

Appendix B: Model Parameter Values

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Appendix B: Model Parameter Estimates

Values for final parameter estimates are given for each model in the following tables, which are organized by model group. The groups are organized as

- 22.03, 22.03b, 23.01, 23.01a, 23.02
- 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1
- 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1

where the first model in each group serves as the “base” model for comparisons within the group.

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0.1 Scalar parameters

0.2 Scalar parameter values for 22.03, 22.03b, 23.01, 23.01a, 23.02

Table 1. Final number parameter values and standard errors for models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 5. Parameters with se = “NA” were fixed to the value of est.

process	param	22.03		22.03b		23.01		23.01a		23.02		description
		est	se	est	se	est	se	est	se	est	se	
recruitment	pLnR[1]	6.783	0.588	6.784	0.588	6.779	0.597	6.776	0.597	6.702	0.706	historical recruitment period
	pLnR[2]	5.808	0.070	5.808	0.070	5.790	0.069	5.787	0.069	5.376	0.049	current recruitment period
	pRCV[1]	-0.700	NA	-0.700	NA	-0.700	NA	-0.700	NA	-0.700	NA	full model period
	pRX[1]	0.000	NA	0.000	NA	0.000	NA	0.000	NA	0.000	NA	full model period
	pRa[1]	2.230	0.031	2.230	0.031	2.196	0.032	2.197	0.032	2.347	0.024	fixed value
	pRb[1]	1.354	0.078	1.355	0.078	1.380	0.086	1.380	0.085	1.531	0.062	fixed value
natural mortality	pM[1]	-1.470	NA	-1.470	NA	-1.470	NA	-1.470	NA	-1.470	NA	base ln-scale M
	pDM1[1]	1.028	0.047	1.028	0.047	1.029	0.047	1.032	0.047	1.167	0.042	multiplier for immature crab
	pDM1[2]	1.328	0.038	1.328	0.038	1.334	0.038	1.332	0.038	1.496	0.032	multiplier for mature males
	pDM1[3]	1.336	0.038	1.336	0.038	1.340	0.038	1.341	0.038	1.766	0.031	multiplier for mature females
	pDM2[1]	2.367	0.251	2.367	0.251	2.338	0.244	2.325	0.242	2.473	0.127	1980-1984 multiplier for mature males
	pDM2[2]	1.951	0.168	1.951	0.168	1.939	0.165	1.933	0.164	1.436	0.059	1980-1984 multiplier for mature females
growth	pGrA[1]	32.400	0.256	32.398	0.256	32.407	0.302	32.458	0.304	35.540	0.318	males
	pGrA[2]	33.681	0.314	33.680	0.314	33.895	0.339	33.928	0.341	37.141	0.164	females
	pGrB[1]	165.905	0.730	165.903	0.730	166.304	0.726	166.272	0.710	169.655	1.016	males
	pGrB[2]	114.956	0.611	114.952	0.611	114.839	0.640	114.809	0.638	113.361	0.154	females
	pGrBeta[1]	0.830	0.101	0.830	0.101	0.937	0.113	0.954	0.115	2.478	0.185	both sexes
	selectivity	pS1[1]	179.000	NA	179.000	NA	179.000	NA	179.000	NA	179.000	NA
pS1[2]		179.000	NA	179.000	NA	179.000	NA	179.000	NA	179.000	NA	size at 1 for NMFS survey selectivity (males, 1982+)
pS1[3]		129.900	NA	129.900	NA	129.900	NA	129.900	NA	129.900	NA	size at 1 for NMFS survey selectivity (females, pre-1982)
pS1[4]		129.900	NA	129.900	NA	129.900	NA	129.900	NA	129.900	NA	size at 1 for NMFS survey selectivity (females, 1982+)
pS1[5]		138.939	0.696	138.939	0.696	138.778	0.205	138.770	0.204	138.737	0.909	z50 for TCF retention (pre-1991)
pS1[6]		138.600	1.136	138.601	1.135	138.902	0.185	138.900	0.182	139.268	0.697	z50 for TCF retention (1991-1996)
pS1[7]		4.500	NA	4.500	NA	4.500	NA	4.500	NA	4.500	NA	DUMMY VALUE
pS1[8]		4.844	0.007	4.844	0.007	4.848	0.006	4.848	0.006	4.840	0.007	ln(z50) for TCF selectivity (males)

Table 2. Final number parameter values and standard errors for models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 5. Parameters with se = “NA” were fixed to the value of est.

process	param	22.03		22.03b		23.01		23.01a		23.02		description
		est	se	est	se	est	se	est	se	est	se	
	pS1[9]	92.883	2.309	92.884	2.309	93.299	2.347	93.285	2.352	91.904	2.059	z50 for TCF selectivity (females)
	pS1[10]	159.629	4.780	159.630	4.780	159.224	5.762	159.062	5.562	160.206	2.545	ascending z-at-1 for SCF selectivity (males, pre-1997)
	pS1[11]	118.508	6.890	118.509	6.889	118.375	7.020	118.568	7.058	118.489	7.190	ascending z-at-1 for SCF selectivity (males, 1997-2004)
	pS1[12]	124.558	1.277	124.559	1.277	125.060	1.341	125.103	1.315	123.937	1.279	ascending z-at-1 for SCF selectivity (males, 2005+)
	pS1[13]	80.715	6.756	80.715	6.758	81.250	6.825	81.161	6.726	80.733	6.764	ascending z50 for SCF selectivity (females, pre-1997)
	pS1[14]	72.678	4.362	72.678	4.362	73.212	4.354	73.212	4.332	71.851	4.351	ascending z50 for SCF selectivity (females, 1997-2004)
	pS1[15]	101.466	8.602	101.467	8.602	102.143	8.627	102.177	8.579	98.909	8.706	ascending z50 for SCF selectivity (females, 2005+)
	pS1[16]	60.862	3.281	60.871	3.283	60.881	3.279	60.657	3.263	53.718	1.880	z50 for GF.AllGear selectivity (males, pre-1987)
	pS1[17]	71.248	6.737	71.261	6.738	71.572	6.714	71.378	6.704	120.000	0.002	z50 for GF.AllGear selectivity (males, 1987-1996)
	pS1[18]	97.493	2.513	97.503	2.514	98.045	2.531	98.033	2.526	93.143	2.429	z50 for GF.AllGear selectivity (males, 1997+)
	pS1[19]	43.482	1.839	43.485	1.839	43.592	1.815	43.535	1.806	40.946	1.350	z50 for GF.AllGear selectivity (females, pre-1987)
	pS1[20]	40.130	2.177	40.131	2.178	40.475	2.121	40.499	2.123	78.572	7.315	z50 for GF.AllGear selectivity (females, 1987-1996)
	pS1[21]	86.992	3.173	86.994	3.173	87.711	3.203	87.758	3.199	80.716	2.769	z50 for GF.AllGear selectivity (females, 1997+)
	pS1[22]	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	size at 1 for RKF selectivity (males, pre-1997)
	pS1[23]	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	size at 1 for RKF selectivity (males, 1997-2004)
	pS1[24]	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	size at 1 for RKF selectivity (males, 2005+)
selectivity	pS1[25]	139.900	NA	139.900	NA	139.900	NA	139.900	NA	139.900	NA	size at 1 for RKF selectivity (females, pre-1997)
	pS1[26]	136.867	39.700	136.866	39.697	137.413	39.925	137.411	39.902	137.733	40.988	size at 1 for RKF selectivity (females, 1997-2004)
	pS1[27]	134.747	22.546	134.749	22.547	135.145	22.571	135.150	22.571	129.686	22.359	size at 1 for RKF selectivity (females, 2005+)
	pS1[28]	137.634	0.278	137.638	0.277	138.870	0.539	138.866	0.537	137.645	0.277	z50 for TCF retention (2005-2009)
	pS1[29]	125.401	0.830	125.402	0.830	125.961	0.807	125.898	0.816	125.257	0.812	z50 for TCF retention (2013+)
	pS2[1]	66.144	2.501	66.138	2.500	66.245	2.534	66.397	2.551	71.731	2.581	width for NMFS survey selectivity (males, pre-1982)
	pS2[2]	90.573	3.070	90.565	3.069	90.920	3.177	91.165	3.209	100.000	0.000	width for NMFS survey selectivity (males, 1982+)
	pS2[3]	41.562	2.249	41.565	2.250	41.544	2.280	41.563	2.281	45.804	2.130	width for NMFS survey selectivity (females, pre-1982)
	pS2[4]	82.305	6.808	82.368	6.825	83.552	7.170	83.487	7.147	92.663	6.513	width for NMFS survey selectivity (females, 1982+)

Table 3. Final number parameter values and standard errors for models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 5. Parameters with se = “NA” were fixed to the value of est.

process	param	22.03		22.03b		23.01		23.01a		23.02		description
		est	se	est	se	est	se	est	se	est	se	
	pS2[5]	0.726	0.209	0.726	0.209	1.990	NA	1.990	NA	0.845	0.381	slope for TCF retention (pre-1991)
	pS2[6]	0.978	0.643	0.978	0.642	1.990	NA	1.990	NA	0.746	0.195	slope for TCF retention (1997+)
	pS2[7]	0.121	0.007	0.121	0.007	0.122	0.007	0.122	0.007	0.123	0.007	slope for TCF selectivity (males, pre-1997)
	pS2[8]	0.168	0.008	0.168	0.008	0.168	0.008	0.169	0.008	0.162	0.008	slope for TCF selectivity (males, 1997+)
	pS2[9]	0.194	0.025	0.194	0.025	0.197	0.027	0.197	0.027	0.199	0.026	slope for TCF selectivity (females)
	pS2[10]	32.776	2.144	32.777	2.144	32.372	2.510	32.304	2.453	32.765	1.567	ascending width for SCF selectivity (males, pre-1997)
	pS2[11]	15.600	3.544	15.600	3.543	15.276	3.633	15.357	3.646	15.774	3.755	ascending width for SCF selectivity (males, 1997-2004)
	pS2[12]	14.464	0.703	14.464	0.703	14.459	0.731	14.460	0.719	14.465	0.721	ascending width for SCF selectivity (males, 2005+)
	pS2[13]	0.137	0.067	0.137	0.067	0.139	0.070	0.140	0.070	0.141	0.069	slope for SCF selectivity (females, pre-1997)
	pS2[14]	0.318	0.242	0.318	0.242	0.328	0.262	0.329	0.263	0.351	0.318	slope for SCF selectivity (females, 1997-2004)
	pS2[15]	0.096	0.023	0.096	0.023	0.096	0.023	0.096	0.023	0.102	0.027	slope for SCF selectivity (females, 2005+)
	pS2[16]	0.088	0.011	0.088	0.011	0.089	0.011	0.090	0.011	0.120	0.013	slope for GF.AllGear selectivity (males, pre-1987)
	pS2[17]	0.045	0.007	0.045	0.007	0.045	0.007	0.045	0.007	0.031	0.002	slope for GF.AllGear selectivity (males, 1987-1996)
	pS2[18]	0.059	0.002	0.059	0.002	0.059	0.002	0.059	0.002	0.059	0.003	slope for GF.AllGear selectivity (males, 1997+)
	pS2[19]	0.136	0.020	0.136	0.020	0.140	0.021	0.140	0.021	0.177	0.026	slope for GF.AllGear selectivity (females, pre-1987)
selectivity	pS2[20]	0.170	0.055	0.170	0.055	0.178	0.059	0.178	0.059	0.038	0.006	slope for GF.AllGear selectivity (females, 1987-1996)
	pS2[21]	0.064	0.004	0.064	0.004	0.063	0.004	0.063	0.004	0.070	0.005	slope for GF.AllGear selectivity (females, 1997+)
	pS2[22]	19.959	0.812	19.959	0.812	19.787	0.807	19.804	0.808	19.860	0.804	width for RKF selectivity (males, pre-1997)
	pS2[23]	28.040	2.145	28.039	2.145	27.836	2.142	27.848	2.142	26.095	1.947	width for RKF selectivity (males, 1997-2004)
	pS2[24]	27.653	0.994	27.652	0.994	27.451	0.989	27.477	0.990	28.955	1.132	width for RKF selectivity (males, 2005+)
	pS2[25]	18.033	2.364	18.033	2.364	17.757	2.362	17.769	2.359	18.749	2.456	width for RKF selectivity (males, pre-1997)
	pS2[26]	19.081	15.010	19.080	15.009	18.981	15.064	18.986	15.061	19.576	15.601	width for RKF selectivity (males, 1997-2004)
	pS2[27]	17.973	7.940	17.973	7.940	17.826	7.928	17.838	7.936	17.203	8.275	width for RKF selectivity (males, 2005+)
	pS2[28]	2.000	0.106	1.990	NA	1.990	NA	1.990	NA	1.990	NA	slope for TCF retention (2005-2009)
	pS2[29]	0.340	0.078	0.340	0.078	0.360	0.087	0.358	0.087	0.349	0.081	slope for TCF retention (2013+)

Table 4. Final number parameter values and standard errors for models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 5. Parameters with se = “NA” were fixed to the value of est.

process	param	22.03		22.03b		23.01		23.01a		23.02		description
		est	se	est	se	est	se	est	se	est	se	
selectivity	pS3[1]	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	scaled increment for descending z-at-1 for SCF selectivity (males, pre-1997)
	pS3[2]	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	scaled increment for descending z-at-1 for SCF selectivity (males, 1997-2004)
	pS3[3]	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	scaled increment for descending z-at-1 for SCF selectivity (males, 2005+)
	pS4[1]	1.100	NA	1.100	NA	1.100	NA	1.100	NA	1.100	NA	descending width for SCF selectivity (males, pre-1997)
	pS4[2]	20.185	9.071	20.184	9.071	20.953	9.537	20.648	9.450	19.772	8.945	descending width for SCF selectivity (males, 1997-2004)
	pS4[3]	13.285	1.288	13.285	1.288	13.332	1.351	13.204	1.321	13.463	1.259	descending width for SCF selectivity (males, 2005+)
	pHM[1]	0.321	NA	0.321	NA	0.321	NA	0.321	NA	0.321	NA	handling mortality for pot fisheries
	pHM[2]	0.800	NA	0.800	NA	0.800	NA	0.800	NA	0.800	NA	handling mortality for groundfish trawl fisheries
	fisheries	pLnC[1]	-2.996	NA	-2.996	NA	-2.996	NA	-2.996	NA	-2.996	NA
pLnC[2]		-1.423	0.124	-1.423	0.124	-1.428	0.122	-1.429	0.121	-1.081	0.132	TCF: base capture rate, 1965+
pLnC[3]		-4.605	NA	-4.605	NA	-4.605	NA	-4.605	NA	-4.605	NA	SCF: base capture rate, pre-1978 (=0.01)
pLnC[4]		-3.715	0.071	-3.715	0.071	-3.710	0.071	-3.707	0.070	-3.380	0.063	SCF: base capture rate, 1992+
pLnC[5]		-4.181	NA	-4.181	NA	-4.181	NA	-4.181	NA	-4.181	NA	DUMMY CAPTURE RATE
pLnC[6]		-4.943	0.059	-4.943	0.059	-4.929	0.058	-4.929	0.058	-4.456	0.046	GTF: base capture rate, ALL YEARS
pLnC[7]		-3.912	NA	-3.912	NA	-3.912	NA	-3.912	NA	-3.912	NA	RKF: base capture rate, pre-1953 (=0.02)
pLnC[8]		-4.755	0.108	-4.755	0.108	-4.747	0.108	-4.750	0.108	-4.087	0.098	RKF: base capture rate, 1992+
fisheries	pDC2[1]	-2.688	0.208	-2.688	0.209	-2.698	0.212	-2.693	0.212	-2.521	0.185	TCF: female offset
	pDC2[2]	-2.661	0.331	-2.661	0.331	-2.654	0.335	-2.653	0.332	-2.564	0.337	SCF: female offset
	pDC2[3]	-1.034	0.095	-1.034	0.095	-1.036	0.095	-1.030	0.094	-0.988	0.073	GTF: female offset
	pDC2[4]	-2.364	0.843	-2.365	0.843	-2.331	0.858	-2.326	0.855	-2.470	0.790	RKF: female offset
fisheries	pLgtRet[1]	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	TCF: logit-scale max retention (pre-1997)
	pLgtRet[2]	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	TCF: logit-scale max retention (2005-2009)
	pLgtRet[3]	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	TCF: logit-scale max retention (2013+)
surveys	pQ[1]	-0.682	0.107	-0.682	0.107	-0.678	0.100	-0.678	0.099	-0.385	0.068	NMFS trawl survey: males, 1975-1981
	pQ[2]	-0.661	0.051	-0.661	0.051	-0.656	0.050	-0.657	0.050	-0.303	0.035	NMFS trawl survey: males, 1982+

Table 5. Final number parameter values and standard errors for models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 5. Parameters with se = “NA” were fixed to the value of est.

process	param	22.03		22.03b		23.01		23.01a		23.02		description
		est	se	est	se	est	se	est	se	est	se	
surveys	pQ[3]	-1.065	0.133	-1.065	0.133	-1.072	0.130	-1.067	0.130	-0.829	0.086	NMFS trawl survey: females, 1975-1981
	pQ[4]	-1.318	0.076	-1.318	0.076	-1.327	0.075	-1.322	0.074	-0.892	0.050	NMFS trawl survey: females, 1982+
	pQ[5]	0.000	NA	0.000	NA	0.000	NA	0.000	NA	0.000	NA	BSFRF SBS
Dirichlet-Mul ^{fractional}	pLnDirMul[1]	0.929	0.247	0.929	0.247	0.929	0.247	0.926	0.246	0.816	0.236	ln(theta) parameter for BSFRF SBS M
	pLnDirMul[2]	2.527	0.245	2.527	0.245	2.526	0.245	2.526	0.245	2.494	0.244	ln(theta) parameter for BSFRF SBS F

0.3 Scalar parameter values for 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1

Table 6. Final number parameter values and standard errors for models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 5.
Parameters with se = “NA” were fixed to the value of est.

process	param	22.03b		23.03a		23.03a1		23.03b		23.03b1		description
		est	se	est	se	est	se	est	se	est	se	
recruitment	pLnR[1]	6.784	0.588	7.933	0.547	8.622	0.647	7.954	0.540	8.648	0.643	historical recruitment period
	pLnR[2]	5.808	0.070	6.668	0.033	7.109	0.056	6.672	0.033	7.139	0.056	current recruitment period
	pRCV[1]	-0.700	NA	-0.700	NA	-0.700	NA	-0.700	NA	-0.700	NA	full model period
	pRX[1]	0.000	NA	0.000	NA	0.000	NA	0.000	NA	0.000	NA	full model period
	pRa[1]	2.230	0.031	1.609	0.014	1.612	0.014	1.610	0.014	1.612	0.014	fixed value
	pRb[1]	1.355	0.078	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
natural mortality	pM[1]	-1.470	NA	-1.470	NA	-1.470	NA	-1.470	NA	-1.470	NA	base ln-scale M
	pDM1[1]	1.028	0.047	1.450	0.030	1.495	0.032	1.462	0.030	1.506	0.032	multiplier for immature crab
	pDM1[2]	1.328	0.038	1.454	0.031	1.314	0.033	1.463	0.031	1.319	0.033	multiplier for mature males
	pDM1[3]	1.336	0.038	1.261	0.030	1.322	0.033	1.280	0.030	1.339	0.033	multiplier for mature females
	pDM2[1]	2.367	0.251	1.520	0.131	2.190	0.197	1.516	0.132	2.176	0.197	1980-1984 multiplier for mature males
	pDM2[2]	1.951	0.168	1.392	0.118	1.858	0.154	1.406	0.118	1.861	0.154	1980-1984 multiplier for mature females
growth	pGrA[1]	32.398	0.256	32.247	NA	32.247	NA	32.247	NA	32.247	NA	males
	pGrA[2]	33.680	0.314	32.617	NA	32.617	NA	32.617	NA	32.617	NA	females
	pGrB[1]	165.903	0.730	154.510	NA	154.510	NA	154.510	NA	154.510	NA	males
	pGrB[2]	114.952	0.611	114.192	NA	114.192	NA	114.192	NA	114.192	NA	females
	pGrBeta[1]	0.830	0.101	NA	NA	NA	NA	NA	NA	NA	NA	both sexes
selectivity	pS1[1]	179.000	NA	179.000	NA	179.000	NA	179.000	NA	179.000	NA	size at 1 for NMFS survey selectivity (males, pre-1982)
	pS1[2]	179.000	NA	179.000	NA	179.000	NA	179.000	NA	179.000	NA	size at 1 for NMFS survey selectivity (males, 1982+)
	pS1[3]	129.900	NA	129.900	NA	129.900	NA	129.900	NA	129.900	NA	size at 1 for NMFS survey selectivity (females, pre-1982)
	pS1[4]	129.900	NA	129.900	NA	129.900	NA	129.900	NA	129.900	NA	size at 1 for NMFS survey selectivity (females, 1982+)
	pS1[5]	138.939	0.696	138.137	0.212	139.071	0.700	138.091	0.214	139.078	0.700	z50 for TCF retention (pre-1991)
	pS1[6]	138.601	1.135	137.708	0.096	138.405	1.518	137.703	0.097	138.418	1.489	z50 for TCF retention (1991-1996)
	pS1[7]	4.500	NA	4.500	NA	4.500	NA	4.500	NA	4.500	NA	DUMMY VALUE
	pS1[8]	4.844	0.007	4.857	0.006	4.867	0.006	4.859	0.006	4.868	0.006	ln(z50) for TCF selectivity (males)

Table 7. Final number parameter values and standard errors for models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 5.
Parameters with se = “NA” were fixed to the value of est.

