Digital appendix 1

Results of the circular statistics analysis of flowering patterns for eight tree species and the community of trees in Southwestern Colombia

	Year	*Henriettea seemannii*	*Ocotea aurantiodora*	*Scheffllera morototoni*	*Lacistema aggregatum*	*Eugenia cf. egensis*	*Erythroxylum citrifolium*	*Miconia minutiflora*	*Miconia rubiginosa*	*Community*
Observations (N)	2013	23	23	23	23	23	23	23	---	23
	2014	23	23	23	23	23	23	23	23	23
Mean angle	2013	257.52 °	35.33 °	127.81 °	229.31 °	217.84 °	252.96 °	274.24 °		209.15 °
	2014	250.98 °	35.84 °	135.77 °	240.20 °	128.42 °	254.92 °	333.10 °	267.74 °	230.63 °
Mean date	2013	sep-19	feb-05	may-10	aug-21	aug-9	sep-14	oct-06		aug-1
	2014	sep-12	feb-06	may-18	sep-01	may-11	sep-16	dec-4	sep-29	aug-22
Angular estándar deviation	2013	20.63 °	35.65 °	37.99 °	25.80 °	48.29 °	63.79 °	96.7 °		75.36 °
	2014	53.85 °	52.31 °	32.50 °	28.68 °	88.32 °	66.60 °	75.21 °	123.78 °	93.43 °
Length of the mean vector (r)	2013	0.94	0.82	0.80	0.90	0.70	0.54	0.24		0.42
	2014	0.64	0.66	0.85	0.88	0.31	0.51	0.42	0.1	0.27
Rayleigh test (p)	2013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	---	<0.001
	2014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.05	<0.001

Digital appendix 2

Spearman's correlation coefficients (R_s) between monthly reproductive phenophases of tree species and environmental factors in Southwestern Colombia

Variable	Species	Bud flowers	Flowers	Unripe fruits	Ripe fruits
Rainfall	*Henriettea seemannii*	-0.44 (1); -0.58 (2); -0.59 (3)	-0.48 (3)		
	Ocotea aurantiodora				0.50 (3)
	Schefflera morototoni		0.65 (1); 0.74 (2); 0.57 (3)	-0.56 (1); -0.42 (2)	
	Erythroxylum citrifolium	-0.56 (3)	-0.47 (3)		
	Lacistema aggregatum		-0.52 (1); -0.58 (2); -0.47 (3)		
	Miconia rubiginosa	0.70 (2); 0.61 (3)	0.67 (3)	- 0.74 (1); -0.65 (2)	
Relative humidity	*Henriettea seemannii*	-0.43 (2)		-0.49 (2); 0.65 (3)	
	Schefflera morototoni		0.63 (1); 0.63 (2); 0.56 (3)	-0.56 (1); -0.49 (2); -0.57 (3)	
	Erythroxylum citrifolium	-0.55 (1); -0.57 (2) ; -0.47 (3)	-0.48 (2); -0.44 (3)		
	Lacistema aggregatum		-0.66 (1); -0.57 (2); -0.46 (3)	-0.38 (2); -0.39 (3)	-0.39 (2); -0.51 (3)
	Miconia minutiflora	-0.45 (1) ; - 0.53 (2); -0.51 (3)		0.44 (1); 0.41 (2); 0.45 (3)	
	Miconia rubiginosa			-0.77 (1); -0.61 (2); -0.50 (3)	
Temperature	*Henriettea seemannii*		0.45 (2); 0.42 (3)		
	Ocotea aurantiodora	-0.57 (2); -0.56 (3)			- 0. 43 (2)
	Schefflera morototoni		-0.51 (1); -0.39 (2); -0.38 (3)	0.51 (2); 0.48 (3)	

	Erythroxylum citrifolium	0.47 (1); 0.59 (2); 0.52 (3)	0.48 (2); 0.46 (3)		
	Lacistema aggregatum	0.68 (2); 0.66 (3)	0.62 (1)	0.47 (2); 0.54 (3)	
	Miconia rubiginosa			0.67 (1)	
Solar irradiance	*Henriettea seemannii*	0.68 (1); 0.72 (2); 0.69 (3)	0.59 (2); 0.49 (3)	0.54 (3)	
	Schefflera morototoni		-0.55 (2); -0.53 (3)	0.60 (1); 0.67 (2); 0.63 (3)	
	Erythroxylum citrifolium	0.54 (1); 0.59 (2); 0.58 (3)	0.45 (2); 0.44 (3)		
	Lacistema aggregatum		0.70 (1); 0.70 (2); 0.64 (3)		
	Miconia minutiflora			-0.39 (2); -0.43 (3)	
	Miconia rubiginosa			0.66 (2); 0.79 (3)	

(1) = one month time lag; (2) = two months time lag; (3) = three months time lag.

All correlation values with p < 0.001.

