Parque Nacional da Serra do Itajaí (southern Brazil) shrub and herbs flora

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**ABSTRACT:** This paper aims to characterize the herbaceous and shrub species diversity of Parque Nacional da Serra do Itajaí (PNSI). We identified 643 herbaceous and shrub species distributed in 110 families being the most representative family Asteraceae (62 species), Melastomataceae (49) and Rubiaceae (30), besides a two new records for Santa Catarina (Thelypteris glaziouii TF. Reed and Pseudelephantopus spiralis Cronquist). We recorded 22 exotic species. Thus, due to the vast diversity of life and the rather large territory, PNSI is one of the most important spots for biodiversity conservation in Santa Catarina.

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**INTRODUCTION**

Santa Catarina’s flora is very well documented due to the memorable efforts of botanists such as Roberto Miguel Klein and Raulino Reitz, founders of Herbário Barbosa Rodrigues and Flora Ilustrada Catarinense authors. It is estimated that today 80% of the species are already published in the Flora Ilustrada Catarinense (Reitz 1965–1989 and Reis 1999–2011), meaning 3,784 species in 929 genera and 159 families, published in 189 fascicles and 15,008 pages (Reis 2011).

According to Flora do Brasil (2013), in Santa Catarina there are mentioned 4,434 angiosperm species (4,208 native), 420 ferns species latu sensu (415 native) and six gymnosperms (three native), totaling 4,860 taxa, which represents about 15% of all known plant species in Brazil and about 31% of the known species in the Atlantic rainforest (Stehmann et al. 2009).

Despite of being recorded, many of these species have very few samples, often quite long time ago, particularly not arboreal species, which are often excluded from forest surveys. According to Feelei and Silman (2011), the more a species are collected, the better it can be evaluated for its conservation status, as well as decide appropriate strategies for their preservation.

As pointed out by Gilliam and Roberts (2003), herbaceous synusiae is neglected because it does not represent the structure of the forest and also because it does not have commercial value, unlike the trees, which may have economic value assigned to the timber. However, native species often have useful properties, but lack studies prospects for them. The economic importance of herbs and shrubs is, for example, the major source of secondary compounds, widely studied searching for new drugs, besides providing food, fibers, industrial inputs, ornamental, essences, spices, among many other uses to humans (Mentz et al. 1997; Coradin et al. 2011).

The Itajaí Valley is located in Santa Catarina, and is covered by Atlantic Subtropical Rainforest and has humid mesothermal climate with hot summers (Cfa) (Köppen 1948). The Itajaí-Açu watershed covers approximately 15,000 km², and, as Leite and Klein (1990) pointed out, the vegetation of this area is known to be very rich in tree species, lianas and epiphytes, especially for tree species such as canela-preta (Ocotea catharinensis Mez), laranjeira-do-mato (Sloanea guianensis (Aubl.) Benth.), peroba (Aspisosperma australi Müll. Arg.) and tanheiro (Alchornea triplinervia (Spreng.) Müll. Arg.) Tree ferns dominates the understory like Alsophila setosa Kauf., Cyathea phalerata Mart. and Cyathea corcovadensis (Raddi) Domin, besides the presence of shrubs of the genus Psychotria L. and Mollinedia Ruiz & Pavon (Sevegiani et al. 2013).

Thus, the objective of this study was to characterize the floristic diversity of herbaceous and shrub species of the largest remnants of Atlantic Subtropical Rainforest in southern Brazil, the Parque Nacional da Serra do Itajaí.

**MATERIALS AND METHODS**

**Study Area**

The Parque Nacional da Serra do Itajaí (PNSI) was created in June 2004 with more than 57,000 ha. It is covered by Rainforest (Oliveira-Filho 2009), distributed in sub-montane, montane and upper montane secondary and primary vegetation. The region is predominantly mountainous with altitudes ranging from about 30 to 1000 m. Part of it, which belonged to the former Parque Natural Municipal Nascentes do Garcia, is located in Blumenau city, in the Middle Itajaí Valley, between the coordinates 27°06′ S and 49°10′ W, in Santa Catarina (Figure 1), southern Brazil.

For logistics reasons, four locations were defined for field studies. The locations are: Parque Ecológico Spitzkopf, RPNN Buguerkopf, Morro do Sapó and Trilha da Chuva, all of them part of Parque Nacional da Serra do Itajaí. The PNSI is part of a major fragment of Atlantic Subtropical Rainforest, which has previously suffered from several human disturbances, but is now in an advanced stage of
regeneration. The climate is tropical humid with no dry season and thermal averages never below 15°C. Rainfall are abundant and evenly distributed throughout the year, however, there is a period of more intense rain during the summer, with less than 60 days with less than 100 mm rainfall. The relative humidity is high, ranging from 84–86% (Santa Catarina 1986).

Data collection

We collected fertile specimens by active search (Filgueiras et al. 1994), in previously mentioned locations. One to three fertile individuals of each species were collected and, after processed, deposited at the Herbarium Dr. Roberto Michael Klein (FURB). When necessary, we collected sterile samples, and these were grown in a greenhouse until flowering. We identified the material searching in the literature, discussing with taxonomists and compared it to materials with other herbaria collections. Angiosperm species were classified according to the Angiosperm Phylogeny Group III (APG 2009), ferns according to Smith et al. (2006) and adaptations of Rothfels et al. (2012), Kramer and Green (1990) for Lycophytes and Christenhusz et al. (2011) for Gymnosperms.

We compiled data published in Flora Ilustrada Catarinense (Reitz 1965), and herbariums FURB, FLOR, HBR, BHCMB, CESJ, CNMT, CRI, FUEL, HEPH, HUCS, HVAT, ICN, JOI, LUSC, MBM, MFS, RB, UEC and UPCB through the CRIA database, aiming to increment the herbaceous-shrub list species already sampled at PNSI. We considered in this study all vascular plants with a height equal to or less than 3 m that were using soil or rocks as substrate. We analyzed: species reported in the literature and collected species, new records for PNSI, new records for the state, exotic species, threatened species included at national and state red lists.

We classified the PNSI species by life form according to Raunkiaer (1934). A collector curve (Figure 2) was generated to determine if the species are well sampled. Field trips were made over a half year, during the warm season (September to April), to collect the specimens in reproductive stage. Plants which were not determined at species level were excluded from analysis to avoid overestimating the number of species.

RESULTS

We recorded 643 species from Parque Nacional da Serra do Itajaí (PNSI) (Table 1), these species were distributed in 486 (75.58%) Angiosperms with 86 families (78.18%); 145 (22.55%) fern species, with 21 families (21.81%); 11 species (1.71%) of Lycophytes into two families (1.9%) and one Gymnosperm (<1%). The ten most representative families are in Figure 3. The most abundant life forms were phanerophytes and hemicriptophytes (Figure 4). At least two species, Thelypteris glaziowii T.F. Reed (Thelypteridaceae) and Pseudelephantopus spiralis Cronquist (Asteraceae) is confirmed to be a new record for Santa Catarina state.

A total of 215 herbaceous and shrubs species (33.17%) were not collected in this study, when compared to

![Figure 1](image1.png)

**Figure 1.** Location of the Parque Nacional da Serra do Itajaí, Itajaí Valley, Santa Catarina, Brazil.

![Figure 2](image2.png)

**Figure 2.** Collector curve by month of the species in the Parque Nacional da Serra do Itajaí, Itajaí Valley, Santa Catarina, Brazil. *Species previously collected and which were not collected in this study.

![Figure 3](image3.png)

**Figure 3.** Ten most representative families in number of species in the herbaceous and shrubby of the Parque Nacional da Serra do Itajaí, Itajaí Valley, Santa Catarina, Brazil.
literature or CRIA data base. We found during the field trips 428 species, and 217 (33.74%) are new records for PNSI.

From the 643 species recorded in this study, 22 were exotic species (Table 1). We also found five threatened species and a new species of *Rhynchospora* Vahl is been described.

