

Pollack (*Pollachius pollachius*) in subareas 6–7 (Celtic Seas and the English Channel)

ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, commercial catches should be no more than 3360 tonnes in 2020.

Stock development over time

The information provided is insufficient to evaluate the stock status. Commercial catches have declined since the late 1980s, and in 2018 are the lowest in the time-series.

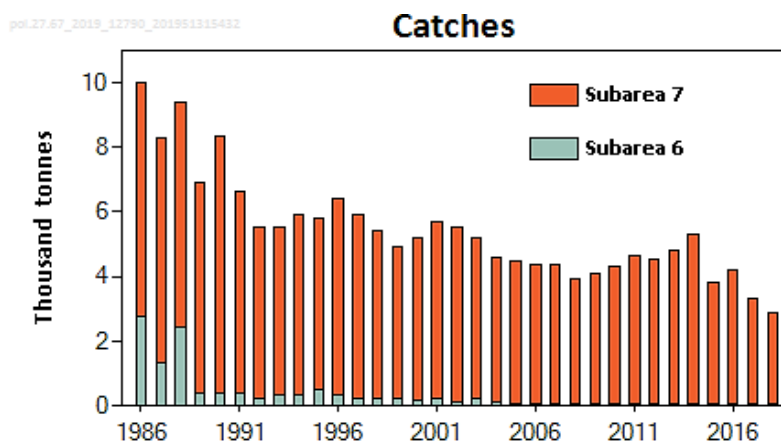


Figure 1 Pollack commercial landings (in thousand tonnes) in subareas 6–7. Landings by subarea, as estimated by ICES.

Stock and exploitation status

The fishing mortality is considered to be below possible reference points and the stock size is unknown.

Table 1 Pollack in subareas 6–7. State of the stock and fishery, relative to reference points. The qualitative evaluation is based on a depletion-corrected average catch (DCAC) analysis for subareas 6 and 7 (Figure 2).

		Fishing pressure			Stock size					
		2016	2017	2018	2016	2017	2018			
Maximum sustainable yield	F_{MSY}	?	?	?	Unknown	MSY	?	?	?	Unknown
Precautionary approach	F_{pa}, F_{lim}	?	?	?	Unknown	B_{pa}, B_{lim}	?	?	?	Unknown
Management plan	F_{MGT}	—	—	—	Undefined	B_{MGT}	—	—	—	Undefined
Qualitative evaluation	-	✓	✓	✓	Below possible reference points	-	?	?	?	Unknown

