

Table 19. Estimated proportions mature for female cod from NAFO Divs. 3NO from DFO surveys from 1975 to 2012 projected forward to 2012 and back to 1954. Estimates were obtained from a probit model fitted by cohort to observed proportions mature at age. When the model did not fit the data for a particular cohort (i.e. 1991 and 2000 cohorts) the average of estimates for the same age group from adjacent years was used; dark shaded cells are averages extrapolated forward or backward from the same age group from 3 previous (or next) years.

Year	Age 1	Age2	Age 3	Age 4	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14
1954	0.0000	0.0004	0.0020	0.0112	0.0592	0.2424	0.5895	0.8856	0.9812	0.9972	0.9996	0.9999	1.0000	1.0000
1955	0.0001	0.0000	0.0020	0.0112	0.0592	0.2424	0.5895	0.8856	0.9812	0.9972	0.9996	0.9999	1.0000	1.0000
1956	0.0001	0.0003	0.0001	0.0112	0.0592	0.2424	0.5895	0.8856	0.9812	0.9972	0.9996	0.9999	1.0000	1.0000
1957	0.0003	0.0007	0.0018	0.0008	0.0592	0.2424	0.5895	0.8856	0.9812	0.9972	0.9996	0.9999	1.0000	1.0000
1958	0.0001	0.0016	0.0041	0.0102	0.0065	0.2424	0.5895	0.8856	0.9812	0.9972	0.9996	0.9999	1.0000	1.0000
1959	0.0000	0.0006	0.0079	0.0226	0.0555	0.0509	0.5895	0.8856	0.9812	0.9972	0.9996	0.9999	1.0000	1.0000
1960	0.0000	0.0000	0.0033	0.0393	0.1157	0.2512	0.3043	0.8856	0.9812	0.9972	0.9996	0.9999	1.0000	1.0000
1961	0.0002	0.0001	0.0001	0.0168	0.1731	0.4251	0.6572	0.7809	0.9812	0.9972	0.9996	0.9999	1.0000	1.0000
1962	0.0000	0.0012	0.0009	0.0012	0.0825	0.5172	0.8069	0.9164	0.9667	0.9972	0.9996	0.9999	1.0000	1.0000
1963	0.0000	0.0002	0.0056	0.0099	0.0229	0.3206	0.8458	0.9594	0.9843	0.9958	0.9996	0.9999	1.0000	1.0000
1964	0.0000	0.0000	0.0010	0.0266	0.1000	0.3219	0.7124	0.9656	0.9926	0.9972	0.9995	0.9999	1.0000	1.0000
1965	0.0014	0.0000	0.0000	0.0049	0.1162	0.5526	0.9057	0.9286	0.9931	0.9987	0.9995	0.9999	1.0000	1.0000
1966	0.0000	0.0043	0.0005	0.0006	0.0234	0.3875	0.9321	0.9949	0.9856	0.9986	0.9998	0.9999	1.0000	1.0000
1967	0.0000	0.0001	0.0132	0.0067	0.0097	0.1037	0.7527	0.9935	0.9997	0.9972	0.9997	1.0000	1.0000	1.0000
1968	0.0000	0.0000	0.0012	0.0398	0.0820	0.1450	0.3587	0.9361	0.9994	1.0000	0.9995	0.9999	1.0000	1.0000
1969	0.0000	0.0000	0.0003	0.0090	0.1144	0.5429	0.7457	0.7301	0.9860	0.9999	1.0000	0.9999	1.0000	1.0000
1970	0.0032	0.0000	0.0001	0.0029	0.0665	0.2866	0.9405	0.9807	0.9290	0.9971	1.0000	1.0000	1.0000	1.0000
1971	0.0000	0.0093	0.0000	0.0009	0.0275	0.3582	0.5555	0.9953	0.9989	0.9844	0.9994	1.0000	1.0000	1.0000
