

Comparison of age–frequency distributions for ocean quahogs *Arctica islandica* on the western Atlantic US continental shelf

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Table S1. Generated age frequency for New Jersey standardized to the number of individuals per tow at each age. Percentages can be obtained by dividing by 2111, the total number of animals measured ≥ 80 -mm in shell length.

Age	N	Age	N	Age	N	Age	N	Age	N	Age	N	Age	N
20	5.77	50	19.95	80	20.49	110	17.53	140	15.19	170	2.30	200	0.00
21	4.62	51	13.96	81	25.78	111	19.94	141	8.20	171	5.35	201	0.00
22	6.93	52	2.31	82	22.29	112	9.88	142	9.62	172	4.97	202	0.00
23	4.62	53	18.54	83	23.77	113	16.22	143	12.06	173	5.31	203	0.00
24	5.77	54	10.42	84	25.28	114	9.63	144	20.55	174	2.73	204	0.00
25	15.88	55	5.78	85	32.19	115	9.08	145	6.33	175	3.33	205	0.00
26	23.81	56	10.45	86	18.93	116	17.84	146	5.92	176	0.21	206	0.00
27	18.09	57	5.83	87	16.12	117	14.90	147	7.82	177	0.21	207	0.00
28	22.74	58	11.76	88	23.78	118	12.81	148	14.73	178	0.43	208	0.00
29	19.30	59	8.24	89	32.29	119	22.84	149	3.73	179	0.23	209	0.00
30	14.68	60	21.21	90	15.60	120	15.47	150	4.38	180	0.21	210	0.00
31	20.45	61	6.90	91	23.10	121	14.24	151	7.08	181	0.00	211	0.00
32	23.89	62	15.14	92	16.34	122	13.18	152	5.01	182	0.00	212	0.00
33	8.03	63	14.68	93	34.16	123	6.41	153	5.79	183	0.00	213	0.00
34	13.68	64	9.42	94	21.43	124	10.24	154	2.89	184	0.00	214	0.00
35	21.66	65	11.47	95	13.21	125	11.33	155	2.97	185	0.00	215	0.04
36	15.88	66	15.11	96	19.44	126	17.62	156	3.52	186	0.00	216	0.04
37	20.69	67	30.20	97	2.53	127	13.27	157	5.16	187	0.00	217	0.02
38	11.50	68	17.55	98	18.92	128	12.27	158	1.51	188	0.00	218	0.02
39	15.04	69	23.65	99	31.17	129	7.05	159	1.72	189	0.00	219	0.02
40	12.65	70	21.58	100	14.00	130	9.29	160	2.70	190	0.00	220	0.04
41	13.76	71	22.15	101	13.58	131	21.63	161	3.34	191	0.00	221	0.02
42	24.33	72	22.60	102	17.94	132	8.56	162	2.12	192	0.00	222	0.02
43	11.68	73	26.71	103	16.65	133	7.81	163	1.50	193	0.00		
44	18.48	74	17.40	104	20.02	134	13.21	164	1.05	194	0.00		
45	15.15	75	23.09	105	16.10	135	10.04	165	5.33	195	0.00		
46	14.02	76	20.53	106	24.80	136	7.26	166	2.71	196	0.00		
47	19.58	77	21.15	107	15.53	137	1.78	167	5.87	197	0.00		
48	12.73	78	20.16	108	15.39	138	6.41	168	0.31	198	0.00		
49	8.14	79	26.42	109	15.09	139	6.98	169	7.85	199	0.00		

Table S2. Generated age frequency for Long Island standardized to the number of individuals per tow at each age. Percentages can be obtained by dividing by 1910, the total number of animals measured ≥ 80 -mm in shell length.

