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Advice on fishing opportunities for Northeast Arctic haddock in 2026 in ICES subareas 1 and 2

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Advice on fishing opportunities for Northeast Arctic haddock in 2026 in ICES subareas 1 and 2

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Content

Stock Name: Northeast Arctic haddock (ICES areas 1 and 2)

Advice on fishing opportunities

The Joint Russian-Norwegian working group on Arctic Fisheries (JRN-AFWG) advises that when the Joint Norwegian–Russian Fisheries Commission management plan is applied, catches in 2026 should be no more than 153 293 tonnes .

Stock development over time

Fishing pressure on the stock in 2024 is 0.47, corresponding to F_{pa} , and is below F_{lim} and above $F_{msy.}$ The spawning stock biomass in 2025 is above B_{pa} and B_{lim}.

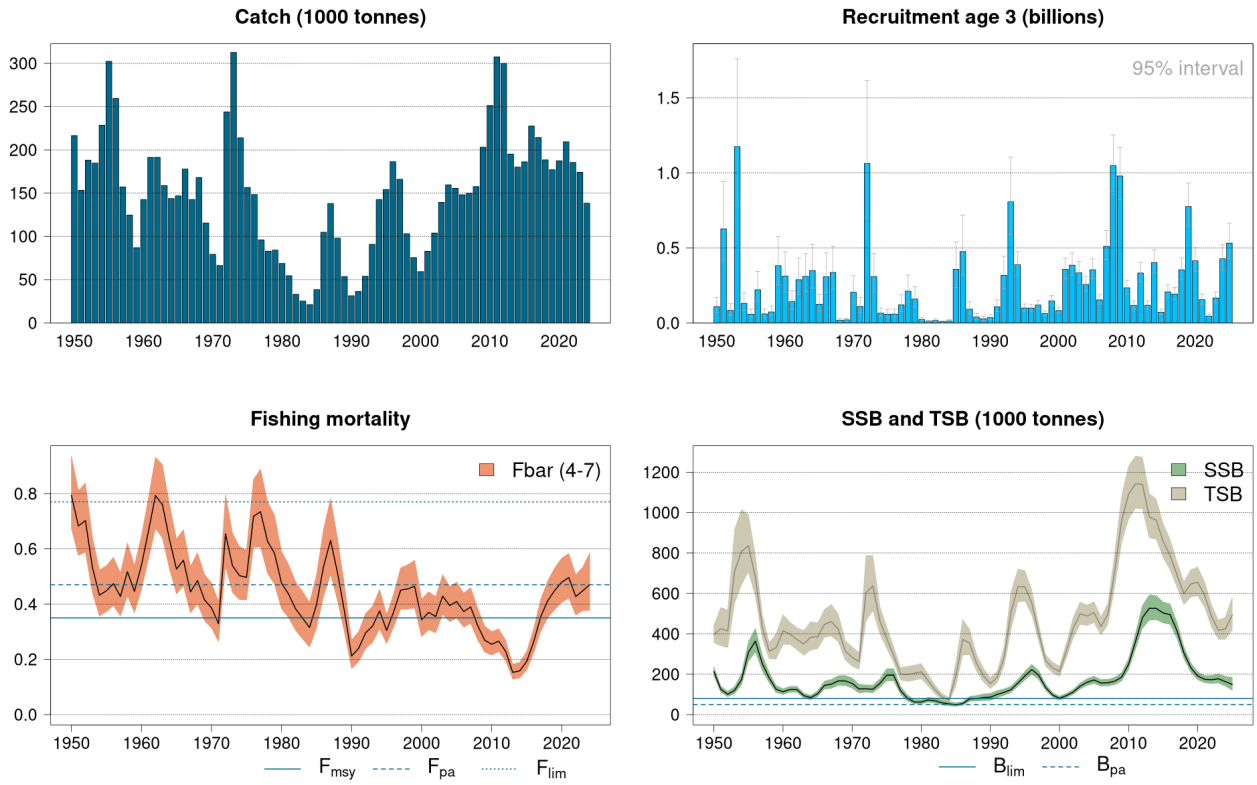

Figure 1. Haddock in ICES subareas 1 and 2 (Northeast Arctic). Catch, recruitment, F, SSB and TSB (total stock biomass, age 3+) with 95 % confidence levels. The biomass reference points relate to SSB.

