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Supplement of

Experimental evidence for foraminiferal calcification under anoxia

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Supplement

Table S1. Summary of main results obtained for Experiment 1: *Ammonia tepida*. Both values obtained for each single replicate and averages are shown.

Replicate	Layer	Depth (cm)	Initial number of specimens	Number of re-found specimens	Living (n)	Dead (n)	Living (%)	Dead (%)	Specimens with new chambers (n)		
R1	1	0-0.3	50	45	14	31	31.11	68.89	0		
	2	0.3-1.3	50	43	32	11	74.42	25.58	0		
	3	1.3-2.3	49	43	21	22	48.84	51.16	0		
	4	2.3-3.3	50	36	29	7	80.56	19.44	0		
	5	3.3-4.3	50	44	27	17	61.36	38.64	0		
	6	4.3-7.3	49	40	32	8	80.00	20.00	3		
	7	7.3-10.3	45	35	27	8	77.14	22.86	0		
R2	1	0-0.3	50	41	21	20	51.22	48.78	2		
	2	0.3-1.3	44	38	14	24	36.84	63.16	0		
	3	1.3-2.3	46	43	39	4	90.70	9.30	0		
	4	2.3-3.3	45	35	31	4	88.57	11.43	0		
	5	3.3-4.3	48	31	18	13	58.06	41.94	0		
	6	4.3-7.3	49	35	27	8	77.14	22.86	0		
	7	7.3-10.3	49	43	23	20	53.49	46.51	1		
R3	1	0-0.3	49	43	27	16	62.79	37.21	1		
	2	0.3-1.3	50	40	34	6	85.00	15.00	0		
	3	1.3-2.3	50	43	25	18	58.14	41.86	2		
	4	2.3-3.3	50	12	12	0	100.00	0.00	1		
	5	3.3-4.3	50	41	34	7	82.93	17.07	5		
	6	4.3-7.3	46	35	27	8	77.14	22.86	0		
	7	7.3-10.3	48	38	26	12	68.42	31.58	0		
Average	Layer	Depth (cm)	Average living (n)	s.d. mean	Average dead (n)	s.d. mean	Average living (%)	s.d. mean	Specimens with new chambers (%)	s.d. mean	Total new chambers (n)
	1	0-0.3	20.7	6.5	22.3	7.8	48.37	9.26	2.40	1.41	3
	2	0.3-1.3	26.7	11.0	13.7	9.3	65.42	14.61	0.00	0.00	0
	3	1.3-2.3	28.3	9.5	14.7	9.5	65.89	12.69	1.55	1.55	2
	4	2.3-3.3	24.0	10.4	3.7	3.5	89.71	5.64	2.78	2.78	1
	5	3.3-4.3	26.3	8.0	12.3	5.0	67.45	7.80	4.07	4.07	5
	6	4.3-7.3	28.7	2.9	8.0	0.0	78.10	0.95	2.50	2.50	3
	7	7.3-10.3	25.3	2.1	13.3	6.1	66.35	6.91	0.78	0.78	1

Table S2. Summary of main results obtained for Experiment 2: *Bulimina marginata*. Both values obtained for each single replicate and averages are shown.

Replicate	Layer	Depth (cm)	Initial number of specimens	Number of re-found specimens	Living (n)	Dead (n)	Living (%)	Dead (%)	Specimens with new chambers (n)	Specimens with new chambers (%)	Total new chambers (n)
R1	1	0-0.3	31	30	5	25	16.67	83.33	8	26.67	8
	2	0.3-1.3	31	29	8	21	27.59	72.41	9	31.03	9
	3	1.3-2.3	32	32	0	32	0.00	100.00	4	12.50	4
	4	2.3-3.3	31	21	1	20	4.76	95.24	0	0.00	0
	5	3.3-4.3	32	21	6	15	28.57	71.43	0	0.00	0
R2	1	0-0.3	32	32	5	27	15.63	84.38	6	18.75	6
	2	0.3-1.3	32	31	12	19	38.71	61.29	6	19.35	8
	3	1.3-2.3	32	28	10	18	35.71	64.29	7	25.00	7
	4	2.3-3.3	31	29	4	25	13.79	86.21	4	13.79	4
	5	3.3-4.3	31	28	7	21	25.00	75.00	0	0.00	0
R3	1	0-0.3	32	31	8	23	25.81	74.19	15	48.39	18
	2	0.3-1.3	31	31	11	20	35.48	64.52	7	22.58	7
	3	1.3-2.3	32	32	15	17	46.88	53.13	8	25.00	8
	4	2.3-3.3	31	27	1	26	3.70	96.30	3	11.11	3
	5	3.3-4.3	31	30	9	21	30.00	70.00	0	0.00	0
Average	Layer	Depth (cm)	Average living (n)	s.d. mean	Average dead (n)	s.d. mean	Average living (%)	s.d. mean	Specimens with new chambers (%)	s.d. mean	Total new chambers (n)
	1	0-0.3	6.5	2.1	24.0	1.4	19.37	3.23	31.27	8.86	29
	2	0.3-1.3	10.3	2.1	20.0	1.0	33.93	3.30	24.32	3.48	22
	3	1.3-2.3	8.3	7.6	22.3	8.4	27.53	14.14	20.83	4.17	19
	4	2.3-3.3	2.0	1.7	23.7	3.2	8.75	4.12	8.30	4.22	7
	5	3.3-4.3	7.3	1.5	19.0	3.5	27.50	2.04	0.00	0.00	0

