

# **Annotated Checklist of the Vascular Plants of the Serranía de Pilón Lajas and the Adjacent Piedmont, Ballivian Province, Beni, Bolivia**

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This annotated checklist of the plants of the Serranía Pilón Lajas has been compiled from approximately 1300 specimens that have been collected in an area that includes the Andean piedmont from Rurrenabaque to Yucumo, the valley of the Río Quiquibey, the Serranía Pilón and the adjacent Serranía de Bala. The extensive collections at the Herbario Nacional de Bolivia (LPB) were reviewed and these other specimens were added to produce a preliminary checklist (Smith & Killeen, unpublished manuscript). Most of these collections were made by the senior author prior to his death between 1988 and 1991; additional collections were made by the second author, S. Beck., J. Solomon, A. Fournet, and a few other botanists.

Table 1 (see below) presents summary data for the flora of the region, listing the most diverse families in the zone, as well as a general classification of the species with respect to life forms. The list shows low numbers of epiphyte that are typically rich in montane humid forests. This anomaly can be attributed to a sampling bias, as the emphasis of the project was tree inventory with a strong effort dedicated to plot studies; likewise, lianas, shrubs and herbs are probably undersampled. In spite of the emphasis on tree inventory, it remains highly unlikely that the region has been adequately sampled for even this life form. Most collecting has been restricted to the areas immediately surrounding the two plots, and a narrow band of vegetation along the principal highway between Quiquibey and Yucumo. The recently created "Pilón Lajas Biosphere Reserve and Indigenous Territory" encompasses several additional habitat types, such as cloud forest, montane savanna, and riverine forest. The new protected area incorporates the very humid intermontane valley of the Río Quiquibey, the floodplain of the Río Alto Beni to the northwest, and the cloud forest regions of the Serranía de Beau that is the southwestern boundary of the reserve. Nee (1995) lists 1,093 genera and 2,496 species of vascular plants in his Flora of Amboro National Park and estimates that the total flora of that protected area is actually greater than 3,500 species.

(continued)

Table 1. Floristic diversity in the Serranía Pilón Lajas based on all known collections including all life forms; a) summary data for twenty most diverse families; b) summary data for all taxa; data derived from Smith & Killeen (1995).

| A. Twenty Most Diverse Families |       |          |        |         |
|---------------------------------|-------|----------|--------|---------|
|                                 | Genus | Species  |        |         |
| Rubiaceae                       | 27    | 79       |        |         |
| Leguminosaeae                   | 27    | 77       |        |         |
| Moraceae                        | 12    | 34       |        |         |
| Melastomataceae                 | 8     | 30       |        |         |
| Euphorbiaceae                   | 15    | 27       |        |         |
| Lauraceae                       | 7     | 23       |        |         |
| Solanaceae                      | 6     | 22       |        |         |
| Piperaceae                      | 3     | 22       |        |         |
| Polypodiaceae                   | 9     | 21       |        |         |
| Palmae                          | 13    | 20       |        |         |
| Acanthaceae                     | 8     | 17       |        |         |
| Sapindaceae                     | 7     | 16       |        |         |
| Myrtaceae                       | 4     | 16       |        |         |
| Annonaceae                      | 11    | 15       |        |         |
| Meliaceae                       | 4     | 15       |        |         |
| Adiantaceae                     | 4     | 14       |        |         |
| Araceae                         | 5     | 13       |        |         |
| Sapotaceae                      | 4     | 12       |        |         |
| Gesneriaceae                    | 3     | 12       |        |         |
| Aspleniaceae                    | 7     | 11       |        |         |
| B. Summary Data for All Taxa    |       | Families | Genera | Species |
| Pteridophytes                   |       | 11       | 31     | 62      |
| Monocotyledons                  |       | 13       | 46     | 74      |
| Dicotyledons                    |       | 78       | 299    | 632     |
| Total                           |       | 102      | 376    | 768     |

The newly created Reserva de la Biosfera y Terretorio Indigena de Pilón Lajas incorporates many of the same vegetation types found in Amboro National Park. However, the altitudinal variation and the intensity of the rain shadow effect on the downwind side of the mountains are substantially less pronounced in comparison to Amboro. As such, the total flora of the Pilón Lajas will probably eventually be documented at around 2500 to 3000 species. This preliminary list then would provide only between 24 to 30% of the total flora of the new protected area.

(continued)

## PTERIDOPHYTES

### Lycopodiaceae (1/1)

Lycopodiella cernua (L.) Pich.-Sermoli  
herb, 255-350 m; Killeen 2951; Smith 13942

### Selaginellaceae (1/1)

Selaginella anceps (C. Presl) C. Presl  
herb, 255 m; Smith 13937

### ADIANTACEAE (4/14)

Adiantum latifolium Lam.  
Smith 12913, 13814

Adiantum obliquum Willd.  
herb, 320 m; Beck 8081

Adiantum pulverulentum L.  
herb, 320 m; Beck 8087

Adiantum platyphyllum Sw.  
herb, 850 m; Smith 13811, 13997

Adiantum poeppigianum (Kuhn) Hieron.  
herb, 235 m; Fay & Fay 2127

Adiantum tetraphyllum Willd.  
herb, 700 m; Solomon 13927

Adiantum aff. villosum L.  
herb, 220 m; Smith 12914

Adiantum sp. indet  
herb, 1035 m; Smith 13168

Antrophyllum lineatum (Sw.) Kaulfuss  
epiphyte, 850 m; Smith 14146

Pteris altissima Poir. in Lam.  
herb, 350 m; Beck 8113

Pteris grandifolia L.  
herb, 320 m; Beck 8135; Smith 13833

Pteris propinqua Agardh  
herb, 220-850 m; Smith 12909, 14034

Vittaria lineata (L.) J. E. Smith  
(unknown collection)

### ASPLENIACEAE (7/11)

Asplenium auritum Sw.  
Smith 13292

Asplenium serratum L.  
epiphyte, 220 m; Smith 12904

Asplenium aff. tricholepis Rosenstock  
herb, 850 m; Smith 13996

Bolbitis serratifolia (Mertens ex Kaulf) Schott  
Solomon 13883

Tectaria incisa Cav.  
Smith 12883, 13782

Lomariopsis japurensis (Mart.) J. Smith  
Smith 884

Olfersia cervina (L.) Kunze  
herb, 850 m; Smith 14036

Polybotrya fractiserialis (Baker) J. Smith  
(unknown collection)

Polybotrya caudata Kunze  
Smith 12912

#### **BLECHNACEAE (1/1)**

Blechnum occidentale L.  
herb, 700 m; Solomon 13935; Fay & Fay 2052, 2030

#### **CYATHACEAE (2/4)**

Alsophila cuspidata (Kunze) Conant  
tree, 500-850 m; Solomon 13952; Smith 13270, 14044

Cyathea cf. caracasana (Klotzsch) Domin  
tree, 850 m; Smith 14045

Cyathea multiflora F. E. Smith  
shrub, 700 m; Solomon 13955; Smith 13955

Cyathea poeppigii (Hook.) Domin  
Smith 13267

#### **DENNSTAEDTIACEAE (1/1)**

Dennstaedia bipinnata (Cav.) Maxon  
herb, 220 m; Smith 12893

#### **DRYOPTERIDACEAE (1/1)**

Cyclopeltis semicordata (Sw.) J. Smith  
herb, 220 m; Smith 12911

#### **POLYPODIACEAE (9/21)**

Campyloneuron angustipaleatum (Alston) M. Mey ex Lellinger  
Smith 13825, 13290, 14032

Campyloneuron chlorolepsis Alston  
epiphyte, 700 m; Smith 13294

Campyloneuron fuscusquamatum Lellinger  
epiphyte, 350 m; Killeen 3586

Campyloneuron phyllitidis (L.) K. Presl  
Smith 13277

Campyloneuron repens (Aublet) C. Presl  
epiphyte, 900 m; Solomon 13893; Smith 13812, 13821

Diplazium striatum (L.) Presl  
herb, 320 m; Beck 8096

Microgamma lycopodioides (L.) Copel  
epiphyte, 850 m; Smith 14033

Microgamma reptans (Cav.) A. R. Smith  
epiphyte, 255 m; Smith 13940

Niphidium carinatum Lellinger  
(unknown collection)

Niphidium crassifolium (L.) Lellinger  
epiphyte, 900 m; Smith 13818

Niphidium rufosquamatum Lellinger  
epiphyte, 700 m; Smith 13293

Pecluma plumula (Humb. & Bonpl. ex Willd.) M. G. Price  
epiphyte, 235 m; Fay & Fay 2063

Pecluma sp. indet  
epiphyte, 850 m; Killeen & K. Smith 3628

Phlebodium decumanum (Willd.) J. Smith  
epiphyte, 235 m; Fay & Fay 2120  
Pleopeltis mucrocarpa (Bory ex Willd.) Kaulfuss  
epiphyte, 850 m; Killeen 3618  
Polypodium caceresii Sodiro  
epiphyte, 700 m; Solomon 13895  
Polypodium percussum Cav.  
epiphyte, 700 m; Beck 1715; Solomon 13876  
Polypodium plumula Humb. & Bonpl. ex Willd.  
epiphyte, 700 m; Beck 1710  
Polypodium polypodioides (L.) Watt  
epiphyte, 235 m; Fay & Fay 2059  
Tectaria incisa Cav.  
herb, 320 m; Beck 8091  
Gen. indet; epiphyte, 760 m; Smith 13256

#### **SCHIZACAEEAE (2/2)**

Lygodium venustum Swartz  
vine; 270 m; Beck 8270  
Schizaea elegans (Vahl) Sw.  
herb, 320 m; Beck 8068

