



# PHYTOTAXA

160

## **A catalogue of the vascular plants of the Caatinga Phytogeographical Domain: a synthesis of floristic and phytosociological surveys**

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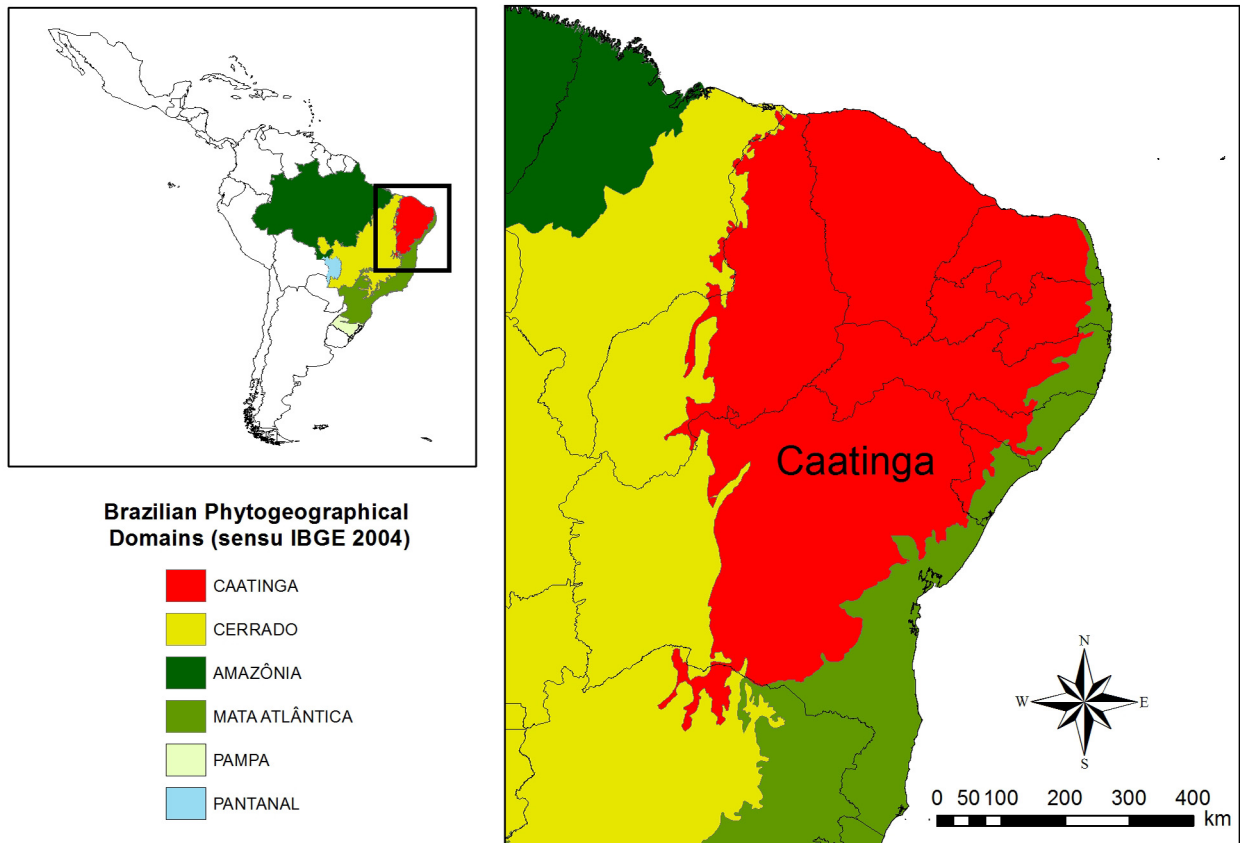
## Abstract

A catalogue is presented of plant names in use in the Caatinga Phytogeographical Domain (CPD), the largest semiarid ecoregion of South America. We compiled all published papers we could locate with floristic and/or phytosociological data relating to the CPD and created a database of all site-based surveys, all names reported in these surveys and the basic ecological data associated with each species. We then mapped the names used in survey reports to those currently accepted in Brazil, consulting specialists to resolve taxonomic and nomenclatural issues before synthesizing the data in order to present here a list of all names in use. Thus this compilation represents the taxonomic data in use by generalist botanists on a sub continental scale. Synthesizing the previously dispersed ecological data available for the species, we explored general ecological patterns in the CPD. We also classified each survey as documenting the flora of a specific type of environment within the CPD and compared the general floristic resemblance between different environments within CPD on a biogeographical scale. Rarefaction curves and species richness estimator indices were employed in order to address the question as to whether or not the Caatinga Phytogeographical Domain can be described as well-sampled. To date over 1700 species have been reported in site-based floristic and phytosociological studies in the CPD. Most surveys focused only on woody plants, ignoring the non woody component, but we show here that a large proportion of the plant biodiversity in the Caatinga is comprised of non woody plants. We estimate that 40% of the existing species were not sampled by site-based surveys. Moreover, most of the species in our database were recorded from a single site, while a few species were considered widespread. When comparing the number of widespread species in our dataset to results published for the cerrado savannas, we show that species in Caatinga seems to have a much more restricted distribution than plants in the Cerrado. We present here a catalogue of all plant names recorded and discuss sampling and geographical issues related to the floristic study of Caatinga.

**Key words:** Brazil, Compilation, Semiarid, Seasonally Dry Tropical Forests

## Introduction

Seasonally dry tropical areas are among the most threatened of the world's ecoregions (Miles *et al.* 2006). They represent dry scrublands, woodlands and forests under semiarid climate, which have relatively rich soils and are under pressure from logging, clearing for agriculture, fragmentation, desertification and overgrazing (Sampaio 1995, Miles *et al.* 2006, Pennington *et al.* 2006). South America has many different ecoregions (Olson *et al.* 2001) and among them many scattered and disjunct sites under seasonally dry tropical climates, exposed annually to a dry season over five months long (Sarmiento 1975, Pennington *et al.* 2000). Although diverse in physiognomy and geographical location, these seasonally dry tropical formations have some ecological features in common, the most notable being a long dry season and a number of shared disjunct taxa (e.g. Prado & Gibbs 1993, Oliveira *et al.* 2013). Of the seasonally dry tropical areas of South America, the largest one and subject of the present study is located in the Northeastern part of Brazil [Fig. 1] and is known as Caatinga (Prado & Gibbs 1993, Sampaio 1995, Pennington *et al.* 2000, Linares-Palomino *et al.* 2011).



**FIGURE 1.** Geographical location of the Caatinga Phytogeographical Domain (after IBGE 2004), bounded by the Atlantic rainforest to the east and the cerrado savannas to the west (map prepared by M.F. Moro).

The Caatinga Phytogeographical Domain (CPD) is one of the six major Brazilian Phytogeographical Domains [Fig. 1] (IBGE 2004) and is one of the largest semiarid areas of South America, comprising more than 800,000Km<sup>2</sup> (Ab'Sáber 1974; Ab'Sáber 2003; IBGE 2004). Located in Northeastern Brazil and surrounded by the Atlantic Rain Forest and the Cerrado domains [Fig. 1] the CPD experiences a semiarid climate due to a stable low pressure atmospheric zone (Nimer 1972). This semiarid climate is characterised by low rainfall, strong seasonality and unpredictable and erratic precipitation (Nimer 1972). To a first approximation, the extent of the CPD is defined by areas with less than 1,000mm annual rainfall (Reddy 1983, Prado 2003), and usually the annual evapotranspiration is twice the precipitation or more. This results in a severe shortage of edaphic water for plants during the dry season, which can last well over six months (Nimer 1972). Areas with increasingly higher rainfall regimes mark the transition from caatinga vegetation to the Atlantic Forest in the east. The ecotone between Atlantic Forest and Caatinga is called *Agreste* and supports a mix of the dry caatinga vegetation in some stretches and wet forests in others (Porto *et al.* 2004). At its western extremity, the CPD shows a transition to the cerrado savannas, characterized by a climate which, though seasonal, is more predictable and stable, and by the differences in soil and fire regime that govern the occurrence of savannas (Eiten 1972).

During most of the 20<sup>th</sup> century it was said that the CPD had a flora poor in species and endemism (Sampaio *et al.* 2002). This region was also deemed to lack distinctive, characteristic taxa, the flora being comprised predominantly by species and genera from the surrounding phytogeographical domains surviving under drier conditions (e.g. Rizzini 1963). In the absence of recognition of its conservation value, there has been limited support for studies and for the establishment of natural reserves in the CPD. As a result the CPD is one of the least protected natural regions of Brazil (Castelletti *et al.* 2003). However, the assumption that the CPD was a species poor region was in great part due to the minimal scientific attention paid to the area, which remained one of the least studied during the 20th century (Santos *et al.* 2011). It is now recognized that the CPD was scientifically neglected by biologists as compared to the Atlantic rainforest or the Cerrado savannas (Tabarelli & Vicente 2002,

Santos *et al.* 2011) and that the CPD is relatively rich in species (Sampaio *et al.* 2002, Giuliatti *et al.* 2006, Forzza *et al.* 2010). Towards the end of the 20th century the number of publications on the flora of the CPD increased, redressing in part the previous lack of data for many regions in the domain.

