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Title: Demography of the clonal palm *Geonoma brevispatha* in a Neotropical swamp forest.

Running title: Demography of an understorey clonal palm.

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Appendix S1. Covariances among transitions are shown in the upper right triangle, each value reflecting the covariance between the corresponding top row transition and the right column transition. The contributions of covariances to variance in the module population growth among different genets, $V(\lambda_g)$, are presented in the bottom left triangle, each value corresponding to the top row and left column transitions. Values corresponding to the 2001 – 2002 interval.

Contributions to $V(\lambda)$	Covariances												
	JJ	JI	JV	IJ	II	IV	IR	VJ	VV	VR	RJ	RR	
	5.53	-3.18	0.00	-0.04	-0.21	0.14	0.28	0.33	0.10	-0.21	2.42	-0.41	JJ
		3.70	0.01	-0.06	0.6	-0.22	-0.17	-0.3	-0.50	0.37	-2.22	0.51	JI
JJ	0.48		0.02	0.01	0.02	0.00	-0.01	0.04	0.03	-0.02	0.09	-0.01	JV
JI	-0.66	1.86		1.95	0.47	-0.08	-0.30	4.98	-0.18	0.26	22.46	-0.13	IJ
JV	0.00	0.01	0.03		4.07	-0.68	-1.33	0.96	0.08	0.02	4.31	-0.09	II
IJ	0.00	-0.01	0.00	0.08		0.54	-0.06	-0.12	-0.28	0.18	-0.58	0.14	IV
II	-0.03	0.20	0.01	0.04	0.93		1.48	-0.61	0.06	-0.03	-2.72	0.27	IR
IV	0.03	-0.13	0.00	-0.01	-0.27	0.37		14.23	-0.34	0.59	63.86	-0.34	VJ
IR	0.10	-0.14	-0.01	-0.07	-0.73	-0.06	1.96		4.03	-2.08	-0.23	-0.16	VV
VJ	0.00	0.00	0.00	0.02	0.01	0.00	-0.01	0.01		2.31	1.53	-0.14	VR
VV	0.00	-0.03	0.00	0.00	0.00	-0.02	0.01	0.00	0.03		299.8	-0.94	RJ
VR	-0.01	0.03	0.00	0.01	0.00	0.02	0.00	0.00	-0.02	0.03		5.21	RR
RJ	0.02	-0.04	0.00	0.11	0.05	-0.01	-0.08	0.03	0.00	0.00	0.18		
RR	-0.02	0.05	0.00	0.00	-0.01	0.02	0.04	0.00	0.00	0.00	0.00	0.10	

Notes: Sequences of capital letters refer to annual module transitions (Fig. 1), in column order, i.e. the entries in the first column, followed by the second column, and so on. Bold diagonal values refer to variances. All values should be multiplied by 10^{-2} to get the actual values.

Appendix S2. Covariances among transitions are shown in the upper right triangle, each value reflecting the covariance between the corresponding top row transition and the right column transition. The contributions of covariances to variance in the module population growth among different genets, $V(\lambda_g)$, are presented in the bottom left triangle, each value corresponding to the top row and left column transitions. Values corresponding to the 2002 – 2003 interval. The JV transition was absent in this year (see Table 1).