#### **THELYPTERIDACEAE (2/5)**

Macrothelypteris torresiana (Guad.) Ching  
herb, 220-760 m; Smith 12915, 13259  
Thelypteris (Cyclosorus) grandis A. R. Smith var. kunzeana (C. Chr.) A. R. Smith  
herb, 270 m; Beck 8297  
Thelypteris (Stieropteris) polyphlebia (C. Chr.) C. Morton  
herb, 1110 m; Solomon 14802  
Thelypteris (Meniscium) serrata (Cav.) Alston  
herb, 700 m; Solomon 13905  
Thelypteris (Amauropelta sect. Lepidoneuron) sp. indet  
epiphyte, 700 m; Solomon 13887

(continued)

## MONOCOTYLEDONS

### ARACEAE (5/13)

Anthurium clavigerum Poeppig in Poeppig & Endl.  
epiphyte, 900 m; Killeen 2972; Smith 13780

Anthurium kunthii Poeppig in Poeppig & Endl.  
Smith 13813

Anthurium paraguayense Engler var. paraguayense  
epiphyte, 950 m; Beck 6996

Anthurium kunthii Poeppig  
epiphyte, 900 m; Smith 13813

Monstera dilacterata (Koch & Sello) K. Koch  
Smith 12873

Monstera dubia (H.B.K.) Engl. & K. Krause  
epiphyte, 850 m; Smith 14144

Monstera obliqua Miq.  
epiphyte, 350 m; Killeen 3587

Philodendron ornatum Schott  
epiphyte/vine; 800 m; Smith 13298

Philodendron megalophyllum Schott  
epiphyte, 900 m; Killeen 3261

Syngonium podophyllum Schott  
epiphyte/vine; 350-900 m; Smith 13820; Vargas & Seidel 2006; Killeen 3676

Xanthosoma sp. indet  
herb, 700 m; Smith 13977  
Gen. indet; epiphyte, 850 m; Killeen 3617  
Gen. indet; epiphyte, 220 m; Smith 12873

### BROMELIACEAE (3/5)

Tillandsia spiculosa Griseb. micrantha (Baker) L. B. Smith  
epiphyte, 350-850 m; Killeen 3626; Beck 1733

Tillandsia fendleri Griseb.  
epiphyte, 700 m; Beck 1735

Aechmea setigera C. Martius ex J. A. Schultes & Schules f.  
epiphyte, 400 m; Killeen 3142  
Gen. indet; epiphyte, 700-850 m; Smith 13296; Killeen 3633  
Gen. indet; Killeen 3626

### COMMELINACEAE (3/4)

Campelia zanonii (L.) H.B.K.  
herb, 320-465 m; Beck 80956; Smith 13273; Killeen 2875, 3680.

Dichorsandra hexandra (Aublet) Standlley  
vine; 220-850 m; Smith 12895, 13530, 14055

Dichorisandra sp. nov.  
herb, 220-850 m; Smith 12878; Killeen 3636; Beck 8033

Tradescantia valida Bruchn.  
(Unknown collection)

### COSTACEAE (2/5)

Costus scaber Ruiz & Pavon  
herb, 220-500 m; Smith 12908, 13234, 13235

Costus guanaiensis Rusby  
herb, 270-500 m; Smith 13236; Beck 6866

Costus sp. nov.

herb, 450 m; Smith 13774

Renealmia breviscapa Poeppig & Endl.

herb, 220-850 m; Smith 12877, 13995

Renealmia racemosa Poeppig. & Endl.

Solomon 13953

### **CYCLANTHACEAE (3/3)**

Cyclanthus bipartitus L.

herb, 850 m; Smith 13999

Carludovica palmata Ruiz & Pavon

herb, 360-1035 m; Smith 13163, 13832; Killeen 3601

Thorocarpus bissectus (Vell.) Harling

liana-epiphyte, 350-850 m; Smith 13862; Killeen 2914

### **CYPERACEAE**

Cyperus odoratus L.

herb, 700 m; Solomon 13933

### **GRAMINEAE (5/5)**

Guadua cf. angustifolia Kunth

tree, 350-1050 m; Smith 13317; Killeen 2891

Lasiacis ligulata A. Hitchc. & Chase

herb, 660 m; Solomon 13902; Smith 13576

Olyra latifolia L.

herb, 320-700 m; Solomon 13930; Smith 13253 ; Beck 8032

Pariana bicolor Tulin

herb, 220 m; Solomon 13925; Smith 12891

Pharus latifolius L.

herb, 220 m; Smith 12907

### **HAEMODORACEAE (1/1)**

Xiphidium caeruleum Aublet

herb, 500-700 m; Smith 13227; Solomon 13898

### **LILIACEAE (1/1)**

Smilax sp. indet

vine; 965 m; Smith 13756

### **MARANTACEAE (2/3)**

Calathea lutea (Aublet) Schult.

herb, 220 m; Smith 12874

Calathea capitata Ruiz & Pavon

herb, 220-850 m; Smith 12876, 13992; Killeen 3631

Monotagma laxum (Poeppig & Endl.

herb, 220 m; Smith 12875; Beck 6865

### **MUSACEAE (1/3)**

Heliconia robusta Pax

herb, 500 m; Smith 13213

Heliconia subulata R. & P.

herb, 350-900 m; Seidel & Vargas 2143; Smith 12916, 13809

Heliconia cf. lingulata Ruiz & Pavon

herb, 320-850 m; Smith 14024; Beck 8164

## ORCHIDACEAE (det. R. Vasquez)

Erythroides anchorifera (Schltr.) Garay  
????, 700 m; Solomon 13884

Habenaria monorrhiza (Sw.) Reichb. F.  
????, 700 m; Solomon 13932

Habenaria speciosa Poeppig & Endl.  
herb, 500-1035 m; Smith 13205; Smith 13271;

Maxilaria alpestris Lindl.  
epiphyte, 850 m; Smith 13863

Maxilaria equitans (Schltr.) Garay  
Smith 14124

Phragmopedium caricinum (Lindl.) Reichb. f.  
herb, 660 m; Smith & Buddensiek 13522; Solomon 13885; Beck 6860

Stelis sp. indet  
epiphyte, 850 m; Smith 14104

Xylobium sp.  
epiphyte, 700-900 m; Solomon 13956; Killeen 3258

Gen. indet.; epiphyte, 850 m; Killeen 2892

Gen. indet.; epiphyte, 850 m; Smith 14105

## PALMAE (13/20)

Astrocaryum murumuru C. Martius  
tree, 230-900 m; Smith 13623, 14072.

Bactris major Jacq. var. socialis  
tree, 230 m; Smith 14060

Chamaedorea angustisecta Burret  
shrub, 330-900 m; Hanagarth 119

Chamaedorea lanceolata (R. & P.) Kunth  
Smith 12857

Chamaedorea pinnatifrons (Jacq.) Oerst.  
shrub, 235-900 m; Smith 13542, 12863, 12886, 12857, 13803, 13542, 13816

Desmoncus sp.  
Smith 13959

Euterpe precatória C. Martius  
tree, 220 m; Smith 12921

Geonoma acaulis Martius  
shub; 700 m; Beck 1699

Geonoma brongniartii Martius  
shrub, 250-1100 m; Solomon 14801; Smith 12890, 13752

Geonoma deversa (Poit.) Kunth  
shrub, 255 m; Smith 13954; Beck 8043

Geonoma euspatha Burret  
shrub, 220 m; Smith 12862; Smith 12898

Geonoma jussieuana Martius  
shrub, 1000 m; Solomon, 14801; Moraes 676

Iriarteia deltoidea Ruiz & Pavon  
tree, 220-550 m; Smith 12920, 13276

Oenocarpus bataua C. Martius  
tree, 220 m; Smith 12919

Mauritia flexuosa C. Martius  
tree, 320 m; Beck 8067

Prestoa sp.  
Smith 13990



Scheelea princeps (C. Martius) Karsten  
(not collected)

Socratea exorrhiza (C. Martius) H. A. Wendl.  
tree, 220 m; Smith 12918

Syagrus sancona Karsten  
tree, 235 m; Smith 13456

Gen. indet; tree, 400 m; Killeen 3595

(continued)

## DICOTYLEDONS

### ACANTHACEAE (8/17)

Aphelandra aurantica Wasshausen

herb, 270-1035 m; Beck 6868; Solomon 13940; Smith 13194, 13240; Killeen 2906

Aphelandra rubra Wasshausen

herb, 270-1035 m; Beck 6869; Solomon 13892; Smith 13178, 13208

Belperone nuda Rusby

herb, 450-950 m; Fournet 540; Beck 6992

Belperone sp. indet

herb, 500 m; Smith 13244

Chaetochlamys lindauii Rusby

herb, 500 m; Smith 13238

Hansteinia sp.