**Discussion**

The importance of this Protected Areas for Atlantic Subtropical Rainforest ( southern Brazil) biodiversity protection is proved, once again, by its richness. Adding up the tree species researched by the Management Plan of PNSI (Brasil 2009), where 340 tree and shrub species were recorded, as well as collections made by other researchers in PNSI, until now there were recorded 1,086 species of vascular.

We found epiphytes species in herbaceous stratum, growing over the leaf litter layer on top of Morro do Sapo and Spitzkopf such as *Prosthechea bulbosa* (Vell.) W.E. Higgins, *Prosthechea vespa* (Vell.) W.E. Higgins and *Coppensia flexuosa* (Lodd.) Campacci (Orchidaceae), *Vriesea erythrodactylon* (E. Morren) E. Morren ex Mez, *Vriesea rodigiasiana* E. Morren and *Nidularium innocentii* Lem. (Bromeliaceae), *Pleiochiton blepharodes* (DC.) Reginato et al. (Melastomataceae) and species of *Nematanthus* Schrad. (Gesneriaceae) as has already been reported by Klein (1980).

The new record *Thelypteris glaziouii* had already been reported by Ponce (1998) in Santa Catarina and Rio Grande do Sul states, but no voucher was presented. Salino and Semir (2004) reduced its distribution only to southeastern Brazil, and more recently over a collection in Serra do Capivari, Campina Grande do Sul (Paraná), Schwartzsburd and Xavier de Lima (2008) increased its distribution to Paraná state. Now we can confirm the reported made by Ponce (1998). *Pseudolphantopus spiralis* is a small ruderal herb, which a population of aproximated five individuals was found in a short stretch of the Spitzkopf’s trail. Is quoted by flora of Brazil with distribution in the states of Bahia, São Paulo and Acre. Possibly, as it is similar with ruderal species *Elephantopus mollis*, is poorly sampled.

The 22 exotic species in PNSI, four ferns (*Deparia peterseni* (Kunze) M. Kato, *Macrothelypteris torresiana* (Gaudich.) Ching, *Nephrolepis pectinata* (Willd.) Schott. and *Thelypteris dentata* (Forssk.) E.P. St. John, which have already been registered by Gasper and Sevegnani (2010) and 17 angiosperms: *Thunbergia alata* Bojer ex Sims, *Centella asiatica* (L.) Urb., *Bidens pilosa* L., *Galinsoga parviflora* Cav., *Tithonia diversifolia* (Emsl.) A. Gray, *Youngia japonica* (L.) DC., *Impatiens walleriana* Hook.f., *Cardamine bonariensis* Juss. ex Pers, *Drymaria cordata* (L.) Wild. ex Schultz., *Stellaria media* (L.) Vill., *Tradescantia zebrina* Boesse, *Sechium edule* (Jacq.) Sw., *Psidium guajava* L., *Plantago major* L., *Eulensine indica* (L.) Gaertn., *Brugmansia suaveolens* (Humb. & Bompl. ex Willd.) Bercht. & J. Presl, *Pilea microphylla* (L.) Liebm. and *Hedichyum coronarium* Vahl is been recorded in a short stretch of the Spitzkopf’s trail. Is quoted by flora of Brazil with distribution in the states of Paraná state. Now we can confirm the reported made by Capivari, Campina Grande do Sul (Paraná), Schwartzsburd Brazil, and more recently over a collection in Serra do Superior—Fumdes for the PhD scholarship granted.

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LITERATURE CITED
Angiosperm Phylogeny Group. 2009. An update of the Angiosperm Phylogeny Group classification for the orders and families of flowering plants: APG III, Botanical Journal of the Linnean Society 161(2): 105–121 (doi: 10.1111/j.1095-8339.2009.00932.x).

BRASIL. 2009. Plano de Manejo Parque Nacional Serra do Itajaí. Brasília: MMA—Ministério do Meio Ambiente, Instituto Chico Mendes da Conservação da Biodiversidade. 739 pp.

BRASIL. Ministério do Meio Ambiente. SNPC.Sistema Nacional de Unidades de Conservação do Patrimônio Natural. 2003. Lei n. 9.985, de 18 de julho de 2000, Decreto n. 4.340, de 22 de agosto de 2002. Brasília, MMA.

Coradin, L., A. Siminski and A. Reis. 2011. Espécies Nativas da Flora Brasileira de Valor Econômico Atual ou Potencial: Plantas para o Futuro—Região Sul. Brasília: MMA. 934 pp.

Christenhusz, M.J.M., J.L. Reveal, A. Farjon, M.F. Gardner, R.R. Mill and B.F. Sheath. 2011. The families and genera of vascular plants—pteridophytes and gymnosperms; pp. 1–404, in: K. Kubitzki and J. Davis (eds.). The Life Forms of Plants and Statistical Plant Geography. Oxford: Clarendon. 632 pp.

Ferreira, A.T. 2009. Classificação das Fitofisionomias da América do Sul. São Paulo: EdUSP. 255 pp.

Köppen, W. 1948. Clima. Berlín: Gebrüder Borntraeger. 577 pp.

Kramer, K.U. and P.S. Green. 1990. The families and genera of vascular plants—pteridophytes and gymnosperms; pp. 1–404, in: K. Kubitzki and M.R. Silman. 2011. Keep collecting: accurate species distribution modelling requires than previously thought. Diversity Captured. 17 July 2013.

Filgueiras, T.S., A.L. Brochado, P.E. Nogueira and G.F. Gualla. II. 1994. Ecologia, flora e vegetação do Vale do Itajaí, Santa Catarina. Brasília: MMA. 934 pp.

Rothschild, C.J., M.A. Sandoval, T. Pellegrini, M. Kato, E. Schuettpezzal and R.H.P. Reis. 2012. A revisited family-level classification for eupolypod II ferns (Polypodiidae, Pteridophyta). Taxon 61(3): 515–533.

Salino, A. and T.E. Almeida. 2012. Pteridáceas. pp.19–25, in: J.R. Stehmann, R.C. Forzza, A. Salino, D.P. Costa and L.H. Kaminho. (eds.). Plantas da Floresta Atlântica. Rio de Janeiro: Jardim Botânico do Rio de Janeiro. 322 pp.

Santa Catarina. 1986. Atlas de Santa Catarina. Rio de Janeiro: Aerofoto Cruzeiro. 173 pp.

Schneider, A.A. 2007. A flora nativa do estado do Rio Grande Sul. Brasil: Herbáceas subespontâneas. Biocêntricas 15(2): 257–268.

Schwartzbund, P.B. and A.C.A. de Lima. 2008. Notas sobre a distribuição de Thelypteris (Amauropelta) glaziovii (H. Christ) C.F. Reed (Thelypteridaceae—Pteridophyta). Acta Botânica Paranaense 37(3–4): 253.

Vegetação, pp. 3–11, in: IBGE (ed.). Geografia do Brasil, Região Sul. Rio de Janeiro: IBGE. 196–198.

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Table 1. Species list of Parque Nacional da Serra do Itajaí. LF: Life form. CA: campanulata; CR: criptophytes; H: hemiepiphytes; P: phanerophytes; T: therophytes and voucher Herbário FURB (Collectors: LAF: A.L. Funez and de Gasper | Flora of Parque Nacional da Serra do Itajaí. released: 2014-07-17. Copyright 2014. Source: Funez and de Gasper | Flora of Parque Nacional da Serra do Itajaí. A.K. Korte, J.L. Schmitt, T.J Cadorin, C.P.L. Deparia peterseni (Kunze) M.Kato*H

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Ponce, M.M. 1998. Noveidades em Thelypteris subg. Amauropelta (Thelypteridaceae) de Brasil y Paraguay. Novon 8: 275–279.

Raukkaia, C. 1934. The Life Forms of Plants and Statistical Plant Geography. Oxford: Clarendon. 632 pp.

Reis, A., A. Freitas, M.D. and R.K. Cury. 2011. Apresentação das listas das espécies vegetais das divisões angiospermas, gnospermas e pteridófitas. Sellowia 56–56: 11–256.

