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Vascular flora of the *cerrado* of Bauru-SP

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Abstract: Information on the cerrado vascular flora of the municipality of Bauru has been provided in lists of floristic surveys carried out in fragments of this vegetation type at different times, applying different criteria, and conforming to current taxonomic classifications. We organized this information according to APG III and revised synonymies, aiming at producing a single floristic list of species occurring in *cerrado sensu lato* or ecotonal areas (transitions between *cerrado* and seasonal forest) in municipality of Bauru to inform conservation proposals. For this purpose, we referred to all floristic lists of vascular plants found in *cerrado* fragments in Bauru and to botanic material collected and deposited in the herbaria of the Department of Biological Sciences, School of Sciences, Bauru Campus, UNESP (UNBA), and of the Bauru Botanical Garden (JBMB). We recorded 371 species from 78 families. Fabaceae was the richest in species. We also indicated each mentioned species' habit and the vegetation types where plants occur in the municipality.
Keywords: *floristics, savanna, plant survey.*

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Resumo: Informações relativas à flora vascular do cerrado do município de Bauru foram divulgadas em listas de levantamentos florísticos obtidas em fragmentos dessa vegetação em diferentes épocas, critérios e obedecendo às classificações taxonômicas vigentes. Organizamos tais informações, adotando o sistema APG III e revendo as sinonímias, com o objetivo de produzir uma lista florística única, com espécies que ocorrem no cerrado sentido amplo ou áreas ecotonais (transições entre cerrado e floresta estacional) do município de Bauru, para subsidiar propostas de conservação. Para isso, consultamos todas as listas florísticas conhecidas de plantas vasculares em fragmentos de cerrado do município de Bauru e material botânico coletado e depositado nos herbários do Departamento de Ciências Biológicas, Faculdade de Ciências, Câmpus de Bauru, UNESP (UNBA) e do Jardim Botânico Municipal de Bauru (JBMB). Registramos 371 espécies, pertencentes a 78 famílias. Fabaceae foi a mais rica em espécie. Indicamos o hábito de cada espécie e os tipos de vegetação em que ela ocorre no município.
Palavras-chave: *florística, savana, inventário de plantas.*

Introduction

The *Cerrado* has a highly diverse flora, estimated at ten thousand species of higher plants (Ratter 2004), hosting also a high diversity of other organisms from different taxa. This ecosystem shows a high diversity of relationships among organisms and between organisms and the abiotic environment where they occur. According to Coutinho (2002), only the Amazon and Atlantic forests exceed the Brazilian *Cerrado* in species richness.

The importance of Cerrado in Brazil lies unquestionably on its high biodiversity (Bitencourt 2004). The municipality of Bauru is located in a climatic zone intermediate between tropical and southern temperate, which gives its ecosystems a different feature from that of the Cerrado core area regarding adaptation (Cavassan et al. 2006), especially because of occasional frosts, which do not occur in the central-north part of this biome (Cavassan 2002, Durigan et al. 2004).

At present, *cerrado* remnants in the state of São Paulo are disjunct fragments. Few of these fragments are protected within state conservation units (Cavassan 2002). In the state of São Paulo, the *cerrado* is distributed mainly in the Peripheral Depression, from north to south, along the line of the Basaltic Cuestas, expanding to some regions of the Western Plateau (Durigan et al. 2004), where it is distributed in mosaics between seasonal forest and riparian formations in the valleys. In this paper, we consider as riparian formations those adjacent to bodies of water (Rodrigues 2000). The same distribution is observed in the Bauru region (Cavassan 2013). Durigan et al. (2003) discussed cerrado phytogeographical patterns in São Paulo from a regional perspective and demonstrated the existence of two floristic groups: eastern *cerrados*, together with open physiognomies in the states of Mato Grosso do Sul and Goiás and the Triângulo Mineiro; and western *cerradões* (woodland savannas), located basically in the state of São

Paulo. According to Durigan et al. (2003), the *cerrado* of the municipality of Bauru belongs to the latter group.

The transition between different *cerrado* physiognomies and seasonal forests in the state of São Paulo occurs, in general, in a gradient of different extensions (Durigan et al. 2012), not always clearly limited. This often hinders the identification and delimitation of *cerrado* areas, especially during supervision or vegetation management processes. According to Durigan et al. (2012), the vegetation floristic structure is important in its classification.

Just as it is difficult to establish the limits between *cerrado* vegetations and seasonal forests in Bauru, it is not safe to define which plant species are typical of each of these plant formations. For this reason, this article aims at building a single table of tracheophyte plant species based on species occurrence in fragments considered *cerrado sensu lato* or in ecotonal areas (transitions between *cerrado* and seasonal forest), in addition to recording the existence of these species in other vegetation types in the municipality of Bauru.

Material and Methods

Bauru is located in the central-west region of the state of São Paulo, in southeastern Brazil. The climate is highland tropical, type Cwa, according to Koeppen (1948), with an average yearly rainfall of 1262.9 mm between 2001 and 2014 (Emídio 2014), featuring dry and mild winters – minimum average temperature of 13.6 °C and maximum average temperature of 25.7 °C (Emídio 2014) – and rainy summers with moderately high temperatures, with the maximum average temperature occurring after the summer solstice (Cavassan et al. 1984) – minimum average temperature of 19.8 °C and maximum average temperature of 30.4 °C (Emídio 2014). In this region, soil types are Dark Red Latosol, sandy phase, and Red Yellow Acrisol, generally found in steeper hillsides, both with medium to sandy texture, probably derived from the Bauru sandstone (Cavassan et al. 1984).

Bauru has a vegetation complex composed of *cerrado*, mostly represented by *cerradão* (woodland savanna). This vegetation type prevails in southeastern interfluvial areas. In the valleys, the vegetation types are swamp grasslands of *cerrado* and permanently flooded riparian forests (Rodrigues 2000), popularly known as swamp forests. In the northwest, fragments of montane semideciduous seasonal forest (IBGE 2012) prevail. Between fragments of *cerradão* and montane seasonal semideciduous forest, we usually find transition areas (Cavassan 2013).

To prepare a floristic list of the vascular species that occur in the *cerrado* of Bauru (Table 1), we systematized all other lists found in surveys carried out in areas of *cerrado* (Ferracini et al. 1983, Cavassan 1990, Koch 1994, Christianini & Cavassan 1998, Koch & Kinoshita 1999, Pinheiro 2000, Pinheiro & Monteiro 2006, Genovez 2007, Faraco 2007, Weiser 2007, Nóbrega & Prado 2008, Pinheiro & Monteiro 2008, Rissi 2011, and Joanitti 2013), within the following limits: 22°14'46.35"-22°21'58.63" South, 48°54'13.40"-49°02'42.09" West. These limits represent the estimated area covered by *cerrado* within the municipality. We included all exsiccates mentioned in the references above and also all botanic material collected in Bauru and deposited in the herbaria of the Department of Biological Sciences, School of Sciences, Bauru Campus, UNESP (UNBA), and of the Bauru Botanical Garden (JBMB). Moreover, we occasionally searched for vouchers from species collected in Bauru on the Specieslink (2014) database to supplement information recorded in some exsiccates.

These studies, published at different times, comply with spelling and taxonomic classifications effective at the time they were written. To prepare a single list, we updated the nomenclature according to the database Tropicos (Tropicos. org. Missouri Botanical Garden 2013) and the abbreviations of authors' names according to The International Plant Names Index (2012). Only taxa identified and confirmed to the species level were included. The classification system employed was the Angiosperm Phylogeny Group (APG III 2009), with recent updates from the Angiosperm Phylogeny Website (Stevens 2001 onwards) and Souza & Lorenzi (2012). We have verified valid scientific names in the databases The Plant List (2010) and Lista de Espécies da Flora do Brasil (2013) and checked them against synonyms often cited in our references and in the exsiccates from the UNBA and JBMB herbaria.