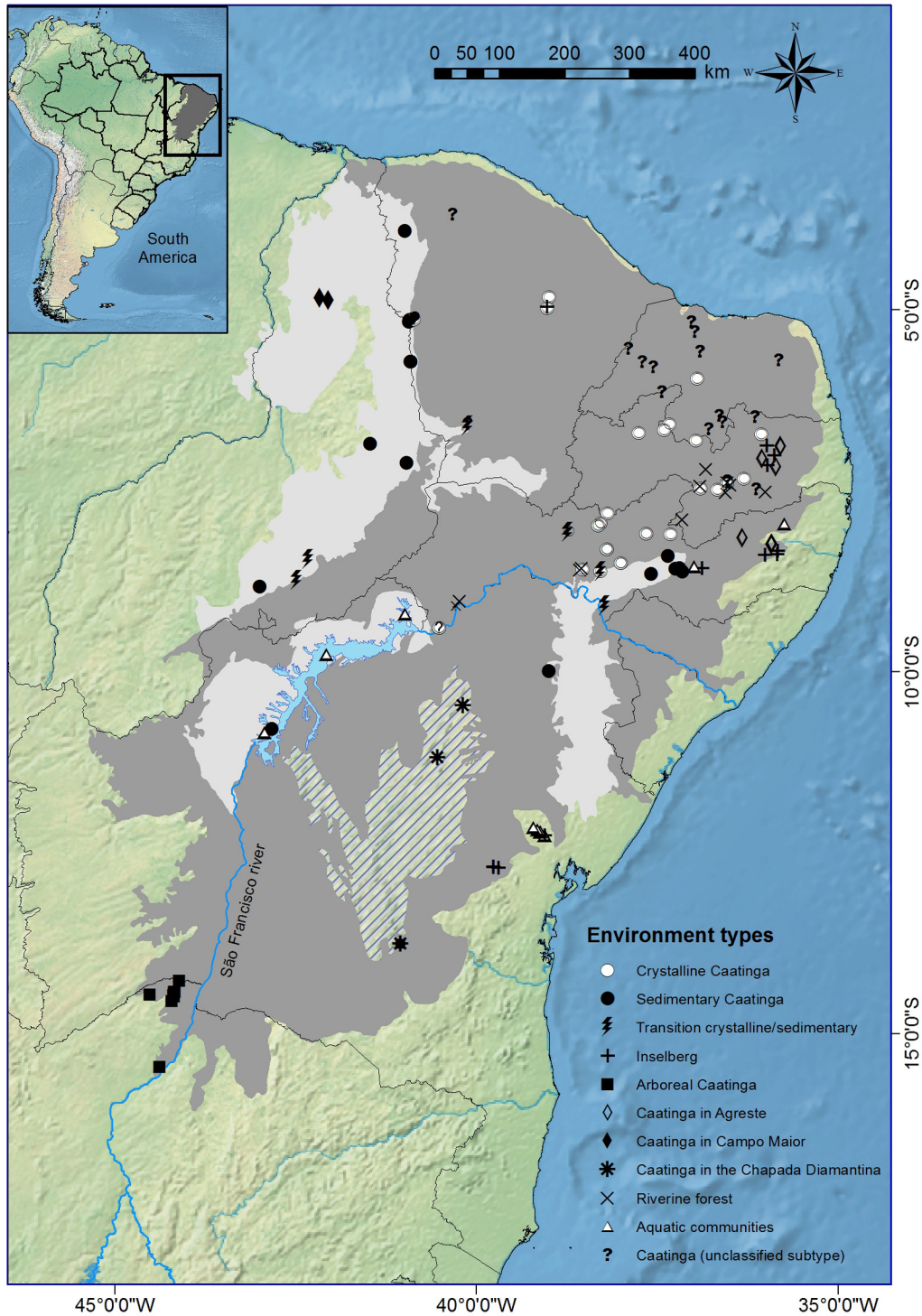
Within the CPD many different kinds of vegetation occur. The main type is the caatinga *sensu stricto* vegetation, located in the widespread “Depressão Sertaneja” crystalline lowlands (Sampaio 1995, Velloso *et al.* 2002). In addition to the crystalline terrains that dominate the landscape, large sedimentary basins also play an important role in the biodiversity composition of the semiarid region of Brazil, because these areas have a very different soil type and harbor a flora that is different to that found in crystalline areas (Gomes *et al.* 2006, Queiroz 2006, Cardoso & Queiroz 2007, Santos *et al.* 2012). The Crystalline Caatinga and the Sedimentary Caatinga, are the two main and most widespread habitats in the CPD, but there are also other environment types such as inselbergs, aquatic communities and riverine forests, and these formations are usually overlooked within the CPD. Moreover, the CPD has two very large ecotones with the surrounding phytogeographical domains: the Agreste, where caatinga has a transition to the Atlantic Forest in the east, and the ecotone to the Cerrado, to the west [Fig. 1]. Over the last two decades, an increasing number of floristic and phytosociological papers have been published about plant communities of the CPD, presenting the opportunity for a synthesis of the literature produced and a search for general patterns.

Floristic and phytosociological papers represent one of the most widespread uses and compilations of plant names by generalist botanists and data from these papers can be integrated in studies with a biogeographical approach (e.g. Oliveira-Filho & Fontes 2000, Ratter *et al.* 2003). Moreover, floristic and phytosociological studies are a good source of ecological and biogeographical data not available from strictly taxonomic catalogues. Floristic studies often record information on plant habits, vegetation types and the geographical location of plant communities which can be integrated into biogeographical and macroecological studies. Once synthesized, these data can provide interesting insights about species, communities, and patterns, which could not be discerned from the individual studies. Thus, our project aimed to produce a catalogue of plants of the CPD, with a view to achieving the following objectives:

- 1) Document the scientific names used by botanists publishing floristic and phytosociology studies in the Caatinga Phytogeographical Domain.
- 2) Characterize the plant diversity sampled in Caatinga by floristic and phytosociological studies, reporting the number of species sampled to date in each family and genus and documenting the richest taxa and the most widespread species in the CPD;
- 3) Analyse the floristic differences between environment types within the CPD;
- 4) Compare the plant habit spectra in different environments within the CPD and understand the proportions of species referable to woody and non woody plant guilds;
- 5) Assess through rarefaction curves and species estimators how well sampled is the plant diversity in the CPD, and how many species can be expected to occur there;
- 6) Determine which are the most problematic genera and families for identification in floristic and phytosociological studies.

## Materials and Methods

This catalogue was built upon an extensive bibliographical survey. We consulted all published volumes of the main biological and botanical Brazilian journals, as well as international bibliographical electronic databases (Web of Science, Scielo and Scholar Google) in search of floristic and phytosociological papers published about the CPD. We also checked the bibliography of most of these papers looking for cited articles not previously compiled. In a further attempt to locate overlooked publications we consulted botanists in Northeastern Brazilian universities. We considered all papers published in periodicals up to the end of 2011. We then built a bibliographical database of papers dealing with the floristics and phytosociology of plant communities in the CPD [Appendix 1]. Studies restricted to seedling diversity were excluded, as were phytosociological papers presenting only truncated tables, where rare species were omitted. The remaining studies [Appendix 1] were registered in a database using BRAHMS software (<http://herbaria.plants.ox.ac.uk/bol/>), developed at Plant Sciences, University of Oxford. All species sampled in these papers were included in the database together with their habit (when available), geographic location and basic ecological information.



**FIGURE 2.** Surveys in the Caatinga Phytogeographical Domain used to build the catalogue, differentiated by environment types within the Domain. Dark gray areas are ecoregions in the Caatinga Domain (sensu Velloso *et al.* 2002) mainly in crystalline terrains. Light gray areas are ecoregions in the Caatinga Domain mainly in sedimentary terrains. The hatched area is the *Chapada Diamantina* ecoregions, where caatinga, cerrado, wet forests and rocky grasslands (campos rupestres) are intermixed in a mosaic (map prepared by M.F. Moro).

The plant communities within the Brazilian semi-arid are not homogeneous. There are many subtypes of plant communities typical of the CPD as well as some enclaves of the surrounding Cerrado domain (to the west) and of the Atlantic Forest domain (to the east). Furthermore, in the middle of the CPD there is a range of highlands called the Chapada Diamantina. These highlands have a mix of caatinga vegetation, rocky grasslands, cerrado savannas and wet forests in a complex mosaic. We considered in our catalogue all plant communities within the CPF [as

mapped by Velloso *et al.* 2002—see Fig. 2] and its transitional areas, but we excluded enclaves of rocky grasslands of Chapada Diamantina (campos rupestres), cerrados and rainforests, because these three formations are related floristically to other Brazilian phytogeographical domains. All other plant communities (including aquatic communities and ecotonal areas) were included in our synthesis. We thus classified each published study in one of the following plant community types that occur within the CPD:

