

Appendix – Shell geochemical, seawater temperature and seawater oxygen stable isotope data for: a) laboratory experiments and b) field experiment.

a) Laboratory experiments

Species	Experiment	Aquarium	Shell	Interval	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	1 Sigma	N	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)	1 Sigma	N
Mussel	1	12	1	5	5.28	12.05	0.21	672				
Mussel	1	12	1	6	5.11	11.87	0.03	864	0.876	-0.031	0.02	7
Mussel	1	12	2	1,2,3	3.18	11.93	0.05	2016	0.733	-0.180	0.12	11
Mussel	1	12	2	4,5,6	3.47	11.99	0.15	2208				
Mussel	1	12	3	1,2,3	4.03	11.93	0.05	2016				
Mussel	1	12	3	4,5,6	3.25	11.99	0.15	2208				
Mussel	1	12	4	2	4.50	11.94	0.05	672				
Mussel	1	12	4	3	3.73	11.92	0.05	672				
Mussel	1	12	4	4	3.83	12.01	0.06	672				
Mussel	1	12	5	1,2,3	4.28	11.93	0.05	2016	0.406	-0.180	0.12	11
Mussel	1	12	5	4	3.99	12.01	0.06	672				
Mussel	1	12	5	5	3.92	12.05	0.21	672				
Mussel	1	12	5	6	6.34	11.87	0.03	864	1.070	-0.031	0.02	7
Mussel	1	12	6	1,2,3	3.60	11.93	0.05	2016				
Mussel	1	12	6	4	2.84	12.01	0.06	672				
Mussel	1	12	6	5	2.92	12.05	0.21	672				
Mussel	1	12	6	6	5.20	11.87	0.03	864				
Mussel	1	12	7	1,2	3.49	11.94	0.05	1344				
Mussel	1	12	7	3	3.96	11.92	0.05	672				
Mussel	1	12	7	4		12.01	0.06	672	0.727	-0.218	0.04	4
Mussel	1	12	7	5	3.77	12.05	0.21	672				
Mussel	1	12	7	6	3.95	11.87	0.03	864	1.052	-0.031	0.02	7
Mussel	1	15	1	1	5.32	15.56	0.04	672				
Mussel	1	15	1	2	5.24	15.57	0.17	672	-0.071	-0.261	0.06	4
Mussel	1	15	1	3	4.73	15.61	0.05	672				
Mussel	1	15	1	4	4.45	15.62	0.06	672	-0.044	-0.180	0.04	4
Mussel	1	15	1	5	4.55	15.64	0.12	672				
Mussel	1	15	1	6	4.16	15.64	0.18	576	0.279	-0.025	0.02	4
Mussel	1	15	2	1	5.74	15.56	0.04	672				
Mussel	1	15	2	2	6.31	15.57	0.17	672	0.018	-0.261	0.06	4