process	param	22.03b		23.03a		23.03a1		23.03b		23.03b1		description
		est	se	est	se	est	se	est	se	est	se	
	pS1[9]	92.884	2.309	91.212	1.912	92.202	2.018	92.168	2.044	93.157	2.148	z50 for TCF selectivity (females)
	pS1[10]	159.630	4.780	159.975	1.901	163.962	4.312	160.075	1.844	164.134	3.927	ascending z-at-1 for SCF selectivity (males, pre-1997)
	pS1[11]	118.509	6.889	121.766	6.208	121.441	6.561	121.824	6.258	121.459	6.616	ascending z-at-1 for SCF selectivity (males, 1997-2004)
	pS1[12]	124.559	1.277	126.170	1.261	126.308	1.317	126.274	1.267	126.407	1.324	ascending z-at-1 for SCF selectivity (males, 2005+)
	pS1[13]	80.715	6.758	79.672	4.709	81.724	5.519	80.464	5.172	82.756	6.272	ascending z50 for SCF selectivity (females, pre-1997)
	pS1[14]	72.678	4.362	72.920	3.948	73.294	3.926	73.242	3.955	73.669	3.962	ascending z50 for SCF selectivity (females, 1997-2004)
	pS1[15]	101.467	8.602	97.010	7.305	97.624	7.583	97.302	7.282	98.092	7.708	ascending z50 for SCF selectivity (females, 2005+)
	pS1[16]	60.871	3.283	61.631	1.951	59.093	1.871	61.851	1.958	59.271	1.878	z50 for GF.AllGear selectivity (males, pre-1987)
	pS1[17]	71.261	6.738	120.000	0.001	120.000	0.002	120.000	0.001	120.000	0.002	z50 for GF.AllGear selectivity (males, 1987-1996)
	pS1[18]	97.503	2.514	105.556	1.891	107.153	2.164	106.289	1.907	107.883	2.191	z50 for GF.AllGear selectivity (males, 1997+)
	pS1[19]	43.485	1.839	46.315	1.481	48.207	1.721	46.914	1.514	48.880	1.778	z50 for GF.AllGear selectivity (females, pre-1987)
	pS1[20]	40.131	2.178	87.439	8.650	90.976	7.079	88.713	8.574	91.916	6.952	z50 for GF.AllGear selectivity (females, 1987-1996)
	pS1[21]	86.994	3.173	93.098	2.696	95.700	2.627	93.884	2.648	96.353	2.589	z50 for GF.AllGear selectivity (females, 1997+)
	pS1[22]	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	size at 1 for RKF selectivity (males, pre-1997)
	pS1[23]	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	size at 1 for RKF selectivity (males, 1997-2004)
	pS1[24]	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	size at 1 for RKF selectivity (males, 2005+)
selectivity	pS1[25]	139.900	NA	139.900	NA	139.900	NA	139.900	NA	139.900	NA	size at 1 for RKF selectivity (females, pre-1997)
	pS1[26]	136.866	39.697	136.571	37.876	135.560	35.647	136.786	37.432	135.822	35.254	size at 1 for RKF selectivity (females, 1997-2004)
	pS1[27]	134.749	22.547	135.251	22.094	136.520	21.560	135.485	21.766	136.764	21.255	size at 1 for RKF selectivity (females, 2005+)
	pS1[28]	137.638	0.277	137.642	0.277	137.658	0.274	137.645	0.277	137.659	0.274	z50 for TCF retention (2005-2009)
	pS1[29]	125.402	0.830	125.808	0.855	125.950	0.872	125.886	0.863	126.001	0.875	z50 for TCF retention (2013+)
	pS2[1]	66.138	2.500	66.892	NA	66.892	NA	66.892	NA	66.892	NA	width for NMFS survey selectivity (males, pre-1982)
	pS2[2]	90.565	3.069	90.866	NA	90.866	NA	90.866	NA	90.866	NA	width for NMFS survey selectivity (males, 1982+)
	pS2[3]	41.565	2.250	41.338	NA	41.338	NA	41.338	NA	41.338	NA	width for NMFS survey selectivity (females, pre-1982)
	pS2[4]	82.368	6.825	78.994	NA	78.994	NA	78.994	NA	78.994	NA	width for NMFS survey selectivity (females, 1982+)

Table 8. Final number parameter values and standard errors for models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 5.
Parameters with se = “NA” were fixed to the value of est.

process	param	22.03b		23.03a		23.03a1		23.03b		23.03b1		description
		est	se	est	se	est	se	est	se	est	se	
	pS2[5]	0.726	0.209	1.000	0.000	0.736	0.203	1.000	0.000	0.739	0.204	slope for TCF retention (pre-1991)
	pS2[6]	0.978	0.642	2.000	0.087	1.087	1.114	2.000	0.089	1.081	1.075	slope for TCF retention (1997+)
	pS2[7]	0.121	0.007	0.129	0.006	0.125	0.006	0.129	0.006	0.125	0.006	slope for TCF selectivity (males, pre-1997)
	pS2[8]	0.168	0.008	0.168	0.007	0.162	0.006	0.167	0.007	0.162	0.006	slope for TCF selectivity (males, 1997+)
	pS2[9]	0.194	0.025	0.215	0.028	0.213	0.027	0.209	0.026	0.208	0.025	slope for TCF selectivity (females)
	pS2[10]	32.777	2.144	30.529	1.200	32.199	1.702	30.469	1.189	32.157	1.605	ascending width for SCF selectivity (males, pre-1997)
	pS2[11]	15.600	3.543	15.942	2.954	16.047	3.148	15.960	2.967	16.059	3.164	ascending width for SCF selectivity (males, 1997-2004)
	pS2[12]	14.464	0.703	14.319	0.642	14.520	0.670	14.338	0.642	14.545	0.671	ascending width for SCF selectivity (males, 2005+)
	pS2[13]	0.137	0.067	0.162	0.068	0.157	0.065	0.156	0.067	0.150	0.064	slope for SCF selectivity (females, pre-1997)
	pS2[14]	0.318	0.242	0.330	0.240	0.335	0.231	0.324	0.225	0.328	0.215	slope for SCF selectivity (females, 1997-2004)
	pS2[15]	0.096	0.023	0.112	0.028	0.115	0.028	0.113	0.027	0.115	0.027	slope for SCF selectivity (females, 2005+)
	pS2[16]	0.088	0.011	0.111	0.009	0.115	0.009	0.111	0.009	0.115	0.009	slope for GF.AllGear selectivity (males, pre-1987)
	pS2[17]	0.045	0.007	0.035	0.002	0.035	0.002	0.035	0.002	0.035	0.002	slope for GF.AllGear selectivity (males, 1987-1996)
	pS2[18]	0.059	0.002	0.067	0.002	0.064	0.002	0.067	0.002	0.064	0.002	slope for GF.AllGear selectivity (males, 1997+)
	pS2[19]	0.136	0.020	0.162	0.018	0.146	0.016	0.159	0.017	0.142	0.015	slope for GF.AllGear selectivity (females, pre-1987)
selectivity	pS2[20]	0.170	0.055	0.035	0.005	0.039	0.005	0.035	0.005	0.039	0.005	slope for GF.AllGear selectivity (females, 1987-1996)
	pS2[21]	0.064	0.004	0.073	0.004	0.074	0.003	0.074	0.003	0.075	0.003	slope for GF.AllGear selectivity (females, 1997+)
	pS2[22]	19.959	0.812	19.958	0.786	19.374	0.741	19.875	0.779	19.307	0.735	width for RKF selectivity (males, pre-1997)
	pS2[23]	28.039	2.145	27.537	1.888	26.700	1.862	27.424	1.873	26.606	1.849	width for RKF selectivity (males, 1997-2004)
	pS2[24]	27.652	0.994	26.477	0.855	25.710	0.821	26.363	0.847	25.621	0.814	width for RKF selectivity (males, 2005+)
	pS2[25]	18.033	2.364	18.301	2.392	17.797	2.269	18.015	2.298	17.522	2.184	width for RKF selectivity (males, pre-1997)
	pS2[26]	19.080	15.009	19.111	14.147	18.312	13.062	18.881	13.841	18.108	12.787	width for RKF selectivity (males, 1997-2004)
	pS2[27]	17.973	7.940	18.191	7.662	17.985	7.294	17.970	7.470	17.769	7.117	width for RKF selectivity (males, 2005+)
	pS2[28]	1.990	NA	1.990	NA	1.990	NA	1.990	NA	1.990	NA	slope for TCF retention (2005-2009)
	pS2[29]	0.340	0.078	0.330	0.074	0.319	0.070	0.326	0.073	0.317	0.069	slope for TCF retention (2013+)

Table 9. Final number parameter values and standard errors for models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 5.
Parameters with se = “NA” were fixed to the value of est.

process	param	22.03b		23.03a		23.03a1		23.03b		23.03b1		description
		est	se	est	se	est	se	est	se	est	se	
selectivity	pS3[1]	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	scaled increment for descending z-at-1 for SCF selectivity (males, pre-1997)
	pS3[2]	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	scaled increment for descending z-at-1 for SCF selectivity (males, 1997-2004)
	pS3[3]	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	scaled increment for descending z-at-1 for SCF selectivity (males, 2005+)
	pS4[1]	1.100	NA	1.100	NA	1.100	NA	1.100	NA	1.100	NA	descending width for SCF selectivity (males, pre-1997)
	pS4[2]	20.184	9.071	18.889	8.957	19.624	9.850	19.241	9.363	19.998	10.279	descending width for SCF selectivity (males, 1997-2004)
	pS4[3]	13.285	1.288	13.151	1.408	13.779	1.577	13.168	1.426	13.837	1.603	descending width for SCF selectivity (males, 2005+)
fisheries	pHM[1]	0.321	NA	0.321	NA	0.321	NA	0.321	NA	0.321	NA	handling mortality for pot fisheries
	pHM[2]	0.800	NA	0.800	NA	0.800	NA	0.800	NA	0.800	NA	handling mortality for groundfish trawl fisheries
	pLnC[1]	-2.996	NA	-2.996	NA	-2.996	NA	-2.996	NA	-2.996	NA	TCF: base capture rate, pre-1965 (=0.05)
	pLnC[2]	-1.423	0.124	-1.587	0.170	-2.144	0.193	-1.545	0.164	-2.128	0.191	TCF: base capture rate, 1965+
	pLnC[3]	-4.605	NA	-4.605	NA	-4.605	NA	-4.605	NA	-4.605	NA	SCF: base capture rate, pre-1978 (=0.01)
	pLnC[4]	-3.715	0.071	-3.533	0.055	-4.028	0.072	-3.509	0.056	-4.037	0.071	SCF: base capture rate, 1992+
	pLnC[5]	-4.181	NA	-4.181	NA	-4.181	NA	-4.181	NA	-4.181	NA	DUMMY CAPTURE RATE
	pLnC[6]	-4.943	0.059	-4.716	0.038	-5.223	0.054	-4.686	0.038	-5.221	0.054	GTF: base capture rate, ALL YEARS
	pLnC[7]	-3.912	NA	-3.912	NA	-3.912	NA	-3.912	NA	-3.912	NA	RKF: base capture rate, pre-1953 (=0.02)
	pLnC[8]	-4.755	0.108	-4.472	0.101	-4.801	0.108	-4.424	0.101	-4.792	0.109	RKF: base capture rate, 1992+
	pDC2[1]	-2.688	0.209	-3.279	0.175	-3.062	0.192	-3.202	0.187	-2.966	0.204	TCF: female offset
	pDC2[2]	-2.661	0.331	-3.094	0.280	-2.812	0.322	-3.048	0.294	-2.751	0.345	SCF: female offset
	pDC2[3]	-1.034	0.095	-1.135	0.083	-0.868	0.089	-1.109	0.083	-0.839	0.090	GTF: female offset
pDC2[4]	-2.365	0.843	-2.828	0.826	-2.539	0.844	-2.721	0.829	-2.416	0.848	RKF: female offset	
pLgtRet[1]	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	TCF: logit-scale max retention (pre-1997)	
pLgtRet[2]	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	TCF: logit-scale max retention (2005-2009)	
pLgtRet[3]	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	TCF: logit-scale max retention (2013+)	
surveys	pQ[1]	-0.682	0.107	-0.516	NA	-1.764	0.103	-0.516	NA	-1.787	0.102	NMFS trawl survey: males, 1975-1981
	pQ[2]	-0.661	0.051	-0.516	NA	-1.165	0.047	-0.516	NA	-1.205	0.047	NMFS trawl survey: males, 1982+

Table 10. Final number parameter values and standard errors for models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 5.
Parameters with se = “NA” were fixed to the value of est.

process	param	22.03b		23.03a		23.03a1		23.03b		23.03b1		description
		est	se	est	se	est	se	est	se	est	se	
surveys	pQ[3]	-1.065	0.133	-1.495	NA	-2.173	0.107	-1.495	NA	-2.184	0.106	NMFS trawl survey: females, 1975-1981
	pQ[4]	-1.318	0.076	-1.495	NA	-1.694	0.051	-1.495	NA	-1.717	0.051	NMFS trawl survey: females, 1982+
	pQ[5]	0.000	NA	0.000	NA	0.000	NA	0.000	NA	0.000	NA	BSFRF SBS
Dirichlet-Mult ^{fractional}	pLnDirMul[1]	0.929	0.247	0.980	0.268	1.075	0.276	0.971	0.268	1.071	0.276	ln(theta) parameter for BSFRF SBS M
	pLnDirMul[2]	2.527	0.245	2.602	0.249	2.607	0.249	2.604	0.249	2.607	0.249	ln(theta) parameter for BSFRF SBS F
growth	pGrBeta[1]	NA	NA	0.492	NA	0.492	NA	0.492	NA	0.492	NA	males
	pGrBeta[2]	NA	NA	0.268	NA	0.268	NA	0.268	NA	0.268	NA	males

0.4 Scalar parameter values for 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1

Table 11. Final number parameter values and standard errors for models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 5. Parameters with se = “NA” were fixed to the value of est.

process	param	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1		description
		est	se	est	se	est	se	est	se	est	se	est	se	
recruitment	pLnR[1]	6.784	0.588	6.774	0.570	7.311	0.834	7.356	0.852	7.311	0.834	7.356	0.852	historical recruitment period
	pLnR[2]	5.808	0.070	6.913	0.077	6.555	0.074	6.364	0.072	6.555	0.074	6.364	0.072	current recruitment period
	pRCV[1]	-0.700	NA	-0.700	NA	-0.700	NA	-0.700	NA	-0.700	NA	-0.700	NA	full model period
	pRX[1]	0.000	NA	0.000	NA	0.000	NA	0.000	NA	0.000	NA	0.000	NA	full model period
	pRa[1]	2.230	0.031	2.197	0.025	2.196	0.027	2.229	0.026	2.196	0.027	2.229	0.026	fixed value
	pRb[1]	1.355	0.078	1.339	0.067	1.335	0.068	1.384	0.066	1.335	0.068	1.384	0.066	fixed value
	pM[1]	-1.470	NA	-1.470	NA	-1.470	NA	-1.470	NA	-1.470	NA	-1.470	NA	base ln-scale M
natural mortality	pDM1[1]	1.028	0.047	1.086	0.035	1.240	0.042	1.276	0.043	1.240	0.042	1.276	0.043	multiplier for immature crab
	pDM1[2]	1.328	0.038	1.082	0.039	1.240	0.043	1.269	0.041	1.240	0.043	1.269	0.041	multiplier for mature males
	pDM1[3]	1.336	0.038	1.126	0.041	1.222	0.040	1.334	0.039	1.222	0.040	1.334	0.039	multiplier for mature females
	pDM2[1]	2.367	0.251	1.000	NA	1.000	NA	1.000	NA	1.000	NA	1.000	NA	1980-1984 multiplier for mature males
	pDM2[2]	1.951	0.168	1.000	NA	1.000	NA	1.000	NA	1.000	NA	1.000	NA	1980-1984 multiplier for mature females
growth	pGrA[1]	32.398	0.256	33.366	0.319	32.659	0.279	32.508	0.273	32.659	0.279	32.508	0.273	males
	pGrA[2]	33.680	0.314	33.163	0.317	32.856	0.279	33.098	0.289	32.856	0.279	33.098	0.289	females
	pGrB[1]	165.903	0.730	163.505	0.729	163.492	0.770	163.556	0.774	163.492	0.770	163.556	0.774	males
	pGrB[2]	114.952	0.611	116.476	0.558	115.909	0.509	115.782	0.517	115.909	0.509	115.782	0.517	females
	pGrBeta[1]	0.830	0.101	0.877	0.105	0.690	0.091	0.694	0.092	0.690	0.091	0.694	0.092	both sexes
selectivity	pS1[1]	179.000	NA	179.000	NA	179.000	NA	179.000	NA	179.000	NA	179.000	NA	size at 1 for NMFS survey selectivity (males, pre-1982)
	pS1[2]	179.000	NA	179.000	NA	179.000	NA	179.000	NA	179.000	NA	179.000	NA	size at 1 for NMFS survey selectivity (males, 1982+)
	pS1[3]	129.900	NA	129.900	NA	129.900	NA	129.900	NA	129.900	NA	129.900	NA	size at 1 for NMFS survey selectivity (females, pre-1982)
	pS1[4]	129.900	NA	129.900	NA	129.900	NA	129.900	NA	129.900	NA	129.900	NA	size at 1 for NMFS survey selectivity (females, 1982+)
	pS1[5]	138.939	0.696	140.029	0.612	139.922	0.603	139.854	0.608	139.922	0.603	139.854	0.608	z50 for TCF retention (pre-1991)
	pS1[6]	138.601	1.135	137.869	15.179	137.768	0.142	137.769	0.131	137.768	0.171	137.769	0.518	z50 for TCF retention (1991-1996)
	pS1[7]	4.500	NA	4.500	NA	4.500	NA	4.500	NA	4.500	NA	4.500	NA	DUMMY VALUE
	pS1[8]	4.844	0.007	4.860	0.006	4.856	0.006	4.855	0.007	4.856	0.006	4.855	0.007	ln(z50) for TCF selectivity (males)

Table 12. Final number parameter values and standard errors for models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 5. Parameters with se = “NA” were fixed to the value of est.

process	param	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1		description
		est	se	est	se	est	se	est	se	est	se	est	se	
	pS1[9]	92.884	2.309	92.470	1.976	92.445	2.042	92.450	2.082	92.445	2.042	92.450	2.082	z50 for TCF selectivity (females)
	pS1[10]	159.630	4.780	156.398	1.451	156.302	1.331	156.409	1.528	156.302	1.331	156.409	1.528	ascending z-at-1 for SCF selectivity (males, pre-1997)
	pS1[11]	118.509	6.889	123.387	5.879	121.643	5.861	121.519	5.730	121.643	5.861	121.519	5.730	ascending z-at-1 for SCF selectivity (males, 1997-2004)
	pS1[12]	124.559	1.277	126.019	1.279	125.516	1.286	125.352	1.298	125.516	1.286	125.352	1.298	ascending z-at-1 for SCF selectivity (males, 2005+)
	pS1[13]	80.715	6.758	77.918	3.917	77.756	4.068	77.414	4.002	77.756	4.068	77.414	4.002	ascending z50 for SCF selectivity (females, pre-1997)
	pS1[14]	72.678	4.362	74.588	3.503	74.131	3.623	74.267	3.639	74.131	3.623	74.267	3.639	ascending z50 for SCF selectivity (females, 1997-2004)
	pS1[15]	101.467	8.602	90.809	4.661	91.875	5.140	91.360	5.124	91.875	5.140	91.360	5.124	ascending z50 for SCF selectivity (females, 2005+)
	pS1[16]	60.871	3.283	69.576	2.684	65.773	2.645	63.615	2.575	65.773	2.645	63.615	2.575	z50 for GF.AllGear selectivity (males, pre-1987)
	pS1[17]	71.261	6.738	97.490	7.555	92.652	7.619	93.289	7.766	92.652	7.619	93.289	7.766	z50 for GF.AllGear selectivity (males, 1987-1996)
	pS1[18]	97.503	2.514	108.532	2.109	105.505	2.262	104.160	2.306	105.505	2.262	104.160	2.306	z50 for GF.AllGear selectivity (males, 1997+)
	pS1[19]	43.485	1.839	48.884	1.853	46.642	1.794	43.763	1.682	46.642	1.794	43.763	1.682	z50 for GF.AllGear selectivity (females, pre-1987)
	pS1[20]	40.131	2.178	50.965	3.727	47.670	3.013	45.962	2.845	47.670	3.013	45.962	2.845	z50 for GF.AllGear selectivity (females, 1987-1996)
	pS1[21]	86.994	3.173	80.143	1.781	78.880	1.868	77.937	1.930	78.880	1.868	77.937	1.930	z50 for GF.AllGear selectivity (females, 1997+)
	pS1[22]	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	size at 1 for RKF selectivity (males, pre-1997)
	pS1[23]	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	size at 1 for RKF selectivity (males, 1997-2004)
selectivity	pS1[24]	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	179.900	NA	size at 1 for RKF selectivity (males, 2005+)
	pS1[25]	139.900	NA	139.900	NA	139.900	NA	139.900	NA	139.900	NA	139.900	NA	size at 1 for RKF selectivity (females, pre-1997)
	pS1[26]	136.866	39.697	138.088	35.859	137.973	36.866	138.265	38.008	137.973	36.866	138.265	38.008	size at 1 for RKF selectivity (females, 1997-2004)
	pS1[27]	134.749	22.547	133.107	19.861	132.947	20.175	131.783	20.226	132.947	20.175	131.783	20.226	size at 1 for RKF selectivity (females, 2005+)
	pS1[28]	137.638	0.277	137.645	0.277	137.647	0.276	137.653	0.276	137.647	0.276	137.653	0.276	z50 for TCF retention (2005-2009)
	pS1[29]	125.402	0.830	125.991	0.860	126.031	0.869	126.051	0.870	126.031	0.869	126.051	0.870	z50 for TCF retention (2013+)
	pS2[1]	66.138	2.500	54.262	1.544	57.439	1.894	60.440	2.217	57.439	1.894	60.440	2.217	width for NMFS survey selectivity (males, pre-1982)
	pS2[2]	90.565	3.069	64.168	1.174	68.295	1.394	70.698	1.483	68.295	1.394	70.698	1.483	width for NMFS survey selectivity (males, 1982+)
	pS2[3]	41.565	2.250	36.505	1.403	38.852	1.741	42.300	2.263	38.852	1.741	42.300	2.263	width for NMFS survey selectivity (females, pre-1982)
	pS2[4]	82.368	6.825	44.918	1.103	48.255	1.314	52.300	1.571	48.255	1.314	52.300	1.571	width for NMFS survey selectivity (females, 1982+)

Table 13. Final number parameter values and standard errors for models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 5.
Parameters with se = “NA” were fixed to the value of est.