- 1) *Crystalline Caatinga*: is the most widespread formation in the CPD, dominating the landscape in the *depressão sertaneja* lowlands over crystalline bedrocks. The crystalline caatinga (or caatinga *sensu stricto*) comprises most of the landscape in the CPD;
- 2) *Sedimentary Caatinga*: is the main formation in the sedimentary basins of the CPD. These sedimentary basins provide very different pedological conditions to plant communities when compared to the *depressão sertaneja* areas and harbor a floristically and physiognomically different form of caatinga, which we called Sedimentary Caatinga (elsewhere termed *carrascos* and *caatingas de areia*);
- 3) *Transition crystalline/sedimentary*: occurs in the areas of transition between crystalline and sedimentary caatingas;
- 4) *Inselbergs*: in sites where soils are very shallow or absent, there are inselberg communities, usually where granitic hills are emergent above the lower and flatter surrounding landscape. Although rupicolous vegetation can be found in both crystalline and sedimentary landscapes, all surveys published to date for this environment type were sampled within crystalline terrains and are thus referred as inselbergs;
- 5) *Riverine forests*: alongside rivers that cross the CPD there are gallery forests. These grow in soils that are usually deeper and with higher edaphic moisture than in areas of typical crystalline caatinga. Although riverine forests can be found in both crystalline and sedimentary landscapes, all surveys published to date for this environment type were sampled within crystalline terrains;
- 6) *Agreste communities*: sites with crystalline caatinga vegetation located in the ecotone between the CPD and the Atlantic Forest Domain. We considered here only the dry formations of the Agreste, excluding patches of rainforests (known as “brejos de altitude”), as these have a flora related to the Atlantic Forest;
- 7) *Caatinga of the Chapada Diamantina*: in the Chapada Diamantina Highlands there is a mix of floras from different Brazilian phytogeographical domains, including caatinga, wet forest, cerrado and rocky grasslands. We included here only studies dealing with caatinga sites in the Chapada Diamantina.
- 8) *Arboreal Caatinga*: a taller and less seasonal subtype of Caatinga (which according to Santos *et al.* 2012 is a distinctive plant community within Caatinga) that occurs in the south of Bahia and north of Minas Gerais states;
- 9) *Caatinga in Campo Maior*: this is an area of complex transition between the Cerrado and Caatinga in Piauí state. We considered here only studies in Campo Maior that sampled the Caatinga vegetation, but not studies in the cerrado;
- 10) *Aquatic communities*: aquatic plant communities in rivers, lakes or artificial reservoirs;
- 11) *Unclassified Caatinga*: Not all of our sites could be assigned unambiguously to one of the above categories. Although the larger sedimentary basins of Northeastern Brazil are well charted, there are smaller ones spread over the CPD. Also, the relatively large Apodi sedimentary basin, on the boundary between the states of Ceará and Rio Grande do Norte was not charted by Velloso *et al.* (2002) and studies located in these places are difficult to classify with confidence as crystalline or sedimentary caatingas. We also found some studies in degraded crystalline caatinga sites, where marked modifications in plant communities occur due anthropogenic reasons (especially agriculture). If a study was located in an area where we were unsure about the geology or if the study concerned a degraded site we placed the study site in the “*Unclassified Caatinga*” category.

#### *Objective 1: Documenting the scientific names applied in floristic and phytosociological studies of the Caatinga Phytogeographical Domain*

In order to attain the first objective of this catalogue, all species names reported in each paper we compiled were added to a database in BRAHMS software. Doing this we built a complete list of names reported in all papers. We then checked each name against the database of the *Lista de Espécies da Flora do Brasil* (Forzza *et al.* 2011) and treated the names as accepted or synonym following this list. When a name encountered in one of the studies was not present in the *Lista de Espécies da Flora do Brasil*, we tried to contact specialists in order to check if the name was an unusual but published synonym, a valid but misapplied name or a *nomen nudum*. All taxonomic information obtained through the *Lista de Espécies da Flora do Brasil*, including updates to Forzza *et al.* (2011)

found as a result of queries, and through personal communication with specialists was entered in the BRAHMS database, giving each compiled name the status of accepted, synonym, misapplied or *nomen nudum*. In cases where a specialist informed us of a nomenclatural novelty or taxonomic change which has not yet appeared in the *Lista do Brasil*, we included these in taxonomic notes under the relevant accepted name. We also recorded exotic species reported in the floristic papers and a list of exotic species is presented in a separate Appendix from the native species list, in order to not lose data on non native plants and keep the exotics clearly labeled, following the recommendations of Moro *et al.* (2012). Once all the data were registered, we generated the catalogue of all plant names in use in the CPD, with associated ecological and geographical data using BRAHMS reporting options.

*Objective 2: Determining the richest families and genera and the most frequent species throughout the Caatinga Phytogeographic Domain*

To reach our second objective, we took the complete list of names, mapped all synonyms to their accepted names and eliminated exotic plants and records not identified to species level. Based on this list of accepted names, we calculated which were the families and genera represented by most species in the dataset – which we considered the ‘richest’ families and genera. We also evaluated which are the most widespread species, based on the frequency of the species in the dataset. We built a presence/absence matrix for all species at all sites and drew from there the number of occurrences we had for each species, in order to determine the most common ones and the number of rare species. Some papers present data for woody and non woody plants, while others deal only with woody or only with non woody plants. We calculated the number of studies with information for woody plants (studies addressing total flora plus woody only studies) and the number of papers with information for the non-woody plants (total flora plus non-woody only studies) and produced two lists of “frequent species”, being those reported in at least one quarter (25%) of the sites, for woody and non-woody species respectively.

*Objective 3: Quantifying and comparing the floristic differences between environment types within the Caatinga Phytogeographical Domain*

To determine the floristic similarities and differences between environment types within CPD, we built matrices of the presence/absence (incidence table) and also the number of records (frequency table) of each species in each environment type. We then compared the floristic resemblance of the environment types within the CPD using group and ordination analysis (Legendre & Legendre 1998, McCune & Grace 2002). We grouped the environment types using the Unweighted Pair Group Method with Arithmetic Mean (UPGMA) algorithm with Sorensen index, in order to determine which environments were more similar in floristic composition. We also applied the Nonmetric Multidimensional Scaling (NMS) using Sorensen (Bray-Curtis) distance and stability criterion of 0.00001 to obtain the best two dimensional solution for the same dataset (McCune & Grace 2002). NMS is considered an efficient technique to ordinate ecological samples based on the occurrence of species (McCune & Grace 2002, McCune & Mefford 2011). UPGMA and NMS were applied using both the incidence and frequency matrices in order to show the general floristic resemblance of the different environment types with respect to one another using PCOrd 6.0 software (McCune & Mefford 2011).

*Objective 4: Accounting the habit spectra of communities in the CPD*

To address our fourth point we selected from the compiled papers only those dealing with general flora (i.e. both woody and non woody) that reported the habit for each individual species. The most commonly reported habits were trees and treelets, climber/lianas/vines, shrubs, subshrubs and herbs, but occasionally other categories such as “succulent”, “cactus” and “rupicolous” were employed, as well as hemiparasites and epiphytes. To calculate the habit spectra we considered all tree, treelets and shrubs as “Woody Plants”, and all herbs and subshrubs as “Non Woody Plants”. Climbers, lianas and vines were considered in the category of “Climber Woody Plants” or “Climber Non Woody Plants”, depending on the level of lignification of the adult plant, based on our field experience. Plants whose habits were reported as cactus, succulent or rupicolous were reclassified as “Woody” or “Non Woody” plants, following our field experience. Hemiparasites and epiphytes were kept as a separate category. Having all species reclassified as “Woody Plants”, “Climber Woody Plants”, “Non Woody Plants”, “Climber Non Woody Plants”, “Hemiparasites” and “Epiphytes”, we built a matrix with the habit spectrum for each area. We then calculated the “mean spectrum” for the whole CPD, taking the mean number of occurrences for each habit in all areas summed.



*Objective 5: Is the Caatinga Phytogeographical Domain well collected and how many species are out there?*

In order to have an idea whether a study site (from local to continental scales) is well collected and what might be the real richness of a site one can use both rarefaction curves and species richness estimators (Gotelli & Colwell 2011). These are techniques that use resampling procedures to generate smoothed collection curves, with the observed number of species for each sampling effort. Based on the number and distribution of rare species in the sample (those occurring in only one or two sampling units) one can estimate the expected “actual” number of species in an area (Gotelli & Colwell 2011). We used these procedures to show the observed number of species and the estimated richness in each environment type of the CPD and also in the CPD as a whole, using the ICE, Chao 2, Jackknife 1 and Jackknife 2 indices, which are based on incidence data (Colwell *et al.* 2004, Chao *et al.* 2005, Gotelli & Colwell 2011).

We built presence/absences matrices for each environment in the CPD and for the Caatinga Domain as a whole. We then calculated the rarefaction curves and richness estimator indices for the total dataset and for each environment type separately using EstimateS software (Colwell 2009) with 1,000 randomizations. We didn't calculate these indices for the caatingas of Campo Maior and Chapada Diamantina because these environments had only two and three published studies, respectively (not enough to calculate Chao 2 and ICE indices), nor for the Unclassified Caatinga category because this category grouped studies in degraded areas or in undetermined types of vegetation, which makes it difficult to interpret the results. Nevertheless, these sites were included in the computation of the richness of the CPD as a whole, because in the context of the CPD, these sites represent extra sampling observations. We then addressed the questions: 1) are the currently available floristic and phytosociological samples sufficient to stabilize the collector curves, or are the curves still steep, indicating that new species can be expected with more sampling effort?; and 2) what is the expected total richness for each environment type and for the CPD as a whole?

*Objective 6: Determining which are the most problematic genera and families for identification in floristic and phytosociological studies.*

We extracted from our database the number of times when a record was assigned to a genus, but not to a species, or when a record was assigned to a family, but not to a genus. These were considered “partial identifications”. We also calculated the number of records not assigned to any family. We considered as most problematic those families and genera where ten or more records in the database had not been determined to species level.

## Results

*1—Documenting the scientific names applied in floristic and phytosociological studies of the Caatinga Phytogeographical Domain*

We found in the published literature 131 floristic and/or phytosociological lists of species for inclusion in our study [Appendix 1]. The geographic coverage of published papers is more concentrated in Pernambuco and Paraíba states, while in Bahia, the largest state of Northeastern Brazil, there are relatively few studies. Rio Grande do Norte state had a relatively high number of studies, but these were generally smaller surveys, many in degraded caatinga or in not clearly defined ecosystems types. We found no papers on the CPD in Sergipe, Alagoas and Maranhão states. Of the 131 lists, 78 focus exclusively on woody plants, nine exclusively on non woody plants, and 44 on the general flora (woody + non woody plants) [Table 1]. Together these papers represented collections made in 10 different subtypes of plant communities within Caatinga [Fig. 2] and provided 8076 plant records representing 1928 plant names (1568 accepted names, 355 synonyms and five names with uncertain status) for 1714 native species distributed in 629 genera and 131 families [Appendix 2], plus 32 exotic species [Appendix 3]. Besides validly published names, we also found 39 *nomina nuda* and/or names used in error (including some names bearing no close resemblance to any formally published binomial, which are most likely misspellings) [Appendix 4].