The total stock, spawning stock and catches are expected to increase when the 2022 and 2023 year-classes enter the fishery and the 2021 year-class is fully recruited and maturing.

Catch scenarios

Table 1. Haddock in ICES subareas 1 and 2 (Northeast Arctic). SSB, catch in tonnes and recruitment in thousands.

Variable	Value	Notes
Fages 4–7 (2025)	0.40	TAC constraint
SSB (2026)	157 726	Short-term forecast
Rage 3 (2025)	532 133	SAM estimate
Rage 3 (2026)	384 665	RCT3 estimate
Rage 3 (2027)	649 065	RCT3 estimate
Total catch (2025)	130 000	TAC set by 54th JRNFC

Table 2. Haddock in ICES subareas 1 and 2 (Northeast Arctic). Annual catch options. All weights are in tonnes.

Basis	Total catch (2026)	F ages 4−7 (2026)	SSB (2027)	% SSB change *	% TAC change **	% Advice change ***
Advice basis						
Management plan	153 293	0.35	195 888	24	18	43
Other scenarios						
MSY approach: F_{MSY}	153 293	0.35	195 888	24	18	43
F = 0	0	0.00	265 334	68	-100	-100
F = F_{2025}	172 237	0.4 0	1 87 7 14	19	32	61
F_{pa}	197 014	0.47	177 178	12	52	84
F_{lim}	290 750	0.77	139 065	-12	124	172

* SSB 2027 relative to SSB 2026.

** Catch in 2026 relative to TAC in 2025 (130 000 t)

*** Catch value for 2026 relative to advice value for 2025 (106 912 t)

The TAC advice for 2026 is 18% higher than the TAC and 43% higher than the advice for 2025 due to an increasing stock trend.

Basis of the advice

Table 3. Haddock in ICES subareas 1 and 2 (Northeast Arctic). The basis of the advice.

Advice basis	Joint Norwegian-Russian Fisheries Commission management plan
Management plan	The current harvest control rule (HCR) for haddock is as follows (see details in Protocol of the 46 th Session of the Joint Norwegian–Russian Fisheries Commission [JNRFC, 2016]): • *TAC for the next year will be set at level corresponding to FMSY.* • *The TAC should not be changed by more than ±25% compared with the previous year TAC.* • *If the spawning stock falls below B_{pa} , the procedure for establishing TAC should be based on a fishing mortality that is linearly reduced from FMSY at B_{pa} to F = 0 at SSB equal to zero. At SSB-levels below B_{pa} in any of the operational years (current year and a year ahead) there should be no limitations on the year-to-year variations in TAC.* At the 46 th Session of the Joint Norwegian–Russian Fisheries Commission in 2016 it was decided to keep the existing HCR for haddock for the next five years. Quota flexibility: In 2014, JNRFC decided that from 2015 onwards, Norway and Russia can transfer to, or borrow from, the following year up to 10% of the country's quota. ICES evaluated this HCR in 2016 (ICES, 2016) and rechecked it in 2020 (ICES, 2020). ICES concluded that the HCR is precautionary.