Species	Experiment	Aquarium	Shell	Interval	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	1 Sigma	N	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)	1 Sigma	N
Mussel	1	15	2	4	5.27	15.62	0.06	672				
Mussel	1	15	2	5	5.31	15.64	0.12	672				
Mussel	1	15	2	6	5.41	15.64	0.18	576				
Mussel	1	15	3	2	4.29	15.57	0.17	672				
Mussel	1	15	3	3	3.91	15.61	0.05	672				
Mussel	1	15	3	4	4.19	15.62	0.06	672				
Mussel	1	15	3	5	3.71	15.64	0.12	672				
Mussel	1	15	3	6	4.54	15.64	0.18	576				
Mussel	1	15	4	1	5.93	15.56	0.04	672				
Mussel	1	15	4	2	5.69	15.57	0.17	672				
Mussel	1	15	4	3	5.56	15.61	0.05	672				
Mussel	1	15	4	4	5.62	15.62	0.06	672	0.014	-0.180	0.04	4
Mussel	1	15	4	5	5.81	15.64	0.12	672				
Mussel	1	15	4	6	6.15	15.64	0.18	576				
Mussel	1	15	5	1	4.98	15.56	0.04	672				
Mussel	1	15	5	2	5.31	15.57	0.17	672				
Mussel	1	15	5	3	4.65	15.61	0.05	672				
Mussel	1	15	5	5	4.94	15.64	0.12	672				
Mussel	1	15	5	6	5.22	15.64	0.18	576				
Mussel	1	15	6	1	6.28	15.56	0.04	672				
Mussel	1	15	6	2	6.23	15.57	0.17	672	-0.507	-0.261	0.06	4
Mussel	1	15	6	3	6.08	15.61	0.05	672				
Mussel	1	15	6	4	5.56	15.62	0.06	672				
Mussel	1	15	6	5	5.68	15.64	0.12	672				
Mussel	1	15	6	6	6.30	15.64	0.18	576				
Mussel	1	18	1	1	4.98	18.39	0.04	672				
Mussel	1	18	1	2	5.97	18.38	0.04	672				
Mussel	1	18	1	3	4.76	18.34	0.03	672				
Mussel	1	18	1	4	5.02	18.40	0.03	672				
Mussel	1	18	1	5	4.48	18.42	0.07	672				
Mussel	1	18	2	1	5.42	18.39	0.04	672				
Mussel	1	18	2	2	6.22	18.38	0.04	672				
Mussel	1	18	2	3	5.27	18.34	0.03	672				

Species	Experiment	Aquarium	Shell	Interval	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	1 Sigma	N	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)	1 Sigma	N
Mussel	1	18	2	4	5.25	18.40	0.03	672				
Mussel	1	18	2	5	5.46	18.42	0.07	672				
Mussel	1	18	3	1,2	5.84	18.39	0.04	1344				
Mussel	1	18	3	3	5.20	18.34	0.03	672				
Mussel	1	18	3	4	5.13	18.40	0.03	672				
Mussel	1	18	3	5	4.28	18.42	0.07	672				
Mussel	1	18	4	1	6.37	18.39	0.04	672				
Mussel	1	18	4	2	5.80	18.38	0.04	672				
Mussel	1	18	4	3	6.28	18.34	0.03	672				
Mussel	1	18	4	4	5.71	18.40	0.03	672	-0.695	-0.085	0.08	4
Mussel	1	18	4	5	5.65	18.42	0.07	672				
Mussel	1	18	5	1	6.20	18.39	0.04	672				
Mussel	1	18	5	2	6.32	18.38	0.04	672	-0.636	-0.289	0.03	4
Mussel	1	18	5	3	6.14	18.34	0.03	672				
Mussel	1	18	5	4	6.81	18.40	0.03	672				
Mussel	1	18	5	5	6.02	18.42	0.07	672	-0.677	-0.029	0.02	5
Mussel	1	18	6	1	5.84	18.39	0.04	672				
Mussel	1	18	6	2	6.21	18.38	0.04	672				
Mussel	1	18	6	3	6.00	18.34	0.03	672				
Mussel	1	18	6	4	6.31	18.40	0.03	672	-0.609	-0.085	0.08	4
Mussel	1	18	6	5	6.86	18.42	0.07	672	-0.364	-0.029	0.02	5
Mussel	2	10	1	1	4.01	11.01	0.39	672				
Mussel	2	10	1	2	4.01	10.95	0.44	672				
Mussel	2	10	1	3	3.95	10.47	0.17	672				
Mussel	2	10	1	4	3.86	10.87	0.55	672	1.136	0.036	0.05	4
Mussel	2	10	1	5	3.65	10.49	0.13	672				
Mussel	2	10	1	6	4.23	10.78	0.18	672				
Mussel	2	10	2	1	3.99	11.01	0.39	672				
Mussel	2	10	2	2	4.62	10.95	0.44	672	0.951	-0.026	0.07	4
Mussel	2	10	2	3	4.75	10.47	0.17	672				
Mussel	2	10	2	6	7.20	10.78	0.18	672				
Mussel	2	10	3	1,2	5.75	10.98	0.42	2016	0.916	-0.044	0.05	9
Mussel	2	10	3	3	5.09	10.47	0.17	672				