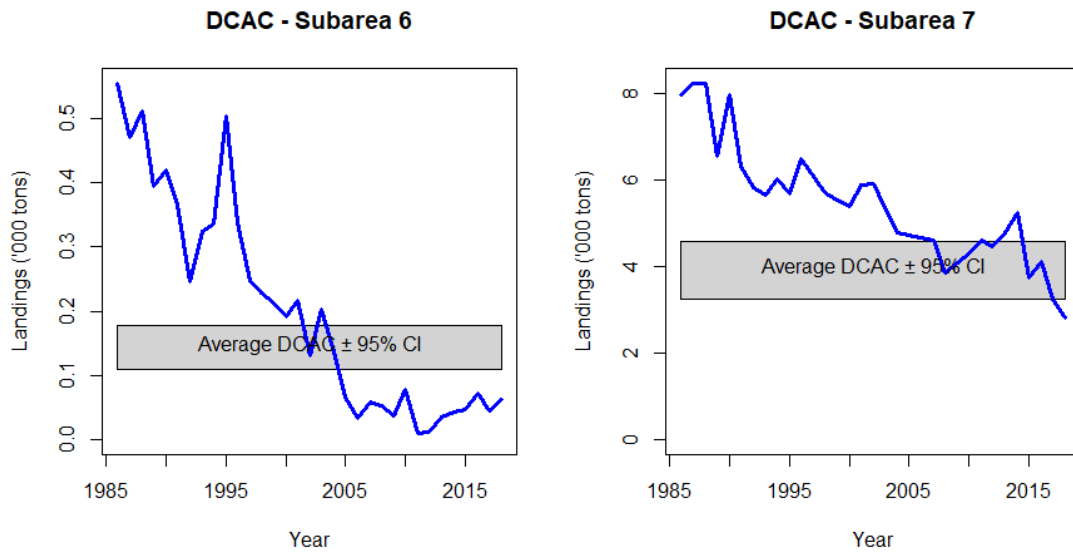


Figure 2 Pollack in subareas 6–7. The results of the depletion-corrected average catch (DCAC) assessment method as applied to commercial landings data since 1986. The grey box indicates the proxy for the maximum sustainable catch $\pm 95\%$ confidence intervals.

Catch scenarios

The ICES framework for category 4 stocks was applied (ICES, 2012). The depletion-corrected average catch method (DCAC, which is interpreted as an approximation of the maximum sustainable yield [MSY] approach) was used to provide catch advice for this stock. ICES implementation of this method advises a change in catch when recent catches are outside the DCAC range. Though the 2018 catch is below the DCAC, the recent advised catch is above the 2018 catch; consequently there is no change in the advice. The precautionary buffer was applied in 2018.

Table 2 Pollack in subareas 6–7. ICES framework for category 4 applied.

Advised commercial landings for 2019	3360 tonnes	
Discard rate	< 1%	
Precautionary buffer	Not applied	-
Commercial catches advice for 2020	3360 tonnes	
% Advice change	0	

The advised catch for 2020 is the same as the advice for 2019.

Basis of the advice

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

Advice basis	Precautionary approach
Management plan	The EU multiannual plan (MAP) for stocks in the Western Waters and adjacent waters applies to this stock. The plan specifies conditions for setting fishing opportunities, depending on stock status and making use of the F_{MSY} range for the stock.
	The MAP stipulates that when the F_{MSY} ranges are not available, fishing opportunities should be based on the best available advice.
	Full details of the plan are described in EU (2019).

Quality of the assessment

The current assessment relies solely on commercial catch data. Recreational catch could be a large component of the total catch; recreational fishery catches per year were recently estimated at approximately 3500 tonnes (Radford *et al.*, 2018).

The stock structure is unknown.

Issues relevant for the advice

ICES advice applies to commercial catches only.

Reference points

No reference points are defined for this stock.

Basis of the assessment

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

ICES stock data category	4 (ICES, 2018).
Assessment type	DCAC (depletion-corrected average catch) (ICES, 2019).
Input data	Commercial landings.
Discards and bycatch	Negligible (Less than 1% of the commercial catch).
Recreational catches	Not used but considered substantial (approximately 3500 tonnes).
Indicators	None.
Other information	None.
Working group	Working Group for the Celtic Seas Ecoregion (WGCSE)

Information from stakeholders

There is no additional available information.

History of the advice, catch, and management

Table 5 Pollack in subareas 6–7. History of ICES advice, the agreed TAC, and ICES estimates of commercial landings. Weights are in tonnes.

Year	ICES advice	Commercial catch corresponding to advice	EU TAC Subarea 6**	EU TAC Subarea 7	Total commercial landings Subarea 6	Total commercial landings Subarea 7	Total commercial landings
2000		-	1100	17000	191	5377	5568
2001		-	1100	17000	217	5885	6102
2002		-	1100	17000	131	5922	6053
2003		-	880	17000	203	5348	5551
2004		-	704	17000	136	4786	4922
2005		-	563	17000	67	4725	4792
2006		-	450	15300	37	4661	4698
2007		-	450	15300	58	4611	4669
2008		-	450	15300	53	3861	3914
2009		-	450	15300	37	4063	4100
2010		-	450	13770	79	4209	4288
2011		-	397	13495	46	4619	4666
2012	No increase in catch	-	397	13495	45	4469	4514
2013	Catch should be no more than 1% more than recent catch (last 3 years)	< 4200	397	13495	57	4468	4525
2014	Same advice as 2013	< 4200	397	13495	44	5359	5403