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**Familia**

| GENUS/FAMILY/SPECIES | VOUCHER |
|----------------------|---------|
| Funkis (L.) Sw.      | H LAF 1032 |
| Anemia raddiana Link | H ALG 546 |
| Anemia tomentosa (Savigny) Sw. | H LAF 1566 |
| Asplenium 2/10       |         |
| Asplenium obtusum Willd. | H ALG 2487 |
| Asplenium brasiliense Raddi | H LAF 964 |
| Asplenium cirratum Rich. ex Willd. | H ALG 868 |
| Asplenium claussenii Hieron. | H LAF 549 |
| Asplenium inequilateral Willd. | H LAF 1940 |
| Asplenium kunzeanum Klotsch ex Rosenst. | H LAF 1151 |
| Asplenium martianum C. Chr. | H LAF 1072 |
| Asplenium pseudonitidum Raddi | H ALG 813 |
| Asplenium uniseriale Raddi | H LS s/n |

**Familia**

| GENUS/FAMILY/SPECIES | VOUCHER |
|----------------------|---------|
| Hymenopteris trichomanes (N. Murak. & R.C. Moran) L. Regalado & Prada | H LAF 1716 |
| Athyrium 2/10         |         |
| Deparia peterseni (Kunze) M.Kato* | H LAF 1164 |
| Diplazium ambiguum Raddi | H LAF 1938 |
| Diplazium asplenoides (Kunze) C. Presl | H LAF 1714 |
| Diplazium cristatum (Desv.) Alton | H LAF 889 |
| Diplazium leptocarpon Fée | H ALG 971 |
| Diplazium lindbergii (Mett.) Christ | H AS 14798 |
| Diplazium plantaginfolium (L.) Urb. | H LAF 945 |
| Diplazium riedelianum (Bong. ex Kuhn) Kuhn ex C. Chr. | H LAF 1906 |
| Diplazium rostratum Fée | H LAF 1625 |
| Diplazium turridum Rosten. | H LAF 2043 |
| Blechnum 2/11         |         |
| Blechnum acutum (Desv.) Mett. | H LAF 950 |
| FAMILIES/GENUS/SPECIES | VOUCHER |
|-----------------------|---------|
| Blechnum austrobrasilianum de la Sota | H LAF 1808 |
| Blechnum brasiliense Desv. | CA LAF 922 |
| Blechnum cordatum (Desv.) Hieron. | CA LAF 1098 |
| Blechnum diversum (Kunze) Mett. | CA LAF 1000 |
| Blechnum occidentale L. | H LAF 1806 |
| Blechnum polyoides Raddi | H LAF 871 |
| Blechnum sampaioanum Brade | H ALG 578 |
| Blechnum schomburgki (Klotzsch) C. Chr. | CA AK 3479 |
| Blechnum unilaterale Sw. | H DBF 6190 |
| Salpichlaena volubilis (Kaulf.) Hook. | H LAF 962 |
| **Cyathea** | |
| Cyathea atrovirens (Langsd. & Fisch.) Domi | F LAF 1904 |
| Cyathea corcovadensis (Raddi) Domín | F LAF 1962 |
| Cyathea delgadii Sternb. | F RR 2262 |
| Cyathea hirsuta C. Presl | F LAF 1096 |
| Cyathea phalerata Mart. | F LAF 2044 |
| Cyathea ulaena (Samp.) Lehner | F EC 112 |
| **Dennstaedtia** | |
| Dennstaedtia citriaria (Sw.) T. Moore | H ALG 589 |
| Dennstaedtia dissecta (Sw.) T. Moore | H LAF 1622 |
| Dennstaedtia obtusifolia (Wildl.) T. Moore | H ALG 590 |
| Histiopteris incisa (Thunb.) J. Sm. | H LAF 1068 |
| Hypolepis acantha Schwartb. | H LAF 1857 |
| Microlepis spelunces (L.) T. Moore** | H LAF 959 |
| Pteridium arachnoideum (Kaulf.) Maxon | H LAF 1576 |
| **Dryopteridaceae** | |
| Ctenitis annisii (Rosenst.) Copel. | H LAF 1189 |
| Ctenitis laevirens Salino & Morais | H LAF 1701 |
| Ctenitis pedicellata (H. Christ) Copel. | H LAF 1165 |
| Didymochlaena tranquilula (Sw.) J. Sm. | H LAF 941 |
| Elaphoglossum lino (C. Presl) Brack. | H LAF 1565 |
| Elaphoglossum vagans (Met.) Hieron. | H LAF 1249 |
| Lastreopsis amplissima (C. Presl) Tindale | H LAF 1250 |
| Lomagramma guianensis (Aubl) Ching | H ALG 869 |
| Megalostrobus abundans (Rosenst.) A.R. Sm. & R.C. Moran | CA ALG 2496 |
| Megalostrobus connexus (Kaulf.) A.R. Sm. & R.C. Mo- | CA LAF 1076 |
| | n|
| Megalostrobus oreocharis Salino & Ponce | CA LAF 1717 |
| Michelia scandens (Raddi) R.C. Moran et al. | H NLS 4 |
| Oleria cernua (L.) Kunze | H ALG 853 |
| Polytotrya cylindrica Kaulf. | H LAF 958 |
| Polystichum montevideense (Spreng.) Rostaf. | H ALG 2472 |
| Rumohra adiantiformis (G.Forst.) Ching | H LAF 1607 |
| Stigmatopteris brevinervis (Fée) R.C. Moran | H LAF 1942 |
| Stigmatopteris cadiata (Raddi) C. Chir. | H LAF 1142 |
| Stigmatopteris heterocarpa (Fée) Rosenst. | H LAF 939 |
| **Dicksoniaceae** | |
| Dicksonia seligwiana Hook.*** | F ALG 593 |
| Lophosoria quadripinnata (J.F. Gmel.) C. Chir. | H LAF 1006 |
| **Gleicheniaceae** | |
| Dicranopteris flexuosa (Schmid.) Underw. | H LAF 1144 |
| Dicranopteris nervosa (Kaulf.) Magon | H LAF 2052 |
| Gleichenella pectinata (Wildl.) Ching | H LAF 1307 |
| Sticherus bifidus (Wildl.) Ching | H LAF 1001 |
| Sticherus lanuginosus (Fée) Nakai | H ALG 626 |
| Sticherus nigropalpeceleus (Sturm) J. Prado | H LAF 2046 |
| Sticherus squamosus (Fée) J. Gonzáles | H LAF 1223 |