*2—Determining the richest families and genera and the more frequent species throughout the Caatinga Phytogeographic Domain*

According our database the richest family in the CPD was Fabaceae, with 292 accepted species, followed by Euphorbiaceae (103), Malvaceae (82) and Asteraceae (67) [Table 2, Appendix 2]. The richest genera were *Croton* Linnaeus (1753: 1004–1005) (37 species), *Ipomoea* Linnaeus (1753: 159–162) (28 species), *Mimosa* Linnaeus (1753: 516–523) (28), *Senna* Miller (1754) (21), *Chamaecrista* Moench (1794: 272) (24) and *Erythroxylum* Browne (1756: 278) (24) [Table 3, Appendix 2]. Only 40 families (30.5% of the total 131) and 24 genera (4% of

the total 629) were represented in our database by 10 species or more. At the other extreme, 36 species were the sole representative of their family and 16 families were represented by just two species each. A similar pattern was seen at genus level: 120 genera had only two and 330 only one reported species.

**TABLE 1.** Number of studies that sampled the general flora (woody and non woody plants), woody only flora, and non woody only flora in each environment type within the Caatinga Phytogeographical Domain.

Environment type	General flora	Woody only	Non woody only	Total
Aquatic communities	11	0	0	11
Arboreal Caatinga	0	9	0	9
Caatinga (unclassified subtype)	1	16	4	21
Caatinga in Agreste (Ecotone to the Atlantic Forest)	2	3	1	6
Caatinga in Campo Maior (Ecotone to the Cerrado)	0	2	0	2
Caatinga in the Chapada Diamantina	0	3	0	3
Crystalline Caatinga	4	27	3	34
Inselberg	11	0	0	11
Riverine forest	1	9	0	10
Sedimentary Caatinga	11	7	0	18
Transition crystalline/sedimentary	3	2	1	6
Total	44	78	9	131

**TABLE 2.** Families with at least 10 species recorded in the database of the Caatinga Phytogeographical Domain. See Appendix 2 for a complete list of all accepted genera and species in all families.

Family	Number of species	Family	Number of species	Family	Number of species
Fabaceae	292	Sapindaceae	31	Combretaceae	13
Euphorbiaceae	103	Bromeliaceae	31	Salicaceae	12
Malvaceae	82	Cactaceae	28	Rutaceae	12
Asteraceae	67	Lamiaceae	26	Commelinaceae	12
Convolvulaceae	66	Erythroxylaceae	24	Annonaceae	11
Poaceae	62	Verbenaceae	23	Rhamnaceae	10
Bignoniaceae	52	Solanaceae	23	Portulacaceae	10
Cyperaceae	52	Polygalaceae	18	Polygonaceae	10
Rubiaceae	51	Capparaceae	17	Oxalidaceae	10
Apocynaceae	43	Turneraceae	16	Nyctaginaceae	10
Myrtaceae	42	Araceae	16	Dioscoreaceae	10
Malpighiaceae	38	Acanthaceae	14	Celastraceae	10
Orchidaceae	34	Amaranthaceae	13		
Boraginaceae	32	Plantaginaceae	13		

**TABLE 3.** Genera with at least 10 species recorded in the database of the Caatinga Phytogeographical Domain. See Appendix 2 for a complete list of all accepted species in all genera.

Genus	Number of species	Genus	Number of species
Croton	37	Fridericia	13
Mimosa	28	Jacquemontia	13
Ipomoea	28	Polygala	12
Chamaecrista	24	Machaerium	12
Erythroxylum	24	Lippia	11
Senna	21	Turnera	11
Cyperus	20	Hyptis	11
Eugenia	19	Manihot	11
Sida	17	Casearia	10
Evolvulus	16	Oxalis	10
Solanum	14	Dioscorea	10
Cordia	14	Aspidosperma	10

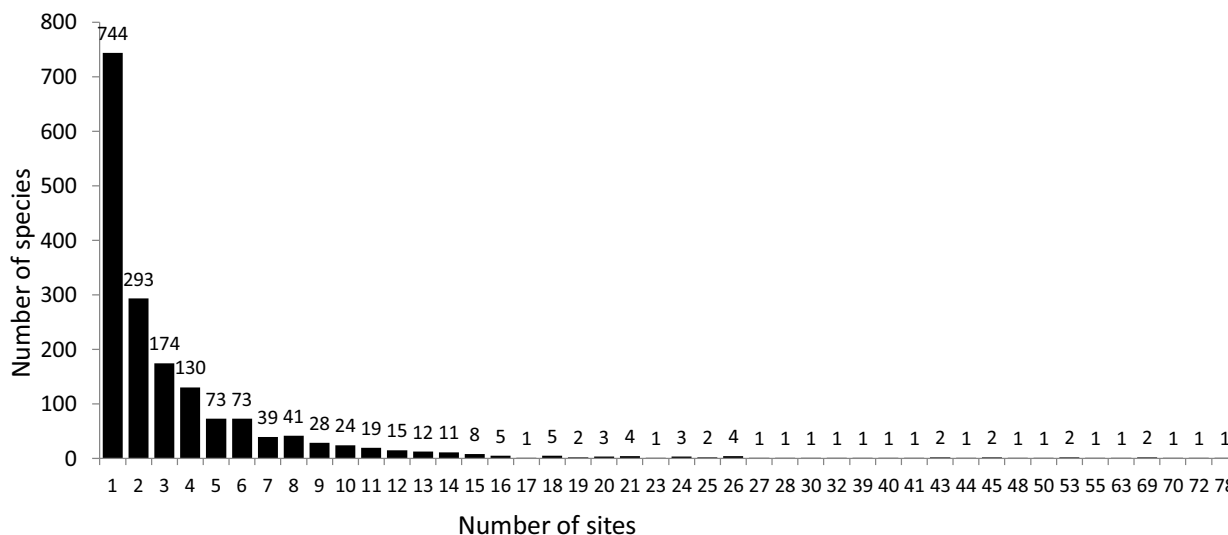
**TABLE 4.** Most constant woody species (occurring in at least 25% of the 122 compiled surveys with data on woody plants) throughout the Caatinga Phytogeographical Domain (the complete database has 131 surveys). For a complete list of species, consult Appendix 2.

Species	Crystalline Caatinga (n=34)	Sedimentary Caatinga (n=18)	Transition Crystalline / Sedimentary (n=6)	Inselberg (n=11)	Agreste (n=6)	Arboreal Caatinga (n=9)	Campo Maior Ecotone (n=2)	Chapada Diamantina (n=3)	Riverine forest (n=10)	Unclassified (n=21)	Aquatic Communities (n=11)	Total number	
												of occurrences in terrestrial ecosystems (n=120)	of occurrences in the CPD (n=131)
<i>Aspidosperma pyrifolium</i>	27	4	4	3	4	8	2	0	10	16	0	78	78
<i>Commiphora leptophloeos</i>	27	9	2	2	4	7	0	2	5	14	0	72	72
<i>Jatropha mollissima</i>	30	4	3	5	4	0	0	1	8	15	0	70	70
<i>Cereus jamacaru</i>	21	10	0	7	5	5	2	3	8	8	0	69	69
<i>Myracrodruon urundeuva</i>	24	3	4	4	4	9	1	2	7	11	0	69	69
<i>Anadenanthera colubrina</i>	25	2	4	2	2	8	1	1	7	11	0	63	63
<i>Bauhinia cheilantha</i>	26	2	5	1	3	0	0	0	5	13	0	55	55
<i>Mimosa tenuiflora</i>	18	3	2	2	2	6	0	1	7	12	0	53	53
<i>Poincianella pyramidalis</i>	23	2	1	4	4	0	0	1	8	10	0	53	53
<i>Cynophalla flexuosa</i>	20	4	2	3	5	0	0	0	9	7	0	50	50
<i>Spondias tuberosa</i>	15	3	3	4	3	6	0	3	6	5	0	48	48
<i>Piptadenia stipulacea</i>	14	7	2	2	3	0	0	0	5	12	0	45	45
<i>Schinopsis brasiliensis</i>	12	2	3	0	4	8	0	3	8	5	0	45	45
<i>Libidibia ferrea</i>	12	4	3	1	3	0	2	0	9	10	0	44	44
<i>Combretum leprosum</i>	12	5	0	1	0	6	2	0	5	12	0	43	43
<i>Ziziphus joazeiro</i>	10	3	2	4	4	1	0	1	10	8	0	43	43
<i>Pilosocereus gounellei</i>	15	3	1	4	2	0	1	0	8	7	0	41	41
<i>Croton sonderianus</i>	15	4	1	0	3	0	0	0	5	12	0	40	40
<i>Lantana camara</i>	8	8	4	7	3	0	0	2	4	3	0	39	39
<i>Croton heliotropifolius</i>	9	6	2	4	2	0	0	0	4	3	2	30	32
<i>Amburana cearensis</i>	12	2	2	0	1	0	2	2	3	6	0	30	30

**TABLE 5.** Most constant non woody species (occurring in at least 25% of the 53 compiled surveys with data on non woody plants) throughout the Caatinga Phytogeographical Domain (the complete database has 131 surveys). For a complete list of species, consult Appendix 2.