Smith 14139

Justicia boliviana Rusby

herb, 220 m; Smith 12868

Justicia cochabambensis (Rusby) Graham

Smith 13244

Justicia stuebeli Lindau

herb, 650-700 m; Solomon 13879; Beck 6862

Justicia sp. indet

herb, 700 m; Beck 1693, 1694

Mendocina sp. indet.

vine; 235-1035 m; Smith 13181, 13529, 14030

Ruellia graecizans Baker

herb, 700-1035 m; Beck 1691; Smith 13200

Ruellia proxima Lindau

herb, 500 m; Smith 13248

Ruellia thyrostachya Lindau

herb, 235 m; Smith 13548

Ruellia wildenoviana (Nees) Lindau

herb, 200 m; Fournet 464

Ruellia sp. indet

herb, 700 m; Solomon 13878

Stenostephanus lobeliaformis Nees

herb-shrub, 700-850 m; Beck 1692; Smith 14139

Gen. indet; Killeen 2969

### AMARANTHACEAE (2/2)

Chamissoa altissima (Jacq.) H.B.K.

liana; 500- 900 m; Solomon 13961; Smith 13228; Killeen 2969

Pfaffia (vel. aff.)

liana; 350 m; Killeen 2923

### ANACARDIACEAE (3/3)

Mauria heterophylla H.B.K.

tree, 900 m; Smith 13986

Spondias venosa C. Martius ex Colla

tree, 230-400 m; Smith 14061#; Killeen 3584, 3612;

Tapirira guianensis Aublet

tree, 900 m; Killeen 3053\*, 3196\*

## ANNONACEAE (11/15)

Anaxagorea dolichocarpa Sprague & Sandw.  
tree, 700 m; Smith 13972

Crematospermum leiphylla (Diels) R. E. Fries  
tree, 800-900 m; Smith 13253, 14006\*, 14058, 14148\*

Crematospermum monospermum (Rusby) R. E. Fries  
tree, 850-900 m; Smith 13834, 14100

Duguetia spixiana C. Martius  
tree, 230-300 m; Smith 12864, 14344\*; Killeen 2865

Guatteria buchtienii R. E. Fries  
tree, 230 - 965 m; Smith 13252, 13749, 14128#; Killeen 2917#, 4326

Guatteria sp.  
Smith 13174

Malmea sp. indet  
tree, 230 m; Smith 14070#, 14109#, 14119#

Porcelia nitidifolia Ruiz & Pavon  
tree, 900 m; Smith 13310

Rollinia cuspidata C. Martius  
tree, 900 m; Smith 14096\*

Rollinia peruviana Diels  
tree, 900 m; Smith et al. 14035

Rollinia pittieri Safford  
tree, 230 m; Smith 14075

Ruizodendron ovale (Ruiz & pavon) R. E. Fries  
tree, 230 m; Smith 14346\*

Trigynaea duckei  
tree, 850 m; Smith 14399\*(cp200)

Unonopsis mathewsii (Benth.) R. E. Fries  
tree, 230 - 350 m; Smith 13263, 13535\*, 14117#; Killeen 2941, 3583

Unonopsis sp. indet  
Killeen 2886

Xylopia cf. benthamii  
tree, 230 m; Smith 13557#  
Gen. indet; Solomon 13897

## APOCYNACEAE (3/6)

Aspidospermum rigidum Rusby  
tree, 235-850 m; Smith 13551; Killeen 3079\*

Meschites trifida (Jacq.) Muell. Arg.  
herb/vine; 320 m; Beck 8154

Tabernamontana sp.  
shrub, 850 m; Smith 14029  
Gen. indet; liana; 400 m; Killeen 3606  
Gen. indet; vine; 700 m; Smith 13970  
Gen. indet; liana; 255 m; Smith 13939

## ARALIACEAE (2/2)

Dendropanax arboreus (L.) Decne. & Planchon  
tree, 230-900 m; Smith 13289, 14385#; Killeen 2961, 3147, 3246\*

Didymopanax morototoni (Aublet) Decne & Planchon  
tree, 350 m; Killeen 2918\*, 2884\*

## ARISTOLOCHIACEAE (1/1)

Aristolochia sp.  
Smith 13249

## BEGONIACEAE (1/3)

Begonia glabra Aublet  
epiphyte, 200-700 m; Beck 1660; Fournet 455; Solomon 13919  
Begonia subcaudata Rusby ex L.B. Smith & Schubert  
herb, 965 m; Smith 13746  
Begonia sp.  
herb, 850 m; Killeen 2984

## BIGNONIACEAE (7/7)

Arrabidaea patellifera Juss. ex H.B.K.  
liana; 700-900 m; Smith 13314; Solomon 13931  
Clytostoma sciurpabulum Bureau & Schumann  
liana; 230 m; Smith 14338; Solomon 13946  
Jacaranda copaia (Aublet) D. Don  
tree, 700 m; Solomon 13943  
Paragonia pyramidata (L. C. Rich.) Bur.  
liana; 700 m; Beck 1701  
Pithecoctenium crucigrum (L.) A. Gentry  
Smith 14211a  
Roentgenia bracteomana (Schumann ex Sprague) Urban  
liana; 230-760 m; Smith 13258; Smith 14066; Smith 14115  
Spathycalyx xanthophylla (C. Martius) ex A. DC.) A. Gentry  
liana; 400 m; Killeen 3590

## BOMBACACEAE (7/8)

Bombacopsis rurrenabaqueana (Rusby) Robyns  
Rusby s.n. (NY)  
Cavanillesia cf. hylogeiton Ulbrich  
tree, 850 m; Smith 13842  
Chorisia speciosa St. Hil.;  
tree, 350-800 m; Smith 13250; Killeen 2947, 3260  
Ochroma pyrimidale (Cav. ex Lam.) Urban  
tree, 235-500 m; Smith 13274, 13582  
Pachira aquatica Aublet  
tree, 900 m; Smith 14460\* (cp-302)  
Pseudobombax sp.  
tree, 230-350 m; Smith 14134; Killeen 2902  
Pseudobombax sp.  
Smith 13588 (no hay at LPB)  
Eriotheca macrophylla Ducke  
tree, 230-450 m; Smith 13791, 14347#

## BORAGINACEAE (2/5)

Cordia alliodora (Ruiz & Pavon) Cham.  
tree, 900 m; Smith 14401\*; Killeen 2968  
Cordia buddeloides Rusby  
shrub, 700 m; Solomon 13906  
Cordia nodosa Lam.  
shrub, 850 m; Smith 12887, 13861, Smith 14142

Tournefortia cuspidata H.B.K.

shrub, 450 m; Smith 13795

Tournefortia lilloi I. M. Johnston

herb, 700 m; Smith 13303

### **BURSERACEAE (3/2)**

Tetragastris mucronata Swart

tree, 900 m; Killeen 2974, 3136

Protium aff. sagotianum (P. rhynchophyllum (Rusby) Daly comb. nov ined.)

tree, 230-850 m; Smith 13553#, 13555\*, 13580, 14127; Killeen et al 2919#, 2970, 3074\*

Protium cf. nodulosum Sw.

tree, 235 m; Smith 14434# (rc411)

### **BUXACEAE (1/1)**

Styloceras browkawii Gentry & Foster

shrub - tree, 700-1035 m; Solomon 13900, 13947; Smith 13183, 13822; Killeen 2896, 3140

### **CAMPANULACEAE (2/3)**

Centropogon cornutus (L.) Druce

Smith 13197

Spenoclea zeylanica Gaertner

Smith 12853

Gen. indet; Killeen 2988

### **CAPPARACEAE (1/1)**

Cleome boliviaia H. Iltis (ined?????)

tree, 1035 m; Smith 13202

### **CARICACEAE (2/2)**

Carica sp.

Smith 13230 (not at LPB)

Jacaratia spinosa (Aublet) A. DC.

tree, 220 m; Smith 12847#

### **CELASTRACEAE (1/1)**

Matenus magnifolia Loesn.

tree, 900-1035 m; Smith 13170; Killeen 3218\*

### **CHRYSOBALANACEAE (3/5)**

Licania britteniana Fritsch

tree, 230 m; Smith 14350#

Hirtella triandra Sw.

tree, 230-850 m; Killeen 3040\*

Hirtella racemosa Lam. var. racemosa

shrub, 200 m; Fournet 445

Parinari excelsa Sabine

tree, 900 m; Killeen 3217\*

### **COMBRETACEAE (3/5)**

Buchenavia capitata (Vahl) Eichler

tree, 600-750 m; Smith 13257; Killeen 2967

Buchenavia sp. indet

tree, 235 m; Smith 13571

Combretum laxum Jacq. (det by Leisner but wrong)  
liana; 850 m; Smith 14004; tree, 900 m; Killeen 2975

Terminalia amazonia (J. F. Gmel.) Exell in Pulle  
tree, 900; Killeen 3046\*

Terminalia oblonga (Ruiz & Pavon) Steudel  
tree, 350-900 m; Killeen 3588; Killeen t al. 2911; Killeen 3221\*

#### COMPOSITAE (7/8)

Bidens cynapifolia Kunth.  
Smith 13243

Clibadium vargasianum Blake  
shrub, 1000 m; Beck 13249; Smith 12855

Ichthyothere suffruticos Gardn.  
Smith 13209

Liabium acuminatum Rusby  
herb, 450-765 m; Fournet 533; Beck 12711

Mikania decora Poeppig  
Killeen 2888

Tessaria integrifolia Ruiz & Pavon  
tree, 320-980 m; Smith 12922; Beck 8157

Wulffia baccata (L.f.) Kuntze  
vine; 1035 m; Smith 12854, 13172  
Gen. indet; vine; 400 m; Killeen 2957

#### CONVOLVULACEAE (1/1)

Gen. indet; liana; 400 m; Killeen 2956

#### CUCURBITACEAE (6/6)

Cayaponia sp. indet  
vine; 500 m; Smith 13220, 13788

Gurania spinulosa (Poeppig & Endl.) Cogn.  
vine; 260 m; Fournet 504; Smith 13785

Melothria sp. indet  
vine; 235 m; Smith 13550

Psiguria triphylla (MNIq.) C. Jeffrey  
vine; 320-450 m; Smith 13792; Beck 8172

Siolmatra brasiliensis (Cogn.) Baill.  
liana; 250 m; Killeen 3263  
Gen. indet; liana; 350 m; Killeen 2874

#### DICHAPETALACEAE (1/1)

Dichapetalum acreanum (Ule) Rizzini  
tree, 765 m; Smith 13848

#### DILLENIAEAE (2/2)

Davilla kunthii St. Hilaire  
liana; 235-350 m; Smith 13566; Killeen 4329  
Gen. indet; liana; 350 m; Killeen 4328

#### ELAEOCARPACEAE (2/6)

Muntingia calabura L.  
tree, 500 m; Smith 13266

Sloanea fragrans Rusby  
tree, 900 m; Smith 12917; Killeen 3252\*, 3672

Sloanea guianensis (Aublet) Benth.  
tree, 230 m; Smith 14343#; Killeen 2939

Sloanea cf. rufa Planchon ex Benth.  
tree, 850 m; Killeen 3091\*

Sloanea obtusifolia (Moric.) Schumann  
tree, 350 m; Smith 14059; Killeen 2879

Sloanea sp.  
tree, 230 m; Smith 14059

#### **ERYTHROXYLACEAE (1/1)**

Erythroxylum ruryi Plowman  
shrub, 700 m; Smith 13282, 14026

Erythroxylum coca Lam.  
shrub, 350 m; White 873

#### **EUPHORBIACEAE (15/27)**

Acalypha benensis Britton  
herb; 1035 m; Smith 13176

Acalypha macrostachya Jacquin  
herb; 1035 m; Smith 13171

Alchornea glandulosa Poeppig  
Smith 14136

Alchornea latifolia Swartz  
tree, 900 m; Killeen 3237\*

Alchornea triplinervis (Spreng.) Muell.-Arg.  
tree, 765 m; Smith 13853

Chamaesyce lasiocarpa (Klotzch) Millsp.

