

## REQUEST 1 DAY 3

**Table 1.** Time series of median posterior population estimates from the model with stochastic recruitment in the projection year.

Year	Female spawning biomass (kt)	Relative spawning biomass (%)	Total biomass (kt)	Age-2+ biomass (kt)	Age-0 recruits (millions)	Relative fishing intensity (%)	Exploitation fraction (%)
1966	940	53.4	2,344	2,132	1,656	48.8	6.5
1967	956	54.3	2,468	2,207	4,790	65.6	9.7
1968	965	54.9	2,638	2,207	3,125	47.4	5.5
1969	1,101	62.8	2,998	2,741	696	58.0	6.6
1970	1,267	72.2	3,273	3,017	9,382	63.4	7.8
1971	1,301	74.3	3,494	2,788	833	47.0	5.5
1972	1,479	84.6	3,977	3,901	541	35.5	3.0
1973	1,757	100.3	4,092	3,933	6,183	39.0	4.1
1974	1,701	96.9	3,978	3,523	344	45.6	6.0
1975	1,468	83.8	3,448	3,403	1,890	55.8	6.5
1976	2,116	120.6	4,659	4,507	200	43.2	5.3
1977	2,041	116.1	4,526	4,356	6,744	28.7	3.0
1978	1,690	96.1	3,985	3,435	132	28.0	3.0
1979	1,824	103.6	4,471	4,437	1,388	32.3	3.1
1980	1,729	98.0	4,136	3,722	17,419	25.6	2.4
1981	1,658	93.8	4,645	3,395	272	37.3	4.1
1982	1,794	101.7	5,080	5,062	318	32.0	2.1
1983	2,302	130.7	5,195	5,170	537	26.7	2.2
1984	2,323	131.7	5,079	4,795	14,169	29.4	2.9
1985	2,328	132.0	5,776	4,650	130	23.4	2.4
1986	2,344	132.7	6,114	6,101	180	34.3	3.5
1987	2,409	135.8	5,434	5,301	6,653	38.6	4.4
1988	2,381	133.9	5,378	4,849	2,121	40.8	5.1
1989	2,066	116.3	4,875	4,727	111	49.0	6.3
1990	2,039	115.0	4,592	4,497	4,315	40.9	5.8
1991	1,852	104.5	4,167	3,811	1,237	59.6	8.4
1992	1,685	95.1	3,914	3,810	124	57.9	7.9
1993	1,319	74.4	2,949	2,883	3,156	46.9	6.9
1994	1,273	71.9	2,923	2,615	3,344	59.9	13.9
1995	1,131	63.9	2,886	2,578	1,250	51.7	9.7
1996	1,095	61.8	2,775	2,646	1,809	63.7	11.6
1997	1,089	61.4	2,594	2,438	1,083	68.2	13.3
1998	908	51.2	2,150	2,033	1,938	81.6	15.8
1999	781	44.1	2,078	1,721	12,697	92.1	18.1
2000	906	51.1	3,145	2,008	309	65.5	11.4
2001	1,332	75.4	4,276	4,215	1,228	67.3	5.4
2002	1,901	107.5	4,509	4,388	32	48.0	4.1
2003	1,778	100.5	3,777	3,734	1,659	42.8	5.5
2004	1,447	81.7	3,073	2,925	56	69.2	11.7
2005	1,148	64.8	2,505	2,451	2,764	67.1	14.8
2006	912	51.6	2,119	1,893	1,996	86.0	19.1
2007	717	40.6	1,762	1,646	24	86.4	17.7
2008	644	36.5	1,804	1,718	5,400	96.2	18.8
2009	601	34.1	1,622	1,274	1,298	80.5	14.0
2010	720	40.8	2,132	1,791	15,067	90.1	12.7
2011	715	40.5	2,710	1,731	415	89.2	16.6
2012	884	50.3	3,579	3,518	1,475	74.0	5.9
2013	1,618	92.1	4,066	3,937	350	69.5	7.3

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Year	Female spawning biomass (kt)	Relative spawning biomass (%)	Total biomass (kt)	Age-2+ biomass (kt)	Age-0 recruits (millions)	Relative fishing intensity (%)	Exploitation fraction (%)
2014	1,881	107.0	4,189	3,993	7,659	64.8	7.5
2015	1,376	78.2	3,297	2,763	30	48.0	7.0
2016	1,116	63.5	3,308	3,207	5,056	79.2	10.4
2017	1,512	86.0	3,631	3,161	1,342	84.3	13.9
2018	1,589	90.6	3,837	3,694	166	77.3	11.2
2019	1,287	73.3	3,054	3,037	188	85.9	13.6
2020	1,186	67.7	2,532	2,434	3,507	68.6	15.6
2021	952	54.2	2,391	1,899	7,411	70.3	17.2
2022	943	53.6	2,808	2,194	180	73.1	14.7
2023	1,153	65.1	3,263	2,996	5,024	65.0	8.8
2024	1,264	71.3	3,723	3,001	898	58.8	5.7
2025	1,615	90.1	4,127	3,849	907	-	-

**Table 2.** Time series of median posterior population estimates from the model with no additional variance on the survey.

