

### 5.3.40 Pollack (*Pollachius pollachius*) in Subareas VI-VII (Celtic Seas and the English Channel)

#### ICES stock advice

ICES advises that when the precautionary approach is applied, commercial catches should be no more than 4200 tonnes in each of the years 2016 and 2017. All commercial catches are assumed to be landed. ICES cannot quantify the recreational catches.

#### Stock development over time

The available information is insufficient to evaluate the exploitation and the trends of pollack in the Celtic Sea ecoregion. Official commercial landings were stable in the last two decades.

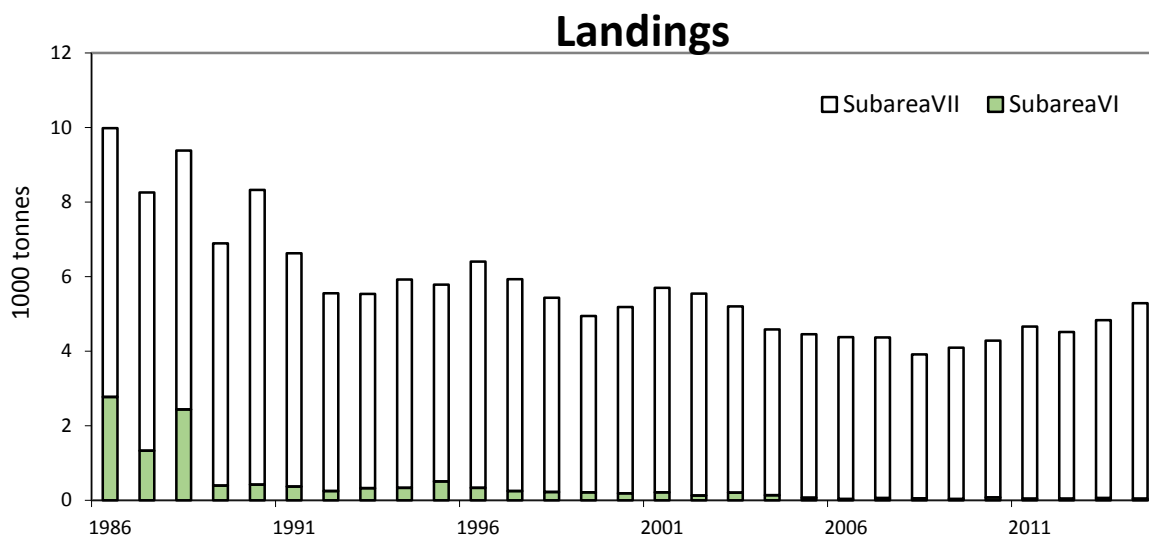


Figure 5.3.40.1 Pollack in Subareas VI-VII. Landings (tonnes) by subarea\*, as estimated by ICES.

#### Stock and exploitation status

Table 5.3.40.1 Pollack in Subareas VI-VII. State of the stock and fishery, relative to reference points.

		Fishing pressure			Stock size					
		2012	2013	2014	2013	2014	2015			
Maximum Sustainable Yield	$F_{MSY}$	?	?	?	Undefined	MSY	?	?	?	Undefined
Precautionary approach	$F_{pa}$ , $F_{lim}$	?	?	?	Undefined	$B_{pa}$ , $B_{lim}$	?	?	?	Undefined
Management Plan	$F_{MGT}$	-	-	-	Not applicable	$SSB_{MGT}$	-	-	-	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	?	?	?	Unknown

\* Version 2: Figure caption corrected.

## Catch options

The ICES framework for category 4 stocks was applied (ICES, 2012). The Depletion-Corrected Average Catch (DCAC, which is interpreted as an approximation to MSY) method was used to provide catch advice for this stock in 2012. The ICES implementation of this method advises a reduction of catch to the DCAC when the stock catch is above the DCAC and, for this reason, an additional precautionary buffer is not needed. The perception of the stock has not changed; therefore, the advice given in the three most recent years is still applicable this year.

**Table 5.3.40.2** Pollack in Subareas VI-VII. ICES framework for category 4 applied.

Recent advised commercial landings		4200 (tonnes)
Discard rate		Negligible
Precautionary buffer	Not applied	-
Commercial catches advice*		4200 (tonnes)

\*recent advised commercial landings.

## Basis of the advice

**Table 5.3.40.4** Pollack in Subareas VI-VII. The basis of the advice.

Advice basis	Precautionary Approach
Management plan	There is no management plan for pollack in this area.

