

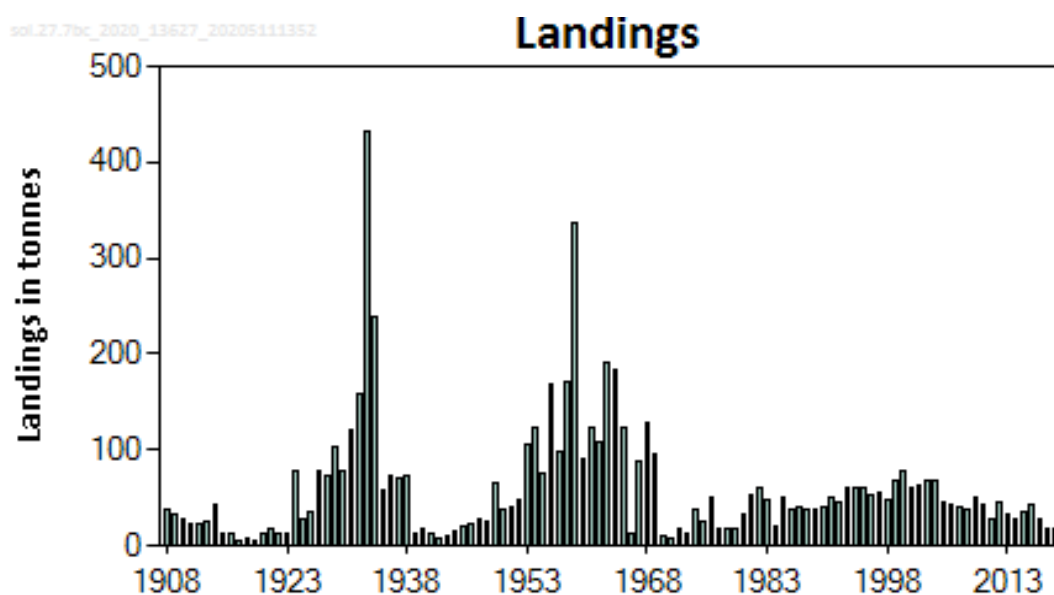
## Sole (*Solea solea*) in divisions 7.b and 7.c (West of Ireland)

### ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, catches should be no more than 19 tonnes in each of the years 2021, 2022, and 2023.

*Note: This advice sheet is abbreviated due to the COVID-19 disruption. The previous advice issued for 2018–2020 is attached as Annex 1.*

### Stock development over time



**Figure 1** Sole in divisions 7.b and 7.c. Official landings.

### Stock and exploitation status

**Table 1** Sole in divisions 7.b and 7.c. State of the stock and the fishery relative to reference points.

Table 2. Status in divisions 18 and 19: state of the stock and the fishery relative to reference points.										
		Fishing pressure				Stock size				
		2017	2018	2019		2017	2018	2019		
Maximum sustainable yield	$F_{MSY}$	?	?	?	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

### Catch scenarios

The precautionary buffer has been applied as it was last applied in 2017.

**Table 2** Sole in divisions 7.b and 7.c. The basis for the catch scenarios. \*

Advised catches for 2020		24 tonnes
Discard rate		Negligible
Precautionary buffer	Applied	0.8
Catch advice **		19 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.

\*\* [Recent advised catch] × [precautionary buffer].

\*\*\* Advice value for 2021 relative to the advice value for 2020.