Quality of the assessment

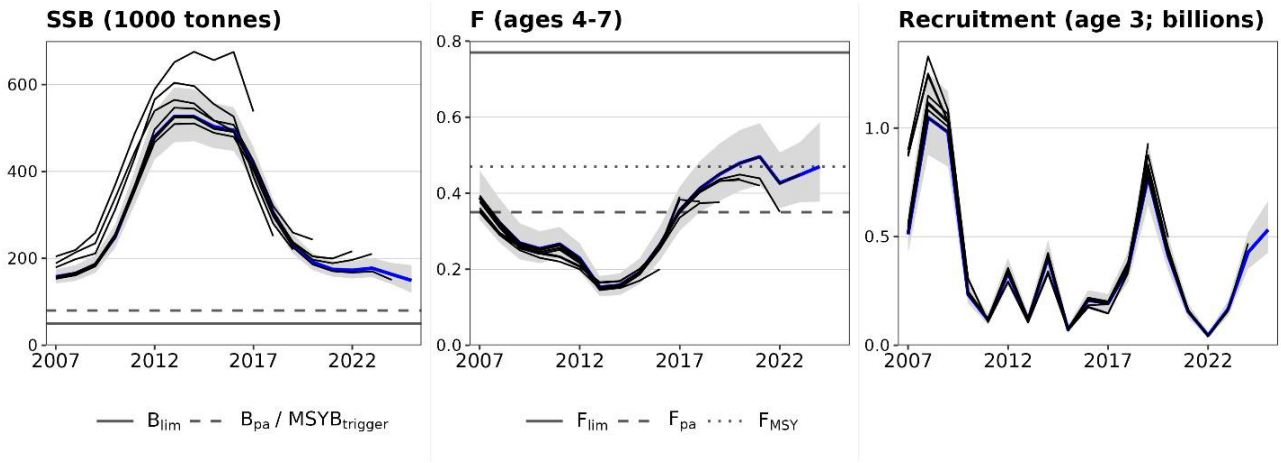

Figure 2. Haddock in ICES subareas 1 and 2 (Northeast Arctic). Historical assessment results. The shaded areas indicate the 95% confidence intervals for the 2025 assessment.

There was a benchmark in 2020, which explains the downward revision of the SSB.

Issues relevant for the advice

Due to the temporary suspension of Russian scientists from ICES in 2022 and the Russian decision to withdraw from ICES in 2024, this year's assessment was as in 2022-2024 conducted by a Joint Russian-Norwegian Arctic Fisheries Working Group (JRN-AFWG) consisting of scientists from VNIRO (Russia) and IMR (Norway) (Howell et al., 2025).

This advice has been conducted outside ICES and should not be considered as ICES advice. However, this assessment and advice has been produced following the methodology agreed at the ICES benchmark in 2020 (ICES, 2020).

The 2015-2017 year-classes that have dominated the catches are now being fished out and the following 2018-2020 year-classes are weak, so there are few older fish in stock. The incoming year-classes are estimated to be average or above average, but the abundance estimates of younger fish are uncertain. In the forecast, 37% of the catches in 2026 are expected to come from the 2021 year-class. On average the 2022 year-class is expected to grow over the minimum catching size in 2026 and contribute 29% of the catches in 2026, but the accuracy of this prediction is highly dependent on the fishing pattern and growth of this year class. Given the current fishing pattern and the high proportion of young fish in the stock, we predict growth overfishing to occur on the incoming year-classes.

Reference points

Table 4. Haddock in ICES subareas 1 and 2 (Northeast Arctic). Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	80000 tonnes	B_{pa}	ICES (2020)
	F_{MSY}	0.35	Stochastic long-term simulations	ICES (2020)
Precautionary approach	B_{lim}	50 000 tonnes	B_{loss}	ICES (2020)
	B_{pa}	80 000 tonnes	$B_{lim} \times \exp(1.645 \times \sigma)$, where $\sigma = 0.3$	ICES (2020)
	F_{lim}	0.77	Determined from replacement line leading from SSB = 0 to the geometric mean recruitment at SSB = B_{lim}	ICES (2020)
	F_{pa}	0.47	$F_{lim} \times \exp(-1.645 \times \sigma)$, where $\sigma = 0.3$	ICES (2020)
Management plan	SSB_{MGT}	80000 tonnes	B_{pa}	ICES (2020)
	F_{MGT}	0.35	F_{MSY}	ICES (2020)

Basis of the assessment

Table 5 . Haddock in ICES subareas 1 and 2 (Northeast Arctic). Basis of the assessment and advice.

ICES stock data category	1
Assessment type	Age-based analytical assessment (SAM) that uses catches in the model.
Input data	Commercial landings (international landings, ages, and length frequencies from catch sampling); four survey indices (RU-BTr-Q4 (Btr), BS-NoRU-Q1(Aco), BS-NoRu-Q1 (BTr), and Eco-NoRu-Q3 (Btr)); annual maturity and stock weight-at-age data from surveys; from 1984, the natural mortalities are derived from the consumption of haddock (ages 3–6) by cod.
Discards and bycatch	Discarding is considered negligible in recent years.

Indicators	None.
Other information	Last benchmarked in February 2020 (ICES, 2020).
Working group	Joint Russian-Norwegian working group on Arctic Fisheries (JRN-AFWG)

History of the advice, catch, and management

Table 6. Haddock in ICES subareas 1 and 2 (Northeast Arctic). ICES advice, agreed TACs, the official and unreported landings, and ICES catches. All weights are in tonnes.