Croton lechlerii Muell. Arg.  
tree, 900 m; Smith 14402\* (cp-34)

Croton matourensis Aublet  
Killeen 3687

Croton sampatik Muell. Arg.  
tree, 900 m; Smith 14403\*

Croton tessmannii Mansf.  
tree, 850 m; Smith et al, 14094\*

Croton sp.  
tree, 400-900 m; Killeen 3591

Croton sp.  
tree, 500 m; Killeen 2960

Dalechampia bangii Pax & Hoffm.  
herb; 270 m; Beck 8279

Drypetes amazonica Steyermark  
tree, 900 m; Killeen 3035, 3211\*

Hieronyma alchornioides Fr. Allem.  
tree, 900 m; Killeen 3159\*, 3623\*

Hieronyma oblonga (Tulasne) Muell. Arg.  
tree, 900 m; Smith 14048; Killeen 3090\*

Hura crepitans L.  
tree, 350 m; Killeen 2870#

Mabea angustifolia Benth.  
tree, 400 m; Smith 13206

Manihot condensata Rogers & Appan  
tree, 965 m; Smith 13748

Margaritaria nobilis L.f.

tree, 320 m; Beck 8136

Plukenetia brachybotrya Muell. Arg.

vine; 500 m; Smith 13222, 13773

Sapium glandulosum (L.) Morong

Smith 14053\*; Killeen 3603\*

Sapium laurifolium (Richard) Griseb.

tree, 850-900 m; Killeen 3624

Sapium marmieri Huber

tree, 230-700 m; Beck 1676; Smith 13288, 14351#

Tetrorchidium dusenii Pax & Hoffm.

Smith 13794

Tragia japurensis Muell. Arg.

vine; 270 m; Beck 8253

### **FLACOURTIACEAE (6/9)**

Banara guianensis Aublet

tree, 850 m; Smith 13867

Casearia pitumba Sleumer

tree, 900 m; Smith 13757, 14080\*

Casearia sp. 2

tree, 250 m; Killeen 3262

Casearia sylvestris

tree, 230-350 m; Smith 14110#; Killeen 2929#

Hasseltia floribundia H.B.K.

tree, 450-965 m; Smith 13751, 13789; Smith 13804; Killeen 3133\*

Lunania parviflora Spruce ex Benth.

tree, 235-350 m; Smith 13545, 14067, 14071#; Killeen 2904#, 3585

Prockia crucis L.

shrub, 270 m; Beck 8268; Killeen 2953, 3223

Gen. indet. 1; tree, 500 m; Killeen (unknown number)

Gen. indet. 2; shrub, 900 m; Smith 14000

### **GENTIANACEAE (2/1)**

Voyria spruceana Benth

saprophyte; 235-320 m; Beck 8299; Smith 13552

Voyria sp.

saprophyte; 850 m; Smith 14103

### **GESNERIACEAE (3/12)**

Besleria sp. 1.

herb, 650-1035 m; Smith 13164, 13946, 14762; Killeen 3635

Besleria sp. 2

herb, 255 m; Smith 13946

Drymonia doratostyla (Leeuw.) Wiehl.

epiphyte, 350 m; Beck 8111

Drymonia foliacea (Rusby) Wiehl.

herb, 1000 m; Moraes 674

Drymonia semicordata (Poeppig) Wrehl.

vine; 700 m; Solomon 13915

Drymonia sp. indet.

shrub/vine; 220 m; Smith 12867; Killeen 3615



Drymonia sp. indet  
liana; 900 m; Killeen 3106

Drymonia sp. indet  
Killeen 2880

Drymonia sp. indet  
Smith 13790

Gen. indet; herb, 900 m; Smith 13993

Gen. indet ; herb, 255 m; Smith 255 ????

Gen. indet; herb, 1035 m; Smith 13204

### **GUTTIFERAE (7/10)**

Calophyllum brasiliense Cambess  
tree, 750-900 m; Smith 13279; Killeen 3060\*

Chrysochlamys sp. 1  
tree, 700 m; Solomon 13951

Chrysochlamys sp. 2  
tree, 900 m; Smith 14034

Clusia amazonica Planchon & Triana  
liana; 765-850 m; Smith 13857, 13865

Marila sp. 1  
tree, 255 m; Smith 13952

Marila sp. 2  
tree, 255 m; Smith 13957

Rhedia gardnerianum Planchon & Triana  
tree, 850-900 m; Smith 14101, 14012\*; Killeen 2983

Rhedia madruno Planchon & Triana  
tree, 900 m; Killeen 3253\*

Symphonia globulifera L.f.  
tree, 700 m; Smith 13979

Vismia sp.  
tree, 255 m; Smith 13956

### **HIPPOCRATAEAE (2/3)**

Cheiloclinum cognatum (Miers) A. C. Smith  
tree, 220 m; Smith 12859, 13544

Salacia macrantha A. C. Smith  
tree, 230 m; Smith 14380#

Salacia sp. indet.  
tree, 750 m; Smith 13286

### **LAURACEAE (7/23)**

Aniba muca (Ruiz & Pavon) Mez  
tree, 700 m; Solomon 13918

Aniba sp.  
tree, 900 m; Killeen 3179\*

Endlicheria paniculata (Sprengel) J. F. Macbride  
tree, 900 m; Killeen 3634

Nectandra cuspidata Nees  
Killeen 2897#

Nectandra aff. olida Rohwer  
tree, 300 m; Smith 13573; Killeen 2940, 4324

Nectandra reticulata (Ruiz & Pavon) Mez

tree, 765 m; Beck 12712

Nectandra turbacensis (Kunth) Nees

tree, 230-350 m; Smith 14065#, 14112\*; Killeen 3581#, 4338

Nectandra sp.

tree, 1035 m; Smith et. al. 13184

Nectandra longifolia (R. & P.) Nees

tree, 350-900 m; Smith 13823; Killeen 2907

Persea peruviana Nees

tree, 700 m; Smith 13974

Pleurotherium cuneifolium Nees

tree, 220 m; Smith 12894#

Rhodostemonodaphne cf. kunthiana (Nees) Rohwer

tree, 350-400 m; Killeen 2885#, 3611#, 14354

Gen. indet; shrub, 850 m; Smith 14052

Gen. indet; tree, 230-900 m; Smith 14353#, 14357#, 14358#; Killeen 2927#, 3206\*, 4337

Gen. indet; tree, 230 m; Smith 14353#, 14355#

Gen. indet; (sin label) (RC??) cp-118\*

Gen. indet; tree, 250 m; Smith 14356\*

Gen. indet; tree, 900 m; Smith 13307

Gen. indet; tree, 900 m; CP-412\*

Gen. indet (cf. Nectandra); tree, 900 m; Killeen 3048\*

Gen. indet (Ocotea rubrinerva); tree, 850-900 m; Smith 14047, 14082; Killeen 3054\*, 3163\*

Gen. indet; tree, 765 m; Smith 13847

Gen. indet; tree, 900 m; Killeen 3088\*, 3224\*

## LECYTHIDACEAE

Cariniana estrellensis (Raddi) Kuntze

tree, 900-250 m; Smith 13827, 14056

Eschweilera aff. coriacea (A.P. DC.) Mori

tree, 500 m; Smith 13275

## LEGUMINOSAE, CAESALPINACEAE (3/10)

Bauhinia guianensis A. P. Juss.

liana; 700 m; Solomon 13909

Bauhinia sp.

tree, 400-580 m; Smith 13261, 13964; Killeen 4336

Bauhinia sp.

liana; 765 m; Smith 13846

Senna obtusifolia (L.) Irwin & Barneby

Smith 13241

Senna pendula (Lamk.) var. praeandina Irwin & Barneby

shrub, 700 m; Solomon 13903

Senna silvestris (Vell.) Irwin & Barneby var. silvestris

tree, 400 m; Smith 13207

Senna sp.

tree, 235-900 m; Smith 13838; Beck 8118; Smith 13963; Smith 13994

Senna sp.

herb, 220 m; Smith & Quintana 12849

Schizolobium sp.

tree, 350 m; Killeen 2943

Gen. indet; tree, 400 m; Killeen 3599

#### LEGUMINOSAE, MIMOSACEAE (7/40)

Acacia boliviana Rusby

shrub/tree, 900-1035 m; Smith 13203; Killeen 2987

Acacia glomerosa Benth.

liana; 235 m; Smith 13577

Acacia loretensis J. F. Macbr.

tree, 235 - 900 m; Smith 13585, 14364\*, 14130; Killeen 2979, 2890, 3589

Acacia multiflora Kunth.

tree, 235-350 m; Smith 13586; Killeen 2937

Acacia sp. indet

shrub, 270 m; Beck 8266

Calliandra carbonaria Benth.

