

Supporting information to the paper

Quizhpe W. et al. Forest diversity and structure in the Amazonian mountains ranges of southeastern Ecuador

Table S1. Geographic location and altitude of permanent monitored plots.

Provinces	Locality	Altitude (ma.s.l)	Coordinates
	Nangaritzza-Terra Firme	920	04°15'01"S–78°39'36"W
Zamora	Nangaritzza-Tepuy	1620	04°15'32"S–78°41'04"W
Chinchiipe	Wawaime-Terra Firme	1200	03°34'22"S–78°26'44"W
	Wawaime-Tepuy	1650	03°35'10"S–78°26'30"W
	Wusui-Terra Firme	700	02°06'25"S–77°44'42"W
Morona	Wusui-Tepuy	1340	02°05'30"S–77°45'52"W
Santiago	Kuankos-Terra Firme	700	03°02'55"S–78°13'41"W
	Kuankos-Tepuy	1150	03°03'45"S–78°14'47"W

Table S2. Values of Relative Diversity and number of species determined in the forests of southeastern Ecuador.

Family	# Species	Relative Diversity
Fabaceae	51	9.9
Rubiaceae	40	7.7
Euphorbiaceae	36	7.0
Lauraceae	36	7.0
Moraceae	27	5.2
Sapotaceae	19	3.7
Clusiaceae	18	3.5
Melastomataceae	18	3.5
Myristicaceae	15	2.9
Burseraceae	14	2.7
Cecropiaceae	14	2.7
Annonaceae	13	2.5
Myrtaceae	13	2.5
Arecaceae	12	2.3
Flacourtiaceae	11	2.1
Sapindaceae	10	1.9
Bombacaceae	9	1.7
Lecythidaceae	9	1.7
Apocynaceae	7	1.4
Chrysobalanaceae	7	1.4
Myrsinaceae	7	1.4
Theaceae	7	1.4
Araliaceae	6	1.2
Malpighiaceae	6	1.2
Polygonaceae	6	1.2
Anacardiaceae	5	1.0
Cyatheaceae	5	1.0
Nyctaginaceae	5	1.0
Simaroubaceae	5	1.0
Sterculiaceae	5	1.0
Aquifoliaceae	4	0.8
Cunoniaceae	4	0.8
Elaeocarpaceae	4	0.8
Icacinaceae	4	0.8
Boraginaceae	3	0.6
Chloranthaceae	3	0.6
Magnoliaceae	3	0.6
Rutaceae	3	0.6
Sabiaceae	3	0.6

Solanaceae	3	0.6
Violaceae	3	0.6
Vochysiaceae	3	0.6
Actinidiaceae	2	0.4
Bignoniaceae	2	0.4
Combretaceae	2	0.4
Humiriaceae	2	0.4
Lacistemataceae	2	0.4
Linaceae	2	0.4
Ochnaceae	2	0.4
Podocarpaceae	2	0.4
Proteaceae	2	0.4
Rosaceae	2	0.4
Tiliaceae	2	0.4
Verbenaceae	2	0.4
Asteraceae	1	0.2
Brunelliaceae	1	0.2
Capparidaceae	1	0.2
Clethraceae	1	0.2
Cyrillaceae	1	0.2
Ebenaceae	1	0.2
Ericaceae	1	0.2
Erythroxylaceae	1	0.2
Marcgraviaceae	1	0.2
Menispermaceae	1	0.2
Monimiaceae	1	0.2
Olacaceae	1	0.2
Rhamnaceae	1	0.2
Rhizophoraceae	1	0.2
Staphyleaceae	1	0.2
Symplocaceae	1	0.2
Ulmaceae	1	0.2
<hr/>		
	517	100

Table S3. Structural parameters of the three most ecologically important species recorded in each of the plots analyzed in the Terra Firme and Tepuy Forests. DR Relative Density; Dom Relative Dominance; IVI, Importance Value Index.