The occurrence of some species in the *cerrado* does not necessarily demonstrate that they are endemic to this vegetation type. For this reason, the nature of these species was searched in Lista de Espécies da Flora do Brasil (2013), as suggested by Moro et al. (2012).

Plant habits were indicated as follows: Climber (Climber) – vascular, autotrophic plants that germinate in the ground, with which they are in contact for their entire life cycle, and that need a support (phorophyte) to develop branches; Epiphyte (Epi.) – vascular plants that need a support to grow, without parasitizing it, and have no contact with the ground; Hemiepiphyte (Hemiepi.) – vascular, autotrophic plants that germinate on others and later send and establish roots in the ground (primary) or that germinate in the ground, grow on other plants, and later break their link or connection to the ground (secondary); Herb (Herb) – sub-woody plants or plants with stalk or rhizome, with terminal gemmae above the ground, not more than one meter high; Palm (Palm) – all plants of the Arecaceae family; Shrub or tree (St) – vascular plants with woody, aerial, erect stems at least 50 centimeters high; Vascular saprophyte (Vs) – vascular, saprophytic, heterotrophic plants; Vascular hemiparasite (Vh) – autotrophic plants that grow on other plants and extract their raw sap.

We showed other vegetation types of the municipality of Bauru where the species occur besides the *cerrado*, according to the following criterion: montane semideciduous seasonal forest (mssf) (IBGE 2012), permanently flooded riparian forest (pfrf), and non-flooded riparian forest (nfrf) (Rodrigues 2000). Species from swamp grasslands formations occurring in the transition between the *cerrado* and the permanently flooded riparian forests were not included in Table 1, although Nóbrega & Prado (2008) included in their list the Pteridophyte species sampled in that environment.

Results and Discussion

We observed and recorded 371 tracheophyte species from 78 families in the *cerrado* fragments of the municipality of Bauru, SP (Table 1).

The most species-rich family is Fabaceae (10.2%), followed by Asteraceae (8.6%), Bignoniaceae (6.2%), Malpighiaceae (5.1%), Myrtaceae (4.6%), Rubiaceae (4.6%), Apocynaceae (3.8%), and Melastomataceae (3.2%). The family ranked first in

Table 1. List of vascular species found in the *cerrado* fragments of the municipality of Bauru, indicating family, species, synonyms, habit, other vegetation types of the municipality where the plants occur, voucher number at herbaria UNBA or JBMB, and collector number. Asterisks indicate the naturalized species. Key to habit: Climber = Climber, Epi. = Epiphyte, Hemiepi. = Hemiepiphyte, Herb = Herb, Palm = Palm, St = Shrub or tree, Vs = Vascular saprophyte, and Vh = Vascular hemiparasite. Key to other vegetation types: mssf = montane semideciduous seasonal forest, pfrf = permanently flooded riparian forest, and nfrf = non-flooded riparian forest.

FAMILY / SPECIES/ [SYNONIMS]	HABIT	OTHER VEGETATION TYPE	VOUCHER NUMBER	COLLECTOR NUMBER
ANACARDIACEAE				
Anacardium humile A.St.-Hil.	Herb		UNBA 5935	A.L. Giles 62
Lithraea molleoides (Vell.) Engl.	St	mssf	UNBA 5911	V. de L. Weiser 866
Tapirira guianensis Aubl.	St	mssf, pfrf, nfrf	UNBA 3900	O. Cavassan 390
ANEMIACEAE				
Anemia phyllitidis (L.) Sw.	Herb	mssf	UNBA 5962	A.G. Faraco s/n
Anemia villosa Humb. & Bonpl. ex Willd.	Herb	mssf	UNBA 3486	G.A. Nóbrega 65
ANNONACEAE				
Annona cacans Warm.	St	mssf	UNBA 5912	V. de L. Weiser 867
Annona coriacea Mart.	St	mssf	UNBA 4072	M.N. Rissi 89
Annona crassiflora Mart.	St		UNBA 5212	M.N. Rissi 152
Annona dioica A.St.-Hil.	St		UNBA 5936	A.L. Giles 63
Duguetia furfuracea (A.St.-Hil.) Saff.	St		UNBA 5862	A.L. Giles 26
Xylopia aromatica (Lam.) Mart.	St	mssf	JBMB 0209	V. de L. Weiser 291
APOCYNACEAE				
Aspidosperma cylindrocarpon Müll.Arg.	St	mssf	UNBA 5913	V. de L. Weiser 868
Aspidosperma tomentosum Mart.	St		UNBA 3909	O. Cavassan 342
Forsteronia glabrescens Müll.Arg.	Climber	mssf, nfrf	UNBA 5897	V. de L. Weiser 852
Forsteronia velloziana (A.DC.) Woodson	Climber		JBMB 0664	V. de L. Weiser 553
Himatanthus obovatus (Müll.Arg.) Woodson	St		JBMB 0483	V. de L. Weiser 382
Macroditassa adnata (E.Fourn.) Malme	Climber		JBMB 0709	V. de L. Weiser 600
Odontadenia lutea (Vell.) Markgr.	Climber		JBMB 0717	V. de L. Weiser 607
Oxypetalum appendiculatum Mart.	Climber	mssf	UNBA 0305	O. Cavassan 284
Peltastes peltatus (Vell.) Woodson (*)	Climber		UNBA 0389	O. Cavassan 389
Prestonia coalita (Vell.) Woodson	Climber	mssf, nfrf	JBMB 0811	V. de L. Weiser 680
Prestonia erecta (Malme) J.F.Morales [*Rhodocalyx rotundifolius* Müll.Arg.]	St		UNBA 3361	A.G. Faraco 38
Secondatia densiflora A.DC.	Climber	nfrf	UNBA 5346	B.M. Palma 84
Tabernaemontana catharinensis A.DC. [*Peschiera australis* (Müll.Arg.) Miers]	St	mssf, nfrf	UNBA 0509	M.H.O. Pinheiro 379
Temnadenia violacea (Vell.) Miers	Climber		JBMB 0478	V. de L. Weiser 377
ARALIACEAE				
Dendropanax cuneatus (DC.) Decne. & Planch.	St	mssf, pfrf	UNBA 3041	M.H.O. Pinheiro 361
Schefflera vinosa (Cham. & Schltdl.) Frodin & Fiaschi [*Didymopanax vinosus* (Cham. & Schltdl.) Marchal]	St	mssf	UNBA 3906	O. Cavassan 131
ARECACEAE				
Acrocomia aculeata (Jacq.) Lodd. ex Mart.	Palm	mssf, pfrf, nfrf	UNBA 3416	P.R. Genovez 21
Acrocomia hassleri (Barb.Rodr.) W.J.Hahn	Palm		UNBA 3419	P.R. Genovez 40
Allagoptera campestris (Mart.) Kuntze	Palm		UNBA 5875	A.L. Giles 39
Butia paraguayensis (Barb.Rodr.) L.H.Bailey	Palm		UNBA 3437	P.R. Genovez 10
Syagrus flexuosa (Mart.) Becc.	Palm	mssf	UNBA 3436	P.R. Genovez 16
Syagrus romanzoffiana (Cham.) Glassman	Palm	mssf, nfrf	UNBA 5927	V. de L. Weiser 882
ARISTOLOCHIACEAE				
Aristolochia esperanzae Kuntze	Climber		JBMB 0087	V. de L. Weiser 135
Aristolochia melastoma Silva Manso ex Duch.	Climber	mssf	JBMB 0465	V. de L. Weiser 364
ASTERACEAE				
Achyrocline satureioides (Lam.) DC.	St		UNBA 5800	A.L. Giles 1
Acilepidopsis echitifolia (Mart. ex DC.) H.Rob. [*Vernonia echitifolia* Mart. ex DC.]	St		UNBA 5802	A.L. Giles 3
Austroeupatorium inulifolium (Kunth) R.M.King & H.Rob. [*Eupatorium inulifolium* Kunth]	St		UNBA 5801	A.L. Giles 2
Baccharis caprariifolia DC.	St		UNBA 0279	M.H.O Pinheiro 821

Table 1. Continued.

