Supporting information to the paper

Quizhpe W. et al. Diversity and structure of the forests in Amazonian mountains ranges on southeastern Ecuador.

**Appendix S1.** 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 |
|  | 517 | 100 |

**Appendix S2.** 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 | *Chrysophyllum sanguineolentum* | 19.1 | 23.56 | 42.67 |
| *Nectandra sp.* | 5.52 | 6.525 | 12.04 |
| *Aspidosperma megalocarpon* | 3.58 | 4.5 | 8.08 |
| Nangaritza T | *Alchornea grandiflora* | 9.62 | 10.97 | 20.59 |
| *Ormosia sp.* | 4.18 | 5.86 | 10.04 |
| *Podocarpus tepuiensis* | 1.88 | 7.82 | 9.712 |
| Wawaime TF | *Wettinia maynensis* | 12.76 | 5.07 | 17.83 |
| *Chrysophyllum sanguineolentum* | 4.747 | 9.46 | 14.21 |
| *Osteophloeum platyspermum* | 3.16 | 10.34 | 13.5 |
| Wawaime T | *Alchornea grandiflora* | 21.34 | 29.3 | 50.64 |
| *Purdiaea nutans* | 22.02 | 26.77 | 48.79 |
| *Neea ovalifolia* | 9.43 | 6.1 | 15.54 |
| Wisui TF | *Otoba glycycarpa* | 9.79 | 14.17 | 23.97 |
| *Wettinia maynensis* | 9.64 | 2.59 | 12.23 |
| *Chimarrhis hookeri* | 3.421 | 7.46 | 10.88 |
| Wisui T | *Humiriastrum mapiriense* | 8.52 | 16.36 | 24.89 |
| *Pseudolmedia laevigata* | 9.23 | 10.75 | 19.99 |
| *Macrolobium sp.* | 9.84 | 10.03 | 19.88 |
| Kuankos TF | *Wettinia maynensis* | 17.11 | 4.51 | 21.62 |
| *Otoba glycycarpa* | 6.28 | 11.1 | 17.38 |
| *Dacryodes peruviana* | 5.88 | 6.55 | 12.43 |
| Kuankus T | *Chrysophyllum sanguineolentum* | 11.44 | 17.05 | 28.49 |
| *Schefflera harmsii* | 15.61 | 12.45 | 28.06 |
| *Socratea exorrhiza* | 13.59 | 8.18 | 21.77 |

**Appendix S3.** Dissimilarity between forest types and sampling sites, species and abundance values and percentage contribution for dissimilarity are shown.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TF I & TYI** | **Average dissimilarity = 97.4** | | | | |
|  | **TF I** | **TY I** |  |  |  |
| **Species** | **Av.Abund** | **Av.Abund** | **Av.Diss** | **Contrib%** | **Cum.%** |
| *Chrysophyllum.sanguineolentum* | 0.08 | 5.12 | 10.99 | 11.28 | 11.28 |
| *Alchornea.grandiflora* | 0 | 1.84 | 4.121 | 4.231 | 15.51 |
| *Nectandra.sp* | 0 | 1.52 | 3.45 | 3.543 | 19.05 |
| **TF I & TF II** | **Average dissimilarity = 87.54** | | | | |
|  | **TF I** | **TF II** |  |  |  |
| *Wettinia.maynensis* | 0.16 | 4.84 | 7.41 | 8.46 | 8.46 |
| *Chrysophyllum.sanguineolentum* | 5.12 | 1.8 | 6.32 | 7.21 | 15.67 |
| *Iriartea.deltoidea* | 0.04 | 2.56 | 4.41 | 5.03 | 20.7 |
| **Groups TF I & TY II** | **Average dissimilarity = 97.53** | | | | |
|  | **TF I** | **TY II** |  |  |  |
| *Chrysophyllum.sanguineolentum* | 5.12 | 0 | 11.25 | 11.53 | 11.53 |
| *Purdiaea.nutans* | 0 | 3.92 | 9.05 | 9.27 | 20.8 |
| *Alchornea.grandiflora* | 0 | 3.8 | 8.57 | 8.79 | 29.6 |