Species	Crystalline Caatinga (n=34)	Sedimentary Caatinga (n=18)	Transition Crystalline / Sedimentary (n=6)	Inselberg (n=11)	Agreste (n=6)	Arboreal Caatinga (n=9)	Campo Maior Ecotone (n=2)	Chapada Diamantina (n=3)	Riverine forest (n=10)	Unclassified (n=21)	Aquatic Communities (n=11)	Total number of occurrences in terrestrial ecosystems (n=120)	Total number of occurrences in the CPD (n=131)
<i>Melochia tomentosa</i>	9	3	1	4	1	0	0	1	3	2	0	24	24
<i>Tacinga palmadora</i>	13	2	1	2	2	0	0	2	0	2	0	24	24
<i>Tacinga inamoena</i>	4	6	2	4	0	0	0	0	1	3	0	20	20
<i>Mollugo verticillata</i>	4	3	2	5	0	0	0	0	1	0	1	15	16
<i>Neoglaziovia variegata</i>	4	6	3	2	0	0	0	0	0	1	0	16	16
<i>Waltheria americana</i>	1	5	1	4	0	0	0	0	0	3	2	14	16
<i>Alternanthera brasiliana</i>	2	3	2	6	1	0	0	0	0	1	0	15	15
<i>Deltilia biflora</i>	4	0	1	4	2	0	0	0	0	2	2	13	15
<i>Sida galheirensis</i>	2	6	3	4	0	0	0	0	0	0	0	15	15
<i>Euphorbia lyssoipifolia</i>	6	1	1	3	0	0	0	0	0	1	2	12	14
<i>Tillandsia recurvata</i>	2	4	0	8	0	0	0	0	0	0	0	14	14

The most constant woody species throughout the CPD was *Aspidosperma pyrifolium* Martius (1824: vol I, 60), reported in 78 (64%) of the 122 surveys presenting data for woody plants, followed by *Commiphora leptophloeos* (Martius) J.B. Gillett (1980: 582) (72 areas), *Jatropha mollissima* (Pohl) Baillon (1864: 268) (70), *Cereus jamacaru* Candolle (1828: vol. 3, 467) and *Myracrodruon urundeuva* Allemão e Cysneiro (1862: 3) (69 areas each) [Table 4]. A total of 21 woody species were found in 25% or more of all the surveys which included woody plants. In the non woody component, the most constant species were *Melochia tomentosa* Linnaeus (1759: 1140) and *Tacinga palmadora* (Britton & Rose) Taylor & Stuppy (2002: 112), reported in 24 (44%) of the 54 surveys presenting data for non woody plants, followed by *Tacinga inamoena* (Karl Schumann) Taylor & Stuppy (2002: 119) (20 sites) and *Neoglaziovia variegata* (Arruda) Mez in Martius (1894: 427), *Mollugo verticillata* Linnaeus (1753: 89) and *Waltheria americana* Linnaeus (1753: 673), with 16 records each [Table 5]. Just 11 species of non-woody plants were found in 25% or more of the compiled surveys. Thus for both the woody and the non-woody components just a few species are frequent throughout the CPD, while most of the species reported were rare. Of the species recorded (native and exotic), 744 were reported from a single site, 293 from two and 174 from three, thus 70% of the species were reported from three sites or fewer, and 81% of species reported from five or fewer of the 131 areas [Fig. 3].

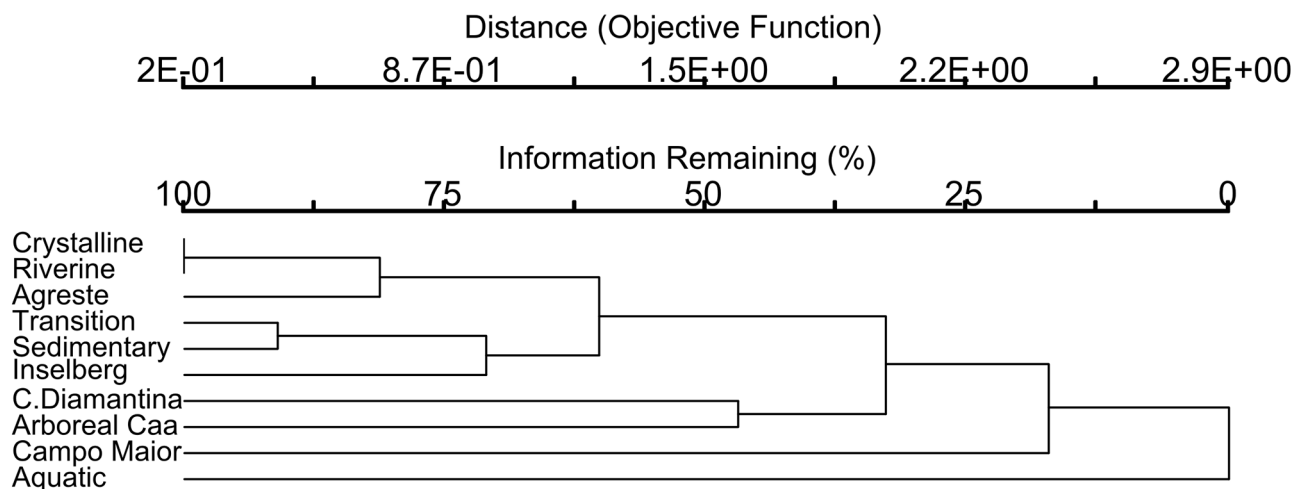


**FIGURE 3.** Histogram of the constancy of species throughout the Caatinga Phytogeographical Domain. Most species were recorded at only one site.

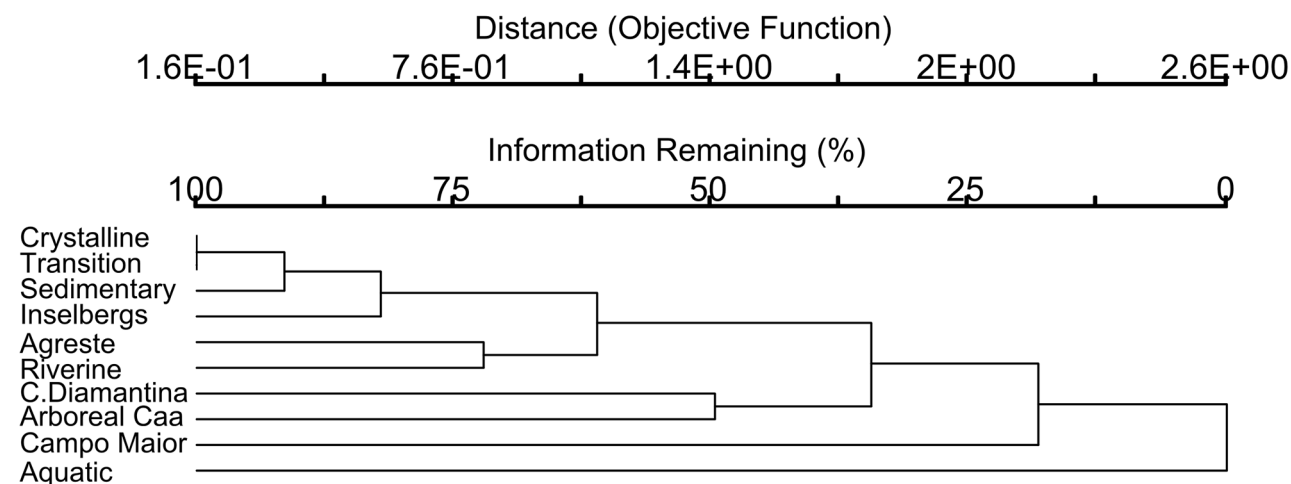
### 3—Quantifying and comparing the floristic differences between environment types within the Caatinga Phytogeographical Domain

The most widespread environment types within the CPD are the crystalline and sedimentary caatingas. We consider these environments to be the “core” caatinga flora. Added to these “core” environments, there are more restricted habits (e.g. riverine forests) or transitional areas (Agreste, Caatinga in Campo Maior and Arboreal Caatinga) that add more species to the flora of the CPD. Crystalline Caatinga, Sedimentary Caatinga, the Transition Crystalline/Sedimentary, the Agreste ecotone, inselbergs and riverine forest grouped together in both group and ordination analyzes. More peripheral sites like the Caatinga in Campo Maior and the Arboreal Caatinga formed, together with the Caatinga in the Chapada Diamantina, areas reasonably different from the core sites [Fig. 4; Fig. 5]. The most distinctive environments within the CPD were 1) the Aquatic communities, 2) the Caatinga in Campo Maior, and 3) the group formed by the caatingas of Chapada Diamantina and Arboreal Caatinga of Minas Gerais.

A- UPGMA (Sorensen distance) groups based in the frequency of the species



B- UPGMA (Sorensen distance) groups based in presence/absence data



**FIGURE 4.** UPGMA dendrogram showing the floristic relationships among the environment types in the Caatinga Phytogeographical Domain using (A) the number of records of each species in each environment type, and (B) incidence data (presence/absence). Crystalline: Crystalline caatinga; Transition: Transitional areas between crystalline and sedimentary caatingas; Sedimentary: Sedimentary caatinga; Inselbergs: Inselberg rocky outcrop communities; Riverine: Riverine forests within the Caatinga Domain; Agreste: Dry forests in the Agreste ecotone between Caatinga and Atlantic Forest Domains (wet forests in Agreste were not considered in the analysis); Arboreal Caa: Arboreal caatinga of northern Minas Gerais; Campo Maior: sites in Campo maior ecotone between Caatinga and Cerrado domains; Aquatic: Aquatic communities within the Caatinga domain.

4—Accounting the habit spectra of communities in the CPD

We found 18 papers that sampled both woody and non-woody plants (general floristic sampling) and reported, in the floristic tables, the habit of each species collected. These papers resulted in 2421 habit records, of which 1247 records were for woody plants, 234 for woody climbers, 790 for non-woody plants, 118 for climbing non-woody plants and 32 for hemiparasites and epiphytes [Table 6]. The woody habit was predominant in sedimentary areas and in the only Agreste site included in this analysis, while the non-woody habit was predominant in crystalline areas and in the single inselberg and riverine forest sites for which we have data suitable for this analysis. When we evaluate the mean habit spectrum for all 18 sites we see that the summed sites had a predominance of woody plants (51.5% of the records plus 9.7% of woody climbers), followed by non woody species (32.6% plus 4.9% of non woody climbers).