Year	ICES advice	Commercial catch corresponding to advice	EU TAC Subarea 6**	EU TAC Subarea 7	Total commercial landings Subarea 6	Total commercial landings Subarea 7	Total commercial landings
2015	Same advised values as given for 2013	< 4200*	397	13495	48	3740	3788
2016	Precautionary Approach (same advised commercial landings value as given for 2015)	≤ 4200	397	13495	74	4206	4280
2017	Precautionary approach (same advised commercial landings value as provided for 2016)	≤ 4200	397	12146	44***	3260***	3305***
2018	Precautionary approach	≤ 4200	397	12163	63***	2828***	2891***
2019	Precautionary approach	≤ 3360	397	12163			
2020	Precautionary approach	≤ 3360					

* Commercial landings.

** Subarea 6, European Union, and international waters of Division 5.b, and international waters of subareas 12 and 14.

*** Preliminary commercial landings.

History of the catch and landings

There are no reported catches in the NEAFC regulatory area.

Table 6 Pollack in subareas 6–7. Commercial Catch distribution by fleet in 2018 as estimated by ICES.

Total catch	Commercial landings			Commercial discards	Recreational catch
Unknown	Otter trawlers 23%	Static nets 44%	Others 33%	20 tonnes	Estimated to be substantial
	2891 tonnes				

Table 7 Pollack in subareas 6 and 7. History of official commercial landings in Subarea 6 by country. Weights in tonnes.

Year	Belgium	Denmark	France	Germany	Ireland	Netherlands	Norway	Portugal	Spain	Sweden	UK	Total Subarea 6
1950	1	-	-	-	-	-	-	-	-	-	295	296
1951	-	-	-	-	-	-	-	-	-	-	484	484
1952	-	-	-	-	-	1	-	-	-	-	503	504
1953	-	-	-	-	-	-	-	-	-	-	422	422
1954	-	-	-	-	-	-	-	-	-	-	452	452
1955	-	-	-	-	-	-	-	-	-	-	566	566
1956	-	-	-	-	-	-	-	-	-	-	528	528
1957	-	-	-	-	-	-	-	-	-	-	547	547
1958	.	-	-	23	-	-	-	-	-	-	710	733
1959	1	-	-	6	-	-	-	-	-	-	607	614
1960	15	-	-	-	-	-	-	-	-	-	441	456
1961	1	-	-	1	125	-	-	-	-	-	259	386
1962	2	-	-	8	197	-	-	-	-	-	235	442
1963	6	-	-	2	204	-	-	-	-	-	320	532
1964	1	-	-	1	130	-	-	-	-	-	368	500
1965	1	-	-	1	402	-	-	-	-	-	496	900
1966	2	-	-	-	200	-	-	-	-	-	428	630
1967	1	-	-	1	263	-	-	-	-	1106	413	1784
1968	5	-	-	2	214	-	148	-	-	1012	500	1881
1969	1	-	-	4	282	-	-	-	-	1224	667	2178

