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Sea level rise and a Florida mortuary pond: how oysters (*crassostrea virginica*) reveal past climate change at the Manasota key offshore archaeological site

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Appendix A. Height-to-length ratios for modern and Archaic oyster shells.

Sample ID	Height mm	Length mm	HLR
MKO Archaic Oysters			
2589.1	57.25	51.06	1.1
Surrounding Cranium 1 (SC1)	57.56	47.51	1.2
337.1	54.76	43.73	1.3
18.01	47.54	35.22	1.3
17.1	52.42	36.74	1.4
Loot Hole NW of D1b	46.26	31.34	1.5
2578.1	57.09	38.49	1.5
193.1	50.63	34.00	1.5
8.02e	65.35	43.02	1.5
151.1b	47.65	31.34	1.5
7.02	64.61	41.73	1.5
16.01a	66.01	40.12	1.6
39.1b	64.37	38.62	1.7
2596.1	63.15	37.73	1.7
151.1a	69.90	41.74	1.7
6.02a	68.33	39.87	1.7
2501.1	61.82	35.40	1.7
2606.1	60.32	33.41	1.8
23 23	51.21	24.89	2.1
8.02b	68.65	32.48	2.1
353.1	57.27	25.30	2.3
15.01b	79.23	29.88	2.7
Nokomis Boat Ramp Modern			
NBRLV10	62.41	52.41	1.2
NBRLV7	76.59	49.47	1.5
NBRLV2	76.28	48.28	1.6
NBRLV11	65.17	40.56	1.6
NBRLV19	77.82	48.01	1.6
NBRLV5	79.25	47.34	1.7
NBRLV18	103.47	57.97	1.8
NBRLV17	65.15	35.42	1.8
NBRLV14	90.17	48.52	1.9
NBRLV4	77.32	39.60	2.0
NBRLV20	77.08	39.47	2.0
NBRLV3	82.28	41.60	2.0
NBRLV9	65.29	32.95	2.0
NBRLV21	82.22	39.27	2.1
NBRLV13	79.40	37.62	2.1
NBRLV6	90.54	42.11	2.2
NBRLV22	70.93	32.81	2.2
NBRLV16	122.8	54.97	2.2

NBRLV15	86.48	37.65	2.3
NBRLV8	87.72	36.76	2.4
NBRLV12	113.05	45.09	2.5
NBRLV1	85.55	32.29	2.6
Lemon Bay Modern			
LBLV51	49.32	44.42	1.1
LBLV56	47.82	39.14	1.2
LBLV36	76.53	62.25	1.2
LBLV37	59.51	46.05	1.3
LBLV46	63.86	48.69	1.3
LBLV13	76.77	56.48	1.4
LBLV41	65.48	47.30	1.4
LBLV45	69.99	50.45	1.4
LBLV3	59.59	41.57	1.4
LBLV26	64.04	43.61	1.5
LBLV52	65.60	44.02	1.5
LBLV49	54.54	35.59	1.5
LBLV11	61.54	39.35	1.6
LBLV47	61.25	38.97	1.6
LBLV44	47.11	29.76	1.6
LBLV25	68.59	42.99	1.6
LBLV20	49.93	30.94	1.6
LBLV15	53.58	32.31	1.7
LBLV32	76.60	46.15	1.7
LBLV66	70.49	42.37	1.7
LBLV38	74.22	44.39	1.7
LBLV17	55.58	33.19	1.7
LBLV22	76.82	45.79	1.7
LBLV7	78.98	46.85	1.7
LBLV19	58.93	34.91	1.7
LBLV62	51.95	30.52	1.7
LBLV31	85.90	50.18	1.7
LBLV27	62.68	36.60	1.7
LBLV50	49.14	28.10	1.7
LBLV6	59.86	34.18	1.8
LBLV60	66.72	37.87	1.8
LBLV5	62.54	35.13	1.8
LBLV4	79.36	44.47	1.8
LBLV61	77.01	43.13	1.8
LBLV23	77.70	43.37	1.8
LBLV68	65.13	36.13	1.8
LBLV18	47.15	26.15	1.8
LBLV39	59.60	32.98	1.8
LBLV67	62.21	34.19	1.8
LBLV1	71.86	39.07	1.8

LBLV14	66.74	36.00	1.9
LBLV2	62.06	33.47	1.9
LBLV9	53.61	28.51	1.9
LBLV24	49.66	26.23	1.9
LBLV10	83.39	43.81	1.9
LBLV28	55.56	28.92	1.9
LBLV42	88.47	45.47	1.9
LBLV35	54.33	27.91	1.9
LBLV29	79.05	40.55	1.9
LBLV40	66.32	33.25	2.0
LBLV16	88.18	43.31	2.0
LBLV59	72.88	35.48	2.1
LBLV64	59.09	28.73	2.1
LBLV54	60.53	29.12	2.1
LBLV33	74.36	35.38	2.1
LBLV12	95.82	45.51	2.1
LBLV63	90.37	42.03	2.2
LBLV57	78.57	35.32	2.2
LBLV53	50.56	22.60	2.2
LBLV58	77.00	34.26	2.2
LBLV34	79.26	34.91	2.3
LBLV8	79.07	34.52	2.3
LBLV43	50.82	22.08	2.3
LBLV55	96.68	41.56	2.3
LBLV65	90.17	38.76	2.3
LBLV30	67.11	28.14	2.4
LBLV21	86.00	34.02	2.5
LBLV48	61.84	23.33	2.7

Appendix B. Isotopic composition of modern and Archaic oyster shells.

Sample ID	Distance from growth margin (μm)	$\delta^{18}\text{O}$ (‰ VPDB)	$\delta^{13}\text{C}$ (‰ VPDB)
Lemon Bay Modern			
LB42.1	171.1	-1.4	-5.5
LB42.2	342.2	-1.3	-5.7
LB42.3	510.6	-0.9	-5.7
LB42.4	671.8	-0.3	-5.1
LB42.5	845.2	0.0	-4.8
LB42.6	1013.5	0.4	-4.6
LB42.7	1164.4	0.4	-4.3
LB42.8	1305.7	0.0	-4.3
LB42.9	1447	0.3	-4.0
LB42.10	1603.4	-0.1	-4.7
LB42.11	1746.6	-	-
LB42.12	1877.1	0.6	-4.3
LB42.13	2033.5	0.7	-4.0
LB42.14	2155.3	0.9	-4.0
LB42.15	2267.8	1.0	-4.0
LB42.16	2383.7	0.8	-4.2
LB42.17	2540	0.5	-4.4
LB42.18	2705.6	0.5	-4.6
LB42.19	2931.5	0.7	-4.5
LB42.20	3115.7	0.6	-4.5
LB42.21	3285.6	0.1	-4.8
LB42.22	3441.4	-0.3	-5.0
LB42.23	3554.9	-0.4	-4.9
LB42.24	3682.5	-0.6	-4.8
LB42.25	3796.3	-0.6	-4.7
LB42.26	3924.1	-0.5	-4.8
LB42.27	4024.5	-0.5	-4.7
LB42.28	4152.4	-0.6	-4.8
LB42.29	4280.3	-0.5	-4.5
LB42.30	4351.6	-0.4	-4.5
LB42.31	4437.8	-0.4	-4.4
LB42.32	4539	-0.4	-4.5
LB42.33	4677.3	-0.3	-4.6
LB42.34	4842	-0.3	-4.5
LB42.35	4983.4	-0.2	-4.5
LB42.36	5151.2	-0.2	-4.6
LB42.37	5339.5	-0.3	-4.7
LB42.38	5476.2	-0.4	-4.8
LB42.39	5664.6	-0.4	-4.8
LB42.40	5851.9	-0.2	-4.7
LB42.41	6054.4	-0.3	-4.8