| **Groups TF I & TF III** | **Average dissimilarity = 99.3** | | | | |
|  | **TF I** | **TF III** |  |  |  |
| *Chrysophyllum.sanguineolentum* | 5.12 | 0 | 9.54 | 9.61 | 9.61 |
| *Otoba glycicarpa* | 0 | 2.52 | 5.3 | 5.34 | 14.95 |
| *Wettinia.maynensis* | 0.16 | 2.48 | 5.13 | 5.16 | 20.11 |
| **Groups TF I & TY III** | **Average dissimilarity = 98.94** | | | | |
|  | **TF I** | **TY III** |  |  |  |
| *Chrysophyllum.sanguineolentum* | 5.12 | 0 | 7.59 | 7.67 | 7.67 |
| *Macrolobium.sp* | 0.16 | 3.88 | 6.43 | 6.49 | 14.16 |
| *Humiriastrum.mapiriense* | 0.04 | 3.36 | 5.98 | 6.04 | 20.21 |
| **Groups TF I & TF IV** | **Average dissimilarity = 98.55** | | | | |
|  | **TF I** | **TF IV** |  |  |  |
| *Chrysophyllum.sanguineolentum* | 5.12 | 0 | 8.91 | 9.05 | 9.05 |
| *Wettinia.maynensis* | 0.16 | 5.12 | 8.84 | 8.97 | 18.02 |
| *Otoba.glycycarpa* | 0 | 1.88 | 3.74 | 3.79 | 21.81 |
| **Groups TF I & TY IV** | **Average dissimilarity = 93.34** | | | | |
|  | **TF I** | **TY IV** |  |  |  |
| *Chrysophyllum.sanguineolentum* | 5.12 | 3.4 | 11.47 | 12.29 | 12.29 |
| *Schefflera.harmsii* | 0 | 4.64 | 7.26 | 7.78 | 20.1 |
| *Socratea.exorrhiza* | 0.16 | 4.04 | 6.35 | 6.81 | 26.88 |
| **Groups TY I & TF II** | **Average dissimilarity = 98.29** | | | | |
|  | **TY I** | **TF II** |  |  |  |
| *Wettinia.maynensis* | 0.04 | 4.84 | 8.59 | 8.74 | 8.74 |
| *Iriartea.deltoidea* | 0 | 2.56 | 5.06 | 5.15 | 13.89 |
| *Euterpe.catinga* | 0 | 2.52 | 4.35 | 4.43 | 18.32 |
| **Groups TY I & TY II** | **Average dissimilarity = 85,28** | | | | |
|  | **TY I** | **TY II** |  |  |  |
| *Alchornea.grandiflora* | 1.84 | 3.8 | 12.1 | 12.88 | 12.88 |
| *Purdiaea.nutans* | 0.16 | 3.92 | 10.89 | 11.6 | 24.48 |
| *Neea.ovalifolia* | 0 | 1.68 | 4.65 | 4.96 | 29.43 |
| **Groups TY I & TF III** | **Average dissimilarity = 99.87** | | | | |
|  | **TY I** | **TF III** |  |  |  |
| *Otoba.glycycarpa* | 0.00 | 2.52 | 6.30 | 6.31 | 6.31 |
| *Wettinia.maynensis* | 0.04 | 2.48 | 5.86 | 5.87 | 12.17 |
| *Alchornea.grandiflora* | 1.84 | 0.00 | 4.11 | 4.12 | 16.29 |
| **Groups TY I & TY III** | **Average dissimilarity = 98.81** | | | | |
|  | **TY I** | **TY III** |  |  |  |
| *Humiriastrum.mapiriense* | 0.68 | 3.36 | 7.654 | 7.746 | 7.746 |
| *Macrolobium.sp* | 0 | 3.88 | 7.088 | 7.173 | 14.92 |
| *Pseudolmedia.laevigata* | 0 | 3.64 | 5.335 | 5.4 | 20.32 |
| **Groups TY I & TF IV** | **Average dissimilarity = 99.75** | | | | |
|  | **TY I** | **TF IV** |  |  |  |
| *Wettinia.maynensis* | 0.04 | 5.12 | 10.01 | 10.04 | 10.04 |
| *Otoba.glycycarpa* | 0 | 1.88 | 4.411 | 4.422 | 14.46 |
| *Alchornea.grandiflora* | 1.84 | 0 | 3.798 | 3.807 | 18.27 |
| **Groups TY I & TY IV** | **Average dissimilarity = 99.02** | | | | |
|  | **TY I** | **TY IV** |  |  |  |
| *Schefflera.harmsii* | 0 | 4.64 | 8.247 | 8.329 | 8.329 |