### History of the advice, catch, and management

**Table 3** Sole in divisions 7.b and 7.c. ICES advice and official landings. All weights are in tonnes.

Year	ICES advice	Predicted catch corresp. to advice	Agreed TAC	Official landings
1993	-	-	-	60
1994	-	-	-	61
1995	-	-	-	61
1996	-	-	-	54
1997	-	-	-	55
1998	-	-	-	49
1999	-	-	-	68
2000	-	-	-	77
2001	-	-	80	60
2002	No advice	-	80	64
2003	Reduce TAC to recent landings	65	80	69
2004	Reduce TAC to recent landings (1998–2002)	65	65	67
2005	Reduce TAC to recent landings (1999–2003)	62	65	45
2006	No increase in catches	64	65	44
2007	No increase in catches	64	65	42
2008	No increase in catches	50	59	39
2009	Same advice as last year	50	50	50
2010	No advice	-	45	44
2011	No advice	-	44	27
2012	No increase in catch	-	44	45
2013	20% reduction in catches (last 3 years' average)	< 30	42	33
2014	Same catch advice as for 2013	< 30	42	28
2015	Same catch advice as for 2013	< 30	42	35
2016	Precautionary approach (same advised catch value as given for 2015)	≤ 30	42	42
2017	Precautionary approach (same advised catch value as provided for 2016)	≤ 30	42	27
2018	Precautionary approach	≤ 24	42	18 *
2019	Precautionary approach (same advised catch value as provided for 2018)	≤ 24	42	18 *
2020	Precautionary approach (same advised catch value as provided for 2018)	≤ 24	42	
2021	Precautionary approach	≤ 19		
2022	Precautionary approach (same advised catch value as provided for 2021)	≤ 19		
2023	Precautionary approach (same advised catch value as provided for 2021)	≤ 19		

\* Preliminary.

## History of the catch and landings

**Table 4** Sole in divisions 7.b and 7.c. History of official landings presented by country; ICES unallocated and estimated values. All weights are in tonnes.

Year	Official landings					Unallocated	ICES estimates
	France	UK	Ireland	Other countries	Total		
1908	0	1	37	0	38		
1909	0	0	32	0	32		
1910	0	0	28	0	28		
1911	0	1	22	0	23		
1912	0	1	22	0	23		
1913	0	1	25	0	26		
1914	0	1	43	0	44		
1915	0	1	12	0	13		
1916	0	0	14	0	14		
1917	0	0	6	0	6		
1918	0	0	7	0	7		
1919	0	0	6	0	6		
1920	0	9	5	0	14		
1921	0	10	9	0	19		
1922	0	4	9	0	13		
1923	0	2	10	0	12		
1924	0	15	64	0	79		
1925	0	11	18	0	29		
1926	7	10	18	0	35		
1927	47	11	19	0	77		
1928	49	8	16	0	73		
1929	74	11	18	0	103		
1930	52	5	22	0	79		
1931	82	9	29	0	120		
1932	122	10	27	0	159		
1933	411	10	10	0	431		
1934	217	10	13	0	240		
1935	40	7	11	0	58		
1936	43	20	9	0	72		
1937	32	25	14	0	71		
1938	44	21	7	0	72		
1939	0	0	13	0	13		
1940	0	0	19	0	19		
1941	0	0	14	0	14		
1942	0	0	8	0	8		
1943	0	0	11	0	11		
1944	0	0	16	0	16		
1945	0	0	20	0	20		
1946	0	12	10	0	22		
1947	0	6	8	15	29		
1948	0	11	14	0	25		
1949	41	12	12	0	65		
1950	24	9	6	0	39		
1951	27	7	6	0	40		
1952	40	2	6	0	48		
1953	99	2	4	0	105		
1954	116	1	7	0	124		
1955	66	1	9	0	76		
1956	161	1	6	0	168		
1957	94	1	4	0	99		
1958	163	2	6	0	171		
1959	327	1	8	0	336		
1960	80	1	9	0	90		