Species	Experiment	Aquarium	Shell	Interval	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	1 Sigma	N	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)	1 Sigma	N
Mussel	2	10	3	4		10.87	0.55	672	1.160	0.027	0.05	4
Mussel	2	10	3	5	4.10	10.49	0.13	672				
Mussel	2	10	3	6	5.81	10.78	0.18	672				
Mussel	2	10	4	1	4.42	11.01	0.39	672				
Mussel	2	10	4	3	5.54	10.47	0.17	672				
Mussel	2	10	4	4	4.35	10.87	0.55	672				
Mussel	2	10	4	5	4.18	10.49	0.13	672				
Mussel	2	10	4	6	5.94	10.78	0.18	672	1.268	0.066	0.03	4
Mussel	2	10	5	1,2	3.90	10.98	0.42	2016				
Mussel	2	10	5	3,4	4.31	10.67	0.46	2016				
Mussel	2	10	5	5,6	4.36	10.71	0.21	2016				
Mussel	2	10	6	2	5.40	10.95	0.44	672				
Mussel	2	10	6	3	5.42	10.47	0.17	672				
Mussel	2	10	6	4	4.68	10.87	0.55	672				
Mussel	2	10	6	5	4.62	10.49	0.13	672				
Mussel	2	10	6	6	4.95	10.78	0.18	672				
Mussel	2	15	1	1	8.65	15.55	0.04	672				
Mussel	2	15	1	2	6.87	15.61	0.20	672				
Mussel	2	15	1	3	7.57	15.57	0.35	672	-0.056	0.035	0.01	4
Mussel	2	15	1	4	7.26	15.45	0.26	672				
Mussel	2	15	2	1	5.62	15.55	0.04	672				
Mussel	2	15	2	4	4.23	15.45	0.26	672				
Mussel	2	15	3	1	6.08	15.55	0.04	672				
Mussel	2	15	3	2	5.72	15.61	0.20	672				
Mussel	2	15	3	3	5.68	15.57	0.35	672	-0.296	0.035	0.01	4
Mussel	2	15	3	4	5.74	15.45	0.26	672				
Mussel	2	15	4	1	7.39	15.55	0.04	672				
Mussel	2	15	4	3	6.67	15.57	0.35	672	-0.123	0.035	0.01	4
Mussel	2	15	4	4	7.63	15.45	0.26	672	0.035	0.036	0.05	4
Mussel	2	15	5	1,2	4.02	15.58	0.15	2016	0.127	-0.047	0.05	9
Mussel	2	15	5	3,4	4.59	15.51	0.32	2016				
Mussel	2	15	6	1	8.68	15.55	0.04	672				
Mussel	2	15	6	2	6.36	15.61	0.20	672	-0.103	-0.026	0.07	4

