

SUPPLEMENTARY INFORMATION

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Supplementary Table 1: Model coefficients (\pm standard deviation) for each species relating numbers of seedlings to the number of seeds for each pesticide treatment. The parameters are described in equation 2 of the Methods. Values of β_L less than 1 indicate negative density dependence.

Species	Family	Seed abundance	Parameter	Seeds	Control	Insecticide	Fungicide	
				Trap	Water	Engeo®	Amistar®	Ridomil®
<i>Acacia polyphylla</i>	Fabaceae	1888	α_L		-0.7007 \pm 0.3370	-0.1761 \pm 0.2965	-1.4313 \pm 0.3995	-1.3364 \pm 0.4349
			β_L		0.8342 \pm 0.1078	0.8495 \pm 0.0948	1.1043 \pm 0.1214	1.1206 \pm 0.1433
			$\kappa_{t,L}$	4.4072 \pm 1.1924	3.0451 \pm 1.3807	3.4851 \pm 1.4483	3.0796 \pm 1.3464	1.9891 \pm 0.9570
			$\bar{\lambda} \pm \sigma$	4.2196 \pm 2.2442				
<i>Bauhinia</i> sp.	Fabaceae	327	α_L		-2.5592 \pm 0.7633	-1.8863 \pm 0.6298	-2.1399 \pm 0.6494	-2.9217 \pm 0.7770
			β_L		1.1596 \pm 0.2284	1.2195 \pm 0.2162	1.2410 \pm 0.2223	1.3796 \pm 0.2255
			$\kappa_{t,L}$	2.3037 \pm 1.0362	1.0829 \pm 0.9947	1.4381 \pm 1.2701	1.4871 \pm 1.3321	1.5951 \pm 1.3292
			$\bar{\lambda} \pm \sigma$	1.3015 \pm 1.3868				
Unknown sp1	Sapindaceae	459	α_L		-3.1189 \pm 0.7033	-2.7350 \pm 0.6952	-3.2314 \pm 0.7069	-3.0192 \pm 0.6880
			β_L		1.0422 \pm 0.2925	0.8963 \pm 0.3035	0.8689 \pm 0.2911	0.8950 \pm 0.2948
			$\kappa_{t,L}$	3.7283 \pm 1.1157	0.7023 \pm 0.7942	0.5243 \pm 0.7270	1.0274 \pm 0.9194	0.8395 \pm 0.9340
			$\bar{\lambda} \pm \sigma$	2.4986 \pm 1.2358				
<i>Mascagnia</i> sp.	Malpighiaceae	313	α_L		-3.8680 \pm 1.4088	-1.1614 \pm 0.5402	-2.2681 \pm 0.6608	-3.4206 \pm 0.8631
			β_L		0.7640 \pm 0.3021	0.7901 \pm 0.2241	0.9584 \pm 0.2416	1.1441 \pm 0.2663
			$\kappa_{t,L}$	4.5101 \pm 1.7217	0.7415 \pm 0.8226	1.0214 \pm 0.9039	1.2384 \pm 1.0928	1.3867 \pm 1.1729
			$\bar{\lambda} \pm \sigma$	1.6781 \pm 1.3922				
<i>Brosimum alicastrum</i>	Moraceae	75	α_L		-1.2528 \pm 0.5774	-1.2528 \pm 0.5796	-0.8477 \pm 0.5374	-0.8494 \pm 0.7072
			β_L		0.9966 \pm 0.3162	0.9958 \pm 0.3162	0.9956 \pm 0.3162	0.9962 \pm 0.3163
			$\kappa_{t,L}$	0.0696 \pm 0.0286	1.3719 \pm 1.0968	1.3854 \pm 1.1072	1.0263 \pm 0.9422	0.5556 \pm 0.7257
			$\bar{\lambda} \pm \sigma$	1.0000 \pm 0.0073				