**FIGURE 5.** NMS ordination showing the floristic relationships among the environment types in the Caatinga Phytogeographic Domain based in (A) the frequency of each species in each environment type, and (B) incidence data. A: Final stress for 2-dimensional solution using frequency data= 6.29136. B: Final stress for 2-dimensional solution using presence/absence data= 4.53461.

Both epiphytes and hemiparasites comprise a small number of species in the Caatinga domain [Table 6; Fig. 6]. Epiphytes corresponded to 0.6% of the records and hemiparasites 0.7%, being always a minor component in the Caatinga Domain [Table 6; Fig. 6]. We recorded only 11 species of epiphytes in the Caatinga Domain, with only three families represented (Bromeliaceae—eight species; Orchidaceae—two species; Araceae—one species), *Tillandsia* Linnaeus (1753: 286) being the richest epiphytic genus (with six species) [Appendix 2]. Hemiparasites were similarly poorly represented, with only seven species recorded (but some records were assigned only to genus level, including records of *Phthirusa* Martius (1830: 110), *Oryctanthus* (Grisebach) Eichler in Martius (1868: 22), *Struthanthus* Martius (1830: 102–104) and *Phoradendron* Nuttall (1848: 185–186) in two families (Loranthaceae and Santalaceae). These totals take into account three species of Loranthaceae and Santalaceae, incorrectly reported by papers as epiphytes, but actually hemiparasites, and thus reclassified here [Appendix 2].

In general, both woody and non woody plants are major components in Caatinga, with a predominance of woody species in sedimentary sites and non-woody in crystalline sites. Roughly speaking woody plants comprised 60% of the records in these 18 sites against 40% of non woody plants, a ratio of 1:0.66 woody:non woody records.

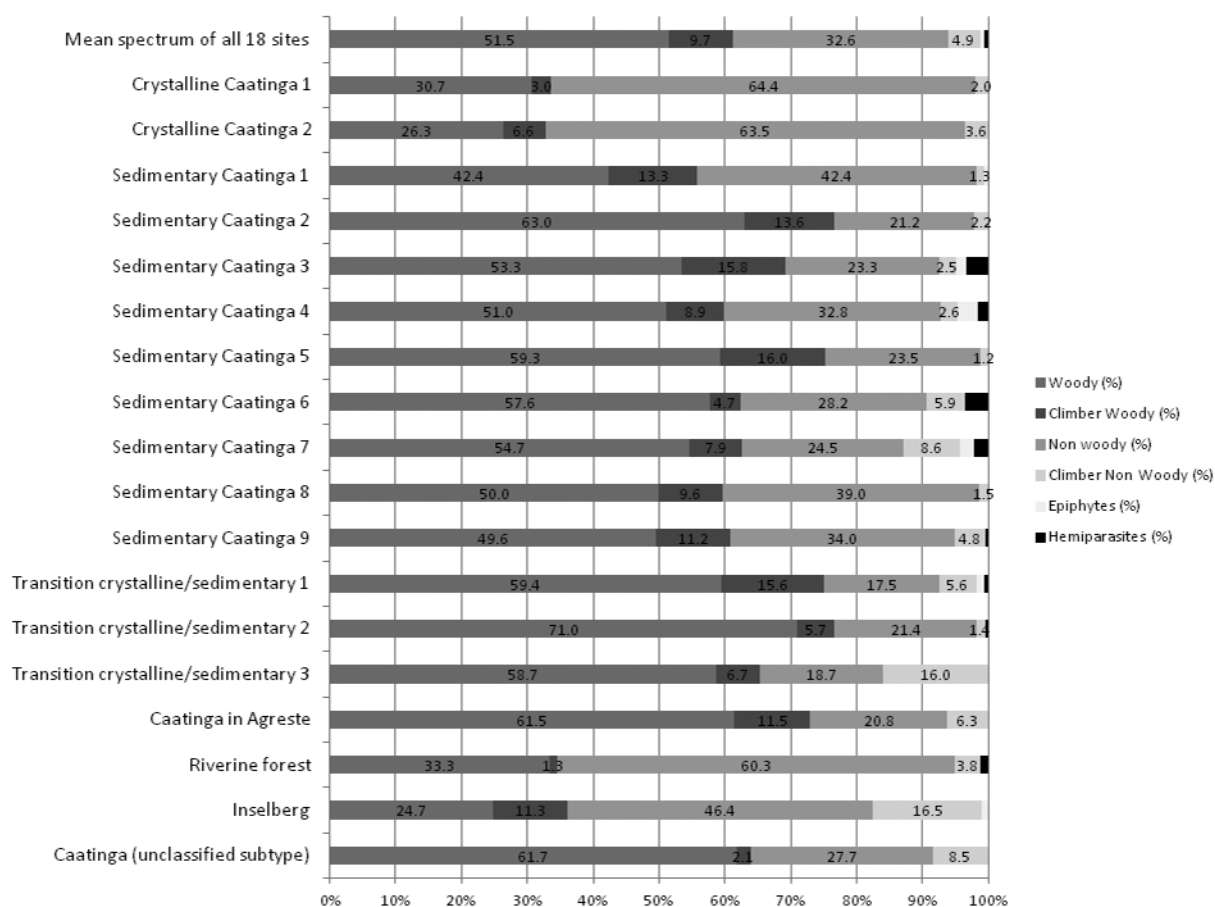
**TABLE 6.** Habit spectra of plant communities in the Caatinga Phytogeographical Domain (see the complete bibliographical references for each site in Appendix 1).

References	Environment type	Woody (%)	Climber Woody (%)	Non woody (%)	Climber Non Woody (%)	Epiphytes (%)	Hemiparasites (%)	% Total	Number of species
Santos & Melo (2010)	Caatinga (unclassified subtype)	61.7	2.1	27.7	8.5	0.0	0.0	100	47
Tölke <i>et al.</i> (2011)	Inselberg	24.7	11.3	46.4	16.5	1.0	0.0	100	97
Souza & Rodal (2010)	Riverine forest	33.3	1.3	60.3	3.8	0.0	1.3	100	78
Alcoforado-Filho <i>et al.</i> (2003)	Caatinga in Agreste	61.5	11.5	20.8	6.3	0.0	0.0	100	96
Pinheiro <i>et al.</i> (2010)	Transition crystalline/sedimentary 3	58.7	6.7	18.7	16.0	0.0	0.0	100	150
Lemos (2004)	Transition crystalline/sedimentary 2	71.0	5.7	21.4	1.4	0.0	0.5	100	210
Lemos & Meguro (2010)	Transition crystalline/sedimentary 1	59.4	15.6	17.5	5.6	1.3	0.6	100	160
Araújo <i>et al.</i> (2011)	Sedimentary Caatinga 9	49.6	11.2	34.0	4.8	0.0	0.4	100	250
Araújo <i>et al.</i> (2011)	Sedimentary Caatinga 8	50.0	9.6	39.0	1.5	0.0	0.0	100	136
Rodal <i>et al.</i> (1999)	Sedimentary Caatinga 7	54.7	7.9	24.5	8.6	2.2	2.2	100	139
Rocha <i>et al.</i> (2004)	Sedimentary Caatinga 6	57.6	4.7	28.2	5.9	0.0	3.5	100	85
Oliveira <i>et al.</i> (1997)	Sedimentary Caatinga 5	59.3	16.0	23.5	1.2	0.0	0.0	100	81
Gomes <i>et al.</i> (2006)	Sedimentary Caatinga 4	51.0	8.9	32.8	2.6	3.1	1.6	100	192
Figueiredo <i>et al.</i> (2000)	Sedimentary Caatinga 3	53.3	15.8	23.3	2.5	1.7	3.3	100	120
Araújo <i>et al.</i> (1998)	Sedimentary Caatinga 2	63.0	13.6	21.2	2.2	0.0	0.0	100	184
Andrade <i>et al.</i> (2004)	Sedimentary Caatinga 1	42.4	13.3	42.4	1.3	0.6	0.0	100	158
Araújo <i>et al.</i> (2011)	Crystalline Caatinga 2	26.3	6.6	63.5	3.6	0.0	0.0	100	137
Costa <i>et al.</i> (2009)	Crystalline Caatinga 1	30.7	3.0	64.4	2.0	0.0	0.0	100	101
<b>Total % of all records</b>	Mean spectrum of all 18 sites	<b>51.5</b>	<b>9.7</b>	<b>32.6</b>	<b>4.9</b>	<b>0.6</b>	<b>0.7</b>	<b>100.0</b>	<b>-</b>
<b>Total number of records</b>		<b>1247</b>	<b>234</b>	<b>790</b>	<b>118</b>	<b>15</b>	<b>17</b>	<b>2421 records</b>	<b>-</b>



5—Is the Caatinga Phytogeographical Domain well collected and how many species are out there?

The environment type with the largest number of observed species in the CPD was the sedimentary caatinga, with 753 species reported in 1704 records, followed by the inselbergs (665 species in 1162 records), the transitional areas between crystalline and sedimentary caatingas (436 species in 635 records) and the crystalline caatinga (396 species in 1122 records) [Table 7; Fig. 7; 8]. The sedimentary Caatinga had also the largest estimated richness, ranging from 1126 (Jackknife 1 index) to 1368 species (ICE index), followed by the inselbergs (992–1196 estimated species). The environment with the smallest estimated number of species was the arboreal caatinga, with richness estimates ranging from 161–181 species, followed by the aquatic communities (estimated richness 233 to 278 species). But it must be noted that all nine papers on arboreal caatinga sampled only woody plants [Table 1], ignoring the non-woody component [that usually comprises a considerable proportion of the biodiversity in the CPD – Fig. 6] and thus the estimated species richness for arboreal caatinga is lower than if non-woody plants had been available for inclusion.