Species	Experiment	Aquarium	Shell	Interval	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	1 Sigma	N	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)	1 Sigma	N
Mussel	2	15	6	3	5.70	15.57	0.35	672				
Mussel	2	15	6	4	5.54	15.45	0.26	672				
Mussel	2	20	1	2	8.65	20.15	0.07	672	-0.951	0.016	0.03	4
Mussel	2	20	1	3	9.50	20.30	0.07	672	-0.845	0.057	0.03	5
Mussel	2	20	2	1	6.12	20.19	0.17	960				
Mussel	2	20	3	1	7.98	20.19	0.17	960				
Mussel	2	20	3	2	7.65	20.15	0.07	672	-1.089	0.016	0.03	4
Mussel	2	20	3	3	7.61	20.30	0.07	672				
Mussel	2	20	4	1	8.47	20.19	0.17	960				
Mussel	2	20	4	2	7.13	20.15	0.07	672	-1.119	0.016	0.03	4
Mussel	2	20	4	3	6.41	20.30	0.07	672	-0.819	0.057	0.03	5
Mussel	2	20	5	2	8.48	20.15	0.07	672	-0.941	0.016	0.03	4
Mussel	2	20	5	3	8.60	20.30	0.07	672				
Mussel	2	20	6	1,2	7.55	20.17	0.07	2016				
Mussel	2	20	6	3	6.32	20.30	0.07	672				
Pecten	2	10	1	1	19.22	11.01	0.39	672				
Pecten	2	10	1	2	21.25	10.95	0.44	672				
Pecten	2	10	1	3	20.14	10.47	0.17	672				
Pecten	2	10	1	4	22.83	10.87	0.55	672	1.076	0.036	0.05	4
Pecten	2	10	1	5	20.15	10.49	0.13	672				
Pecten	2	10	1	6	24.15	10.78	0.18	672	1.094	0.066	0.03	4
Pecten	2	10	3	1	11.13	11.01	0.39	672				
Pecten	2	10	3	2	13.64	10.95	0.44	672				
Pecten	2	10	3	3	14.33	10.47	0.17	672				
Pecten	2	10	3	4	12.51	10.87	0.55	672	1.091	0.036	0.05	4
Pecten	2	10	3	5	14.63	10.49	0.13	672				
Pecten	2	10	3	6	19.15	10.78	0.18	672				
Pecten	2	10	4	1	9.30	11.01	0.39	672	1.011	-0.061	0.03	5
Pecten	2	10	4	2	10.08	10.95	0.44	672				
Pecten	2	10	4	3	13.26	10.47	0.17	672	0.956	0.027	0.01	4
Pecten	2	10	4	4	12.13	10.87	0.55	672	1.127	0.036	0.05	4
Pecten	2	10	4	5	14.86	10.49	0.13	672	1.030	0.048	0.03	4
Pecten	2	10	4	6	19.48	10.78	0.18	672	1.008	0.066	0.03	4

Species	Experiment	Aquarium	Shell	Interval	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	1 Sigma	N	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)	1 Sigma	N
Pecten	2	10	6	1,2	12.71	10.98	0.42	2016				
Pecten	2	10	6	3	10.98	10.47	0.17	672				
Pecten	2	10	6	4	14.97	10.87	0.55	672	1.131	0.036	0.05	4
Pecten	2	10	6	5,6	17.75	10.71	0.21	2016				
Pecten	2	10	7	1,2,3	13.25	10.81	0.43	2688				
Pecten	2	10	7	4,5,6	20.11	10.71	0.38	2688				
Pecten	2	10	8	1,2	8.08	10.98	0.42	2016				
Pecten	2	10	8	3	9.92	10.47	0.17	672				
Pecten	2	10	8	4	14.18	10.87	0.55	672	1.135	0.036	0.05	4
Pecten	2	10	8	5	9.66	10.49	0.13	672				
Pecten	2	10	8	6	20.15	10.78	0.18	672				
Pecten	2	10	9	1	17.96	11.01	0.39	672				
Pecten	2	10	9	2	17.38	10.95	0.44	672				
Pecten	2	10	9	3	14.42	10.47	0.17	672				
Pecten	2	10	9	4	16.81	10.87	0.55	672	1.071	0.036	0.05	4
Pecten	2	10	9	5	18.31	10.49	0.13	672				
Pecten	2	10	9	6	21.20	10.78	0.18	672				
Pecten	2	10	10	1	15.23	11.01	0.39	672				
Pecten	2	10	10	2	15.46	10.95	0.44	672				
Pecten	2	10	10	3	15.62	10.47	0.17	672				
Pecten	2	10	10	4	16.60	10.87	0.55	672				
Pecten	2	10	10	5	17.78	10.49	0.13	672				
Pecten	2	10	10	6	20.42	10.78	0.18	672				
Pecten	2	15	1	1	13.72	15.55	0.04	672				
Pecten	2	15	1	2	16.32	15.61	0.20	672	-0.020	-0.026	0.07	4
Pecten	2	15	1	3		15.57	0.35	672	-0.016	0.035	0.01	4
Pecten	2	15	1	3	16.25	15.57	0.35	672	0.068	0.035	0.01	4
Pecten	2	15	1	4	23.70	15.41	0.22	1152	0.067	0.044	0.04	6
Pecten	2	15	2	1	14.45	15.55	0.04	672				
Pecten	2	15	2	2	15.70	15.61	0.20	672				
Pecten	2	15	2	3	13.77	15.57	0.35	672	0.008	0.035	0.01	4
Pecten	2	15	2	4	20.63	15.41	0.22	1152				
Pecten	2	15	3	1	15.69	15.55	0.04	672				

