

Appendix 1.

Composition and Comparisons of Pollen Rain and Pollen Loads of Black-pollled Yellowthroat (*Geothlypis speciosa*) and Common Yellowthroat (*G. trichas*) from Lake Cuitzeo, Mexico.

Table A1.1. Relative frequency (mean \pm SE) of pollen taxa in pollen rain and pollen loads in Black-pollled Yellowthroat (BPY) and Common Yellowthroat (CY) from Lake Cuitzeo, Mexico, pooled for the study period.

	Pollen rain ($N = 18$)	BPY ($N = 22$)	CY ($N = 34$)
Secondary:			
Cistaceae	0	0.0218 \pm 0.0121	0.0157 \pm 0.0109
Asteraceae	0.1129 \pm 0.0185	0.1251 \pm 0.0246	0.1023 \pm 0.0175
Convolvulaceae	0	0.0023 \pm 0.0014	0.0029 \pm 0.0014
Euphorbiaceae	0.0034 \pm 0.0021	0.0463 \pm 0.0174	0.0409 \pm 0.0131
Poaceae	0.6160 \pm 0.0297	0.3995 \pm 0.0649	0.3175 \pm 0.0424
Solanaceae	0.0030 \pm 0.0019	0.0158 \pm 0.0047	0.0072 \pm 0.0029
Lamiaceae	0	0.0082 \pm 0.0037	0.0075 \pm 0.0026
Nyctaginaceae	0	0	0.0042 \pm 0.0038
Onagraceae	0	0.0339 \pm 0.0097	0.0357 \pm 0.0119
Arboreal:			
Anacardiaceae	0.0036 \pm 0.0028	0.0128 \pm 0.0067	0.0072 \pm 0.0026
Fabaceae	0.0899 \pm 0.0172	0.0276 \pm 0.0077	0.0292 \pm 0.0080
Malghipiaceae	0	0.0026 \pm 0.0026	0.0052 \pm 0.0052
Mimosoideae	0.0121 \pm 0.0034	0.0118 \pm 0.0118	0.0009 \pm 0.0006
Myricaceae	0	0.0027 \pm 0.0022	0.0030 \pm 0.0019
Myrthaceae	0.0048 \pm 0.0027	0.0157 \pm 0.0064	0.0081 \pm 0.0036
Sapotaceae	0.0009 \pm 0.0009	0.0006 \pm 0.0006	0.0108 \pm 0.0101
Urticaceae	0.0039 \pm 0.0023	0	0
Boraginaceae	0.0011 \pm 0.0006	0.0102 \pm 0.0042	0.0200 \pm 0.0086
Aquatic:			
Araceae	0	0.0596 \pm 0.0234	0.1044 \pm 0.0260
<i>Begonia</i>	0	0.0115 \pm 0.0065	0.0197 \pm 0.0070
Chenopodiaceae	0.0004 \pm 0.0004	0.0075 \pm 0.0033	0.0075 \pm 0.0032
<i>Peperomia</i>	0.0210 \pm 0.0100	0.1216 \pm 0.0285	0.1862 \pm 0.0252
<i>Typha</i>	0.0406 \pm 0.0103	0.0362 \pm 0.0148	0.0275 \pm 0.0123

Table A1.2. Inter-season (rainy season, June-September; dry season, October-May) comparison of pollen composition in pollen rain and feathers from Lake Cuitzeo, Mexico (Mann-Whitney U exact tests α 0.05). Values represent relative frequency of pollen (mean \pm SE).

	Pollen rain			Black-pollled Yellowthroat			Common Yellowthroat		
	Rainy	Dry	P-value	Rainy	Dry	P-value	Rainy	Dry	P-value
Vegetation type:									
Secondary	0.78 \pm 0.01	0.70 \pm 0.01	0.002	0.93 \pm 0.02	0.49 \pm 0.06	0.000	0.94 \pm 0.01	0.42 \pm 0.04	0.000
Arboreal	0.16 \pm 0.01	0.24 \pm 0.01	0.001	0.06 \pm 0.02	0.14 \pm 0.02	0.059	0.05 \pm 0.01	0.14 \pm 0.02	0.019
Aquatic	0.06 \pm 0.01	0.06 \pm 0.01	0.945	0	0.37 \pm 0.06	0.000	0	0.43 \pm 0.05	0.000
Main (> 5%) pollen taxa:									
Asteraceae	0.05 \pm 0.01	0.16 \pm 0.01	0.001	0.13 \pm 0.04	0.12 \pm 0.03	0.726	0.14 \pm 0.03	0.09 \pm 0.02	0.164
Euphorbiaceae	0.01 \pm 0.00	0	0.070	0.02 \pm 0.00	0.06 \pm 0.03	0.694	0.02 \pm 0.01	0.05 \pm 0.02	0.814
Poaceae	0.71 \pm 0.02	0.53 \pm 0.02	0.001	0.70 \pm 0.06	0.23 \pm 0.06	0.000	0.63 \pm 0.02	0.24 \pm 0.04	0.001
Onagraceae	0	0	1.000	0.07 \pm 0.02	0.01 \pm 0.01	0.006	0.14 \pm 0.03	0.01 \pm 0.002	0.000
Araceae	0	0	1.000	0	0.09 \pm 0.03	0.057	0	0.13 \pm 0.03	0.039
<i>Peperomia</i>	0.04 \pm 0.01	0	0.021	0	0.19 \pm 0.03	0.000	0	0.23 \pm 0.02	0.000
<i>Typha</i>	0.01 \pm 0.01	0.06 \pm 0.01	0.005	0	0.06 \pm 0.02	0.007	0	0.03 \pm 0.01	0.146

Table A1.3. Intra-season comparisons between pollen rain (PR) and pollen loads of Black-pollled Yellowthroat (BPY) and Common Yellowthroat (CY), using Kruskal-Wallis ANOVA (x^2_2 ; P -value), and post-hoc Dunn-Bonferroni pairwise tests when applicable (z -test-statistic; P -value).