Year	Belgium	Denmark	France	Germany	Ireland	Netherlands	Norway	Portugal	Spain	Sweden	UK	Total Subarea 6
1970	2	-	-	1	398	-	-	-	-	756	447	1604
1971	1	-	-	5	75	-	-	-	-	750	256	1087
1972	1	-	-	1	127	-	-	-	-	779	317	1225
1973	2	-	-	-	-	-	-	-	-	-	503	505
1974	6	-	-	-	-	3	-	-	-	-	359	368
1975	< 0.5	-	-	1	-	1	4	-	-	-	393	399
1976	7	-	-	-	-	1	-	-	-	-	519	527
1977	-	-	196	-	-	1	2	-	-	-	493	692
1978	-	-	196	-	-	-	4	-	-	-	553	753
1979	-	-	310	-	-	-	-	-	-	-	350	660
1980	-	-	36	-	-	-	-	-	-	-	233	269
1981	-	-	342	-	-	-	-	-	55	-	185	582
1982	-	< 0.5	272	-	-	-	-	-	95	-	103	470
1983	-	-	331	-	-	-	-	-	86	-	148	565
1984	-	-	212	-	-	-	-	-	222	-	194	628
1985	< 0.5	-	224	1	-	-	-	-	283	-	328	836
1986	-	-	145	-	223	-	-	-	2217	-	187	2772
1987	-	< 0.5	108	-	103	-	-	-	860	-	259	1330
1988	-	< 0.5	128	-	163	-	-	-	1925	-	221	2437
1989	-	< 0.5	111	1	103	-	-	-	-	-	179	394
1990	-	-	76	-	150	-	1	-	-	-	192	419
1991	-	-	31	-	145	-	-	-	4	-	189	369
1992	-	< 0.5	21	-	23	-	-	-	< 0.5	-	203	247
1993	-	-	39	-	12	-	-	-	-	-	273	324
1994	-	-	34	< 0.5	26	-	< 0.5	-	-	-	276	336
1995	-	-	64	3	83	-	-	-	-	-	354	504
1996	-	< 0.5	29	< 0.5	97	-	1	-	-	-	210	337
1997	-	-	14	1	69	-	2	-	-	-	162	248
1998	-	-	21	-	60	-	-	< 0.5	< 0.5	-	147	228
1999	-	-	-	-	73	-	3	-	< 0.5	-	136	212
2000	-	-	11	2	62	-	-	-	-	-	116	191
2001	-	-	8	-	108	-	-	-	-	-	101	217
2002	-	-	9	-	26	-	-	-	-	-	96	131
2003	< 0.5	-	3	-	88	-	1	-	-	-	111	203
2004	< 0.5	-	2	-	68	-	1	-	-	-	65	136
2005	-	-	23	-	28	-	-	-	-	-	16	67
2006	-	-	3	-	25	-	< 0.5	-	4	-	5	37
2007	-	-	10	-	21	-	6	-	-	-	21	58
2008	-	-	8	-	21	-	1	-	-	-	23	53
2009	-	-	7	-	5	-	< 0.5	-	-	-	25	37
2010	-	-	6	-	34	-	< 0.5	-	-	-	38	78
2011	-	-	3	-	8	-	-	-	-	-	34	45
2012	-	-	2	-	10	-	-	-	-	-	33	45
2013	-	-	1	-	34	-	-	-	-	-	22	57
2014	-	-	1	-	25	-	-	-	-	-	18	44
2015	-	-	< 0.5	-	23	-	< 0.5	-	-	-	25	48
2016	-	-	< 0.5	-	44	-	< 0.5	-	-	-	29	74
2017*	-	-	< 0.5	-	30	-	< 0.5	-	-	-	14	44
2018*	-	-	< 0.5	-	34	-	< 0.5	-	< 0.5	-	28	63

* Preliminary catch statistics.

Table 8 Pollack in subareas 6–7. History of official commercial landings in Subarea 7 by country. Weights in tonnes.