LB42.42	6211.9	-0.4	-4.9
LB42.43	6381.7	-0.4	-4.7
LB42.44	6538.1	-0.5	-4.7
LB42.45	6734.6	-0.5	-4.9
LB42.46	6912.1	-0.8	-4.8
LB42.47	7089.9	-1.0	-5.1
LB42.48	7273.3	-1.2	-5.3
LB42.49	7451.4	-1.5	-5.4
LB42.50	7794.5	-1.8	-5.5
LB42.51	7936.2	-2.0	-5.8
LB42.52	8067.9	-1.5	-5.4
LB42.53	8190.7	-1.1	-5.1
LB42.54	8341.3	-1.1	-5.1
LB42.55	8478.1	-1.1	-5.4
LB42.56	8614.9	-0.8	-5.2
LB42.57	8746.4	-0.7	-5.3
LB42.58	8897.1	-0.7	-5.2
LB42.59	9080.6	-0.2	-4.8
LB42.60	9113.1	0.1	-4.6
LB42.61	9236.4	0.1	-4.4
LB42.62	9435.8	0.2	-4.4
LB42.63	9435.8	0.2	-4.3
LB42.64	9676.7	0.4	-4.2
LB42.65	9732.6	0.4	-4.1
LB42.66	9890.6	0.1	-4.2
LB42.67	10039.4	0.1	-4.1
LB42.68	10130.4	0.2	-4.0
LB42.69	10377.8	0.2	-3.9
LB42.70	10397.6	0.1	-4.0
LB42.71	10488.9	-0.4	-4.2
LB42.72	10602.3	0.2	-4.4
LB42.73	10727.5	0.2	-4.6
LB42.74	10819.6	0.1	-4.7
LB42.75	10833.4	-0.1	-4.6
LB42.76	11053.2	0.0	-4.5
LB42.77	11254.2	0.2	-4.6
LB12.1	247	-0.7	-4.8
LB12.2	431.3	-0.1	-4.5
LB12.3	613	0.2	-4.0
LB12.4	796.7	0.3	-3.7
LB12.5	1035	0.3	-3.9
LB12.6	1204.6	0.5	-3.7
LB12.7	1366	0.6	-4.1
LB12.8	1528	0.6	-4.3
LB12.9	1675.6	0.2	-4.5

LB12.10	1844.7	0.3	-4.5
LB12.11	2007.3	-0.2	-4.7
LB12.12	2161.4	-0.5	-4.9
LB12.13	2319.8	-0.5	-4.9
LB12.14	2461.2	-0.6	-4.8
LB12.15	2654.9	-0.7	-4.6
LB12.16	2838.7	-0.5	-4.6
LB12.17	3007.4	-0.6	-4.6
LB12.18	3175.7	-0.8	-4.3
LB12.19	3344.7	-0.6	-4.3
LB12.20	3524	-0.5	-4.4
LB12.21	3715.8	-0.5	-4.5
LB12.22	3902.4	-0.3	-4.6
LB12.23	4073.4	-0.4	-4.6
LB12.24	4251.9	-0.5	-4.7
LB12.25	4423.6	-0.5	-4.6
LB12.26	4588.3	-0.5	-4.6
LB12.27	4761.6	-0.5	-4.5
LB12.28	4952.8	-0.6	-4.6
LB12.29	5128.3	-0.5	-4.5
LB12.30	5295	-0.4	-4.5
LB12.31	5487.2	-0.5	-4.3
LB12.32	5681.3	-0.6	-4.4
LB12.33	5863.8	-0.6	-4.4
LB12.34	6060.3	-0.8	-4.6
LB12.35	6242.9	-1.2	-4.9
LB12.36	6432.4	-	-
LB12.37	6612.9	-0.6	-4.8
LB12.38	6832.1	0.0	-4.4
LB12.39	7026.1	0.1	-4.2
LB12.40	7222.6	0.3	-4.1
LB12.41	7417.4	0.2	-4.1
LB12.42	7588	0.2	-4.1
LB12.43	7793.7	0.1	-4.1
LB12.44	7982.1	-0.1	-3.9
LB12.45	8170.7	-1.4	-3.7
LB12.46	8351.6	0.0	-4.0
LB12.47	8548.9	0.2	-4.1
LB12.48	8738.4	-0.2	-4.5
LB12.49	8919.3	0.1	-4.5
LB12.50	9043.5	0.7	-4.2
LB12.51	9167	0.6	-4.3
LB12.52	9347.9	0.0	-4.1
LB12.53	9521.1	-0.3	-3.9
LB12.54	9669.4	-0.3	-3.8

LB12.55	9882.3	-0.2	-3.8
LB12.56	10014.9	-0.5	-3.6
LB12.57	10170.5	-0.9	-3.7
LB12.58	10343.5	-1.2	-3.9
LB12.59	10499.7	-1.2	-3.8
LB12.60	10664.4	-1.0	-3.8
LB12.61	10821.1	-0.8	-4.3
LB12.62	10976.9	-1.1	-4.8
LB12.63	11132.9	-1.4	-4.9
LB12.64	11289.3	-1.7	-5.2
LB12.65	11470.5	-1.9	-5.2
LB12.66	11610.4	-2.6	-5.2
LB12.67	11791.8	-	-
LB12.68	11965.4	-1.9	-5.5
LB12.69	12195.8	-1.6	-5.1
LB12.70	12493.9	-1.4	-4.7
LB12.71	12733.7	-1.6	-4.7
MKO Archaic			
802.1	274.6	-0.1	-1.0
802.2	569.1	-0.2	-0.8
802.3	896.7	0.3	-0.6
802.4	1212.2	0.7	-0.7
802.5	1469.2	0.5	-0.8
802.6	1758.4	1.0	-0.4
802.7	2056.1	0.8	-0.6
802.8	2360.6	1.2	-0.3
802.9	2680.7	1.6	-0.3
802.10	3076.5	0.9	-0.6
802.11	3374.3	0.9	-0.4
802.12	3694.6	0.6	-0.7
802.13	3999.3	1.7	-0.8
802.14	4297.2	1.0	-1.3
802.15	4662.4	0.9	-1.2
802.16	5020.7	1.0	-0.6
802.17	5307.2	1.0	-0.9
802.18	5689.6	1.3	-0.5
802.19	6030.5	1.4	-0.5
802.20	6362.6	1.3	-0.8
802.21	6639.1	1.3	-1.0
802.22	7004.2	1.8	-0.9
802.23	7313.2	1.5	-1.0
802.24	7646.4	0.8	-1.1
802.25	7988	0.7	-1.0
802.26	8346.1	0.8	-1.1
802.27	8655.2	0.9	-1.5