process	param	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1		description
		est	se	est	se	est	se	est	se	est	se	est	se	
	pS2[5]	0.726	0.209	0.536	0.084	0.558	0.090	0.569	0.094	0.558	0.090	0.569	0.094	slope for TCF retention (pre-1991)
	pS2[6]	0.978	0.642	1.747	30.445	2.000	0.290	2.000	0.253	2.000	0.382	1.999	1.325	slope for TCF retention (1997+)
	pS2[7]	0.121	0.007	0.122	0.007	0.122	0.007	0.122	0.007	0.122	0.007	0.122	0.007	slope for TCF selectivity (males, pre-1997)
	pS2[8]	0.168	0.008	0.165	0.007	0.165	0.007	0.164	0.007	0.165	0.007	0.164	0.007	slope for TCF selectivity (males, 1997+)
	pS2[9]	0.194	0.025	0.208	0.024	0.205	0.025	0.203	0.025	0.205	0.025	0.203	0.025	slope for TCF selectivity (females)
	pS2[10]	32.777	2.144	31.328	1.255	31.750	1.292	31.757	1.331	31.750	1.292	31.757	1.331	ascending width for SCF selectivity (males, pre-1997)
	pS2[11]	15.600	3.543	15.998	2.668	15.777	2.790	15.733	2.745	15.777	2.790	15.733	2.745	ascending width for SCF selectivity (males, 1997-2004)
	pS2[12]	14.464	0.703	14.249	0.644	14.280	0.666	14.352	0.682	14.280	0.666	14.352	0.682	ascending width for SCF selectivity (males, 2005+)
	pS2[13]	0.137	0.067	0.174	0.061	0.171	0.063	0.172	0.064	0.171	0.063	0.172	0.064	slope for SCF selectivity (females, pre-1997)
	pS2[14]	0.318	0.242	0.329	0.188	0.328	0.200	0.323	0.197	0.328	0.200	0.323	0.197	slope for SCF selectivity (females, 1997-2004)
	pS2[15]	0.096	0.023	0.160	0.038	0.148	0.035	0.146	0.036	0.148	0.035	0.146	0.036	slope for SCF selectivity (females, 2005+)
	pS2[16]	0.088	0.011	0.089	0.007	0.091	0.008	0.092	0.008	0.091	0.008	0.092	0.008	slope for GF.AllGear selectivity (males, pre-1987)
	pS2[17]	0.045	0.007	0.042	0.004	0.041	0.005	0.039	0.004	0.041	0.005	0.039	0.004	slope for GF.AllGear selectivity (males, 1987-1996)
	pS2[18]	0.059	0.002	0.067	0.002	0.065	0.002	0.064	0.002	0.065	0.002	0.064	0.002	slope for GF.AllGear selectivity (males, 1997+)
	pS2[19]	0.136	0.020	0.133	0.015	0.135	0.017	0.144	0.020	0.135	0.017	0.144	0.020	slope for GF.AllGear selectivity (females, pre-1987)
selectivity	pS2[20]	0.170	0.055	0.112	0.027	0.125	0.030	0.128	0.033	0.125	0.030	0.128	0.033	slope for GF.AllGear selectivity (females, 1987-1996)
	pS2[21]	0.064	0.004	0.105	0.005	0.101	0.005	0.098	0.005	0.101	0.005	0.098	0.005	slope for GF.AllGear selectivity (females, 1997+)
	pS2[22]	19.959	0.812	19.892	0.838	19.979	0.841	19.956	0.838	19.979	0.841	19.956	0.838	width for RKF selectivity (males, pre-1997)
	pS2[23]	28.039	2.145	27.272	1.875	28.035	2.013	28.494	2.065	28.035	2.013	28.494	2.065	width for RKF selectivity (males, 1997-2004)
	pS2[24]	27.652	0.994	25.921	0.848	26.231	0.880	26.308	0.891	26.231	0.880	26.308	0.891	width for RKF selectivity (males, 2005+)
	pS2[25]	18.033	2.364	18.224	2.349	18.216	2.365	18.250	2.383	18.216	2.365	18.250	2.383	width for RKF selectivity (males, pre-1997)
	pS2[26]	19.080	15.009	18.580	12.775	18.870	13.350	19.174	13.934	18.870	13.350	19.174	13.934	width for RKF selectivity (males, 1997-2004)
	pS2[27]	17.973	7.940	16.827	6.740	16.854	6.913	16.634	7.037	16.854	6.913	16.634	7.037	width for RKF selectivity (males, 2005+)
	pS2[28]	1.990	NA	1.990	NA	1.990	NA	1.990	NA	1.990	NA	1.990	NA	slope for TCF retention (2005-2009)
	pS2[29]	0.340	0.078	0.322	0.070	0.318	0.070	0.317	0.069	0.318	0.070	0.317	0.069	slope for TCF retention (2013+)

Table 14. Final number parameter values and standard errors for models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 5. Parameters with se = “NA” were fixed to the value of est.

process	param	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1		description
		est	se	est	se	est	se	est	se	est	se	est	se	
selectivity	pS3[1]	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	scaled increment for descending z-at-1 for SCF selectivity (males, pre-1997)
	pS3[2]	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	scaled increment for descending z-at-1 for SCF selectivity (males, 1997-2004)
	pS3[3]	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	0.001	NA	scaled increment for descending z-at-1 for SCF selectivity (males, 2005+)
	pS4[1]	1.100	NA	1.100	NA	1.100	NA	1.100	NA	1.100	NA	1.100	NA	descending width for SCF selectivity (males, pre-1997)
	pS4[2]	20.184	9.071	15.797	7.256	16.448	6.922	16.098	6.517	16.448	6.922	16.098	6.517	descending width for SCF selectivity (males, 1997-2004)
	pS4[3]	13.285	1.288	13.467	1.481	13.616	1.453	13.694	1.456	13.616	1.453	13.694	1.456	descending width for SCF selectivity (males, 2005+)
fisheries	pHM[1]	0.321	NA	0.321	NA	0.321	NA	0.321	NA	0.321	NA	0.321	NA	handling mortality for pot fisheries
	pHM[2]	0.800	NA	0.800	NA	0.800	NA	0.800	NA	0.800	NA	0.800	NA	handling mortality for groundfish trawl fisheries
	pLnC[1]	-2.996	NA	-2.996	NA	-2.996	NA	-2.996	NA	-2.996	NA	-2.996	NA	TCF: base capture rate, pre-1965 (=0.05)
	pLnC[2]	-1.423	0.124	-1.267	0.157	-1.515	0.281	-1.512	0.280	-1.515	0.281	-1.512	0.280	TCF: base capture rate, 1965+
	pLnC[3]	-4.605	NA	-4.605	NA	-4.605	NA	-4.605	NA	-4.605	NA	-4.605	NA	SCF: base capture rate, pre-1978 (=0.01)
	pLnC[4]	-3.715	0.071	-3.444	0.069	-3.523	0.068	-3.518	0.068	-3.523	0.068	-3.518	0.068	SCF: base capture rate, 1992+
	pLnC[5]	-4.181	NA	-4.181	NA	-4.181	NA	-4.181	NA	-4.181	NA	-4.181	NA	DUMMY CAPTURE RATE
	pLnC[6]	-4.943	0.059	-4.585	0.063	-4.657	0.060	-4.646	0.059	-4.657	0.060	-4.646	0.059	GTF: base capture rate, ALL YEARS
fisheries	pLnC[7]	-3.912	NA	-3.912	NA	-3.912	NA	-3.912	NA	-3.912	NA	-3.912	NA	RKF: base capture rate, pre-1953 (=0.02)
	pLnC[8]	-4.755	0.108	-4.315	0.111	-4.465	0.110	-4.490	0.109	-4.465	0.110	-4.490	0.109	RKF: base capture rate, 1992+
	pDC2[1]	-2.688	0.209	-2.512	0.199	-2.436	0.200	-2.484	0.201	-2.436	0.200	-2.484	0.201	TCF: female offset
	pDC2[2]	-2.661	0.331	-2.687	0.242	-2.596	0.247	-2.647	0.240	-2.596	0.247	-2.647	0.240	SCF: female offset
fisheries	pDC2[3]	-1.034	0.095	-1.328	0.096	-1.247	0.092	-1.283	0.086	-1.247	0.092	-1.283	0.086	GTF: female offset
	pDC2[4]	-2.365	0.843	-2.058	0.822	-1.986	0.827	-2.095	0.827	-1.986	0.827	-2.095	0.827	RKF: female offset
	pLgtRet[1]	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	TCF: logit-scale max retention (pre-1997)
surveys	pLgtRet[2]	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	TCF: logit-scale max retention (2005-2009)
	pLgtRet[3]	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	14.900	NA	TCF: logit-scale max retention (2013+)
	pQ[1]	-0.682	0.107	-0.601	0.151	-0.476	0.121	-0.423	0.112	-0.476	0.121	-0.423	0.112	NMFS trawl survey: males, 1975-1981
surveys	pQ[2]	-0.661	0.051	-0.200	0.042	-0.272	0.043	-0.280	0.044	-0.272	0.043	-0.280	0.044	NMFS trawl survey: males, 1982+

Table 15. Final number parameter values and standard errors for models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 5.
Parameters with se = “NA” were fixed to the value of est.

process	param	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1		description
		est	se	est	se	est	se	est	se	est	se	est	se	
	pQ[3]	-1.065	0.133	-1.372	0.174	-1.263	0.157	-1.324	0.138	-1.263	0.157	-1.324	0.138	NMFS trawl survey: females, 1975-1981
surveys	pQ[4]	-1.318	0.076	-0.724	0.069	-0.764	0.067	-0.848	0.066	-0.764	0.067	-0.848	0.066	NMFS trawl survey: females, 1982+
	pQ[5]	0.000	NA	0.000	NA	0.000	NA	0.000	NA	0.000	NA	0.000	NA	BSFRF SBS
Dirichlet-Mul	pLnDirMul[1]	0.929	0.247	0.808	0.255	0.850	0.254	0.867	0.252	0.850	0.254	0.867	0.252	ln(theta) parameter for BSFRF SBS M
	pLnDirMul[2]	2.527	0.245	2.603	0.250	2.606	0.249	2.601	0.248	2.606	0.249	2.601	0.248	ln(theta) parameter for BSFRF SBS F

0.5 Vector parameters

0.6 Vector parameter values for 22.03, 22.03b, 23.01, 23.01a, 23.02

Table 16. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: historical recruitment period. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
1	-0.495	1.779	-0.495	1.779	-0.475	1.782	-0.475	1.782	-0.394	1.851
2	-0.494	1.647	-0.494	1.647	-0.475	1.649	-0.475	1.649	-0.394	1.723
3	-0.492	1.517	-0.492	1.517	-0.473	1.520	-0.473	1.520	-0.393	1.597
4	-0.489	1.392	-0.489	1.392	-0.469	1.395	-0.469	1.396	-0.392	1.475
5	-0.484	1.273	-0.484	1.273	-0.464	1.277	-0.464	1.277	-0.390	1.357
6	-0.476	1.161	-0.476	1.161	-0.456	1.165	-0.456	1.166	-0.386	1.246
7	-0.465	1.059	-0.465	1.059	-0.445	1.064	-0.445	1.064	-0.382	1.142
8	-0.450	0.970	-0.450	0.970	-0.430	0.975	-0.430	0.975	-0.375	1.049
9	-0.429	0.897	-0.429	0.897	-0.409	0.902	-0.409	0.902	-0.366	0.970
10	-0.401	0.843	-0.401	0.843	-0.382	0.847	-0.381	0.848	-0.352	0.907
11	-0.364	0.811	-0.364	0.811	-0.345	0.815	-0.345	0.815	-0.334	0.865
12	-0.316	0.804	-0.316	0.804	-0.298	0.807	-0.298	0.807	-0.308	0.847
13	-0.252	0.821	-0.252	0.821	-0.236	0.822	-0.236	0.822	-0.273	0.852
14	-0.166	0.857	-0.166	0.857	-0.155	0.857	-0.155	0.857	-0.225	0.881
15	-0.047	0.902	-0.047	0.902	-0.045	0.902	-0.046	0.902	-0.158	0.927
16	0.125	0.937	0.125	0.937	0.111	0.937	0.110	0.937	-0.061	0.981
17	0.388	0.934	0.389	0.934	0.351	0.934	0.348	0.934	0.086	1.024
18	0.798	0.877	0.798	0.877	0.732	0.876	0.727	0.877	0.319	1.029
19	1.346	0.782	1.346	0.782	1.273	0.787	1.267	0.788	0.684	0.974
20	1.658	0.668	1.657	0.668	1.625	0.680	1.626	0.681	1.155	0.873
21	1.194	0.682	1.194	0.682	1.215	0.686	1.227	0.686	1.418	0.773
22	0.641	0.680	0.641	0.680	0.638	0.687	0.649	0.687	1.116	0.775
23	0.363	0.658	0.363	0.658	0.375	0.661	0.378	0.662	0.689	0.776
24	-0.082	0.662	-0.082	0.662	-0.063	0.664	-0.060	0.664	0.450	0.756
25	-0.463	0.663	-0.462	0.663	-0.503	0.668	-0.505	0.668	-0.130	0.760

Table 17. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: historical recruitment period. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
26	-0.149	0.697	-0.148	0.697	-0.197	0.692	-0.21	0.693	-0.604	0.812

Table 18. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: current recruitment period. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
1	1.371	0.307	1.371	0.307	1.340	0.282	1.339	0.280	1.687	0.197
2	1.970	0.194	1.970	0.194	1.946	0.177	1.941	0.176	1.949	0.160
3	1.624	0.222	1.624	0.222	1.620	0.199	1.618	0.199	1.970	0.141
4	0.637	0.414	0.637	0.414	0.699	0.354	0.710	0.351	1.212	0.226
5	-0.126	0.537	-0.125	0.537	-0.113	0.483	-0.125	0.486	-0.463	0.544
6	-0.164	0.407	-0.164	0.407	-0.200	0.378	-0.203	0.377	-0.554	0.368
7	0.008	0.291	0.008	0.291	-0.017	0.270	-0.025	0.271	-0.655	0.271
8	-0.144	0.284	-0.144	0.284	-0.162	0.267	-0.163	0.266	-0.935	0.237
9	1.084	0.117	1.085	0.117	1.034	0.116	1.028	0.116	0.028	0.104
10	0.791	0.167	0.791	0.167	0.791	0.156	0.789	0.156	-0.005	0.146
11	0.932	0.164	0.932	0.164	0.929	0.153	0.934	0.152	0.805	0.136
12	0.960	0.154	0.960	0.154	0.938	0.144	0.937	0.144	2.016	0.076
13	0.798	0.166	0.798	0.166	0.839	0.146	0.840	0.146	0.701	0.238
14	0.411	0.204	0.410	0.204	0.411	0.190	0.424	0.189	1.523	0.098
15	-0.356	0.256	-0.356	0.256	-0.297	0.228	-0.296	0.229	0.036	0.255
16	-1.066	0.349	-1.066	0.349	-1.043	0.329	-1.037	0.328	-0.798	0.315
17	-1.359	0.324	-1.359	0.324	-1.337	0.307	-1.332	0.306	-1.165	0.282
18	-1.272	0.255	-1.271	0.255	-1.299	0.250	-1.302	0.250	-1.125	0.219
19	-1.300	0.264	-1.300	0.264	-1.297	0.249	-1.299	0.248	-1.344	0.241
20	-1.098	0.243	-1.098	0.243	-1.136	0.236	-1.139	0.236	-1.094	0.195
21	-0.614	0.180	-0.613	0.180	-0.638	0.176	-0.643	0.176	-0.839	0.162
22	-0.838	0.235	-0.838	0.235	-0.838	0.224	-0.836	0.223	-0.942	0.193
23	0.083	0.118	0.083	0.118	0.052	0.116	0.051	0.116	0.075	0.092
24	-0.925	0.246	-0.925	0.246	-0.904	0.229	-0.904	0.229	-0.839	0.198
25	0.631	0.100	0.631	0.100	0.592	0.098	0.589	0.098	0.506	0.089

Table 19. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: current recruitment period. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
26	-0.499	0.280	-0.499	0.280	-0.439	0.252	-0.436	0.251	-0.236	0.191
27	1.016	0.101	1.016	0.101	0.971	0.099	0.970	0.099	0.887	0.088
28	-0.207	0.288	-0.207	0.288	-0.137	0.256	-0.141	0.255	-0.213	0.229
29	1.114	0.106	1.114	0.106	1.105	0.102	1.104	0.102	1.012	0.105
30	0.550	0.151	0.550	0.151	0.532	0.144	0.540	0.144	1.244	0.088
31	-0.579	0.277	-0.579	0.277	-0.465	0.239	-0.464	0.239	-0.423	0.270
32	-1.046	0.365	-1.046	0.365	-1.047	0.354	-1.043	0.353	-0.744	0.278
33	-0.501	0.262	-0.501	0.262	-0.565	0.261	-0.563	0.260	-0.803	0.248
34	-0.051	0.270	-0.051	0.270	-0.039	0.266	-0.055	0.266	-0.759	0.237
35	1.420	0.095	1.420	0.095	1.376	0.094	1.373	0.094	0.982	0.109
36	0.430	0.194	0.429	0.195	0.520	0.170	0.534	0.168	1.518	0.079
37	-0.312	0.205	-0.313	0.205	-0.296	0.194	-0.290	0.193	0.337	0.169
38	-1.609	0.385	-1.609	0.385	-1.528	0.355	-1.527	0.355	-1.403	0.391
39	-0.679	0.157	-0.679	0.157	-0.693	0.154	-0.692	0.154	-0.478	0.141
40	-1.225	0.225	-1.225	0.225	-1.236	0.214	-1.233	0.213	-1.023	0.189
41	-1.043	0.201	-1.043	0.201	-1.058	0.194	-1.055	0.193	-1.116	0.185
42	-0.881	0.212	-0.880	0.212	-0.911	0.208	-0.919	0.208	-1.033	0.184
43	0.923	0.082	0.923	0.082	0.897	0.081	0.894	0.081	0.771	0.072
44	0.029	0.192	0.029	0.192	0.027	0.184	0.032	0.183	0.217	0.140
45	0.466	0.140	0.466	0.140	0.464	0.136	0.466	0.135	0.305	0.109
46	-1.601	0.580	-1.601	0.580	-1.601	0.575	-1.600	0.575	-1.966	0.532
47	0.836	0.152	0.836	0.152	0.812	0.150	0.810	0.150	0.339	0.124
48	1.410	0.188	1.410	0.188	1.401	0.185	1.399	0.184	0.835	0.145

Table 20. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: males 60-150 mmCW (entire model period). Models 22.03, 22.03b, 23.02. Table 1 of 1. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.02	
	est	se	est	se	est	se
1	-2.876	0.206	-2.875	0.206	-2.843	0.222
2	-3.511	0.296	-3.511	0.297	-3.412	0.291
3	-2.968	0.247	-2.968	0.247	-2.883	0.246
4	-2.137	0.130	-2.137	0.130	-2.115	0.137
5	-1.433	0.116	-1.433	0.116	-1.449	0.129
6	-1.299	0.105	-1.299	0.105	-1.197	0.109
7	-0.808	0.098	-0.808	0.098	-0.675	0.106
8	-0.298	0.087	-0.298	0.087	-0.269	0.096
9	-0.283	0.089	-0.283	0.089	-0.246	0.100
10	0.028	0.089	0.028	0.089	0.083	0.099
11	0.464	0.094	0.464	0.094	0.519	0.107
12	0.933	0.117	0.933	0.117	1.290	0.145
13	1.590	0.143	1.589	0.143	1.877	0.170
14	2.594	0.258	2.594	0.258	2.568	0.261
15	3.062	0.281	3.062	0.281	3.124	0.263
16	3.659	0.485	3.659	0.485	4.047	0.545
17	4.758	1.078	4.758	1.078	5.388	1.183

Table 21. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: females 50-105 mmCW (entire model period). Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 3. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
1	-5.389	1.218	-5.391	1.218	-6.937	6.124	-6.029	3.137	-5.538	1.314
2	-4.133	0.571	-4.134	0.571	-6.447	4.961	-5.744	2.675	-4.178	0.621
3	-2.917	0.249	-2.918	0.249	-5.960	3.977	-5.459	2.260	-2.847	0.253
4	-1.709	0.146	-1.710	0.146	-5.479	3.171	-5.176	1.892	-1.563	0.145
5	-0.582	0.092	-0.583	0.092	-5.014	2.521	-4.896	1.571	-0.408	0.093
6	0.256	0.091	0.256	0.091	-4.579	1.996	-4.622	1.296	0.469	0.097
7	0.571	0.104	0.570	0.104	-4.192	1.571	-4.356	1.062	0.772	0.113
8	1.065	0.137	1.065	0.137	-3.865	1.259	-4.102	0.870	1.327	0.155
9	1.960	0.228	1.959	0.228	-3.605	1.084	-3.859	0.718	2.431	0.275
10	2.907	0.445	2.906	0.444	-3.405	1.010	-3.626	0.603	3.714	0.641
11	3.908	1.007	3.907	1.007	-3.251	0.933	-3.402	0.520	5.024	1.336
12	NA	NA	NA	NA	-3.126	0.809	-3.181	0.465	NA	NA
13	NA	NA	NA	NA	-3.004	0.723	-2.959	0.433	NA	NA
14	NA	NA	NA	NA	-2.851	0.752	-2.731	0.411	NA	NA
15	NA	NA	NA	NA	-2.645	0.822	-2.494	0.385	NA	NA
16	NA	NA	NA	NA	-2.378	0.799	-2.248	0.338	NA	NA
17	NA	NA	NA	NA	-2.067	0.630	-1.995	0.274	NA	NA
18	NA	NA	NA	NA	-1.742	0.422	-1.741	0.229	NA	NA
19	NA	NA	NA	NA	-1.439	0.427	-1.491	0.233	NA	NA
20	NA	NA	NA	NA	-1.190	0.586	-1.251	0.256	NA	NA
21	NA	NA	NA	NA	-0.994	0.617	-1.021	0.246	NA	NA
22	NA	NA	NA	NA	-0.786	0.481	-0.794	0.197	NA	NA
23	NA	NA	NA	NA	-0.564	0.343	-0.571	0.157	NA	NA
24	NA	NA	NA	NA	-0.359	0.428	-0.355	0.182	NA	NA
25	NA	NA	NA	NA	-0.201	0.575	-0.154	0.226	NA	NA