Year	Belgium	Denmark	France	Germany	Ireland	Netherlands	Norway	Spain	UK	Total Subarea 7
1950	93	-	-	-	-	-	-	-	375	468
1951	74	-	-	2	-	-	-	-	380	456
1952	80	-	-	10	-	-	-	-	336	426
1953	34	-	-	-	-	-	-	-	252	286
1954	17	-	-	4	-	-	-	-	365	386
1955	38	-	-	-	-	-	-	-	247	285
1956	67	-	-	1	-	-	-	-	155	223
1957	219	-	-	6	-	-	-	-	367	592
1958	342	-	-	17	-	-	-	-	233	592
1959	158	-	-	32	-	-	-	-	251	441
1960	317	-	-	-	-	-	-	-	267	584
1961	268	-	-	-	360	-	-	-	210	838
1962	367	-	-	1	369	-	-	-	170	907
1963	95	-	-	-	411	-	-	-	176	682
1964	299	-	-	-	342	-	-	-	194	835
1965	362	-	-	-	335	-	-	-	231	928
1966	456	-	-	-	438	-	-	-	175	1069
1967	417	-	-	-	474	-	-	-	202	1093
1968	214	-	-	-	508	-	-	-	167	889
1969	142	-	-	-	794	-	-	-	161	1097
1970	165	-	-	1	724	-	-	-	120	1010
1971	114	-	-	-	673	-	-	-	116	903
1972	142	-	-	-	1073	-	-	-	123	1338
1973	89	-	-	-	-	3	-	-	127	219
1974	299	-	-	-	-	13	-	-	223	535
1975	295	-	-	-	-	17	-	-	290	602
1976	339	-	-	-	-	4	-	-	421	764
1977	157	1	3569	-	-	1	-	-	465	4193
1978	186	21	5496	14	-	8	-	-	515	6240
1979	151	18	5119	76	-	1	-	-	696	6061
1980	237	7	5242	-	-	1	-	1	769	6257
1981	244	-	5814	-	-	3	-	23	780	6864
1982	154	-	4253	-	-	-	-	32	1022	5461
1983	167	-	6214	-	-	-	-	26	1045	7452
1984	207	-	3927	-	-	-	-	486	1100	5720
1985	269	-	3741	-	-	-	-	20	1022	5052
1986	241	-	4574	-	1335	-	-	17	1795	7962
1987	149	-	5213	-	848	-	-	19	2010	8239
1988	191	-	5211	-	1066	-	-	22	1740	8230
1989	145	-	3893	-	994	-	-	18	1487	6537
1990	133	-	4831	-	1066	-	-	26	1914	7970
1991	76	-	3211	-	1045	-	-	22	1962	6316
1992	62	-	2849	-	1014	-	-	19	1889	5833
1993	55	-	2325	-	1137	-	-	7	2135	5659
1994	94	-	2621	-	921	-	-	8	2391	6035
1995	88	2	2315	-	1107	-	-	4	2168	5684
1996	94	-	2684	-	1190	6	-	5	2519	6498
1997	99	-	2443	-	984	4	< 0.5	7	2540	6077
1998	92	-	2375	-	886	1	-	11	2347	5712
1999	86	-	-	-	976	-	3	19	1703	2787
2000	71	-	2422	-	1069	-	-	5	1810	5377
2001	100	-	2515	-	1274	-	-	9	1987	5885
2002	117	-	2481	-	1308	-	-	17	1999	5922
2003	113	-	2284	-	1151	-	-	12	1788	5348
2004	104	-	1914	-	1049	1	-	13	1705	4786
2005	98	-	2198	-	728	1	-	16	1684	4725

Year	Belgium	Denmark	France	Germany	Ireland	Netherlands	Norway	Spain	UK	Total Subarea 7
2006	79	-	2213	-	809	1	-	28	1513	4643
2007	91	-	1970	-	782	3	-	1	1764	4611
2008	76	-	1579	-	738	1	-	14	1453	3861
2009	42	-	1670	-	828	4	-	3	1545	4092
2010	35	-	1846	-	942	2	-	3	1459	4284
2011	28	-	1415	-	912	1	-	-	1716	4072
2012	43	-	1421	-	1165	1	-	3	1835	4468
2013	39	-	1790	-	1249	1	-	11	1838	4928
2014	84	-	2042	-	1096	1	-	14	2122	5359
2015	32	-	1154	-	1070	1	-	13	1469	3739
2016	42	-	1237	-	1073	< 0.5	-	12	1842	4206
2017*	19	-	959	-	891	< 0.5	-	14	1377	3260
2018*	21	-	823	-	741	-	-	12	1231	2828

* Preliminary catch statistics.

Summary of the assessment

The depletion-corrected average catch (DCAC) method has been run with commercial landings. The estimation of the DCAC (MSY proxy) given by the method is 148 tonnes (with a 95% confidence interval from 110 to 177 tonnes) for Subarea 6, and 4010 tonnes (with a 95% confidence interval from 3250 to 4576 tonnes) for Subarea 7.

Sources and references

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