		Covariances											
Contributions to $V(\lambda)$													
		JJ	JI	IJ	II	IV	IR	VJ	VV	VR	RJ	RR	
		0.05	-0.03	0.01	0.01	0.00	0.00	0.04	0.00	0.00	0.19	0.02	JJ
			0.04	-0.01	0.00	0.00	0.00	-0.02	0.00	0.00	-0.10	-0.01	JI
JJ		0.22		0.07	0.01	0.00	0.00	0.18	0.00	0.00	0.88	0.01	IJ
JI		-0.31	0.77		0.02	0.00	0.00	0.01	0.00	0.00	0.07	0.00	II
IJ		0.08	-0.08	0.62		0.00	0.00	0.00	0.00	0.00	0.00	0.00	IV
II		0.08	0.00	0.13	0.93		0.00	0.00	0.00	0.00	0.00	0.00	IR
IV		0.02	-0.05	-0.01	-0.29	0.79		0.46	-0.01	0.02	2.28	0.02	VJ
IR		0.03	-0.05	-0.02	-0.03	-0.01	0.13		0.09	-0.10	-0.03	0.02	VV
VJ		0.02	-0.02	0.13	0.02	0.00	0.00	0.03		0.10	0.03	-0.02	VR
VV		0.01	-0.01	-0.01	-0.02	-0.05	0.01	0.00	0.11		11.35	0.14	RJ
VR		-0.01	0.01	0.01	0.02	0.06	-0.01	0.00	-0.11	0.12		0.13	RR
RJ		0.06	-0.07	0.40	0.07	0.00	-0.01	0.09	-0.01	0.01	0.28		
RR		0.03	-0.03	0.02	0.01	-0.02	0.01	0.00	0.01	-0.02	0.01	0.06	

Notes: Sequences of capital letters refer to annual module transitions (Fig. 1), in column order, i.e. the entries in the first column, followed by the second column, and so on. Bold diagonal values refer to variances. Values in the upper right triangle should be multiplied by 10^{-2} to get the actual values.

Appendix S3. Covariances among transitions are shown in the upper right triangle, each value reflecting the covariance between the corresponding top row transition and the right column transition. The contributions of covariances to variance for the overall ramet population growth between two consecutive years, $V(\lambda)$, are presented in the bottom left triangle, each value corresponding to the top row and left column transitions.

Contributions to $V(\lambda)$	Covariances												
	JJ	JI	JV	IJ	II	IV	IR	VJ	VV	VR	RJ	RR	
	0.62	-0.04	0.02	0.20	0.17	0.08	0.04	0.50	0.99	-1.29	2.14	1.30	JJ
		0.00	0.00	-0.01	-0.01	0.00	0.00	-0.03	-0.06	0.08	-0.13	-0.08	JI
JJ	0.29		0.00	0.01	0.01	0.00	0.00	0.02	0.04	-0.05	0.08	0.05	JV
JI	-0.04	0.01		0.06	0.05	0.03	0.01	0.16	0.32	-0.42	0.69	0.42	IJ
JV	0.05	-0.01	0.01		0.05	0.02	0.01	0.14	0.27	-0.35	0.58	0.35	II
IJ	0.11	-0.01	0.02	0.04		0.01	0.00	0.06	0.13	-0.16	0.27	0.16	IV
II	0.19	-0.03	0.03	0.07	0.12		0.00	0.03	0.06	-0.08	0.13	0.08	IR
IV	0.19	-0.03	0.03	0.07	0.12	0.12		0.40	0.81	-1.05	1.73	1.06	VJ
IR	0.09	-0.01	0.02	0.03	0.06	0.06	0.03		1.60	-2.09	3.45	2.10	VV
VJ	0.03	0.00	0.01	0.01	0.02	0.02	0.01	0.00		2.71	-4.49	-2.74	VR
VV	0.29	-0.04	0.05	0.10	0.18	0.18	0.09	0.03	0.28		7.41	4.52	RJ
VR	-0.36	0.05	-0.06	-0.13	-0.23	-0.23	-0.11	-0.04	-0.36	0.45		2.76	RR
RJ	0.14	-0.02	0.02	0.05	0.09	0.09	0.04	0.01	0.13	-0.17	0.06		
RR	0.37	-0.05	0.06	0.13	0.24	0.23	0.11	0.04	0.36	-0.46	0.17	0.46	

Notes: Sequences of capital letters refer to annual module transitions (Fig. 1), in column order, i.e. the entries in the first column, followed by the second column, and so on. Bold diagonal values refer to variances. Values in the upper right and in the bottom left triangles should be multiplied by 10^{-2} and by 10^{-3} to get the actual values, respectively.