FAMILY / SPECIES/ [SYNONIMS]	HABIT	OTHER VEGETATION TYPE	VOUCHER NUMBER	COLLECTOR NUMBER
Baccharis dracunculifolia DC.	St	mssf	UNBA 5881	A.L. Giles 45
Baccharis pseudotenuifolia Malag.	St		UNBA 4012	M.N. Rissi 56
Bidens segetum Mart. ex Colla	Herb	pfrf	UNBA 3891	M. Carboni 210
Chaptalia integerrima (Vell.) Burkart	Herb		UNBA 5809	A.L. Giles 10
Chromolaena cylindrocephala (Sch.Bip. ex Baker) R.M.King & H.Rob. [*Eupatorium cylindrocephalum* Sch.Bip. ex Baker]	St		UNBA 5891	A.L. Giles 55
Chromolaena squalida (DC.) R.M.King & H.Rob. [*Eupatorium squalidum* DC.]	St		UNBA 5804	A.L. Giles 5
Chromolaena laevigata (Lam.) R.M.King & H.Rob. [*Eupatorium laevigatum* Lam.]	St		UNBA 5890	A.L. Giles 54
Clibadium armanii (Balb.) Sch.Bip. ex O.E.Schulz (*)	St		UNBA 5892	A.L. Giles 56
Elephantopus micropappus Less.	St		UNBA 5811	A.L. Giles 12
Elephantopus mollis Kunth	Herb	pfrf	UNBA 5810	A.L. Giles 11
Gochnatia barrosii Cabrera	St		UNBA 1563	O. Cavassan 338
Gochnatia polymorpha (Less.) Cabrera	St	mssf	UNBA 5805	A.L. Giles 6
Gochnatia pulchra Cabrera	St		UNBA 1573	O. Cavassan 229
Lepidaploa acutiangula (Gardner) H.Rob. [*Vernonia acutangula* Gardner]	St		UNBA 5812	A.L. Giles 15
Lepidaploa cotoneaster (Willd. ex Spreng.) H.Rob.	St		UNBA 5893	A.L. Giles 57
Lepidaploa rufogrisea (A.St.-Hil.) H.Rob. [*Vernonia tricephala* Gardner]	St		UNBA 5807	A.L. Giles 8
Lepidaploa salzmannii (DC.) H.Rob. [*Vernonia salzmannii* DC.]	St		UNBA 5803	A.L. Giles 4
Lessingianthus bardanoides (Less.) H.Rob. [*Vernonia bardanoides* Less.]	St		UNBA 5889	A.L. Giles 53
Mikania campanulata Gardner	Climber	pfrf	JBMB 0628	V. de L. Weiser 597
Mikania cordifolia (L.f.) Willd.	Climber		JBMB 0037	V. de L. Weiser 85
Mikania hirsutissima DC.	Climber		UNBA 5898	V. de L. Weiser 853
Piptocarpha rotundifolia (Less.) Baker	St	mssf	UNBA 1498	O. Cavassan 537
Porophyllum ruderale (Jacq.) Cass.	St		UNBA 5808	A.L. Giles 9
Pterocaulon lanatum Kuntze	St		UNBA 5806	A.L. Giles 7
Tilesia baccata (L.) Pruski (*)	Herb		UNBA 5955	A.L. Giles 82
Vernonanthura brasiliana (L.) H.Rob.	St		UNBA 0263	M.H.O. Pinheiro 378
Vernonanthura membranacea (Gardner) H.Rob. [*Vernonia membranacea* Gardner]	St		UNBA 5887	A.L. Giles 51
Vernonia rubriramea Mart. ex DC.	St		UNBA 1106	M.H.O. Pinheiro 285
BIGNONIACEAE				
Adenocalymma peregrinum (Miers) L.G.Lohmann [*Memora peregrina* (Miers) Sandwith]	Climber		JBMB 0782	V. de L. Weiser 651
Amphilophium elongatum (Vahl) L.G.Lohmann [*Distictella elongata* (Vahl) Urb.]	Climber	mssf	JBMB 0475	V. de L. Weiser 374
Anemopaegma arvense (Vell.) Stellfeld ex de Souza	St		UNBA 5937	A.L. Giles 64
Cuspidaria floribunda (DC.) A.H.Gentry [*Adenocalymma floribundum* A.DC.]	Climber	mssf	JBMB 0076	V. de L. Weiser 124
Cuspidaria pulchra (Cham.) L.G.Lohmann [*Arrabidaea pulchra* (Cham.) Sandwith]	Climber	mssf	JBMB 0491	V. de L. Weiser 390
Cybistax antisyphilitica (Mart.) Mart.	St		UNBA 4043	M.N. Rissi 81
Dolichandra unguis-cati (L.) L.G.Lohmann [*Macfadyena unguis-cati* (L.) A.H.Gentry]	Climber	mssf	UNBA 5899	V. de L. Weiser 854
Fridericia chica (Bonpl.) L.G.Lohmann [*Arrabidaea chica* (Bonpl.) Verl.]	Climber		JBMB 0781	V. de L. Weiser 650
Fridericia craterophora (DC.) L.G.Lohmann [*Arrabidaea craterophora* (DC.) Bureau]	Climber	mssf	JBMB 0451	V. de L. Weiser 350
Fridericia platyphylla (Cham.) L.G.Lohmann [*Arrabidaea brachypoda* (DC.) Bureau]	St		JBMB 0454	V. de L. Weiser 353

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Table 1. Continued.