802.28	9005	1.6	-1.5
802.29	9314.1	2.1	-1.7
802.30	9614.9	1.9	-1.8
802.31	9997.2	2.1	-1.9
802.32	10314.6	1.8	-1.4
802.33	10656.1	1.4	-1.3
802.34	10997.7	1.3	-1.0
802.35	11331.3	0.3	-2.0
802.36	11665	0.4	-1.6
802.37	11999	0.7	-1.1
2606.1	346.2	-	-
2606.2	673.5	0.0	-1.1
2606.3	963.3	-0.1	-1.0
2606.4	1217.1	0.1	-1.1
2606.5	1509.8	0.0	-1.4
2606.6	1688.3	0.1	-1.3
2606.7	1920.9	0.3	-1.2
2606.8	2206.5	0.3	-1.2
2606.9	2452.6	0.5	-0.9
2606.10	2750.1	0.7	-0.8
2606.11	3068.4	0.8	-0.8
2606.12	3324.2	0.9	-0.7
2606.13	3600.9	0.8	-1.0
2606.14	3871.7	0.8	-1.1
2606.15	4178	0.9	-1.2
2606.16	4478.6	0.8	-0.9
2606.17	4776.1	1.1	-0.6
2606.18	5115.1	1.2	-0.6
2606.19	6594.6	0.7	-1.8
2606.20	6906.2	1.0	-1.5
2606.21	7200.4	1.1	-1.1
2606.22	7503.6	0.9	-0.9
2606.23	7813.6	0.5	-1.2
2606.24	8131.5	-0.4	-1.0
2606.25	8423.9	-1.3	-1.9
2606.26	8728.3	-1.1	-1.4
2606.27	9034.3	-1.1	-1.2
SC1.1	361.7	-0.7	-2.5
SC1.2	549.2	-0.8	-2.8
SC1.3	763.7	-0.7	-2.6
SC1.4	955.8	-0.6	-2.4
SC1.5	1148	-0.4	-2.3
SC1.6	1335.2	-0.6	-2.5
SC1.7	1509.6	-0.7	-2.6
SC1.8	1696.9	-0.3	-1.6

SC1.9	1858.5	0.3	-1.0
SC1.10	1958.8	-0.9	-1.0
SC1.11	2088.7	0.9	-0.8
SC1.12	2232.3	0.8	-1.0
SC1.13	2365.8	0.7	-1.1
SC1.14	2529.7	0.9	-1.5
SC1.15	2704.1	0.8	-1.4
SC1.16	2847.7	0.8	-1.2
SC1.17	3008.2	0.8	-1.5
SC1.18	3206.5	0.5	-1.7
SC1.19	3360.4	0.4	-1.7
SC1.20	3548.6	0.4	-2.1
SC1.21	3708.9	0.6	-2.5
SC1.22	3863	0.9	-1.7
SC1.23	4031.8	0.8	-1.7
SC1.24	4194.3	1.2	-1.8
SC1.25	4357.3	-	-
SC1.26	4520.7	0.6	-2.4
SC1.27	4693.3	0.3	-2.5
SC1.28	4849	0.4	-2.5
SC1.29	5005.4	0.4	-1.8
SC1.30	5153.9	0.5	-1.7
SC1.31	5318.5	0.4	-1.9
SC1.32	5468.4	0.6	-1.9
SC1.33	5610.8	0.9	-2.2
SC1.34	5813.3	0.3	-2.6
SC1.35	5983.3	0.5	-2.1
SC1.36	6143.6	1.5	-1.9
SC1.37	6289.2	1.5	-1.7
SC1.38	6445.2	1.6	-1.2
SC1.39	6607.6	0.7	-1.5
SC1.40	6770.4	0.4	-1.0
SC1.41	6964.2	0.1	-1.2
SC1.42	7091.9	-0.6	-1.7
SC1.43	7296.5	-0.6	-1.7
SC1.44	7440.9	-0.7	-1.8
SC1.45	7552.1	-0.5	-1.5
SC1.46	7724.3	-0.7	-1.6
337.1 hole	168.4	0.5	-1.7
337.2 hole	449.2	0.4	-1.7
337.3 hole	580.2	0.3	-1.7
337.4 hole	748.6	-0.1	-2.1
337.5 hole	991.9	0.6	-1.9
337.6 hole	1197.8	0.9	-1.5
337.7 hole	1403.7	1.0	-1.5

337.8 hole	1684.4	1.2	-1.6
337.9 hole	1946.4	1.5	-1.5
337.10 hole	2114.8	1.3	-0.9
337.11 hole	2433	0.6	-1.0
337.12 hole	2695	0.4	-0.9
337.13 hole	2900.9	0.3	-1.2
337.14 hole	3424.9	-0.1	-1.3
337.15 hole	3743.1	-0.5	-1.0
337.16 hole	4079.9	-0.8	-1.6
337.17 hole	4360.7	-0.7	-1.4
337.18 hole	4622.7	-1.2	-1.6
337.19 hole	4959.6	-0.2	-1.3
337.20 hole	5333.9	-0.5	-1.5
337.21 hole	5652	-0.1	-1.8
337.22 hole	5914.1	-0.4	-2.2
337.23 hole	6258.5	-0.6	-2.4
337.24 hole	6632.8	-0.4	-1.7
337.25 hole	6969.7	-0.6	-1.9
337.26 hole	7306.5	0.0	-1.7
337.27 hole	7606	0.1	-1.2
337.28 hole	9234.2	-0.1	-1.2
337.29 hole	9571.1	1.1	-0.3
337.30 hole	9908	1.0	-1.0
337.31 hole	10113.8	1.1	-0.9
337.24 line	225.8	0.3	-2.1
337.25 line	349	0.3	-1.9
337.26 line	513.3	-0.1	-1.8
337.27 line	677.5	0.0	-1.9
337.28 line	821.2	-0.2	-2.2
337.29 line	985.5	-0.2	-2.3
337.30 line	1129.2	0.8	-1.5
337.31 line	1272.9	0.7	-1.4
337.32 line	1416.6	0.9	-1.3
337.33 line	1562.5	0.8	-1.4
337.34 line	1732.4	0.8	-1.7
337.35 line	1861.5	1.0	-1.6
337.36 line	2088.2	0.9	-1.1
337.37 line	2251.4	0.5	-1.0
337.38 line	2462.5	0.1	-1.0
337.39 line	2648.4	0.1	-1.0
337.40 line	4041	-0.2	-1.0
337.41 line	4158.6	-0.4	-1.0
337.42 line	4257	-0.6	-0.9
337.43 line	4377	-0.8	-0.9
337.44 line	4539	-0.8	-1.6