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<i>Combretum laxum/fruticosum</i>	Combretaceae	7258	α_L		-4.6392 \pm 1.1606	-0.6446 \pm 0.4862	-4.7470 \pm 1.2371	-3.5474 \pm 0.9744
			β_L		0.8792 \pm 0.2543	0.8291 \pm 0.1161	0.9068 \pm 0.2791	0.8168 \pm 0.221
			$\kappa_{t,L}$	7.5629 \pm 1.4570	1.4475 \pm 1.0776	3.3378 \pm 1.0211	0.5772 \pm 0.5545	1.7280 \pm 1.0534
			$\bar{\lambda} \pm \sigma$	42.4915 \pm 3.8096				
<i>Cordia alliodora</i>	Boraginaceae	952	α_L		0.0810 \pm 0.2797	0.7709 \pm 0.2458	0.4081 \pm 0.2754	0.4221 \pm 0.2967
			β_L		0.7648 \pm 0.1161	0.7755 \pm 0.1062	0.6374 \pm 0.1174	0.6656 \pm 0.1273
			$\kappa_{t,L}$	3.7795 \pm 1.1493	3.2008 \pm 1.2824	2.8348 \pm 1.0199	1.9420 \pm 0.7301	1.5510 \pm 0.5725
			$\bar{\lambda} \pm \sigma$	3.3751 \pm 1.9488				
<i>Cryosophila stauracantha</i>	Arecaceae	3657	α_L		0.7816 \pm 0.4400	-0.9457 \pm 0.5957	-0.9614 \pm 0.5556	0.1106 \pm 0.5778
			β_L		0.4758 \pm 0.1472	0.9020 \pm 0.1697	0.9434 \pm 0.1467	0.7676 \pm 0.1695
			$\kappa_{t,L}$	0.4526 \pm 0.0832	0.5873 \pm 0.1935	0.4429 \pm 0.1892	0.7152 \pm 0.3197	0.4145 \pm 0.1460
			$\bar{\lambda} \pm \sigma$	5.5161 \pm 2.6235				
<i>Dioscorea</i> sp.	Dioscoreaceae	72	α_L		0.2233 \pm 0.3601	0.6718 \pm 0.2608	0.1244 \pm 0.3176	-0.1779 \pm 0.3316
			β_L		1.0628 \pm 0.2640	1.0731 \pm 0.2151	1.1689 \pm 0.2394	0.8726 \pm 0.2428
			$\kappa_{t,L}$	1.7943 \pm 0.9014	1.2583 \pm 0.8475	3.1883 \pm 1.5717	2.3019 \pm 1.2823	1.9292 \pm 1.1728
			$\bar{\lambda} \pm \sigma$	0.7952 \pm 0.9676				
<i>Forsteronia</i> sp.	Apocynaceae	1012	α_L		-0.6691 \pm 0.3839	0.2334 \pm 0.3183	-0.4412 \pm 0.3683	-0.5541 \pm 0.3872
			β_L		0.7841 \pm 0.1617	0.8986 \pm 0.1352	0.6978 \pm 0.1631	0.6571 \pm 0.1649
			$\kappa_{t,L}$	7.4343 \pm 2.0410	2.9405 \pm 1.2453	2.7790 \pm 0.9922	2.3109 \pm 0.9644	2.3031 \pm 1.0074
			$\bar{\lambda} \pm \sigma$	5.2922 \pm 1.9808				