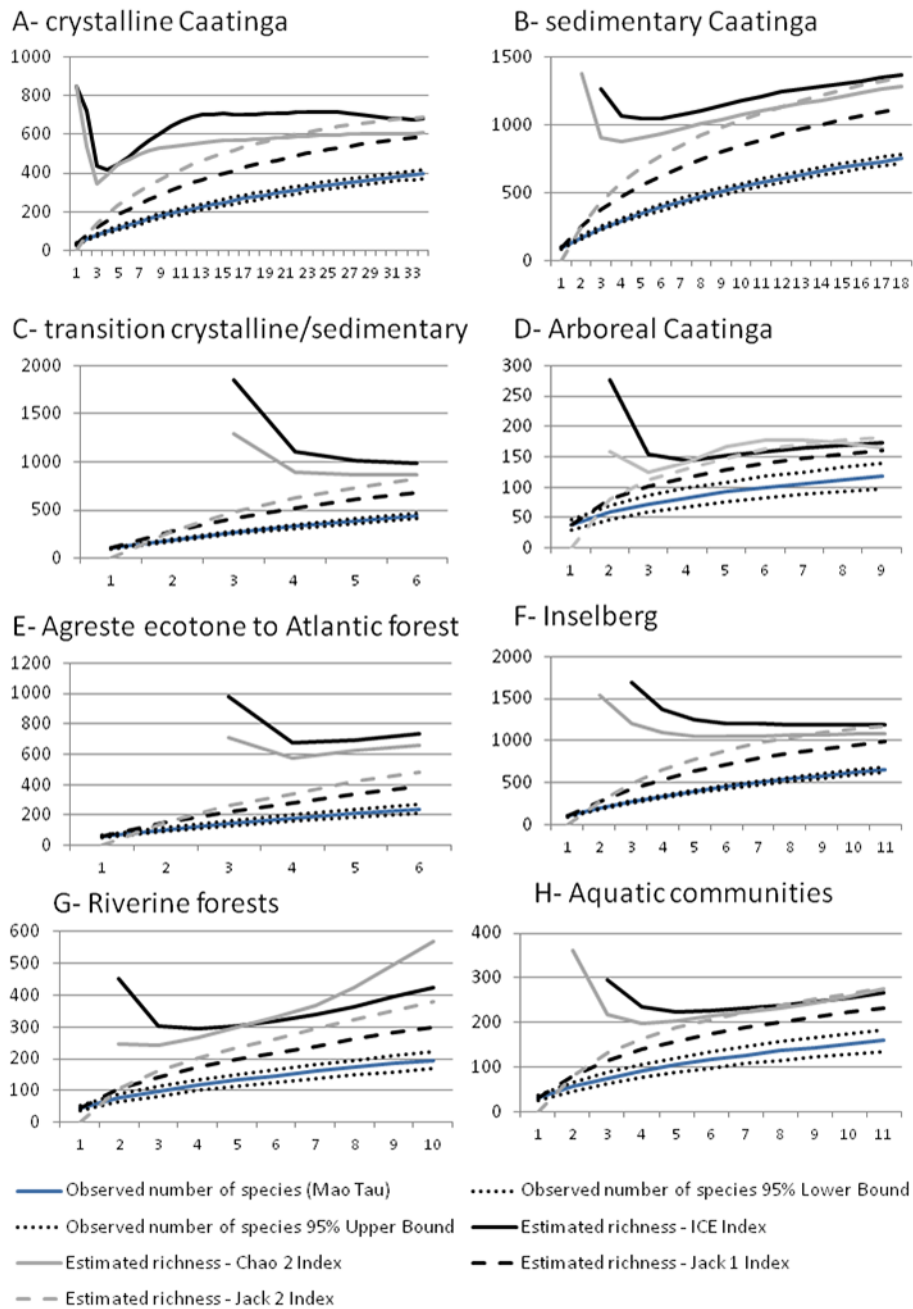


**FIGURE 6.** Habit spectra reported in the 18 floristic papers in the Caatinga Phytogeographical Domain where general flora (woody + non woody plants) was sampled and habit data reported for each species.

In general it can be seen from both rarefaction curves and richness estimator indices that the number of recorded species in all environments is still growing as new studies are added [Fig. 7; 8]. The gap between the estimated richness and the sampled richness ranged from 33 to 68% of the estimated total number of species [Table 7]. When we computed the observed and estimated number of species in the whole CPD we see that there was an estimated 1185 uncollected species. This suggests that at least 40% of the species of the CPD have not yet been included in site-based floristic or phytosociological studies [Table 7].

**TABLE 7.** Number of available surveys for each environment type within the Caatinga Phytogeographical Domain, with the observed number of species in each environment, the confidence interval for the observed number of species (calculated through 1,000 randomizations) and the expected number of species estimated by ICE, Chao 2, Jackknife 1 and Jackknife 2 richness estimator indices (calculated with EstimateS software— Colwell 2009). We also present the gap between the largest richness estimated by indices and the actual reported number of species. The estimators were not calculated for Chapada Diamantina and Campo Maior environments due the small number of studies available for these areas.

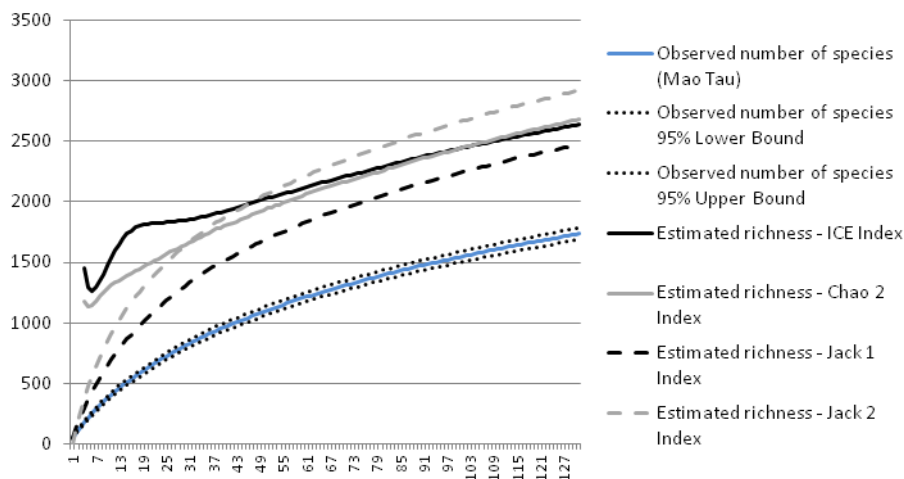
Environment type	Number of sites	Observed number of species	Observed number of species (95% CI Lower Bound)	Observed number of species (95% CI Upper Bound)	Estimated richness - ICE Index	Estimated richness - Chao 2 Index	Estimated richness - Jackknife 1 Index	Estimated richness - Jackknife 2 Index	Difference between the largest estimated richness and observed richness	estimated % of the sampled biodiversity
Crystalline Caatinga	34	396	373.2	418.8	679.3	606.8	588.2	689.7	293.7	57.4
Sedimentary Caatinga	18	753	719.0	786.9	1368.0	1280.1	1126.1	1353.4	615.0	55.0
Transition Crystalline/Sedimentary	6	436	408.4	463.6	984.1	872.6	681.0	824.2	548.1	44.3
Arboreal Caatinga	9	118	97.4	138.6	173.7	164.1	160.7	181.0	55.7	67.9
Agreste	6	240	211.4	268.6	732.0	658.6	386.7	484.3	492.0	32.8
Inselberg	11	655	624.4	685.6	1196.5	1082.5	992.3	1177.3	541.5	54.7
Riverine forest	10	196	169.9	222.1	425.1	569.8	300.4	380.4	373.8	34.4
Aquatic communities	11	160	136.3	183.7	265.5	274.3	232.7	277.6	117.6	57.7
Chapada Diamantina	3	108	-	-	-	-	-	-	-	-
Campo Maior	2	85	-	-	-	-	-	-	-	-
Unclassified Caatinga subtype	21	181	-	-	-	-	-	-	-	-
Total	131	1737	1688.6	1785.4	2639.1	2681.6	2475.3	2921.7	1184.7	59.5



**FIGURE 7.** Rarefaction curves showing the number of observed species in the different environment types within the Caatinga Phytogeographical Domain, with the 95% confidence interval for the observations (calculated with 1,000 randomizations), and the number of species estimated by ICE, Chao 2, Jackknife 1 and Jackknife 2. Campo Maior and Chapada Diamantina are not shown due the dearth of data available for caatinga in these environments.

#### 6—Determining which are the most problematic genera and families for identification in floristic and phytosociological studies

Of the 8076 records collated from the 131 surveys in our database, 1138 (14.1%) were records not assigned to species level. These included 1082 partial identifications (i.e. those identified only to genus or to family level) and a further 56 records not assigned even to a family. The most problematic genera for generalist botanists to identify in floristic and phytosociological studies were *Croton* Linnaeus (1753: 1004–1005) (49 records not assigned to species level), *Eugenia* Linnaeus (1753: 470–471) and *Mimosa* Linnaeus (1753: 516–523) (30 records each), and *Solanum* Linnaeus (1753: 184–188) (20 records) [Table 8; Appendix 5] and the families presenting most problems were Fabaceae (134 records not assigned to species level), Euphorbiaceae (118), Myrtaceae (70) and Bignoniaceae and Malvaceae (52 records each) [Table 9; Appendix 6].