Table 22. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: females 50-105 mmCW (entire model period). Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 3. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
26	NA	NA	NA	NA	-0.077	0.569	0.027	0.227	NA	NA
27	NA	NA	NA	NA	0.121	0.426	0.187	0.184	NA	NA
28	NA	NA	NA	NA	0.355	0.345	0.318	0.157	NA	NA
29	NA	NA	NA	NA	0.518	0.468	0.409	0.193	NA	NA
30	NA	NA	NA	NA	0.526	0.608	0.456	0.238	NA	NA
31	NA	NA	NA	NA	0.406	0.601	0.472	0.237	NA	NA
32	NA	NA	NA	NA	0.406	0.440	0.501	0.196	NA	NA
33	NA	NA	NA	NA	0.537	0.356	0.552	0.172	NA	NA
34	NA	NA	NA	NA	0.702	0.514	0.623	0.207	NA	NA
35	NA	NA	NA	NA	0.802	0.668	0.706	0.250	NA	NA
36	NA	NA	NA	NA	0.821	0.645	0.801	0.253	NA	NA
37	NA	NA	NA	NA	0.878	0.463	0.920	0.223	NA	NA
38	NA	NA	NA	NA	1.009	0.398	1.066	0.216	NA	NA
39	NA	NA	NA	NA	1.207	0.602	1.238	0.258	NA	NA
40	NA	NA	NA	NA	1.444	0.785	1.428	0.316	NA	NA
41	NA	NA	NA	NA	1.686	0.795	1.630	0.351	NA	NA
42	NA	NA	NA	NA	1.918	0.690	1.834	0.366	NA	NA
43	NA	NA	NA	NA	2.112	0.643	2.033	0.380	NA	NA
44	NA	NA	NA	NA	2.253	0.750	2.223	0.408	NA	NA
45	NA	NA	NA	NA	2.346	0.911	2.405	0.453	NA	NA
46	NA	NA	NA	NA	2.426	1.012	2.586	0.512	NA	NA
47	NA	NA	NA	NA	2.563	1.046	2.774	0.588	NA	NA
48	NA	NA	NA	NA	2.785	1.122	2.975	0.694	NA	NA
49	NA	NA	NA	NA	3.091	1.340	3.190	0.842	NA	NA
50	NA	NA	NA	NA	3.467	1.726	3.416	1.042	NA	NA

Table 23. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: females 50-105 mmCW (entire model period). Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 3. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
51	NA	NA	NA	NA	3.889	2.282	3.651	1.296	NA	NA
52	NA	NA	NA	NA	4.333	3.032	3.890	1.607	NA	NA
53	NA	NA	NA	NA	4.785	3.982	4.132	1.975	NA	NA
54	NA	NA	NA	NA	5.239	5.120	4.374	2.396	NA	NA
55	NA	NA	NA	NA	5.694	6.429	4.616	2.865	NA	NA

Table 24. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: males 60-145 mmCW (entire model period). Models 23.01, 23.01a. Table 1 of 4. Parameters with se = “NA” were fixed to the value of est.

index	23.01		23.01a	
	est	se	est	se
1	-1.907	1.217	-2.252	0.537
2	-2.449	0.513	-2.591	0.279
3	-2.965	1.091	-2.921	0.262
4	-3.425	1.517	-3.225	0.375
5	-3.801	1.632	-3.485	0.460
6	-4.074	1.493	-3.681	0.496
7	-4.244	1.245	-3.794	0.500
8	-4.298	1.105	-3.814	0.491
9	-4.220	1.175	-3.742	0.479
10	-4.009	1.299	-3.586	0.461
11	-3.677	1.283	-3.369	0.427
12	-3.260	1.045	-3.126	0.374
13	-2.814	0.681	-2.886	0.318
14	-2.408	0.520	-2.672	0.283
15	-2.106	0.725	-2.495	0.270
16	-1.958	0.803	-2.352	0.252
17	-2.032	0.622	-2.222	0.219
18	-2.211	0.522	-2.087	0.200
19	-2.310	0.707	-1.932	0.221
20	-2.190	0.921	-1.755	0.254
21	-1.846	0.967	-1.571	0.255
22	-1.521	0.742	-1.420	0.214
23	-1.302	0.486	-1.323	0.174
24	-1.171	0.577	-1.278	0.188
25	-1.075	0.798	-1.275	0.223

Table 25. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: males 60-145 mmCW (entire model period). Models 23.01, 23.01a. Table 1 of 4. Parameters with se = “NA” were fixed to the value of est.

index	23.01		23.01a	
	est	se	est	se
26	-1.019	0.803	-1.296	0.227
27	-1.187	0.583	-1.327	0.194
28	-1.452	0.501	-1.341	0.173
29	-1.570	0.677	-1.310	0.202
30	-1.364	0.853	-1.217	0.241
31	-0.881	0.844	-1.067	0.242
32	-0.601	0.594	-0.905	0.199
33	-0.591	0.465	-0.751	0.160
34	-0.748	0.651	-0.613	0.178
35	-0.939	0.840	-0.497	0.216
36	-1.022	0.804	-0.401	0.218
37	-0.753	0.615	-0.312	0.181
38	-0.236	0.461	-0.240	0.157
39	0.232	0.545	-0.205	0.188
40	0.376	0.745	-0.220	0.229
41	0.137	0.759	-0.272	0.227
42	-0.187	0.572	-0.313	0.184
43	-0.439	0.474	-0.318	0.154
44	-0.551	0.617	-0.282	0.182
45	-0.517	0.806	-0.212	0.221
46	-0.368	0.797	-0.121	0.221
47	-0.165	0.595	-0.025	0.182
48	0.061	0.468	0.068	0.158
49	0.298	0.600	0.160	0.188
50	0.536	0.790	0.254	0.228

Table 26. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: males 60-145 mmCW (entire model period). Models 23.01, 23.01a. Table 1 of 4. Parameters with se = “NA” were fixed to the value of est.

index	23.01		23.01a	
	est	se	est	se
51	0.715	0.766	0.348	0.227
52	0.668	0.576	0.424	0.187
53	0.461	0.475	0.492	0.161
54	0.284	0.577	0.569	0.188
55	0.324	0.729	0.672	0.225
56	0.630	0.707	0.798	0.226
57	0.988	0.549	0.917	0.198
58	1.251	0.517	1.013	0.188
59	1.310	0.641	1.084	0.220
60	1.131	0.746	1.141	0.254
61	0.859	0.653	1.215	0.252
62	1.020	0.445	1.370	0.220
63	1.550	0.585	1.610	0.205
64	2.149	0.812	1.906	0.234
65	2.582	0.955	2.215	0.286
66	2.820	1.017	2.505	0.335
67	3.085	0.991	2.757	0.379
68	3.402	1.086	2.956	0.424
69	3.709	1.323	3.089	0.469
70	3.931	1.549	3.157	0.502
71	4.013	1.651	3.170	0.509
72	3.943	1.586	3.156	0.477
73	3.724	1.403	3.138	0.417
74	3.383	1.176	3.135	0.358
75	2.983	0.970	3.166	0.352

Table 27. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: males 60-145 mmCW (entire model period). Models 23.01, 23.01a. Table 1 of 4. Parameters with se = “NA” were fixed to the value of est.

index	23.01		23.01a	
	est	se	est	se
76	2.642	0.811	3.248	0.431
77	2.545	0.818	3.395	0.567
78	2.796	1.157	3.612	0.723
79	3.393	1.594	3.896	0.883
80	4.248	2.006	4.236	1.044
81	5.252	2.487	4.615	1.220
82	6.304	3.245	5.016	1.430
83	7.371	4.342	5.428	1.690
84	8.442	5.754	5.843	2.006
85	9.513	7.440	6.260	2.380

Table 28. Final vector parameter values (est) and standard errors (se) for category: selectivity; process: selectivity; parameter name: pDevsS1; parameter description: ln(z50 devs) for TCF selectivity (males, 1991+). Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 1. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
1	0.099	0.015	0.099	0.015	0.098	0.014	0.098	0.014	0.089	0.015
2	0.076	0.014	0.076	0.014	0.075	0.014	0.075	0.014	0.062	0.015
3	0.115	0.013	0.115	0.013	0.113	0.013	0.113	0.013	0.102	0.014
4	0.116	0.018	0.116	0.018	0.115	0.018	0.115	0.018	0.109	0.019
5	0.091	0.021	0.091	0.021	0.091	0.021	0.092	0.021	0.100	0.021
6	0.196	0.020	0.196	0.020	0.195	0.020	0.195	0.020	0.204	0.019
7	-0.037	0.014	-0.037	0.014	-0.037	0.014	-0.037	0.014	-0.043	0.015
8	-0.022	0.014	-0.022	0.014	-0.021	0.014	-0.021	0.014	-0.021	0.014
9	-0.089	0.013	-0.089	0.013	-0.088	0.013	-0.088	0.013	-0.084	0.014
10	0.029	0.012	0.029	0.012	0.030	0.011	0.029	0.011	0.028	0.012
11	0.148	0.012	0.148	0.012	0.146	0.012	0.146	0.012	0.152	0.012
12	-0.017	0.014	-0.017	0.014	-0.016	0.014	-0.016	0.014	-0.008	0.014
13	-0.072	0.012	-0.072	0.012	-0.071	0.012	-0.071	0.012	-0.074	0.013
14	-0.109	0.014	-0.109	0.014	-0.108	0.014	-0.108	0.014	-0.111	0.015
15	-0.075	0.016	-0.075	0.016	-0.073	0.016	-0.074	0.016	-0.071	0.016
16	-0.120	0.014	-0.120	0.014	-0.119	0.014	-0.119	0.014	-0.119	0.015
17	-0.171	0.016	-0.171	0.016	-0.171	0.016	-0.171	0.016	-0.150	0.016
18	-0.158	0.015	-0.158	0.015	-0.158	0.015	-0.158	0.015	-0.163	0.016

Table 29. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: TCF: 1965-1984, 1987-1996, 2005-2009, 2013-2015, 2017-2018. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = "NA" were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
1	-1.377	0.874	-1.377	0.874	-1.436	0.879	-1.435	0.878	-1.775	0.926
2	-1.168	0.723	-1.168	0.723	-1.229	0.727	-1.228	0.726	-1.555	0.769
3	0.672	0.662	0.672	0.662	0.602	0.662	0.603	0.661	0.295	0.706
4	1.247	0.640	1.248	0.640	1.160	0.630	1.160	0.629	0.873	0.682
5	2.396	0.890	2.396	0.890	2.246	0.826	2.245	0.824	2.020	0.964
6	4.077	0.776	4.077	0.776	4.017	0.819	4.015	0.822	3.854	0.981
7	4.642	0.729	4.642	0.728	4.681	0.699	4.684	0.688	4.329	1.177
8	2.107	1.215	2.107	1.215	2.063	1.190	2.067	1.168	1.547	1.302
9	0.062	0.346	0.062	0.346	0.028	0.339	0.030	0.337	-0.236	0.350
10	-0.280	0.217	-0.280	0.217	-0.305	0.217	-0.305	0.216	-0.521	0.219
11	-0.150	0.182	-0.150	0.182	-0.167	0.180	-0.167	0.179	-0.363	0.185
12	0.604	0.178	0.605	0.178	0.591	0.174	0.590	0.174	0.444	0.183
13	1.355	0.205	1.355	0.205	1.348	0.196	1.346	0.195	1.532	0.206
14	1.615	0.282	1.615	0.282	1.650	0.261	1.650	0.259	3.536	0.286
15	2.066	0.362	2.066	0.362	2.230	0.367	2.238	0.366	2.327	0.231
16	1.851	0.262	1.851	0.262	1.954	0.279	1.952	0.278	1.520	0.190
17	0.188	0.151	0.189	0.151	0.185	0.151	0.181	0.151	0.017	0.150
18	-0.949	0.132	-0.949	0.132	-0.964	0.130	-0.964	0.130	-0.830	0.139
19	-2.380	0.133	-2.380	0.133	-2.385	0.132	-2.385	0.131	-2.000	0.138
20	-1.070	0.146	-1.070	0.146	-1.069	0.144	-1.070	0.143	-0.432	0.144
21	-1.439	0.127	-1.439	0.127	-1.444	0.125	-1.442	0.124	-0.797	0.135
22	-0.485	0.126	-0.485	0.126	-0.494	0.124	-0.494	0.123	0.271	0.139
23	0.699	0.128	0.699	0.128	0.687	0.125	0.689	0.125	1.472	0.153
24	1.458	0.135	1.458	0.135	1.454	0.132	1.454	0.132	1.599	0.155
25	1.756	0.160	1.756	0.160	1.761	0.159	1.759	0.159	1.494	0.166

Table 30. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: TCF: 1965-1984, 1987-1996, 2005-2009, 2013-2015, 2017-2018. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
26	2.099	0.170	2.099	0.170	2.110	0.168	2.109	0.168	1.686	0.172
27	1.654	0.168	1.654	0.168	1.658	0.166	1.658	0.166	1.235	0.169
28	0.902	0.177	0.902	0.177	0.925	0.177	0.927	0.177	0.825	0.186
29	0.314	0.170	0.314	0.170	0.351	0.171	0.356	0.170	0.584	0.194
30	0.242	0.224	0.242	0.224	0.279	0.224	0.284	0.224	0.661	0.239
31	-2.434	0.128	-2.434	0.128	-2.421	0.126	-2.421	0.126	-2.599	0.134
32	-1.816	0.128	-1.816	0.128	-1.797	0.126	-1.798	0.126	-1.895	0.134
33	-1.993	0.128	-1.993	0.128	-1.979	0.126	-1.978	0.126	-2.088	0.134
34	-2.151	0.128	-2.151	0.128	-2.139	0.126	-2.140	0.126	-2.332	0.133
35	-2.172	0.149	-2.172	0.149	-2.169	0.148	-2.169	0.147	-2.267	0.155
36	-2.021	0.131	-2.021	0.131	-2.000	0.128	-2.004	0.128	-2.145	0.138
37	-0.742	0.128	-0.742	0.128	-0.727	0.126	-0.731	0.125	-0.944	0.134
38	-0.439	0.127	-0.439	0.127	-0.422	0.125	-0.423	0.124	-0.551	0.134
39	-2.156	0.127	-2.157	0.127	-2.127	0.125	-2.129	0.125	-2.139	0.134
40	-2.001	0.127	-2.002	0.127	-1.972	0.125	-1.974	0.125	-1.961	0.134
41	-2.217	0.129	-2.217	0.129	-2.190	0.127	-2.193	0.127	-2.082	0.137
42	-2.565	0.131	-2.565	0.131	-2.544	0.128	-2.549	0.128	-2.608	0.137

Table 31. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: SCF: 1992+. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
1	1.488	0.199	1.488	0.199	1.483	0.200	1.480	0.199	1.420	0.198
2	1.740	0.203	1.740	0.203	1.731	0.204	1.727	0.203	1.627	0.206
3	0.733	0.200	0.734	0.200	0.723	0.202	0.719	0.201	0.536	0.195
4	1.123	0.191	1.123	0.191	1.114	0.193	1.110	0.192	1.002	0.185
5	0.550	0.190	0.550	0.190	0.546	0.191	0.543	0.190	0.556	0.184
6	0.473	0.192	0.473	0.192	0.472	0.193	0.469	0.192	0.578	0.188
7	1.316	0.201	1.316	0.201	1.317	0.202	1.314	0.202	1.520	0.203
8	1.108	0.207	1.108	0.207	1.110	0.207	1.111	0.207	1.283	0.209
9	0.169	0.195	0.169	0.195	0.171	0.195	0.173	0.195	0.305	0.193
10	-1.443	0.212	-1.443	0.212	-1.441	0.212	-1.440	0.212	-1.321	0.210
11	-0.697	0.215	-0.697	0.215	-0.698	0.215	-0.697	0.215	-0.654	0.213
12	-0.244	0.212	-0.244	0.212	-0.245	0.213	-0.245	0.213	-0.213	0.212
13	-1.529	0.213	-1.529	0.213	-1.533	0.213	-1.532	0.213	-1.554	0.212
14	-2.647	0.243	-2.647	0.243	-2.648	0.243	-2.648	0.243	-2.678	0.243
15	-1.958	0.191	-1.958	0.191	-1.964	0.192	-1.963	0.192	-2.004	0.190
16	0.001	0.198	0.001	0.198	0.008	0.198	0.008	0.198	-0.030	0.196
17	0.146	0.191	0.146	0.191	0.145	0.191	0.147	0.191	0.148	0.190
18	0.182	0.194	0.182	0.194	0.183	0.195	0.184	0.194	0.095	0.194
19	-0.447	0.196	-0.447	0.196	-0.449	0.196	-0.448	0.196	-0.488	0.195
20	-0.062	0.198	-0.062	0.198	-0.058	0.198	-0.055	0.198	-0.004	0.196
21	0.036	0.199	0.036	0.199	0.043	0.199	0.046	0.199	0.141	0.196
22	0.580	0.197	0.580	0.197	0.588	0.198	0.590	0.198	0.688	0.195
23	0.277	0.197	0.277	0.197	0.276	0.197	0.277	0.197	0.256	0.195
24	0.199	0.196	0.199	0.196	0.199	0.197	0.199	0.197	0.037	0.194
25	1.036	0.191	1.036	0.191	1.031	0.191	1.031	0.191	0.856	0.185

Table 32. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: SCF: 1992+. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
26	0.833	0.193	0.833	0.193	0.834	0.193	0.835	0.193	0.741	0.186
27	0.657	0.195	0.657	0.195	0.661	0.195	0.663	0.195	0.658	0.191
28	0.031	0.198	0.031	0.198	0.038	0.198	0.040	0.198	0.076	0.197
29	0.029	0.199	0.029	0.199	0.036	0.199	0.037	0.199	0.127	0.199
30	0.332	0.198	0.332	0.198	0.340	0.198	0.342	0.198	0.422	0.198
31	-1.667	0.213	-1.667	0.213	-1.667	0.213	-1.667	0.213	-1.723	0.212
32	-2.346	0.229	-2.346	0.229	-2.346	0.229	-2.348	0.229	-2.404	0.227

Table 33. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: GF.AllGear: 1973+. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
1	1.512	0.224	1.512	0.224	1.498	0.223	1.497	0.223	1.183	0.219
2	1.842	0.213	1.842	0.213	1.830	0.212	1.829	0.212	1.505	0.207
3	0.998	0.211	0.998	0.211	0.989	0.209	0.988	0.209	0.681	0.208
4	0.467	0.209	0.467	0.209	0.458	0.207	0.457	0.207	0.138	0.205
5	0.140	0.209	0.141	0.209	0.132	0.207	0.132	0.207	-0.151	0.204
6	-0.140	0.209	-0.140	0.209	-0.147	0.207	-0.147	0.207	-0.253	0.204
7	0.455	0.213	0.455	0.213	0.454	0.211	0.455	0.211	0.279	0.200
8	0.091	0.210	0.091	0.210	0.090	0.209	0.091	0.209	-0.038	0.203
9	-0.087	0.204	-0.087	0.204	-0.090	0.204	-0.090	0.204	-0.098	0.200
10	-1.028	0.202	-1.027	0.202	-1.029	0.202	-1.028	0.202	-0.877	0.199
11	-0.299	0.204	-0.299	0.204	-0.297	0.204	-0.298	0.204	0.005	0.199
12	-0.025	0.209	-0.024	0.209	-0.023	0.209	-0.026	0.208	0.448	0.203
13	-0.514	0.205	-0.514	0.205	-0.514	0.205	-0.516	0.205	-0.019	0.198
14	-0.251	0.199	-0.251	0.199	-0.253	0.199	-0.254	0.199	0.101	0.189
15	-0.376	0.203	-0.375	0.203	-0.378	0.203	-0.378	0.203	0.493	0.193
16	-0.873	0.203	-0.873	0.203	-0.878	0.203	-0.878	0.203	-0.187	0.197
17	-0.585	0.202	-0.585	0.202	-0.592	0.202	-0.593	0.202	-0.166	0.197
18	-0.211	0.202	-0.211	0.202	-0.220	0.202	-0.221	0.202	0.034	0.198
19	0.627	0.151	0.627	0.151	0.622	0.151	0.621	0.151	0.906	0.147
20	0.889	0.152	0.889	0.152	0.884	0.151	0.883	0.151	1.186	0.148
21	0.560	0.151	0.560	0.151	0.557	0.151	0.557	0.151	0.913	0.147
22	1.035	0.152	1.035	0.152	1.036	0.152	1.035	0.152	1.497	0.150
23	0.947	0.152	0.947	0.152	0.950	0.152	0.950	0.152	1.507	0.151
24	1.122	0.154	1.122	0.154	1.127	0.154	1.127	0.154	1.799	0.155
25	1.565	0.149	1.565	0.149	1.574	0.149	1.575	0.149	1.536	0.150