Species	Experiment	Aquarium	Shell	Interval	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	1 Sigma	N	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)	1 Sigma	N
Pecten	2	15	3	2	14.95	15.61	0.20	672				
Pecten	2	15	3	3	22.69	15.57	0.35	672	-0.010	0.035	0.01	4
Pecten	2	15	3	4	23.51	15.41	0.22	1152				
Pecten	2	15	4	1	16.39	15.55	0.04	672				
Pecten	2	15	4	2	18.24	15.61	0.20	672				
Pecten	2	15	4	3	19.95	15.57	0.35	672				
Pecten	2	15	4	4	21.80	15.41	0.22	1152				
Pecten	2	15	5	1	9.38	15.55	0.04	672				
Pecten	2	15	5	2	10.84	15.61	0.20	672				
Pecten	2	15	5	3	11.25	15.57	0.35	672	-0.004	0.035	0.01	4
Pecten	2	15	5	4	18.19	15.41	0.22	1152				
Pecten	2	15	6	1	13.91	15.55	0.04	672				
Pecten	2	15	6	2	15.83	15.61	0.20	672				
Pecten	2	15	6	3	16.82	15.57	0.35	672				
Pecten	2	15	6	4	21.78	15.41	0.22	1152				
Pecten	2	15	7	1	21.16	15.55	0.04	672				
Pecten	2	15	7	2	20.08	15.61	0.20	672				
Pecten	2	15	7	3	21.77	15.57	0.35	672	-0.089	0.035	0.01	4
Pecten	2	15	7	4	23.58	15.41	0.22	1152				
Pecten	2	15	8	1	12.83	15.55	0.04	672				
Pecten	2	15	8	2	17.07	15.61	0.20	672				
Pecten	2	15	8	3	16.26	15.57	0.35	672				
Pecten	2	15	8	4	14.81	15.41	0.22	1152	0.168	0.044	0.04	6
Pecten	2	15	9	1	12.74	15.55	0.04	672				
Pecten	2	15	9	2	14.91	15.61	0.20	672				
Pecten	2	15	9	3	15.61	15.57	0.35	672	-0.027	0.035	0.01	4
Pecten	2	15	9	4	17.57	15.41	0.22	1152				
Pecten	2	15	10	1	16.88	15.55	0.04	672				
Pecten	2	15	10	2	16.94	15.61	0.20	672				
Pecten	2	15	10	3	17.91	15.57	0.35	672				
Pecten	2	15	10	4	18.53	15.41	0.22	1152				
Pecten	2	20	1	1	14.48	20.19	0.07	672	-1.027	0.031	0.02	4
Pecten	2	20	1	2	16.25	20.15	0.07	672	-0.894	0.016	0.03	4

