Shagreen ray (*Leucoraja fullonica*) in subareas 6–7 (West of Scotland, southern Celtic Seas, English Channel)

ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, landings should be no more than 168 tonnes in each of the years 2019 and 2020. ICES cannot quantify the corresponding catches.

Stock development over time

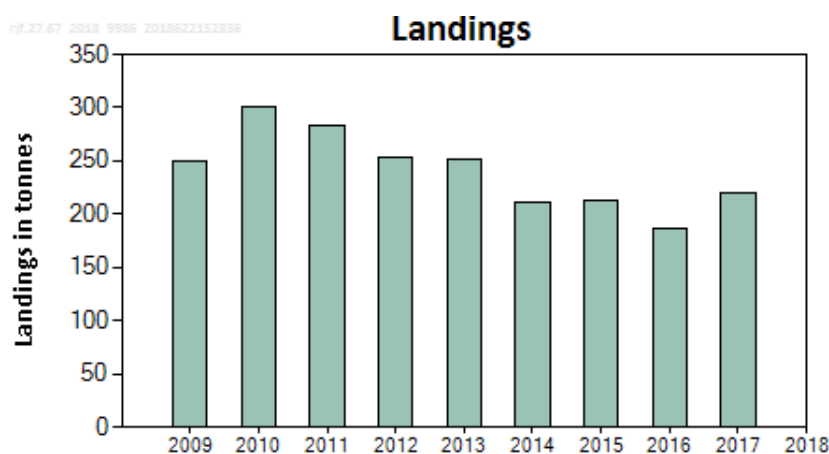Landings have shown a general decline over the time-series.

Figure 1   Shagreen ray in subareas 6–7. ICES estimated species-specific landings (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   Shagreen ray in subareas 6–7. 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	-	?	?	? Unknown

Catch scenarios

The ICES framework for category 5 stocks was applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented where there is no ancillary information clearly indicating that the current level of exploitation is appropriate for the stock. The precautionary buffer was last applied in 2014. Because there is no information on stock size or fishing pressure, the precautionary buffer was applied again in 2018.

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

Table 2   Shagreen ray in subareas 6–7. The basis for the catch scenarios*.

Advised landings for 2017–2018 issued in 2016		210 t
Discard rate		Unknown
Precautionary buffer	Applied	0.8
Landings advice**		168 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.
** [Advice for 2017–2018] × [precautionary buffer].
*** Advice value for 2019 and 2020 relative to advice value for 2018.

The advised catch is lower than that advised for 2018 because the precautionary buffer was applied.

Basis of the advice

Table 3   Shagreen ray in subareas 6–7. The basis of the advice.

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

Quality of the assessment

The quality of landings data has improved in recent years, especially following the Workshop to compile and refine catch and landings of elasmobranchs (WKSHARK2) in which ICES revised elasmobranch landings data for the period 2009–2015 (ICES, 2016a). Misidentification at the species level is possible for this species. Stock-specific landings data are not available before 2009.

Fishery-independent data are limited for this species, due in part to a poor overlap between survey coverage and the stock distribution.

Issues relevant for the advice

This is an outer shelf species that is usually a small bycatch of trawl and gillnet fisheries, including mixed demersal fisheries targeting hake, anglerfish, and megrim. Although not subject to target fisheries, it can be a relatively important bycatch of fisheries in the southwestern Celtic Sea. It is also a small bycatch in some deep-water fisheries on the continental slopes and offshore banks.

Preliminary analysis of the data from the French onboard observation programme indicates that the proportion of hauls encountering *Leucoraja fullonica* in the Celtic Sea was stable over the period 2007–2015 (ICES, 2018), and was at its highest level in 2015 for the bottom trawl fleet.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 4   Shagreen ray in subareas 6–7. The basis of the assessment.

ICES stock data category	5 (ICES, 2016b).
Assessment type	No assessment (ICES, 2018).
Input data	Landings data 2009–2017.
Discards and bycatch	Discarding is known to take place but cannot be fully quantified.
Indicators	None.
Other information	French onboard observation programme.
Working group	Working Group on Elasmobranch Fishes (WGEF)

Information from stakeholders

No additional information is available.

History of the advice, catch, and management

Table 5   Shagreen ray in subareas 6–7. 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		283
2012	No specific advice		253
2013	No TAC, species-specific measures needed, catch to decrease by at least 20%	-	251
2014	No new advice, same as 2013	-	211
2015	Landings not to exceed the present level.	186	212
2016	No new advice, same as 2015	186	186
2017	Precautionary approach	≤ 210	219
2018	Precautionary approach (same value as advised catches for 2017)	≤ 210	
2019	Precautionary approach	≤ 168	
2020	Precautionary approach	≤ 168	

* 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

This stock is distributed along the continental slope, shelf edge, and offshore banks, and extends into the NEAFC regulatory area (RA). Landings from some nations are not reported separately for EU waters and the NEAFC RA. Available data for the NEAFC RA are minimum estimates.

Table 6   Shagreen ray in subareas 6–7. History of ICES estimates of species-specific landings inside the NEAFC regulatory area by country (in tonnes).

Year	Landings from inside the NEAFC area*	Landings from outside the NEAFC area
2009		250
2010		301
2011		283
2012		253
2013		251
2014		211
2015	22	190
2016	12	174
2017	28	192

* Landings from some nations are not reported separately for EU waters and the NEAFC RA. Available data for the NEAFC RA are minimum estimates.

Table 7   Shagreen ray in subareas 6–7. Catch distribution by fleet in 2017 as estimated by ICES.

Catch (2017)	Landings				Discards
	Beam trawl	Bottom trawl	Nets	Other gear	
Unknown	2%	60%	6%	32%	Unquantified
	219 tonnes				

Table 8   Shagreen ray in subareas 6–7. History of landings: ICES estimates of landings by country (in tonnes). Data revised in 2016 (ICES, 2016a).

Year	Spain	UK	Ireland	France	Total landings
2009	62	44		144	250
2010	42	108	1	150	301
2011	29	97	6	152	283
2012	20	79	7	147	253
2013	33	85	6	127	251
2014	20	55	4	131	211
2015	34	25	2	151	212
2016	15	39	2	130	186
2017	26	21	49	124	219

Summary of the assessment

There is no assessment for shagreen ray in this area.

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.