Pilot Study on Skates (2010–2013) and the WKSHARK2 workshop, where ICES revised elasmobranch landings data for the period 2005–2015 (ICES, 2016a). Some misidentifications with spotted ray may still occur; however, it is unlikely that misidentification occurs in notable amounts in this area as blonde ray is a well-known and commercially important species.

The biomass index is calculated from a standardized commercial LPUE time-series for the Portuguese polyvalent fleet (2008–2017), which represents nearly 90% of the Portuguese landings of blonde ray.

Given the coastal distribution and habitat specificity of this species, the trawl survey data for blonde ray are unreliable. Commercial catch and effort data are considered the most appropriate data at the present time, while estimates prior to 2008 are considered less reliable.

Issues relevant for the advice

Blonde ray is a coastal and inner-shelf species, usually taken as a bycatch in the polyvalent Portuguese fleet, i.e. mainly by fishing vessels using gillnet and trammelnet gears. It is of high market value.

On 22 August 2014 the Portuguese government adopted national legislation (Portaria no. 170/2014) that established a minimum landing size of 520 mm (total length) for specimens of the genus *Leucoraja* or *Raja*, covering the whole continental Portuguese EEZ.

Another Portuguese legislation prohibits, throughout the whole the continental Portuguese EEZ, the catch, retention on board, and landing of any skate species belonging to Rajiformes during the months of May and June, which covers the spawning period of the species (Portaria no. 315/2011, 29 December 2011 and Portaria no. 47/2016, 21 March 2016).

During these two months vessels are permitted to retain on board and to land a maximum of 5% bycatch, in weight, of Rajiformes species per trip.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 4 Blonde ray in Division 9.a. The basis of the assessment.

ICES stock data category	3 (ICES, 2016b).
Assessment type	LPUE-based trends (ICES, 2018).
Input data	Commercial catch and effort from Portuguese polyvalent segment commercial length–frequency data.
Discards and bycatch	Discarding is known to take place but has not been fully quantified.
Indicators	None.
Other information	Life history.
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 Blonde ray in Division 9.a. 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 **
2011	No specific advice		162
2012	No specific advice		165
2013	No TAC, species-specific measures needed, catches to decrease by at least 20%	-	182
2014	No new advice, same as 2013	-	174
2015	Stable compared to the last 3 years' average	200	236
2016	No new advice, same as 2015	200	224
2017	Precautionary approach	177	236
2018	Precautionary approach (same value as advised catches for 2017)	177	
2019	Precautionary approach	≤ 212	
2020	Precautionary approach	≤ 212	

* There is no specific TAC for this stock. Fishing opportunities are managed through an overall TAC by management unit, which includes all species of skates and rays.

** Revised in 2018 (ICES, 2018)

History of the catch and landings

The distribution of this stock does not extend into the NEAFC Regulatory Area.

Table 6 Blonde ray in Division 9.a. Catch distribution by fleet in 2017 as estimated by ICES. Portugal does not have official landings with information by fleet, and all polyvalent landings are classified as “unspecified gears” (ICES, 2018).

Catch (2017)	Landings				Discards
Unknown	otter trawl	longlines	fixed nets	unspecified gears	Unquantified
	11.3%	0.1%	0.1%	88.5%	
	236 tonnes				

Table 7 Blonde ray in Division 9.a. ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016a). In 2005–2008 species-specific landings data are only presented for Portugal, as Spanish species-specific landings are not available in this period.

Year	Spain	Portugal	Total
2005		495	495
2006		586	586
2007		459	459
2008		193	193
2009	0.7	163	164
2010	2	221	223
2011	1	161	162
2012	0.5	165	165
2013	3	179	182
2014	0.3	174	174
2015	0.7	236	236
2016	3	221	224
2017	0.8	235	236

Summary of the assessment

Table 8 Blonde ray in Division 9.a. Time-series of standardized commercial LPUE (kg trip⁻¹) used for the advice calculation. Series are normalized to their mean.

Year	Standardized LPUE
2008	0.85
2009	0.54
2010	0.92
2011	0.97
2012	1.02
2013	0.82
2014	0.92
2015	1.14
2016	1.07
2017	1.75

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 (WKSHARK2), 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. 2018. Report of the Working Group on Elasmobranch Fishes (WGEF), 19–28 June 2018, Lisbon, Portugal. ICES CM 2018/ACOM:16. 1306 p.