Table 34. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: GF.AllGear: 1973+. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
26	1.423	0.147	1.423	0.147	1.432	0.147	1.433	0.147	1.357	0.145
27	0.893	0.147	0.892	0.147	0.901	0.147	0.902	0.147	0.788	0.144
28	0.932	0.147	0.932	0.147	0.937	0.147	0.938	0.147	0.774	0.144
29	1.154	0.147	1.154	0.147	1.160	0.147	1.161	0.147	0.978	0.145
30	0.449	0.147	0.449	0.147	0.453	0.147	0.454	0.147	0.236	0.144
31	-0.102	0.146	-0.102	0.146	-0.098	0.146	-0.098	0.146	-0.324	0.143
32	0.192	0.146	0.192	0.146	0.195	0.146	0.195	0.146	-0.054	0.142
33	-0.138	0.146	-0.138	0.146	-0.136	0.146	-0.136	0.146	-0.376	0.142
34	-0.166	0.146	-0.166	0.146	-0.166	0.146	-0.165	0.146	-0.409	0.143
35	-0.077	0.146	-0.077	0.146	-0.077	0.146	-0.076	0.146	-0.330	0.143
36	-0.416	0.146	-0.416	0.146	-0.415	0.146	-0.414	0.146	-0.618	0.142
37	-0.792	0.145	-0.792	0.145	-0.787	0.145	-0.786	0.145	-0.907	0.142
38	-1.138	0.145	-1.138	0.145	-1.131	0.145	-1.130	0.145	-1.246	0.141
39	-0.826	0.145	-0.827	0.145	-0.822	0.145	-0.821	0.145	-0.983	0.142
40	-1.312	0.146	-1.312	0.146	-1.311	0.145	-1.311	0.145	-1.572	0.143
41	-0.747	0.146	-0.747	0.146	-0.749	0.146	-0.749	0.146	-1.075	0.142
42	-0.662	0.145	-0.662	0.145	-0.665	0.145	-0.664	0.145	-0.966	0.142
43	-0.798	0.145	-0.798	0.145	-0.797	0.145	-0.796	0.145	-1.029	0.141
44	-0.706	0.145	-0.706	0.145	-0.701	0.145	-0.700	0.145	-0.878	0.142
45	-1.278	0.145	-1.279	0.145	-1.271	0.145	-1.271	0.145	-1.416	0.142
46	-0.980	0.145	-0.980	0.145	-0.973	0.145	-0.972	0.145	-1.106	0.142
47	-0.862	0.146	-0.863	0.146	-0.857	0.146	-0.857	0.146	-1.032	0.143
48	-0.947	0.147	-0.947	0.147	-0.944	0.147	-0.945	0.147	-1.133	0.144
49	-0.958	0.149	-0.958	0.149	-0.957	0.148	-0.958	0.148	-1.100	0.143

Table 35. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: RKF: 1992+. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
1	3.786	0.230	3.786	0.230	3.781	0.230	3.780	0.230	3.624	0.232
2	3.464	0.244	3.464	0.244	3.458	0.244	3.455	0.244	2.977	0.240
3	3.268	0.247	3.268	0.247	3.264	0.247	3.262	0.247	2.688	0.244
4	4.195	0.231	4.195	0.231	4.188	0.231	4.187	0.231	3.719	0.232
5	2.235	0.242	2.235	0.242	2.254	0.242	2.255	0.242	2.254	0.245
6	0.974	0.260	0.974	0.260	0.987	0.261	0.989	0.261	1.072	0.264
7	0.720	0.261	0.720	0.261	0.730	0.262	0.732	0.262	0.756	0.259
8	0.298	0.272	0.298	0.272	0.306	0.272	0.308	0.272	0.271	0.266
9	0.075	0.279	0.075	0.279	0.078	0.279	0.080	0.279	-0.019	0.273
10	-0.520	0.343	-0.520	0.343	-0.521	0.343	-0.520	0.343	-0.681	0.337
11	-0.331	0.281	-0.331	0.281	-0.335	0.281	-0.335	0.281	-0.540	0.274
12	-0.630	0.288	-0.630	0.288	-0.634	0.288	-0.633	0.288	-0.890	0.281
13	-0.952	0.298	-0.952	0.298	-0.957	0.298	-0.957	0.298	-1.203	0.291
14	-1.319	0.330	-1.319	0.330	-1.325	0.330	-1.325	0.330	-1.782	0.327
15	-1.818	0.433	-1.818	0.433	-1.821	0.433	-1.822	0.433	-2.149	0.430
16	-1.271	0.262	-1.271	0.262	-1.278	0.262	-1.278	0.262	-1.738	0.259
17	0.112	0.217	0.112	0.217	0.104	0.217	0.103	0.217	-0.411	0.214
18	-0.360	0.220	-0.360	0.220	-0.366	0.220	-0.366	0.220	-0.784	0.216
19	-2.028	0.415	-2.028	0.415	-2.025	0.416	-2.024	0.416	-2.251	0.412
20	-2.474	0.695	-2.474	0.695	-2.468	0.695	-2.467	0.695	-2.409	0.692
21	-1.440	0.323	-1.440	0.323	-1.437	0.323	-1.437	0.323	-1.732	0.320
22	-0.409	0.227	-0.408	0.227	-0.414	0.227	-0.415	0.227	-0.923	0.225
23	0.251	0.219	0.251	0.219	0.241	0.219	0.239	0.219	-0.328	0.215
24	-0.160	0.216	-0.160	0.216	-0.168	0.216	-0.169	0.216	-0.654	0.212
25	-0.199	0.218	-0.199	0.218	-0.199	0.218	-0.199	0.218	-0.595	0.214

Table 36. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: RKF: 1992+. Models 22.03, 22.03b, 23.01, 23.01a, 23.02. Table 1 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03		22.03b		23.01		23.01a		23.02	
	est	se	est	se	est	se	est	se	est	se
26	0.010	0.220	0.010	0.220	0.014	0.220	0.015	0.220	-0.347	0.217
27	-0.698	0.250	-0.698	0.250	-0.691	0.250	-0.691	0.250	-1.017	0.247
28	-1.935	0.682	-1.935	0.682	-1.929	0.682	-1.929	0.682	-1.906	0.681
29	-2.842	1.321	-2.842	1.321	-2.838	1.321	-2.839	1.321	5.000	0.000

0.7 Vector parameter values for 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1

Table 37. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: historical recruitment period. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
1	-0.495	1.779	-0.386	1.653	-0.400	1.659	-0.386	1.651	-0.394	1.659
2	-0.494	1.647	-0.382	1.514	-0.396	1.521	-0.383	1.512	-0.390	1.521
3	-0.492	1.517	-0.375	1.381	-0.388	1.392	-0.376	1.379	-0.382	1.391
4	-0.489	1.392	-0.363	1.257	-0.374	1.272	-0.364	1.255	-0.368	1.272
5	-0.484	1.273	-0.344	1.144	-0.353	1.166	-0.344	1.141	-0.347	1.165
6	-0.476	1.161	-0.317	1.043	-0.322	1.073	-0.316	1.041	-0.316	1.072
7	-0.465	1.059	-0.278	0.958	-0.280	0.997	-0.278	0.956	-0.274	0.996
8	-0.450	0.970	-0.227	0.890	-0.224	0.940	-0.226	0.888	-0.218	0.938
9	-0.429	0.897	-0.162	0.840	-0.152	0.900	-0.160	0.837	-0.147	0.898
10	-0.401	0.843	-0.084	0.807	-0.064	0.876	-0.080	0.804	-0.059	0.873
11	-0.364	0.811	0.005	0.792	0.041	0.863	0.010	0.787	0.045	0.860
12	-0.316	0.804	0.102	0.794	0.165	0.859	0.109	0.788	0.168	0.857
13	-0.252	0.821	0.209	0.811	0.313	0.863	0.215	0.805	0.316	0.860
14	-0.166	0.857	0.334	0.833	0.495	0.868	0.336	0.827	0.495	0.866
15	-0.047	0.902	0.492	0.841	0.715	0.866	0.487	0.835	0.711	0.865
16	0.125	0.937	0.719	0.822	0.970	0.854	0.702	0.818	0.962	0.853
17	0.389	0.934	1.033	0.777	1.227	0.843	1.004	0.772	1.213	0.841
18	0.798	0.877	1.365	0.726	1.361	0.874	1.328	0.717	1.341	0.870
19	1.346	0.782	1.331	0.727	1.077	0.924	1.296	0.713	1.052	0.917
20	1.657	0.668	0.486	0.703	0.277	0.844	0.473	0.694	0.259	0.838
21	1.194	0.682	-0.201	0.656	-0.295	0.760	-0.193	0.649	-0.299	0.755
22	0.641	0.680	-0.248	0.607	-0.279	0.697	-0.228	0.601	-0.273	0.693
23	0.363	0.658	-0.638	0.606	-0.695	0.694	-0.617	0.599	-0.687	0.690
24	-0.082	0.662	-0.737	0.589	-0.988	0.686	-0.701	0.582	-0.979	0.682
25	-0.462	0.663	-0.945	0.588	-1.189	0.687	-0.908	0.581	-1.183	0.683

Table 38. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: historical recruitment period. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
26	-0.148	0.697	-0.388	0.562	-0.239	0.654	-0.402	0.556	-0.246	0.65

Table 39. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: current recruitment period. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
1	1.371	0.307	1.234	0.107	1.645	0.126	1.231	0.107	1.632	0.125
2	1.970	0.194	1.227	0.104	1.593	0.122	1.228	0.104	1.585	0.122
3	1.624	0.222	0.287	0.189	0.614	0.196	0.286	0.189	0.609	0.196
4	0.637	0.414	-0.472	0.294	-0.159	0.287	-0.468	0.294	-0.161	0.287
5	-0.125	0.537	-0.548	0.266	-0.349	0.260	-0.533	0.265	-0.343	0.258
6	-0.164	0.407	-0.406	0.211	-0.383	0.213	-0.390	0.211	-0.377	0.213
7	0.008	0.291	0.184	0.134	0.090	0.137	0.201	0.134	0.095	0.137
8	-0.144	0.284	0.626	0.109	0.449	0.113	0.642	0.109	0.452	0.113
9	1.085	0.117	1.312	0.072	1.070	0.079	1.333	0.072	1.074	0.079
10	0.791	0.167	0.904	0.107	0.679	0.112	0.926	0.106	0.683	0.112
11	0.932	0.164	1.054	0.085	0.806	0.097	1.076	0.084	0.807	0.097
12	0.960	0.154	0.758	0.097	0.666	0.099	0.765	0.097	0.667	0.099
13	0.798	0.166	0.228	0.125	0.208	0.123	0.224	0.125	0.210	0.122
14	0.410	0.204	-0.422	0.173	-0.450	0.173	-0.420	0.173	-0.446	0.173
15	-0.356	0.256	-0.712	0.171	-0.743	0.172	-0.712	0.171	-0.740	0.172
16	-1.066	0.349	-1.654	0.278	-1.656	0.277	-1.662	0.279	-1.655	0.277
17	-1.359	0.324	-1.552	0.218	-1.537	0.218	-1.555	0.218	-1.534	0.217
18	-1.271	0.255	-1.207	0.166	-1.185	0.167	-1.206	0.166	-1.179	0.167
19	-1.300	0.264	-1.119	0.175	-1.105	0.178	-1.119	0.175	-1.099	0.177
20	-1.098	0.243	-0.983	0.163	-0.956	0.164	-0.986	0.163	-0.952	0.164
21	-0.613	0.180	-0.632	0.126	-0.600	0.127	-0.636	0.126	-0.597	0.127
22	-0.838	0.235	-0.664	0.138	-0.621	0.139	-0.669	0.138	-0.619	0.139
23	0.083	0.118	-0.091	0.099	-0.054	0.100	-0.097	0.099	-0.053	0.100
24	-0.925	0.246	-0.234	0.131	-0.198	0.132	-0.241	0.131	-0.198	0.132
25	0.631	0.100	0.539	0.085	0.569	0.086	0.533	0.085	0.570	0.086

Table 40. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: current recruitment period. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
26	-0.499	0.280	0.221	0.124	0.241	0.126	0.212	0.124	0.239	0.126
27	1.016	0.101	0.755	0.092	0.757	0.094	0.746	0.092	0.754	0.094
28	-0.207	0.288	0.551	0.109	0.548	0.111	0.543	0.109	0.545	0.111
29	1.114	0.106	0.582	0.100	0.573	0.102	0.577	0.100	0.572	0.102
30	0.550	0.151	-0.007	0.140	-0.012	0.141	-0.010	0.140	-0.011	0.141
31	-0.579	0.277	-0.705	0.213	-0.719	0.214	-0.706	0.212	-0.717	0.214
32	-1.046	0.365	-0.937	0.273	-0.954	0.276	-0.939	0.273	-0.953	0.275
33	-0.501	0.262	0.405	0.120	0.373	0.125	0.402	0.120	0.373	0.125
34	-0.051	0.270	0.864	0.084	0.847	0.087	0.858	0.084	0.844	0.087
35	1.420	0.095	0.706	0.086	0.686	0.088	0.700	0.086	0.682	0.088
36	0.429	0.195	-0.407	0.167	-0.447	0.170	-0.412	0.166	-0.449	0.170
37	-0.313	0.205	-0.895	0.180	-0.975	0.185	-0.898	0.179	-0.978	0.185
38	-1.609	0.385	-1.409	0.209	-1.463	0.211	-1.415	0.209	-1.467	0.211
39	-0.679	0.157	-1.194	0.157	-1.233	0.157	-1.202	0.157	-1.239	0.157
40	-1.225	0.225	-1.197	0.180	-1.267	0.184	-1.202	0.180	-1.271	0.183
41	-1.043	0.201	-0.560	0.136	-0.627	0.139	-0.563	0.136	-0.630	0.139
42	-0.880	0.212	0.008	0.116	-0.011	0.116	0.011	0.115	-0.007	0.115
43	0.923	0.082	0.720	0.081	0.690	0.082	0.721	0.081	0.692	0.082
44	0.029	0.192	0.120	0.156	0.110	0.155	0.122	0.156	0.115	0.155
45	0.466	0.140	0.419	0.155	0.373	0.155	0.417	0.155	0.374	0.155
46	-1.601	0.580	-0.220	0.340	-0.278	0.339	-0.224	0.340	-0.280	0.339
47	0.836	0.152	1.923	0.140	1.854	0.140	1.915	0.140	1.848	0.140
48	1.410	0.188	2.604	0.200	2.541	0.200	2.594	0.200	2.533	0.200

Table 41. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: males 60-150 mmCW (entire model period). Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 1. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
1	-2.875	0.206	-3.250	0.250	-3.260	0.242	-3.248	0.251	-3.259	0.242
2	-3.511	0.297	-3.682	0.287	-3.705	0.282	-3.678	0.288	-3.702	0.283
3	-2.968	0.247	-3.108	0.236	-3.119	0.231	-3.103	0.236	-3.116	0.231
4	-2.137	0.130	-2.473	0.145	-2.418	0.137	-2.470	0.145	-2.413	0.137
5	-1.433	0.116	-1.758	0.119	-1.758	0.115	-1.756	0.119	-1.755	0.115
6	-1.299	0.105	-1.418	0.097	-1.380	0.094	-1.410	0.097	-1.371	0.094
7	-0.808	0.098	-0.886	0.085	-0.854	0.083	-0.878	0.085	-0.846	0.083
8	-0.298	0.087	-0.786	0.083	-0.696	0.081	-0.781	0.083	-0.687	0.081
9	-0.283	0.089	-0.638	0.082	-0.584	0.079	-0.632	0.082	-0.578	0.079
10	0.028	0.089	-0.288	0.080	-0.187	0.078	-0.279	0.080	-0.172	0.078
11	0.464	0.094	0.118	0.079	0.233	0.079	0.134	0.079	0.250	0.079
12	0.933	0.117	0.200	0.079	0.459	0.082	0.208	0.079	0.479	0.082
13	1.589	0.143	0.701	0.090	0.958	0.095	0.712	0.090	0.979	0.095
14	2.594	0.258	0.833	0.100	1.033	0.101	0.848	0.101	1.050	0.102
15	3.062	0.281	1.195	0.133	1.528	0.143	1.189	0.132	1.549	0.145
16	3.659	0.485	1.979	0.217	2.237	0.229	2.001	0.217	2.246	0.230
17	4.758	1.078	2.568	0.484	2.553	0.425	2.694	0.514	2.498	0.412

Table 42. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: females 50-105 mmCW (entire model period). Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 1. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
1	-5.391	1.218	-4.948	0.889	-4.769	0.915	-4.909	0.891	-4.712	0.910
2	-4.134	0.571	-3.796	0.417	-3.723	0.420	-3.783	0.416	-3.700	0.416
3	-2.918	0.249	-2.783	0.221	-2.755	0.229	-2.784	0.223	-2.753	0.231
4	-1.710	0.146	-1.704	0.139	-1.638	0.143	-1.701	0.140	-1.635	0.144
5	-0.583	0.092	-0.584	0.080	-0.505	0.082	-0.565	0.080	-0.485	0.082
6	0.256	0.091	0.066	0.075	0.136	0.076	0.092	0.075	0.159	0.076
7	0.570	0.104	0.302	0.083	0.387	0.085	0.337	0.083	0.422	0.085
8	1.065	0.137	0.642	0.102	0.729	0.104	0.730	0.103	0.820	0.105
9	1.959	0.228	1.282	0.156	1.372	0.158	1.430	0.165	1.509	0.164
10	2.906	0.444	2.066	0.286	2.301	0.313	2.108	0.278	2.337	0.306
11	3.907	1.007	3.082	0.706	3.482	0.754	2.938	0.705	3.370	0.756

Table 43. Final vector parameter values (est) and standard errors (se) for category: selectivity; process: selectivity; parameter name: pDevsS1; parameter description: ln(z50 devs) for TCF selectivity (males, 1991+). Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 1. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
1	0.099	0.015	0.103	0.012	0.101	0.013	0.102	0.012	0.100	0.013
2	0.076	0.014	0.081	0.012	0.081	0.013	0.081	0.012	0.080	0.013
3	0.115	0.013	0.107	0.012	0.114	0.012	0.107	0.012	0.114	0.012
4	0.116	0.018	0.104	0.017	0.109	0.017	0.105	0.017	0.109	0.017
5	0.091	0.021	0.073	0.020	0.081	0.020	0.075	0.020	0.081	0.020
6	0.196	0.020	0.178	0.021	0.181	0.021	0.178	0.021	0.180	0.021
7	-0.037	0.014	-0.025	0.013	-0.023	0.013	-0.026	0.013	-0.023	0.013
8	-0.022	0.014	-0.012	0.013	-0.007	0.013	-0.012	0.012	-0.006	0.013
9	-0.089	0.013	-0.077	0.012	-0.078	0.013	-0.078	0.012	-0.077	0.013
10	0.029	0.012	0.029	0.011	0.031	0.011	0.028	0.011	0.031	0.011
11	0.148	0.012	0.140	0.011	0.138	0.011	0.139	0.011	0.137	0.011
12	-0.017	0.014	-0.020	0.013	-0.020	0.013	-0.021	0.013	-0.020	0.013
13	-0.072	0.012	-0.062	0.011	-0.066	0.011	-0.062	0.011	-0.066	0.011
14	-0.109	0.014	-0.090	0.012	-0.095	0.013	-0.090	0.012	-0.095	0.013
15	-0.075	0.016	-0.077	0.015	-0.076	0.015	-0.077	0.015	-0.075	0.015
16	-0.120	0.014	-0.123	0.013	-0.125	0.014	-0.123	0.013	-0.125	0.014
17	-0.171	0.016	-0.173	0.015	-0.183	0.016	-0.173	0.015	-0.183	0.016
18	-0.158	0.015	-0.154	0.013	-0.164	0.014	-0.154	0.013	-0.164	0.014

Table 44. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: TCF: 1965-1984, 1987-1996, 2005-2009, 2013-2015, 2017-2018. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = "NA" were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
1	-1.377	0.874	-1.568	0.943	-1.534	1.095	-1.597	0.935	-1.544	1.089
2	-1.168	0.723	-1.405	0.831	-1.393	1.006	-1.435	0.821	-1.403	0.999
3	0.672	0.662	0.326	0.802	0.266	0.972	0.295	0.787	0.257	0.963
4	1.248	0.640	0.697	0.841	0.511	0.966	0.667	0.817	0.504	0.956
5	2.396	0.890	1.261	0.983	0.882	0.959	1.234	0.947	0.877	0.949
6	4.077	0.776	1.220	1.059	0.677	0.874	1.202	1.019	0.676	0.866
7	4.642	0.728	0.759	0.864	0.229	0.683	0.751	0.839	0.232	0.677
8	2.107	1.215	0.126	0.565	-0.250	0.455	0.129	0.557	-0.243	0.452
9	0.062	0.346	-0.534	0.328	-0.716	0.275	-0.525	0.328	-0.705	0.274
10	-0.280	0.217	-0.564	0.217	-0.601	0.213	-0.553	0.216	-0.586	0.213
11	-0.150	0.182	-0.299	0.208	-0.300	0.219	-0.286	0.204	-0.282	0.218
12	0.605	0.178	0.488	0.208	0.495	0.224	0.499	0.203	0.514	0.223
13	1.355	0.205	1.102	0.210	1.045	0.230	1.113	0.206	1.067	0.228
14	1.615	0.282	1.203	0.215	0.956	0.238	1.214	0.212	0.983	0.237
15	2.066	0.362	1.603	0.207	1.251	0.250	1.592	0.203	1.280	0.248
16	1.851	0.262	2.627	0.240	1.557	0.240	2.648	0.236	1.592	0.240
17	0.189	0.151	1.350	0.211	0.682	0.213	1.360	0.207	0.701	0.211
18	-0.949	0.132	-0.195	0.182	-0.369	0.196	-0.197	0.177	-0.363	0.194
19	-2.380	0.133	-2.039	0.177	-1.977	0.194	-2.046	0.171	-1.977	0.192
20	-1.070	0.146	-0.989	0.179	-0.795	0.200	-0.995	0.174	-0.798	0.198
21	-1.439	0.127	-0.997	0.173	-0.835	0.192	-1.008	0.168	-0.843	0.190
22	-0.485	0.126	0.117	0.174	0.333	0.192	0.102	0.168	0.323	0.190
23	0.699	0.128	1.307	0.175	1.593	0.193	1.289	0.169	1.582	0.192
24	1.458	0.135	1.883	0.178	2.222	0.197	1.860	0.173	2.211	0.195
25	1.756	0.160	2.341	0.202	2.638	0.219	2.333	0.199	2.631	0.218

