WHAM output tables

Table 1. Parameter estimates, standard errors, and confidence intervals. Rounded to 3 decimal places.

	Estimate	Std. Error	95% CI lower	95% CI upper
Index 1 fully selected q	0.003	0.000	0.002	0.004
Index 2 fully selected q	0.000	0.000	0.000	0.000
Index 3 fully selected q	0.000	0.000	0.000	0.000
Block 1: Mean Selectivity for age 1	0.112	0.022	0.075	0.163
Block 1: Mean Selectivity for age 2	0.379	0.059	0.272	0.499
Block 1: Mean Selectivity for age 3	0.650	0.071	0.501	0.774
Block 1: Mean Selectivity for age 4	0.698	0.066	0.556	0.810
Block 1: Mean Selectivity for age 5	0.688	0.068	0.543	0.803
Block 1: Mean Selectivity for age 6	1.000	—	—	—
Block 1: Mean Selectivity for age 7	1.000	—	—	—
Block 1: Mean Selectivity for age 8	1.000	—	—	—
Block 1: Mean Selectivity for age 9	1.000	—	—	—
Block 1: Mean Selectivity for age 10+	1.000	—	—	—
Block 2: Selectivity for age 1	1.000	—	—	—
Block 2: Selectivity for age 2	1.000	—	—	—
Block 2: Selectivity for age 3	1.000	—	—	—
Block 2: Selectivity for age 4	1.000	—	—	—
Block 2: Selectivity for age 5	1.000	—	—	—
Block 2: Selectivity for age 6	1.000	—	—	—
Block 2: Selectivity for age 7	1.000	—	—	—
Block 2: Selectivity for age 8	1.000	—	—	—
Block 2: Selectivity for age 9	1.000	—	—	—

Table 1. Parameter estimates, standard errors, and confidence intervals. Rounded to 3 decimal places. *(continued)*

	Estimate	Std. Error	95% CI lower	95% CI upper
Block 2: Selectivity for age 10+	1.000	—	—	—
Block 3: Selectivity for age 1	0.000	—	—	—
Block 3: Selectivity for age 2	0.000	—	—	—
Block 3: Selectivity for age 3	1.000	—	—	—
Block 3: Selectivity for age 4	0.469	0.208	0.147	0.819
Block 3: Selectivity for age 5	0.203	0.092	0.078	0.436
Block 3: Selectivity for age 6	0.191	0.068	0.090	0.358
Block 3: Selectivity for age 7	0.000	—	—	—
Block 3: Selectivity for age 8	0.000	—	—	—
Block 3: Selectivity for age 9	0.000	—	—	—
Block 3: Selectivity for age 10+	0.000	—	—	—
Block 4: Selectivity for age 1	0.000	—	—	—
Block 4: Selectivity for age 2	0.000	—	—	—
Block 4: Selectivity for age 3	1.000	—	—	—
Block 4: Selectivity for age 4	0.701	0.183	0.298	0.928
Block 4: Selectivity for age 5	0.443	0.112	0.247	0.659
Block 4: Selectivity for age 6	0.389	0.076	0.253	0.544
Block 4: Selectivity for age 7	0.000	—	—	—
Block 4: Selectivity for age 8	0.000	—	—	—
Block 4: Selectivity for age 9	0.000	—	—	—
Block 4: Selectivity for age 10+	0.000	—	—	—
Block 1: Selectivity RE σ	0.000	0.293	0.000	Inf

Table 1. Parameter estimates, standard errors, and confidence intervals. Rounded to 3 decimal places. *(continued)*

	Estimate	Std. Error	95% CI lower	95% CI upper
Block 1: Selectivity RE AR1 ρ (age)	1.000	0.000	-1.000	1.000
Block 1: Selectivity RE AR1 ρ (year)	0.285	0.197	-0.127	0.613
Fleet 1 age comp, logistic-normal: σ	22.648	0.799	21.135	24.271
Index 2 age comp, logistic-normal: σ	38.395	4.999	29.748	49.556
Index 3 age comp, logistic-normal: σ	34.998	2.944	29.678	41.272

Table 2. Abundance at age (1000s).