| FAMILIES/GENUS/SPECIES | VOUCHER |
|-----------------------|---------|
| Hymenophyllaceae | |
| Abrodictyum rigidum (Sw.) Eibiharaand Dubuisson | H LAF 1949 |
| Trichomanes cristatum Kaulf. | H ALG 2456 |
| Trichomanes elegans Rich. | H LAF 1524 |
| Trichomanes pilosum Raddi | H LAF 1516 |
| Vandenboschia radicans (Sw.) Copel. | H LAF 879 |
| Vandenboschia rupestris (Raddi) Eibihara & K.Iwats. | H ALG 2479 |
| Lindsaeaceae | |
| Lindsaea arcuata Kunze | H ALG 964 |
| Lindsaea bifida (Kaulf.) Mett. ex Kuhn | H ALG 650 |
| Lindsaea lancea (L.) Bedd. | H LAF 873 |
| Lindsaea ovoidea Fée | H LAF 944 |
| Lindsaea quadrangularis Raddi | H LAF 1246 |
| Lomoriopsidaceae | |
| Lomaria marginata (Schrad.) Kuhn | H ALG 665 |
| Neprolepis pectinata (Willd.) Schott* | H ALG 558 |
| Lycopteridaceae | |
| Diphasiastrum thyoides (Humb. & Bonpl. ex Willd.) Holub | H LAF 1529 |
| Palhinhea camporum (B. Øllg. & P. Windisch) Holub | H LAF 1008 |
| Palhinhea cerna (L.) Franco & Vasc. | H LAF 1031 |
| Phegmariaires refexus (Lam.) B. Øllg | CA ALG 975 |
| Pseudolycomitella carolinieana (L.) Holub | H ALG 670 |
| Lycopodium clavatum L. | H LAF 1225 |
| Lygodiaceae | |
| Lygodium volubile Sw. | H LAF 1533 |
| Marattiacae | |
| Danaea geniculata Raddi | CA ALG 678 |
| Danaea moritziana C. Presl | CA ALG 938 |
| Danaea nodosa (L.) Sm. | CA ALG 1726 |
| Eupodium kauflfassii (J. Sm.) Hook. | CA ALG 1608 |
| Marattia cicutifolia Kaulf. | CA ALG 2055 |
| Osmundaceae | |
| Osmunda regalis L. | H ALG 821 |
| Osmundastrum cinnaemomeum (L.) C. Presl | H ALG 2470 |
| Polypodiaceae | |
| Camplypneuron acrocarpon Fée | H LAF 1907 |
| Camplypneuron minus Fée | H LAF 957 |
| Camplypneuron nitidum (Kaulf.) C. Presl | H LS s/n |
| Niphidium crassifolium (L.) Lellinger | H ALG 579 |
| Pecluma chnoophora Salino & Costa Assis | H ALG 722 |
| Pecluma recurvata (Kaulf.) M.G. Price | H LAF 1075 |
| Pleopeltis hirtusissimo (Raddi) de la Sota | H LAF 2069 |
| Pleopeltis leptiderptis de la Sota | H LS s/n |
| Serpoaulon catharinae (Langsd. & Fisch.) A.R. Sm. | H LAF 946 |
| Serpoaulon fraxinifolium (Jacq.) A.R. Sm. | H LAF 2018 |
| Serpoaulon latipes (Langsd. & L.Fisch.) A.R. Sm. | H ALG 732 |
| Serpoaulon vacillans (Link) A.R. Sm. | H ALG 733 |
| Pteridaceae | |
| Adiantopsis chlorophylla (Sw.) Fée | H ALG 2443 |
| Adiantum pentadactylon Langsd. & Fisch. | H LAF 1730 |
| Adiantum radianum C. Presl | H LAF 604 |
| Doryopteris collina (Raddi) J. Sm. | H ALG 737 |
| Doryopteris crenulata (Fée) J. Christ | H ALG 2492 |
| Jamesonia myriophylla (Sw.) Christenh. | H ALG 738 |
| Pityrogramma calomelanos (Klotzsch) C. Chr. | H ALG 1563 |
| Pteris altissima Poir. | H LAF 1725 |
| Pteris decurrens C. Presl | H LAF 1515 |
| Pteris lechleri Mett. | H ALG 742 |
### Table 1. Continued.

| FAMILIES/GENUS/SPECIES | VOUCHER |
|------------------------|---------|
| *Pteris podophylla* Sw. | H LAF 1911 |
| *Pteris splendens* Kaulf. | H ALG 743 |
| **Saccoboma** technicalae 1/2 | |
| *Saccoboma inaequale* (Kunze) Mett. | H LAF 970 |
| *Saccoboma elegans* Kaulf. | H LAF 952 |
| **Schizaea** technicalae 1/1 | |
| *Schizaea elegans* (Vahl.) Sw. | H LAF 1706 |
| **Selinia** technicalae 1/1 | |
| *Salvinia minima* Baker | H LS s/n |
| **Selimagellae** technicalae 1/5 | |
| *Selaginella contigua* Baker | H LAF 1508 |
| *Selaginella decomposita* Spring | H LAF 1019 |
| *Selaginella flexuosa* Spring | H LAF 1512 |
| *Selaginella muscosa* Spring | H LAF 1509 |
| *Selaginella sulcata* (Desv. ex Poiret) Spring ex Mart. | H LAF 1511 |
| **Tectariaceae** 1/4 | |
| *Tectaria buchtienii* (Rosenst.) Maxon | H LAF 1078 |
| *Tectaria incisa* Cav. | H LAF 1684 |
| *Tectaria pilosa* (Fée) R.C. Moran | H LAF 884 |
| *Tectaria vivipara* Jermy & T.G. Walker | H LAF 1718 |
| **Thelypteridaceae** 2/16 | |
| *Macrothelypteris torresiana* (Gaudich.) Ching* | H LAF 994 |
| *Thelypteris amambayensis* Ponce | H LAF 1498 |
| *Thelypteris conspersa* (Schrad.) A.R. Sm. | H LAF 1811 |
| *Thelypteris decurrent* (Kunze) de la Sota | H LAF 1814 |
| *Thelypteris dentata* (Forssk.) E.P. St.John* | H LAF 998 |
| *Thelypteris glaziovii* (Christ) C.F. Reed | H LAF 1066 |
| *Thelypteris gymnosophora* Ponce | H LAF 1177 |
| *Thelypteris longifolia* (Desv.) R.M. Tryon | H LAF 1724 |
| *Thelypteris opposita* (Vahl) Ching | H LAF 1519 |
| *Thelypteris pachyrhachis* (Kunze ex Mett.) Ching | H LAF 1735 |
| *Thelypteris parvula* (Kunze) C.F. Reed | H ALG 961 |
| *Thelypteris pachyrhachis* (Kunze ex Mett.) Ching | H ALG 955 |
| *Thelypteris pachyrhachis* (Kunze ex Mett.) Ching | H LAF 1793 |
| *Thelypteris regnelliana* (C. Chr) Ponce | H LAF 1030 |
| *Thelypteris retusa* C.F. Reed | H LAF 1017 |
| *Thelypteris vivipara* (Raddi) C.F. Reed | H LAF 887 |

### Gymnosperms

**Podocarpaceae** 1/1

*Podocarpus sellowii* Klotzsch ex Endl. | F MS s/n

**Acanthaceae** 7/9

*Apheleandra chamissoniana* Nees | F LAF 929

*Apheleandra lobianiana* Linden ex Hook. f. | F LAF 1070

*Hygrophila costata* Nees | T LAF 1491

*Justicia carnea* Lindl. | F LAF 917

*Mendoncia puberula* Mart. | F LAF 2065

*Mendoncia velloziana* Mart. | F LAF 932

*Ruella brevifolia* (Pohl) C. Eczurra | F LAF 1847

*Staurogyne eustachya* Lindau | CA LAF 1148

*Thuemzenia alata* Bojer ex Sims* | F LAF 1788

**Amaranthaceae** 4/5

*Alternanthera philoxeroides* (Mart.) Griseb. | H LAF 1493

*Alternanthera tenella* Colla | H LAF 1758

*Celosia grandifolia* Moq. | CA LAF 910

*Chammisia altissima* (Jacq.) Kunth | F LAF 1613

*Hebanthe pulverulenta* Mart. | F RR 9695

**Aproaceae** 1/1

*Centella asiatica* (L.) Urb.* | H LAF 1071

### Families

| FAMILIES/GENUS/SPECIES | VOUCHER |
|------------------------|---------|
| *Apocynaceae* 3/5 | |
| *Forsteronia leptocarpa* (Hook. & Arn.) A. DC. | F TJC 761