Smith 13844

Calliandra sp. nov.

tree, 900 m; Smith 13936

Calliandra sp.

shrub, 255 m; Smith 13936

Inga bourgonii (Aublet) DC.

tree, 900-1050 m; Smith 13315, 14046\*; Killeen 3114a\*

Inga cylindrica (Vell. Conc.) C. Martius

tree, 900 m; Smith 13839, 14087\*, 14098\*, 14423\*

Inga dumosa

tree, 250 m; Penninton 13484

Inga edulis

tree, 970 m; Pennington 13495

Inga ingoides

tree, 250 m; Pennington 13488

Inga macrophylla

tree, 500 m; Pennington 13498

Inga marginata Willd.

tree, 400 m; Killeen 3600; Killeen 3592; Smith 13934

Inga nobilis Willd.

tree, 250-900 m; Smith 13272, 13483, 14150\*; Killeen 3675

Inga oerstediana Benth. ex Seemann

tree, 900 m; Smith 13311

Inga punctata Willd.

tree, 900 m; cp367\*

Inga ruiziana Willd.

tree, 250-900 m; Smith 14422\* (cp318); Pennington 13485

Inga thibaudiana DC.

tree, 255 m; Smith 13947

Inga tomentosa Benth.

tree, 235-900 m; Smith 13775, 13840, 13581, Smith 13582, 13965a; Pennington 13487;

Killeen 2908#, 2913#, 2924#, 3205\*

Inga trigyna

tree, 300 m; Pennington 13480

Inga umbellifera Willd.

tree, 235-900 m; Smith 13579, 14421\* (cp384)

Inga velutina Willd.

tree, 850 m; Pennington 13497; Smith 13817

Inga sp. 2

tree, 900 m; Smith 14046\*; Killeen 3227\*

Inga sp. 3

tree, 500- 900 m; Smith 14085\*, 14092; Killeen 2980\*, 2962, 2966

Inga sp. 4.

tree, 900 m; Killeen 5115a\*, 3160\*

Mimosa albida Humb. & Bonpl. ex Willd, var. albida

shrub, 765 m; Beck 12706

Mimosa diplotricha C. Wright ex Sauvalle var. diplotricha

shrub, 270 m; Beck 8282

Mimosa fortasse (sp. nov.) section Habbasia

liana; 450 m; Smith 13793

Mimosa tarda Barnaby (sp. nov.)

shrub, 270 m; Beck 8281

Piptadenia buchteinii Barneby (vel. aff.)

Smith 13873

Piptadenia cuzcoensis Barneby

Smith 13793

Piptadenia peruviana (J. F. Macbr.)

shrub, 270 m; Beck 8280

Piptadenia sp.

Smith 14364#

Pithecellobium saman (Jacq.) Benth.

tree, 270 m; Beck 8288

Pithecellobium sophorocarpum Benth.

tree, 900 m; Smith 13805

Pithecellobium sp.

tree, 900 m; Smith 14426\* (cp208)

Pithecellobium sp.

tree, 700 m; Smith 13968

Gen. indet. (ver. Stryphonodendron); tree, 900 m; Killeen 3164\*

## LEGUMINOSAE, PAPILINOIDEAE (17/27)

Centrosema grandiflorum Benth.

vine; 450 m; Beck 12713

Centrolobium cf. minus Presl

tree, 900 m; Smith 14429\* (cp183)

Centrosema cf. pubescens Benth.

vine; 950 m; Beck 6990

Clathotropis ???

tree, 900 m; cp75

Clitoria arborea Benth

Smith 13216

Clitoria arboreum Benth

tree, 270-500 m; Smith 13216; Beck 8198

Crotalaria micans Link

herb, 220 m; Smith 12852

Desmodium adscendens (sw.) DC.

shrub, 320 m; Beck 8156

Dipteryx odorata (Aublet) Willd.

tree, 700-850 m; Smith 13278, 13864, 13980

Erythrina cf. ulei Harms  
tree, 350 m; Killeen 2954  
Erythrina poepigiana (Walp.) O. F. Cook  
tree, 900-1050 m; Beck 6997; Smith 13316; 14428\* (cp28); Killeen 2955  
Indogofera sp.  
herb, 220 m; Smith 12848  
Lonchocarpus guillemineanus (Tul.) Malme  
tree, 900 m; Smith 13828, 14430\* (cp296)  
Machaerium jacarandifolium Rusby  
tree, 900 m; Killeen 3100\*  
Machaerium pilosum Benth.  
tree, 240 m; Smith 13587  
Machaerium sp.  
liana; 965 m; Smith 13745  
Myrocarpus frondosus Fr. Allem  
tree, 900 m; Killeen 3032\*  
Myroxylon balsamum (L.) Harms  
tree, 235-900 m; Smith 13578; Killeen 3093\*, 3143  
Platymiscium cf. stipulare Benth.  
tree, 400-900 m; Killeen 3259\*; Smith 13984  
Pterocarpus cf. amazonum (Benth.) Amsh.  
tree, 900 m; Killeen 3203\*  
Swartzia jorori Harms  
tree, 230-900 m; Smith 14362#; Killeen 3193\*  
Swartzia myrtifolia Smith  
tree, 230-350 m; Smith 14352#; Killeen 2903; Smith 13574  
Vigna caracalla (L.) Verdc.  
vine; 235 m; Smith 13584

Gen. indet; Smith 14427# (cp75)  
Gen. indet; vine; 500 m; Smith 13214  
Gen. indet (cultivated); vine; Killeen 2949  
Gen. indet; vine; 350 m; Killeen 4310

#### **LORANTHACEAE (2/4)**

Orytanthus alveolatus (H.B.K.) Kuijt  
shrub/parasite; 400 m; Smith 13212  
Phorodendron piperoides (H.B.K.) Trelease  
parasite; 765 m; Smith 13849  
Gen. indet; parasite; 900 m; Killeen 3627  
Gen. indet; parasite; Killeen 3145

#### **LYTHRACEAE (1/1)**

Lafoensa punicifolia Bert. ex DC.  
tree, 235 m; Smith 13575

#### **MALPIGHIACEAE (5/7)**

Banisteriopsis muricata (Cavanilles) Cuatrecasas  
liana; 235 m; Smith 13583  
Bunchosia armeniaca (Cav.) DC.  
tree, 900 m; Smith 14020; Killeen 3095\*, 3109\*  
Byrsonima arthropoda  
tree, 900 m; cp-387\*

Bysonima spicata (Cav.) DC.

tree, 900 m; Killeen 3087

Byrsonima

tree, 700-900 m; Smith 13973, 14091

Heterpterys sp. 2

liana; 580 m; Smith 13269

Hirea sp. indet

liana; 900 m; Smith 14023

## **MALVACEAE (2/6)**

Pavonia leucantha Gurke

shrub, 350 m; Beck 8114

Pavonia fruticosa (mill.) Fawc. & Randle

shrub, 320 m; beck 8151

Gen. indet; herb, 900 m; Killeen 2989

Gen. indet; Killeen 2910

Gen. indet; Killeen 2920

Gen. indet; Smith 14108

## **MARCGRAVIACEAE (1/2)**

Marcgravia crenata Poeppig ex Wittm.

hemiepiphyte, 235 m; Smith 13541

Marcgraviastrum mixtum (Triana & Planch.) Bedell

hemiepiphyte, 850 m; Smith 13860

## **MELASTOMATACEAE (8/30)**

Adelobotrys sp. (infl. umbelate)

vine; 255 m; Smith 13960

Bellucia aequiloba Pilger

tree, 450-255 m; Smith 13783, 13955

Clidemia acutifolia Cogn.

herb/shrub, 320-400; Beck 8173; Smith 13210, 13211

Clidemia dentata D. Don

shrub, 700 m; Solomon 13941

Clidemia hirta (L.) D. Don

shrub, 270 m; Beck 6782

Clidemia jurensis (Pilger) Gleason

shrub, 320 m; Beck 8034

Henrietella sylvestris Gleason

tree, 450 m; Smith 13793a; Killeen 3141

Leandra dichotoma (Don) Cogn.

herb, 350-1000 m; Solomon 14796; Beck 13245

Miconia aureoides Cogniaux

tree, 255 m; Smith 13962

Miconia cf. acuminata (Steud.) Naud.

shrub, 320 m; Beck 8054

Miconia chrysophylla (Rich.) Urban

shrub, 1000 m; Solomon 14803

Miconia cyanocarpa Naud. var. hirsuta Cogn.

shrub, 1000 m; Solomon 14795

Miconia nervosa (Smith) Triana

shrub, 1000 m; Solomon 14805

Miconia symplectocaulus Pilget  
shrub, 320 m; Beck 8060  
Miconia triplinervis Ruiz & Pavon  
shrub, 220-1035 m; Smith 12881, 13191, 14008; Killeen 2894, 3604  
Miconia spennerostachya Naudin  
shrub, 900 m; Smith 13801  
Miconia cf. molybdea Naudin  
tree, 900 m; Smith 13985, 14407\* (cp266)  
Miconia sp.  
shrub, 900 m; Killeen 3098  
Miconia erioclada Triana  
shrub, 900 m; Smith 13807  
Miconia sp.  
shrub, 1035 m; Smith 13193  
Miconia dolichorhyncha Naudin  
tree, 700 m; Smith 13975  
Miconia ciliaris Triana  
shrub, 900 m; Smith 14005  
Miconia cf. calvescens DC.  
tree, 235-900 m; Smith 13232, 13526, 14040\*  
Miconia cf. barbeyana Cogn.  
shrub, 1035 m; Smith 13180  
Mouriri myrtilloides ssp. parviflora (Benth) Morley  
shrub, 700 m; Solomon 13923  
Mouriri cf. barinensis (Morley) Morley  
tree, 900 m; Smith 14408\* (cp188)  
Tibouchina  
shrub, 200 m; Fournet 447