Table S3. Summary of main results obtained for Experiment 2: *Cassidulina laevigata*. Both values obtained for each single replicate and averages are shown. The specimens of this species were only introduced at layers 1, 2 and 4 of each replicate core.

Replicate	Layer	Depth (cm)	Initial number of specimens	Number of re-found specimens	Living (n)	Dead (n)	Living (%)	Dead (%)	Specimens with new chambers (n)	Specimens with new chambers (%)	Total new chambers (n)
R1	1	0-0.3	32	32	9	23	28.1	71.9	11	34.4	11
	2	0.3-1.3	33	30	9	21	30.0	70.0	7	23.3	7
	3	1.3-2.3	-	-	-	-	-	-	-	-	-
	4	2.3-3.3	33	32	0	32	0.0	100.0	6	18.8	6
	5	3.3-4.3	-	-	-	-	-	-	-	-	-
R2	1	0-0.3	33	31	14	17	45.2	54.8	6	18.8	6
	2	0.3-1.3	32	30	8	22	26.7	73.3	6	20.0	6
	3	1.3-2.3	-	-	-	-	-	-	-	-	-
	4	2.3-3.3	32	28	0	28	0.0	100.0	4	14.3	4
	5	3.3-4.3	-	-	-	-	-	-	-	-	-
R3	1	0-0.3	32	32	10	22	31.3	68.8	15	46.9	15
	2	0.3-1.3	33	28	6	22	21.4	78.6	7	25.0	7
	3	1.3-2.3	-	-	-	-	-	-	-	-	-
	4	2.3-3.3	32	32	0	32	0.0	100.0	5	15.6	5
	5	3.3-4.3	-	-	-	-	-	-	-	-	-
Average	Layer	Depth (cm)	Average living (n)	s.d. mean	Average dead (n)	s.d. mean	Average living (%)	s.d. mean	Specimens with new chambers (%)	s.d. mean	Total new chambers (n)
	1	0-0.3	11.0	2.6	34.8	3.2	34.8	5.2	33.3	8.14	32
	2	0.3-1.3	7.7	1.5	21.7	0.6	26.0	2.5	22.8	1.47	20
	3	1.3-2.3	-	-	-	-	-	-	-	-	-
	4	2.3-3.3	0.0	0.0	30.7	2.3	0.0	0.0	16.2	1.32	15
	5	3.3-4.3	-	-	-	-	-	-	-	-	-

Figure S1. Element profiles for geochemical cores from Experiment 1: *A. tepida*

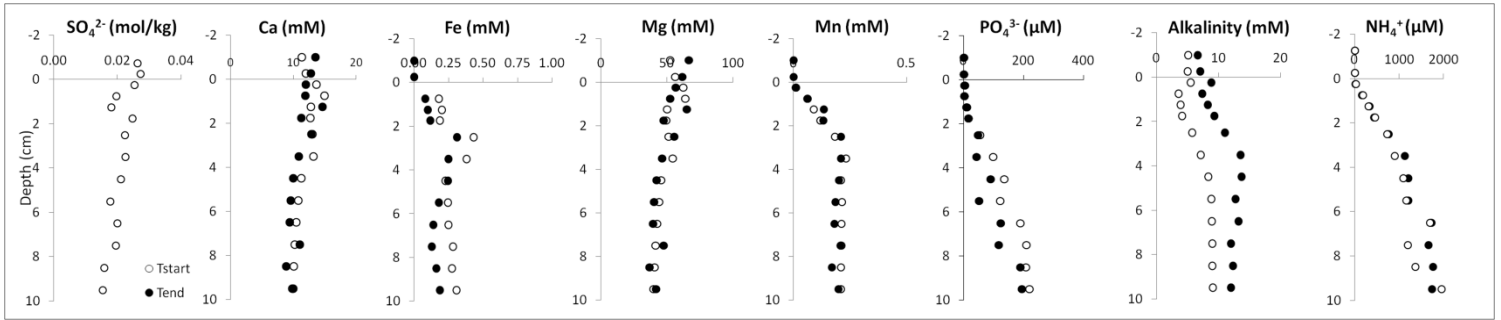


Figure S2. Element profiles for geochemical cores from experiment 2: *B. marginata* and *C. laevigata*. Please note that the scales for manganese, phosphates and ammonium are different from figure A1