Table 45. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: TCF: 1965-1984, 1987-1996, 2005-2009, 2013-2015, 2017-2018. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
26	2.099	0.170	2.663	0.207	2.897	0.225	2.665	0.204	2.894	0.223
27	1.654	0.168	2.062	0.199	2.308	0.221	2.077	0.196	2.307	0.220
28	0.902	0.177	1.164	0.208	1.379	0.228	1.195	0.206	1.377	0.227
29	0.314	0.170	0.463	0.198	0.651	0.221	0.495	0.196	0.647	0.220
30	0.242	0.224	0.315	0.252	0.537	0.277	0.358	0.251	0.534	0.276
31	-2.434	0.128	-1.813	0.174	-1.591	0.196	-1.816	0.169	-1.603	0.194
32	-1.816	0.128	-1.253	0.174	-1.020	0.196	-1.254	0.168	-1.030	0.194
33	-1.993	0.128	-1.454	0.174	-1.237	0.196	-1.456	0.169	-1.248	0.194
34	-2.151	0.128	-1.646	0.174	-1.388	0.196	-1.643	0.168	-1.394	0.194
35	-2.172	0.149	-1.669	0.189	-1.357	0.211	-1.654	0.185	-1.361	0.209
36	-2.021	0.131	-1.544	0.176	-1.354	0.199	-1.540	0.170	-1.361	0.197
37	-0.742	0.128	-0.132	0.175	0.025	0.197	-0.130	0.169	0.015	0.195
38	-0.439	0.127	0.117	0.175	0.245	0.196	0.123	0.170	0.234	0.195
39	-2.157	0.127	-1.785	0.174	-1.644	0.196	-1.778	0.168	-1.651	0.194
40	-2.002	0.127	-1.611	0.174	-1.502	0.196	-1.604	0.168	-1.511	0.194
41	-2.217	0.129	-1.749	0.175	-1.667	0.198	-1.742	0.169	-1.675	0.196
42	-2.565	0.131	-1.950	0.176	-1.853	0.199	-1.944	0.170	-1.861	0.197

Table 46. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: SCF: 1992+. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
1	1.488	0.199	1.361	0.189	1.654	0.204	1.341	0.188	1.660	0.203
2	1.740	0.203	1.631	0.192	1.906	0.208	1.611	0.191	1.912	0.206
3	0.734	0.200	0.689	0.192	0.868	0.205	0.679	0.192	0.874	0.203
4	1.123	0.191	1.099	0.185	1.204	0.196	1.097	0.185	1.211	0.195
5	0.550	0.190	0.521	0.184	0.584	0.194	0.524	0.184	0.591	0.193
6	0.473	0.192	0.429	0.186	0.458	0.196	0.436	0.186	0.466	0.194
7	1.316	0.201	1.284	0.196	1.272	0.204	1.295	0.196	1.281	0.202
8	1.108	0.207	1.060	0.208	0.959	0.208	1.055	0.209	0.950	0.208
9	0.169	0.195	0.140	0.196	0.040	0.197	0.134	0.197	0.031	0.197
10	-1.443	0.212	-1.434	0.213	-1.531	0.213	-1.439	0.214	-1.541	0.214
11	-0.697	0.215	-0.652	0.216	-0.734	0.216	-0.657	0.216	-0.744	0.216
12	-0.244	0.212	-0.156	0.212	-0.225	0.212	-0.162	0.213	-0.235	0.213
13	-1.529	0.213	-1.429	0.213	-1.486	0.213	-1.434	0.214	-1.496	0.214
14	-2.647	0.243	-2.549	0.242	-2.589	0.242	-2.554	0.243	-2.598	0.243
15	-1.958	0.191	-1.893	0.192	-1.918	0.192	-1.898	0.193	-1.927	0.192
16	0.001	0.198	0.022	0.197	0.014	0.198	0.023	0.197	0.013	0.198
17	0.146	0.191	0.162	0.190	0.160	0.191	0.164	0.190	0.159	0.191
18	0.182	0.194	0.157	0.193	0.165	0.195	0.160	0.193	0.166	0.195
19	-0.447	0.196	-0.446	0.196	-0.443	0.197	-0.443	0.196	-0.442	0.197
20	-0.062	0.198	-0.124	0.197	-0.122	0.199	-0.121	0.198	-0.121	0.198
21	0.036	0.199	-0.089	0.198	-0.100	0.199	-0.086	0.198	-0.099	0.199
22	0.580	0.197	0.466	0.196	0.443	0.198	0.468	0.196	0.443	0.198
23	0.277	0.197	0.242	0.195	0.219	0.198	0.244	0.196	0.219	0.197
24	0.199	0.196	0.245	0.195	0.252	0.197	0.247	0.195	0.253	0.197
25	1.036	0.191	1.078	0.190	1.111	0.193	1.082	0.190	1.115	0.193

Table 47. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: SCF: 1992+. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
26	0.833	0.193	0.814	0.193	0.823	0.196	0.820	0.193	0.826	0.196
27	0.657	0.195	0.604	0.194	0.582	0.197	0.611	0.194	0.584	0.197
28	0.031	0.198	0.000	0.197	-0.056	0.199	0.006	0.197	-0.054	0.199
29	0.029	0.199	0.048	0.198	-0.031	0.199	0.056	0.198	-0.028	0.199
30	0.332	0.198	0.374	0.197	0.289	0.198	0.382	0.197	0.292	0.198
31	-1.667	0.213	-1.559	0.212	-1.637	0.213	-1.551	0.212	-1.633	0.213
32	-2.346	0.229	-2.094	0.228	-2.131	0.229	-2.089	0.228	-2.129	0.228

Table 48. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: GF.AllGear: 1973+. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
1	1.512	0.224	0.874	0.213	0.629	0.221	0.868	0.213	0.634	0.221
2	1.842	0.213	1.360	0.205	1.114	0.213	1.353	0.204	1.119	0.213
3	0.998	0.211	0.615	0.203	0.355	0.212	0.607	0.203	0.360	0.211
4	0.467	0.209	0.143	0.201	-0.134	0.211	0.130	0.201	-0.130	0.210
5	0.141	0.209	-0.147	0.200	-0.460	0.211	-0.164	0.200	-0.457	0.211
6	-0.140	0.209	-0.366	0.199	-0.716	0.212	-0.385	0.199	-0.714	0.211
7	0.455	0.213	0.326	0.199	-0.054	0.212	0.304	0.199	-0.055	0.212
8	0.091	0.210	0.030	0.201	-0.346	0.208	0.013	0.201	-0.349	0.208
9	-0.087	0.204	-0.179	0.201	-0.459	0.204	-0.192	0.201	-0.463	0.203
10	-1.027	0.202	-1.211	0.201	-1.375	0.202	-1.222	0.201	-1.380	0.202
11	-0.299	0.204	-0.616	0.202	-0.656	0.203	-0.626	0.202	-0.662	0.203
12	-0.024	0.209	-0.471	0.204	-0.393	0.205	-0.483	0.204	-0.402	0.206
13	-0.514	0.205	-0.951	0.202	-0.837	0.203	-0.968	0.202	-0.850	0.204
14	-0.251	0.199	-0.645	0.198	-0.509	0.200	-0.670	0.198	-0.525	0.200
15	-0.375	0.203	-0.043	0.197	0.133	0.199	-0.064	0.197	0.123	0.199
16	-0.873	0.203	-0.551	0.198	-0.341	0.199	-0.576	0.198	-0.353	0.200
17	-0.585	0.202	-0.309	0.196	-0.076	0.199	-0.336	0.196	-0.089	0.199
18	-0.211	0.202	0.051	0.196	0.277	0.199	0.024	0.196	0.264	0.199
19	0.627	0.151	0.950	0.145	1.137	0.147	0.925	0.144	1.124	0.147
20	0.889	0.152	1.226	0.147	1.354	0.147	1.206	0.147	1.341	0.147
21	0.560	0.151	0.892	0.148	0.975	0.148	0.878	0.148	0.963	0.148
22	1.035	0.152	1.357	0.149	1.404	0.148	1.348	0.150	1.392	0.148
23	0.947	0.152	1.257	0.149	1.284	0.148	1.251	0.149	1.273	0.148
24	1.122	0.154	1.442	0.151	1.443	0.149	1.439	0.151	1.433	0.149
25	1.565	0.149	1.553	0.148	1.548	0.148	1.569	0.149	1.552	0.148

Table 49. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: GF.AllGear: 1973+. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
26	1.423	0.147	1.425	0.146	1.426	0.146	1.440	0.146	1.429	0.146
27	0.892	0.147	0.935	0.145	0.940	0.146	0.949	0.145	0.944	0.146
28	0.932	0.147	0.999	0.145	1.011	0.146	1.013	0.145	1.014	0.146
29	1.154	0.147	1.263	0.145	1.282	0.146	1.277	0.145	1.285	0.146
30	0.449	0.147	0.556	0.145	0.586	0.146	0.570	0.145	0.590	0.146
31	-0.102	0.146	0.013	0.145	0.056	0.146	0.027	0.145	0.060	0.146
32	0.192	0.146	0.294	0.145	0.349	0.146	0.307	0.145	0.354	0.146
33	-0.138	0.146	-0.061	0.144	0.005	0.146	-0.047	0.145	0.010	0.146
34	-0.166	0.146	-0.108	0.144	-0.036	0.146	-0.094	0.144	-0.030	0.146
35	-0.077	0.146	-0.042	0.144	0.036	0.145	-0.027	0.144	0.042	0.145
36	-0.416	0.146	-0.409	0.144	-0.331	0.145	-0.395	0.144	-0.325	0.145
37	-0.792	0.145	-0.809	0.143	-0.732	0.145	-0.796	0.144	-0.726	0.145
38	-1.138	0.145	-1.179	0.143	-1.105	0.144	-1.166	0.143	-1.099	0.144
39	-0.827	0.145	-0.849	0.143	-0.778	0.144	-0.835	0.143	-0.772	0.144
40	-1.312	0.146	-1.281	0.143	-1.205	0.144	-1.267	0.143	-1.198	0.145
41	-0.747	0.146	-0.670	0.144	-0.584	0.145	-0.656	0.144	-0.576	0.145
42	-0.662	0.145	-0.586	0.143	-0.501	0.145	-0.571	0.144	-0.494	0.145
43	-0.798	0.145	-0.756	0.143	-0.691	0.144	-0.740	0.143	-0.683	0.144
44	-0.706	0.145	-0.697	0.143	-0.645	0.144	-0.680	0.143	-0.638	0.144
45	-1.279	0.145	-1.259	0.143	-1.214	0.144	-1.242	0.143	-1.206	0.144
46	-0.980	0.145	-0.931	0.143	-0.895	0.144	-0.912	0.144	-0.886	0.144
47	-0.863	0.146	-0.774	0.144	-0.737	0.145	-0.756	0.144	-0.728	0.145
48	-0.947	0.147	-0.818	0.145	-0.767	0.146	-0.801	0.145	-0.758	0.146
49	-0.958	0.149	-0.838	0.146	-0.766	0.147	-0.824	0.146	-0.758	0.147

Table 50. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: RKF: 1992+. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
1	3.786	0.230	3.693	0.223	3.876	0.229	3.671	0.223	3.876	0.229
2	3.464	0.244	3.436	0.243	3.576	0.246	3.419	0.243	3.578	0.246
3	3.268	0.247	3.092	0.231	3.252	0.241	3.084	0.232	3.258	0.241
4	4.195	0.231	3.819	0.210	4.005	0.221	3.816	0.210	4.012	0.221
5	2.235	0.242	1.896	0.230	1.872	0.234	1.915	0.230	1.875	0.234
6	0.974	0.260	0.804	0.247	0.696	0.253	0.811	0.248	0.694	0.253
7	0.720	0.261	0.610	0.252	0.499	0.258	0.615	0.252	0.496	0.258
8	0.298	0.272	0.238	0.264	0.141	0.270	0.240	0.265	0.137	0.270
9	0.075	0.279	0.076	0.273	0.003	0.278	0.076	0.273	-0.002	0.279
10	-0.520	0.343	-0.442	0.341	-0.504	0.345	-0.444	0.342	-0.509	0.345
11	-0.331	0.281	-0.200	0.280	-0.243	0.284	-0.204	0.280	-0.248	0.284
12	-0.630	0.288	-0.486	0.288	-0.511	0.292	-0.490	0.288	-0.516	0.292
13	-0.952	0.298	-0.808	0.298	-0.816	0.302	-0.813	0.298	-0.820	0.303
14	-1.319	0.330	-1.141	0.330	-1.137	0.331	-1.145	0.330	-1.140	0.331
15	-1.818	0.433	-1.678	0.433	-1.670	0.433	-1.681	0.433	-1.672	0.433
16	-1.271	0.262	-1.158	0.261	-1.146	0.262	-1.159	0.261	-1.147	0.262
17	0.112	0.217	0.197	0.216	0.217	0.217	0.197	0.217	0.217	0.217
18	-0.360	0.220	-0.303	0.220	-0.279	0.221	-0.304	0.220	-0.278	0.221
19	-2.028	0.415	-2.072	0.415	-2.044	0.415	-2.073	0.415	-2.044	0.415
20	-2.474	0.695	-2.592	0.694	-2.571	0.694	-2.593	0.694	-2.571	0.694
21	-1.440	0.323	-1.529	0.322	-1.518	0.322	-1.529	0.322	-1.517	0.322
22	-0.408	0.227	-0.351	0.226	-0.347	0.226	-0.352	0.226	-0.347	0.226
23	0.251	0.219	0.442	0.218	0.437	0.219	0.443	0.218	0.437	0.219
24	-0.160	0.216	0.009	0.216	-0.019	0.217	0.014	0.217	-0.018	0.217
25	-0.199	0.218	-0.153	0.218	-0.184	0.218	-0.146	0.218	-0.182	0.218

Table 51. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: RKF: 1992+. Models 22.03b, 23.03a, 23.03a1, 23.03b, 23.03b1. Table 2 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.03a		23.03a1		23.03b		23.03b1	
	est	se	est	se	est	se	est	se	est	se
26	0.010	0.220	-0.017	0.219	-0.043	0.220	-0.010	0.220	-0.041	0.220
27	-0.698	0.250	-0.712	0.249	-0.753	0.250	-0.704	0.249	-0.750	0.250
28	-1.935	0.682	-1.903	0.683	-1.959	0.682	-1.894	0.683	-1.955	0.682
29	-2.842	1.321	-2.768	1.322	-2.828	1.320	-2.759	1.323	-2.824	1.320

0.8 Vector parameter values for 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1

Table 52. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: historical recruitment period. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
1	-0.495	1.779	-0.841	1.762	-0.500	1.789	-0.427	1.799	-0.500	1.789	-0.427	1.799
2	-0.494	1.647	-0.840	1.629	-0.499	1.658	-0.426	1.669	-0.499	1.658	-0.426	1.669
3	-0.492	1.517	-0.837	1.500	-0.496	1.533	-0.423	1.544	-0.496	1.533	-0.423	1.544
4	-0.489	1.392	-0.833	1.376	-0.490	1.414	-0.417	1.425	-0.490	1.414	-0.417	1.425
5	-0.484	1.273	-0.825	1.258	-0.481	1.304	-0.409	1.315	-0.481	1.304	-0.409	1.315
6	-0.476	1.161	-0.815	1.149	-0.469	1.204	-0.398	1.214	-0.469	1.204	-0.398	1.214
7	-0.465	1.059	-0.800	1.051	-0.452	1.116	-0.381	1.126	-0.452	1.116	-0.381	1.126
8	-0.450	0.970	-0.780	0.966	-0.429	1.042	-0.359	1.052	-0.429	1.042	-0.359	1.052
9	-0.429	0.897	-0.752	0.897	-0.398	0.985	-0.330	0.995	-0.398	0.985	-0.330	0.995
10	-0.401	0.843	-0.715	0.847	-0.358	0.946	-0.292	0.955	-0.358	0.946	-0.292	0.955
11	-0.364	0.811	-0.664	0.818	-0.308	0.923	-0.244	0.932	-0.308	0.923	-0.244	0.932
12	-0.316	0.804	-0.595	0.809	-0.246	0.914	-0.184	0.922	-0.246	0.914	-0.184	0.922
13	-0.252	0.821	-0.501	0.821	-0.170	0.916	-0.109	0.923	-0.170	0.916	-0.109	0.923
14	-0.166	0.857	-0.372	0.850	-0.075	0.926	-0.016	0.932	-0.075	0.926	-0.016	0.932
15	-0.047	0.902	-0.191	0.897	0.045	0.939	0.102	0.944	0.045	0.939	0.102	0.944
16	0.125	0.937	0.064	0.958	0.199	0.954	0.253	0.958	0.199	0.954	0.253	0.958
17	0.389	0.934	0.418	0.994	0.391	0.974	0.441	0.980	0.391	0.974	0.441	0.980
18	0.798	0.877	0.851	0.942	0.615	1.012	0.656	1.025	0.615	1.012	0.656	1.025
19	1.346	0.782	1.255	0.803	0.836	1.064	0.854	1.087	0.836	1.064	0.854	1.087
20	1.657	0.668	1.489	0.679	0.969	1.070	0.941	1.100	0.969	1.070	0.941	1.100
21	1.194	0.682	1.504	0.658	1.004	0.981	0.889	1.009	1.004	0.981	0.889	1.009
22	0.641	0.680	1.665	0.653	1.193	0.887	1.004	0.915	1.193	0.887	1.004	0.915
23	0.363	0.658	1.809	0.612	1.041	0.844	1.016	0.861	1.041	0.844	1.016	0.861
24	-0.082	0.662	0.714	0.648	-0.095	0.876	-0.172	0.896	-0.095	0.876	-0.172	0.896
25	-0.462	0.663	0.165	0.649	-0.585	0.877	-0.851	0.898	-0.585	0.877	-0.851	0.898

Table 53. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: historical recruitment period. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
26	-0.148	0.697	0.427	0.681	-0.241	0.888	-0.716	0.915	-0.241	0.888	-0.716	0.915

Table 54. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: current recruitment period. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
1	1.371	0.307	1.074	0.304	0.892	0.371	0.589	0.378	0.892	0.371	0.589	0.378
2	1.970	0.194	1.892	0.263	1.809	0.269	1.514	0.257	1.809	0.269	1.514	0.257
3	1.624	0.222	2.379	0.271	2.036	0.295	1.528	0.297	2.036	0.295	1.528	0.297
4	0.637	0.414	1.539	0.385	0.852	0.540	0.544	0.538	0.852	0.540	0.544	0.538
5	-0.125	0.537	0.085	0.658	0.142	0.634	0.055	0.635	0.142	0.634	0.055	0.635
6	-0.164	0.407	0.753	0.478	0.586	0.476	0.535	0.388	0.586	0.476	0.535	0.388
7	0.008	0.291	-0.377	0.358	-0.387	0.351	-0.119	0.341	-0.387	0.351	-0.119	0.341
8	-0.144	0.284	-0.882	0.241	-0.728	0.278	-0.592	0.293	-0.728	0.278	-0.592	0.293
9	1.085	0.117	0.507	0.149	0.600	0.149	0.431	0.155	0.600	0.149	0.431	0.155
10	0.791	0.167	0.054	0.154	0.063	0.163	-0.104	0.161	0.063	0.163	-0.104	0.161
11	0.932	0.164	-0.692	0.159	-0.570	0.176	-0.369	0.177	-0.570	0.176	-0.369	0.177
12	0.960	0.154	-0.364	0.152	-0.134	0.151	0.063	0.148	-0.134	0.151	0.063	0.148
13	0.798	0.166	-0.272	0.193	-0.120	0.194	0.083	0.191	-0.120	0.194	0.083	0.191
14	0.410	0.204	0.176	0.184	0.142	0.201	0.247	0.205	0.142	0.201	0.247	0.205
15	-0.356	0.256	-0.254	0.279	-0.252	0.285	-0.235	0.293	-0.252	0.285	-0.235	0.293
16	-1.066	0.349	-0.245	0.298	-0.118	0.293	-0.143	0.292	-0.118	0.293	-0.143	0.292
17	-1.359	0.324	-0.583	0.329	-0.763	0.375	-0.656	0.343	-0.763	0.375	-0.656	0.343
18	-1.271	0.255	-1.469	0.277	-1.590	0.275	-1.411	0.273	-1.590	0.275	-1.411	0.273
19	-1.300	0.264	-1.750	0.251	-2.030	0.255	-1.953	0.262	-2.030	0.255	-1.953	0.262
20	-1.098	0.243	-1.422	0.250	-1.747	0.242	-1.896	0.224	-1.747	0.242	-1.896	0.224
21	-0.613	0.180	-1.177	0.179	-1.146	0.205	-1.473	0.166	-1.146	0.205	-1.473	0.166
22	-0.838	0.235	-1.221	0.245	-1.289	0.261	-1.746	0.241	-1.289	0.261	-1.746	0.241
23	0.083	0.118	-0.523	0.131	-0.346	0.148	-0.632	0.141	-0.346	0.148	-0.632	0.141
24	-0.925	0.246	-1.124	0.240	-1.053	0.246	-1.215	0.243	-1.053	0.246	-1.215	0.243
25	0.631	0.100	0.681	0.127	0.766	0.133	0.608	0.130	0.766	0.133	0.608	0.130

Table 55. Final vector parameter values (est) and standard errors (se) for category: population processes; process: recruitment; parameter name: pDevsLnR; parameter description: current recruitment period. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
26	-0.499	0.280	-0.434	0.233	-0.454	0.283	-0.471	0.303	-0.454	0.283	-0.471	0.303
27	1.016	0.101	1.252	0.131	1.308	0.135	1.409	0.130	1.308	0.135	1.409	0.130
28	-0.207	0.288	-0.126	0.277	-0.132	0.308	-0.088	0.307	-0.132	0.308	-0.088	0.307
29	1.114	0.106	0.832	0.134	0.842	0.139	1.053	0.128	0.842	0.139	1.053	0.128
30	0.550	0.151	0.669	0.143	0.680	0.157	0.905	0.152	0.680	0.157	0.905	0.152
31	-0.579	0.277	0.149	0.263	0.166	0.264	0.156	0.275	0.166	0.264	0.156	0.275
32	-1.046	0.365	-0.081	0.343	-0.302	0.416	-0.285	0.409	-0.302	0.416	-0.285	0.409
33	-0.501	0.262	-0.419	0.308	-0.346	0.308	-0.148	0.297	-0.346	0.308	-0.148	0.297
34	-0.051	0.270	-0.285	0.234	-0.219	0.238	-0.021	0.247	-0.219	0.238	-0.021	0.247
35	1.420	0.095	0.750	0.130	0.693	0.119	1.009	0.116	0.693	0.119	1.009	0.116
36	0.429	0.195	0.308	0.153	0.218	0.187	0.245	0.207	0.218	0.187	0.245	0.207
37	-0.313	0.205	0.108	0.197	0.158	0.204	0.157	0.202	0.158	0.204	0.157	0.202
38	-1.609	0.385	-0.874	0.432	-0.864	0.444	-0.959	0.431	-0.864	0.444	-0.959	0.431
39	-0.679	0.157	-0.255	0.182	-0.024	0.184	0.106	0.181	-0.024	0.184	0.106	0.181
40	-1.225	0.225	-0.410	0.206	-0.212	0.212	-0.083	0.213	-0.212	0.212	-0.083	0.213
41	-1.043	0.201	-0.605	0.236	-0.363	0.239	-0.257	0.227	-0.363	0.239	-0.257	0.227
42	-0.880	0.212	-0.145	0.196	-0.036	0.204	-0.078	0.204	-0.036	0.204	-0.078	0.204
43	0.923	0.082	0.874	0.094	1.188	0.100	1.323	0.099	1.188	0.100	1.323	0.099
44	0.029	0.192	0.983	0.184	1.069	0.198	1.181	0.204	1.069	0.198	1.181	0.204
45	0.466	0.140	0.705	0.150	0.832	0.164	0.828	0.168	0.832	0.164	0.828	0.168
46	-1.601	0.580	-1.108	0.652	-1.382	0.605	-1.260	0.617	-1.382	0.605	-1.260	0.617
47	0.836	0.152	0.553	0.147	0.682	0.152	0.712	0.151	0.682	0.152	0.712	0.151
48	1.410	0.188	0.773	0.160	0.885	0.164	0.911	0.161	0.885	0.164	0.911	0.161

