

S2 Table. The number of paired length-age measurements by area and quarter.

Quarter	Area	Model Estimation			Observed Values		
		Age (years)	Mean Length (cm)	SE	Mean Length (cm)	sd	N
2	SCA_ON	0	13.56	0.0412	13.45	1.0326	2042
2	SCA_ON	1	14.91	0.0424	14.88	1.1016	1603
2	SCA_ON	2	15.67	0.0946	15.54	1.4170	233
2	SCA_ON	3					
2	SCA_ON	4					
2	SCA_ON	5					
2	SCA_ON	6					
2	SCA_ON	7					
2	CCA_ON	0	13.54	0.0708	13.20	2.4005	482
2	CCA_ON	1	16.02	0.0761	15.77	1.7583	396
2	CCA_ON	2	17.78	0.0666	17.79	1.5449	546
2	CCA_ON	3	19.50	0.1094	19.59	1.3814	180
2	CCA_ON	4	21.30	0.2840	21.32	1.6258	25
2	CCA_ON	5					
2	CCA_ON	6					
2	CCA_ON	7					
2	SCA_OFF	0					
2	SCA_OFF	1	14.27	0.2956	14.30	1.4596	23
2	SCA_OFF	2	16.53	0.1698	16.63	2.0992	72
2	SCA_OFF	3	20.33	0.1028	20.58	1.6777	215
2	SCA_OFF	4	20.92	0.1437	21.24	1.2486	132
2	SCA_OFF	5	21.10	0.2426	21.41	1.3008	37
2	SCA_OFF	6					
2	SCA_OFF	7					
2	CCA_OFF	0					
2	CCA_OFF	1					
2	CCA_OFF	2	18.23	0.2126	18.18	2.3864	45
2	CCA_OFF	3	21.69	0.1344	21.58	2.3358	115
2	CCA_OFF	4	22.42	0.1134	22.29	1.7741	169
2	CCA_OFF	5	22.61	0.2272	22.49	1.7751	39
2	CCA_OFF	6					
2	CCA_OFF	7					
3	CANADA	0					
3	CANADA	1	16.17	0.1425	15.27	2.6858	74

		Model Estimation			Observed Values		
Quarter	Area	Age (years)	Mean Length (cm)	SE	Mean Length (cm)	sd	N
3	CANADA	2	19.31	0.0866	19.12	1.2613	214
3	CANADA	3	20.70	0.0566	20.26	1.3571	499
3	CANADA	4	21.46	0.0414	21.00	1.2467	952
3	CANADA	5	22.01	0.0376	21.69	1.2993	1175
3	CANADA	6	22.64	0.0515	22.50	1.3498	589
3	CANADA	7	23.01	0.0657	22.90	1.3439	362
3	CANADA	8	23.52	0.1404	23.61	1.2400	75
3	CANADA	9	23.99	0.2705	24.10	1.4832	20
3	CANADA	10					
3	CANADA	11					
3	CANADA	12					
3	SCA	0					
3	SCA	1					
3	SCA	2					
3	SCA	3					
3	SCA	4					
3	SCA	5					
3	SCA	6					
3	SCA	7					
3	SCA	8					
3	SCA	9					
3	SCA	10					
3	SCA	11					
3	SCA	12					
3	CCA	0	13.41	0.1186	13.24	2.3920	105
3	CCA	1	15.68	0.0272	15.28	1.3632	2561
3	CCA	2	17.30	0.0254	17.32	1.4548	3336
3	CCA	3	18.11	0.0472	17.91	1.2768	787
3	CCA	4	18.72	0.1315	18.85	1.8896	87
3	CCA	5					
3	CCA	6					
3	CCA	7					
3	CCA	8					
3	CCA	9					
3	CCA	10					
3	CCA	11					

		Model Estimation			Observed Values		
Quarter	Area	Age (years)	Mean Length (cm)	SE	Mean Length (cm)	sd	N
3	CCA	12					
3	ORWA	0					
3	ORWA	1	16.08	0.0615	16.89	2.2354	452
3	ORWA	2	18.29	0.0317	18.58	1.8388	1813
3	ORWA	3	19.68	0.0226	19.73	1.3934	4304
3	ORWA	4	20.29	0.0210	20.14	1.4359	5412
3	ORWA	5	20.82	0.0234	20.65	1.5636	3832
3	ORWA	6	21.29	0.0305	21.27	1.6711	1946
3	ORWA	7	21.72	0.0463	21.94	1.6329	746
3	ORWA	8	22.29	0.0692	22.74	1.4219	319
3	ORWA	9	22.63	0.0949	23.05	1.3300	167
3	ORWA	10	22.90	0.1519	23.44	1.2956	64
3	ORWA	11	23.02	0.1872	23.36	1.1438	42
3	ORWA	12	23.41	0.2474	23.54	0.9771	24
4	CANADA	0					
4	CANADA	1					
4	CANADA	2					
4	CANADA	3	20.05	0.2626	19.76	1.7626	25
4	CANADA	4	22.55	0.1746	22.17	1.0619	58
4	CANADA	5	23.23	0.1538	22.80	0.6737	76
4	CANADA	6	23.96	0.1553	23.36	0.7688	74
4	CANADA	7	24.62	0.1698	23.66	0.6258	62
4	CANADA	8	25.00	0.2929	23.85	0.7452	20
4	SCA	0	13.57	0.0597	12.21	1.4530	645
4	SCA	1	16.37	0.0363	15.37	1.9041	2009
4	SCA	2	17.65	0.0407	17.34	2.1331	1302
4	SCA	3	18.26	0.0708	18.06	1.9861	422
4	SCA	4	19.52	0.1731	19.58	2.2035	57
4	SCA	5					
4	SCA	6					
4	SCA	7					
4	SCA	8					
4	CCA	0	14.45	0.0965	13.96	2.4492	220
4	CCA	1	16.69	0.0413	15.35	1.3972	2253
4	CCA	2	18.74	0.0412	17.33	1.4494	2371
4	CCA	3	20.20	0.0537	19.35	1.6792	972

		Model Estimation			Observed Values		
Quarter	Area	Age (years)	Mean Length (cm)	SE	Mean Length (cm)	sd	N
4	CCA	4	21.69	0.0947	21.11	1.7569	215
4	CCA	5	23.00	0.1608	22.51	1.5692	68
4	CCA	6					
4	CCA	7					
4	CCA	8					
4	ORWA	0					
4	ORWA	1	17.46	0.1123	16.36	2.1377	166
4	ORWA	2	19.80	0.1214	18.71	2.1707	124
4	ORWA	3	20.68	0.1060	19.58	2.0005	165
4	ORWA	4	21.66	0.1190	21.02	1.7426	135
4	ORWA	5	22.25	0.1353	21.63	1.2225	101
4	ORWA	6	22.89	0.1505	22.15	1.0803	80
4	ORWA	7	23.74	0.2433	23.03	0.9814	29
4	ORWA	8					

Empirical mean length-at-age and standard deviation along with model estimated mean age and standard error are given. Length bins with 20 or fewer fish were not included in the analysis.