

1 Appendix 1. Comparisons of models for impacts of global change drivers on biota. Small  
 2 sample size of Akaike's information criterion (AICc), delta AICc and the model weight are  
 3 given for three trophic levels (producer, herbivore and parasitoid respectively) and two biotic  
 4 measures within those levels (density and process). Main effects, additive and interaction  
 5 models are fit to independent variables (rows) as AIC values for generalised linear mixed  
 6 effect models. The optimal model is presented in bold

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	Trophic Level One				Trophic Level Two				Trophic Level Three									
	AICc	ΔAICc	Weight	Attack Rate	AICc	ΔAICc	Weight	Attack Rate	AICc	ΔAICc	Weight	Attack Rate						
Area (A)	1404.399	35.1996	1.23E-08	8613.141	407.741	2.88E-89	1023.75	16.5019	2.36E-04	-250.2	0	9.60E-01	1232.82	292.827	2.59E-64	366.611	24.7893	4.08E-06
Edge (E)	1404.31	35.1099	1.28E-08	8507.809	302.409	2.15E-66	1021.88	14.6287	6.02E-04	-243.34	6.89402	3.06E-02	1188.9	248.911	8.90E-55	370.281	28.4597	6.51E-07
Location (L)	1394.785	25.5853	1.50E-06	8616.288	410.888	5.98E-90	1027.79	20.5433	3.13E-05	-238.54	11.6862	2.78E-03	1241.69	301.702	3.06E-66	356.572	14.7504	6.18E-04
A + E	1404.12	34.9203	1.41E-08	8520.464	315.064	3.84E-69	1023.87	16.6264	2.22E-04	-236.03	14.2004	7.92E-04	1189.43	249.439	6.84E-55	368.095	26.2731	1.94E-06
A + L	1395.204	26.0041	1.22E-06	8610.937	405.537	8.69E-89	1029.68	22.433	1.22E-05	-231.8	18.4265	9.57E-05	1238.29	298.305	1.67E-65	350.588	8.76617	1.23E-02
E + L	1395.085	25.8855	1.29E-06	8506.251	300.851	4.69E-66	1027.84	20.5894	3.06E-05	-225.57	24.6555	4.25E-06	1191.3	251.314	2.68E-55	358.563	16.7412	2.28E-04
A * E	1404.167	34.9669	1.38E-08	8342.328	136.928	1.85E-30	1025.81	18.5645	8.41E-05	-240.07	10.1602	5.97E-03	2322.46	1382.47	6.31E-301	366.395	24.5734	4.55E-06
A * L	1398.651	29.4517	2.18E-07	8617.089	411.689	4.01E-90	1029.42	22.174	1.38E-05	-210.59	39.6431	2.36E-09	1227.21	287.218	4.28E-63	357.462	15.6407	3.96E-04
E * L	1369.526	0.32583	4.59E-01	8476.174	270.774	1.59E-59	1007.2	0	9.04E-01	-174.07	76.1573	2.79E-17	1053.11	113.117	2.73E-25	356.538	14.7164	6.28E-04
A + E + L	1394.992	25.7924	1.36E-06	8509.911	304.511	7.52E-67	1029.83	22.5774	1.13E-05	-217.75	32.4774	8.51E-08	1192.09	252.098	1.81E-55	1192.09	850.265	2.30E-185
A * E * L	1369.2	0	5.41E-01	8205.4	0	1.00E+00	1011.75	4.50063	9.52E-02	-93.23	157	7.76E-35	939.99	0	1.00E+00	341.82	0	9.86E-01