Year	ICES advice	Catch corresponding to advice	Agreed TAC	Official catches	Unreported landings (included in ICES catches)	ICES catches
1987	No increase in F; TAC	160000	250000	154916		154916
1988	No increase in F	< 240000	240000	95255		95255
1989	Large reduction in F	69000	83000	58518		58518
1990	No directed fishery	-	25000	27182		27182
1991	No directed fishery	-	28000	36216		36216
1992	Within safe biological limits	35000	63000	59922		59922
1993	No long-term gains in increasing F	56000	72000	82379		82379
1994	No long-term gains in $F > F_{med}$	97000*	120000	135186		135186
1995	No long-term gains in $F > F_{med}$	122000*	130000	142448		142448
1996	No long-term gains in $F > F_{med}$	169000*	170000	178128		178128
1997	Well below F_{med}	< 242000	210000	154359		154359
1998	Below F_{med}	< 120000	130000	100630		100630
1999	Reduce F below F_{pa}	< 74000	78000	83195		83195
2000	Reduce F below F_{pa}	< 37000	62000	68944		68944
2001	Reduce F below F_{pa}	< 66000	85000	89640		89640
2002	Reduce F below F_{pa}	< 64000	85000	96062	18736	114798
2003	Reduce F below F_{pa}	< 101000	101000	105700	33226	138926
2004	Reduce F below F_{pa}	< 120000	130000	124502	33777	158279
2005	Reduce F below F_{pa}	< 106000	117000	118015	40283	158298
2006	Reduce F below F_{pa}	< 112000	120000	131706	21451	153157
2007	Limit catches	< 130000	150000	146972	14553	161525
2008	Limit catches to 2001–2004 average	< 130000	155000	149776	5828	155604
2009	Apply management plan	< 194000	194000	200061	0	200061
2010	Apply management plan	< 243000	243000	249200	0	249200

Year	ICES advice	Catch corresponding to advice	Agreed TAC	Official catches	Unreported landings (included in ICES catches)	ICES catches
2011	Apply management plan	< 303000	303000	309785	0	309785
2012	Apply management plan	< 318000	318000	315627	0	315627
2013	Apply management plan	< 238000	200000	193744	0	193744
2014	Apply management plan	< 150000	178500	177522	0	177522
2015	Apply management plan	< 165000	223000	194756	0	194756
2016	Apply management plan	< 244000^	244000	233416	0	233416
2017	Apply management plan	≤ 233000	233000	227588	0	227588
2018	Apply management plan	≤ 202305	202305	191276	0	191276
2019	Apply management plan	≤ 152000	172000	175402	0	175402
2020	Apply management plan	≤ 215000	215000	182468	0	182468
2021	Apply management plan	≤ 232537	232537	204843	0	204743 ^^
2022	Apply management plan	≤ 178532	178532	176906	0	176906^^
2023	Apply management plan	≤ 170067 ^^	170067	178899	0	178899 ^^
2024	Apply management plan	≤ 127550 ^^	141000	139992	0	139992 ^^
2025	Apply management plan	≤ 106912 ^^	130000			
2026	Apply management plan	≤ 153293 ^^				

* Predicted landings at F_{med} .

^ This advice was updated on 7 July 2015 in response to a special request (ICES, 2015) after a mid-year change in TAC in 2015 (from 178 500 tonnes to 223 000 tonnes) .

^^ In 2022-2025 assessment and advice was carried out by the Joint Russian-Norwegian working group on Arctic Fisheries (JRN-AFWG) which compiled catches for 2021-2024 and gave advice for 2023-2026.

History of catch and landings

Table 7. Haddock in ICES subareas 1 and 2. History of official commercial catch and landings by country. All weights are in tonnes.