337.45 line	4702	-0.9	-1.8
337.46 line	4824.9	-0.9	-1.8
337.47 line	5050.6	-1.2	-1.7
337.48 line	5255.9	-1.4	-2.0
337.49 line	5264.7	-0.4	-1.6
337.50 line	5433.1	-0.6	-1.6
337.51 line	5601.5	-0.3	-1.3
337.52 line	5770	-0.3	-1.6
337.53 line	5919.7	-1.3	-1.8
337.54 line	6088.1	-0.6	-1.9
337.55 line	6256.6	-0.5	-2.3
337.56 line	6406.3	-0.6	-2.4
337.57 line	6593.5	-0.6	-1.8
337.58 line	6799.3	-0.3	-1.9
337.59 line	6949.1	-0.4	-1.8
337.60 line	7117.5	-0.2	-1.8
337.61 line	7285.9	-0.1	-1.6
337.62 line	7491.8	-0.1	-1.7
353.1	235.5	0.2	-1.6
353.2	399.9	0.1	-1.6
353.3	585.1	0.1	-1.9
353.4	752.8	0.3	-2.0
353.5	943.5	0.3	-1.7
353.6	1130.2	0.3	-1.2
353.7	1262.3	0.5	-1.3
353.8	1387.6	0.3	-1.7
353.9	1516.9	-0.2	-2.0
353.10	1667.7	0.0	-1.8
353.11	1834.3	0.0	-1.7
353.12	2022.3	0.4	-1.1
353.13	2173.2	0.8	-1.2
353.14	2319.4	0.8	-1.2
353.15	2459	0.9	-1.4
353.16	2594	0.6	-1.7
353.17	2723.6	0.2	-2.2
353.18	2853.4	0.1	-2.2
353.19	3001.8	0.7	-1.8
353.20	3152.7	0.7	-2.0
353.21	3308.6	0.3	-2.1
353.22	3513.6	0.5	-1.9
353.23	3689.2	0.7	-1.5
353.24	3868.4	1.2	-1.4
353.25	4062.8	1.5	-1.3
353.26	4213.4	1.8	-1.4
353.27	4385.8	1.7	-2.0

353.28	4507.8	1.4	-2.1
353.29	4673.7	1.1	-2.1
353.30	4876.6	0.8	-2.1
1501b.1 line	151.7	-	-
1501b.2 line	422.9	-0.2	-1.8
1501b.3 line	1580.5	-0.2	-2.3
1501b.4 line	1745.5	-0.4	-2.2
1501b.5 line	1881.1	-0.7	-2.6
1501b.6 line	2046.3	-0.6	-2.6
1501b.7 line	2203.6	-1.3	-2.8
1501b.8 line	2344.6	-0.6	-2.5
1501b.9 line	2484	-0.7	-2.5
1501b.10 line	2674.6	-0.6	-2.4
1501b.11 line	2805.5	-0.6	-2.5
1501b.12 line	2981.8	-0.7	-2.5
1501b.13 line	3118.8	-0.5	-2.2
1501b.14 line	3275.6	-0.6	-2.9
1501b.15 line	3445.1	-1.0	-2.8
1501b.16 line	3594.7	-1.1	-2.5
1501b.17 line	3767.7	-1.0	-2.4
1501b.18 line	3957.4	-1.1	-1.9
1501b.19 line	4125.2	-0.6	-1.1
1501b.20 line	4258.8	-0.4	-1.1
1501b.21 line	4449.3	-0.6	-1.1
1501b.22 line	4627	-0.8	-2.2
1501b.23 line	4779.9	-0.7	-2.1
1501b.24 line	4899	-0.6	-1.8
1501b.25 line	5102.6	-0.6	-1.6
1501b.26 line	5276	-0.8	-1.4
1501b.27 line	5466.8	-0.9	-1.5
1501b.28 line	5674.6	-0.7	-1.0
1501b.29 line	5968.8	0.7	-1.0
1501b.30 line	6173	0.8	-1.5
1501b.31 line	6302.3	0.6	-1.4
1501b.32 line	6457.8	0.5	-1.1
1501b.33 line	6628.4	-0.1	-1.4
1501b.34 line	6772.7	-0.1	-1.2
1501b.35 line	6940.3	-0.6	-1.3
1501b.36 line	7165.7	-0.1	-1.0
1501b.37 line	8260	-0.5	-2.3
1501b.38 line	8440.4	-0.6	-2.2
1501b.39 line	8621.2	-0.7	-2.2
1501b.40 line	8779.2	-0.9	-1.5
1501b.41 line	8960.2	-1.0	-2.3
1501b.42 line	9163.1	-1.1	-2.6