Gen. indet; Smith 13962  
Gen. indet; Solomon 13874  
Gen. indet; Solomon 13939

#### **MELIACEAE (4/15)**

Cedrela fissilis Vellozo  
tree, 250-360 m; Smith et al.; 14359#, Killeen 2942#;  
Guarea guidonia (L.) Sleumer  
tree, 270 m; Beck 8292  
Guarea kunthiana Adr. Juss.  
tree, 220-900 m; Smith 12880, 13540, 14011, 14137\*, 14116; Killeen 2932  
Guarea macrophylla subsp. pendulispica (C. DC.) Pennington  
tree, 230-1000 m; Smith 13313, 13784, 14405\* (cp139), 14360, Killeen 2986; Moraes  
671; Beck 8128  
Guarea macrophylla subsp. tuberculata (Vellozo) Pennington  
tree, 230 m; Smith 12145; Killeen 2933  
Guarea pterorhachis Harms  
tree, 700-1035 m; Solomon 13899; Smith 13173, 14143\*; Killeen 2976\*, 3118\*  
Guarea cf. purusana C. DC.  
tree, 230 m; Smith 14361#  
Guarea sp. indet.  
tree, 900 m; Killeen 2986  
Swietenia macrophylla King  
tree, 350 m; Killeen 2934

Trichilia aff. elagens

tree, 900 m; Smith 14404\* (cp-370)

Trichilia elegans Adr. Juss.

tree, 400-900 m; Smith 14084\*; Killeen 3598

Trichilia cf. inaequilatera Pennington

tree, 900 m; Smith 14406\* (cp-294)

Trichilia cf. maynasiana C.DC.

tree, 230-350 m; Smith 13546#, 14111#; Killeen 2921

Trichilia pallida Sw.

tree, 235-900 m; Beck 8031; Seidel & Vargas 2136; Smith 14049\*, 13538, 14114; Killeen 2866, 2895;

Trichilia pleeana (Adr. Juss.) C. DC.

tree, 350-900 m; Smith 13859, 13826, 13560, 13301, 14050\*, 14063#; Killeen 2928#, 3157\*

### **MENISPERMACEAE (6/6)**

Abuta grandifolia (Aubl.) Sandw.

Anomospermum sp. indet

liana; 1035 m; Smith 13190

Borismene jaurensis (C. mart.) Barneby

liana; 200 m; Fournet 449

Chondrodendron tomentosa R. & P.

liana; Solomon 13954

Cissampelos tropaelifolia DC.

vine; 270 m; Beck 8255

Curarea toxicofera (Wedd.) Barneby & Krukoff

liana; 250 m; 220

### **MONIMIACEAE (2/10)**

Mollinedia racemosa (Schlecht.) Tul.

shrub, 1035 m; Smith 13186

Mollinedia sp.

shrub, 235 m; Smith 13536

Siparuna bifida (Poeppig. & Endlich) A. DC.

tree, 255-950 m; Solomon 14792; Smith 13953; Killeen 3609, 3632

Siparuna dasyantha Perkins

tree, 450-950 m; Smith 13750

Siparuna gilgiana Perkins

shrub, Smith 13787

Siparuna guianensis Aublet

tree, 450-965 m; Solomon 14804;

Siparuna harongifolia Perkins

shrub, 700 m; Solomon 13920

Siparuna lyrata Perk.

shrub, 760 m; Smith 13251

Siparuna tomentosa (Ruiz & pavon) Perk.

shrub, 270 m; Beck 8244

Siparuna sp.

tree, 350 m; Killeen 4332

### **MORACEAE (12/34)**

Brosimum alicastrum ssp. boliviense (Pittier) C.C. Berg

tree, 250 m; Smith 13556, 14131



Cecropia angustifolia

tree, 900 m; Killeen 3072\*, 3123

Cecropia engleriana Snethlage

tree, 220-580 m; Smith 12856, 13564, 14126

Cecropia cf. polystachya Trecul

tree, 450 m; Smith 13772

Cecropia membranacea Trecul

tree, 220 m; Smith 12897, 14349#

Cecropia sciadophylla C. Martius

tree, 500 m; Smith 13218

Cecropia tessmanii Mildbr.

tree, 900 m; Smith 13989, 14013\*

Cecropia sp. nov.

Smith 13264; Smith

Clarisia biflora Ruiz & Pavon

tree, 250-900 m; Smith 14381#; Killeen 3232\*

Clarisia racemosa Ruiz & Pavon

tree, 235-850 m; Smith 13866; Smith 13568\*; Killeen et 3078\*; rc186.

Coussapoa sp.

hemiepiphyte, 900 m; Smith 14022

Coussapoa villosa Poeppig & Endlicher

hemi-epiphyte, 230-765 m; Smith 13851; Smith 14348\*; Smith et al 14062; Killeen 3607, 2869; Smith 14348#

Ficus cuatracasana Dugand

hemi-epiphyte, 900 m; Smith 14417\* (cp-381)

Ficus guianensis H.B.K.

hemi-epiphyte, 740 m; Smith 13277, 13976

Ficus hartwegii (Miq.) Miq.

hemi-epiphyte, 900 m; Smith 14415\* (cp26)

Ficus insipida Willd.

hemi-epiphyte, 250 m; Smith 13872

Ficus killipii

hemi-epiphyte, 230 m; Smith 14384# (cp not collected)

Ficus macbridei Standley

tree, 900 m; Smith 14039

Ficus maxima Miller

hemi-epiphyte, 250 m; Smith 14382#, 14416 (cp407)

Ficus obtusifolia H.B.K.

hemi-epiphyte, 800 m; Smith 13280, 13284

Ficus paraensis (Miquel) Miquel

hemi-epiphyte, 230-900 m; Smith 13312, 14076

Ficus pertusa L.f.

tree, 900 m; Smith 13304

Ficus trigona L. f.

tree, 700 m; Beck 1673

Ficus sp.

Smith 13312

Ficus sp.

hemi-epiphyte, 950 m; Killeen 3630

Helicostylis sp.

tree, 900 m; Killeen et al. 3212\*

Maclura brasiliensis Endl.

liana; 220 m; Smith 12891a

Poulsenia armata (Miq.) Standley  
tree, 235-1035 m; Smith 13169, 13567, 13831; Killeen 2877#, 3249\*  
Pourouma cecropifolia C. Martius  
tree, 220 m; Smith 12892; rc547#  
Pourouma guianensis subsp. guianensis  
tree, 500 m; Smith 13217  
Pseudolmedia laevis (Ruiz & Pavon) J. F. Macbr.  
tree, 350-900 m; Smith 13852, 14386#; Killeen 3582\*; cp46\*  
Sorocea pileata W. Burger  
tree, 230 m; Smith 14387#  
Sorocea klotzchiana (Pittier) C.C. Berg  
tree, 900 m; Smith 14411\* (cp248); Killeen 2973  
Trophis caucana (Pittier) C. C. Berg  
tree, 900 m; Smith 13768; Killeen 2977, 3089\*

### MYRISTICACEAE (2/3)

Otoba parvifolia (Mgf.) A. Gentry  
tree, 700-900 m; Beck 1672; Smith 13287, 13850; Killeen 3158\*  
Virola peruviana (A. DC.) Warb.  
tree, 220-900 m; Smith 12865, 14035\*, 14368\*, 13841; Killeen 3621  
Virola sebifera Aublet  
tree, 230 m; Beck 8226; Smith 14369\*; Killeen 2878\*

### MYRSINACEAE (3/5)

Ardisia weberbaueri Mez  
shrub, 1035 m; Solomon 13188  
Ardisia sp.  
shrub, 255 m; Solomon 13940, 13958  
Cybianthus sp.  
shrub, 850 m; Smith 13843  
Stylogyne ambigua (C. Martius) Mez  
tree, 230-900 m; Smith 12888, 12901, 13543, 14009, 14081\*, 14370\*; Killeen 2978, 2893, 3255  
Stylogyne sp. indet.  
tree, 250 m; Killeen 2901

### MYRTACEAE (4/16)

Calyptranthes cf. concinna DC.  
tree, 800-900 m; Smith 13299, 14002\*  
Calyptranthes cf. lanceolata Berg.  
shrub, 900 m; Smith 13799  
Calyptranthes sp. indet.  
tree, 700 m; Solomon 13911  
Eugenia egensis DC.  
shrub, 270 m; Beck 8235  
Eugenia florida DC. (s.l.)  
Killeen 3214  
Eugenia muricata DC.  
tree, 900 m; Smith 14017\*  
Eugenia puniceifolia (H.B.K.) DC.  
tree, 900 m; Killeen 3132\*  
Eugenia sp.  
tree, 765 m; Smith 13845

Eugenia sp.

tree, 900 m; Killeen 3044\*

Myrcia sp. indet

shrub/tree, 230-965 m; Smith 13763, 14371\*\*

Myrcia sp.

tree, 900 m; Killeen 3038\*

Gen. indet; tree, 350 m; Killeen 4335

Gen. indet; tree, 400 m; Killeen 3597

Gen. indet; tree, 900 m; cp-204\*

Gen. indet; tree, 900 m; cp-315\*

Gen. indet; Solomon 13911

### **NYCTAGINACEAE (2/5)**

Neea floribunda Poeppig. & Endl.

shrub/vine; 220 m; Smith 12899

Neea ovalifolia Spruce ex J. A. Schmidt

tree, 450-900 m; Smith 13779;

Neea divaricata P. & E.

tree, 230 m; Smith 14378, 14379#; Killeen 3199, 3208\*

Neea cf. boliviensis

Smith 14378#, 14424\*

Gen. indet; liana; 350 m; Killeen 2916

### **OCHNACEAE (1/1)**

Ouratea macrobotrys Rusby

shrub, 900 m; Smith 13800

### **OLACACEAE (1/1)**

Heisteria sp.

liana; 500 m; Killeen 2971

### **OLEACEAE**

see Killeen 3095 and 3179

### **ONOGRACEAE (1/2)**

Ludwigia octovalvis (Jacq.) Raven

700 m; Solomon 13937; Smith 12851

Ludwigia elegans (Camb.) Hara

Smith 13239

### **PASSIFLORACEAE (1/2)**

Passiflora coccinea Blanco

vine; 500 m; Smith 13242

Passiflora sp.

vine; 965 m; Smith 13764

### **PHYTOLACCACEAE (1)**

Gallesia integrifolia (Spreng.) Harms

tree, 235 m; Smith 13572, 14123

### **PIPERACEAE (3/22)**

Peperomia rhombea Ruiz & Pavon

epiphyte, 965 m; Smith 13755

Peperomia rotundifolia (L.) H.B.K.

epiphyte, 700 m; Beck 1719

Peperomia serpens (sw.) Loud.

epiphyte, 1000 m; Moraes 668

Peperomia sp. indet.