## Quality of the assessment

The main uncertainty in the assessment is that the recreational catch is not well estimated. Recent studies indicate that it is relatively high, a recent study conducted in France in 2011–2013 by Levrel *et al.* (2013) estimated 3300 tonnes of recreational fishery catches per year. The DCAC method only uses long time-series of official commercial landings. It may not reflect recent stock fluctuations or changes in the fisheries. Further information on stock structure and biological parameters are needed before alternative assessment models can be applied.

## Issues relevant for the advice

Recent official commercial landings in Division VII have increased and are above the upper estimated MSY proxy (DCAC confidence interval, Figure 5.3.40.2) and ICES advice. Although the overall TAC is not limiting, for some countries the quotas are limiting.

The ICES advice refers only to the commercial catches. ICES cannot quantify the recreational catches but available estimates indicate that they are substantial.

## Reference points

No reference points are defined for this stock.

## Basis of the assessment

**Table 5.3.40.6** Pollack in Subareas VI-VII. The basis of the assessment.

ICES stock data category	4.1.2 ( <a href="#">ICES 2015b</a> ).
Assessment type	DCAC (Depletion-Corrected Average Catch).
Input data	Commercial landings <sup>†</sup> .
Discards and bycatch	Negligible (less than 0.5% of catch)
Indicators	None.
Other information	None.
Working group	Working Group for the Celtic Seas Ecoregion ( <a href="#">WGCSE</a> )

<sup>†</sup> Version 2: Input data corrected.

**Information from stakeholders**

There is no available information.

**History of advice, catch and management**

**Table 5.3.40.7** Pollack in Subareas VI-VII. History of ICES advice, the agreed TAC, and ICES estimates of commercial landings. Weights in tonnes. Version 2: Table header of the commercial landings corrected.

Year	ICES Advice	Predicted landings corresp. to advice	EU TAC Subarea VI*	EU TAC Subarea VII	Total commercial landings Subarea VI**	Total commercial landings Subarea VII	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	40***	5215***	5255***
2015	Same advised values as given for 2013	< 4200*	397	13495			
2016	Precautionary Approach (same advised commercial landings value as given for 2015)	≤ 4200^					
2017	Precautionary approach (same advised commercial landings value as provided for 2016)	≤ 4200^					

\* Commercial landings.

\*\* Subarea VI; Union and international waters of Division Vb; international waters of Subareas XII and XIV.

\*\*\* Preliminary commercial landings.

^ Commercial catch.

**History of catch and landings**

**Table 5.3.40.8** Pollack in Subareas VI-VII. Commercial catch distribution by fleet in 2014 as estimated by ICES. Version 2: Table header of the commercial landings corrected.

Total commercial catch (2014)	Commercial landings		Commercial discards	Recreational catch
5265 tonnes (> 99% in subarea VII)	Otter Trawlers 32%, Nets 32%	Others 19%, not specified 17%	10 tonnes	Unknown, but thought to be significant
	5255 tonnes			

**Table 5.3.40.9** Pollack in Subareas VI-VII. History of official commercial landings in Subarea VI for each country participating in the fishery.

Year	Belg.	Denm.	Fran.	Germ.	Irel.	Neth.	Norw.	Port.	Spain	Swed.	UK	Total VI
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
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

Year	Belg.	Denm.	Fran.	Germ.	Irel.	Neth.	Norw.	Port.	Spain	Swed.	UK	Total VI
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	-	21	-	<0.5	-	-	-	18	40

\* Preliminary catch statistics

**Table 5.3.40.10** Pollack in Subareas VI-VII. History of official commercial landings in Subarea VII are presented for each country participating in the fishery.