1972	0.0000	0.0002	0.0269	0.0000	0.0101	0.2176	0.8140	0.7954	0.9996	0.9999	0.9967	0.9999	1.0000	1.0000
1973	0.0001	0.0000	0.0013	0.0754	0.0038	0.1018	0.7320	0.9717	0.9236	1.0000	1.0000	0.9993	1.0000	1.0000
1974	0.0000	0.0006	0.0001	0.0083	0.1939	0.2928	0.5582	0.9641	0.9963	0.9741	1.0000	1.0000	0.9999	1.0000
1975	0.0000	0.0003	0.0033	0.0017	0.0530	0.4148	0.9780	0.9337	0.9962	0.9995	0.9915	1.0000	1.0000	1.0000
1976	0.0000	0.0001	0.0020	0.0186	0.0221	0.2715	0.6763	0.9998	0.9937	0.9996	0.9999	0.9973	1.0000	1.0000
1977	0.0006	0.0001	0.0009	0.0142	0.0978	0.2269	0.7128	0.8603	1.0000	0.9994	1.0000	1.0000	0.9991	1.0000
1978	0.0001	0.0029	0.0014	0.0083	0.0935	0.3823	0.7922	0.9429	0.9478	1.0000	0.9999	1.0000	1.0000	0.9997
1979	0.0000	0.0005	0.0145	0.0133	0.0733	0.4248	0.7794	0.9802	0.9910	0.9817	1.0000	1.0000	1.0000	1.0000
1980	0.0002	0.0002	0.0034	0.0695	0.1140	0.4292	0.8410	0.9528	0.9984	0.9986	0.9937	1.0000	1.0000	1.0000
1981	0.0000	0.0007	0.0020	0.0236	0.2749	0.5518	0.8773	0.9743	0.9914	0.9999	0.9998	0.9979	1.0000	1.0000
1982	0.0000	0.0000	0.0035	0.0162	0.1460	0.6579	0.9218	0.9855	0.9963	0.9985	1.0000	1.0000	0.9993	1.0000
1983	0.0000	0.0001	0.0003	0.0163	0.1219	0.5474	0.9070	0.9912	0.9985	0.9995	0.9997	1.0000	1.0000	0.9998
1984	0.0000	0.0003	0.0008	0.0028	0.0726	0.5389	0.8953	0.9802	0.9991	0.9998	0.9999	1.0000	1.0000	1.0000
1985	0.0002	0.0002	0.0019	0.0058	0.0261	0.2703	0.9078	0.9837	0.9960	0.9999	1.0000	1.0000	1.0000	1.0000
1986	0.0000	0.0010	0.0021	0.0134	0.0409	0.2049	0.6369	0.9881	0.9977	0.9992	1.0000	1.0000	1.0000	1.0000
1987	0.0001	0.0000	0.0058	0.0194	0.0869	0.2358	0.7128	0.8925	0.9986	0.9997	0.9998	1.0000	1.0000	1.0000
1988	0.0011	0.0006	0.0002	0.0335	0.1570	0.3994	0.6908	0.9598	0.9752	0.9998	1.0000	1.0000	1.0000	1.0000
1989	0.0001	0.0043	0.0047	0.0031	0.1702	0.6371	0.8229	0.9418	0.9957	0.9947	1.0000	1.0000	1.0000	1.0000
1990	0.0000	0.0011	0.0170	0.0377	0.0441	0.5486	0.9431	0.9701	0.9915	0.9995	0.9989	1.0000	1.0000	1.0000
1991	0.0000	0.0000	0.0079	0.0645	0.2438	0.4047	0.8780	0.9936	0.9956	0.9988	1.0000	0.9998	1.0000	1.0000
1992	0.0000	0.0000	0.0004	0.0557	0.2155	0.7265	0.9092	0.9771	0.9993	0.9994	0.9998	1.0000	0.9999	1.0000
1993	0.0001	0.0004	0.0002	0.0121	0.3045	0.5225	0.9563	0.9933	0.9961	0.9999	0.9999	1.0000	1.0000	1.0000
1994	0.0004	0.0008	0.0040	0.0153	0.2825	0.7646	0.8134	0.9945	0.9995	0.9993	1.0000	1.0000	1.0000	1.0000
1995	0.0002	0.0030	0.0078	0.0418	0.5844	0.9266	0.9602	0.9455	0.9993	1.0000	0.9999	1.0000	1.0000	1.0000