Species	Experiment	Aquarium	Shell	Interval	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	1 Sigma	N	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)	1 Sigma	N
Pecten	2	20	1	3	22.85	20.25	0.17	1248	-1.154	0.054	0.03	7
Pecten	2	20	2	1	17.07	20.19	0.07	672				
Pecten	2	20	2	2	18.80	20.15	0.07	672	-1.187	0.016	0.03	4
Pecten	2	20	2	3	17.99	20.25	0.17	1248				
Pecten	2	20	3	1	17.51	20.19	0.07	672				
Pecten	2	20	3	2	20.24	20.15	0.07	672	-1.059	0.016	0.03	4
Pecten	2	20	3	3	23.15	20.25	0.17	1248				
Pecten	2	20	4	1	17.04	20.19	0.07	672				
Pecten	2	20	4	2	19.70	20.15	0.07	672				
Pecten	2	20	4	3	20.37	20.25	0.17	1248				
Pecten	2	20	5	1	22.26	20.19	0.07	672	-1.140	0.031	0.02	4
Pecten	2	20	5	2	21.05	20.15	0.07	672	-1.204	0.016	0.03	4
Pecten	2	20	5	3	29.92	20.25	0.17	1248	-1.181	0.054	0.03	7
Pecten	2	20	6	1	16.96	20.19	0.07	672				
Pecten	2	20	6	2	23.04	20.15	0.07	672	-1.085	0.016	0.03	4
Pecten	2	20	6	3	25.20	20.25	0.17	1248				
Pecten	2	20	7	1	18.16	20.19	0.07	672				
Pecten	2	20	7	2	18.48	20.15	0.07	672	-1.119	0.016	0.03	4
Pecten	2	20	7	3	23.63	20.25	0.17	1248				
Pecten	2	20	8	1	19.62	20.19	0.07	672				
Pecten	2	20	8	2	19.05	20.15	0.07	672				
Pecten	2	20	8	3	23.24	20.25	0.17	1248				
Pecten	2	20	9	1	24.32	20.19	0.07	672				
Pecten	2	20	9	2	28.57	20.15	0.07	672				
Pecten	2	20	9	3	27.62	20.25	0.17	1248				
Pecten	2	20	10	1	17.96	20.19	0.07	672				
Pecten	2	20	10	2	21.75	20.15	0.07	672				
Pecten	2	20	10	3	23.49	20.25	0.17	1248				

b) Field experiment.

Species	Experiment	Shell/ Deployment	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)
Mussel	Field	Short	3.93	5.832	2.087	-0.439
Mussel	Field	Short	3.89	6.123		-0.428
Mussel	Field	Short	3.10	6.215		-0.463
Mussel	Field	Short	4.75	7.275	1.702	-0.455
Mussel	Field	Short	4.83	7.542		-0.342
Mussel	Field	Short	3.92	7.880		-0.191
Mussel	Field	Short	2.96	7.937	1.819	-0.267
Mussel	Field	Short	4.05	8.328	1.536	-0.444
Mussel	Field	Short	3.28	8.471	1.809	-0.119
Mussel	Field	Short	3.43	8.740		-0.068
Mussel	Field	Short	4.18	8.740		-0.068
Mussel	Field	Short	3.99	8.806		-0.121
Mussel	Field	Short	6.34	8.982	1.398	-0.460
Mussel	Field	Short	4.38	8.982	1.341	-0.460
Mussel	Field	Short	4.28	9.021		-0.366
Mussel	Field	Short	4.90	9.021	1.251	-0.366
Mussel	Field	Short	4.32	9.280		-0.335
Mussel	Field	Short	5.37	9.280		-0.335
Mussel	Field	Short	5.63	9.280		-0.335
Mussel	Field	Short	5.77	9.280		-0.335
Mussel	Field	Short	5.04	10.561	1.171	-0.392
Mussel	Field	Short	4.52	10.561	1.132	-0.392
Mussel	Field	Short	3.91	10.969		-0.143
Mussel	Field	Short	4.26	10.969	1.177	-0.143
Mussel	Field	Short	4.97	10.999	0.591	-0.185
Mussel	Field	Short	4.79	10.999	0.968	-0.185
Mussel	Field	Short	3.67	12.583	0.801	-0.207
Mussel	Field	Short	3.77	12.583	0.726	-0.207
Mussel	Field	Short	4.32	13.102	0.557	-0.248
Mussel	Field	Short	4.44	13.102	0.360	-0.248
Mussel	Field	Short	5.09	13.697	0.629	-0.118
Mussel	Field	Short	6.76	14.052	0.039	-0.323
Mussel	Field	Short	5.04	14.052		-0.323
Mussel	Field	Short		14.139	0.340	-0.207
Mussel	Field	Short	4.31	14.139	0.340	-0.207
Mussel	Field	Short	4.35	14.139	0.340	-0.207
Mussel	Field	Short	6.00	14.341	0.368	-0.146
Mussel	Field	Short	4.87	14.341	0.341	-0.146
Mussel	Field	Short	7.28	14.373		-0.135
Mussel	Field	Short	5.94	14.373	0.093	-0.135
Mussel	Field	Short	4.24	14.581	0.570	-0.142
Mussel	Field	Short	7.52	15.042	0.394	-0.051
Mussel	Field	Short	5.89	15.042		-0.051
Mussel	Field	Short		15.725		-0.103
Mussel	Field	Short	6.22	15.725	0.300	-0.103
Mussel	Field	Short		15.725	0.300	-0.103
Mussel	Field	Short	5.70	15.725	0.300	-0.103
Mussel	Field	Short		16.186	0.219	-0.111
Mussel	Field	Short	4.97	16.186		-0.111

