

Table 18. Estimated proportions mature for female cod from NAFO Div. 2J3KL from DFO RV autumn bottom trawl surveys projected forward to 2018 and back to 1958. Estimates were obtained from a cohort-specific binomial logistic regression model fitted to observed proportions mature at age. * are averages of the first or last three estimates extrapolated back or forward. † are the average of adjacent estimates for the same age group.

Year	Age 1	Age 2	Age 3	Age 4	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14
1958	0.000	0.000*	0.000*	0.001*	0.011*	0.158*	0.763*	0.987*	0.999*	1.000*	1.000*	1.000*	1.000*	1.000*
1959	0.000	0.000	0.000*	0.001*	0.011*	0.158*	0.763*	0.987*	0.999*	1.000*	1.000*	1.000*	1.000*	1.000*
1960	0.000	0.000	0.000	0.001*	0.011*	0.158*	0.763*	0.987*	0.999*	1.000*	1.000*	1.000*	1.000*	1.000*
1961	0.000	0.000	0.000	0.000	0.011*	0.158*	0.763*	0.987*	0.999*	1.000*	1.000*	1.000*	1.000*	1.000*
1962	0.000†	0.000	0.000	0.001	0.001	0.158*	0.763*	0.987*	0.999*	1.000*	1.000*	1.000*	1.000*	1.000*
1963	0.000	0.000†	0.000	0.001	0.013	0.040	0.763*	0.987*	0.999*	1.000*	1.000*	1.000*	1.000*	1.000*
1964	0.000†	0.000	0.001†	0.003	0.020	0.186	0.649	0.987*	0.999*	1.000*	1.000*	1.000*	1.000*	1.000*
1965	0.000	0.001†	0.003	0.010†	0.040	0.247	0.799	0.988	0.999*	1.000*	1.000*	1.000*	1.000*	1.000*
1966	0.000	0.002	0.00†5	0.016	0.066†	0.335	0.842	0.986	1.000	1.000*	1.000*	1.000*	1.000*	1.000*
1967	0.000	0.000	0.008	0.027†	0.092	0.360†	0.858	0.989	0.999	1.000	1.000*	1.000*	1.000*	1.000*
1968	0.000	0.000	0.001	0.039	0.129†	0.385	0.826†	0.986	0.999	1.000	1.000	1.000*	1.000*	1.000*
1969	0.000†	0.000	0.000	0.009	0.166	0.440†	0.795	0.973†	0.999	1.000	1.000	1.000	1.000*	1.000*
1970	0.000	0.001†	0.000	0.004	0.066	0.496	0.812†	0.960	0.996†	1.000	1.000	1.000	1.000	1.000*
1971	0.009†	0.001	0.003†	0.000	0.045	0.364	0.829	0.960†	0.993	0.999†	1.000	1.000	1.000	1.000
1972	0.017	0.022†	0.007	0.019†	0.008	0.368	0.823	0.960	0.992†	0.999	1.000†	1.000	1.000	1.000
1973	0.000	0.042	0.054†	0.037	0.092†	0.200	0.879	0.974	0.992	0.999†	1.000	1.000†	1.000	1.000
1974	0.000	0.000	0.101	0.130†	0.176	0.372†	0.880	0.989	0.997	0.998	1.000†	1.000	1.000†	1.000
1975	0.000	0.000	0.000	0.222	0.299†	0.543	0.874†	0.995	0.999	1.000	1.000	1.000†	1.000	1.000†
1976	0.000	0.001	0.002	0.004	0.422	0.597†	0.868	0.984†	1.000	1.000	1.000	1.000	1.000†	1.000
1977	0.000	0.001	0.005	0.015	0.043	0.650	0.847†	0.973	0.997†	1.000	1.000	1.000	1.000	1.000†
1978	0.000	0.000	0.005	0.028	0.114	0.355	0.826	0.949†	0.995	1.000†	1.000	1.000	1.000	1.000
1979	0.000	0.000	0.002	0.031	0.140	0.519	0.871	0.924	0.982†	0.999	1.000†	1.000	1.000	1.000
1980	0.000	0.000	0.000	0.017	0.166	0.475	0.901	0.988	0.969	0.993†	1.000	1.000†	1.000	1.000
1981	0.000	0.000	0.000	0.003	0.113	0.553	0.834	0.987	0.999	0.987	0.997†	1.000	1.000†	1.000
1982	0.000	0.001	0.002	0.004	0.044	0.479	0.885	0.965	0.998	1.000	0.995	0.999†	1.000	1.000†
1983	0.000	0.000	0.005	0.019	0.059	0.398	0.869	0.980	0.994	1.000	1.000	0.998	1.000†	1.000
1984	0.000	0.000	0.000	0.024	0.142	0.481	0.905	0.980	0.997	0.999	1.000	1.000	0.999	1.000†
1985	0.000	0.000	0.000	0.005	0.111	0.590	0.932	0.993	0.997	0.999	1.000	1.000	1.000	1.000†
1986	0.000	0.000	0.001	0.003	0.053	0.389	0.926	0.995	1.000	1.000	1.000	1.000	1.000	1.000