Year	Official landings					Unallocated	ICES estimates
	France	UK	Ireland	Other countries	Total		
1961	110	1	12	0	123		
1962	100	0	8	0	108		
1963	172	0	19	0	191		
1964	159	1	24	0	184		
1965	95	5	24	0	124		
1966	0	1	11	0	12		
1967	78	0	11	0	89		
1968	121	0	8	0	129		
1969	86	1	9	0	96		
1970	3	0	8	0	11		
1971	0	2	5	0	7		
1972	4	0	13	0	17		
1973	0	0	12	0	12		
1974	25	0	12	0	37		
1975	7	0	19	0	26		
1976	6	0	44	0	50		
1977	3	0	14	0	17		
1978	3	0	16	0	19		
1979	6	0	13	0	19		
1980	9	0	24	0	33		
1981	6	0	47	0	53		
1982	5	1	55	0	61		
1983	9	0	40	0	49		
1984	3	0	17	0	20		
1985	6	0	44	0	50		
1986	8	0	29	0	37		
1987	2	0	39	0	41		
1988	2	1	34	0	37		
1989	0	0	38	0	38		
1990	0	0	41	0	41		
1991	5	0	46	0	51		
1992	2	0	43	0	45		
1993	1	0	59	0	60	0	60
1994	1	0	60	0	61	9	70
1995	2	0	59	0	61	-2	59
1996	2	0	52	0	54	3	57
1997	3	1	51	0	55	0	55
1998	0	0	49	0	49	17	66
1999	0	0	68	0	68	4	72
2000	12	0	65	0	77	-9	68
2001	7	0	53	0	60	0	60
2002	14	0	50	0	64	-3	61
2003	19	0	50	0	69	-5	64
2004	18	0	49	0	67	2	69
2005	7	0	38	0	45	-1	44
2006	12	0	31	0	43	1	43
2007	7	0	34	0	41	1	42
2008	6	0	31	0	37	2	40
2009	5	0	46	0	51	0	51
2010	8	0	35	0	43	0	43
2011	5	0	22	0	27	5	22
2012	7	0	38	0	45	2	43

Year	Official landings					Unallocated	ICES estimates
	France	UK	Ireland	Other countries	Total		
2013	3	0	30	0	33	0	33
2014	3	0	23	0	26	1	27
2015	3	0	31	0	34	0	34
2016	6	0	36	0	42	0	42
2017	5	0	22	0	27	0	27
2018 *	2	0	16	0	18	0	18
2019 *	3	0	15	< 1	18	0	18

\* Preliminary.

## Sources and references

ICES. 2020. Working Group for the Celtic Seas Ecoregion (WGCSE). Draft report. ICES Scientific Reports. 2:40. xx pp. <http://doi.org/10.17895/ices.pub.5978>. Publication of the full report is expected end of 2020.

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## Sole (*Solea solea*) in divisions 7.b and 7.c (West of Ireland)

### ICES stock advice

ICES advises that when the precautionary approach is applied, catches should be no more than 24 tonnes in each of the years 2018, 2019 and 2020.

### Stock development over time

The state of the stock is unknown. Landings have been at a low level for several decades.

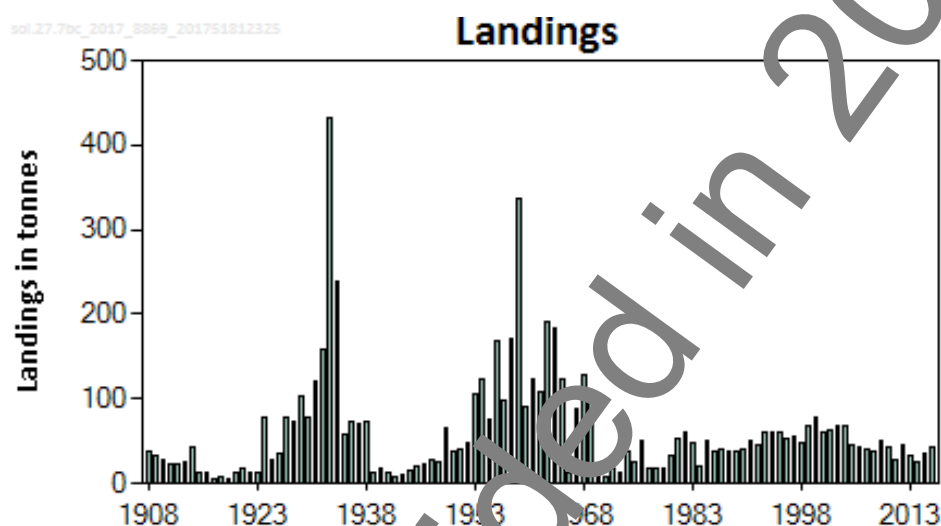


Figure 1 Sole in divisions 7.b and 7.c. Official landings.

