What explains interspecific variation in liana load?

Marco D. Visser*1,2, Helene C. Muller-Landau†2, and Joe Wright‡2

¹Department of Experimental Plant Ecology, Nijmegen University ²Smithsonian Tropical Research Institute, Republic of Panama

July 1, 2016

^{*}m.visser@science.ru.nl

 $^{^{\}dagger} mullerh@si.edu$

 $^{^{\}ddagger} WRIGHTJ@si.edu$

1 SUPPLEMENTAL TABLES

1 Supplemental tables

1 SUPPLEMENTAL TABLES

FF	FI	FD	IF	II	ID	species
5	3	1	15	68	15	Alchornea costaricensi
27	10	3	5	28	12	$Brosimum\ alicastrum$
102	14	51	5	1	4	$Cecropia\ insign is$
26	8	6	4	4	8	$Cordia\ alliodora$
9	1	8	2	10	18	$Eugenia\ oerstediana$
4	2	1	2	19	9	$Guarea\ guidonia$
36	3	3	10	56	6	$Gustavia\ superba$
129	26	18	10	27	11	$Jacaranda\ copaia$
5	3	1	2	22	6	$Macrocnemum\ roseum$
44	13	23	7	18	33	$Simarouba\ amara$
1	2	2	1	19	16	$Tabernaemont\ arborea$
7	4	4	18	47	33	$Trichilia\ tuberculata$
4	3	3	3	24	17	$Virola\ sebifera$
7	3	1	3	17	10	$Virola\ surinamensis$
43	20	16	4	10	8	$Zanthoxylum\ ekmanii$

Table 1: table caption in main text

β	ν	μ	α	species
0.054 (0.0438)	0.025 (0.0091)	$0.01 \ (0.0326)$	0.007 (0.079)	Alchornea costaricensi
$0.038 \ (0.0145)$	0.017 (0.0101)	$0.004 \ (0.0132)$	$0.029 \ (0.0157)$	$Brosimum\ alicastrum$
0.035 (0.0442)	$0.216 \ (0.2698)$	0.033(0.01)	$0.038 \ (0.1828)$	Cecropia insignis
$0.048 \; (0.0278)$	$0.066 \ (0.0527)$	$0.004 \ (0.0586)$	$0.084 \ (0.0555)$	$Cordia\ alliodora$
$0.013 \ (0.0228)$	$0.016 \ (0.0172)$	$0.055 \ (0.0254)$	$0.035 \ (0.0521)$	$Eugenia\ oerstediana$
$0.046 \; (0.0475)$	$0.011\ (0.012)$	$0.011\ (0.0497)$	0.025 (0.041)	$Guarea\ guidonia$
$0.009 \ (0.0068)$	$0.017 \ (0.0063)$	0.007 (0.006)	$0.001 \ (0.0933)$	$Gustavia\ superba$
$0.023 \ (0.0053)$	$0.032\ (0.0123)$	$0.009 \ (0.0035)$	$0.019 \ (0.0137)$	$Jacaranda\ copaia$
$0.051 \ (0.0399)$	$0.01 \ (0.0111)$	$0.009 \ (0.0364)$	$0.013 \ (0.0415)$	$Macrocnemum\ roseum$
$0.038 \; (0.0132)$	$0.03 \ (0.0147)$	$0.025 \ (0.0105)$	$0.064 \ (0.025)$	$Simarouba\ amara$
0.114(0.1209)	$0.008 \; (0.0159)$	$0.045 \ (0.1054)$	$0.012 \ (0.6762)$	$Tabernaemont\ arborea$
0.058 (0.0416)	0.04 (0.0144)	$0.028 \ (0.0285)$	0.015(0.064)	$Trichilia\ tuberculata$
$0.063 \ (0.0507)$	$0.015 \ (0.0125)$	$0.031\ (0.0413)$	$0.018 \; (0.0866)$	$Virola\ sebifera$
$0.044 \ (0.0348)$	0.017 (0.0139)	$0.004 \ (0.0949)$	$0.039\ (0.0265)$	$Virola\ surinamens is$
$0.051 \ (0.0159)$	$0.038 \; (0.027)$	$0.017 \ (0.0106)$	$0.032\ (0.0356)$	$Zanthoxylum\ ekmanii$