Species	Experiment	Shell/ Deployment	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)
Mussel	Field	Short	5.96	16.303	-0.108	-0.108
Mussel	Field	Short		16.303	-0.133	-0.108
Mussel	Field	Short	6.92	16.693	0.123	-0.072
Mussel	Field	Short	9.16	16.693		
Mussel	Field	Short	6.80	16.758	-0.267	-0.110
Mussel	Field	Short		16.758	0.058	-0.110
Mussel	Field	Short	8.32	16.945	-0.049	-0.046
Mussel	Field	Short	5.94	17.173	-0.149	-0.139
Mussel	Field	Short	5.22	17.173	-0.344	-0.139
Mussel	Field	Short	6.04	17.425		-0.151
Mussel	Field	Short	6.37	17.425	-0.349	-0.151
Mussel	Field	Short	6.42	17.477		-0.106
Mussel	Field	Short	7.49	17.477	-0.269	-0.106
Mussel	Field	Short		17.519	-0.290	-0.040
Mussel	Field	Short	7.44	17.571	-0.114	-0.178
Mussel	Field	Short	6.42	17.571	-0.377	-0.178
Mussel	Field	Short	7.19	17.725		-0.106
Mussel	Field	Short	6.84	17.725		-0.106
Mussel	Field	Short		18.013	-0.254	-0.134
Mussel	Field	Short	7.89	18.013	-0.338	-0.134
Mussel	Field	Short	8.55	18.086	-0.477	-0.087
Mussel	Field	Annual A2	3.72	6.68		
Mussel	Field	Annual A2	3.60	7.27		
Mussel	Field	Annual A2	4.31	8.34		
Mussel	Field	Annual A2	4.35	8.88		
Mussel	Field	Annual A2	3.95	9.02		
Mussel	Field	Annual A2	3.70	9.09		
Mussel	Field	Annual A2	2.86	9.26		
Mussel	Field	Annual A2	3.96	9.28		
Mussel	Field	Annual A2	4.38	10.56		
Mussel	Field	Annual A2	4.26	11.00		
Mussel	Field	Annual A2	4.06	12.58		
Mussel	Field	Annual A2	3.48	12.63		
Mussel	Field	Annual A2	4.47	13.70		
Mussel	Field	Annual A2	6.30	14.05		
Mussel	Field	Annual A2	6.80	14.37		
Mussel	Field	Annual A2	5.88	14.58		
Mussel	Field	Annual A2	6.06	14.58		
Mussel	Field	Annual A2	6.12	14.58		
Mussel	Field	Annual A2	5.73	14.81		
Mussel	Field	Annual A2	7.29	15.04		
Mussel	Field	Annual A2	6.98	16.01		
Mussel	Field	Annual A2		16.69		
Mussel	Field	Annual A2	6.21	16.76		
Mussel	Field	Annual A2	7.77	16.89		
Mussel	Field	Annual A2	6.72	16.95		
Mussel	Field	Annual A2	6.78	17.17		
Mussel	Field	Annual A2	6.44	17.42		
Mussel	Field	Annual A2		17.56		
Mussel	Field	Annual A2	8.36	17.98		