Age	N	Age	N	Age	N	Age	N	Age	N	Age	N	Age	N	Age	N
40	6.62	70	15.64	100	8.89	130	6.24	160	1.82	190	2.10	220	1.52	250	0.00
41	17.88	71	17.44	101	8.03	131	10.37	161	2.91	191	7.31	221	1.79	251	0.10
42	13.41	72	20.12	102	5.83	132	4.24	162	2.61	192	4.33	222	2.13	252	0.10
43	13.40	73	32.52	103	14.57	133	7.12	163	4.15	193	5.60	223	0.56	253	0.00
44	20.13	74	25.39	104	9.76	134	10.57	164	4.28	194	3.97	224	1.10	254	0.10
45	37.88	75	24.94	105	9.24	135	13.89	165	2.16	195	2.88	225	0.88		
46	33.54	76	35.24	106	3.53	136	20.96	166	2.94	196	3.93	226	0.76		
47	22.45	77	19.11	107	9.32	137	4.56	167	3.59	197	5.44	227	1.81		
48	24.46	78	25.60	108	4.47	138	2.99	168	3.09	198	1.85	228	0.44		
49	31.18	79	23.22	109	4.77	139	1.21	169	1.54	199	6.40	229	1.19		
50	26.79	80	17.88	110	10.26	140	9.97	170	4.35	200	1.81	230	2.15		
51	26.66	81	18.67	111	3.95	141	8.81	171	1.49	201	1.10	231	0.90		
52	33.51	82	21.93	112	4.91	142	2.29	172	1.83	202	1.00	232	0.98		
53	37.97	83	34.78	113	6.72	143	7.16	173	3.41	203	4.41	233	1.42		
54	15.09	84	14.57	114	3.53	144	2.81	174	2.19	204	0.98	234	1.17		
55	34.73	85	19.09	115	6.15	145	2.91	175	1.37	205	1.42	235	1.44		
56	45.07	86	16.50	116	8.12	146	6.50	176	2.18	206	3.04	236	2.05		
57	30.24	87	16.05	117	6.05	147	0.81	177	2.63	207	1.10	237	1.54		
58	39.68	88	16.06	118	3.16	148	2.70	178	1.57	208	0.98	238	0.90		
59	48.52	89	15.54	119	9.88	149	2.80	179	3.00	209	1.28	239	1.02		
60	20.93	90	19.03	120	1.56	150	1.37	180	1.62	210	0.84	240	3.21		
61	24.67	91	14.14	121	3.80	151	4.55	181	2.29	211	1.00	241	2.40		
62	24.07	92	19.42	122	8.41	152	1.18	182	4.19	212	1.52	242	2.60		
63	24.60	93	15.90	123	3.48	153	0.68	183	3.06	213	1.76	243	2.21		
64	16.06	94	11.51	124	4.48	154	0.85	184	4.07	214	1.89	244	0.54		
65	12.95	95	8.90	125	5.07	155	2.46	185	1.38	215	2.23	245	1.72		
66	36.58	96	8.89	126	5.01	156	2.79	186	1.37	216	0.83	246	0.20		
67	20.43	97	15.64	127	2.26	157	1.69	187	0.50	217	0.54	247	0.44		
68	33.40	98	21.50	128	3.60	158	1.20	188	3.35	218	1.44	248	0.20		
69	32.54	99	15.64	129	4.76	159	2.57	189	0.84	219	2.77	249	0.00		

Table S3. Generated age frequency for Southern New England standardized to the number of individuals per tow at each age. Percentages can be obtained by dividing by 1805, the total number of animals measured ≥ 80 -mm in shell length.

Age	N	Age	N	Age	N	Age	N
72	10.71	98	59.17	124	6.48	150	3.52
73	10.71	99	46.61	125	6.10	151	1.92
74	24.98	100	46.12	126	6.39	152	2.25
75	31.56	101	26.94	127	5.32	153	0.74
76	45.45	102	26.69	128	5.11	154	0.40
77	37.34	103	43.85	129	4.66	155	0.81
78	58.52	104	47.29	130	4.04	156	0.47
79	22.28	105	29.27	131	6.08	157	2.32
80	25.22	106	37.02	132	6.97	158	1.00
81	44.96	107	26.39	133	3.66	159	0.66
82	49.26	108	18.44	134	3.88	160	1.80
83	57.90	109	10.40	135	1.78	161	1.21
84	69.21	110	23.20	136	2.04	162	1.99
85	41.92	111	14.36	137	4.00	163	1.66
86	38.32	112	22.38	138	1.96	164	2.54
87	39.31	113	19.99	139	0.00	165	1.47
88	47.16	114	7.70	140	2.44	166	0.78
89	71.76	115	4.80	141	4.59	167	1.54
90	36.64	116	10.16	142	3.22	168	1.40
91	63.03	117	3.59	143	4.59	169	2.22
92	48.74	118	4.77	144	4.44	170	4.11
93	45.53	119	6.25	145	3.69	171	1.89
94	53.87	120	5.30	146	1.92	172	2.41
95	46.80	121	8.27	147	1.85		
96	44.34	122	3.29	148	2.70		
97	43.62	123	2.63	149	3.06		

Table S4. New Jersey age frequency based solely on the animals aged and standardized to the number of individuals per tow at each age.