Table 2: table caption in main text

1 SUPPLEMENTAL TABLES

	F - D	F - F	F - I	I - D	I - F	I - I	Total
AVA	0.031 (6)	0.26 (51)	0.015(3)	0.072(14)	0.13 (26)	0.49 (95)	195.0000
DRAYTON	0.057(10)	0.2(35)	0.057(10)	0.23(41)	0.046(8)	0.41(71)	175.0000
FDP	0.12(99)	0.42(336)	0.11 (89)	0.11 (92)	0.056(45)	0.18(144)	805.0000
ZETEK	0.13(26)	0.14(27)	0.066(13)	0.3(59)	0.061(12)	0.3(60)	197.0000
Total	141	449	115	206	91	370	1372.0000

Table 3: table caption in main text

	AVA	DRAYTON	FDP	ZETEK	Total
Alchornea costaricensi	4/4 (1)	7/8 (0.88)	87/94 (0.93)	0/1 (0)	107.0000
Brosimum alicastrum	0/1 (0)	5/8 (0.62)	$38/72 \ (0.53)$	2/4 (0.5)	85.0000
Cecropia insignis	0/0 (NaN)	0/9(0)	9/157 (0.057)	$1/11 \ (0.091)$	177.0000
Cordia alliodora	1/6 (0.17)	0/4 (0)	$10/38 \ (0.26)$	5/8 (0.62)	56.0000
Eugenia oerstediana	4/9 (0.44)	0/0 (NaN)	$25/38 \ (0.66)$	1/1 (1)	48.0000
Guarea guidonia	$12/15 \ (0.8)$	$15/19 \ (0.79)$	0/0 (NaN)	3/3 (1)	37.0000
Gustavia superba	$57/86 \ (0.66)$	$9/16 \ (0.56)$	0/0 (NaN)	6/12 (0.5)	114.0000
Jacaranda copaia	0/1 (0)	8/18 (0.44)	$36/185 \ (0.19)$	4/17 (0.24)	221.0000
Macrocnemum roseum	4/4 (1)	$19/22 \ (0.86)$	$7/13 \ (0.54)$	0/0 (NaN)	39.0000
Simarouba amara	1/2 (0.5)	4/5 (0.8)	$47/116 \ (0.41)$	6/15 (0.4)	138.0000
Tabernaemont arborea	2/2 (1)	0/0 (NaN)	0/0 (NaN)	$34/39 \ (0.87)$	41.0000
Trichilia tuberculata	$36/43 \ (0.84)$	16/16(1)	0/0 (NaN)	$46/54 \ (0.85)$	113.0000
Virola sebifera	$9/13 \ (0.69)$	$21/24 \ (0.88)$	0/0 (NaN)	$14/17 \ (0.82)$	54.0000
Virola surinamensis	5/8 (0.62)	$16/23 \ (0.7)$	1/1 (1)	8/9 (0.89)	41.0000
Zanthoxylum ekmanii	0/1 (0)	0/3 (0)	$21/91 \ (0.23)$	$1/6 \ (0.17)$	101.0000
Total	195	175	805	197	1372.0000