Year	Age 1	Age 2	Age 3	Age 4	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14
1987	0.000	0.000	0.001	0.014	0.039	0.411	0.763	0.991	1.000	1.000	1.000	1.000	1.000	1.000
1988	0.000	0.000	0.002	0.013	0.122	0.380	0.897	0.942	0.999	1.000	1.000	1.000	1.000	1.000
1989	0.000	0.000	0.002	0.015	0.115	0.580	0.901	0.991	0.988	1.000	1.000	1.000	1.000	1.000
1990	0.000	0.000	0.001	0.017	0.098	0.569	0.932	0.993	0.999	0.998	1.000	1.000	1.000	1.000
1991	0.000	0.000	0.000	0.018	0.130	0.434	0.931	0.993	1.000	1.000	1.000	1.000	1.000	1.000
1992	0.002	0.001	0.001	0.013	0.250	0.567	0.844	0.993	0.999	1.000	1.000	1.000	1.000	1.000
1993	0.000	0.008	0.009	0.037	0.276	0.859	0.920	0.975	0.999	1.000	1.000	1.000	1.000	1.000
1994	0.000	0.000	0.029	0.071	0.511	0.916	0.991	0.990	0.996	1.000	1.000	1.000	1.000	1.000
1995	0.000	0.000	0.003	0.098	0.404	0.966	0.997	1.000	0.999	0.999	1.000	1.000	1.000	1.000
1996	0.002	0.001	0.002	0.034	0.282	0.858	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	0.001	0.008	0.008	0.029	0.294	0.588	0.982	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	0.000	0.003	0.030	0.076	0.311	0.834	0.838	0.998	1.000	1.000	1.000	1.000	1.000	1.000
1999	0.000	0.000	0.014	0.109	0.464	0.872	0.984	0.949	1.000	1.000	1.000	1.000	1.000	1.000
2000	0.000	0.000	0.004	0.067	0.325	0.900	0.990	0.999	0.985	1.000	1.000	1.000	1.000	1.000
2001	0.001	0.001	0.001	0.040	0.263	0.654	0.990	0.999	1.000	0.996	1.000	1.000	1.000	1.000
2002	0.000	0.005	0.010	0.028	0.325	0.640	0.881	0.999	1.000	1.000	0.999	1.000	1.000	1.000
2003	0.000	0.001	0.026	0.080	0.380	0.849	0.898	0.967	1.000	1.000	1.000	1.000	1.000	1.000
2004	0.000	0.001	0.008	0.112	0.425	0.928	0.985	0.978	0.991	1.000	1.000	1.000	1.000	1.000
2005	0.001	0.003	0.007	0.056	0.380	0.863	0.996	0.999	0.995	0.998	1.000	1.000	1.000	1.000
2006	0.000	0.004	0.019	0.089	0.315	0.748	0.982	1.000	1.000	0.999	0.999	1.000	1.000	1.000
2007	0.001	0.001	0.023	0.118	0.560	0.782	0.935	0.998	1.000	1.000	1.000	1.000	1.000	1.000
2008	0.000	0.003	0.006	0.109	0.487	0.943	0.965	0.986	1.000	1.000	1.000	1.000	1.000	1.000
2009	0.000	0.002	0.015	0.045	0.389	0.871	0.995	0.995	0.997	1.000	1.000	1.000	1.000	1.000
2010	0.002	0.003	0.013	0.077	0.268	0.768	0.979	1.000	0.999	0.999	1.000	1.000	1.000	1.000
2011	0.000	0.009	0.017	0.086	0.314	0.739	0.945	0.997	1.000	1.000	1.000	1.000	1.000	1.000
2012	0.001*	0.001	0.047	0.103	0.404	0.714	0.956	0.989	1.000	1.000	1.000	1.000	1.000	1.000
2013	0.001*	0.004*	0.006	0.201	0.424	0.830	0.932	0.994	0.998	1.000	1.000	1.000	1.000	1.000
2014	0.001*	0.004*	0.023*	0.036	0.563	0.826	0.972	0.987	0.999	1.000	1.000	1.000	1.000	1.000
2015	0.001*	0.004*	0.023*	0.113*	0.184	0.869	0.968	0.996	0.998	1.000	1.000	1.000	1.000	1.000
2016	0.001*	0.004*	0.023*	0.113*	0.391*	0.576	0.971	0.995	0.999	1.000	1.000	1.000	1.000	1.000
2017	0.001*	0.004*	0.023*	0.113*	0.391*	0.757*	0.891	0.994	0.999	1.000	1.000	1.000	1.000	1.000
2018	0.001*	0.004*	0.023*	0.113*	0.391*	0.757*	0.944*	0.980	0.999	1.000	1.000	1.000	1.000	1.000