Age	N	Age	N	Age	N	Age	N	Age	N	Age	N	Age	N
20	0.00	50	0.00	80	26.24	110	6.19	140	11.22	170	2.33	200	0.00
21	0.00	51	0.00	81	42.72	111	0.00	141	11.22	171	11.22	201	0.00
22	0.00	52	13.86	82	48.63	112	11.22	142	0.00	172	0.00	202	0.00
23	0.00	53	0.00	83	0.00	113	11.46	143	11.46	173	11.22	203	0.00
24	13.86	54	0.00	84	31.03	114	0.00	144	42.89	174	0.00	204	0.00
25	27.71	55	12.42	85	56.70	115	0.00	145	0.00	175	0.00	205	0.00
26	26.28	56	0.00	86	11.22	116	54.87	146	51.03	176	0.00	206	0.00
27	12.42	57	13.86	87	5.96	117	22.61	147	0.00	177	2.33	207	0.00
28	24.84	58	0.00	88	48.63	118	0.00	148	0.00	178	0.00	208	0.00
29	37.26	59	0.00	89	64.88	119	28.35	149	0.24	179	0.00	209	0.00
30	12.42	60	28.35	90	36.30	120	16.82	150	2.33	180	0.00	210	0.00
31	24.84	61	0.00	91	0.00	121	46.75	151	0.00	181	0.00	211	0.00
32	52.56	62	0.00	92	11.22	122	0.00	152	4.87	182	0.00	212	0.00
33	0.00	63	0.00	93	2.33	123	0.00	153	11.22	183	0.00	213	0.00
34	0.00	64	20.28	94	34.54	124	2.33	154	0.00	184	0.00	214	0.00
35	0.00	65	39.57	95	2.33	125	10.62	155	0.00	185	0.00	215	0.00
36	12.42	66	0.00	96	40.56	126	26.24	156	2.33	186	0.00	216	0.00
37	12.42	67	13.86	97	0.24	127	22.81	157	0.00	187	0.00	217	0.00
38	13.86	68	0.00	98	28.35	128	0.00	158	0.24	188	0.00	218	0.00
39	13.86	69	11.22	99	0.00	129	2.33	159	2.33	189	0.00	219	0.00
40	12.42	70	11.22	100	20.52	130	0.00	160	0.00	190	0.00	220	0.24
41	12.42	71	42.21	101	0.00	131	29.33	161	0.00	191	0.00	221	0.00
42	42.21	72	0.00	102	0.00	132	0.00	162	0.00	192	0.00	222	0.00
43	0.00	73	50.79	103	5.96	133	5.96	163	11.22	193	0.00		
44	12.42	74	39.57	104	31.50	134	25.01	164	0.00	194	0.00		
45	0.00	75	39.57	105	22.68	135	0.24	165	11.22	195	0.00		
46	42.21	76	28.35	106	0.00	136	0.00	166	0.00	196	0.00		
47	13.86	77	53.43	107	5.96	137	0.20	167	0.00	197	0.00		
48	0.00	78	19.81	108	23.83	138	11.46	168	2.97	198	0.00		
49	40.77	79	31.50	109	27.41	139	0.24	169	11.22	199	0.00		

Table S5. Long Island age frequency based solely on the animals aged and standardized to the number of individuals per tow at each age.