1996	0.0004	0.0014	0.0229	0.0683	0.4952	0.9922	0.9975	0.9944	0.9857	0.9999	1.0000	1.0000	1.0000	1.0000
1997	0.0000	0.0026	0.0130	0.1536	0.4059	0.9282	0.9999	0.9999	0.9992	0.9964	1.0000	1.0000	1.0000	1.0000
1998	0.0000	0.0001	0.0170	0.1076	0.5837	0.8642	0.9917	1.0000	1.0000	0.9999	0.9991	1.0000	1.0000	1.0000
1999	0.0000	0.0000	0.0009	0.1035	0.5240	0.9155	0.9834	0.9991	1.0000	1.0000	1.0000	0.9998	1.0000	1.0000
2000	0.0000	0.0003	0.0011	0.0135	0.4356	0.9095	0.9882	0.9982	0.9999	1.0000	1.0000	1.0000	0.9999	1.0000
2001	0.0006	0.0002	0.0066	0.0278	0.1676	0.8377	0.9892	0.9985	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
2002	0.0011	0.0029	0.0067	0.1366	0.4280	0.7473	0.9718	0.9988	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
2003	0.0006	0.0055	0.0163	0.1598	0.7908	0.9514	0.9775	0.9957	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
2004	0.0024	0.0028	0.0259	0.1370	0.8429	0.9891	0.9981	0.9984	0.9994	1.0000	1.0000	1.0000	1.0000	1.0000
2005	0.0025	0.0110	0.0132	0.1143	0.6138	0.9934	0.9995	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000
2006	0.0001	0.0094	0.0484	0.0589	0.3846	0.8726	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2007	0.0008	0.0007	0.0344	0.1889	0.2269	0.7518	0.9680	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2008	0.0012	0.0037	0.0039	0.1179	0.5160	0.5793	0.9362	0.9931	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2009	0.0004	0.0045	0.0159	0.0202	0.3343	0.8299	0.8660	0.9861	0.9986	1.0000	1.0000	1.0000	1.0000	1.0000
2010	0.0000	0.0026	0.0162	0.0663	0.0991	0.6534	0.9571	0.9681	0.9971	0.9997	1.0000	1.0000	1.0000	1.0000
2011	0.0014	0.0000	0.0165	0.0564	0.2381	0.3696	0.8762	0.9903	0.9930	0.9994	0.9999	1.0000	1.0000	1.0000
2012	0.0006	0.0062	0.0005	0.0982	0.1786	0.5791	0.7575	0.9637	0.9979	0.9985	0.9999	1.0000	1.0000	1.0000
2013	0.0007	0.0036	0.0268	0.0212	0.4136	0.4415	0.8583	0.9433	0.9901	0.9995	0.9997	1.0000	1.0000	1.0000
2014	0.0007	0.0033	0.0203	0.1076	0.5010	0.8204	0.7419	0.9638	0.9888	0.9973	0.9999	0.9999	1.0000	1.0000
2015	0.0007	0.0033	0.0158	0.1061	0.3455	0.9789	0.9673	0.9127	0.9915	0.9979	0.9993	1.0000	1.0000	1.0000
2016	0.0007	0.0033	0.0158	0.0783	0.4052	0.6980	0.9995	0.9948	0.9744	0.9981	0.9996	0.9998	1.0000	1.0000
2017	0.0007	0.0033	0.0158	0.0783	0.4172	0.7962	0.9101	1.0000	0.9992	0.9928	0.9996	0.9999	0.9999	1.0000
2018	0.0007	0.0033	0.0158	0.0783	0.4172	0.8244	0.9573	0.9779	1.0000	0.9999	0.9980	0.9999	1.0000	1.0000