FAMILY / SPECIES/ [SYNONIMS]	HABIT	OTHER VEGETATION TYPE	VOUCHER NUMBER	COLLECTOR NUMBER
Fridericia pulchella (Cham.) L.G.Lohmann [*Arrabidaea pulchella* (Cham.) Bureau]	Climber	mssf	UNBA 5900	V. de L. Weiser 855
Fridericia speciosa Mart.	Climber		UNBA 5932	V. de L. Weiser 887
Fridericia triplinervia (Mart. ex DC.) L.G.Lohmann [*Arrabidaea triplinervia* (Mart. ex DC.) Baill. ex Bureau]	Climber	mssf	JBMB 0453	V. de L. Weiser 352
Handroanthus ochraceus (Cham.) Mattos [*Tabebuia ochracea* (Cham.) Standl.]	St	mssf	UNBA 5938	A.L. Giles 65
Jacaranda decurrens Cham.	St		UNBA 5939	A.L. Giles 66
Jacaranda rufa Silva Manso	St		JBMB 0057	V. de L. Weiser 105
Mansoa difficilis (Cham.) Bureau & K.Schum.	Climber	mssf	UNBA 5901	V. de L. Weiser 856
Pyrostegia venusta (Ker Gawl.) Miers	Climber	mssf	JBMB 0014	V. de L. Weiser 62
Stizophyllum perforatum (Cham.) Miers	Climber		UNBA 5257	A.G. Faraco 161
Stizophyllum riparium (Kunth) Sandwith	Climber		JBMB 0071	V. de L. Weiser 119
Tabebuia aurea (Silva Manso) Benth. & Hook.f. ex S.Moore [*Tabebuia caraiba* (Mart.) Bureau]	St		UNBA 5940	A.L. Giles 67
Zeyheria montana Mart.	St		JBMB 0178	V. de L. Weiser 240
Zeyheria tuberculosa (Vell.) Bureau ex Verl.	St	mssf	UNBA 5914	V. de L. Weiser 869
BIXACEAE				
Cochlospermum regium (Schrank) Pilg.	St		UNBA 5240	J.A. Ribeiro 16
BORAGINACEAE				
Heliotropium transalpinum Vell.	Herb		UNBA 3040	M.H.O. Pinheiro 298
BROMELIACEAE				
Acanthostachys strobilacea (Schult. & Schult.f.) Klotzsch	Epi.	pfrf	UNBA 5356	S.A. Joanitti 2
Ananas ananassoides (Baker) L.B.Sm.	Herb		UNBA 5941	A.L. Giles 68
Billbergia zebrina (Herb.) Lindl.	Epi.		UNBA 5367	S.A. Joanitti 13
Bromelia antiacantha Bertol.	Herb		UNBA 5506	A.G. Faraco 370
Bromelia balansae Mez	Herb		UNBA 5942	A.L. Giles 69
Tillandsia loliacea Mart. ex Schult. & Schult.f.	Epi.		UNBA 5386	S.A. Joanitti 32
Tillandsia pohliana Mez	Epi.		UNBA 5370	S.A. Joanitti 16
Tillandsia recurvata (L.) L.	Epi.		UNBA 5360	S.A. Joanitti 6
Tillandsia tenuifolia L.	Epi.	pfrf	UNBA 5797	S.A. Joanitti 37
Tillandsia tricholepis Baker	Epi.		UNBA 5394	S.A. Joanitti 40
Tillandsia usneoides (L.) L.	Epi.	mssf, pfrf	UNBA 5933	V. de L. Weiser 888
BURSERACEAE				
Protium heptaphyllum (Aubl.) Marchand	St	mssf	UNBA 1568	O. Cavassan 325
CACTACEAE				
Cereus hildmannianus K.Schum.	St		UNBA 5943	A.L. Giles 70
Epiphyllum phyllanthus (L.) Haw.	Epi.		UNBA 5375	S.A. Joanitti 21
CALOPHYLLACEAE				
Kielmeyera coriacea Mart. & Zucc.	St	mssf	UNBA 5490	A.G. Faraco 312
Kielmeyera rubriflora Cambess.	St		UNBA 5001	M.N. Rissi 139
Kielmeyera variabilis Mart. & Zucc.	St		JBMB 0777	V. de L. Weiser 646
CANNABACEAE				
Celtis spinosa Spreng. [*Celtis pubescens* (Kunth) Spreng.]	St	mssf	UNBA 2231	M.H.O. Pinheiro 627
Trema micrantha (L.) Blume	St	mssf	UNBA 5958	A.L. Giles 85
CARYOCARACEAE				
Caryocar brasiliense Cambess.	St		UNBA 5657	M.N. Rissi 410
CELASTRACEAE				
Peritassa campestris (Cambess.) A.C.Sm.	Herb		UNBA 0083	O. Cavassan s/n
Plenckia populnea Reissek [*Austroplenckia populnea* (Reissek) Lundell]	St		UNBA 3600	M.N. Rissi 4
CHRYSOBALANACEAE				
Couepia grandiflora (Mart. & Zucc.) Benth. ex Hook.f.	St		UNBA 1565	O. Cavassan 309

Table 1. Continued.

FAMILY / SPECIES/ [SYNONIMS]	HABIT	OTHER VEGETATION TYPE	VOUCHER NUMBER	COLLECTOR NUMBER
Licania humilis Cham. & Schltdl.	St		UNBA 1285	O. Cavassan 500
COMBRETACEAE				
Terminalia argentea Mart.	St	mssf	JBMB 0774	V. de L. Weiser 643
Terminalia glabrescens Mart.	St	mssf	UNBA 1564	O. Cavassan 329
[*Terminalia brasiliensis* (Cambess. ex A.St.-Hil.) Eichler]				
COMMELINACEAE				
Tradescantia zebrina Heynh. (*)	Hemiepi.		UNBA 5359	S.A. Joanitti 5
CONNARACEAE				
Connarus suberosus Planch.	St	mssf	UNBA 1456	O. Cavassan 506
Rourea induta Planch. var. *induta*	St		UNBA 5883	A.L. Giles 47
CONVOLVULACEAE				
Ipomoea virgata Meisn.	Herb		JBMB 0812	V. de L. Weiser 681
Merremia dissecta (Jacq.) Hallier f.	Climber	mssf	JBMB 0458	V. de L. Weiser 357
CUNONIACEAE				
Lamanonia ternata Vell.	St	mssf	JBMB 0666	V. de L. Weiser 555
CYPERACEAE				
Rhynchospora exaltata Kunth	Herb		UNBA 5481	A.G. Faraco 374
DENNSTAEDTIACEAE				
Pteridium arachnoideum (Kaulf.) Maxon	Herb		UNBA 5944	A.L. Giles 71
[*Pteris arachnoidea* Kaulf.]				
DILLENIACEAE				
Curatella americana L.	St		UNBA 5492	A.G. Faraco 326
Davilla elliptica A.St.-Hil.	St		UNBA 5879	A.L. Giles 43
Davilla rugosa Poir.	Climber		JBMB 0012	V. de L. Weiser 60
Doliocarpus dentatus (Aubl.) Standl.	Climber	mssf, pfrf	JBMB 0041	V. de L. Weiser 89
EBENACEAE				
Diospyros hispida A.DC.	St		UNBA 5945	A.L. Giles 72
ERYTHROXYLACEAE				
Erythroxylum campestre A.St.-Hil.	St		UNBA 5495	A.G. Faraco 340
Erythroxylum cuneifolium (Mart.) O.E.Schulz	St		UNBA 0269	M.H.O. Pinheiro 543
Erythroxylum deciduum A.St.-Hil.	St		UNBA 5421	A.G. Faraco 101
Erythroxylum pelleterianum A.St.-Hil.	St	mssf	UNBA 3588	S.R. Christianini 18
Erythroxylum suberosum A.St.-Hil.	St		UNBA 0266	M.H.O. Pinheiro 463
Erythroxylum subracemosum Turcz.	St	mssf, pfrf	JBMB 0641	V. de L. Weiser 530
Erythroxylum tortuosum Mart.	St		UNBA 1455	O. Cavassan 507
EUPHORBIACEAE				
Actinostemon klotzschii (Didr.) Pax	St	mssf	JBMB 0217	V. de L. Weiser 302
[*Actinostemon concepcionis* (Chodat & Hassl.) Hochr.]				
Croton floribundus Spreng.	St	mssf	UNBA 5946	A.L. Giles 73
Manihot tripartita (Spreng.) Müll.Arg.	St		UNBA 5934	V. de L. Weiser 889
Sapium glandulosum (L.) Morong	St		UNBA 2250	M.H.O. Pinheiro 538
[*Sapium glandulatum* (Vell.) Pax]				
Sapium obovatum Klotzsch ex Müll.Arg.	St		UNBA 5915	V. de L. Weiser 870
FABACEAE				
Acosmium subelegans (Mohlenbr.) Yakovlev	St		UNBA 1310	O. Cavassan 400
Anadenanthera peregrina var. *falcata* (Benth.) Altschul	St		JBMB 0613	V. de L. Weiser 502
[*Anadenanthera falcata* (Benth.) Speg.]				
Andira humilis Mart. ex Benth.	St		UNBA 5947	A.L. Giles 74
Andira vermifuga Mart. ex Benth.	St		UNBA 5916	V. de L. Weiser 871
Bauhinia forficata Link	St	mssf	UNBA 2172	M. Carboni s/n
Bauhinia holophylla (Bong.) Steud.	St	mssf	JBMB 0611	V. de L. Weiser 500
Bauhinia ungulata L.	St		JBMB 0128	V. de L. Weiser 203
Bowdichia virgilioides Kunth	St		UNBA 1308	O. Cavassan 499
Camptosema ellipticum (Desv.) Burkart	St		JBMB 0036	V. de L. Weiser 84
Canavalia grandiflora Benth.	Climber	mssf	JBMB 0174	V. de L. Weiser 232

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Table 1. Continued.