Smith 13305

Peperomia sp. indet

epiphyte; 900 m; Smith 13305

Peperomia sp. indet

epiphyte, 400 m; Smith 13965

Peperomia sp. indet

epiphyte, 965 m; Smith 13759a

Peperomia sp. indet

epiphyte, 965 m; Smith 13759b; Killeen 3107

Peperomia sp. indet

epiphyte, 900 m; Smith 13824

Piper aduncum L.

tree, 255-1000 m; Moraes 663; Smith 13945; Killeen 4331

Piper aequale Vahl.

shrub, 320 m; Beck 8089

Piper laevilimum C. DC.

shrub, 235-320 m; Smith 13528; Beck 8166; Beck 8152; Beck 8276

Piper lanceolatum Ruiz & Pavon

shrub, 1000 m; Moraes 672

Piper longistylosum C. DC.

herb/shrub, 450-1035 m; Smith 13166; Smith 13769; Smith 13797; Moraes 665

Piper pilirameum C. DC.

shrub, 500 m; Smith 13225

Piper tumupasense Yuncker

shrub, 320 m; Beck 8038

Piper sp.

Solomon 13914

Piper sp.

Solomon 13908

Piper sp. indet

shrub, 1000 m; Killeen 2806

Piper sp.

shrub, 230 m; Solomon 14132

Piper sp.

Solomon 14210

Pothomorphe peltata (L.) Miq.

herb, 1000 m; Moraes 678

### **POLYGALACEAE (1/1)**

Polygala acuminata Willd.

shrub, 270 m; Beck 8218

### **POLYGONACEAE (3/6)**

Coccoloba mollis Casar.

tree, 765 m; Smith 13854, 14418\* (cp212)

Coccoloba cf. peruviana Lindau.

tree, 250-900 m; Killeen 3181\*, 2944\*

Coccoloba sp.

tree, 250 m; Smith 13941

Polygonum acuminatum H.B.K.

herb, 320 m; Beck 8027, 8191

Triplaris cummingeana Fischer & Meyer

tree, 230 m; Smith 14372\*\*

Triplaris poeppigiana Wedd. (s.l.)

tree, 230-900 m; Smith 14120\*\*, 14149\*; Killeen 2898, 3190\*, 3195\*

## **RHAMNACEAE (1/2)**

Gouania aff. adenophora Pilger

liana; 380 m; Smith 13226

Gouania sp. indet

liana; 350 m; Killeen 2915

## **ROSACEAE (1/1)**

Prunus cf. vana J. F. Macbride

tree, 900 m; Smith 14409\* (cp-19)

## **RUBIACEAE (27/79)**

Alibertia itayensis Standley

Killeen 2981\*, 3201, 3245\*

Alibertia stenantha Standley

tree, 350-900 m; Smith 14083, 14102, 14145\*

Borojoa claviflora (Schumann) Cuatrecasas

Killeen 2925

Berberia cf. guianensis Aublet

tree, 900 m; Killeen 3174\*

Calycophyllum spruceanum (Benth.) Hook. f. ex Schumann

tree, 350 m; Killeen 2952

Cephaelis aff. dolichocephala Standley

shrub, 700 m; Solomon 13913

Cephaelis sp.

shrub, 900 m; Smith 13991

Chiococca alba (L.) Hitch.

liana; 700 m; Solomon 13917

Chomelia spinosa Jacq.

14018 Swartz

Cinchona pubescens Vahl

tree, 250-900 m; Smith 13306, 13961

Cinchona sp.

Smith 13961

Coccocypselum lanceolatum (R. & P.) Persoon

vine; 255 m; Smith 13948

Coussarea cf. brevicaulis

Smith 13135

Coussarea macrantha Standley

tree, 900 m; Smith 13798; 14003; cp247\*

Coussarea cf. paniculata (V. Vahl) Standley

tree, 900 m; Smith 14086\*, 14106; Killeen 3673

Diodia cimifolia (Roemer & Shultes) Bremek.

herb, 500 m; Smith 13268

Faramea anisocalyx Poeppig  
shrub, 765; Smith 13858

Faramea multiflora A. Richard  
shrub, 400-900 m; Smith 13998; Killeen 3613

Genipa americana L.  
tree, 220 m; Smith 12860, 14373#

Geophila repens (L.) I. M. Johnston  
shrub, 700 m; Solomon 13945

Gonzalagunia cornifolia (H.B.K.) Standley  
shrub, 1000 m; Smith 13199;

Gonzalagunia villosa (Willd.) Schum. in Mart.  
shrub, 850 m; Killeen 3622

Hemidiodia ocimifolia (Willd.) Schum. in Mart.  
Smith 13268

Hillia illustris K. Schum.  
700 m; Solomon 13957

Hoffmania latifolia (Bartl.) Kuntze  
shrub, 900 m; Smith 13198; Killeen 3619

Hoffmania obovata (R. & P.) Klotzsch  
shrub, 900 m; Smith 13758; Killeen 3073

Ixorea peruviana (Spruce ex Schum.) Standley  
tree, 350 m; Beck 8107; Killeen 3602

Ladenbergia magnifolia (R. & P.) DC.  
tree, 850 m; Smith 14152\*; Killeen 3092\*

Manettia cf. racemosa R. & P.  
Smith 13167

Macrocnemum roseum (Ruiz & Pavon) Wedd.  
tree, 900 m; Smith 13765; Killeen 3071\*, 3102, 3104, 3197.

Manettia hispida Poeppig & Endl.  
vine; 270-900 m; Beck 8242; Solomon 13942; Smith 13982

Manettia sp.  
vinae; 765 m; Smith 13855

Palicourea alba Ruiz & Pavon  
shrub, 270 m; Beck 8287

Palicourea conferta Benth.  
shrub, 230-500 m; Smith 12871, 13229, 14121

Palicourea crocea (Sw.) Roemer & Schultes  
shrub, 500-900 m; Solomon 13891; Killeen 3130\*

Palicourea ernestii Krause  
Killeen 3068\*

Palicourea cf. guianensis Aublet  
tree, 900 m; Killeen 3185\*

Palicourea kluggi P. C. Standley  
Smith 12906

Palicourea lasiantha Krause  
shrub, 450 m; Smith & Gracia 13781

Palicourea macrobotys (Ruiz & Pavon) Roemer & Schultes  
shrub, 270-1035 m; Beck 8294; Smith 13182, 13219, 14001; Killeen 3069\*

Palicourea thyrsofolia (Ruiz & Pavon) DC.  
Smith 14038

Palicourea triphylla DC.  
shrub, 1100 m; Solomon 14793

Palicourea sp.

shrub, 850-1000 m; Smith 13192; Smith 14038

Palicourea sp. (MO printout says Nyctaginaceae?)

shrub, 350 m; Killeen 2871

Posoqueria latifolia (Rudge) Ruiz & Pavon

tree, 900 m; cp-60

Psychotria berteriana subsp. luxurians (Rusby) Steyermark

shrub: 800-1000 m; Smith 134753 (????); 13819

Psychotria borucana (Molina) Taylor & Burger

Psychotria carthagenensis Jacq.

shrub, 900 m; Smith 14037

Psychotria deflexa DC.

shrub, 700 m; Solomon 13928

Psychotria juninensis Standley

shrub, 270-900 m; Beck 8247; Killeen 3629

Psychotria lassula Standley

eiphyte/vine; 700 m; Beck 1700

Psychotria lupulina Bentham

shrub, 220-870 m; Smith 12872, 13254; Killeen 3614

Psychotria macrophylla Ruiz & Pavon

shrub, 700 m; Beck 1690; Solomon 13950

Psychotria marginata Kunth

shrub, 580 m; Smith 13262, 14042, 14151; Killeen 2872, 2899

Psychotria mathewsii P. C. Standley

shrub, 1100 m; Solomon 14800

Psychotria microbotrys R. & P. ex Standley

Killeen 3015

Psychotria officianalis (Aublet) Raeusch

shrub, 255 m; Smith 13944

Psychotria pilosa Ruiz & Pavon

shrub, 700-1050 m; Solomon 13882; Smith 13195

Psychotria poeppingiana Muel.Arg. (=Cepaelis)

shrub, 200-900 m; Fournet 456; Smith 13943; Killeen 3137\*

Psychotria prunifolia (H.B.K.) Schum.

shrub, 320 m; Beck 8053

Psychotria racemosa (Aublet) Rausch

shrub, 220-700 m; Solomon 12870, 13922; Killeen 3616

Psychotria remota Benth.

shrub, 950 m; Smith 13761

Psychotria siggersiana Standley

shrub, 700 m; Solomon 13921

Psychotria trivialis Rusby

shrub, 200-900 m; Solomon 13890; Killeen 2872, 2899

Psychotria viridis Ruiz & Pavon

shrub, 220-400 m; Smith et al 12910, 13537, 14122; Killeen 2889, 3605

Psychotria sp.