### Stock and exploitation status

Table 1 Sole in divisions 7.b and 7.c. State of the stock and fishery relative to reference points.

Table 1. Data for the assessment of the status of the stock and fishery relative to reference points.										
		Fishing pressure				Stock size				
		2014	2015	2016		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 options

The ICES framework for category 6 stocks was applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented unless there is ancillary information clearly indicating that the current level of exploitation is appropriate for the stock. The precautionary buffer was last applied in 2012 (for the 2013 advice) and with no new information available to support the current level of catches the precautionary buffer is applied for the 2018 advice.

**Table 2** Sole in divisions 7.b and 7.c. The basis for the catch options.

Recent advised catches		30 tonnes
Discard rate		Negligible
Precautionary buffer	Applied	0.8
Catch advice*		24 tonnes

\* Recent advised catch × precautionary buffer.

## Basis of the advice

**Table 3** Sole in divisions 7.b and 7.c. The basis of the advice.

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

## Quality of the assessment

Catches in this area are too low to support the collection of the necessary information for an assessment of the stock status.

## Issues relevant for the advice

There are no issues relevant for the advice.

## Reference points

No reference points are defined for this stock.

## Basis of the assessment

**Table 4** Sole in divisions 7.b and 7.c. Basis of assessment and advice.

ICES stock data category	6 ( <a href="#">ICES, 2016</a> )
Assessment type	No assessment
Input data	Official landing
Discards and bycatch	Considered negligible
Indicators	None
Other information	None
Working group	Working Group for the Celtic Seas Ecoregion ( <a href="#">WGCSE</a> )

## Information from stakeholders

There is no additional available information for this stock.

## History of the advice, catch, and management

**Table 5** Sole in divisions 7.b and 7.c. ICES advice and official landings. All weights are in tonnes.

Year	ICES advice	Predicted catch corresp. to advice	Agreed TAC	Official landings
1993	-	-	-	60
1994	-	-	-	61
1995	-	-	-	61
1996	-	-	-	54
1997	-	-	-	55
1998	-	-	-	49
1999	-	-	-	68
2000	-	-	-	77
2001	-	-	80	60
2002	No advice	-	80	64
2003	Reduce TAC to recent landings	65	80	69
2004	Reduce TAC to recent landings (1998–2002)	65	65	67
2005	Reduce TAC to recent landings (1999–2003)	62	65	45
2006	No increase in catches	64	65	43
2007	No increase in catches	64	65	41
2008	No increase in catches	50	59	37
2009	Same advice as last year	50	50	51
2010	No advice	-	45	43
2011	No advice	-	44	27
2012	No increase in catch	-	44	45
2013	20% reduction in catches (last 3 years' average)	<30	42	33
2014	Same catch advice as for 2013	<30	42	27
2015	Same catch advice as for 2013	<30	42	34
2016	Precautionary approach (same advised catch value as given for 2015)	≤30	42	43
2017	Precautionary approach (same advised catch value as provided for 2016)	≤30	42	
2018	Precautionary approach	≤24		
2019	Precautionary approach (same advised catch value as provided for 2018)	≤24		
2020	Precautionary approach (same advised catch value as provided for 2019)	≤24		

## History of the catch and landings

**Table 6** Sole in divisions 7.b and 7.c. Catch distribution in 2016 as estimated by ICES.

Catch	Landings	Discards
43 tonnes	43 tonnes	Negligible



**Table 7** Sole in divisions 7.b and 7.c. History of official landings presented by country; ICES unallocated and estimated values. All weights are in tonnes.