Site/Plot	Especie	DR (%)	Dom. (%)	IVI (%)
Nangaritza TF	<i>Chrysophyllum sanguineolentum</i>	19.1	23.56	42.67
	<i>Nectandra sp.</i>	5.52	6.525	12.04
	<i>Aspidosperma megalocarpon</i>	3.58	4.5	8.08
Nangaritza T	<i>Alchornea grandiflora</i>	9.62	10.97	20.59
	<i>Ormosia sp.</i>	4.18	5.86	10.04
	<i>Podocarpus tepuiensis</i>	1.88	7.82	9.712
Wawaime TF	<i>Wettinia maynensis</i>	12.76	5.07	17.83
	<i>Chrysophyllum sanguineolentum</i>	4.747	9.46	14.21
	<i>Osteophloeum platyspermum</i>	3.16	10.34	13.5
Wawaime T	<i>Alchornea grandiflora</i>	21.34	29.3	50.64
	<i>Purdiaea nutans</i>	22.02	26.77	48.79
	<i>Neea ovalifolia</i>	9.43	6.1	15.54
Wisui TF	<i>Otoba glycyarpa</i>	9.79	14.17	23.97
	<i>Wettinia maynensis</i>	9.64	2.59	12.23
	<i>Chimarrhis hookeri</i>	3.421	7.46	10.88
Wisui T	<i>Humiriastrum mapiriense</i>	8.52	16.36	24.89
	<i>Pseudolmedia laevigata</i>	9.23	10.75	19.99
	<i>Macrobium sp.</i>	9.84	10.03	19.88
Kuankos TF	<i>Wettinia maynensis</i>	17.11	4.51	21.62
	<i>Otoba glycyarpa</i>	6.28	11.1	17.38
	<i>Dacryodes peruviana</i>	5.88	6.55	12.43
Kuankus T	<i>Chrysophyllum sanguineolentum</i>	11.44	17.05	28.49
	<i>Schefflera harmsii</i>	15.61	12.45	28.06
	<i>Socratea exorrhiza</i>	13.59	8.18	21.77

Table S4. Dissimilarity between forest types and sampling sites, species and abundance values and percentage contribution for dissimilarity are shown.

TF I & TY I		Average dissimilarity = 97.4			
	TF I	TY I			
Species	Av.Abund	Av.Abund	Av.Diss	Contrib%	Cum.%
<i>Chrysophyllum.sanguineolentum</i>	0.08	5.12	10.99	11.28	11.28
<i>Alchornea.grandiflora</i>	0	1.84	4.121	4.231	15.51
<i>Nectandra.sp</i>	0	1.52	3.45	3.543	19.05
TF I & TF II		Average dissimilarity = 87.54			
	TF I	TF II			
<i>Wettinia.maynensis</i>	0.16	4.84	7.41	8.46	8.46
<i>Chrysophyllum.sanguineolentum</i>	5.12	1.8	6.32	7.21	15.67
<i>Iriartea.deltoidea</i>	0.04	2.56	4.41	5.03	20.7
Groups TF I & TY II		Average dissimilarity = 97.53			
	TF I	TY II			
<i>Chrysophyllum.sanguineolentum</i>	5.12	0	11.25	11.53	11.53
<i>Purdiaea.nutans</i>	0	3.92	9.05	9.27	20.8
<i>Alchornea.grandiflora</i>	0	3.8	8.57	8.79	29.6
Groups TF I & TF III		Average dissimilarity = 99.3			
	TF I	TF III			
<i>Chrysophyllum.sanguineolentum</i>	5.12	0	9.54	9.61	9.61
<i>Otoba.glycicarpa</i>	0	2.52	5.3	5.34	14.95
<i>Wettinia.maynensis</i>	0.16	2.48	5.13	5.16	20.11
Groups TF I & TY III		Average dissimilarity = 98.94			
	TF I	TY III			
<i>Chrysophyllum.sanguineolentum</i>	5.12	0	7.59	7.67	7.67
<i>Macrolobium.sp</i>	0.16	3.88	6.43	6.49	14.16
<i>Humiriastrum.mapiriense</i>	0.04	3.36	5.98	6.04	20.21
Groups TF I & TF IV		Average dissimilarity = 98.55			
	TF I	TF IV			
<i>Chrysophyllum.sanguineolentum</i>	5.12	0	8.91	9.05	9.05
<i>Wettinia.maynensis</i>	0.16	5.12	8.84	8.97	18.02
<i>Otoba.glycycarpa</i>	0	1.88	3.74	3.79	21.81
Groups TF I & TY IV		Average dissimilarity = 93.34			
	TF I	TY IV			
<i>Chrysophyllum.sanguineolentum</i>	5.12	3.4	11.47	12.29	12.29
<i>Schefflera.harmsii</i>	0	4.64	7.26	7.78	20.1
<i>Socratea.exorrhiza</i>	0.16	4.04	6.35	6.81	26.88
Groups TY I & TF II		Average dissimilarity = 98.29			
	TY I	TF II			
<i>Wettinia.maynensis</i>	0.04	4.84	8.59	8.74	8.74
<i>Iriartea.deltoidea</i>	0	2.56	5.06	5.15	13.89