FAMILY / SPECIES/ [SYNONIMS]	HABIT	OTHER VEGETATION TYPE	VOUCHER NUMBER	COLLECTOR NUMBER
Clitoria falcata Lam.	Climber	mssf	UNBA 5903	V. de L. Weiser 858
Copaifera langsdorffii Desf.	St	mssf, nfrf	UNBA 1933	O. Cavassan 438
Crotalaria martiana subsp. *mohlenbrockii* (Windler & S. G.Skinner) Planchuelo	Herb		UNBA 5886	A.L. Giles 50
Dalbergia miscolobium Benth. [*Dalbergia violacea* (Vogel) Malme]	St	mssf	JBMB 0459	V. de L. Weiser 358
Dimorphandra mollis Benth.	St		UNBA 3609	M.N. Rissi 15
Diptychandra aurantiaca Tul.	St		UNBA 5219	M.N. Rissi 154
Enterolobium contortisiliquum (Vell.) Morong	St	mssf	UNBA 0966	O. Cavassan 2054
Enterolobium gummiferum (Mart.) J.F.Macbr.	St		JBMB 0633	V. de L. Weiser 522
Eriosema crinitum (Kunth) G.Don	Herb	mssf	UNBA 5502	A.G. Faraco 361
Hymenaea stigonocarpa Mart. ex Hayne	St		UNBA 5931	V. de L. Weiser 886
Inga affinis DC.	St	mssf	UNBA 5957	A.L. Giles 84
Inga marginata Willd.	St	mssf	UNBA 1116	M.H.O. Pinheiro 241
Machaerium acutifolium Vogel	St	mssf	UNBA 1311	O. Cavassan 419
Machaerium brasiliense Vogel	St	mssf	UNBA 5917	V. de L. Weiser 872
Macroptilium atropurpureum (Moc. & Sessé ex DC.) Urb. (*)	Climber		UNBA 5470	A.G. Faraco 87
Mimosa dolens Vell.	Herb		UNBA 5884	A.L. Giles 48
Plathymenia reticulata Benth.	St	mssf	UNBA 1307	O. Cavassan 216
Platypodium elegans Vogel	St	mssf	JBMB 0235	V. de L. Weiser 321
Pterodon emarginatus Vogel	St		UNBA 1470	O. Cavassan 532
Rhynchosia phaseoloides (Sw.) DC.	Climber	mssf, pfrf	UNBA 5904	V. de L. Weiser 859
Sclerolobium aureum (Tul.) Baill.	St		UNBA 3585	G.M. Marconato 3
Senna rugosa (G.Don) H.S.Irwin & Barneby	St		UNBA 5867	A.L. Giles 31
Senna silvestris (Vell.) H.S.Irwin & Barneby	St	mssf	JBMB 0098	V. de L. Weiser 146
Stryphnodendron adstringens (Mart.) Coville	St		UNBA 2240	M.H.O. Pinheiro 803
Stryphnodendron rotundifolium Mart.	St	mssf	JBMB 0467	V. de L. Weiser 366
Stylosanthes guianensis (Aubl.) Sw.	St	pfrf	UNBA 5880	A.L. Giles 44
Teramnus uncinatus (L.) Sw.	Climber	mssf	UNBA 5905	V. de L. Weiser 860
Vatairea macrocarpa (Benth.) Ducke	St		UNBA 5918	V. de L. Weiser 873
GENTIANACEAE				
Voyria aphylla (Jacq.) Pers.	Vs		UNBA 5443	A.G. Faraco 168
LACISTEMATACEAE				
Lacistema hasslerianum Chodat	St	mssf	UNBA 3678	S.R. Christianini 37
LAMIACEAE				
Aegiphila lhotskiana Cham.	St		UNBA 4055	M.N. Rissi 84
Aegiphila sellowiana Cham.	St	mssf	UNBA 0506	M.H.O. Pinheiro 329
Eriope crassipes Benth.	Herb		UNBA 5500	A.G. Faraco 358
LAURACEAE				
Ocotea corymbosa (Meisn.) Mez	St	mssf	UNBA 1400	O. Cavassan 429
Ocotea diospyrifolia (Meisn.) Mez	St		UNBA 3919	O. Cavassan 512
Ocotea minarum (Nees & Mart.) Mez	St	mssf	UNBA 0257	M.H.O. Pinheiro 297
Ocotea puberula (Rich.) Nees	St	mssf	JBMB 0701	V. de L. Weiser 591
Ocotea pulchella (Nees & Mart.) Mez	St	mssf	UNBA 3920	O. Cavassan 514
Ocotea velloziana (Meisn.) Mez	St	mssf	UNBA 5948	A.L. Giles 75
LOGANIACEAE				
Strychnos bicolor Progel	Climber		UNBA 5906	V. de L. Weiser 861
Strychnos pseudoquina A.St.-Hil.	St		JBMB 0052	V. de L. Weiser 100
LYTHRACEAE				
Lafoensia pacari A.St.-Hil.	St	mssf	UNBA 0252	M.H.O. Pinheiro 221
MALPIGHIACEAE				
Banisteriopsis anisandra (A.Juss.) B.Gates	Climber	mssf, nfrf	JBMB 0077	V. de L. Weiser 125
Banisteriopsis argyrophylla (A.Juss.) B.Gates	Climber	mssf	JBMB 0472	V. de L. Weiser 371
Banisteriopsis oxyclada (A.Juss.) B.Gates	Climber		JBMB 0119	V. de L. Weiser 175
Banisteriopsis stellaris (Griseb.) B.Gates	Climber		JBMB 0045	V. de L. Weiser 93

Table 1. Continued.