	1	2	3	4	5	6	7	8	9	10+
1968	4145490	1849934	386180	100270	58433	46565	34738	13673	91274	997
1969	2133150	3283673	1381036	276476	71344	41630	32082	23933	9420	63572
1970	2700966	1713339	2501769	984604	194451	50327	26474	20401	15220	46417
1971	949368	2114884	1232667	1688741	658212	130258	31942	16803	12949	39121
1972	766754	742543	1467499	744651	993099	389345	63654	15610	8211	25445
1973	945210	605115	526133	894324	438974	589754	174172	28476	6983	15056
1974	1398400	672830	347889	266152	444549	219006	268888	79411	12983	10048
1975	1389554	978851	367171	162580	121725	204238	89929	110411	32608	9457
1976	175277	866281	472111	159641	69826	52412	83018	36554	44880	17098
1977	37634	119480	407694	164488	53040	23434	13390	21210	9339	15835
1978	19392	26998	74081	236613	94691	30585	12996	7426	11763	13961
1979	87465	15693	21076	54709	172458	69220	19685	8365	4780	16557
1980	21766	68754	11453	14580	37548	118560	45560	12957	5506	14043
1981	81333	17144	50845	8135	10298	26551	81377	31271	8893	13418
1982	271758	59178	11555	33430	5334	6756	17204	52728	20262	14457
1983	2400633	208815	41238	7591	21784	3482	4229	10770	33009	21735
1984	62209	1875202	151737	28688	5249	15083	2338	2839	7231	36753
1985	145140	50280	1454843	110154	20488	3762	9103	1411	1714	26544
1986	88853	115663	37617	1023226	76640	14288	2450	5928	919	18403
1987	86207	70331	85342	26166	705027	52914	9334	1601	3872	12622
1988	363501	66595	48736	54565	16528	446475	31334	5527	948	9767
1989	532722	286799	47825	31540	34626	10533	248690	17453	3079	5968
1990	107142	425590	212430	31540	20238	22354	5223	123319	8655	4486
1991	198489	81370	271692	114710	16544	10682	9834	2298	54249	5781
1992	196071	151611	53371	155386	64122	9293	5226	4812	1124	29372
1993	46176	156466	111377	34119	95904	39891	3905	2196	2022	12815
1994	142782	37018	116846	72999	21582	61159	15715	1538	865	5845
1995	88630	112369	26023	70645	42738	12726	27792	7141	699	3049
1996	314128	67907	75617	15825	42292	25671	6996	15279	3926	2061
1997	116867	230253	40004	37488	7637	20528	10699	2916	6368	2495
1998	45036	88343	141946	19649	17638	3627	7245	3776	1029	3128

Table 2. Abundance at age (1000s). *(continued)*

	1	2	3	4	5	6	7	8	9	10+
1999	146301	33781	53657	69484	9253	8375	1339	2674	1394	1534
2000	1719966	109289	19627	22796	27697	3740	2091	334	667	731
2001	101053	1353152	74350	9681	10147	12630	101	56	9	38
2002	69802	81042	1011143	48586	6094	6442	4623	37	21	17
2003	206733	56086	61007	669355	30993	3921	2248	1613	13	13
2004	541738	153943	36604	37035	402477	18673	2251	1291	926	15
2005	188907	423113	102257	17817	16514	183117	2238	270	155	113
2006	592948	149780	300418	58707	9633	9053	39964	488	59	58
2007	111561	410531	69016	90871	16456	2745	1567	6918	85	20
2008	225417	73724	193644	26440	33822	6162	885	505	2231	34
2009	169471	160175	38318	75806	9870	12755	1742	250	143	640
2010	63353	105242	55851	8208	15010	1987	1622	222	32	100
2011	132612	27310	21320	7895	1109	2047	218	178	24	14
2012	118419	91483	11057	3757	1140	168	43	5	4	1
2013	56451	78270	36831	2756	862	266	23	6	1	1
2014	75844	40169	37597	10654	717	230	31	3	1	0
2015	144703	54361	20212	12436	3244	222	39	5	0	0
2016	255820	107986	29823	6410	3411	920	10	2	0	0
2017	30736	189778	60987	11933	2389	1291	202	2	0	0
2018	113082	23425	114553	24706	4364	894	148	23	0	0
2019	71678	83880	13262	46358	9339	1674	205	34	5	0
2020	86649	53060	48051	5720	18951	3862	479	59	10	2
2021	95699	59400	26072	18436	2114	7060	1170	145	18	3
2022	414363	68717	33358	12200	8393	968	2776	460	57	8

Table 3. Total fishing mortality at age.

	1	2	3	4	5	6	7	8	9	10+
1968	0.033	0.092	0.134	0.140	0.139	0.173	0.173	0.173	0.173	0.173
1969	0.019	0.072	0.138	0.152	0.149	0.253	0.253	0.253	0.253	0.253
1970	0.045	0.129	0.193	0.203	0.201	0.255	0.255	0.255	0.255	0.255