*Manedwellia atrovireseae* (Stadl.) Woodson | F MS s/n

*Manedwellia immaculata* Woodson | F AR 842

*Manedwellia urophylla* (Hook.) Woodson | F LAF 1531

*Oppetalum pedicellatum* Decne. | F DBF 4832

**Aquifariacea** 1/3 | |
| *Ilex dumosa* Reisek | F CRG 596

*Ilex microdonta* Reisek | F MS s/n

*Ilex theezans* Mart. | F LAF 1611

**Araeaceae** 3/6 | |
| *Anthurium acutum* N.E. Br. | CA LAF 1245

*Anthurium pentaphyllum* (Aubl.) G.Don | F LAF 936

*Asterostigma tweedalianum* Schott | CR LAF 893

*Philodendron appendiculatum* Nadruz and Mayo | H LAF 1220

*Philodendron propinquum* Schott | H TJC 3049

*Philodendron roseopetiolatum* Nadruz and Mayo | H ALG 2466

**Araceae** 2/3 | |
| *Bacris setosa* Mart. | F LAF 1936

*Geonna pohliana* Mart. | F LAF 1860

*Geonna schottiana* Mart. | F LAF 965

**Astereaceae** 35/62 | |
| *Achyrocline satureoides* (Lam.) DC. | T LAF 1887

*Adenostemma brasiliunum* (Pers.) Cass. | CA LAF 1574

*Ageratum conyzoides* (L.) L. | T LAF 920

*Baccharis anomala* DC. | T LAF 1029

*Baccharis conyzoides* (Less.) DC. | T LAF 1172

*Baccharis crispa* Spreng. | CA LAF 1082

*Baccharis lateralis* Baker | F LAF 1443

*Baccharis malmel* joch. Müll. | F LAF 2037

*Baccharis microdonta* DC. | F LAF 1879

*Baccharis montana* DC. | F DBF 3912

*Baccharis oblongifolia* (Ruiz & Pav.) Pers. | F LAF 2051

*Baccharis ooyodonta* DC. | F LAF 1922

*Baccharis semisserrata* DC. | F LS s/n

*Baccharis trimera* (Less.) DC. | F LAF s/n

*Baccharis urvilleana* Brongn. | F DBF 3880

*Baccharis vulneraria* Baker | T LAF 1222

*Bidens pilosa* L.* | T LAF 1889

*Calyptraropus biaristatus* (DC.) H. Rob. | T LAF 1782

*Chaptalia nutans* (L.) Polák | CA LAF 935

*Cheverulia acuminata* Less. | H LAF 1881

*Chromolaena laevigata* (Lam.) R.M. King & H Rob | F LAF 1947

*Conyza bonariensis* (L.) Cronquist | DRL s/n

*Conyza primulifolia* (Lam.) Cuatrec. & Lourteig | T LAF 842

*Critonitopia quinquiflora* (Less.) H. Rob. | F EK s/n

*Cyrtocymum scorpioides* (Lam.) H. Rob. | F LAF 1093

*Eclipta prostrata* (L.) L. | T LAF 1809

*Elephantopus mollis* | CA LAF 1686

*Erechtites valerianifolius* | T LAF 1168

*Erechtites hieracifolius* | T LAF 1168

*Elephantopus quinqueflora* (Less.) H. Rob. | T LAF 1168

*Erechtites tenella* (Mart.) Griseb. | H LAF 1493

*Erechtites valerianifolius* (Link ex Spreng.) DC. | T LAF 921

*Galinsoga parviflora* Cav* | T LAF 1759

*Gamochaeta coarctata* (Willd.) Kergüelen | T LS s/n

*Gamochaeta simplicicaulis* (Willd. ex Spreng.) Cabrera | T LAF 1047
| FAMILY/Genus/Species | Voucher |
|----------------------|---------|
| Heterocodylus alatus (Vell.) R.M. King & H. Rob. | LS s/n |
| Jaegeria hirta (Lag.) Less. | LAF 992 |
| Leptostema maximum D. Don | LAF 1558 |
| Mikania buddleiaefolia DC. | RR 3804 |
| Mikania glomerata Spreng. | RR 8966 |
| Mikania hoffmanniana Dusén ex Malme | RR 9218 |
| Mikania involucrata Hook. & Arn. | RR 3915 |
| Mikania lanuginosa DC. | LS s/n |
| Mikania lindbergii Baker | RR 9140 |
| Mikania rufescens Sch. Bip. ex Baker | RR 9627 |
| Mikania sericea Hook. & Arn. | FB s/n |
| Mikania s maragdina Dusén ex Malme | RMK 2436 |
| Pendula desiderabilis (Veloso) Cuatrec. | ALG 538 |
| Piptocarpa axillaris (Less.) Baker | AD s/n |
| Piptocarpa oblonga (Gardner) Baker | LAF 1033 |
| Piptocarpa quadrangularis (Vell.) Baker | LAF 1186 |
| Piptocarpa regnellii (Sch. Bip.) Cabrera | RRP s/n |
| Plucheasagittin Las. | LAF 1898 |
| Praselis pauciflora (Kunth) R.M. King & H. Rob. | LAF 1513 |
| Pseudophellotus spiralis Cronquist | LAF 1804 |
| Pterocaulon alopecuroides (Klotzsch) A. DC. H | LAF 1917 |
| Senecio brasilensis (Spreng.) Less. | ALG 2464 |
| Solidago chilensis | LAF 1888 |
| Steyermarkina pyrifolia (DC.) R.M. King & H. Rob. | RR 8964 |
| Symphyotropus itaiyensis (Hieron.) R.M. King & H. Rob. | MS s/n |
| Tithonia diversifolia (Hemsl.) A. Gray* | LAF 1205 |
| Trias lessingii DC. | AS 1350 |
| Vernonanthura montevidensis (Spreng.) H. Rob. | LAF 1821 |
| Vernonanthura tweediana (Baker) H. Rob. | DRL s/n |
| Youngia japonica (L.) DC.* | LAF 1555 |
| Balsaminaceae 1/1 | |
| Impatiens walleriana Hook.f.* | LAF 1752 |
| Begoniaceae 1/9 | |
| Begonia angulata Vell. | CA LAF 1745 |
| Begonia capenamae Brade | CA LAF 1704 |
| Begonia convolvulacea (Klotzsch) A. DC. | LAF 961 |
| Begonia fischeri Schrank | CA LAF 1226 |
| Begonia fruticosa (Klotzsch) A. DC. | LAF 875 |
| Begonia hammoniae Irsm. | F LAF 2038 |
| Begonia hispida Schott ex A. DC. | RR s/n |
| Begonia radicans Vell. | LAF 1063 |
| Begonia semperflorens Link & Otto | CA LAF 1041 |
| Bignoniaceae 2/2 | |
| Fredericia chicha (Bonpl.) L.G. Lohmann | DBF 3918 |
| Tanaecium pyramidatum (Bonpl.) L.G. Lohmann | LAF 1237 |
| Brassicaceae 1/1 | |
| Cardamine bonariensis juss. ex Pers.* | LAF 2073 |
| Bromeliaceae 2/5 | |
| Nidularium innocentii Lem. | LAF 1482 |
| Vriesea carinata Wawra | LAF 928 |
| Vriesea incurvata Gauch. | LAF 1217 |
| Vriesea erythrodactylon (E.Morren) E. Morren ex Mez | LAF 1734 |
| Vriesea rodigianosa E.Morren | LAF 1481 |
| Campanulaceae 2/2 | |
| Lobelia xalapensis Kunth | LAF 1025 |
| Siphacomygus convolvulaceus (Cham.) G. Don | LBS 6276 |
| Cannaceae 1/1 | |
| Canna indica L. | CR LAF 1751 |
Table 1. Continued.