FAMILY / SPECIES/ [SYNONIMS]	HABIT	OTHER VEGETATION TYPE	VOUCHER NUMBER	COLLECTOR NUMBER
Banisteriopsis variabilis B.Gates	Climber		JBMB 0113	V. de L. Weiser 163
Byrsonima coccolobifolia Kunth	St	pfrf	UNBA 1287	O. Cavassan 549
Byrsonima crassa Nied.	St		UNBA 5949	A.L. Giles 76
Byrsonima crassifolia (L.) Kunth	St		UNBA 5929	V. de L. Weiser 884
Byrsonima intermedia A.Juss.	St		UNBA 1277	O. Cavassan 423
Byrsonima laxiflora Griseb.	St		JBMB 0438	V. de L. Weiser 337
Byrsonima pachyphylla A.Juss.	St		UNBA 1290	O. Cavassan 447
Byrsonima verbascifolia (L.) DC.	St		UNBA 1289	O. Cavassan 519
Diplopterys pubipetala (A.Juss.) W.R.Anderson & C.Davis	Climber	mssf	JBMB 0246	V. de L. Weiser 336
[*Banisteriopsis pubipetala* (A.Juss.) Cuatrec.]				
Heteropterys byrsonimifolia A.Juss.	St		UNBA 5661	M.N. Rissi 497
Heteropterys cochleosperma A.Juss.	Climber		UNBA 5255	A.G. Faraco 64
Heteropterys pteropetala A.Juss.	Climber		JBMB 0011	V. de L. Weiser 59
Heteropterys syringifolia Griseb.	Climber		UNBA 5907	V. de L. Weiser 862
Heteropterys umbellata A.Juss.	Climber		UNBA 5120	A.G. Guimarães 7
Mascagnia cordifolia (A.Juss.) Griseb.	Climber	mssf	JBMB 00751	V. de L. Weiser 621
MALVACEAE				
Eriotheca gracilipes (K.Schum.) A.Robyns	St	mssf	UNBA 1457	O. Cavassan 263
Guazuma ulmifolia Lam.	St	mssf	JBMB 0124	V. de L. Weiser 194
Helicteres brevispira A.St.-Hil.	St		UNBA 5453	A.G. Faraco 61
Helicteres sacarolha A.St.-Hil., A.Juss. & Cambess.	St		UNBA 5873	A.L. Giles 37
Luehea grandiflora Mart.	St	mssf	JBMB 0062	V. de L. Weiser 110
Pavonia biflora Fryxell	St		JBMB 0797	V. de L. Weiser 666
Pavonia garckeana Gürke	St		UNBA 5450	A.G. Faraco 58
Pavonia hexaphylla (S.Moore) Krapov.	St		JBMB 0038	V. de L. Weiser 86
Pavonia malacophylla (Link & Otto) Garcke	St	mssf	JBMB 0001	V. de L. Weiser 49
Pseudobombax longiflorum (Mart. & Zucc.) A.Robyns	St		JBMB 0188	V. de L. Weiser 256
MELASTOMATACEAE				
Acisanthera alsinaefolia (DC.) Triana	Herb		JBMB 0031	V. de L. Weiser 79
Leandra lacunosa Cogn.	St		UNBA 0261	M.H.O. Pinheiro 367
Miconia albicans (Sw.) Steud.	St	mssf	UNBA 1281	O. Cavassan 320
Miconia chamissois Naudin	St	mssf, pfrf	UNBA 0503	M.H.O. Pinheiro 268
Miconia fallax DC.	St		UNBA 4050	M.N. Rissi 77
Miconia langsdorffii Cogn.	St	mssf	UNBA 3911	M. Kubo 1
Miconia ligustroides (DC.) Naudin	St		UNBA 1279	O. Cavassan 324
Miconia rubiginosa (Bonpl.) DC.	St		UNBA 5045	M.N. Rissi 137
Miconia stenostachya DC.	St	mssf	UNBA 1280	O. Cavassan 331
Rhynchanthera dichotoma (Desr.) DC.	St	mssf	JBMB 0029	V. de L. Weiser 77
Tibouchina cerastifolia Cogn.	St		JBMB 0028	V. de L. Weiser 76
Tibouchina stenocarpa (DC.) Cogn.	St		JBMB 0486	V. de L. Weiser 385
MELIACEAE				
Cedrela fissilis Vell.	St	mssf	UNBA 5930	V. de L. Weiser 885
Trichilia pallida Sw.	St	mssf	JBMB 0626	V. de L. Weiser 515
MORACEAE				
Brosimum gaudichaudii Trécul	St	mssf	JBMB 0091	V. de L. Weiser 139
Brosimum guianense (Aubl.) Huber ex Ducke	St		UNBA 5919	V. de L. Weiser 874
Ficus citrifolia Mill.	St	mssf	JBMB 0650	V. de L. Weiser 539
[*Ficus guaranitica* Chodat]				
Ficus obtusifolia Kunth	St		UNBA 5424	A.G. Faraco 108
MYRTACEAE				
Calyptranthes concinna DC.	St	mssf	UNBA 5920	V. de L. Weiser 875
Campomanesia adamantium (Cambess.) O.Berg	St		UNBA 4025	L. Baggio 104
Campomanesia pubescens (Mart. ex DC.) O.Berg	St		UNBA 5215	J.A. Ribeiro 12
Eugenia aurata O.Berg	St	mssf	UNBA 1955	O. Cavassan 418

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Table 1. Continued.

FAMILY / SPECIES/ [SYNONIMS]	HABIT	OTHER VEGETATION TYPE	VOUCHER NUMBER	COLLECTOR NUMBER
Eugenia bimarginata DC.	St		UNBA 5632	M.N. Rissi 209
Eugenia florida DC.	St	pfrf	UNBA 4053	M.N. Rissi 83
Eugenia hiemalis Cambess.	St		JBMB 0694	V. de L. Weiser 583
Eugenia punicifolia (Kunth) DC.	St		UNBA 5921	V. de L. Weiser 876
Eugenia uniflora L.	St		UNBA 5477	A.G. Faraco 99
Myrcia bella Cambess.	St		UNBA 3912	O. Cavassan 518
Myrcia guianensis (Aubl.) DC.	St		UNBA 1294	O. Cavassan 384
[*Myrcia lingua* (O.Berg) Mattos]				
Myrcia multiflora (Lam.) DC.	St	mssf	UNBA 5922	V. de L. Weiser 877
Myrcia tomentosa (Aubl.) DC.	St	mssf	JBMB 0079	V. de L. Weiser 127
Myrcia uberavensis O.Berg	St		JBMB 0585	V. de L. Weiser 474
Myrcia venulosa DC.	St	mssf	UNBA 5950	A.L. Giles 77
Psidium guajava L. (*)	St	mssf	UNBA 5959	A.L. Giles 86
Psidium guineense Sw.	St		JBMB 0768	V. de L. Weiser 637
NYCTAGINACEAE				
Guapira areolata (Heimerl) Lundell	St		UNBA 5923	V. de L. Weiser 878
Guapira graciliflora (Mart. ex J.A.Schmidt) Lundell	St		JBMB 0773	V. de L. Weiser 642
Guapira hirsuta (Choisy) Lundell	St	mssf	UNBA 2241	M.H.O. Pinheiro 209
Guapira noxia (Netto) Lundell	St		UNBA 3620	A.G. Guimarães 3
Guapira opposita (Vell.) Reitz	St	mssf	UNBA 4051	M.N. Rissi 79
OCHNACEAE				
Ouratea spectabilis (Mart. ex Engl.) Engl.	St		UNBA 1468	O. Cavassan 334
ONAGRACEAE				
Ludwigia elegans (Cambess.) H.Hara	St	nfrf	JBMB 0030	V. de L. Weiser 78
OPILIACEAE				
Agonandra excelsa Griseb.	St		UNBA 5928	V. de L. Weiser 883
ORCHIDACEAE				
Catasetum fimbriatum (C.Morren) Lindl.	Epi.		UNBA 5584	S.A. Joanitti 69
Epidendrum denticulatum Barb.Rodr.	Epi.		UNBA 5586	S.A. Joanitti 71
Oeceoclades maculata (Lindl.) Lindl. (*)	Herb	mssf	UNBA 5429	A.G. Faraco 113
Polystachya concreta (Jacq.) Garay & H.R.Sweet	Epi.		UNBA 5583	S.A. Joanitti 68
Prescottia stachyodes (Sw.) Lindl.	Herb		UNBA 5491	A.G. Faraco 315
Rodriguezia decora (Lem.) Rchb.f.	Epi.		UNBA 5585	S.A. Joanitti 70
PASSIFLORACEAE				
Passiflora alata Curtis	Climber		UNBA 5908	V. de L. Weiser 863
Passiflora cincinnata Mast.	Climber		JBMB 0470	V. de L. Weiser 369
Passiflora edulis Sims	Climber		UNBA 5902	V. de L. Weiser 857
Passiflora foetida L.	Climber		UNBA 5513	M.N. Rissi 160
Passiflora miersii Mast.	Climber	mssf	JBMB 0227	V. de L. Weiser 312
Passiflora pohlii Mast.	Climber		JBMB 0086	V. de L. Weiser 134
Passiflora suberosa L.	Climber	mssf	UNBA 5909	V. de L. Weiser 864
PERACEAE				
Pera glabrata (Schott) Poepp. ex Baill.	St		UNBA 1286	O. Cavassan 314
[*Pera obovata* (Klotzsch) Baill.]				
PIPERACEAE				
Piper cuyabanum C.DC.	St	mssf	UNBA 2271	M.H.O. Pinheiro 640
POACEAE				
Brachiaria decumbens Stapf (*)	Herb		UNBA 5951	A.L. Giles 78
Ichnanthus pallens (Sw.) Munro ex Benth.	Herb		UNBA 5482	A.G. Faraco 213
Imperata brasiliensis Trin.	Herb		UNBA 5960	A.L. Giles 87
POLYGALACEAE				
Bredemeyera floribunda Willd.	St	mssf	UNBA 5924	V. de L. Weiser 879
Securidaca divaricata Nees & Mart.	Climber		JBMB 0638	V. de L. Weiser 527
[*Securidaca rivinifolia* A.St.-Hil.]				
POLYGONACEAE				
Coccoloba mollis Casar.	St	mssf	UNBA 4021	M.N. Rissi 61

Table 1. Continued.