Table 56. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: males 60-150 mmCW (entire model period). Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 1. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
1	-2.875	0.206	-3.079	0.210	-3.029	0.190	-3.075	0.187	-3.029	0.190	-3.075	0.187
2	-3.511	0.297	-3.591	0.286	-3.569	0.268	-3.623	0.270	-3.569	0.268	-3.623	0.270
3	-2.968	0.247	-3.062	0.229	-3.028	0.210	-3.077	0.213	-3.028	0.210	-3.077	0.213
4	-2.137	0.130	-2.286	0.125	-2.262	0.118	-2.292	0.118	-2.262	0.118	-2.292	0.118
5	-1.433	0.116	-1.571	0.110	-1.562	0.102	-1.599	0.102	-1.562	0.102	-1.599	0.102
6	-1.299	0.105	-1.411	0.099	-1.423	0.094	-1.447	0.094	-1.423	0.094	-1.447	0.094
7	-0.808	0.098	-0.889	0.092	-0.939	0.088	-0.962	0.088	-0.939	0.088	-0.962	0.088
8	-0.298	0.087	-0.464	0.085	-0.485	0.081	-0.506	0.080	-0.485	0.081	-0.506	0.080
9	-0.283	0.089	-0.385	0.084	-0.401	0.079	-0.422	0.078	-0.401	0.079	-0.422	0.078
10	0.028	0.089	-0.120	0.083	-0.123	0.078	-0.136	0.077	-0.123	0.078	-0.136	0.077
11	0.464	0.094	0.335	0.088	0.321	0.082	0.305	0.081	0.321	0.082	0.305	0.081
12	0.933	0.117	0.672	0.098	0.646	0.092	0.644	0.091	0.646	0.092	0.644	0.091
13	1.589	0.143	1.295	0.128	1.267	0.124	1.268	0.123	1.267	0.124	1.268	0.123
14	2.594	0.258	2.049	0.220	2.042	0.221	2.053	0.220	2.042	0.221	2.053	0.220
15	3.062	0.281	2.626	0.269	2.610	0.268	2.620	0.267	2.610	0.268	2.620	0.267
16	3.659	0.485	3.196	0.423	3.210	0.425	3.217	0.424	3.210	0.425	3.217	0.424
17	4.758	1.078	4.106	1.037	4.185	1.029	4.194	1.026	4.185	1.029	4.194	1.026

Table 57. Final vector parameter values (est) and standard errors (se) for category: population processes; process: maturity; parameter name: pvLgtPrM2M; parameter description: females 50-105 mmCW (entire model period). Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 1. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
1	-5.391	1.218	-4.246	0.730	-4.393	0.739	-4.609	0.824	-4.393	0.739	-4.609	0.824
2	-4.134	0.571	-3.525	0.338	-3.598	0.342	-3.704	0.374	-3.598	0.342	-3.704	0.374
3	-2.918	0.249	-2.841	0.222	-2.879	0.219	-2.881	0.220	-2.879	0.219	-2.881	0.220
4	-1.710	0.146	-1.916	0.150	-1.973	0.147	-1.939	0.146	-1.973	0.147	-1.939	0.146
5	-0.583	0.092	-0.693	0.091	-0.764	0.087	-0.755	0.087	-0.764	0.087	-0.755	0.087
6	0.256	0.091	0.169	0.090	0.087	0.086	0.096	0.085	0.087	0.086	0.096	0.085
7	0.570	0.104	0.477	0.101	0.403	0.097	0.413	0.097	0.403	0.097	0.413	0.097
8	1.065	0.137	0.993	0.137	0.904	0.127	0.908	0.127	0.904	0.127	0.908	0.127
9	1.959	0.228	1.986	0.233	1.819	0.214	1.827	0.214	1.819	0.214	1.827	0.214
10	2.906	0.444	3.037	0.521	2.727	0.434	2.733	0.435	2.727	0.434	2.733	0.435
11	3.907	1.007	4.113	1.159	3.672	1.003	3.669	1.007	3.672	1.003	3.669	1.007

Table 58. Final vector parameter values (est) and standard errors (se) for category: population processes; process: natural mortality; parameter name: pDevsM; parameter description: time varying M for immature crab. Models 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se
1	-2.000	0.000	-2.000	0.000	-2.000	0.000	-2.000	0.000	-2.000	0.000
2	-2.000	0.000	-1.118	0.495	-1.256	0.306	-1.118	0.495	-1.256	0.306
3	0.978	0.222	0.505	0.298	-0.517	0.399	0.505	0.298	-0.517	0.399
4	1.123	0.164	0.581	0.244	-0.037	0.287	0.581	0.244	-0.037	0.287
5	-2.000	0.000	-0.719	0.251	0.299	0.118	-0.719	0.251	0.299	0.118
6	2.000	0.000	1.798	0.076	1.367	0.100	1.798	0.076	1.367	0.100
7	1.554	0.186	0.966	0.247	1.081	0.124	0.966	0.247	1.081	0.124
8	-2.000	0.000	-0.008	0.290	0.762	0.120	-0.008	0.290	0.762	0.120
9	1.408	0.120	1.141	0.135	0.992	0.121	1.141	0.135	0.992	0.121
10	1.383	0.100	0.946	0.138	0.386	0.166	0.946	0.138	0.386	0.166
11	-2.000	0.000	-2.000	0.001	-1.185	0.140	-2.000	0.001	-1.185	0.140
12	-2.000	0.000	-2.000	0.000	-2.000	0.000	-2.000	0.000	-2.000	0.000
13	-2.000	0.000	-2.000	0.000	-2.000	0.000	-2.000	0.000	-2.000	0.000
14	-2.000	0.000	-2.000	0.000	-1.784	0.163	-2.000	0.000	-1.784	0.163
15	-0.358	0.615	-1.467	0.426	-0.924	0.187	-1.467	0.426	-0.924	0.187
16	0.610	0.239	0.287	0.226	0.315	0.137	0.287	0.226	0.315	0.137
17	1.588	0.094	1.436	0.093	1.176	0.094	1.436	0.093	1.176	0.094
18	1.057	0.165	0.803	0.175	0.705	0.129	0.803	0.175	0.705	0.129
19	-2.000	0.000	-1.064	0.495	-0.363	0.229	-1.064	0.495	-0.363	0.229
20	0.802	0.214	-2.000	0.003	-1.386	0.294	-2.000	0.003	-1.386	0.294
21	-2.000	0.000	-1.110	0.517	-1.978	0.232	-1.110	0.517	-1.978	0.232
22	1.141	0.133	0.334	0.309	-2.000	0.000	0.334	0.309	-2.000	0.000
23	-2.000	0.000	-0.433	0.323	-1.584	0.238	-0.433	0.323	-1.584	0.238
24	0.244	0.332	-0.100	0.307	-0.851	0.319	-0.100	0.307	-0.851	0.319
25	1.181	0.121	0.681	0.172	-0.142	0.267	0.681	0.172	-0.142	0.267

Table 59. Final vector parameter values (est) and standard errors (se) for category: population processes; process: natural mortality; parameter name: pDevsM; parameter description: time varying M for immature crab. Models 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se
26	-2.000	0.000	-0.329	0.265	0.214	0.142	-0.329	0.265	0.214	0.142
27	1.077	0.127	0.688	0.158	0.787	0.105	0.688	0.158	0.787	0.105
28	1.358	0.113	1.206	0.110	0.993	0.098	1.206	0.110	0.993	0.098
29	0.695	0.184	0.087	0.284	0.224	0.133	0.087	0.284	0.224	0.133
30	-2.000	0.000	-1.440	0.344	-0.456	0.140	-1.440	0.344	-0.456	0.140
31	0.462	0.200	-0.190	0.314	0.019	0.129	-0.190	0.314	0.019	0.129
32	1.341	0.093	1.139	0.097	0.985	0.087	1.139	0.097	0.985	0.087
33	1.513	0.093	1.394	0.092	1.312	0.082	1.394	0.092	1.312	0.082
34	0.631	0.271	0.292	0.303	0.568	0.149	0.292	0.303	0.568	0.149
35	0.470	0.245	-1.354	0.545	-0.450	0.203	-1.354	0.545	-0.450	0.203
36	-2.000	0.000	-2.000	0.000	-0.998	0.186	-2.000	0.000	-0.998	0.186
37	-2.000	0.000	-1.283	0.361	-0.447	0.149	-1.283	0.361	-0.447	0.149
38	1.490	0.072	1.135	0.095	0.719	0.103	1.135	0.095	0.719	0.103
39	1.330	0.101	1.242	0.095	1.182	0.080	1.242	0.095	1.182	0.080
40	1.063	0.160	0.961	0.143	1.158	0.092	0.961	0.143	1.158	0.092
41	1.638	0.113	1.482	0.112	1.349	0.101	1.482	0.112	1.349	0.101
42	1.559	0.123	1.211	0.150	1.123	0.122	1.211	0.150	1.123	0.122
43	-2.000	0.000	-0.001	0.250	0.674	0.121	-0.001	0.250	0.674	0.121
44	1.462	0.083	1.137	0.101	0.890	0.110	1.137	0.101	0.890	0.110
45	-2.000	0.000	1.038	0.193	0.883	0.106	1.038	0.193	0.883	0.106
46	1.754	0.063	0.847	0.213	0.962	0.097	0.847	0.213	0.962	0.097
47	1.445	0.091	1.276	0.099	1.232	0.100	1.276	0.099	1.232	0.100

Table 60. Final vector parameter values (est) and standard errors (se) for category: population processes; process: natural mortality; parameter name: pDevsM; parameter description: time varying M for mature males. Models 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se
1	1.663	0.142	1.391	0.153	1.310	0.147	1.391	0.153	1.310	0.147
2	0.965	0.257	0.683	0.227	0.961	0.122	0.683	0.227	0.961	0.122
3	1.091	0.208	0.907	0.182	0.929	0.138	0.907	0.182	0.929	0.138
4	1.644	0.143	1.196	0.181	0.822	0.191	1.196	0.181	0.822	0.191
5	-2.000	0.000	-0.371	0.332	0.327	0.183	-0.371	0.332	0.327	0.183
6	0.886	0.230	0.086	0.342	0.417	0.170	0.086	0.342	0.417	0.170
7	1.243	0.216	0.938	0.200	0.767	0.146	0.938	0.200	0.767	0.146
8	1.465	0.119	1.151	0.119	0.943	0.106	1.151	0.119	0.943	0.106
9	0.076	0.419	0.356	0.197	0.703	0.100	0.356	0.197	0.703	0.100
10	1.183	0.155	0.926	0.145	0.510	0.151	0.926	0.145	0.510	0.151
11	0.706	0.292	-0.230	0.478	-0.328	0.215	-0.230	0.478	-0.328	0.215
12	-2.000	0.000	-1.930	0.439	-1.390	0.176	-1.930	0.439	-1.390	0.176
13	-2.000	0.000	-2.000	0.000	-2.000	0.002	-2.000	0.000	-2.000	0.002
14	-2.000	0.001	-2.000	0.000	-2.000	0.000	-2.000	0.000	-2.000	0.000
15	0.351	0.368	-1.714	0.491	-1.584	0.179	-1.714	0.491	-1.584	0.179
16	-0.207	0.635	-0.647	0.439	-0.866	0.216	-0.647	0.439	-0.866	0.216
17	0.512	0.275	0.177	0.225	-0.155	0.168	0.177	0.225	-0.155	0.168
18	0.022	0.415	0.122	0.225	0.250	0.119	0.122	0.225	0.250	0.119
19	0.606	0.224	0.412	0.186	0.472	0.113	0.412	0.186	0.472	0.113
20	0.836	0.186	0.681	0.161	0.618	0.113	0.681	0.161	0.618	0.113
21	0.491	0.305	0.556	0.192	0.761	0.107	0.556	0.192	0.761	0.107
22	1.253	0.148	1.110	0.139	1.117	0.099	1.110	0.139	1.117	0.099
23	1.308	0.174	1.085	0.175	1.232	0.112	1.085	0.175	1.232	0.112
24	1.172	0.269	0.461	0.320	0.969	0.151	0.461	0.320	0.969	0.151
25	-2.000	0.001	-0.134	0.394	0.604	0.187	-0.134	0.394	0.604	0.187

Table 61. Final vector parameter values (est) and standard errors (se) for category: population processes; process: natural mortality; parameter name: pDevsM; parameter description: time varying M for mature males. Models 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se
26	0.840	0.297	-0.045	0.394	0.303	0.211	-0.045	0.394	0.303	0.211
27	1.019	0.243	0.149	0.351	0.034	0.229	0.149	0.351	0.034	0.229
28	-2.000	0.001	-0.002	0.296	-0.289	0.261	-0.002	0.296	-0.289	0.261
29	1.186	0.188	0.436	0.298	-0.595	0.310	0.436	0.298	-0.595	0.310
30	-0.247	0.764	-0.692	0.449	-0.876	0.288	-0.692	0.449	-0.876	0.288
31	-2.000	0.001	-1.050	0.390	-0.842	0.236	-1.050	0.390	-0.842	0.236
32	1.009	0.137	0.146	0.275	-0.408	0.199	0.146	0.275	-0.408	0.199
33	-2.000	0.002	0.066	0.217	0.000	0.143	0.066	0.217	0.000	0.143
34	1.174	0.104	0.604	0.162	0.260	0.133	0.604	0.162	0.260	0.133
35	-2.000	0.001	-0.299	0.259	0.110	0.129	-0.299	0.259	0.110	0.129
36	0.590	0.232	0.309	0.228	0.097	0.161	0.309	0.228	0.097	0.161
37	1.461	0.133	0.886	0.190	-0.051	0.203	0.886	0.190	-0.051	0.203
38	-2.000	0.001	-0.755	0.396	-0.527	0.203	-0.755	0.396	-0.527	0.203
39	-2.000	0.001	-1.579	0.532	-0.907	0.201	-1.579	0.532	-0.907	0.201
40	0.240	0.184	-1.160	0.594	-1.000	0.202	-1.160	0.594	-1.000	0.202
41	-2.000	0.001	-0.815	0.326	-0.863	0.179	-0.815	0.326	-0.863	0.179
42	0.365	0.164	-0.272	0.289	-0.476	0.157	-0.272	0.289	-0.476	0.157
43	-2.000	0.001	-0.244	0.244	-0.026	0.125	-0.244	0.244	-0.026	0.125
44	1.118	0.111	0.731	0.142	0.422	0.133	0.731	0.142	0.422	0.133
45	-2.000	0.001	0.458	0.295	0.380	0.162	0.458	0.295	0.380	0.162
46	1.538	0.112	0.087	0.338	0.112	0.190	0.087	0.338	0.112	0.190
47	0.441	0.286	-0.171	0.493	-0.248	0.359	-0.171	0.493	-0.248	0.359

Table 62. Final vector parameter values (est) and standard errors (se) for category: population processes; process: natural mortality; parameter name: pDevsM; parameter description: time varying M for mature females. Models 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se
1	1.119	0.153	0.811	0.197	0.626	0.192	0.811	0.197	0.626	0.192
2	-2.000	0.000	0.237	0.252	0.365	0.134	0.237	0.252	0.365	0.134
3	1.194	0.138	0.793	0.170	0.128	0.182	0.793	0.170	0.128	0.182
4	0.286	0.394	-0.331	0.483	-0.403	0.217	-0.331	0.483	-0.403	0.217
5	-2.000	0.000	-1.855	0.505	-0.787	0.209	-1.855	0.505	-0.787	0.209
6	-2.000	0.000	-1.358	0.559	-0.503	0.207	-1.358	0.559	-0.503	0.207
7	0.921	0.298	0.380	0.369	0.221	0.173	0.380	0.369	0.221	0.173
8	1.434	0.130	1.293	0.121	0.890	0.113	1.293	0.121	0.890	0.113
9	0.572	0.287	0.743	0.172	0.998	0.091	0.743	0.172	0.998	0.091
10	1.352	0.141	1.220	0.127	1.059	0.092	1.220	0.127	1.059	0.092
11	1.093	0.161	0.815	0.184	0.408	0.160	0.815	0.184	0.408	0.160
12	-2.000	0.000	-1.210	0.367	-0.892	0.212	-1.210	0.367	-0.892	0.212
13	-2.000	0.000	-2.000	0.000	-1.852	0.178	-2.000	0.000	-1.852	0.178
14	-0.119	0.428	-2.000	0.000	-2.000	0.000	-2.000	0.000	-2.000	0.000
15	-2.000	0.000	-2.000	0.006	-1.571	0.173	-2.000	0.006	-1.571	0.173
16	-0.218	0.583	-0.882	0.379	-0.618	0.176	-0.882	0.379	-0.618	0.176
17	0.734	0.214	0.647	0.142	0.401	0.109	0.647	0.142	0.401	0.109
18	1.150	0.127	1.061	0.112	0.755	0.092	1.061	0.112	0.755	0.092
19	0.359	0.260	0.088	0.247	0.247	0.118	0.088	0.247	0.247	0.118
20	-2.000	0.000	-0.622	0.316	-0.053	0.129	-0.622	0.316	-0.053	0.129
21	0.560	0.243	0.327	0.230	0.409	0.116	0.327	0.230	0.409	0.116
22	1.450	0.115	1.386	0.103	1.090	0.090	1.386	0.103	1.090	0.090
23	1.278	0.139	1.006	0.163	1.013	0.104	1.006	0.163	1.013	0.104
24	-2.000	0.000	0.034	0.280	0.586	0.124	0.034	0.280	0.586	0.124
25	0.961	0.207	0.407	0.276	0.489	0.156	0.407	0.276	0.489	0.156

Table 63. Final vector parameter values (est) and standard errors (se) for category: population processes; process: natural mortality; parameter name: pDevsM; parameter description: time varying M for mature females. Models 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se
26	0.602	0.334	0.488	0.248	0.398	0.170	0.488	0.248	0.398	0.170
27	0.980	0.209	0.201	0.323	0.217	0.173	0.201	0.323	0.217	0.173
28	-2.000	0.000	-0.180	0.270	0.010	0.176	-0.180	0.270	0.010	0.176
29	1.477	0.106	1.029	0.157	-0.074	0.244	1.029	0.157	-0.074	0.244
30	-2.000	0.000	-0.491	0.358	-0.463	0.223	-0.491	0.358	-0.463	0.223
31	-2.000	0.000	-0.861	0.406	-0.494	0.188	-0.861	0.406	-0.494	0.188
32	0.832	0.185	0.241	0.264	0.003	0.155	0.241	0.264	0.003	0.155
33	0.922	0.195	0.863	0.157	0.610	0.113	0.863	0.157	0.610	0.113
34	1.063	0.172	0.971	0.147	0.855	0.099	0.971	0.147	0.855	0.099
35	1.025	0.189	0.931	0.163	0.623	0.120	0.931	0.163	0.623	0.120
36	0.485	0.296	0.392	0.233	0.102	0.155	0.392	0.233	0.102	0.155
37	0.652	0.288	-0.088	0.331	-0.194	0.175	-0.088	0.331	-0.194	0.175
38	-0.167	0.688	0.016	0.276	0.007	0.155	0.016	0.276	0.007	0.155
39	1.049	0.166	0.766	0.151	0.429	0.122	0.766	0.151	0.429	0.122
40	0.419	0.310	0.445	0.194	0.434	0.114	0.445	0.194	0.434	0.114
41	0.497	0.251	0.050	0.265	0.163	0.131	0.050	0.265	0.163	0.131
42	-2.000	0.000	-0.266	0.284	-0.264	0.167	-0.266	0.284	-0.264	0.167
43	0.677	0.233	0.250	0.250	-0.678	0.270	0.250	0.250	-0.678	0.270
44	-0.042	0.618	-0.841	0.472	-1.073	0.335	-0.841	0.472	-1.073	0.335
45	-2.000	0.000	-2.000	0.001	-1.155	0.305	-2.000	0.001	-1.155	0.305
46	0.456	0.299	-1.578	0.458	-0.687	0.225	-1.578	0.458	-0.687	0.225
47	0.947	0.169	0.672	0.194	0.224	0.315	0.672	0.194	0.224	0.315

