Ecosphere

Shorescape-level factors drive distribution and condition of a salt marsh facilitator (*Guekensia demissa*)

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Appendix S1

Table S1 – AICc table of univariate models assessing best scale for the effects of agriculture on mussel density.

Distance (m)	K	AICc	Δ AICc	ModelLik	AICcWt	LL	Cum.Wt
300	3	122.65	0.00	1.00	0.14	-57.86	0.14
Null	2	122.76	0.10	0.95	0.13	-59.16	0.26
400	3	122.87	0.21	0.90	0.12	-57.97	0.38
500	3	123.09	0.44	0.80	0.11	-58.08	0.49
200	3	123.39	0.74	0.69	0.09	-58.23	0.59
150	3	123.67	1.02	0.60	0.08	-58.37	0.67
20	3	124.01	1.36	0.51	0.07	-58.54	0.74
40	3	124.02	1.37	0.50	0.07	-58.55	0.80
100	3	124.06	1.40	0.50	0.07	-58.57	0.87
80	3	124.08	1.43	0.49	0.07	-58.58	0.94
60	3	124.19	1.54	0.46	0.06	-58.63	1.00

Table S2 – AICc table of univariate models assessing best scale for the effects of exposure on mussel density.

Distance (m)	K	AICc	Δ AICc	ModelLik	AICcWt	LL	Cum.Wt
300	3	116.00	0.00	1.00	0.36	-54.54	0.36
400	3	116.69	0.68	0.71	0.26	-54.88	0.62
500	3	117.58	1.58	0.45	0.17	-55.33	0.79
200	3	118.02	2.02	0.36	0.13	-55.55	0.92
150	3	120.58	4.58	0.10	0.04	-56.83	0.96
Null	2	122.76	6.75	0.03	0.01	-59.16	0.97
100	3	123.45	7.45	0.02	0.01	-58.26	0.98
80	3	123.92	7.92	0.02	0.01	-58.50	0.99
60	3	124.32	8.32	0.02	0.01	-58.70	0.99
40	3	124.88	8.88	0.01	0.00	-58.98	1.00
20	3	125.12	9.12	0.01	0.00	-59.10	1.00

Table S3 – AICc table of univariate models assessing best scale for the effects of forest on mussel density.

Distance (m)	K	AICc	Δ AICc	ModelLik	AICcWt	LL	Cum.Wt
60	3	120.57	0.00	1.00	0.15	-56.83	0.15
40	3	120.72	0.15	0.93	0.14	-56.90	0.30
80	3	121.27	0.69	0.71	0.11	-57.17	0.41
300	3	121.56	0.99	0.61	0.09	-57.32	0.50
150	3	121.77	1.19	0.55	0.08	-57.42	0.59
200	3	121.80	1.22	0.54	0.08	-57.44	0.67
500	3	121.87	1.30	0.52	0.08	-57.47	0.75
100	3	121.94	1.36	0.51	0.08	-57.51	0.83
400	3	122.13	1.55	0.46	0.07	-57.60	0.90
Null	2	122.76	2.18	0.34	0.05	-59.16	0.95
20	3	122.86	2.28	0.32	0.05	-57.97	1.00

Table S4 – AICc table of univariate models assessing best scale for the effects of impervious surface on mussel density. Note that there was no impervious surface within 40 m of any site, and so the models of 20 m and 40 m are identical to the null.

Distance (m)	K	AICc	Δ AICc	ModelLik	AICcWt	LL	Cum.Wt
40	2	122.76	0.00	1.00	0.17	-59.16	0.17
20	2	122.76	0.00	1.00	0.17	-59.16	0.34
Null	2	122.76	0.00	1.00	0.17	-59.16	0.51
60	3	124.35	1.60	0.45	0.08	-58.72	0.59
100	3	124.40	1.64	0.44	0.08	-58.74	0.66
150	3	124.45	1.70	0.43	0.07	-58.76	0.74
200	3	124.93	2.17	0.34	0.06	-59.00	0.80
300	3	125.09	2.34	0.31	0.05	-59.09	0.85
400	3	125.16	2.41	0.30	0.05	-59.12	0.90
80	3	125.21	2.45	0.29	0.05	-59.14	0.95
500	3	125.21	2.45	0.29	0.05	-59.14	1.00

Table S5 – AICc table of univariate models assessing best scale for the effects of marsh on mussel density.

Distance (m)	K	AICc	Δ AICc	ModelLik	AICcWt	LL	Cum.Wt
Null	2	122.76	0.00	1.00	0.21	-59.16	0.21
60	3	123.81	1.05	0.59	0.12	-58.44	0.33
40	3	123.90	1.15	0.56	0.12	-58.49	0.45
80	3	124.21	1.45	0.48	0.10	-58.64	0.55
100	3	124.48	1.73	0.42	0.09	-58.78	0.63
150	3	125.07	2.31	0.31	0.06	-59.07	0.70
20	3	125.12	2.37	0.31	0.06	-59.10	0.76
200	3	125.22	2.47	0.29	0.06	-59.15	0.82
500	3	125.23	2.48	0.29	0.06	-59.15	0.88
400	3	125.23	2.48	0.29	0.06	-59.16	0.94
300	3	125.23	2.48	0.29	0.06	-59.16	1.00

Table S6 – AICc table of univariate models assessing best scale for the effects of non-spatial variables on mussel density.

Variable	K	AICc	Δ AICc	ModelLik	AICcWt	LL	Cum.Wt
Stem density	3	110.48	0.00	1.00	1.00	-51.78	1.00
Null	2	122.76	12.28	0.00	0.00	-59.16	1.00
Distance to Armoring	3	123.26	12.78	0.00	0.00	-58.17	1.00