FAMILY / SPECIES/ [SYNONIMS]	HABIT	OTHER VEGETATION TYPE	VOUCHER NUMBER	COLLECTOR NUMBER
POLYPODIACEAE				
Microgramma lindbergii (Mett. ex Kuhn) de la Sota [*Polypodium lindbergii* Mett. ex Kuhn]	Epi.		UNBA 5798	S.A. Joanitti 1
Microgramma squamulosa (Kaulf.) de la Sota [*Polypodium squamulosum* Kaulf.]	Epi.	mssf, pfrf	UNBA 5580	S.A. Joanitti 65
Pleopeltis hirsutissima (Raddi) de la Sota [*Polypodium hirsutissimum* Raddi]	Epi.		UNBA 5963	A.G. Faraco 189
Pleopeltis pleopeltifolia (Raddi) Alston [*Polypodium pleopeltifolium* Raddi]	Epi.	mssf, pfrf	UNBA 5363	S.A. Joanitti 9
Pleopeltis polypodioides (L.) E.G.Andrews & Windham	Epi.	pfrf	UNBA 5418	S.A. Joanitti 64
Polypodium chnoophorum Kunze	Epi.		UNBA 5582	S.A. Joanitti 67
Serpocaulon catharinae (Langsd. & Fisch.) A.R.Sm. [*Polypodium catharinae* Langsd. & Fisch.]	Epi.		UNBA 5581	S.A. Joanitti 66
Serpocaulon latipes (Langsd. & L.Fisch.) A.R.Sm. [*Polypodium latipes* Langsd. & L.Fisch.]	Epi.		UNBA 3490	G.A. Nóbrega 43
Serpocaulon vacillans (Link) A.R.Sm. [*Polypodium vacillans* Link]	Herb		UNBA 3392	G.A. Nóbrega 4
PRIMULACEAE				
Ardisia ambigua Mart.	St	mssf, pfrf	UNBA 3782	M. Carboni 233
Myrsine guianensis (Aubl.) Kuntze [*Rapanea guianensis* Aubl.]	St	pfrf	UNBA 5227	B.M. Palma 27
Myrsine umbellata Mart. [*Rapanea umbellata* (Mart.) Mez]	St	mssf	UNBA 1283	O. Cavassan 211
PROTEACEAE				
Roupala montana Aubl.	St	mssf	UNBA 2230	M.H.O. Pinheiro 487
Roupala montana var. *paraensis* (Huber) K.S.Edwards [*Roupala brasiliensis* Klotzsch]	St	mssf	JBMB 0123	V. de L. Weiser 191
PTERIDACEAE				
Adiantum serratodentatum Humb. & Bonpl. ex Willd.	Herb	mssf	UNBA 3484	G.A. Nóbrega 19
RHAMNACEAE				
Gouania latifolia Reissek	Climber	mssf	JBMB 0469	V. de L. Weiser 368
Rhamnidium elaeocarpum Reissek	St	mssf	UNBA 5952	A.L. Giles 79
ROSACEAE				
Prunus sellowii Koehne	St		UNBA 5047	J.C. Peres 4
RUBIACEAE				
Amaioua intermedia Mart. ex Schult. & Schult.f.	St	mssf	UNBA 1305	O. Cavassan 517
Chiococca alba (L.) Hitchc.	Climber	mssf	JBMB 0094	V. de L. Weiser 142
Chomelia pohliana Müll.Arg.	St	mssf	UNBA 5961	A.L. Giles 88
Coccocypselum lanceolatum (Ruiz & Pav.) Pers.	Herb	pfrf	UNBA 5435	A.G. Faraco 142
Cordiera sessilis (Vell.) Kuntze [*Alibertia sessilis* (Vell.) K.Schum.]	St	mssf	UNBA 3918	O. Cavassan 330
Coussarea hydrangeifolia (Benth.) Benth. & Hook.f. ex Müll.Arg.	St	mssf	UNBA 1302	O. Cavassan 544
Faramea montevidensis (Cham. & Schltdl.) DC.	St	mssf	JBMB 0643	V. de L. Weiser 532
Guettarda viburnoides Cham. & Schltdl.	St	mssf	UNBA 0415	O. Cavassan 415
Ixora gardneriana Benth.	St	mssf	JBMB 0445	V. de L. Weiser 344
Manettia cordifolia Mart.	St	mssf	JBMB 0460	V. de L. Weiser 359
Palicourea rigida Kunth	St		UNBA 5425	A.G. Faraco 109
Psychotria capitata Ruiz & Pav.	St	mssf	UNBA 5163	S.R. Christianini 30
Psychotria carthagenensis Jacq.	St	mssf, pfrf	JBMB 0622	V. de L. Weiser 511
Psychotria hoffmannseggiana (Willd. & Schult.) Müll.Arg.	St	mssf	UNBA 5426	A.G. Faraco 111
Rudgea jasminoides (Cham.) Müll.Arg.	St	mssf	UNBA 5925	V. de L. Weiser 880
Rudgea viburnoides (Cham.) Benth.	St	mssf	JBMB 0207	V. de L. Weiser 288
Tocoyena formosa (Cham. & Schltdl.) K.Schum.	St	mssf	JBMB 0471	V. de L. Weiser 370

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Table 1. Continued.