Year	Landings					Unallocated	ICES estimates
	France	UK	Ireland	Other Countries	Total		
1908	0	1	37	0	38		
1909	0	0	32	0	32		
1910	0	0	28	0	28		
1911	0	1	22	0	23		
1912	0	1	22	0	23		
1913	0	1	25	0	26		
1914	0	1	43	0	44		
1915	0	1	12	0	13		
1916	0	0	14	0	14		
1917	0	0	6	0	6		
1918	0	0	7	0	7		
1919	0	0	6	0	6		
1920	0	9	5	0	14		
1921	0	10	9	0	19		
1922	0	4	9	0	13		
1923	0	2	10	0	12		
1924	0	15	64	0	79		
1925	0	11	18	0	29		
1926	7	10	18	0	35		
1927	47	11	19	0	77		
1928	49	8	16	0	73		
1929	74	11	18	0	103		
1930	52	5	22	0	79		
1931	82	9	29	0	120		
1932	122	10	27	0	159		
1933	411	10	10	0	431		
1934	217	10	1	0	240		
1935	40	7	11	0	58		
1936	43	20	9	0	72		
1937	32	25	14	0	71		
1938	44	21	7	0	72		
1939	0	0	13	0	13		
1940	0	0	19	0	19		
1941	0	0	14	0	14		
1942	0	0	8	0	8		
1943	0	0	11	0	11		
1944	0	0	16	0	16		
1945	0	0	20	0	20		
1946	0	12	10	0	22		
1947	0	6	8	15	29		
1948	0	11	14	0	25		
1949	41	12	12	0	65		
1950	21	9	6	0	39		
1951	27	7	6	0	40		
1952	0	2	6	0	48		
1953	99	2	4	0	105		
1954	116	1	7	0	124		
1955	66	1	9	0	76		
1956	161	1	6	0	168		
1957	94	1	4	0	99		
1958	163	2	6	0	171		
1959	327	1	8	0	336		
1960	80	1	9	0	90		
1961	110	1	12	0	123		
1962	100	0	8	0	108		

Year	Landings					Unallocated	ICES estimates
	France	UK	Ireland	Other Countries	Total		
1963	172	0	19	0	191		
1964	159	1	24	0	184		
1965	95	5	24	0	124		
1966	0	1	11	0	12		
1967	78	0	11	0	89		
1968	121	0	8	0	129		
1969	86	1	9	0	96		
1970	3	0	8	0	11		
1971	0	2	5	0	7		
1972	4	0	13	0	17		
1973	0	0	12	0	12		
1974	25	0	12	0	37		
1975	7	0	19	0	26		
1976	6	0	44	0	50		
1977	3	0	14	0	17		
1978	3	0	16	0	19		
1979	6	0	13	0	19		
1980	9	0	24	0	33		
1981	6	0	47	0	53		
1982	5	1	55	0	61		
1983	9	0	40	0	49		
1984	3	0	17	0	20		
1985	6	0	44	0	50		
1986	8	0	29	0	37		
1987	2	0	39	0	41		
1988	2	1	34	0	37		
1989	0	0	38	0	38		
1990	0	0	41	0	41		
1991	5	0	46	0	51		
1992	2	0	43	0	45		
1993	1	0	59	0	60	0	60
1994	1	0	60	0	61	9	70
1995	2	0	59	0	61	-2	59
1996	2	0	52	0	54	3	57
1997	3	1	51	0	55	0	55
1998	0	0	49	0	49	17	66
1999	0	0	68	0	68	4	72
2000	12	0	65	0	77	-9	68
2001	7	0	53	0	60	0	60
2002	14	0	50	0	64	-3	61
2003	19	0	50	0	69	-5	64
2004	18	0	49	0	67	2	69
2005	12	0	38	0	45	-1	44
2006	12	0	31	0	43	0	43
2007	12	0	34	0	41	1	42
2008	6	0	31	0	37	3	40
2009	5	0	46	0	51	0	51
2010	8	0	35	0	43	0	43
2011	5	0	22	0	27	-5	22
2012	7	0	38	0	45	-2	43
2013	3	0	30	0	33	0	33
2014	3	0	23	0	26	1	27
2015*	3	0	31	0	34	0	34
2016*	6	0	36	0	43	0	43

\* Preliminary.

## Summary of the assessment

There is no assessment for sole 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. 2016. 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 for the Celtic Seas Ecoregion (WGCSE), 9–18 May 2017, ICES Headquarters, Copenhagen, Denmark. ICES CM 2017/ACOM:13.

Advice provided in 2017