Year	Faroe Islands	France	Fed. Rep. Germany.	Greenland	Norway^	Russia**	Spain	United Kingdom	Others	Unreported catches***	Total
1960	172	-	5597		46263	57025		45469	125	-	154651
1961	285	220	6304		60862	85345		39650	558	-	193224
1962	83	409	2895		54567	91910		37486	58	-	187408
1963	17	363	2554		59955	63526		19809	-	-	146224
1964	-	208	1482		38695	43870		14653	250	-	99158
1965	-	226	1568		60447	41750		14345	242	-	118578
1966	-	1072	2098		82090	48710		27723	85	-	161778
1967	-	1208	1705		51954	57346		24158	26	-	136397

Year	Faroe Islands	France	Fed. Rep. Germany.	Greenland	Norway^	Russia**	Spain	United Kingdom	Others	Unreported catches***	Total
1968	-	-	1867		64076	75654		40129	0	-	181726
1969	2	-	1490		67549	24211		37234	334	-	130820
1970	541	-	2119		37716	26802		20423	656	-	88257
1971	81	-	896		45715	15778		16373	62	-	78905
1972	137	-	1433		46700	196224		17166	4493	-	266153
1973	1212	3214	9534		86767	186534		32408	2557	-	322226
1974	925	3601	23409		66164	78548		37663	10847	-	221157
1975	299	5191	15930		55966	65015		28677	4680	-	175758
1976	536	4459	16660		49492	42485		16940	6692	-	137264
1977	213	1510	4798		40118	52210		10878	431	-	110158
1978	466	1411	1521		39955	45895		5766	408	-	95422
1979	343	1198	1948		66849	26365		6454	466	-	103623
1980	497	226	1365		66501	20706		2948	261	-	92504
1981	381	414	2402		63435	13400		1682	22	-	81736
1982	496	53	1258		43702	2900	-	827	0	-	49236
1983	428	-	729		22364	680	139	259	1	-	24600
1984	297	15	400		18813	1103	37	276	4	-	20945
1985	424	21	395		21272	22690	77	153	20	-	45052
1986	893	12	1079		52313	45738	22	431	75	-	100563
1987	464	7	3105		72419	78211	59	563	88	-	154916
1988	1113	116	1323		60823	31293	72	435	80	-	95255
1989	1217	-	171		36451	20062	1	590	26	-	58518
1990	705	-	167		20621	5190	-	494	5	-	27182
1991	1117	-	213		22178	12177	-	514	17	-	36216
1992	1093	151	387	1719	36238	19699	38	596	1	-	59922
1993	546	1215	1165	880	40978	35071	76	1802	646	-	82379
1994	2761	678	2412	770	71171	51822	22	4673	877	-	135186
1995	2833	598	2675	1097	76886	54516	14	3111	718	-	142448
1996	3743	6	942	1510	94527	74239	669	2275	217	-	178128
1997	3327	540	972	1877	103407	41228	364	2340	304	-	154359
1998	1903	241	385	854	75108	20559	257	1229	94	-	100630
1999	1913	64	641	437	48182	30520	652	694	92	-	83195
2000	631	178	880	432	42009	22738	502	747	827	-	68944
2001	1210	324	554	553	49067	34307	1497	1068	1060	-	89640
2002	1564	297	627	858	52247	37157	1505	1125	682	18736	114798

Year	Faroe Islands	France	Fed. Rep. Germany.	Greenland	Norway^	Russia**	Spain	United Kingdom	Others	Unreported catches***	Total
2003	1959	382	918	1363	56485	41142	1330	1018	1103	33226	138926
2004	2484	103	823	1680	62192	54347	54	1250	1569	33777	158279
2005	2138	333	996	15	60850	50012	963	1899	1262	40283	158751
2006	2390	883	989	1830	69272	53313	703	1164	1162	21451	153157
2007	2307	277	1123	1464	71244	66569	125	1351	2511	14553	161525
2008	2687	311	535	1659	72779	68792	283	971	1759	5828	155604
2009	2820	529	1957	1410	104354	85514	317	1315	1845	0	200061
2010	3173	764	3539	1970	123384	111372	379	1758	2862	0	249200
2011	1759	268	1724	2110	158202	139912	502	1379	3929	0	309785
2012	2055	322	1111	3984	159602	143886	441	833	3393	0	315627
2013	1886	342	500	1795	99215	85668	439	639	3260	0	193744
2014	1470	198	340	1150	91306	78725	187	355	3791	0	177522
2015	2459	145	124	1047	95094	91864	246	450	3327	0	194756
2016	2460	340	170	1401	108718	115710	200	575	3838	0	233416
2017	2776	108	170	1810	113132	106714	228	372	2279	0	227588
2018	2333	183	385	1317	93839	90486	169	453	2173	0	191276
2019	1515	143	204	1208	93860	76125	280	456	1611	0	175402
2020	1392	96	282	910	88108	89030	45	320	2286	0	182468
2021^	1722	105	365	1101	100673	98296	131	78	2272	0	204743
2022^	1831	164	268	1101	89044	82364	99	138	1897	0	176906
2023^	1993	235	296	672	91325	81751	139	112	2376	0	178899
2024*^	1637	188	645	180	71226	64423	47	152	1494	0	139992

* Provisional figures.