Digital appendix 3

Results of the circular statistics analysis of the fruiting patterns for eight tree species and the community in Southwestern Colombia

	Year	*Henriettea seemannii*	*Ocotea aurantiodora*	*Scheffllera morototoni*	*Lacistema aggregatum*	*Eugenia* cf. *egensis*	*Erythroxylum citrifolium*	*Miconia minutiflora*	*Miconia rubiginosa*	Community
Observations (N)	2013	23	23	23	23	23	23	23	---	23
	2014	23	23	23	23	23	23	23	23	23
Mean angle	2013	3.92 °	150.93 °	222.39 °	287.96 °	325.91 °	43.61°	170.43 °	---	290.50 °
	2014	359.34 °	79.92 °	224.89 °	301.18 °	213.95 °	260.17°	132.71 °	291.95 °	290.86 °
Mean date	2013	jan-04	jun-03	aug-14	oct-19	nov-27	feb-14	jun-22	---	oct-22
	2014	dec-31	mar-23	aug-17	nov-03	aug-05	sep-21	may-15	oct-24	oct-22
Angular estándar deviation	2013	48.76 °	79.04 °	52.21 °	32.69 °	69.30 °	91.71°	70.29 °	---	120.60 °
	2014	35.22 °	82.42 °	53.41 °	35.17 °	78.37 °	76.32°	75.03 °	126.99 °	115.80 °
Length of the mean vector (r)	2013	0.70	0.39	0.66	0.85	0.48	0.28	0.47	---	0.11
	2014	0.83	0.36	0.65	0.83	0.39	0.41	0.42	0.09	0.13
Rayleigh test (p)	2013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	---	<0.05
	2014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	>0.05	<0.05

Digital appendix 4

Phenological variables of flowering for eight tree species during two years of observations in Southwestern Colombia

Species	Year	Phenological variables					
		%	Total duration (months)	Mean duration ± SD	Mean first flowering date ± SD	Mean flowering peak date ± SD	Synchrony index
Henriettea seemannii	1	100	2	1.2 ± 0.41	8.53 ± 1.81	9 ± 0	0.96

	2	100	3	1.2 ± 0.56	7.53 ± 2.15	9.8 ± 0.56	0.72
Ocotea aurantiodora	1	93	1.5	1.08 ± 0.19	1.85 ± 0.80	1.23 ± 0.60	0.47
	2	93	2	1.07 ± 0.27	3.21 ± 2.17	1.21 ± 0.49	0.59
Schefflera morototoni	1	100	2.5	1.93 ± 0.46	4.0 ± 0.38	5.0 ± 0	0.88
	2	73	2.5	1.27 ± 0.51	4.71 ± 0.73	5.14 ± 0.36	0.76
Lacistema aggregatum	1	100	3.5	2.57 ± 0.50	7.0 ± 0.85	8.07 ± 0.26	0.82
	2	73	4	2.54 ± 1.01	7.0 ± 1.26	8.63 ± 0.65	0.78
Eugenia cf. egensis	1	100	2	1.47 ± 0.52	8.60 ± 1.06	8.60 ± 1.06	0.72
	2	73	2	1.27 ± 0.47	6.64 ± 2.73	6.64 ± 2.73	0.62
Erythroxylum citrifolium	1	60	2	1.44 ± 0.53	5.44 ± 3.0	8.56 ± 2.19	0.39
	2	87	2	1.38 ± 0.42	4.54 ± 1.81	8.77 ± 2.17	0.58
Miconia minutiflora	1	93	4	2.39 ± 0.71	5.21 ± 1.72	4.14 ± 3.99	0.83
	2	100	4	2.9 ± 0.97	4.86 ± 2.83	1.0 ± 0	0.83
Miconia rubiginosa	2	100	2	1.2 ± 0.41	4.4 ± 1.72	9.2 ± 2.31	0.72

SD = Standard deviation.

Digital appendix 5

Phenological variables of fruiting for eight tree species during two years of observations in Southwestern Colombia

Species	Year		Phenological variables				
		%	Total duration (months)	Mean duration ± SD	Mean first fruiting date ± SD	Mean fruiting peak date ± SD	Synchrony index
Henriettea seemannii	1	100	3	2.5 ± 0.23	2.1 ± 0.27	8.8 ± 4.44	0.91
	2	100	4.5	2.4 ± 0.89	9.7 ± 2.84	1.7 ± 2.84	0.77
Ocotea aurantiodora	1	67	7	3.7 ± 2.11	3.6 ± 0.97	5.1 ± 0.32	0.69
	2	60	12	6.1 ± 4.69	2.5 ± 1.22	5.3 ± 3.39	0.7
Schefflera morototoni	1	100	6	4.6 ± 1.12	5.9 ± 0.46	7.0 ± 0.38	0.83
	2	100	6	4.8 ± 0.72	5.1 ± 1.36	7.7 ± 0.46	0.85

Lacistema aggregatum	1	100	3.5	3.0 ± 0.38	7.5 ± 2.70	9.9 ± 0.35	0.85
	2	73	4.5	3.4 ± 1.29	9.45 ± 1.04	10.18 ± 0.40	0.81
Eugenia cf. egensis	1	100	3	2.7 ± 0.41	4.5 ± 3.14	11.0 ± 0	0.75
	2	73	2.5	2.0 ± 0.89	6.1 ± 2.39	7.0 ± 3.87	0.67
Erythroxylum citrifolium	1	67	1.5	1.1 ± 0.16	5.2 ± 3.19	3.1 ± 3.75	0.55
	2	80	1	1.0 ± 0	7.0 ± 2.13	6.3 ± 3.23	0.65
Miconia rubiginosa	2	100	2.5	2.3 ± 0.24	2.6 ± 2.06	8.1 ± 2.55	0.76
Miconia minutiflora	1	93	2.5	1.9 ± 0.56	4.1 ± 0.27	5.79 ± 1.48	0.7
	2	100	3	2.5 ± 0.35	3.3 ± 0.46	5.33 ± 1.29	0.8

SD = Standard deviation.