| *Chrysophyllum.sanguineolentum* | 0.08 | 3.4 | 8.228 | 8.309 | 16.64 |
| *Socratea.exorrhiza* | 0 | 4.04 | 6.954 | 7.024 | 23.66 |
| **Groups TF II & TY II** | **Average dissimilarity = 96.49** | | | | |
|  | **TF II** | **TY II** |  |  |  |
| *Wettinia.maynensis* | 4.84 | 0 | 8.722 | 9.039 | 9.039 |
| *Purdiaea.nutans* | 0 | 3.92 | 7.079 | 7.337 | 16.38 |
| *Alchornea.grandiflora* | 0 | 3.8 | 6.759 | 7.005 | 23.38 |
| **Groups TF II & TF III** | **Average dissimilarity = 96.65** | | | | |
|  | **TF II** | **TF III** |  |  |  |
| *Wettinia.maynensis* | 4.84 | 2.48 | 9.758 | 10.1 | 10.1 |
| *Iriartea.deltoidea* | 2.56 | 1.44 | 5.994 | 6.202 | 16.3 |
| *Otoba.glycycarpa* | 0 | 2.52 | 4.249 | 4.396 | 20.69 |
| **Groups TF II & TY III** | **Average dissimilarity = 97.24** | | | | |
|  | **TF II** | **TY III** |  |  |  |
| Pseudolmedia.laevigata | 2.52 | 3.64 | 6.66 | 6.85 | 6.85 |
| Wettinia.maynensis | 4.84 | 0.20 | 6.16 | 6.34 | 13.18 |
| Macrolobium.sp | 0.00 | 3.88 | 5.25 | 5.40 | 18.58 |
| **Groups TF II & TF IV** | **Average dissimilarity = 95.5** | | | | |
|  | **TF II** | **TF IV** |  |  |  |
| *Wettinia.maynensis* | 4.84 | 5.12 | 11.73 | 12.28 | 12.28 |
| *Iriartea.deltoidea* | 2.56 | 0 | 4.134 | 4.329 | 16.61 |
| *Euterpe.catinga* | 2.52 | 0 | 3.646 | 3.817 | 20.42 |
| **Groups TF II & TY IV** | **Average dissimilarity = 95.3** | | | | |
|  | **TF II** | **TY IV** |  |  |  |
| *Wettinia.maynensis* | 4.84 | 0 | 7.351 | 7.714 | 7.714 |
| *Chrysophyllum.sanguineolentum* | 1.8 | 3.4 | 6.82 | 7.157 | 14.87 |
| *Schefflera.harmsii* | 0 | 4.64 | 6.136 | 6.439 | 21.31 |
| **Groups TF III & TY III** | **Average dissimilarity = 99.75** | | | | |
|  | **TF III** | **TY III** |  |  |  |
| *Macrolobium.sp* | 0.00 | 3.88 | 6.25 | 6.27 | 6.27 |
| *Humiriastrum.mapiriense* | 0.00 | 3.36 | 5.95 | 5.97 | 12.23 |
| *Pseudolmedia.laevigata* | 0.24 | 3.64 | 5.12 | 5.13 | 17.36 |
| **Groups TF III & TF IV** | **Average dissimilarity = 85,28** | | | | |
|  | **TF III** | **TF IV** |  |  |  |
| *Wettinia.maynensis* | 2.48 | 5.12 | 11.84 | 12.26 | 12.26 |
| *Otoba.glycycarpa* | 2.52 | 1.88 | 7.588 | 7.857 | 20.11 |
| *Grias.neuberthii* | 0.8 | 1.32 | 3.58 | 3.707 | 23.82 |
| **Groups TF III & TY IV** | **Average dissimilarity = 99.86** | | | | |
|  | **TF III** | **TY IV** |  |  |  |
| *Schefflera.harmsii* | 0 | 4.64 | 7.29 | 7.30 | 7.30 |
| *Chrysophyllum.sanguineolentum* | 0 | 3.4 | 6.89 | 6.90 | 14.20 |
| *Socratea.exorrhiza* | 0 | 4.04 | 6.17 | 6.17 | 20.37 |
| **Groups TF IV & TY IV** | **Average dissimilarity = 85,28** | | | | |
|  | **TF IV** | **TY IV** |  |  |  |
| *Wettinia.maynensis* | 5.12 | 0.00 | 8.38 | 8.46 | 8.46 |
| *Schefflera.harmsii* | 0.00 | 4.64 | 6.88 | 6.95 | 15.40 |
| *Socratea.exorrhiza* | 0.64 | 4.04 | 6.58 | 6.64 | 22.04 |