	Rainy season (June-September)							Dry season (October-May)						
	Kruskal-Wallis	Dunn-Bonferroni		Similitude†			Kruskal-Wallis	Dunn-Bonferroni		Similitude†				
		BPY	CY	PR	BPY	CY		BPY	CY	PR	BPY	CY		
Vegetation type:														
Secondary	12.288; 0.002	PR BPY	-10.625; 0.005	-10.357; 0.008 0.268; 1.000	A	B	B	10.383; 0.006	PR BPY	15.786; 0.045	19.116; 0.004 3.331; 1.000	A	B	B
Arboreal	10.200; 0.006	PR BPY	9.458; 0.014	9.690; 0.015 0.232; 1.000	A	B	B	7.792; 0.020	PR BPY	15.750; 0.045	16.087; 0.020 0.337; 1.000	A	B	B
Aquatic	15.262; 0.000	PR BPY	8.750; 0.001	8.750; 0.002 0.000; 1.000	A	B	B	12.818; 0.002	PR BPY	-17.571; 0.020	-21.238; 0.001 -3.667; 1.000	A	B	B
Main taxa (> 5% of pollen loads):														
Asteraceae	3.126; 0.172				A	A	A	2.927; 0.231				A	A	A
Euphorbiaceae	0.686; 0.710				A	A	A	4.802; 0.091				A	A	A
Poaceae	4.631; 0.099				A	A	A	10.512; 0.005	PR BPY	19.393; 0.008	18.008; 0.007 -1.385; 1.000	A	B	B
Onagraceae	13.280; 0.001	PR BPY	-7.625; 0.061	0.000; 0.001 0.139; 0.418	A	AB	B	4.527; 0.104				A	A	A
Araceae	0.000; 1.000				A	A	A	5.144; 0.076				A	A	A
Peperomia	11.602; 0.003	PR BPY	7.000; 0.007	7.000; 0.009 0.000; 1.000	A	B	B	14.225; 0.001	PR BPY	-17.250; 0.022	-22.167; 0.000 -4.917; 0.844	A	B	B
Typha	5.250; 0.072				A	A	A	8.788; 0.012	PR BPY	8.714; 0.462	15.799; 0.014 7.085; 0.310	A	AB	B

† Different letters indicate significant intra-season differences between media (see Table 2 for frequency values).

Fig. A1.1. Boxplots of pollen rain and pollen loads of Black-pollled Yellowthroat (*Geothlypis speciosa*) and Common Yellowthroat (*G. trichas*). Y-axis represent relative frequency values; boxes show the inter-quartile range, the bar in the box shows the median and the x the mean; dots represent outliers. (A), secondary vegetation; (B), arboreal vegetation; (C), aquatic vegetation.

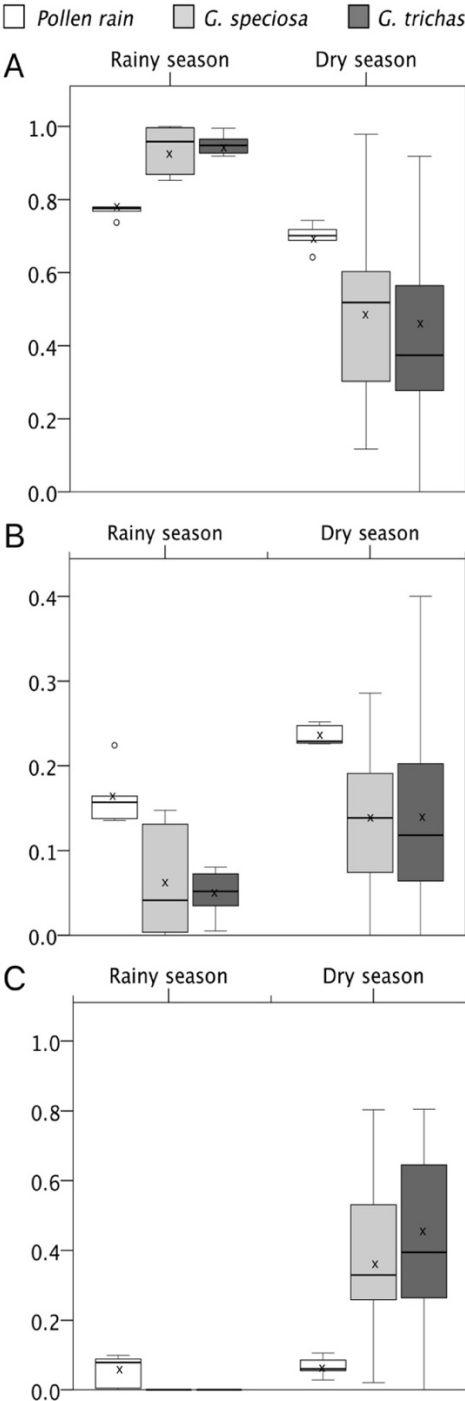


Fig. A1.2. Equitability values (bars represent 95% CI) of pollen loads (all taxa) in Black-pollled Yellowthroat (BPY) and Common Yellowthroat (CY).