Table 64. Final vector parameter values (est) and standard errors (se) for category: selectivity; process: selectivity; parameter name: pDevsS1; parameter description: ln(z50 devs) for TCF selectivity (males, 1991+). Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 1. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
1	0.099	0.015	0.055	0.015	0.060	0.015	0.068	0.015	0.060	0.015	0.068	0.015
2	0.076	0.014	0.043	0.014	0.046	0.014	0.049	0.014	0.046	0.014	0.049	0.014
3	0.115	0.013	0.117	0.014	0.118	0.013	0.114	0.013	0.118	0.013	0.114	0.013
4	0.116	0.018	0.127	0.018	0.135	0.017	0.133	0.017	0.135	0.017	0.133	0.017
5	0.091	0.021	0.102	0.020	0.101	0.020	0.105	0.020	0.101	0.020	0.105	0.020
6	0.196	0.020	0.179	0.019	0.179	0.019	0.178	0.019	0.179	0.019	0.178	0.019
7	-0.037	0.014	-0.040	0.013	-0.039	0.014	-0.044	0.014	-0.039	0.014	-0.044	0.014
8	-0.022	0.014	-0.029	0.013	-0.027	0.014	-0.028	0.014	-0.027	0.014	-0.028	0.014
9	-0.089	0.013	-0.092	0.013	-0.097	0.013	-0.096	0.014	-0.097	0.013	-0.096	0.014
10	0.029	0.012	0.027	0.011	0.028	0.011	0.029	0.011	0.028	0.011	0.029	0.011
11	0.148	0.012	0.146	0.011	0.149	0.011	0.150	0.011	0.149	0.011	0.150	0.011
12	-0.017	0.014	-0.014	0.014	-0.017	0.014	-0.016	0.014	-0.017	0.014	-0.016	0.014
13	-0.072	0.012	-0.075	0.012	-0.076	0.012	-0.077	0.012	-0.076	0.012	-0.077	0.012
14	-0.109	0.014	-0.100	0.013	-0.100	0.013	-0.100	0.013	-0.100	0.013	-0.100	0.013
15	-0.075	0.016	-0.055	0.014	-0.053	0.014	-0.054	0.014	-0.053	0.014	-0.054	0.014
16	-0.120	0.014	-0.101	0.013	-0.100	0.013	-0.101	0.013	-0.100	0.013	-0.101	0.013
17	-0.171	0.016	-0.140	0.014	-0.154	0.015	-0.158	0.016	-0.154	0.015	-0.158	0.016
18	-0.158	0.015	-0.148	0.014	-0.152	0.014	-0.154	0.014	-0.152	0.014	-0.154	0.014

Table 65. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: TCF: 1965-1984, 1987-1996, 2005-2009, 2013-2015, 2017-2018. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = "NA" were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
1	-1.377	0.874	-1.367	0.887	-1.664	1.190	-1.725	1.220	-1.664	1.190	-1.725	1.220
2	-1.168	0.723	-1.167	0.750	-1.479	1.104	-1.540	1.135	-1.479	1.104	-1.540	1.135
3	0.672	0.662	0.678	0.721	0.273	1.143	0.207	1.168	0.273	1.143	0.207	1.168
4	1.248	0.640	1.278	0.749	0.669	1.292	0.589	1.299	0.669	1.292	0.589	1.299
5	2.396	0.890	2.549	1.295	1.272	1.598	1.167	1.552	1.272	1.598	1.167	1.552
6	4.077	0.776	3.972	1.136	1.270	1.687	1.144	1.587	1.270	1.687	1.144	1.588
7	4.642	0.728	2.655	2.381	0.855	1.220	0.741	1.148	0.855	1.220	0.741	1.148
8	2.107	1.215	0.677	0.854	0.306	0.665	0.225	0.634	0.306	0.665	0.225	0.634
9	0.062	0.346	-0.439	0.415	-0.287	0.351	-0.324	0.337	-0.287	0.351	-0.324	0.337
10	-0.280	0.217	-0.730	0.274	-0.373	0.298	-0.356	0.288	-0.373	0.298	-0.356	0.288
11	-0.150	0.182	-0.152	0.264	0.189	0.329	0.219	0.319	0.189	0.329	0.219	0.319
12	0.605	0.178	0.566	0.270	0.927	0.343	1.138	0.340	0.927	0.343	1.138	0.340
13	1.355	0.205	0.807	0.260	1.334	0.336	1.718	0.352	1.334	0.336	1.718	0.352
14	1.615	0.282	1.474	0.322	1.883	0.381	1.992	0.437	1.883	0.381	1.992	0.437
15	2.066	0.362	1.898	0.409	2.335	0.405	2.177	0.393	2.335	0.405	2.177	0.393
16	1.851	0.262	0.866	0.271	1.358	0.318	1.632	0.320	1.358	0.318	1.632	0.320
17	0.189	0.151	0.085	0.187	0.456	0.288	0.481	0.285	0.456	0.288	0.481	0.285
18	-0.949	0.132	0.048	0.175	0.193	0.284	-0.042	0.279	0.193	0.284	-0.042	0.279
19	-2.380	0.133	-1.459	0.169	-1.207	0.284	-1.222	0.280	-1.207	0.284	-1.222	0.280
20	-1.070	0.146	-0.101	0.179	0.207	0.290	0.184	0.283	0.207	0.290	0.184	0.283
21	-1.439	0.127	-0.672	0.167	-0.486	0.285	-0.536	0.280	-0.486	0.285	-0.536	0.280
22	-0.485	0.126	-0.269	0.167	0.050	0.286	0.038	0.281	0.050	0.286	0.038	0.281
23	0.699	0.128	0.599	0.191	0.764	0.286	0.806	0.281	0.764	0.286	0.806	0.281
24	1.458	0.135	0.928	0.186	1.042	0.291	1.130	0.283	1.042	0.291	1.130	0.283
25	1.756	0.160	0.768	0.187	0.910	0.295	0.989	0.291	0.910	0.295	0.989	0.291

Table 66. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: TCF: 1965-1984, 1987-1996, 2005-2009, 2013-2015, 2017-2018. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
26	2.099	0.170	1.260	0.187	1.434	0.294	1.461	0.290	1.434	0.294	1.461	0.290
27	1.654	0.168	1.583	0.213	1.774	0.309	1.745	0.302	1.774	0.309	1.745	0.302
28	0.902	0.177	1.437	0.245	1.739	0.334	1.678	0.328	1.739	0.334	1.678	0.328
29	0.314	0.170	0.939	0.240	1.124	0.329	1.240	0.328	1.124	0.329	1.240	0.328
30	0.242	0.224	0.913	0.255	0.990	0.340	1.116	0.337	0.990	0.340	1.116	0.337
31	-2.434	0.128	-2.377	0.174	-2.189	0.288	-2.243	0.282	-2.189	0.288	-2.243	0.282
32	-1.816	0.128	-1.752	0.166	-1.708	0.287	-1.706	0.282	-1.708	0.287	-1.706	0.282
33	-1.993	0.128	-1.965	0.166	-1.821	0.287	-1.821	0.282	-1.821	0.287	-1.821	0.282
34	-2.151	0.128	-1.751	0.165	-1.617	0.286	-1.699	0.283	-1.617	0.286	-1.699	0.283
35	-2.172	0.149	-1.581	0.186	-1.386	0.299	-1.402	0.296	-1.386	0.299	-1.402	0.296
36	-2.021	0.131	-2.120	0.169	-1.883	0.289	-1.883	0.286	-1.883	0.289	-1.883	0.286
37	-0.742	0.128	-0.817	0.161	-0.665	0.284	-0.655	0.281	-0.665	0.284	-0.655	0.281
38	-0.439	0.127	-0.460	0.162	-0.289	0.285	-0.265	0.280	-0.290	0.285	-0.265	0.281
39	-2.157	0.127	-2.072	0.164	-1.874	0.286	-1.844	0.282	-1.874	0.286	-1.844	0.282
40	-2.002	0.127	-1.667	0.165	-1.492	0.286	-1.526	0.282	-1.492	0.286	-1.526	0.282
41	-2.217	0.129	-1.397	0.179	-1.293	0.303	-1.369	0.292	-1.293	0.303	-1.369	0.292
42	-2.565	0.131	-1.663	0.178	-1.640	0.292	-1.660	0.289	-1.640	0.292	-1.660	0.289

Table 67. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: SCF: 1992+. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
1	1.488	0.199	0.831	0.207	0.798	0.203	0.861	0.200	0.798	0.203	0.861	0.200
2	1.740	0.203	1.026	0.204	0.986	0.203	0.999	0.200	0.986	0.203	0.999	0.200
3	0.734	0.200	0.128	0.196	0.128	0.195	0.112	0.194	0.128	0.195	0.112	0.194
4	1.123	0.191	0.725	0.186	0.753	0.186	0.758	0.185	0.753	0.186	0.758	0.185
5	0.550	0.190	0.420	0.187	0.446	0.187	0.454	0.185	0.446	0.187	0.454	0.185
6	0.473	0.192	0.451	0.193	0.501	0.192	0.585	0.190	0.501	0.192	0.585	0.190
7	1.316	0.201	1.538	0.200	1.592	0.200	1.685	0.199	1.592	0.200	1.685	0.199
8	1.108	0.207	1.802	0.217	1.796	0.214	1.844	0.211	1.796	0.214	1.844	0.211
9	0.169	0.195	0.943	0.214	0.807	0.209	0.891	0.205	0.807	0.209	0.891	0.205
10	-1.443	0.212	-1.116	0.226	-1.105	0.223	-0.974	0.219	-1.105	0.223	-0.974	0.219
11	-0.697	0.215	-0.515	0.228	-0.535	0.224	-0.429	0.220	-0.535	0.224	-0.429	0.220
12	-0.244	0.212	0.027	0.222	-0.147	0.220	-0.071	0.216	-0.147	0.220	-0.071	0.216
13	-1.529	0.213	-1.464	0.221	-1.447	0.220	-1.393	0.214	-1.447	0.220	-1.393	0.214
14	-2.647	0.243	-2.382	0.249	-2.415	0.246	-2.508	0.243	-2.415	0.246	-2.508	0.243
15	-1.958	0.191	-1.676	0.198	-1.772	0.194	-1.869	0.189	-1.772	0.194	-1.869	0.189
16	0.001	0.198	-0.191	0.205	-0.141	0.202	-0.133	0.199	-0.141	0.202	-0.133	0.199
17	0.146	0.191	0.007	0.194	-0.097	0.195	-0.079	0.192	-0.097	0.195	-0.079	0.192
18	0.182	0.194	-0.001	0.199	0.029	0.200	0.020	0.197	0.029	0.200	0.020	0.197
19	-0.447	0.196	-0.333	0.198	-0.320	0.199	-0.401	0.198	-0.320	0.199	-0.401	0.198
20	-0.062	0.198	0.108	0.202	0.136	0.201	0.104	0.199	0.136	0.201	0.104	0.199
21	0.036	0.199	0.159	0.204	0.210	0.203	0.221	0.200	0.210	0.203	0.221	0.200
22	0.580	0.197	1.053	0.210	0.899	0.209	0.711	0.203	0.899	0.209	0.711	0.203
23	0.277	0.197	0.349	0.206	0.316	0.206	0.183	0.202	0.316	0.206	0.183	0.202
24	0.199	0.196	-0.202	0.198	-0.070	0.199	-0.081	0.197	-0.070	0.199	-0.081	0.197
25	1.036	0.191	0.735	0.191	0.768	0.193	0.769	0.191	0.768	0.193	0.769	0.191

Table 68. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: SCF: 1992+. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
26	0.833	0.193	0.521	0.195	0.546	0.196	0.564	0.193	0.546	0.196	0.564	0.193
27	0.657	0.195	0.374	0.196	0.356	0.197	0.358	0.196	0.356	0.197	0.358	0.196
28	0.031	0.198	-0.313	0.201	-0.269	0.201	-0.242	0.200	-0.269	0.201	-0.242	0.200
29	0.029	0.199	-0.051	0.201	-0.029	0.202	-0.062	0.201	-0.029	0.202	-0.062	0.201
30	0.332	0.198	0.303	0.205	0.545	0.213	0.453	0.206	0.545	0.213	0.453	0.206
31	-1.667	0.213	-1.382	0.219	-1.326	0.230	-1.384	0.223	-1.326	0.230	-1.384	0.223
32	-2.346	0.229	-1.874	0.234	-1.940	0.234	-1.945	0.233	-1.940	0.234	-1.945	0.233

Table 69. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: GF.AllGear: 1973+. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
1	1.512	0.224	0.848	0.253	0.922	0.246	0.939	0.241	0.922	0.246	0.939	0.241
2	1.842	0.213	0.984	0.240	1.167	0.229	1.220	0.223	1.167	0.229	1.220	0.223
3	0.998	0.211	0.384	0.239	0.563	0.227	0.604	0.219	0.563	0.227	0.604	0.219
4	0.467	0.209	-0.057	0.241	0.152	0.229	0.285	0.222	0.152	0.229	0.285	0.222
5	0.141	0.209	-0.362	0.238	-0.111	0.228	0.061	0.222	-0.111	0.228	0.061	0.222
6	-0.140	0.209	-0.309	0.231	-0.182	0.222	-0.192	0.219	-0.182	0.222	-0.192	0.219
7	0.455	0.213	0.037	0.236	0.234	0.223	0.283	0.214	0.234	0.223	0.283	0.214
8	0.091	0.210	-0.516	0.237	-0.297	0.222	-0.139	0.211	-0.297	0.222	-0.139	0.211
9	-0.087	0.204	-0.396	0.205	-0.323	0.204	-0.219	0.202	-0.323	0.204	-0.219	0.202
10	-1.027	0.202	-0.800	0.204	-0.846	0.203	-0.881	0.202	-0.846	0.203	-0.881	0.202
11	-0.299	0.204	-0.014	0.204	0.012	0.203	0.063	0.202	0.012	0.203	0.063	0.202
12	-0.024	0.209	0.415	0.205	0.465	0.204	0.483	0.204	0.465	0.204	0.483	0.204
13	-0.514	0.205	0.224	0.205	0.124	0.203	0.033	0.203	0.124	0.203	0.033	0.203
14	-0.251	0.199	0.264	0.201	0.183	0.199	0.121	0.197	0.183	0.199	0.121	0.197
15	-0.375	0.203	-0.032	0.213	-0.033	0.208	-0.039	0.206	-0.033	0.208	-0.039	0.206
16	-0.873	0.203	-0.935	0.213	-0.858	0.209	-0.838	0.207	-0.858	0.209	-0.838	0.207
17	-0.585	0.202	-0.881	0.215	-0.885	0.208	-0.836	0.206	-0.885	0.208	-0.836	0.206
18	-0.211	0.202	-0.691	0.214	-0.748	0.209	-0.679	0.206	-0.748	0.209	-0.679	0.206
19	0.627	0.151	0.247	0.163	0.187	0.158	0.200	0.155	0.187	0.158	0.200	0.155
20	0.889	0.152	0.662	0.163	0.629	0.159	0.600	0.157	0.629	0.159	0.600	0.157
21	0.560	0.151	0.464	0.164	0.461	0.160	0.456	0.157	0.461	0.160	0.456	0.157
22	1.035	0.152	1.047	0.163	1.039	0.159	1.065	0.157	1.039	0.159	1.065	0.157
23	0.947	0.152	0.990	0.164	1.006	0.160	1.116	0.157	1.006	0.160	1.116	0.157
24	1.122	0.154	1.436	0.165	1.425	0.162	1.507	0.160	1.425	0.162	1.507	0.160
25	1.565	0.149	2.191	0.154	2.109	0.152	2.084	0.150	2.109	0.152	2.084	0.150

Table 70. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: GF.AllGear: 1973+. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = "NA" were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
26	1.423	0.147	2.009	0.155	1.876	0.153	1.880	0.151	1.876	0.153	1.880	0.151
27	0.892	0.147	1.174	0.155	1.118	0.153	1.148	0.150	1.118	0.153	1.148	0.150
28	0.932	0.147	1.074	0.154	1.010	0.152	1.033	0.149	1.010	0.152	1.033	0.149
29	1.154	0.147	1.346	0.153	1.165	0.152	1.193	0.149	1.165	0.152	1.193	0.149
30	0.449	0.147	0.543	0.153	0.505	0.153	0.519	0.148	0.505	0.153	0.519	0.148
31	-0.102	0.146	0.207	0.154	0.116	0.151	-0.015	0.148	0.116	0.151	-0.015	0.148
32	0.192	0.146	0.442	0.152	0.315	0.151	0.185	0.147	0.315	0.151	0.185	0.147
33	-0.138	0.146	-0.279	0.151	-0.297	0.148	-0.300	0.146	-0.297	0.148	-0.300	0.146
34	-0.166	0.146	-0.267	0.148	-0.393	0.148	-0.393	0.146	-0.393	0.148	-0.393	0.146
35	-0.077	0.146	-0.129	0.150	-0.164	0.150	-0.197	0.147	-0.164	0.150	-0.197	0.147
36	-0.416	0.146	-0.189	0.148	-0.237	0.148	-0.332	0.147	-0.237	0.148	-0.332	0.147
37	-0.792	0.145	-0.495	0.150	-0.529	0.149	-0.582	0.147	-0.529	0.149	-0.582	0.147
38	-1.138	0.145	-0.910	0.150	-0.932	0.149	-0.942	0.147	-0.932	0.149	-0.942	0.147
39	-0.827	0.145	-0.522	0.152	-0.664	0.152	-0.771	0.148	-0.664	0.152	-0.771	0.148
40	-1.312	0.146	-1.250	0.151	-1.326	0.152	-1.432	0.148	-1.326	0.152	-1.432	0.148
41	-0.747	0.146	-0.947	0.148	-0.900	0.148	-0.947	0.146	-0.900	0.148	-0.947	0.146
42	-0.662	0.145	-0.811	0.147	-0.844	0.147	-0.862	0.145	-0.844	0.147	-0.862	0.145
43	-0.798	0.145	-0.963	0.148	-1.002	0.149	-1.002	0.145	-1.002	0.149	-1.002	0.145
44	-0.706	0.145	-0.835	0.146	-0.910	0.147	-0.925	0.146	-0.910	0.147	-0.925	0.146
45	-1.279	0.145	-1.456	0.149	-1.472	0.148	-1.468	0.146	-1.472	0.148	-1.468	0.146
46	-0.980	0.145	-0.938	0.149	-0.983	0.148	-1.041	0.147	-0.983	0.148	-1.041	0.147
47	-0.863	0.146	-0.871	0.152	-0.653	0.158	-0.756	0.151	-0.653	0.158	-0.756	0.151
48	-0.947	0.147	-0.710	0.151	-0.653	0.156	-0.710	0.151	-0.653	0.156	-0.710	0.151
49	-0.958	0.149	-0.422	0.152	-0.540	0.150	-0.578	0.150	-0.540	0.150	-0.578	0.150

Table 71. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: RKF: 1992+. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = "NA" were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
1	3.786	0.230	2.961	0.247	2.977	0.240	3.093	0.236	2.977	0.240	3.093	0.236
2	3.464	0.244	2.367	0.247	2.396	0.243	2.481	0.241	2.396	0.243	2.481	0.241
3	3.268	0.247	2.340	0.249	2.400	0.245	2.448	0.244	2.400	0.245	2.448	0.244
4	4.195	0.231	3.795	0.247	3.864	0.241	3.897	0.240	3.864	0.241	3.897	0.240
5	2.235	0.242	2.554	0.255	2.590	0.252	2.752	0.251	2.590	0.252	2.752	0.251
6	0.974	0.260	1.607	0.271	1.536	0.265	1.569	0.265	1.536	0.265	1.569	0.265
7	0.720	0.261	1.390	0.281	1.147	0.269	1.219	0.269	1.147	0.269	1.219	0.269
8	0.298	0.272	0.360	0.278	0.354	0.277	0.487	0.278	0.354	0.277	0.487	0.278
9	0.075	0.279	0.007	0.286	-0.056	0.283	-0.005	0.279	-0.056	0.283	-0.005	0.279
10	-0.520	0.343	-0.421	0.353	-0.682	0.349	-0.721	0.342	-0.682	0.349	-0.721	0.342
11	-0.331	0.281	-0.481	0.286	-0.479	0.288	-0.535	0.280	-0.479	0.288	-0.535	0.280
12	-0.630	0.288	-0.521	0.297	-0.573	0.297	-0.786	0.289	-0.573	0.297	-0.786	0.289
13	-0.952	0.298	-0.753	0.310	-0.877	0.309	-1.090	0.300	-0.877	0.309	-1.090	0.300
14	-1.319	0.330	-1.457	0.336	-1.381	0.333	-1.397	0.331	-1.381	0.333	-1.397	0.331
15	-1.818	0.433	-1.938	0.435	-2.011	0.435	-1.981	0.434	-2.011	0.435	-1.981	0.434
16	-1.271	0.262	-1.427	0.265	-1.392	0.266	-1.371	0.263	-1.392	0.266	-1.371	0.263
17	0.112	0.217	0.294	0.219	0.321	0.220	0.263	0.219	0.321	0.220	0.263	0.219
18	-0.360	0.220	-0.098	0.224	-0.016	0.224	-0.013	0.222	-0.016	0.224	-0.013	0.222
19	-2.028	0.415	-1.791	0.418	-1.702	0.418	-1.644	0.417	-1.702	0.418	-1.644	0.417
20	-2.474	0.695	-1.810	0.699	-1.984	0.699	-2.150	0.697	-1.984	0.699	-2.150	0.697
21	-1.440	0.323	-1.107	0.332	-1.182	0.332	-1.320	0.328	-1.182	0.332	-1.320	0.328
22	-0.408	0.227	-0.703	0.229	-0.573	0.230	-0.553	0.229	-0.573	0.230	-0.553	0.229
23	0.251	0.219	0.011	0.219	0.043	0.220	0.076	0.218	0.043	0.220	0.076	0.218
24	-0.160	0.216	-0.353	0.218	-0.304	0.219	-0.257	0.216	-0.304	0.219	-0.257	0.216
25	-0.199	0.218	-0.282	0.219	-0.271	0.220	-0.241	0.219	-0.271	0.220	-0.241	0.219

Table 72. Final vector parameter values (est) and standard errors (se) for category: fisheries; process: fisheries; parameter name: pDevsLnC; parameter description: RKF: 1992+. Models 22.03b, 23.05, 23.05a, 23.05a1, 23.05b, 23.05b1. Table 3 of 2. Parameters with se = “NA” were fixed to the value of est.

index	22.03b		23.05		23.05a		23.05a1		23.05b		23.05b1	
	est	se	est	se	est	se	est	se	est	se	est	se
26	0.010	0.220	-0.105	0.223	-0.026	0.223	0.028	0.222	-0.026	0.223	0.028	0.222
27	-0.698	0.250	-0.535	0.253	-0.481	0.253	-0.492	0.252	-0.481	0.253	-0.492	0.252
28	-1.935	0.682	-1.701	0.684	-1.430	0.688	-1.499	0.685	-1.430	0.688	-1.499	0.685
29	-2.842	1.321	-2.203	1.322	-2.209	1.325	-2.258	1.324	-2.209	1.325	-2.258	1.324