1501b.43 line	9299.2	-1.0	-2.0
1501b.44 line	9480	-1.1	-2.1
1501b.45 line	9638.3	-1.0	-1.9
1501b.46 line	9821.3	-1.0	-1.7
1501b.33 hole	673.1	0.7	-0.8
1501b.34 hole	988.6	0.2	-0.9
1501b.35 hole	1367.2	0.2	-1.5
1501b.36 hole	1598.6	0.1	-1.5
1501b.37 hole	1935.1	-0.3	-1.6
1501b.38 hole	2292.7	-1.2	-1.7
1501b.39 hole	2608.2	-0.5	-1.4
1501b.40 hole	2944.7	-0.3	-1.4
1501b.41 hole	3281.2	-0.2	-1.1
1501b.42 hole	3638.8	-0.7	-1.0
1501b.43 hole	3954.3	-1.5	-1.3
1501b.44 hole	4311.9	-0.8	-1.1
1501b.45 hole	4627.4	-0.1	-0.8
1501b.46 hole	4921.9	-0.5	-0.7
1501b.47 hole	5279.4	0.8	-0.8
1501b.48 hole	5573.9	0.7	-0.9
1501b.49 hole	5910.5	0.7	-1.1
1501b.50 hole	6289.1	0.7	-1.2
1501b.51 hole	6583.5	0.5	-1.2
1501b.52 hole	6878	0.5	-1.3
1501b.53 hole	7172.5	0.2	-1.3
1501b.54 hole	7461.5	0.1	-1.4
1501b.55 hole	7798.1	-0.2	-1.3
1501b.56 hole	8176.7	-1.2	-1.2
1501b.57 hole	8450.1	-0.4	-1.1
1501b.58 hole	8828.7	-0.8	-1.1
1501b.59 hole	9123.2	-0.6	-1.1
1501b.60 hole	9459.7	-0.6	-1.3
1501b.61 hole	9838.3	-0.4	-1.6
1501b.62 hole	10153.8	-0.3	-1.6
1501b.63 hole	10448.3	-2.7	-1.5
1501b.64 hole	10742.8	-0.4	-1.5
1501b.65 hole	11079.3	-0.3	-1.7
1501b.66 hole	11297.8	-0.4	-1.7
1501b.67 hole	11655.4	-0.4	-1.7
1501b.68 hole	12013	-0.5	-1.7
1501b.69 hole	12349.5	-0.7	-1.8
1501b.70 hole	12665	-0.9	-1.6
1501b.71 hole	13022.6	-1.0	-1.7
1501b.72 hole	13359.1	-1.1	-1.7
1501b.73 hole	13611.5	-1.1	-1.7

1501b.74 hole	14053.2	-1.1	-1.5
1501b.75 hole	14326.7	-1.0	-1.6
1501b.76 hole	14726.3	-0.5	-1.3
1501b.77 hole	14978.7	-0.5	-1.3
1501b.78 hole	15294.2	0.0	-1.0
1501b.79 hole	15651.8	-0.2	-1.3
2501.1	149.7	-1.2	-2.5
2501.2	336.9	-0.9	-2.6
2501.3	505.7	-1.0	-2.9
2501.4	693.5	-0.5	-2.8
2501.5	861.1	-0.5	-2.4
2501.6	1032.1	0.0	-2.1
2501.7	1161	-0.5	-2.3
2501.8	1255.2	-1.1	-2.4
2501.9	1424.3	-1.0	-2.0
2501.10	1573.9	-0.7	-1.6
2501.11	1742.1	-0.5	-1.7
2501.12	1892.6	-0.5	-1.7
2501.13	2060.8	-0.5	-1.7
2501.14	2229.1	-0.3	-1.8
2501.15	2417.8	-0.4	-2.3
2501.16	2567.3	-0.3	-2.5
2501.17	2737.6	0.0	-2.3
2501.18	2887.1	0.0	-2.2
2501.19	3020.2	0.3	-1.7
2501.20	3167.4	0.4	-1.5
2501.21	3298.2	-0.1	-1.4
2501.22	3447.7	-0.7	-1.5
2501.23	3578.6	-0.8	-1.3
2501.24	3746.1	-1.1	-1.3
2501.25	3916	-0.9	-1.3
2501.26	4100.8	-0.8	-1.6
2501.27	4269.1	-1.0	-1.8
2501.28	4419.4	-1.2	-1.8
2501.29	4605.8	-1.0	-1.5
2501.30	4756.7	-0.7	-1.8
2501.31	4925	-0.5	-1.7
2501.32	5074.7	-0.4	-1.7
2501.33	5261.7	-0.5	-1.8
2501.34	5412.7	-	-
2501.35	5598.4	-0.5	-1.9
2501.36	5766.8	-0.4	-2.0
2501.37	5916.5	-0.4	-2.1
2501.38	6121.8	-0.5	-2.2
2501.39	6327.1	-0.3	-2.1

39a.1	409.1	-0.3	-1.7
39a.2	610.4	-0.3	-2.1
39a.3	798.6	-0.3	-2.3
39a.4	961.2	-0.5	-2.4
39a.5	1143.8	-0.4	-2.2
39a.6	1343.9	0.1	-1.9
39a.7	1506.7	0.2	-1.7
39a.8	1604.7	-0.2	-1.7
39a.9	1698.1	-1.2	-1.5
39a.10	1768.3	-1.4	-1.5
39a.11	1822.2	-1.7	-1.8
39a.12	2046.7	-2.0	-2.2
39a.13	2225.9	-1.1	-2.3
39a.14	2430	-0.8	-2.2
39a.15	2604.3	-0.3	-2.0
39a.16	2878.1	-0.2	-2.0
39a.17	3486.1	-0.5	-2.2
39a.18	3650.2	0.0	-1.8
39a.19	3830	0.1	-1.6
39a.20	3959.7	0.1	-1.7
39a.21	4163.2	0.3	-2.0
39a.22	4332.5	0.5	-2.1
39a.23	4516.5	0.3	-1.9
39a.24	4680.7	0.1	-1.6
39a.25	4864.9	-0.5	-2.2
39a.26	5024.5	-0.7	-2.0
39a.27	5204.4	-0.8	-2.2
39a.28	5373.7	-	-
39a.29	5542.9	-1.2	-2.2
39a.30	5727.6	-0.7	-1.8
39a.31	5892.3	-0.8	-2.2
39a.32	6041.6	-0.9	-2.4
39a.33	6235.4	-1.0	-2.6
39a.34	6411.2	-0.9	-2.2
39a.35	6580.4	-0.7	-1.9
39a.36	6761	-0.8	-2.1
39a.37	6966.1	-0.9	-2.5
39a.38	7135.3	-0.7	-2.2
39a.39	7316.1	-0.4	-1.9
39a.40	7521.4	-0.3	-1.7
39a.41	7707.5	-0.4	-2.1
39a.42	7876.6	-0.1	-2.1
39a.43	8074.1	0.0	-1.9
39a.44	8259.5	0.2	-1.9
39a.45	8461.3	0.5	-1.8

39a.46	8643	0.4	-1.9
39a.47	8824.9	0.3	-2.0
39a.48	9010.4	0.2	-2.0
39a.49	9205.9	0.3	-1.9
39a.50	9371.2	0.3	-1.9
39a.51	9573.8	0.5	-1.8
39a.52	9753	0.4	-1.9
39a.53	9938.7	-0.6	-2.5
39a.54	10121.3	-1.1	-2.2
39a.55	10249.3	-0.4	-2.0
39a.56	10377.4	-0.9	-2.3
39a.57	10505.5	-1.2	-2.4
39a.58	10647.5	-1.2	-2.3
39a.59	10789.4	-1.2	-2.4
39a.60	10934.6	-1.0	-2.4
39a.61	11039.2	-1.0	-2.2