FAMILY / SPECIES/ [SYNONIMS]	HABIT	OTHER VEGETATION TYPE	VOUCHER NUMBER	COLLECTOR NUMBER
RUTACEAE				
Zanthoxylum rhoifolium Lam.	St	mssf	JBMB 0746	V. de L. Weiser 616
Zanthoxylum riedelianum Engl.	St	mssf	UNBA 5953	A.L. Giles 80
SALICACEAE				
Casearia sylvestris Sw.	St	mssf	UNBA 5871	A.L. Giles 35
SANTALACEAE				
Phoradendron crassifolium (Pohl ex DC.) Eichler	Vh		UNBA 5964	A.G. Faraco s/n
Phoradendron piperoides (Kunth) Trel.	Vh	pfrf	UNBA 3740	M. Carboni 221
SAPINDACEAE				
Matayba elaeagnoides Radlk.	St	mssf	UNBA 5538	M.N. Rissi 334
Serjania caracasana (Jacq.) Willd.	Climber		UNBA 5271	A.G. Faraco 331
Serjania erecta Radlk.	St		UNBA 5178	L. Baggio 96
Serjania gracilis Radlk.	Climber		UNBA 5910	V. de L. Weiser 865
Serjania lethalis A.St.-Hil.	Climber	mssf	JBMB 0053	V. de L. Weiser 101
Serjania reticulata Cambess.	Climber	mssf	JBMB 0479	V. de L. Weiser 378
SAPOTACEAE				
Chrysophyllum marginatum (Hook. & Arn.) Radlk.	St	mssf	UNBA 5926	V. de L. Weiser 881
Pouteria ramiflora (Mart.) Radlk.	St		UNBA 1301	O. Cavassan 313
SIPARUNACEAE				
Siparuna guianensis Aubl.	St	mssf, pfrf	UNBA 1282	O. Cavassan 535
SMILACACEAE				
Smilax campestris Griseb.	Climber	mssf	JBMB 0743	V. de L. Weiser 613
Smilax fluminensis Steud.	Climber	mssf	JBMB 0750	V. de L. Weiser 620
Smilax polyantha Griseb.	Climber	mssf	JBMB 0749	V. de L. Weiser 619
SOLANACEAE				
Cestrum mariquitense Kunth	St	mssf	UNBA 2252	M.H.O. Pinheiro 136
Cestrum pedicellatum Sendtn.	St		UNBA 5454	A.G. Faraco 66
Solanum erianthum D.Don	St		UNBA 5046	J.C. Peres 3
Solanum hazenii Britton	St	mssf	UNBA 3031	M.H.O. Pinheiro 229
Solanum lycocarpum A.St.-Hil.	St	mssf	UNBA 5956	A.L. Giles 83
Solanum paniculatum L.	St	mssf	UNBA 4045	M.N. Rissi 82
Solanum variabile Mart.	St		UNBA 5452	A.G. Faraco 60
STYRACACEAE				
Styrax camporum Pohl	St	mssf	UNBA 5877	A.L. Giles 41
Styrax ferrugineus Nees & Mart.	St		UNBA 1299	O. Cavassan 475
SYMPLOCACEAE				
Symplocos nitens (Pohl) Benth.var. *nitens*	St	pfrf	UNBA 0793	V. de L. Weiser 662
Symplocos pubescens Klotzsch ex Benth.	St	mssf	JBMB 0657	V. de L. Weiser 546
THELYPTERIDACEAE				
Thelypteris hispidula (Decne.) C.F.Reed	Herb	mssf, pfrf, nfrf	UNBA 3386	G.A. Nóbrega 60
Thelypteris serrata (Cav.) Alston	Climber	mssf, pfrf	UNBA 3389	G.A. Nóbrega 30
THYMELAEACEAE				
Daphnopsis utilis Warm.	St		UNBA 5444	A.G. Faraco 169
URTICACEAE				
Cecropia pachystachya Trécul	St	mssf, pfrf	UNBA 5479	A.G. Faraco 172
VERBENACEAE				
Aloysia virgata (Ruiz & Pav.) Juss.	St	mssf	UNBA 5954	A.L. Giles 81
Lantana camara L.	St	mssf	UNBA 5896	A.L. Giles 60
Lantana fucata Lindl.	Herb		UNBA 5894	A.L. Giles 58
Lantana hypoleuca Briq.	St	mssf	UNBA 2278	M.H.O. Pinheiro 119
Lippia lasiocalycina Cham.	St		UNBA 5813	A.L. Giles 21
Lippia lupulina Cham.	St		UNBA 5499	A.G. Faraco 356
Lippia origanoides Kunth	Herb		UNBA 5895	A.L. Giles 59
Stachytarpheta cayennensis (Rich.) Vahl	Herb		UNBA 5427	A.G. Faraco 112
VIOLACEAE				
Anchietea pyrifolia (Mart.) G.Don var. *pyrifolia*	Climber	mssf	JBMB 0742	V. de L. Weiser 612

Table 1. Continued.

FAMILY / SPECIES/ [SYNONIMS]	HABIT	OTHER VEGETATION TYPE	VOUCHER NUMBER	COLLECTOR NUMBER
VITACEAE				
Cissus erosa Rich.	Climber	mssf	JBMB 0241	V. de L. Weiser 331
VOCHYSIACEAE				
Qualea cordata Spreng.	St	mssf	UNBA 1119	M.H.O. Pinheiro 186
Qualea grandiflora Mart.	St	mssf	JBMB 0100	V. de L. Weiser 148
Qualea multiflora Mart.	St	mssf	UNBA 1296	O. Cavassan 415
Qualea parviflora Mart.	St		JBMB 0084	V. de L. Weiser 132
Vochysia cinnamomea Pohl	St		UNBA 1295	O. Cavassan 449
Vochysia tucanorum Mart.	St	mssf	UNBA 1937	O. Cavassan 533

our table agrees with Brasil et al.'s research (2010) on the *cerrado* flora of São Paulo. Fabaceae and Asteraceae have also been recognized by Warming (1908) as the most species-rich in the *cerrado* in Lagoa Santa. Warming recorded the highest number of species in Asteraceae, taking into account that the formation studied was predominantly of grasslands, with forest formations located in valleys. Considering the Brazilian flora as a whole, Fabaceae is also the richest, represented by 3,200 species (Giulietti et al. 2005). Bromeliaceae, the ninth in the list, with 11 species (3.0%), is the only new item in our list when compared to other studies. Its inclusion is justified by the addition of epiphytes, rarely sampled in other floristic surveys.

Considering Bauru's geographic position, in the intermediate zone between tropical and southern temperate climates, the comparison carried out shows that, regarding species number per family, there are no differences between this vegetation and the *cerrado* of the core area.

Concerning their inclusion in the "Official list of plant species of the state of São Paulo threatened with extinction", published in Resolution 48 of the State Environment Department on September 21, 2004 (São Paulo 2004), two species (*Acrocomia hassleri* (Barb.Rodr.) W.J.Hahn and *Psychotria capitata* Ruiz & Pav.) are classified as "endangered", three (*Bowdichia virgilioides* Kunth, *Pavonia biflora* Fryxell, and *Pavonia hexaphylla* (S.Moore) Krapov.) as "vulnerable", and one (*Strychnos bicolor* Progel) as "critically endangered". According to the Red Book of the Brazilian Flora (Martinelli & Moraes 2013), one species (*Anemopaegma arvense* (Vell.) Stellfeld ex de Souza) is endangered and two species (*Zeyheria tuberculosa* (Vell.) Bureau ex Verl. and *Cedrela fissilis* Vell.) are vulnerable. In addition, four non-threatened species (*Caryocar brasiliense* Cambess., *Bowdichia virgilioides* Kunth, *Plathymenia reticulata* Benth. and *Voyria aphylla* (Jacq.) Pers.) were considered to be of concern to research and conservation for their economic value and for being in actual or expected decline (Martinelli & Moraes 2013).

Concerning habit, shrub or tree species were the most sampled (64.7%), followed by climbers (18.3%) and herbs (8.6%). This result demonstrates that, although shrub or tree species are better represented in number, plants with other habits investigated contribute significantly to determine diversity in that vegetation.

We can see that 363 species were considered as native and eight as naturalized (Table 1). These species occur naturally in *cerrado* environments and reproduce without human intervention. However, their aggressiveness in the occupation of new areas was not assessed. Based on our fieldwork experience, we observed that *Brachiaria decumbens* Stapf has a high invasive potential, both vegetatively and by seeds, as long as the environment is sunny. In this case, we might as well consider it an invasive species that competes fiercely with native species in the sub-shrub herbaceous stratum (Pivello et al. 1999) and alters the dynamics of *cerrado* ecosystems.

On the other hand, the terrestrial orchid *Oeceoclades maculata* (Lindl.) Lindl. is frequent in the litter of *cerradões*, always in shaded environments. This species has also been observed in the same environment in montane semideciduous seasonal forests of Bauru and does not seem to show the same invasive signs as the species mentioned above.

We observed that 53.6% species were seen only in the *cerrado*, which suggests they are exclusive of this vegetation type in the Bauru region. Therefore, these species are good indicators of the typical *cerrado* vegetation described by Durigan et al. (2012), who considered their survival limited in shaded environments. The others were also observed in other vegetation formations of the municipality, of which 36.4% occurred in montane semideciduous seasonal forests as well. According to the authors, this vegetation type is formed predominantly by generalist species with high ecological plasticity, able to survive in both sunny and shaded environments. However, we should consider that other factors, such as water deficit (Durigan et al. 2003, Siqueira & Durigan 2007), soil characteristics (Coutinho 1978, Ruggiero et al. 2002, Durigan et al. 2003, Siqueira & Durigan 2007, Pinheiro & Durigan 2009), and seral stages (Pinheiro & Durigan 2009) can interfere in their occurrence.

Therefore, this is an unprecedented list of tracheophyte species recorded in *cerrado* fragments in the municipality of Bauru, which we believe can be used as a reference in every effort to protect, modify, suppress, or restore that vegetation type. We observed the *cerrado* fragments under study host species that are also part of other *cerrado* communities in Brazil and are home to at least six species threatened with extinction in the state of São Paulo and three in the country as a whole.

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