<i>Euterpe.catinga</i>	0	2.52	4.35	4.43	18.32
Groups TY I & TY II	Average dissimilarity = 85,28				
	TY I	TY II			
<i>Alchornea.grandiflora</i>	1.84	3.8	12.1	12.88	12.88
<i>Purdiaea.nutans</i>	0.16	3.92	10.89	11.6	24.48
<i>Neea.ovalifolia</i>	0	1.68	4.65	4.96	29.43
Groups TY I & TF III	Average dissimilarity = 99.87				
	TY I	TF III			
<i>Otoba.glycycarpa</i>	0.00	2.52	6.30	6.31	6.31
<i>Wettinia.maynensis</i>	0.04	2.48	5.86	5.87	12.17
<i>Alchornea.grandiflora</i>	1.84	0.00	4.11	4.12	16.29
Groups TY I & TY III	Average dissimilarity = 98.81				
	TY I	TY III			
<i>Humiriastrum.mapiriense</i>	0.68	3.36	7.654	7.746	7.746
<i>Macrolobium.sp</i>	0	3.88	7.088	7.173	14.92
<i>Pseudolmedia.laevigata</i>	0	3.64	5.335	5.4	20.32
Groups TY I & TF IV	Average dissimilarity = 99.75				
	TY I	TF IV			
<i>Wettinia.maynensis</i>	0.04	5.12	10.01	10.04	10.04
<i>Otoba.glycycarpa</i>	0	1.88	4.411	4.422	14.46
<i>Alchornea.grandiflora</i>	1.84	0	3.798	3.807	18.27
Groups TY I & TY IV	Average dissimilarity = 99.02				
	TY I	TY IV			
<i>Schefflera.harmsii</i>	0	4.64	8.247	8.329	8.329
<i>Chrysophyllum.sanguineolentum</i>	0.08	3.4	8.228	8.309	16.64
<i>Socratea.exorrhiza</i>	0	4.04	6.954	7.024	23.66
Groups TF II & TY II	Average dissimilarity = 96.49				
	TF II	TY II			
<i>Wettinia.maynensis</i>	4.84	0	8.722	9.039	9.039
<i>Purdiaea.nutans</i>	0	3.92	7.079	7.337	16.38
<i>Alchornea.grandiflora</i>	0	3.8	6.759	7.005	23.38
Groups TF II & TF III	Average dissimilarity = 96.65				
	TF II	TF III			
<i>Wettinia.maynensis</i>	4.84	2.48	9.758	10.1	10.1
<i>Iriartea.deltoidea</i>	2.56	1.44	5.994	6.202	16.3
<i>Otoba.glycycarpa</i>	0	2.52	4.249	4.396	20.69
Groups TF II & TY III	Average dissimilarity = 97.24				
	TF II	TY III			
<i>Pseudolmedia.laevigata</i>	2.52	3.64	6.66	6.85	6.85
<i>Wettinia.maynensis</i>	4.84	0.20	6.16	6.34	13.18
<i>Macrolobium.sp</i>	0.00	3.88	5.25	5.40	18.58
Groups TF II & TF IV	Average dissimilarity = 95.5				

	TF II	TF IV			
<i>Wettinia.maynensis</i>	4.84	5.12	11.73	12.28	12.28
<i>Iriartea.deltoidea</i>	2.56	0	4.134	4.329	16.61
<i>Euterpe.catinga</i>	2.52	0	3.646	3.817	20.42
Groups TF II & TY IV		Average dissimilarity = 95.3			
	TF II	TY IV			
<i>Wettinia.maynensis</i>	4.84	0	7.351	7.714	7.714
<i>Chrysophyllum.sanguineolentum</i>	1.8	3.4	6.82	7.157	14.87
<i>Schefflera.harmsii</i>	0	4.64	6.136	6.439	21.31
Groups TF III & TY III		Average dissimilarity = 99.75			
	TF III	TY III			
<i>Macrolobium.sp</i>	0.00	3.88	6.25	6.27	6.27
<i>Humiriastrum.mapiriense</i>	0.00	3.36	5.95	5.97	12.23
<i>Pseudolmedia.laevigata</i>	0.24	3.64	5.12	5.13	17.36
Groups TF III & TF IV		Average dissimilarity = 85,28			
	TF III	TF IV			
<i>Wettinia.maynensis</i>	2.48	5.12	11.84	12.26	12.26
<i>Otoba.glycycarpa</i>	2.52	1.88	7.588	7.857	20.11
<i>Grias.neuberthii</i>	0.8	1.32	3.58	3.707	23.82
Groups TF III & TY IV		Average dissimilarity = 99.86			
	TF III	TY IV			
<i>Schefflera.harmsii</i>	0	4.64	7.29	7.30	7.30
<i>Chrysophyllum.sanguineolentum</i>	0	3.4	6.89	6.90	14.20
<i>Socratea.exorrhiza</i>	0	4.04	6.17	6.17	20.37
Groups TF IV & TY IV		Average dissimilarity = 85,28			
	TF IV	TY IV			
<i>Wettinia.maynensis</i>	5.12	0.00	8.38	8.46	8.46
<i>Schefflera.harmsii</i>	0.00	4.64	6.88	6.95	15.40
<i>Socratea.exorrhiza</i>	0.64	4.04	6.58	6.64	22.04