| FAMILIES/GENUS/SPECIES | FV | VOUCHER |
|------------------------|----|---------|
| Rhyzochospora sp. nov.  | CR | LAF 1798|
| Scleria distans Poir.  | H  | LAF 1539|
| Scleria latifolia Sw.   | H  | LAF 911|
| Scleria panicodes Kunth | H  | LAF 914|
| Scleria secans (L.) Urb.| H  | LAF 1086|
| Eriaceae 2/3            |    |         |
| Agarista eucalyptoides  | F  | LS s/n  |
| (Cham. & Schidl.) G.Don |    |         |
| Agarista niederleinii   | F  | RMK 2133|
| (Sleumer) Judd          |    |         |
| Gaylussacia brasiliensis| F  | CRG s/n |
| (Spreng.) Meisn.        |    |         |
| Erythroxyllum ampelophyllum Baill. | F     | LS s/n  |
| Erythroxyllum vaccinifolium Mart. | F    | LS s/n  |
| Euphorbiaceae 5/5       |    |         |
| Acalypa gracilis Spreng.| F  | LAF 1619|
| Actinostemon concolor | F  | ALG 2523|
| (Spreng.) Müll. Arg.    |    |         |
| Aparisthmium cordatum   | F  | LAF 1528|
| (A. Juss.) Baill.       |    |         |
| Croton celidifolius Baill. | F    | ASS 1320|
| Sebastiania argutidens Pax & K.Hoffm. | F | LS s/n |
| Fabaceae 5/7            |    |         |
| Dahlstedia pentaphylla (Taub.) Burkart | F | LAF 1505|
| Dalbergia frutescens (Vell) Britton | F | ASS 1306|
| Desmodium ascensdens (Sch. DC.) | H | LAF 1902|
| Desmodium incanum DC.   | H  | LAF 1174|
| Desmodium subserricum Malme | CA  | DBF 3955|
| Erythrina speciosa Andrews | F  | RR8970  |
| Inga marginata Kunth     | F  | LAF 1170|
| Gentianaceae 1/1         |    |         |
| Macrocarpaea rubra Malme | T  | LAF 1083|
| Gesneriaceae 2/3         |    |         |
| Nematanthus australis Chautems | CA | LAF 2033|
| Nematanthus fissus (Vell.) L.E. Skog | CA | LAF 2027|
| Sinningia curtiflora (Malme) Chautems | CR | LAF 1604|
| Grotiaceae 3/3           |    |         |
| Bacopa stricta (Schrad.) Wettst. ex Edwall | T | MLS 821 |
| Scoparia dulcis L.       | T  | LAF 1494|
| Stemodia trifoliata (Link) Rchb. | T | LAF 1243|
| Stemodia verticillata (Mill.) Hassl. | T | LAF 1756|
| Griselinaceae 1/1        |    |         |
| Griselinia ruscifolia (Gay) Ball | F  | TJC 2587|
| Heliconiaceae 1/1        |    |         |
| Heliconia farinosa Raddi*** | CR | LAF 892 |
| Hypoxidaceae 1/1         |    |         |
| Hypoxis decumbens L.    | CR  | LAF 1502|
| Iridaceae 1/2            |    |         |
| Sisyrinchium palmifolium L. | H  | ASS 1352|
| Sisyrinchium vaginatum Spreng. | H | LAF 1248|
| Juncaceae 1/2            |    |         |
| Juncus microcephalus Kunth | H  | LAF 1208|
| Juncus tenuis Wild.      | H  | LAF 1233|
| Lamiaeae 5/8             |    |         |
| Aegiphila obducta Vell.   | F  | LAF 2081|
| Hypitis fasciculata Benth. | T  | DRL s/n |
| Hypitis heterodon Epling | T  | LAF 1892|
| Hypitis inodora Schrank  | T  | LAF 1088|
| Hypitis laevis A. St.-Hil ex Benth. | T | LAF 1807|
| Marsypsanthus chamaedrys (Vahl) Kunzze | T | LAF 1242|
| Ocytium coronatum (Spreng.) Link & Otto ex Benth. | CA | LAF 1197|
| Peltophoron radicans Pohl | H  | LAF 1812|
| Lauraceae 1/1            |    |         |
| Endlicheria paniculata (Spreng.) J.F. Macbr. | F | LAF 1886|