MKO Barnacles, *B. eburneus*

2606.28	-	-1.2	0.8
F10.2	-	-1.0	0.8
2044.1	-	-2.1	-0.5

MKO Gastropods

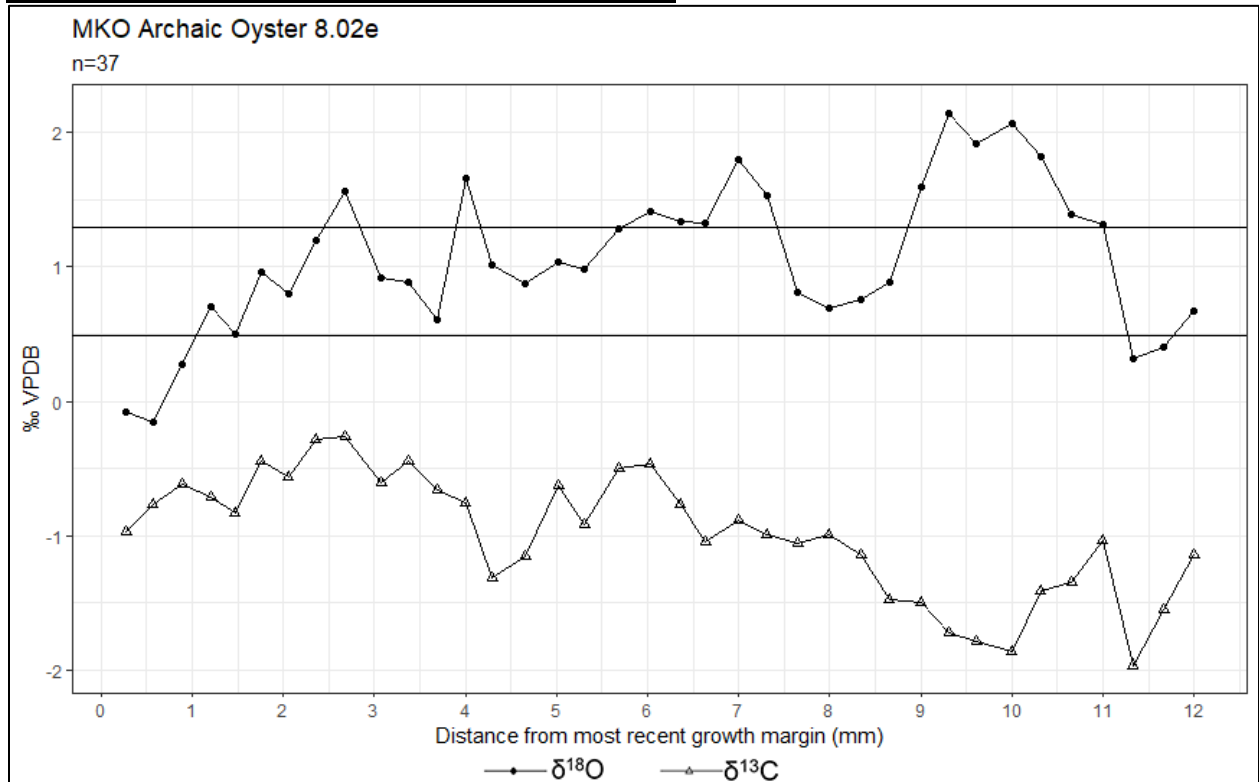
2659.1	-	-1.5	-2.6
2659.2	-	-1.1	-2.1
362.1	-	-2.0	-2.4
362.2	-	-2.3	-2.5

Appendix C. Water station data for January 2015 to July 2020.

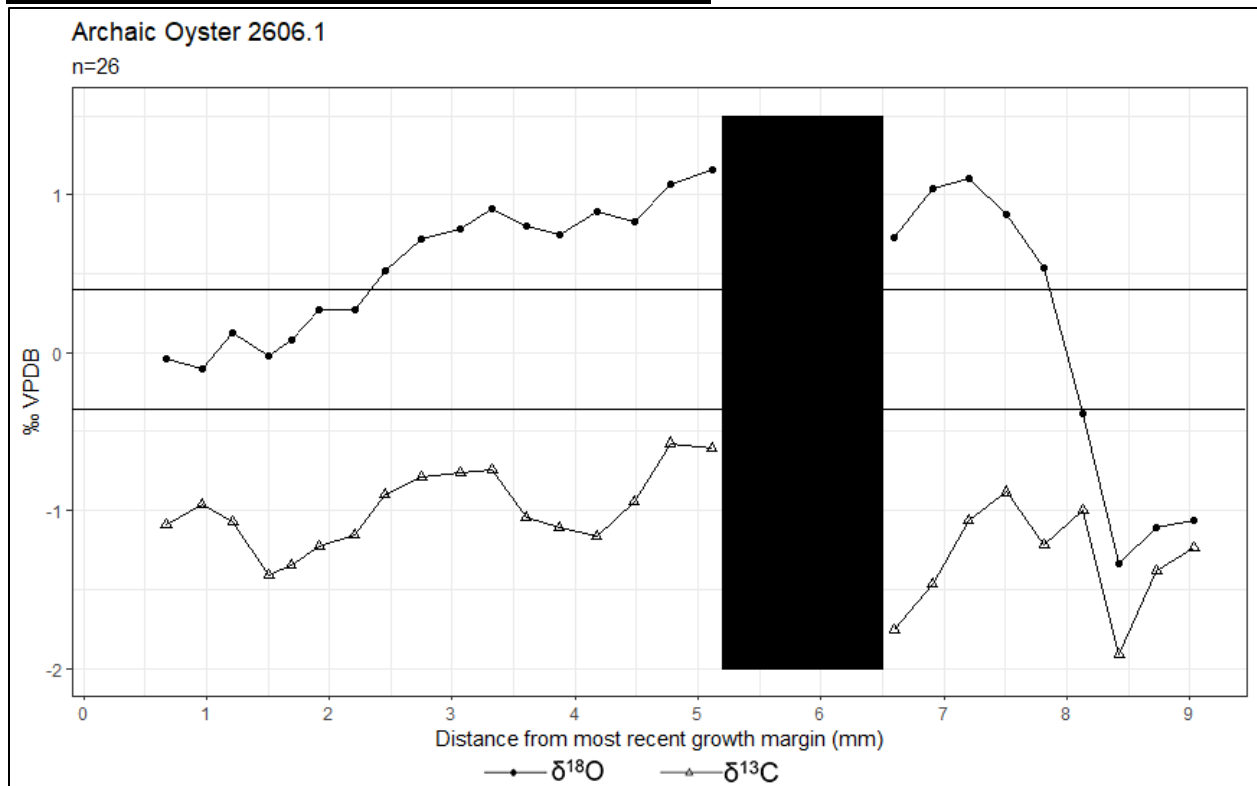
Date	Water Station LB-4		Water Station LB-3	
	Mean Salinity	Mean	Mean Salinity	Mean
	PSS	Temperature °C	PSS	Temperature °C
Jan-15	31.9	22.8	31.3	22.9
Feb-15	30.3	15.4	28.4	16.3
Mar-15	27.8	23.0	27.3	22.9
Apr-15	31.7	23.0	30.6	23.8
May-15	33.5	24.2	31.6	24.3
Jun-15	31.3	29.4	30.1	29.8
Jul-15	34.2	30.1	31.9	30.6
Aug-15	22.7	29.5	21.3	29.8
Sep-15	27.0	30.4	23.6	30.6
Oct-15	22.8	26.9	22.0	27.0
Nov-15	27.2	29.2	26.2	29.4
Dec-15	29.9	24.5	29.8	24.4
Jan-16	30.3	17.9	29.4	18.8
Feb-16	25.5	20.9	23.8	21.4
Mar-16	27.1	21.1	26.8	21.0
Apr-16	30.9	23.2	26.5	23.9
May-16	31.8	26.1	28.5	26.2
Jun-16	32.9	28.7	31.9	29.3
Jul-16	30.8	31.5	28.4	31.9
Aug-16	30.6	31.0	27.1	30.9
Sep-16	20.7	29.7	17.2	29.6
Oct-16	20.2	28.9	20.8	29.4
Nov-16	30.8	24.4	30.6	24.5
Dec-16	33.2	24.1	32.7	24.2
Jan-17	30.9	16.0	30.2	16.6
Feb-17	33.6	22.1	32.7	22.3
Mar-17	34.6	21.4	34.0	21.2
Apr-17	34.5	26.9	33.8	27.0
May-17	36.8	28.6	36.5	28.7
Jun-17	32.9	27.4	31.3	28.1
Jul-17	33.7	32.2	31.1	32.6
Aug-17	28.3	31.6	25.0	31.4
Sep-17	17.2	30.2	12.8	30.2
Oct-17	23.7	26.0	22.8	26.5
Nov-17	27.8	25.1	28.5	24.9
Dec-17	30.0	23.9	29.6	23.6
Jan-18	32.4	17.2	32.3	17.8
Feb-18	30.6	20.9	28.6	21.3
Mar-18	33.0	21.1	32.9	21.3
Apr-18	34.4	26.0	33.1	26.4
May-18	34.9	24.8	34.0	24.2