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<i>Hippocratea volubilis</i>	Celastraceae	50	α_L		-1.6602 ± 0.8066	-0.4056 ± 0.3203	-1.946 ± 0.6419	-1.4361 ± 0.643
			β_L		0.9995 ± 0.3162	0.9989 ± 0.3162	0.9985 ± 0.3162	0.9992 ± 0.3162
			$\kappa_{t,L}$	0.4974 ± 0.1997	0.4882 ± 0.9404	2.0313 ± 1.2358	1.1406 ± 1.0024	0.6046 ± 0.8311
			$\bar{\lambda} \pm \sigma$	1.0000 ± 0.0073				
<i>Lonchocarpus castilloi</i>	Fabaceae	74	α_L		-2.4476 ± 1.0377	-1.3322 ± 0.8952	-1.7791 ± 1.0027	-0.9568 ± 0.8031
			β_L		1.0545 ± 0.2916	0.9394 ± 0.2905	0.8666 ± 0.3032	0.8352 ± 0.3004
			$\kappa_{t,L}$	2.1218 ± 1.3149	1.3039 ± 1.0597	0.8127 ± 0.8184	0.8905 ± 0.8732	0.8763 ± 0.8644
			$\bar{\lambda} \pm \sigma$	0.8643 ± 1.083				
<i>Paullinia</i> sp.	Sapindaceae	181	α_L		-1.6194 ± 0.4483	-0.6104 ± 0.3446	-2.0294 ± 0.5196	-2.2982 ± 0.5953
			β_L		0.9975 ± 0.2768	0.5516 ± 0.3002	0.8906 ± 0.2914	0.976 ± 0.2971
			$\kappa_{t,L}$	1.0488 ± 0.3967	1.6869 ± 1.1594	1.162 ± 0.8911	1.4835 ± 1.1047	1.0011 ± 0.8786
			$\bar{\lambda} \pm \sigma$	1.1772 ± 0.8154				
<i>Pseudolmedia spuria</i>	Moraceae	928	α_L		-0.6092 ± 0.3985	-0.2331 ± 0.352	0.1008 ± 0.3382	-0.0299 ± 0.4225
			β_L		0.7594 ± 0.2092	0.5405 ± 0.2422	0.6607 ± 0.1982	0.7264 ± 0.2124
			$\kappa_{t,L}$	0.7839 ± 0.3006	0.8055 ± 0.4614	0.6923 ± 0.3815	0.7076 ± 0.3362	0.41 ± 0.2035
			$\bar{\lambda} \pm \sigma$	0.9189 ± 1.5044				
<i>Psychotria</i> sp.	Rubiaceae	100	α_L		1.7376 ± 0.2282	0.8635 ± 0.2775	2.0574 ± 0.2479	1.8744 ± 0.2453
			β_L		1.2848 ± 0.2049	0.8866 ± 0.2613	1.14 ± 0.2257	1.0045 ± 0.2296
			$\kappa_{t,L}$	0.7528 ± 0.2847	2.5014 ± 1.198	0.7738 ± 0.2953	1.4254 ± 0.5775	1.0291 ± 0.3582
			$\bar{\lambda} \pm \sigma$	0.8025 ± 0.9028				

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<i>Serjania</i> sp. ("medium")	Sapindaceae	915	α_L		-2.1579 ± 0.5893	-0.5544 ± 0.3681	-4.1191 ± 0.8805	-1.9105 ± 0.5341
			β_L		0.5754 ± 0.2649	0.8055 ± 0.16	1.0321 ± 0.272	0.2895 ± 0.2342
			$\kappa_{t,L}$	3.6071 ± 0.996	0.9359 ± 0.8816	1.8336 ± 0.8335	1.4113 ± 1.0951	1.3463 ± 1.0718
			$\bar{\lambda} \pm \sigma$	3.6782 ± 1.791				
<i>Spondias radlkoferi</i>	Anacardiaceae	111	α_L		-1.6599 ± 0.6306	-1.5313 ± 0.7443	-1.4812 ± 0.7118	-0.8266 ± 0.4449
			β_L		0.9117 ± 0.2819	1.0157 ± 0.2848	1.0782 ± 0.2919	0.6746 ± 0.2751
			$\kappa_{t,L}$	1.3576 ± 0.6761	1.1116 ± 1.0083	0.6792 ± 0.9091	0.6182 ± 0.7649	1.5654 ± 1.1172
			$\bar{\lambda} \pm \sigma$	1.0044 ± 1.0342				
<i>Terminalia amazonia</i>	Combretaceae	99409	α_L		-2.5359 ± 1.0583	-1.8484 ± 0.7191	-4.5784 ± 1.1829	-5.0081 ± 1.1349
			β_L		0.4590 ± 0.1629	0.7323 ± 0.1119	0.802 ± 0.1782	0.8165 ± 0.1671
			$\kappa_{t,L}$	8.7143 ± 1.4565	1.3916 ± 0.6971	1.8057 ± 0.4655	1.2061 ± 0.4725	1.6538 ± 0.865
			$\bar{\lambda} \pm \sigma$	480.3949 ± 6.1436				