

Oikos

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Appendix 1

Table A1. Arthropod abundance by taxon for each assemblage (Canopy, Ground) and treatment (CT = control, FT = Fertilized). Values are summed across sampling locations and dates. The ID corresponds to the abbreviations used in Fig. 3.

Group	ID	Taxon	Canopy Assemblage		Ground Assemblage		
			CT	FT	CT	FT	
Parasitoids	<i>DPI</i>	Diptera: Brachycera: Pipunculidae	2				
	<i>HBr</i>	Hymenoptera: Parasitica: Braconidae	2	6	<i>na</i>	<i>na</i>	
	<i>HCe</i>	Hymenoptera: Parasitica: Ceraphronoidea	6	4	<i>na</i>	<i>na</i>	
	<i>HCh</i>	Hymenoptera: Parasitica: Chalcidoidea	5	17	<i>na</i>	<i>na</i>	
	<i>Hlc</i>	Hymenoptera: Parasitica: Ichneumonidae	4	13	<i>na</i>	<i>na</i>	
	<i>HMy</i>	Hymenoptera: Parasitica: Mymaridae	6	3	<i>na</i>	<i>na</i>	
	<i>HUn</i>	Hymenoptera: Parasitica: Unidentified	<i>na</i>	<i>na</i>	147	154	
Predators	<i>AAr</i>	Aranea: Araneidae	1	5	2		
	<i>ACl</i>	Aranea: Clubionidae			4	3	
	<i>ADi</i>	Aranea: Dictynidae	4	6			
	<i>AGn</i>	Aranea: Gnaphosidae			4	4	
	<i>ALi</i>	Aranea: Linyphiidae	17	3	24	40	
	<i>ALy</i>	Aranea: Lycosidae			289	397	
	<i>APh</i>	Aranea: Philodromidae	1		2	1	
	<i>ATe</i>	Aranea: Tetragnathidae	2	7			
	<i>ATh</i>	Aranea: Theridiidae			3	6	
	<i>ATo</i>	Aranea: Thomisidae	4	1	13	5	
	<i>C</i>	Chilopoda			2	2	
	<i>CCa</i>	Coleoptera: Carabidae			27	39	
	<i>CCo</i>	Coleoptera: Coccinellidae	1				
	<i>CCj</i>	Coleoptera: Cucujidae				4	
	<i>CSt</i>	Coleoptera: Staphylinidae			6	27	
	<i>DDo</i>	Diptera: Brachycera: Dolichopodidae				2	
	<i>DEm</i>	Diptera: Brachycera: Empididae	1	8		1	
	<i>HAn</i>	Hemiptera: Heteroptera: Anthocoridae	1				
	<i>HNa</i>	Hemiptera: Heteroptera: Nabidae	3				
	Herbivores	<i>CBy</i>	Coleoptera: Byrrhidae			1	2
<i>Ccu</i>		Coleoptera: Curculionidae			1		
<i>CLa</i>		Coleoptera: Latridiidae		2		1	
<i>CLe</i>		Coleoptera: Leiodidae				3	
<i>DCh</i>		Diptera: Brachycera: Chloropidae	8	22			
<i>DCe</i>		Diptera: Nematocera: Cecidomyiidae	2	8			
<i>HMi</i>		Hemiptera: Heteroptera: Miridae	4	28			
<i>HAI</i>		Hemiptera: Homoptera: Aleyrodidae	2	2			
<i>HAp</i>		Hemiptera: Homoptera: Aphidae	9	8		6	
<i>HCp</i>		Hemiptera: Homoptera: Cercopidae			1		
<i>HCi</i>		Hemiptera: Homoptera: Cicadellidae	8	5	8	1	
<i>HDe</i>		Hemiptera: Homoptera: Delphacidae	46		7	2	
<i>HPS</i>		Hemiptera: Homoptera: Psyllidae	12	5		1	
<i>HLa</i>		Hymenoptera: Larvae		2			
<i>LAd</i>		Lepidoptera: Adult	1	2			
<i>P</i>		Psocoptera			2		
<i>T</i>		Thysanoptera			4	2	
Detritivores	<i>A</i>	Acarí			119	700	
	<i>CEn</i>	Collembola: Entomobryomorpha			2608	1610	
	<i>CPo</i>	Collembola: Podura			92	75	
	<i>CSy</i>	Collembola: Symphypleona			506	21	
	<i>DAn</i>	Diptera: Brachycera: Anthomyiidae		8	1	5	
	<i>DCa</i>	Diptera: Brachycera: Calliphoridae				1	
	<i>DDr</i>	Diptera: Brachycera: Drosophilidae	8	1			
	<i>DHe</i>	Diptera: Brachycera: Heleomyzidae	2	2			
	<i>DMu</i>	Diptera: Brachycera: Muscidae	2	10	1	1	
	<i>DPh</i>	Diptera: Brachycera: Phoridae	3	4	5	5	
	<i>DSa</i>	Diptera: Brachycera: Sarcophagidae			1	1	
	<i>DSc</i>	Diptera: Brachycera: Scathophagidae	1	5			
	<i>DSp</i>	Diptera: Brachycera: Sphaeroceridae			4	7	
	<i>DCi</i>	Diptera: Nematocera: Chironomidae	76	149		8	
	<i>DMy</i>	Diptera: Nematocera: Mycetophilidae	4	16	5	13	
	<i>DSd</i>	Diptera: Nematocera: Sciaridae	8	10	1		
	<i>DTi</i>	Diptera: Nematocera: Tipulidae			9	24	
	<i>DTr</i>	Diptera: Nematocera: Trichoceridae		1			
	Biting Flies	<i>DCu</i>	Diptera: Nematocera: Culicidae	141	128		
		<i>DSi</i>	Diptera: Nematocera: Simuliidae	4	4		