Jun-18	25.6	30.1	24.9	30.4
Jul-18	26.5	30.7	25.4	31.5
Aug-18	27.9	30.2	24.0	30.7
Sep-18	20.5	28.5	19.9	29.1
Oct-18	19.2	29.4	20.6	29.4
Nov-18	28.9	25.8	28.3	26.2
Dec-18	32.1	21.6	31.8	21.3
Jan-19	24.8	21.1	24.9	21.0
Feb-19	25.5	20.7	24.3	21.2
Mar-19	28.4	23.8	28.1	24.2
Apr-19	31.4	22.9	32.0	23.5
May-19	35.5	29.1	34.4	29.3
Jun-19	36.2	30.9	34.9	31.6
Jul-19	31.2	29.8	28.0	29.8
Aug-19	25.8	30.3	24.3	30.7
Sep-19	23.1	29.5	24.8	29.6
Oct-19	30.5	28.3	30.6	28.5
Nov-19	30.1	23.3	30.2	24.1
Dec-19	30.0	19.7	29.4	19.7
Jan-20	29.2	18.0	28.9	18.2
Feb-20	31.7	19.2	30.9	19.4
Mar-20	34.1	21.6	33.3	21.1
Apr-20	35.4	25.8	33.2	26.4
May-20	33.6	27.4	31.8	27.6
Jun-20	32.8	28.9	31.5	29.9
Jul-20	31.0	31.9	29.9	32.0

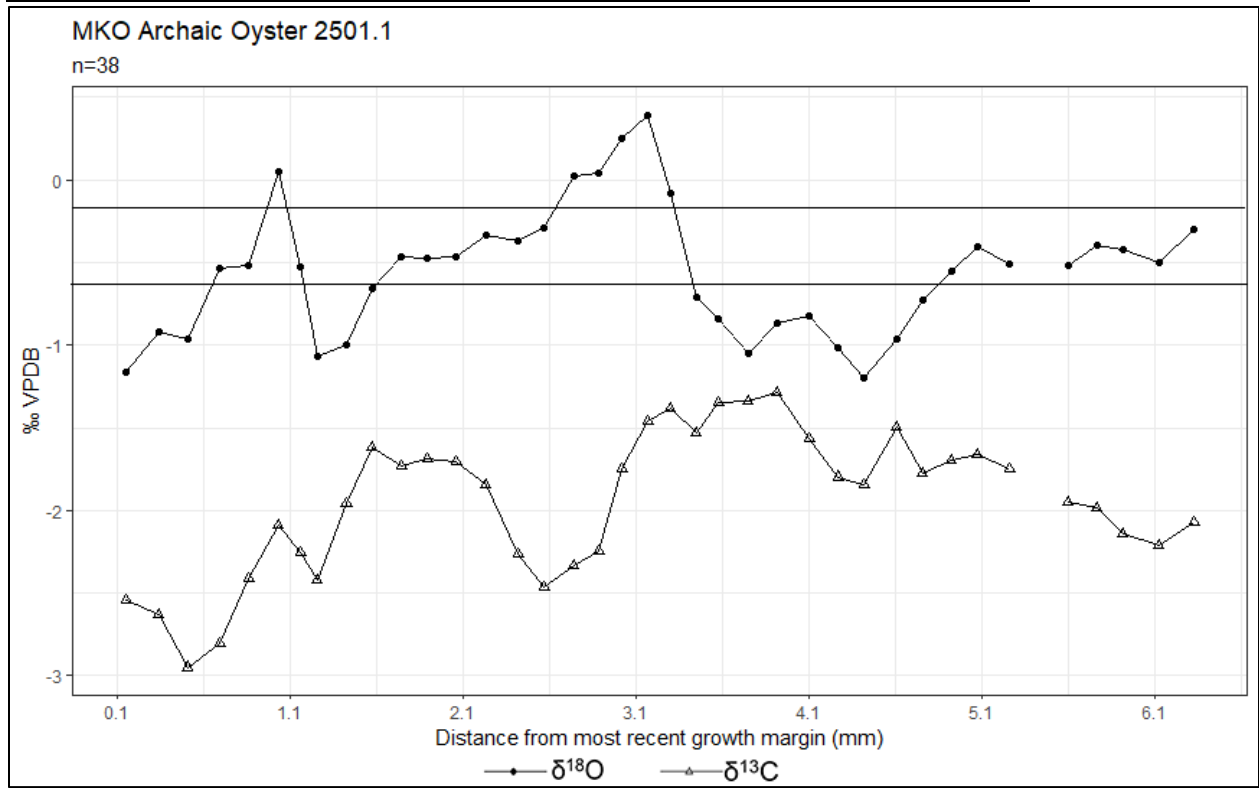
Appendix D. Plotted carbon and oxygen isotope profiles for MKO Archaic oysters without visible growth bands.