Table 3. Total fishing mortality at age. *(continued)*

	1	2	3	4	5	6	7	8	9	10+
1971	0.046	0.165	0.304	0.331	0.325	0.516	0.516	0.516	0.516	0.516
1972	0.037	0.145	0.295	0.328	0.321	0.604	0.604	0.604	0.604	0.604
1973	0.140	0.354	0.481	0.499	0.495	0.585	0.585	0.585	0.585	0.585
1974	0.157	0.406	0.561	0.582	0.578	0.690	0.690	0.690	0.690	0.690
1975	0.273	0.529	0.633	0.645	0.643	0.700	0.700	0.700	0.700	0.700
1976	0.183	0.554	0.854	0.902	0.892	1.165	1.165	1.165	1.165	1.165
1977	0.132	0.278	0.344	0.352	0.351	0.390	0.390	0.390	0.390	0.390
1978	0.012	0.048	0.103	0.116	0.113	0.241	0.241	0.241	0.241	0.241
1979	0.041	0.115	0.168	0.176	0.175	0.218	0.218	0.218	0.218	0.218
1980	0.039	0.102	0.142	0.148	0.147	0.176	0.176	0.176	0.176	0.176
1981	0.118	0.195	0.219	0.222	0.222	0.234	0.234	0.234	0.234	0.234
1982	0.063	0.161	0.220	0.228	0.227	0.268	0.268	0.268	0.268	0.268
1983	0.047	0.119	0.163	0.169	0.168	0.198	0.198	0.198	0.198	0.198
1984	0.013	0.054	0.120	0.137	0.133	0.305	0.305	0.305	0.305	0.305
1985	0.027	0.090	0.152	0.163	0.160	0.229	0.229	0.229	0.229	0.229
1986	0.034	0.104	0.163	0.172	0.170	0.226	0.226	0.226	0.226	0.226
1987	0.058	0.167	0.247	0.259	0.257	0.324	0.324	0.324	0.324	0.324
1988	0.037	0.131	0.235	0.255	0.251	0.385	0.385	0.385	0.385	0.385
1989	0.025	0.100	0.216	0.244	0.238	0.501	0.501	0.501	0.501	0.501
1990	0.075	0.249	0.416	0.445	0.439	0.621	0.621	0.621	0.621	0.621
1991	0.069	0.222	0.359	0.382	0.377	0.515	0.515	0.515	0.515	0.515
1992	0.026	0.108	0.247	0.283	0.275	0.667	0.667	0.667	0.667	0.667
1993	0.021	0.092	0.222	0.258	0.250	0.732	0.732	0.732	0.732	0.732
1994	0.040	0.152	0.303	0.335	0.328	0.589	0.589	0.589	0.589	0.589
1995	0.066	0.196	0.297	0.313	0.310	0.398	0.398	0.398	0.398	0.398
1996	0.111	0.329	0.502	0.529	0.523	0.675	0.675	0.675	0.675	0.675
1997	0.080	0.284	0.511	0.554	0.545	0.841	0.841	0.841	0.841	0.841
1998	0.088	0.299	0.514	0.553	0.545	0.797	0.797	0.797	0.797	0.797
1999	0.092	0.343	0.656	0.720	0.706	1.188	1.188	1.188	1.188	1.188
2000	0.040	0.185	0.507	0.609	0.585	3.414	3.414	3.414	3.414	3.414
2001	0.021	0.091	0.225	0.263	0.254	0.805	0.805	0.805	0.805	0.805

Table 3. Total fishing mortality at age. *(continued)*

	1	2	3	4	5	6	7	8	9	10+
2002	0.019	0.084	0.213	0.250	0.241	0.853	0.853	0.853	0.853	0.853
2003	0.095	0.227	0.299	0.309	0.307	0.355	0.355	0.355	0.355	0.355
2004	0.047	0.209	0.520	0.608	0.588	1.921	1.921	1.921	1.921	1.921
2005	0.032	0.142	0.355	0.415	0.401	1.322	1.322	1.322	1.322	1.322
2006	0.168	0.575	0.996	1.072	1.055	1.554	1.554	1.554	1.554	1.554
2007	0.214	0.551	0.759	0.788	0.782	0.932	0.932	0.932	0.932	0.932
2008	0.142	0.454	0.738	0.785	0.775	1.063	1.063	1.063	1.063	1.063
2009	0.276	0.854	1.341	1.419	1.403	1.862	1.862	1.862	1.862	1.862
2010	0.641	1.397	1.756	1.801	1.792	2.011	2.011	2.011	2.011	2.011
2011	0.171	0.704	1.536	1.735	1.690	3.652	3.652	3.652	3.652	3.652
2012	0.214	0.710	1.189	1.272	1.255	1.778	1.778	1.778	1.778	1.778
2013	0.140	0.533	1.040	1.146	1.123	1.951	1.951	1.951	1.951	1.951
2014	0.133	0.487	0.906	0.989	0.971	1.570	1.570	1.570	1.570	1.570
2015	0.093	0.400	0.948	1.094	1.061	2.887	2.887	2.887	2.887	2.887
2016	0.099	0.371	0.716	0.787	0.771	1.314	1.314	1.314	1.314	1.314
2017	0.072	0.305	0.704	0.806	0.783	1.964	1.964	1.964	1.964	1.964
2018	0.099	0.369	0.705	0.773	0.758	1.273	1.273	1.273	1.273	1.273
2019	0.101	0.357	0.641	0.695	0.683	1.051	1.051	1.051	1.051	1.051
2020	0.178	0.511	0.758	0.795	0.787	0.994	0.994	0.994	0.994	0.994
2021	0.131	0.377	0.559	0.587	0.581	0.733	0.733	0.733	0.733	0.733
2022	0.022	0.057	0.080	0.083	0.082	0.099	0.099	0.099	0.099	0.099