Species	Experiment	Shell/ Deployment	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)
Mussel	Field	Annual A2	6.94	18.09		
Mussel	Field	Annual A6	3.42	6.68		
Mussel	Field	Annual A6	3.67	7.27		
Mussel	Field	Annual A6	3.21	8.34		
Mussel	Field	Annual A6		8.88		
Mussel	Field	Annual A6	3.53	9.00		
Mussel	Field	Annual A6	3.72	9.09		
Mussel	Field	Annual A6	2.93	9.26		
Mussel	Field	Annual A6	3.11	9.28		
Mussel	Field	Annual A6	3.83	9.38		
Mussel	Field	Annual A6	3.87	10.98		
Mussel	Field	Annual A6	3.60	11.00		
Mussel	Field	Annual A6	3.06	12.12		
Mussel	Field	Annual A6	3.92	12.63		
Mussel	Field	Annual A6	2.78	13.04		
Mussel	Field	Annual A6	3.52	13.70		
Mussel	Field	Annual A6	4.24	14.05		
Mussel	Field	Annual A6	5.04	14.34		
Mussel	Field	Annual A6	4.09	14.37		
Mussel	Field	Annual A6	4.49	14.58		
Mussel	Field	Annual A6	4.63	15.04		
Mussel	Field	Annual A6	4.77	15.73		
Mussel	Field	Annual A6	5.07	16.19		
Mussel	Field	Annual A6	4.66	16.30		
Mussel	Field	Annual A6	5.97	16.69		
Mussel	Field	Annual A6	5.22	16.76		
Mussel	Field	Annual A6	4.72	16.95		
Mussel	Field	Annual A6	5.53	17.17		
Mussel	Field	Annual A6	5.86	17.42		
Mussel	Field	Annual A6	5.77	17.42		
Mussel	Field	Annual A6	5.65	17.42		
Mussel	Field	Annual A6	4.88	17.48		
Mussel	Field	Annual A6	5.08	17.57		
Mussel	Field	Annual A6	5.67	17.73		
Mussel	Field	Annual A6	5.40	18.01		
Mussel	Field	Annual A6	5.57	18.09		
Mussel	Field	Annual A20		6.12		
Mussel	Field	Annual A20	3.28	7.27		
Mussel	Field	Annual A20	3.30	7.94		
Mussel	Field	Annual A20	3.40	8.47		
Mussel	Field	Annual A20	3.31	8.88		
Mussel	Field	Annual A20	3.34	9.09		
Mussel	Field	Annual A20	2.75	9.26		
Mussel	Field	Annual A20	3.49	9.28		
Mussel	Field	Annual A20	3.87	9.79		
Mussel	Field	Annual A20	3.94	11.00		
Mussel	Field	Annual A20	3.56	12.58		
Mussel	Field	Annual A20	3.62	12.63		
Mussel	Field	Annual A20	4.54	13.70		
Mussel	Field	Annual A20	3.98	14.17		
Mussel	Field	Annual A20	4.75	14.58		

Species	Experiment	Shell/ Deployment	Mg/Ca (mmol/mol)	Seawater Temperature (°C)	$\delta^{18}\text{O}_c$ (VPDB)	$\delta^{18}\text{O}_w$ (VSMOW)
Mussel	Field	Annual A20	4.51	14.81		
Mussel	Field	Annual A20	5.46	14.81		
Mussel	Field	Annual A20	5.46	14.81		
Mussel	Field	Annual A20	5.44	14.81		
Mussel	Field	Annual A20	4.43	15.99		
Mussel	Field	Annual A20	5.69	16.01		
Mussel	Field	Annual A20	5.94	16.30		
Mussel	Field	Annual A20	5.81	16.95		
Mussel	Field	Annual A20	4.54	16.95		
Mussel	Field	Annual A20	5.07	17.17		
Mussel	Field	Annual A20	5.66	17.23		
Mussel	Field	Annual A20	5.69	17.42		
Mussel	Field	Annual A20	6.02	17.48		
Mussel	Field	Annual A20	6.11	17.56		
Mussel	Field	Annual A20	5.68	17.98		
Mussel	Field	Annual A20	5.94	18.09		