Table A2. Results from linear mixed-effects models of community-weighted mean (CWM) body size. Specific CWM body size was calculated from the mean body size of taxa within each treatment; fixed CWMs were calculated from mean body size of each taxon across treatments. Intra-taxon body size variation was calculated as the difference between specific and fixed CWMs.

Assemblage	Group	Specific CWM Body Size (Total Effect)						Fixed CWM Body Size (Turnover Effect)						Intra-Taxon Body Size Variation					
		Sum Sq	Mean Sq	NumD	DenDF	F	P	Sum Sq	Mean Sq	NumD	DenDF	F.value	Pr(>F)	Sum Sq	Mean Sq	NumD	DenDF	F.value	Pr(>F)
Canopy	All	0.017	0.017	1	3	16.8	<b>0.026 *</b>	0.005	0.005	1	3	4.55	0.123	0.004	0.004	1	6	11.1	<b>0.016 *</b>
	Parasitoids	0.002	0.002	1	6	0.349	0.576	0.001	0.001	1	6	0.2	0.670	0.005	0.005	1	3	65.3	<b>0.004 *</b>
	Predators	0.140	0.140	1	6	4.04	<b>0.091 .</b>	0.012	0.012	1	3	0.204	0.682	0.071	0.071	1	3	40.5	<b>0.008 *</b>
	Herbivores	0.018	0.018	1	6	36.4	<b>0.001 *</b>	0.015	0.015	1	6	32.8	<b>0.001 *</b>	0.0001	0.0001	1	3	1.59	0.297
	Detritivores	0.110	0.110	1	6	19.7	<b>0.004 *</b>	0.044	0.044	1	6	7.18	<b>0.037 *</b>	0.015	0.015	1	3	29.5	<b>0.012 *</b>
	Biting Flies	0.006	0.006	1	3	4.34	0.129	0.001	0.001	1	3	0.929	0.406	0.001	0.001	1	6.02	183	<b>&lt;0.001 *</b>
Ground	All	6.700	6.700	1	27	4.71	<b>0.039 *</b>	13.600	13.600	1	27	8.8	<b>0.006 *</b>	1.200	1.200	1	27	173	<b>&lt;0.001 *</b>
	Parasitoids	0.195	0.195	1	30	2.51	0.123	0.168	0.168	1	30	2.32	0.138	0.001	0.001	1	30	2.62	0.116
	Predators	77.800	77.800	1	30	60.5	<b>&lt;0.001 *</b>	3.290	3.290	1	27	3.65	<b>0.067 .</b>	49.100	49.100	1	30	215	<b>&lt;0.001 *</b>
	Herbivores	72.200	72.200	1	21.5	1.79	0.195	14.900		1	22	0.318	0.578	20.700	20.700	1	20.1	9.75	<b>0.005 *</b>
	Detritivores	0.004	0.004	1	30	1.81	0.188	0.031	0.031	1	30	12.2	<b>0.002 *</b>	0.013	0.013	1	27	82.5	<b>&lt;0.001 *</b>

Table A3. Raw, rarefied and extrapolated taxonomic richness values for each assemblage and trophic group. Raw richness is the total number of taxa encountered in each treatment across all sampling locations (blocks, pitfall traps). Rarefied richness is the expected number of taxa at the lowest number of individuals caught within each treatment; standard errors are from random iterations of the species accumulation (rarefaction) curve for the treatment that had greater arthropod abundance (Fig. 3). Extrapolated richness values are the expected number of taxa at twice the sampling effort; standard errors for extrapolated richness values are those of richness estimates.

Assemblage	Group	Raw Richness		Rarefied Richness		Extrapolated Richness	
		CT	FT	CT	FT	CT	FT
Canopy	All	35	33	35	32±0.8	38±3	34±1.0
	Parasitoids	6	5	6	5±0.3	6±0.0	5±0.0
	Predators	10	6	9±0.7	6	15±6	6±0.5
	Herbivores	9	10	9±0.3	10	9±0.2	10±0.0
	Detritivores	8	10	8	9±0.9	8±0.2	11±1
Ground	All	31	35	30±1.1	35	35±4.3	40±4.5
	Predators	11	13	11	12±0.8	11±0.0	13±0.9
	Herbivores	7	8	6±0.7	8	9±2.5	9±1.4
	Detritivores	12	13	11±0.9	13	18±7	16±5