| FAMILIES/GENUS/SPECIES | FV | VOUCHER |
|------------------------|----|---------|
| Linderniaceae 2/3      |    |         |
| Lindernia diffusa (L.) Wettst. | T  | LAF 1526|
| Lindernia rotundifolia (L.) Alston | T | LAF 1883|
| Micranthemum umbrosum ( Walter ex J.F. Gmel.) | H | LAF 1882|
| Loganium 1/2           |    |         |
| Spigelia pusilla Mart.  | CA  | LAF 1210|
| Spigelia tetraptera Taub. | F  | LAF 1210|
| Lythraceae 2/4         |    |         |
| Cuphea calyphylo Cham. & Schidl. | CA | LAF 1503|
| Cuphea carthagenensis (Jacq.) J.F. Macbr. | CA | LAF 1178|
| Cuphea racemosa (L.f.) Spreng. | CA | LAF 995 |
| Heimia apetala (Spreng.) S.A. Graham & Gandhi | F | LAF 1490|
| Malpighiaceae 2/2      |    |         |
| Bunchosia fluminensis Griseb. | F  | LAF 930 |
| Byrsonima ligustrifolia Mart. | F  | FST s/n |
| Malvaceae 4/7          |    |         |
| Byttneria australis A. St.-Hil. | F | LAF 1732|
| Pavonia fruticosa (Mill.) Fawc. & Rendle | F | LMC s/n |
| Pavonia nemoralis A. St.-Hil. | F  | LAF 1542|
| Sida planicaulis Cav.   | CA  | LAF 1564|
| Sida rhombifolia L.    | CA  | LAF 1179|
| Triumfetta rhomboidea Jacq. | F  | LAF 1848|
| Triumfetta semitriboea Jacq. | F  | LAF 2021|
| Marantaceae 4/6        |    |         |
| Calathea monophylla (Weill) Körn. | CR | LAF 1231|
| Ctenanthe lanceolata Peterson | CR | LAF 1532|
| Ctenanthe muelleri Petersen | CR | LAF 1143|
| Ctenanthe setosa (Roscoe) Eichler | CR | LAF 1596|
| Maranta diversicula Roscoe | CR | LAF 1957|
| Stromanthe papillosa Petersen | CR | LAF 1616|
| Marekragavieae 1/1     |    |         |
| Schwartzia brasiliensis (Choisy) Bedell ex Gir-Calhas | F | LAF 1699|
| Melastomataceae 6/49   |    |         |
| Bertolonia acuminata Gardner | CA | LAF 1541|
| Bertolonia moseni Cogn. | CA | LAF 1687|
| Leandra acutiflora (Naudin) Cogn. | F | LAF 1254|
| Leandra australis (Cham.) Cogn. | F | ALG 819 |
| Leandra barbinervis (Cham. ex Triana) Cogn. | F | FB s/n |
| Leandra bergiana Cogn. | F  | LAF 1781|
| Leandra carassana (DC.) Cogn. | F  | LAF 1621|
| Leandra dasytricha (A. Gray) Cogn. | F  | LAF 1200|
| Leandra echinata Cogn. | F  | LAF 1092|
| Leandra flexa (Cham.) Cogn. | F  | LAF 1064|
| Leandra fragilis Cogn. | F  | ALG 973 |
| Leandra glazioviana Cogn. | F  | LAF 1214|
| Leandra hirtella Cogn. | F  | LAF 1214|
| Leandra hordida Cogn. | F  | RR 9972|
| Leandra kleinii Brade | F  | RR 563  |
| Leandra leuevigata Cogn. | F  | LAF 1198|
| Leandra laxa Cogn. | F  | MS s/n  |
| Leandra melastomoides Raddi | F  | LAF 1624|
| Leandra planiflamentos Brade | F  | LAF 1587|
| Leandra purpureovillosa Hoehne | F | LAF 1215|
| Leandra quinuedentata Cogn. | F  | RMK 2374|
| Leandra regnellii (Triana) Cogn. | F  | LAF 1043|
| Leandra retzii Wurdack | F  | MS s/n  |
| Leandra scabra DC.    | F  | RMK 2362|
| Leandra subplanata Cogn. | F  | MS 8638 |
| Leandra tetraqueta Cogn. | F  | LAF 1683|
| TABLE 1. Continued. |
|----------------------|
| **FAMILIES/GENUS/SPECIES** | **FV** | **VOUCHER** | **FAMILIES/GENUS/SPECIES** | **FV** | **VOUCHER** |
| Leandra xanthocoma (Naudin) Cogn. | F | ASS 1334 | Habenaria parviflora Lindl. | CR | LAF 1549 |
| Miconia badjeoides Triana | F | AD s/n | Malaxis excavata (Lindl.) Kuntze | H | AK 3353 |
| Miconia chartacea Triana | F | LAF 1693 | Microchilus arietinus (Rchb. f. & Warm.) Ormerod | H | LAF 2212 |
| Miconia cubatanensis Hoehne | F | DBF 3836 | Microchilus austrobrasiliensis (Porsch) Ormerod | H | LAF 1937 |
| Miconia inconspicua Miq. | F | CRG 619 | Prescottia densiflora (Bong.) Lindl. | H | LAF 934 |
| Miconia limayni Wurdack | F | RR 8994 | Prescottia stachyoides (Sw.) Lindl. | H | LAF 2113 |
| Miconia sellowiana Naudin | F | ALG 2461 | Prosthechea bulbosa (Vell.) W.E. Higgins | H | LAF 1952 |
| Miconia tristis Spring | F | SD 1033 | Prosthechea vespa (Vell.) W.E. Higgins | H | LAF 1479 |
| Myrceugenia glaucescens | F | LAF 1580 | Psychilochus dusenianus Kraenzl. ex Garay & Dunst. | H | TJC 1330 |
| Myrceugenia alpigena | F | LAF 1213 | Psychilochus modestus Barb. Rodr. | H | LAF 1677 |
| Eugenia uniflora | F | LAF 1685 | Sauroglossum nitidum (Vell.) Schltr. | H | LAF 2149 |
| Eugenia sclerocalyx | F | LAF 1595 | Vanilla dielschiana Edwall** | H | LAF 1707 |
| D. Legrand ex F. | DBF 4831 | | | |
| Mollinedia schottiana | F | LAF 1517 | | |
| Tul. | F | MS s/n | | |
| Mollinedia clavigera (Vell.) Cogn. | F | LAF 1065 | | |
| Mollinedia schottiana (Spreng) Perkins | F | AD s/n | | |
| Monimiaceae 1/2 | | | | |
| Moraceae 2/2 | | | | |
| Dorstenia caratace [C.C. Berg] | CA | LAF 923 | | |
| Sorocrea bonplandii (Baill.) W.C. Burger et al. | F | JPM 31 | | |
| Myrtaceae 4/7 | | | | |
| Eugenia kleini D. Legrand | F | DBF 4831 | Peperomia alata Ruiz & Pav. | CA | LAF 1705 |
| Eugenia sclerocalyx D. Legrand | F | RR s/n | Peperomia glabella (Sw.) A. Dietr. | H | LAF 1012 |
| Eugenia uniflora | F | LAF 1492 | Peperomia hispidula (Sw.) A. Dietr. | CA | LAF 1026 |
| Marlieria tomentosa Griseb. | F | TJC 1244 | Peperomia ibiramana Yunnck. | H | LAF 916 |
| Myrcigenia alpigena (DC.) Landrum | F | MS s/n | Peperomia renifolia Dahst. | H | LAF 881 |
| Myrcigenia glaucescens (Cambess.) D. Legrand & Kausel | F | AS 1335 | Peperomia urocarpa Fisch. & C.A. Mey. | H | LAF 876 |
| Psidium guajava L* | F | LAF 1496 | Piper alnoides Kunth | F | LAF 1044 |
| Nyctaginaceae 2/2 | | | | |
| Guapira opposita (Vell.) Reitz | F | CRG 572 | Piper amplus Kunth | F | LAF 1600 |
| Neea pendulina Heimerl | F | LAF 1039 | Piper arboreum Aubl. | F | LAF 1244 |
| Ochnaceae 2/3 | | | | |
| Ouratea parviflora Engl. | F | LAF 1729 | Piper caldense C. DC. | F | LAF 1601 |
| Ouratea vaccinoides Engl. | F | LS s/n | Piper cernuum Veil. | F | LAF 1912 |
| Sauvagesia velozii (Vell. ex A. St.-Hil.) Sastre | CA | LAF 1544 | Piper coronavensis (Miq.) C. DC. | F | LAF 3345 |
| Onagraceae 2/2 | | | | |
| Fuchsia regia (Vand. ex Vell) Munz | F | LAF 1062 | Piper cassinervium Kunth | F | LAF 2022 |
| Ludwigia longiflora (DC.) H. Harra | T | DBF 3883 | Piper dilatatum Rich. | F | MS s/n |
| Orchidaceae 14/19 | | | | |
| Aspidogyne decora (Rchb.f.) Garay & G.A. Romero | H | LAF 991 | Piper gaudichaudianum Kunth | H | LAF 1741 |
| Brenchylete camporum (Lindl.) Schltr. | H | DBF 6202 | Piper hispidum Sw. | F | LAF 908 |
| Cleistes liboni (Rchb. f.) Schltr. | CR | LAF 2062 | Piper malacophyllum (C. Presl) C. DC. | F | LAF 1737 |
| Cleistes revoluta (Barb. Rodr.) Schltr. | CR | RR9619 | Piper mollicomum (Kunth) Steud. | F | LAF 1692 |
| Coppensia flexuosa (Loedl) Cam pacci | H | LAF 1593 | Piper mosenii C. DC. | F | LAF 907 |
| Coryborkis flavo (Sw.) Kuntze | H | LAF 1944 | Piper pirtubanum Yunnck. | F | ASS 1297 |
| Epidendrum secundum Jacq. | H | LAF 1594 | Piper reitzii Yunnck. | F | ASS 1336 |
| Andropogon bicorinis L. | T | LAF 1698 | Piper rivinoides (Kunth) C. DC. | F | LAF 1959 |
| Bromus catharticus Vahl | T | RR 455 | Piper ulei C. DC. | F | LAF 1820 |
| | | | | |
| FAMILIES/GENUS/SPECIES | **FV** | **VOUCHER** | | | |
| FAMILIES/GENUS/SPECIES | FV | VOUCHER |
|------------------------|----|---------|
| *Chusquea bambusoides* (Radl.) Hack. | H | RR s/n |
| *Chusquea discolor* Hack. | H | RR s/n |
| *Chusquea leptophylla* Nees | H | RR s/n |
| *Chusquea oligophylla* Rupr. | H | RR 18104 |
| *Colanthelia intermedia* (McClure & L.B.Sm.) McClure | H | s/coloter |
| *Eleusine indica* (L.) Gaertn.* | H | LAF 1488 |
| *Ichnanthus pullens* (Sw.) Munro ex Benth. | H | LAF 1570 |
| *Merostachys petiolata* Döll | H | TJC 14 |
| *Merostachys scissosa* Spreng. | H | RR s/n |
| *Ocellochoa radiis* (Nees) Zaloaga & Morrone | H | RR 9220 |
| *Olyra latifolia* (Nees) Zuloaga & Morrone | H | LAF 1817 |
| *Osmunda regalis* (L.) Gaertn.* | H | LAF 1797 |
| *Paspalum conjugatum* P.J. Mez | H | LAF 1487 |
| *Paspalum corcovadense* Raddi | H | LAF 1606 |
| *Paspalum notatum* Flüggé | H | LAF 1540 |
| *Paspalum pauciciliatum* (Pam.d) Herter | H | LAF 1553 |
| *Paspalum pumilum* Nees | H | LAF 1536 |
| *Paspalum umbrosum* Trin. | H | LAF 1557 |
| *Pharus lappulaceus* Aubl. | H | LAF 1802 |
| *Poa annua* L. | H | LAF 1835 |
| *Poa arundinacea* L. | H | LAF 1850 |
| *Sacciolepis vilvoides* (Trin.) Chase | H | LAF 1919 |
| *Setaria parviflora* (Poir) M. Kerguelen | T | LAF 1203 |
| *Polygala paniculata* L. | T | LAF 1074 |
| *Polygonaeeae* 2/2 | | |
| *Polygonon acuminatum* Kunth | H | LAF 1916 |
| *Ruprechtia laxiflora* Meisn. | F | ASS 1289 |
| *Pontederiaceae* 2/2 | | |
| *Eichhornia crassipes* (Mart.) Solms | CR | LAF 1597 |
| *Heteranthera reniformis* Ruiz & Pav. | H | LAF s/n |
| *Primulaceae* 3/6 | | |
| *Clybehia brasiliensis* (Mez) G.Agostini | H | LAF 1682 |
| *Myrsine coriacea* (Sw.) R. Br. ex Roem. & Schult. | F | LAF 1948 |
| *Myrsine gardneriana* A. DC. | F | AK 7096 |
| *Myrsine lineata* (Mez) Imkhan. | F | RRS59 |
| *Myrsine loefgrenii* (Mez)[1] Imkhan. | F | MS s/n |
| *Stylogyne pauciflora* Mez | F | LAF 1537 |
| *Rosaceae* 1/4 | | |
| *Rubus brasilensis* Mart. | F | RR 9200 |
| *Rubus imperialis* Cham. & Schltdl | F | LAF 1048 |
| *Rubus rosifolius* Sm. ex Baker | F | LAF 1903 |
| *Rubus urticifolius* Poir | F | LAF 1286 |
| *Rubieaeae* 17/30 | | |
| *Amaiaoa guianensis* Aubl. | F | FS s/n |
| *Amaiaoa intermedia* Mart. ex Schultz & Schult. f. | F | RMK 2422 |
| *Borreria palastris* (Cham. & Schltdl.) Bacigalupo & E.L.Cabrál | H | LAF 1240 |
| *Chomelia brasiliana* A. Rich. | F | AK 565 |
| *Cococypserum cordifolium* Nees & Mart. | H | LAF 918 |
| *Cococypserum geophioides* Wavara | H | LAF 1014 |
| *Cococypserum hasslerianum* Chodat | H | LAF 926 |
| *Cococypserum lanceolatum* (Ruíz & Pav.) Pers. | H | LAF 1027 |
| *Coridrera concolor* (Cham.) Kuntze | F | AK 3475 |
| *Coussarea contracta* (Walp.) Benthi & Hook. f. ex Müll. Arg. | F | MS s/n |
| *Diodia saponariifolia* (Cham. & Schltdl.) K. Schum. | H | LAF 1552 |