** USSR prior to 1991.

*** Figures based on Norwegian/Russian illegal, unreported, and unregulated fisheries (IUU) estimates.

^ In 2022-2025 assessment and advice was carried out by the Joint Russian-Norwegian working group on Arctic Fisheries (JRN-AFWG) which compiled catches for 2021-2024 and gave advice for 2023-2026.

Summary of the assessment

Table 8. Haddock in ICES subareas 1 and 2 (Northeast Arctic). Assessment summary. Low and high refer to 95% confidence bounds.

Year	Recruitment (thousands)			SSB (tonnes)			Total catch (tonnes)	F		
	Age 3	Low	High	SSB	Low	High		Ages 4–7	Low	High
1950	109205	69850	170733	213037	190711	237977	132125	0.794	0.673	0.936
1951	627326	417573	942440	124773	110703	140633	120077	0.683	0.576	0.81

Year	Recruitment (thousands)			SSB (tonnes)			Total catch (tonnes)	F		
	Age 3	Low	High	SSB	Low	High		Ages 4–7	Low	High
1952	83903	54178	129937	100853	88165	115368	127660	0.702	0.588	0.839
1953	1175428	784414	1761354	120273	104016	139071	123920	0.533	0.441	0.643
1954	130455	84294	201893	173161	147274	203599	156788	0.432	0.357	0.524
1955	58576	37390	91767	309089	264221	361577	202286	0.448	0.373	0.539
1956	221231	142492	343478	363732	310115	426617	213924	0.474	0.395	0.569
1957	60392	38608	94466	253141	217080	295193	123583	0.428	0.357	0.513
1958	73501	47508	113717	181369	157528	208818	112672	0.517	0.43	0.622
1959	382306	253852	575758	125449	109005	144374	88211	0.446	0.369	0.54
1960	312759	206179	474435	112805	99525	127858	154651	0.541	0.452	0.647
1961	141716	93577	214619	124378	110802	139617	193224	0.664	0.562	0.784
1962	288516	191930	433707	124539	110587	140251	187408	0.793	0.674	0.932
1963	310273	208224	462335	93925	82650	106737	146224	0.76	0.638	0.905
1964	349427	233167	523656	84228	74078	95769	99158	0.634	0.528	0.762
1965	125264	81812	191793	102863	89899	117696	118578	0.527	0.437	0.636
1966	308278	203489	467027	144655	126065	165986	161778	0.559	0.466	0.67
1967	336411	221609	510684	150640	130041	174503	136397	0.444	0.368	0.536
1968	18630	11587	29955	166970	144796	192540	181726	0.485	0.401	0.586
1969	20294	12601	32685	166741	143546	193685	130820	0.416	0.34	0.508
1970	204608	132949	314890	154465	131254	181780	88257	0.386	0.313	0.477
1971	110060	71679	168993	127035	107265	150449	78905	0.329	0.264	0.41
1972	1063159	699647	1615540	127920	111215	147135	266153	0.654	0.537	0.797
1973	309302	205800	464858	125158	107948	145113	322226	0.539	0.442	0.657
1974	64978	42349	99699	154044	134410	176547	221157	0.503	0.416	0.608
1975	58765	38294	90180	194620	166846	227016	175758	0.497	0.415	0.594
1976	59524	38039	93144	195464	167823	227657	137264	0.718	0.606	0.851
1977	120299	76136	190079	118892	100276	140964	110158	0.734	0.607	0.889
1978	211943	140914	318773	80839	67032	97489	95422	0.628	0.511	0.77
1979	159503	105599	240923	62230	52414	73885	103623	0.584	0.472	0.722
1980	23166	14478	37069	62493	53169	73453	87889	0.476	0.383	0.591
1981	10834	6488	18090	72359	61298	85417	77153	0.437	0.351	0.543
1982	16365	10014	26744	68355	56657	82469	46955	0.383	0.305	0.481
1983	8087	4722	13852	58470	48118	71048	24600	0.35	0.274	0.446
1984	13091	8028	21348	53097	43383	64986	20945	0.315	0.245	0.406
1985	357274	235746	541451	48966	40785	58788	45052	0.399	0.314	0.507
1986	476016	315391	718444	54557	46327	64250	100563	0.536	0.428	0.672