Year	Female spawning biomass (kt)	Relative spawning biomass (%)	Total biomass (kt)	Age-2+ biomass (kt)	Age-0 recruits (millions)	Relative fishing intensity (%)	Exploitation fraction (%)
1966	1,055	56.1	2,642	2,387	2,004	43.6	5.8
1967	1,072	57.4	2,799	2,485	5,601	59.5	8.6
1968	1,099	58.9	3,027	2,534	3,818	41.7	4.8
1969	1,260	67.8	3,449	3,137	809	51.4	5.7
1970	1,454	78.4	3,785	3,481	11,381	56.3	6.7
1971	1,507	80.8	4,067	3,225	1,002	40.8	4.8
1972	1,719	91.9	4,640	4,541	656	30.3	2.6
1973	2,039	109.1	4,771	4,578	7,400	33.5	3.6
1974	1,973	105.5	4,644	4,087	418	39.3	5.2
1975	1,709	91.3	4,026	3,975	2,242	48.5	5.6
1976	2,476	131.6	5,457	5,279	244	37.0	4.5
1977	2,385	126.7	5,282	5,083	7,968	24.2	2.6
1978	1,961	104.3	4,637	3,984	159	23.6	2.6
1979	2,107	112.0	5,170	5,125	1,630	27.5	2.7
1980	1,984	105.6	4,756	4,275	20,234	21.7	2.1
1981	1,895	100.3	5,317	3,881	326	32.1	3.6
1982	2,041	108.4	5,783	5,758	371	27.4	1.9
1983	2,601	138.3	5,871	5,844	638	23.0	1.9
1984	2,606	138.5	5,707	5,384	16,173	25.6	2.6
1985	2,598	137.9	6,460	5,185	154	20.2	2.1
1986	2,601	137.9	6,776	6,763	215	30.3	3.1
1987	2,652	140.8	5,991	5,839	7,571	34.4	4.0
1988	2,610	138.4	5,926	5,318	2,487	36.5	4.7
1989	2,263	119.9	5,371	5,199	134	44.0	5.7
1990	2,242	118.6	5,065	4,960	4,825	36.7	5.3
1991	2,034	107.6	4,584	4,187	1,364	53.3	7.6
1992	1,850	97.8	4,303	4,186	160	52.1	7.2
1993	1,447	76.4	3,245	3,159	4,027	42.2	6.3
1994	1,392	73.6	3,244	2,859	3,970	54.7	12.7
1995	1,261	66.7	3,277	2,913	1,574	46.8	8.6
1996	1,250	66.2	3,191	3,035	2,001	57.5	10.1
1997	1,265	67.1	3,010	2,840	1,008	61.0	11.4
1998	1,068	56.5	2,490	2,378	1,972	72.6	13.5
1999	918	48.7	2,375	1,993	14,004	83.9	15.6
2000	1,045	55.4	3,527	2,280	393	58.1	10.0
2001	1,485	78.4	4,707	4,635	1,387	61.5	4.9
2002	2,078	109.8	4,928	4,789	38	43.1	3.8

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Year	Female spawning biomass (kt)	Relative spawning biomass (%)	Total biomass (kt)	Age-2+ biomass (kt)	Age-0 recruits (millions)	Relative fishing intensity (%)	Exploitation fraction (%)
2003	1,928	101.8	4,103	4,053	2,001	37.9	5.1
2004	1,562	82.5	3,331	3,159	70	63.3	10.8
2005	1,246	65.9	2,742	2,676	3,345	61.6	13.6
2006	1,003	53.0	2,357	2,085	2,217	79.2	17.3
2007	808	42.8	1,996	1,870	27	79.0	15.6
2008	742	39.3	2,059	1,971	5,450	88.4	16.4
2009	703	37.2	1,836	1,488	1,377	72.3	12.0
2010	810	42.9	2,333	1,968	16,201	82.4	11.6
2011	783	41.4	2,911	1,868	450	84.3	15.4
2012	950	50.3	3,806	3,744	1,585	68.9	5.5
2013	1,709	90.3	4,286	4,150	342	63.1	6.9
2014	1,973	104.3	4,385	4,181	7,949	61.1	7.2
2015	1,431	75.6	3,419	2,873	35	45.2	6.7
2016	1,151	60.8	3,397	3,290	5,368	76.7	10.1
2017	1,540	81.3	3,714	3,217	1,384	81.2	13.7
2018	1,618	85.3	3,918	3,771	154	74.7	11.0
2019	1,305	68.9	3,100	3,085	117	83.5	13.3
2020	1,197	63.1	2,528	2,457	2,653	66.4	15.4
2021	943	49.8	2,255	1,887	6,270	70.3	17.3
2022	862	45.5	2,446	1,942	134	76.9	16.7
2023	961	50.7	2,523	2,484	969	70.1	10.6
2024	993	52.3	2,479	2,377	972	67.3	7.2
2025	1,012	53.1	2,252	2,152	973	-	-