**Table 1.**

| FAMILIES/GENUS/SPECIES | FV | VOUCHER |
|------------------------|----|---------|
| *Emeoneuriza umbellata* (Spreng.) K. Schum. | F | LAF 1785 |
| *Farameae montevidensis* (Cham. & Schltdl) DC. | F | RR 9527 |
| *Hoffmannia peckii* K.Schum. | F | LAF 1703 |
| *Margaritopsis astrellanthea* (Wernham) L. Andersson | F | TJC 1246 |
| *Mitracarpus hirtus* (L.) DC. | T | LAF 1241 |
| *Posoqueria latifolia* (Rudge) Schult. | F | ALG 435 |
| *Psychotria brachypoda* (Müll. Arg.) Britton | F | LAF 1201 |
| *Psychotria hastisepala* Müll. Arg. | F | AK 3371 |
| *Psychotria leioocarpa* Cham. & Schltdl. | F | LAF 1236 |
| *Psychotria nemorosa* Gardner | F | LAF 1572 |
| *Psychotria nova* (Cham. & Schltdl.) Wawra | F | LAF 885 |
| *Psychotria officinalis* (Aubl.) Raesch. ex Sandwith | F | LAF 1690 |
| *Psychotria phalerata* Müll. Arg. | F | LAF 1209 |
| *Psychotria suterella* Müll. Arg. | F | LAF 877 |
| *Rudiea jasminoides* (Cham.) Müll. Arg. | F | LAF 1234 |
| *Rudiea parquoides* (Cham.) Müll. Arg. | F | CRG 553 |
| *Sabicea villosa* Willd. ex Schult. | F | LAF 2025 |
| *Rutaceae* 1/1 | | |
| *Endeckia grandiflora* Mart. | F | CRG 565 |
| *Sapindaceae* 2/4 | | |
| *Allophylus petiolatus* Radlk. | F | LAF 1869 |
| *Paulinia carpopoda* Cambess. | F | LAF 1184 |
| *Paulinia elegans* Cambess. | F | LAF 1188 |
| *Paulinia trigonia* Vell. | F | LAF 1870 |
| *Scrophuraceae* 1/1 | | |
| *Buddieja stachyoides* Cham. & Schltdl. | T | LAF 1046 |
| *Solanaeae* 7/25 | | |
| *Aureliana fasciculata* (Vell) Sendtn. | F | LAF 2049 |
| *Aureliana wettsteiniana* (Witasek) Hunz. & Barboza | F | AK 3459 |
| *Brugmansia suaveolens* (Humb. & Bonpl. ex Willd.) Bercht. & J. Presl* | F | LAF 1463 |
| *Bunfelsia uniflora* (Pohl) D. Don | F | ALG 2458 |
| *Capsicum recurvatum* (Witasek) Hunz. | F | LAF 1561 |
| *Ceuthum bracteatum* Link & Otto | F | LAF 1757 |
| *Physalis pubescens* L. | F | LAF 1095 |
| *Solanum americanum* Mill. | F | LAF 1146 |
| *Solanum didymum* Dunal | F | ALG 539 |
| *Solanum diploconos* (Mart.) Bohs | F | MS s/n |
| *Solanum flavidum* Vell. | F | DBF 3828 |
| *Solanum granulosop-lexoporum* Dunal | F | LMC s/n |
| *Solanum inodorum* Vell. | F | ASS 1314 |
| *Solanum lacerdae* Dunen | F | DBF 3857 |
| *Solanum mauritianum* Scop. | F | ALG 2467 |
| *Solanum megalochnion* Mart. | F | DBF 3930 |
| *Solanum melissarum* Bohs | F | DBF 3614 |
| *Solanum pinetorum* (L. & B. Sm. & Down) Bohs | F | LMC s/n |
| *Solanum pseudocapsicum* L. | F | ASS 1309 |
| *Solanum rufescens* Sendtn. | F | DBF 3833 |
| *Solanum santeacbatarineae* Dunal | F | MS s/n |
| *Solanum schwackei* Glaz. | F | LAF 2020 |
| *Solanum stipulatum* Vell. | F | AK 3351 |
| *Solanum variabile* Mart. | F | ASS 1316 |
| *Solanum wacketii* Witasek | F | ASS 778 |
| *Symplocaceae* 1/2 | | |
| *Symplocos glandulosomarginata* Hoehne | F | MS s/n |
| *Symplocos tenuifolia* | F | MS s/n |

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| FAMILIES/GENUS/SPECIES | FV | VOUCHER |
|------------------------|----|---------|
| Thymelaeaceae 1/1       |    |         |
| **Daphnopsis fasciculata** (Meisn.) Nevling | F | ASS 1342 |
| Thymaceae 1/1           |    |         |
| **Typha domingensis** Pers. | CR | LAF 1618 |
| Urticaceae 4/10         |    |         |
| **Boehmeria caudata** Sw. | F | LAF 999 |
| **Boehmeria cylindrica** (L.) Sw. | F | LAF 1877 |
| **Phenax sonneratii** (Poir.) Wedd. | F | LAF 1497 |
| **Phenax uliginosus** Wedd. | F | LAF 1171 |
| **Pilea microphylla** (L.) Liebm.* | CA | LAF 1723 |
| **Pilea pubescens** Liebm. | CA | LAF 1575 |
| **Pilea rhizobola** Miq. | F | LAF 1016 |
| Urera baccifera (L.) Gaudich. | F | LAF 1872 |
| Urera caracasana (Jacq.) Gaudich. ex Griseb. | F | LAF 1823 |
| Urera nitida Brack | F | LAF 1796 |
| Vitaceae 1/1            |    |         |
| **Cissus paullinifolia** Vell. | F | RR 551 |
| Winteraceae 1/2         |    |         |
| **Drimys angustifolia** Miers | F | LAF 2070 |
| **Drimys brasiliensis** Miers | F | ALG 2532 |
| Zingiberaceae 1/2       |    |         |
| **Hedychium coronarium** J. König* | CR | LAF 1617 |
| Renealmia petasites Gagnep. | CR | LAF 1230 |