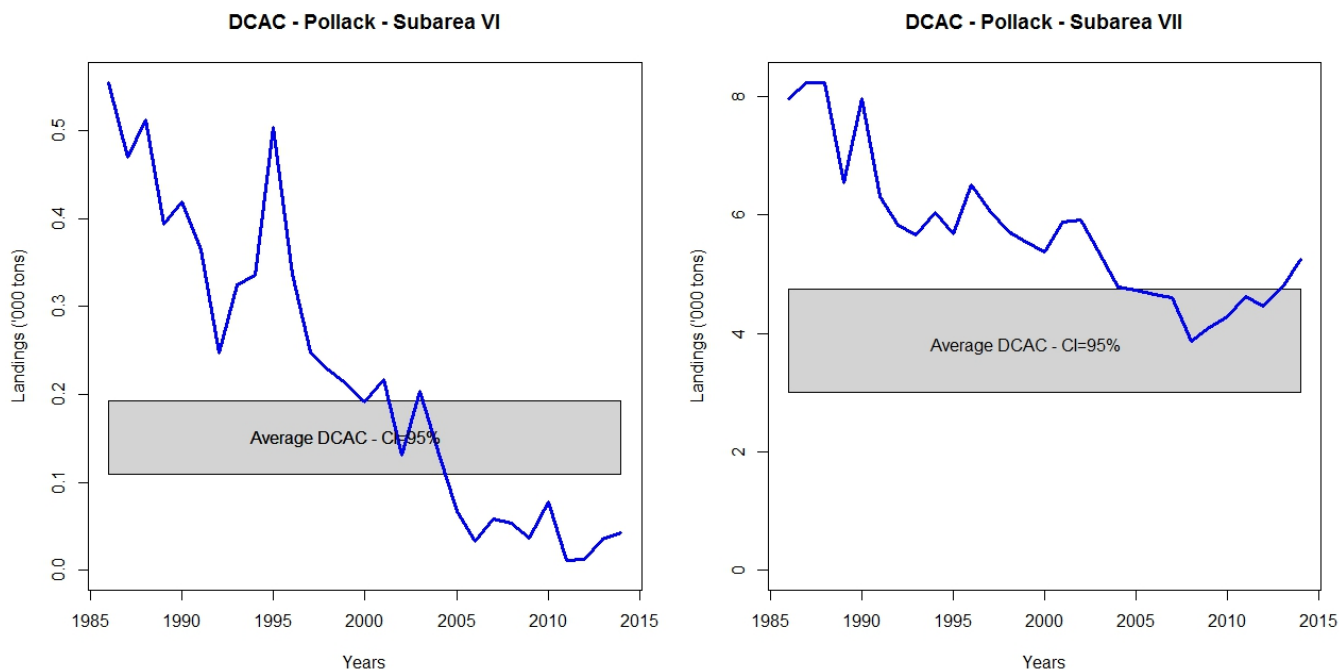
Year	Belg.	Denm.	Fran.	Germ.	Irel.	Neth.	Norw.	Spain	UK	Total VII
1950	93	-	-	-	-	-	-	-	375	468
1951	74	-	-	-	2	-	-	-	380	456
1952	80	-	-	-	10	-	-	-	336	426
1953	34	-	-	-	-	-	-	-	252	286
1954	17	-	-	-	4	-	-	-	365	386
1955	38	-	-	-	-	-	-	-	247	285
1956	67	-	-	-	1	-	-	-	155	223
1957	219	-	-	-	6	-	-	-	367	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

Year	Belg.	Denm.	Fran.	Germ.	Irel.	Neth.	Norw.	Spain	UK	Total VII
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
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	-	2015	-	1012	1	-	-	2103	5215

**Summary of the assessment**

The Depletion-Corrected average catch (DCAC) method has been run this year with commercial landings. The estimation of the DCAC (MSY proxy) given by the method is 156 tonnes (with a 95% confidence interval from 109 to 193 tonnes) for Subarea VI, and 4020 tonnes (with a 95% confidence interval from 2997 to 4751 tonnes) for Subarea VII. This is consistent with the range of DCAC values estimated when the method was previously applied (in 2012).

Version 2: updated text. Official landings were not used.



**Figure 5.3.40.2** Pollack in Subareas VI-VII. The results of the Depletion-Corrected average catch (DCAC) assessment method as applied to commercial landings data since 1986. The grey box indicates the maximum sustainable catch +/- 95% confidence intervals.

**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.

Alonso-Fernández, A., Villegas-Ríos, D., Valdés-López, M., Oliveira-Domínguez, B., and Saborido-Rey, F. (2013). Reproductive biology of pollack (*Pollachius pollachius*) from the Galician shelf (north-west Spain). J. Mar. Biol. Assoc. U. K. 93, 1951–1963.

ICES 2015a. Report of the Working Group for the Celtic Seas Ecoregion (WGCSE), 12–21 May 2015, ICES Headquarters, Copenhagen, Denmark. ICES CM 2015/ACOM:12.

ICES 2015b Advice basis. In Report of the ICES Advisory Committee, 2015. ICES Advice 2015, Book 1, In preparation.

Levrel. H., Bellanger M., Le Goff, R., Drogou, M.. 2013. La pêche récréative en mer en France métropolitaine (Atlantique, Manche, Mer du Nord, Méditerranée). Résultats de l'enquête 2011-2013. <http://archimer.ifremer.fr/doc/00162/27300/in> (in French).