



Figure S1. A visual representation of the experimental set-up. Circles with the letter “L” denote *Lottia scutum* culture vessels, while “E” denotes *Evasterias troschelii* culture vessels. While this is a simplified representation of the experimental set-up, in reality, the culture vessels were randomly placed and well-mixed within the water bath so that there was no obvious spatial division between pH treatments.

Table S1. A summary of the linear regression equations and the corresponding R² values for *Lottia scutum* and each “blank” that underwent closed-system respirometry throughout the experiment.

Replicate	Treatment	Day of experiment	Line equation	R ²
1	Field Caught	-7	-0.0779x + 273.7	0.7727
2	Field Caught	-7	-0.2011x + 273.53	0.8566
3	Field Caught	-7	-0.1067x + 278.71	0.787
4	Field Caught	-7	-0.096x + 279.67	1
5	Field Caught	-7	-0.2295x + 284.24	0.9237
6	Blank	-7	271.21	0
7	Blank	-7	0.0027x + 279.06	0.0408
8	Blank	-7	0.0023x + 272.84	0.0549
1	Lab Acclimation	0	-0.0275x + 264.94	0.737
2	Lab Acclimation	0	-0.0262x + 265.44	0.6395
3	Lab Acclimation	0	-0.0256x + 263.76	0.5948
4	Lab Acclimation	0	-0.1341x + 272.13	0.9949
5	Lab Acclimation	0	-0.1404x + 273.5	0.9988
6	Blank	0	-0.1566x + 274.49	0.9792
7	Blank	0	-0.0385x + 266.36	0.868
8	Blank	0	-0.1417x + 274.32	0.9957
1	11 C/8.0 pH	7	-0.2374x + 261.05	0.8579
2	11 C/8.0 pH	7	-0.1399x + 269.09	0.9878
3	11 C/8.0 pH	7	-0.1394x + 263.46	0.9834
4	11 C/8.0 pH	7	-0.1478x + 266.55	0.9888
5	11 C/8.0 pH	7	-0.1296x + 264.27	0.8904
6	Blank	7	-0.0216x + 268.34	0.7238
7	Blank	7	-0.0189x + 270.56	0.659
8	Blank	7	-0.0149x + 270.52	0.5965
1	11 C/7.6 pH	7	-0.1371x + 273.96	0.9672
2	11 C/7.6 pH	7	-0.1849x + 273.79	0.9515

3	11 C/7.6 pH	7	$-0.107x + 272.21$	0.9163
4	11 C/7.6 pH	7	$-0.1963x + 274.23$	0.9838
5	11 C/7.6 pH	7	$-0.1459x + 273.05$	0.9468
6	Blank	7	$-0.0143x + 268$	0.3904
7	Blank	7	$-0.0146x + 262.33$	0.3291
8	Blank	7	$-0.0165x + 261.45$	0.6577
1	15 C/7.6 pH	7	$-0.1658x + 269.7$	0.998
2	15 C/7.6 pH	7	$-0.1227x + 270.32$	0.9782
3	15 C/7.6 pH	7	$-0.043x + 263.52$	0.9709
4	15 C/7.6 pH	7	$-0.0918x + 268.59$	0.9864
5	15 C/7.6 pH	7	$-0.1128x + 261.99$	0.946
6	Blank	7	$-0.0065x + 258.72$	0.2913
7	Blank	7	$-0.0042x + 267.11$	0.1454
8	Blank	7	$-0.0076x + 266.92$	0.5102
1	15 C/8.0 pH	7	$-0.0899x + 269.52$	0.9789
2	15 C/8.0 pH	7	$-0.1074x + 270.09$	0.9907
3	15 C/8.0 pH	7	$-0.0895x + 263.91$	0.9826
4	15 C/8.0 pH	7	$-0.1074x + 271.51$	0.994
5	15 C/8.0 pH	7	$-0.08x + 268.63$	0.9557
6	Blank	7	$-0.0118x + 258.42$	0.5976
7	Blank	7	$-0.019x + 262.96$	0.8289
8	Blank	7	$-0.0095x + 260.64$	0.5744
1	11 C/8.0 pH	14	$-0.1192x + 263.02$	0.9824
2	11 C/8.0 pH	14	$-0.1265x + 263.49$	0.9954
3	11 C/8.0 pH	14	$-0.056x + 263.96$	0.9909
4	11 C/8.0 pH	14	$-0.1394x + 264.06$	0.9756
5	11 C/8.0 pH	14	$-0.1734x + 262.51$	0.9834
6	Blank	14	$-0.0114x + 261.73$	0.6777
7	Blank	14	$-0.0099x + 253.96$	0.7824

8	Blank	14	$-0.0072x + 261.3$	0.2314
1	11 C/7.6 pH	14	$-0.171x + 270.65$	0.9834
2	11 C/7.6 pH	14	$-0.1063x + 264.69$	0.9867
3	11 C/7.6 pH	14	$-0.1525x + 268.13$	0.969
4	11 C/7.6 pH	14	$-0.0949x + 268.55$	0.9949
5	11 C/7.6 pH	14	$-0.1478x + 261.34$	0.9695
6	Blank	14	$-0.0556x + 270.23$	0.8091
7	Blank	14	$-0.032x + 267.28$	0.8305
8	Blank	14	$-0.0389x + 260.49$	0.7448
1	15 C/7.6 pH	14	$-0.2101x + 248.57$	0.7024
2	15 C/7.6 pH	14	$-0.205x + 249.49$	0.8381
3	15 C/7.6 pH	14	$-0.2208x + 247.4$	0.9283
4	15 C/7.6 pH	14	$-0.4362x + 242.74$	0.9282
5	15 C/7.6 pH	14	$-0.2529x + 245.89$	0.9244
6	Blank	14	$-0.0229x + 270.71$	0.7401
7	Blank	14	$-0.0221x + 263.74$	0.4551
8	Blank	14	$-0.0278x + 267.22$	0.4912
1	15 C/8.0 pH	14	$-0.2008x + 247.04$	0.8833
2	15 C/8.0 pH	14	$-0.2593x + 255.23$	0.935
3	15 C/8.0 pH	14	$-0.2368x + 250.37$	0.9376
4	15 C/8.0 pH	14	$-0.1783x + 254.34$	0.8559
5	15 C/8.0 pH	14	$-0.1592x + 253.36$	0.8136
6	Blank	14	$-0.0229x + 270.71$	0.7401
7	Blank	14	$-0.0221x + 263.74$	0.4551
8	Blank	14	$-0.0248x + 269.05$	0.5654