$\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ profile for MKO Archaic oyster 8.02e with $\delta^{18}\text{O}$ profile amplitude divided into thirds (Price 2021).

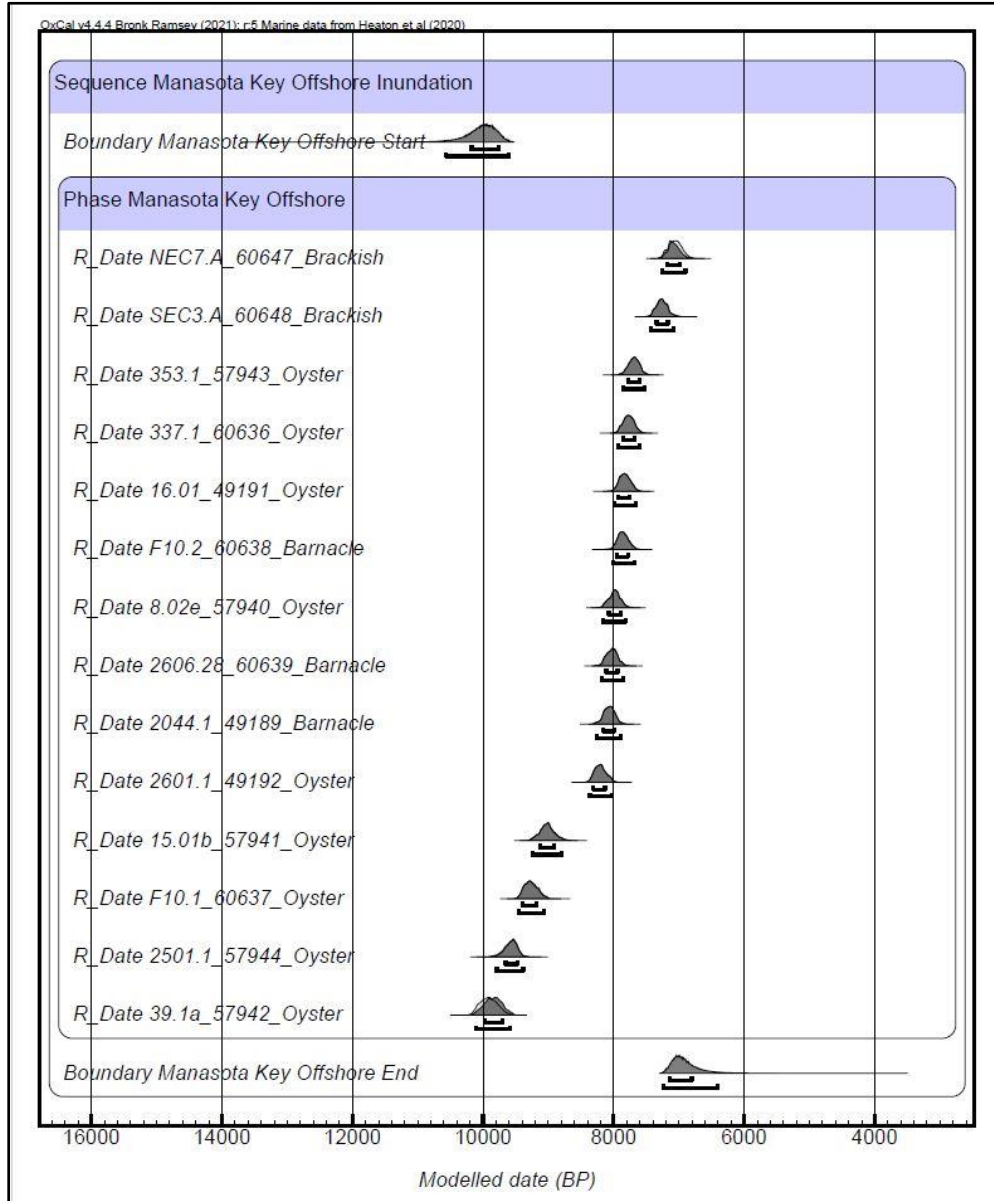


$\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ profile for MKO Archaic oyster 2606.1 with $\delta^{18}\text{O}$ profile amplitude divided into thirds. Black rectangle represents *P. websteri* void (Price 2021).



$\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ profile for MKO Archaic oyster 2501.1 with $\delta^{18}\text{O}$ profile amplitude divided into thirds (Price 2021).

Appendix E. Bayesian modelling of shell carbonate radiocarbon dated material from MKO.



FS #	UGAMS#	Material	¹⁴ C age, years BP	Cal Years BP 68.3%	Cal Years BP 95.4%
NEC7.A [^]	60647	Brackish sediment	6,700±25	7,178-6,990	7,261-6,900
SEC3.A [^]	60648	Brackish sediment	6,900±30	7,344-7,171	7,425-7,085
353.1 ⁺	57943	Oyster (<i>C. virginica</i>)	7,365±30	7,770-7,600	7,859-7,521
337.1 [^]	60636	Oyster (<i>C. virginica</i>)	7,450±25	7,855-7,682	7,933-7,606
16.01(b) [*]	49191	Oyster (<i>C. virginica</i>) Right valve to SC1	7,510±30	7,925-7,751	7,993-7,663
F10.2 [^]	60638	Barnacle (<i>B. eburneus</i>)	7,540±25	7,948-7,783	8,014-7,686
8.02e ⁺	57940	Oyster (<i>C. virginica</i>)	7,660±30	8,076-7,896	8,165-7,815

2606.28 [^]	60639	Barnacle (<i>B. eburneus</i>)	7,700±25	8,112-7,940	8,187-7,851
2044.1 [*]	49189	Barnacle (<i>B. eburneus</i>)	7,740±25	8,155-7,985	8,252-7,894
2601.1 [*]	49192	Oyster (<i>C. virginica</i>) Right valve to 2606.1	7,870±25	8,311-8,134	8,364-8,025
15.01b ⁺	57941	Oyster (<i>C. virginica</i>)	8,530±30	9,132-8,917	9,247-8,791
F10.1 [^]	60637	Oyster (<i>C. virginica</i>)	8,730±30	9,395-9,185	9,455-9,064
2501.1 ⁺	57944	Oyster (<i>C. virginica</i>)	9,005±38	9,655-9,465	9,791-9,386
39.1a ⁺	57942	Oyster (<i>C. virginica</i>)	9,250±40	9,978-9,700	10,110-9,589