Smith 12861

Psychotria sp. (subgenus Heteropsychotria)

tree, 900 m; Smith 14042, 14151; Killeen 2899

Randia sp.

shrub, 900 m; Smith 14018

Sabicea kluggi Standley

vine; 870 m; Smith 13260, 13967

Sabicea sp.

vine; 255 m; Smith 13950

Sphinctanthus sp.

tree, 700 m; Smith 13978

Gen. indet; tree, 900 m; Killeen 3226\*

Gen. indet; tree, 400 m; Killeen 400 m

Gen. indet (possibly not Rubiaceae); liana; 900 m; Killeen 3112

Gen. indet (cf. Palicourea); shrub, 900 m; Killeen & Smith 3622

Gen. indet; Killeen 3137\*

## **RUTACEAE (4/6)**

Erythrochiton brasiliense Nees & C. Martius

shrub/tree, 220-350 m; Fournet 509; Vargas & Seidel 2009; Smith 12885; Killeen 2882

Galipea sp.

tree, 500 m; Killeen 2965

Metrodorea sp.

tree, 700 m; Smith 13969

Zanthoxylum kellermanii P. Wilson

tree, 250 m; Smith 14074#; Killeen 2930#, 3610#

Zanthoxylon sp.

tree, 900 m; Smith 14420\* (cp113)

Gen. indet; Smith 13951

## **SAPINDACEAE (7/16)**

Allophylus cf. petiolatus Radlk.

tree, 900 m; Smith 13308; Killeen 3204\*

Allophylus punctatus (Poeppig & Endl.) Radlk.

tree, 850 m; Smith 13829, 13868, 14099; Killeen 3177

Allophylus sp. (pubescente)

tree, 900 m; Killeen 3184\*

Allophylus sp. indet (unifoliolate)

tree, 450 m; Smith 13776

Cardiospermum

vine; 765 m; Smith 13856

Cupania cinerea P. & E.

tree, 400-900 m; Smith 13987; 14095\*; Killeen 3596

Paullinia sp.

liana; 500 m; Smith 13215

Paullinia sp.

liana; 220-350 m; Smith 12900; Killeen 2946

Paullinia sp.

liana; Smith 14066

Paullinia sp.

liana; 900 m; Smith 14098

Paullinia sp.

liana; 900 m; Smith 13856

Paullinia sp.

liana; 235 m; Smith 13523

Sapindus saponaria L.

tree, 250 m; Killeen 2936; Killeen 2876#

Serjania sp.

vine; Smith 14028



Talisia hexaphylla Vahl  
tree, 5900 m; Killeen 3244\*  
Gen. indet; Smith 13300

#### **SAPOTACEAE (4/12)**

Chrysophyllum venezuelanense (Pierre) Pennington  
tree, 900 m; Smith 14051; Killeen 2982, 3243\*

Chrysophyllum argenteum ssp. ferigenum  
tree, 750-900 m; Smith 14903\*, 13255

Micropholis egensis (A. DC.) Pierre  
tree, 800 m; Smith 13285

Pouteria nemorosa Baehni  
tree, 900 m; Killeen 3117\*

Pouteria krukoffii (A. C. Smith) Baehni  
tree, 900 m; Smith 14010\*; Killeen 3222\*

Pouteria sp. #2  
tree, 900 m; Killeen 3057\*

Pouteria sp.  
tree, 800m; Smith 13297

Pouteria sp.  
Smith 13835

Sarcaulus brasiliensis (A. DC.) Eyma  
tree, 350-900; Smith 14097\*; Killeen 4334

Gen. indet; tree, 400m; Killeen 3146

Gen. indet; tree, 255m; Smith 13933

Gen. indet; tree, 740 m; Smith 13971

#### **SAXIFRAGACEAE (1/1)**

Hydrangea sp.  
liana; 900 m; Smith 13309

#### **SCOPHULARIACEAE (1/1)**

Gen. indet; Smith 13938

#### **SIMAROUBACEAE (2/3)**

Picramnia latifolia Tul.  
shrub, 900 m; Smith 13802

Picramnia sp.  
shree; 350; Killeen 2868;

Simaba sp.  
shrub, 320; Beck 8051

#### **SOLANACEAE (6/22)**

Cestrum megalophyllum Dunal  
shrub, 900 m; Smith 13771, 13808

Cestrum racemosum Ruiz & Pavon  
tree, 230-900 m; Smith 14073#; Smith 14090;

Cyphomandra benensis Rusby  
herb, 235-500 m; Smith 13237; Smith 13524

Cyphomandra sp.  
Smith 13237

Juanulloa sp.  
hemi-epiphyte, 965 m; Smith 13754

Lycianthes inaequilatera (Rusby) Bitter  
herb, 220-965 m; Smith 12905; Smith 13760

Lycianthes sp.  
Smith 12904a

Lycianthes sp.  
herb, 500 m; Smith 13245

Solanum albidum Dunal  
shrub, 200 m; Fournet 450

Solanum americanum Miller  
herb, 500 m; Smith 13247

Solanum anceps R. & P.  
700 m; Solomon 14806

Solanum caricaefolium Rusby  
shrub, 1000 m; Beck 6983; Schmitt & Schmitt 139; Smith 13747, 13770

Solanum goodspeedii Roe  
tree, 270-500 m; Beck 6870; Smith 13233

Solanum lorentzii Bitter  
700 m; Solomon 13907

Solanum macrotonum Bitter  
herb (buisson de 50-60 m?); 450; Fournet 532

Solanum megalsphyllum Dunal  
Smith 13771

Solanum mite R. & P.  
Smith 12896

Solanum morellifolium Roe  
Smith 13246

Solanum wrightii Benth.  
tree, 700 m; Fournet 517

Solanum sp.  
tree/shrub, 800-900 m; Smith 13806, 13988, 14019

Solanum sp.  
Smith 13878

Witheringia solanacea L'Heritier  
herb, 235-350 m; Smith 12869, 13457; Killeen 2867.

### **STERCULIACEAE (3/3)**

Guazuma ulmifolia Lam.  
tree, 250-900 m; Smith 14088, 14141\*, 14374\*; Killeen 2931

Melochia mollis (H.B.K.) Triana & Planchon  
shrub, 270 m; Beck 8291

Sterculia tessmannii Mildbraed  
tree, 230 m; Smith 14384\*

### **THEOPHRASTACEAE (1/3)**

Clavija lancifolia Desfontaines  
shrub, 220-350; Smith 12858; Killeen 2873

Clavija sp.  
shrub, Smith 14077

Clavija weberbauri Mez  
700 m; Solomon 13912

## TILIACEAE (5/5)

Apeiba membranacea Spruce ex Benth.

Smith 14384

Berrya sp. nov.

tree, 230-350 m; Smith 13302, 13569, 14339, 14108; Killeen 2910, 2920

Heliocarpus americanus L.

tree, 250-1000 m; Smith 13187, 13549, 14140\*; Killeen 2948, 2985\*, 4330

Luhea sp.

tree, 350 m; Killeen 2938

Triumfetta semitriloba L.

herb, 200 m; Fournet 460

## ULMACEAE (3/6)

Ampelocera ruizii Klotzch

tree, 230-900; Smith 14340#, 14388, 14389; Killeen 3041\*

Celtis schippii Standley

tree, 230 m; Smith 14064#, 14069

Celtis iguanaea (Jacq.) Sarg.

tree, 600 m; Solomon 13966; Smith 14068

Celtis sp. indet.

liana/treelet; 230-400 m; Killeen 3594

Trema micrantha (L.) Blume

tree, 220-900 m; Smith 12902, 13836 (rc - no voucher cited)

Trema integerrima (Beurl.) Standley

tree, 500 m; Smith 13223

## URTICACEAE (3/5)

Myriocarpa stiptitata Benth.

tree, 900 m; Smith 14138\*; Killeen 3119\*, 3121\*

Phenax angustifolius (H.B.K.) Wedd.

shrub, 400-900' Smith 13837; Killeen 3593

Poulsenia poeppigiana (Wedd.) Killip

shrub, 320 m; Beck 8139

Urera baccifera (L.) Gaudich.

herb, 500 m; Smith 13231

Urera caracasana (Jacq.) Gaud. ex Griseb.

shrub/liana; 230-1050 m; Moraes 670; Smith 13189, 14031, 14375#; Killeen 2807, 2887, 3608

## VERBENACEAE (5/5)

Bouchea flumenensis (Vell.) Mold.

herb, 200 m; Fournet 454

Cornuta odorata (P. & E.) Poeppig. var. calvescens Moldenke

tree, 900 m; Smith 14413\* (cp170)

Lantana fiebrigii Hayek

herb, 1035; Smith et al. 13179

Citharexylum reticulatum H.B.K.

tree, 900 m; Smith 14054\*

Vitex pseudolea

tree, 230 m; Smith 14376#

### **VIOLACEAE (3/5)**

Gloesopsermum sp.

shrub, 950 m; Smith 13757

Leonia racemosa Mart.

tree, 900 m; Smith 12889, 13265; Killeen 3065\*

Rinorea apiculata Hekking

Smith 13774

Rinorea cf. vidrifolia Rusby

shrub/tree, 700-900 m; Smith 14078, 13281; Killeen 2964; Smith 14414\* (cp308)

Rinorea lindeniana (Tulasne) Kuntze

tree/shrub, 230-350 m; Smith 13534; Killeen 2900

### **VITACEAE (1/1)**

Cissus sicyoides L.

vine; 235; Smith 13221, 13532

### **VOCHYSIACEAE (1/1)**

Vochysia citrifolia Poiret.

tree, 230 m; Smith 14118