Age	N	Age	N	Age	N	Age	N	Age	N	Age	N	Age	N	Age	N
40	0.00	70	6.18	100	6.18	130	0.00	160	4.00	190	4.00	220	0.00	250	0.00
41	0.00	71	6.18	101	0.00	131	31.03	161	1.32	191	0.00	221	6.18	251	0.00
42	0.00	72	6.18	102	0.00	132	0.00	162	1.19	192	0.00	222	6.18	252	0.00
43	0.00	73	24.85	103	0.00	133	4.00	163	6.18	193	0.00	223	0.00	253	0.00
44	24.26	74	0.00	104	0.00	134	0.00	164	0.00	194	0.00	224	4.00	254	0.00
45	48.91	75	0.00	105	0.00	135	49.50	165	4.00	195	1.19	225	6.18		
46	0.00	76	6.18	106	0.00	136	0.00	166	8.13	196	0.00	226	0.00		
47	24.65	77	6.18	107	0.00	137	6.18	167	0.00	197	0.00	227	6.18		
48	49.11	78	24.85	108	0.00	138	4.00	168	7.37	198	0.00	228	0.00		
49	49.11	79	6.18	109	0.00	139	0.13	169	6.18	199	28.85	229	0.00		
50	72.78	80	0.00	110	24.26	140	24.26	170	4.00	200	0.00	230	0.00		
51	48.91	81	48.91	111	0.00	141	6.18	171	0.00	201	0.00	231	0.00		
52	0.00	82	55.48	112	0.00	142	0.25	172	0.00	202	0.00	232	0.00		
53	98.22	83	24.65	113	0.00	143	0.00	173	1.19	203	0.00	233	6.18		
54	24.26	84	30.44	114	0.00	144	5.19	174	0.00	204	0.00	234	0.00		
55	49.30	85	24.65	115	6.18	145	10.17	175	0.00	205	0.00	235	4.00		
56	98.21	86	0.00	116	0.00	146	4.00	176	0.00	206	0.00	236	0.00		
57	54.70	87	6.18	117	6.18	147	0.00	177	10.30	207	0.00	237	0.00		
58	99.00	88	24.85	118	0.00	148	0.00	178	1.19	208	1.19	238	0.00		
59	73.17	89	0.00	119	0.00	149	5.19	179	0.00	209	1.19	239	0.00		
60	6.18	90	28.85	120	0.00	150	0.00	180	0.00	210	0.00	240	6.18		
61	24.85	91	24.85	121	0.00	151	28.85	181	4.00	211	0.00	241	0.00		
62	73.76	92	0.00	122	0.00	152	0.00	182	0.00	212	1.19	242	0.00		
63	0.00	93	24.85	123	1.32	153	0.00	183	6.18	213	0.00	243	0.00		
64	24.85	94	6.18	124	0.00	154	4.00	184	0.00	214	0.00	244	0.00		
65	24.65	95	0.00	125	1.19	155	4.00	185	0.00	215	0.00	245	6.18		
66	0.00	96	12.35	126	24.85	156	6.18	186	0.00	216	4.00	246	0.00		
67	0.00	97	0.00	127	6.18	157	0.00	187	1.19	217	1.19	247	0.00		
68	24.65	98	6.18	128	0.13	158	0.00	188	1.19	218	2.38	248	1.19		
69	48.52	99	12.35	129	0.00	159	0.00	189	6.18	219	8.56	249	0.00		

Table S6. Southern New England age frequency based solely on the animals aged and standardized to the number of individuals per tow at each age.

Age	N	Age	N	Age	N	Age	N
72	0.00	98	67.16	124	1.00	150	0.00
73	39.25	99	65.39	125	3.65	151	0.00
74	0.00	100	51.48	126	3.65	152	7.30
75	27.91	101	3.65	127	0.00	153	0.00
76	39.25	102	40.13	128	8.58	154	0.00
77	78.50	103	63.21	129	10.58	155	0.00
78	0.00	104	15.88	130	0.00	156	3.65
79	8.58	105	0.00	131	1.00	157	3.65
80	51.48	106	104.23	132	8.58	158	3.65
81	69.04	107	27.91	133	1.00	159	0.00
82	27.91	108	0.00	134	1.00	160	0.00
83	117.75	109	0.00	135	0.00	161	0.00
84	45.06	110	64.39	136	0.00	162	9.57
85	64.39	111	1.00	137	3.65	163	3.65
86	0.00	112	37.48	138	0.00	164	3.65
87	8.58	113	0.00	139	0.00	165	0.00
88	87.08	114	8.58	140	8.58	166	0.00
89	0.00	115	0.00	141	8.58	167	1.00
90	8.58	116	0.00	142	0.00	168	3.65
91	92.88	117	0.00	143	0.00	169	0.00
92	103.64	118	12.23	144	0.00	170	0.00
93	120.79	119	1.00	145	0.00	171	0.00
94	79.50	120	8.58	146	0.00	172	8.58
95	8.58	121	0.00	147	0.00		
96	39.25	122	1.00	148	1.00		
97	3.65	123	0.00	149	0.00		