Year	Recruitment (thousands)			SSB (tonnes)			Total catch (tonnes)	F		
	Age 3	Low	High	SSB	Low	High		Ages 4–7	Low	High
1987	91595	59489	141030	77165	66019	90192	154916	0.63	0.508	0.782
1988	39726	25023	63068	79572	67080	94390	95255	0.512	0.411	0.637
1989	27985	17392	45031	84270	69583	102057	58518	0.371	0.295	0.467
1990	36259	23363	56275	86046	70288	105337	27182	0.212	0.167	0.27
1991	108038	76133	153312	100226	84341	119104	36216	0.24	0.191	0.3
1992	317123	226311	444375	110154	95331	127283	59922	0.296	0.239	0.366
1993	807521	590108	1105035	123904	109396	140336	82379	0.32	0.262	0.393
1994	388099	316581	475773	156808	140427	175100	135186	0.375	0.31	0.454
1995	99893	78807	126622	191602	171330	214274	142448	0.305	0.256	0.362
1996	99365	78795	125305	222898	199541	248989	178128	0.372	0.317	0.436
1997	119217	94787	149943	194388	173628	217630	154359	0.45	0.382	0.531
1998	63007	49253	80602	134234	119187	151181	100630	0.455	0.382	0.542
1999	146615	118401	181552	96981	86161	109160	83195	0.464	0.386	0.559
2000	82744	65532	104476	80889	71779	91156	68944	0.343	0.282	0.418
2001	357393	295558	432164	94278	84250	105501	89640	0.37	0.308	0.445
2002	385143	317862	466665	111802	99993	125005	114798	0.355	0.296	0.426
2003	333954	271890	410184	141057	126864	156837	138926	0.429	0.363	0.507
2004	256154	211388	310400	160281	144197	178159	158279	0.395	0.336	0.464
2005	354219	294011	426756	171410	154221	190516	158298	0.409	0.349	0.48
2006	153964	125825	188397	156157	140474	173591	153157	0.373	0.317	0.44
2007	510371	422347	616740	157546	142097	174675	161525	0.389	0.33	0.46
2008	1048496	877115	1253363	165470	148295	184636	155604	0.322	0.27	0.385
2009	979985	821372	1169226	185526	166520	206700	200061	0.269	0.226	0.321
2010	234126	192163	285253	249278	223638	277859	249200	0.254	0.216	0.3
2011	116753	93342	146037	361199	323994	402677	309785	0.266	0.228	0.311
2012	332647	274160	403611	480135	427624	539095	315627	0.229	0.195	0.268
2013	117381	94167	146318	526559	467084	593606	193744	0.153	0.129	0.182
2014	402425	333405	485733	526163	469932	589124	177522	0.158	0.132	0.189
2015	72042	56928	91169	503022	453702	557703	194756	0.192	0.161	0.229
2016	207043	168898	253803	494946	447283	547689	233183	0.264	0.223	0.312
2017	192788	157574	235870	415349	377738	456703	227588	0.355	0.301	0.417
2018	354062	290241	431917	305316	276968	336566	191276	0.412	0.351	0.484
2019	776087	645770	932701	232647	210882	256659	175402	0.45	0.38	0.531
2020	414649	342860	501469	191172	172921	211349	182468	0.479	0.406	0.566
2021	155855	125600	193399	174736	157928	193333	204743	0.496	0.422	0.584

Year	Recruitment (thousands)			SSB (tonnes)			Total catch (tonnes)	F		
	Age 3	Low	High	SSB	Low	High		Ages 4–7	Low	High
2022	45328	34673	59258	172599	153861	193620	176906	0.427	0.361	0.507
2023	166467	134426	206146	177438	156774	200825	178899	0.448	0.376	0.534
2024	427761	351365	520767	163226	140567	189539	139992	0.47	0.378	0.586
2025	532133	426734	663565	149209	120565	184657				

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