Table 4: table caption in main text

	ALCHCO	BROSAL	CECRIN	CORDAL	EUGEOE	GUARGU	GUSTSU	JAC1CO	MACRGL	SIMAAM	TAB2AR	TRI2TU	VIROSE	VIROSU	ZANTBE
Full model $(\mu, \alpha, \nu, \beta)$	0.666	0.562	0.126	0.286	0.230	0.721	0.327	0.341	0.797	0.348	0.928	0.554	0.774	0.576	0.490
Only mortality	0.470	0.470	0.468	0.470	0.466	0.470	0.470	0.470	0.470	0.468	0.467	0.468	0.468	0.470	0.469
$(\mu, \bar{\alpha}, \bar{\nu}, \bar{\beta})$															
Only liana lethality	0.532	0.468	0.443	0.333	0.452	0.479	0.547	0.497	0.512	0.378	0.516	0.509	0.501	0.441	0.460
$(\bar{\mu}, \alpha, \bar{\nu}, \bar{\beta})$															
Only recovery	0.550	0.621	0.163	0.355	0.631	0.700	0.625	0.498	0.712	0.513	0.752	0.453	0.653	0.626	0.465
$(\bar{\mu}, \bar{\alpha}, \nu, \bar{\beta})$															
Only colonization	0.517	0.415	0.392	0.486	0.179	0.473	0.123	0.286	0.501	0.414	0.721	0.537	0.562	0.460	0.502
$(\bar{\mu}, \bar{\alpha}, \bar{\nu}, \beta)$															
Average mortality	0.666	0.559	0.126	0.284	0.234	0.720	0.327	0.340	0.797	0.349	0.928	0.554	0.774	0.573	0.489
$(\bar{\mu}, \alpha, \nu, \beta)$															
Average liana lethality	0.601	0.562	0.129	0.370	0.255	0.706	0.178	0.308	0.746	0.455	0.918	0.520	0.743	0.619	0.498
$(\mu, \bar{\alpha}, \nu, \beta)$															
Average recovery	0.574	0.416	0.364	0.352	0.165	0.484	0.184	0.316	0.543	0.323	0.740	0.572	0.588	0.434	0.493
$(\mu, \alpha, \bar{\nu}, \beta)$															
Average colonization	0.627	0.622	0.159	0.272	0.599	0.717	0.726	0.529	0.775	0.406	0.816	0.490	0.698	0.586	0.457
$(\mu, \alpha, \nu, \bar{\beta})$															
recovery and coloniza-	0.600	0.560	0.129	0.369	0.259	0.705	0.176	0.307	0.744	0.455	0.918	0.520	0.744	0.617	0.498
tion $(\bar{\mu}, \bar{\alpha}, \nu, \beta)$															
recovery and mortality	0.551	0.623	0.163	0.356	0.626	0.701	0.627	0.499	0.713	0.512	0.748	0.452	0.651	0.628	0.466
$(\mu, \bar{\alpha}, \nu, \bar{\beta})$															
recovery and lethality	0.626	0.620	0.160	0.271	0.605	0.716	0.726	0.528	0.774	0.407	0.817	0.491	0.699	0.583	0.456
$(\bar{\mu}, \alpha, \nu, \bar{\beta})$															
colonization and mor-	0.517	0.416	0.391	0.487	0.177	0.474	0.124	0.287	0.502	0.413	0.720	0.536	0.561	0.462	0.502
tality $(\mu, \bar{\alpha}, \bar{\nu}, \beta)$															
colonization and	0.574	0.415	0.365	0.350	0.167	0.483	0.184	0.315	0.542	0.324	0.741	0.572	0.589	0.432	0.493
lethality $(\bar{\mu}, \alpha, \bar{\nu}, \beta)$															
mortality and lethality	0.532	0.470	0.441	0.336	0.448	0.479	0.547	0.498	0.513	0.377	0.515	0.508	0.500	0.442	0.460
$(\mu, \alpha, \bar{\nu}, \bar{\beta})$															

Table 5: table caption in main text

2 Supplemental Figures

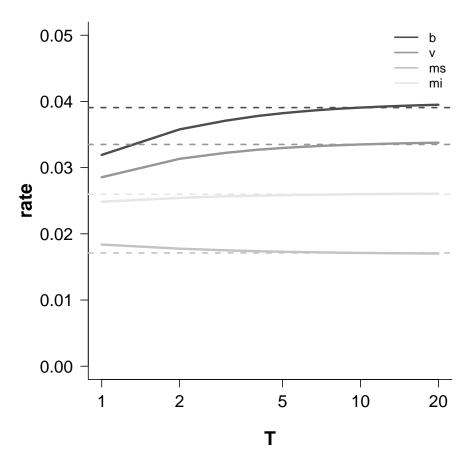


Figure 1: LEGEND

.

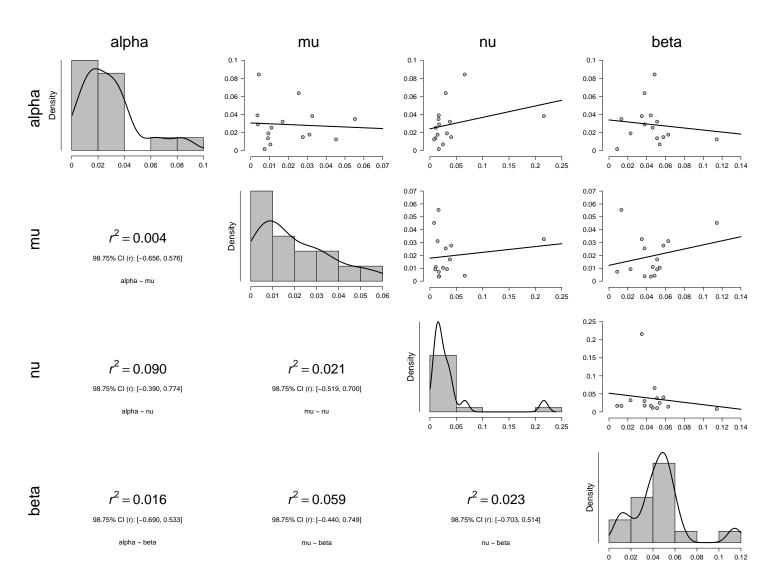


Figure 2: LEGEND

•

7