**FIGURE 8.** Rarefaction curve showing the total observed number of species (with the 95% confidence interval obtained with 1,000 randomizations) for the Caatinga Phytogeographical Domain as a whole (summing all 131 surveys) and the expected total number of species in CPD estimated by ICE, Chao 2, Jackknife 1 and Jackknife 2.

**TABLE 8.** Genera with at least 10 records not determined to species level in our database of the Caatinga Phytogeographical Domain. For the complete list of genera with partial identifications see Appendix 5.

Genus	Number of unidentified records	Genus	Number of unidentified records
<i>Croton</i>	49	<i>Sida</i>	14
<i>Eugenia</i>	30	<i>Erythroxylum</i>	12
<i>Mimosa</i>	30	<i>Sapium</i>	12
<i>Solanum</i>	20	<i>Cyperus</i>	11
<i>Ipomoea</i>	17	<i>Arrabidaea</i>	10
<i>Cordia</i>	15	<i>Banisteriopsis</i>	10
<i>Manihot</i>	14		
Total number of records not identified to species level		1138	

**TABLE 9.** Families with at least 10 partial identifications (records assigned only to genus or only to family level) in our database of the Caatinga Phytogeographical Domain. For the complete list of families with partial identifications see Appendix 6.

Family	Number of unidentified records	Family	Number of unidentified records
Fabaceae	134	Amaranthaceae	16
Euphorbiaceae	118	Nyctaginaceae	16
Myrtaceae	70	Lamiaceae	15
Bignoniaceae	52	Cucurbitaceae	13
Malvaceae	52	Erythroxylaceae	13
Rubiaceae	38	Lythraceae	13
Convolvulaceae	36	Turneraceae	13
Malpighiaceae	34	Commelinaceae	12
Asteraceae	30	Sapindaceae	12
Poaceae	28	Acanthaceae	11
Solanaceae	27	Cactaceae	11
Cyperaceae	22	Portulacaceae	11
Boraginaceae	21	Celastraceae	10
Apocynaceae	20	Records not assigned to any family	56
Verbenaceae	18		
Total number of records not identified to species level		1138	

## Discussion

*Documenting the scientific names applied in floristic and phytosociological studies of the Caatinga Phytogeographical Domain and determining the richest families and genera and the more frequent species throughout the Caatinga Phytogeographic Domain (objectives 1 and 2)*

Most of the names reported in our dataset (1568) are accepted names for species recognized in the Lista de Espécies da Flora do Brasil (Forzza *et al.* 2010; 2011). Judging the accuracy of the identifications of individual collections was beyond the scope of this study. However, the literature also included 355 synonyms i.e. names not currently considered the correct name for an accepted species. Resolution of such synonymy is an important first step in comparing lists from different sites. Without such a reconciliation step, the diversity of the Caatinga as a whole would be over-estimated in our study and the degree of floristic resemblance between sites would, in general, be underestimated. Globally, about 60% of plant names at species level are considered to be synonyms (Paton *et al.* 2008). A comparable figure for all the species names in papers included in our study is just 18%. So, viewed in the global context the proportion of synonyms encountered in our study may appear relatively low. We attribute this to the relative recency of the literature being surveyed, the vast majority being published after 2000. The number of synonyms in use might be expected to decrease further in the very latest floristic papers because of the electronic taxonomic databases which are now widely available. While access by non-specialists to taxonomic information was until very recently rather restricted and primarily via print format (which is quickly outdated), a complete checklist of plant species from Brazil is now available on the internet and is continuously updated (Forzza *et al.* 2011; Thomas *et al.* 2012). We hope that having access to this up to date, specialist maintained, freely accessible data source, generalist botanists will improve the quality of their data, reported through floristic and phytosociological work. The use of misapplied names can also be expected to decline as researchers can verify names against the official Brazilian list of species.

One of the greatest difficulties for those gathering data from floristic papers is presented by misspelled names or names that have never been validated, principally *nomina nuda* for which descriptions have not been published. Fortunately electronic databases as IPNI (<http://www.ipni.org/>) and The Plant List (<http://www.theplantlist.org/>) are powerful tools to allow one to check the names. Name strings at species level which cannot be matched in these large, international databases are very likely to be *nomina nuda* or misspelled names. The coverage of these resources is less complete at infraspecific level. The digital era now enables the evaluation even of very large species lists quickly and automatically using on line tools as the Taxonomic Name Resolution Service (<http://tnrs.iplantcollaborative.org/>) or Plant Miner (<http://www.plantminer.com/>—Carvalho *et al.* 2010), which checks a whole list of names at once.

During the updating of our species lists, we relied mainly on the on line database of the “Lista de Espécies da Flora do Brasil” (<http://floradobrasil.jbrj.gov.br>), complemented by the “The Plant List” and IPNI databases to check our dataset. Names reported as accepted in The Plant List, but not recorded in the Flora of Brazil database were the most obvious candidates to be misapplied names and we consulted specialists to get more information on them (and a few proved to be genuine omissions from the Flora of Brazil). We present here the complete list of names gathered, in order to provide a comprehensive catalogue, including also the *nomina nuda* and misapplied names, what was enormously facilitated by the recent availability of on-line taxonomic databases.

We consider the catalogue presented here to be one of the most comprehensive available listing of the plant species of the Caatinga Phytogeographical Domain. However, the coverage of the catalogue is, of necessity, limited by the distribution and quality of the surveys from which the catalogue records are synthesized. Thus the catalogue can be expected to provide a fuller and more informative picture of the caatinga flora of Pernambuco and Paraíba states than, for example of the relatively poorly sampled caatinga of Bahia or indeed the states of Sergipe, Alagoas and Maranhão for which no lists suitable for inclusion in our study have been found up to 2011. Furthermore, since more than half of the studies to date focused exclusively on woody plants [Table 1], the non-woody component is clearly under-represented in our list. Moreover, while some environment types, such as sedimentary caatinga and inselbergs, were represented mostly by studies sampling general flora (both woody and non woody plants), crystalline caatinga, arboreal caatinga and riverine forests had sampling strongly skewed towards woody plants, with most studies ignoring the non woody component. Arboreal caatinga, for example, was among the least rich in our analysis [Table 7; Fig. 7], and this seems to be related to the fact that non woody plants were omitted from the sampling of these environments, reducing the number of species reported in each paper, which, in turn, were used

to estimate the total number of species. These inherent biases are unavoidable in any study of this kind and should be taken into account in any analysis of the content of the catalogue as a whole.

Another bias in the data is that some plant groups were clearly underreported. Only one species of a non vascular plant (*Ricciocarpos natans* (Linnaeus) Corda in Opiz (1829: 651), with two occurrences) was reported, while the number of bryophyte species reported to Caatinga by Forzza *et al.* (2010) was 93 species. Although there are some studies focused on non vascular plants in the CPD (e.g. Pôrto *et al.* 1994; Pôrto & Bezerra 1996), it is clear that generalist botanists collecting in the CPD are paying little attention to these plants. As non vascular plants are small, and not easily identified by generalist botanists, they often ignore them when collecting. Nevertheless we found a better picture related to Ferns. While Xavier *et al.* (2012) lists 36 species for the Caatinga, 14 species were reported by the compiled studies.

A comparable situation occurs with invasive species. Moro *et al.* (2012) called attention to the fact that in Brazil there is great variation in approaches dealing with exotic plants in botanical studies. Some researchers exclude from their species lists all non native species, resulting in a situation where invasive plants are underreported. While Fabricante and Siqueira Filho (2012), for example, recorded over 60 exotic species in one more localized region of the CPD, we found, in the whole dataset only 32 exotic species reported. It would be of great utility for botanists to collect and report invasive species in their study sites, allowing ecologists to map the distribution of these plants. We recommend that invasive plants in the study site of floristic surveys should be reported and clearly tagged as exotic plants in the species lists as suggested elsewhere (Moro *et al.* 2012).

In summary, a range of taxonomic, geographic and life-form biases can be detected in the dataset as a whole. However, for the analyses designed to address our aims, every care has been taken to select subsets of the data in which any such biases are eliminate or at least minimized.

Acknowledging the known biases in the Catalogue as a whole, it is nonetheless of interest to compare the salient features of this caatinga synthesis with those of other syntheses. The families represented by most species in our catalogue coincide closely with the top ten families listed by Forzza *et al.* (2010) for the Caatinga phytogeographic domain *sensu lato*. Fabaceae tops the list in each case and no fewer than eight families are common to the top ten of both lists. Family differences between the lists can be explained primarily by (i) the bias of the present list in favour of woody species and (ii) the broader definition of Caatinga employed by Forzza *et al.* (2010). Thus, Orchidaceae and Melastomataceae, the ninth and tenth most speciose families for Caatinga in the Lista do Brasil, are certainly under-represented in our list not only because data for non-woody species are available from fewer than half of our sites, but also because Forzza's broader definition of the Caatinga would include the *campos rupestres* which are particularly rich in melastomes and orchids. The two families which feature among the top ten most diverse in our list, but not in Forzza's list for Caatinga are Convolvulaceae and Bignoniaceae, again attributable to the woody bias in our list. Similarly, the herbaceous families Poaceae and Cyperaceae occupy lower ranks on our list (6<sup>th</sup> and 9<sup>th</sup> respectively) than they do on the Lista do Brasil table for Caatinga plant families (2<sup>nd</sup> and 7<sup>th</sup> positions respectively).

In terms of the most species-rich genera, the *Lista do Brasil* for Caatinga shows that the genera represented by most species in our list [Table 3] are typically reported as having almost twice as many species for the Caatinga as a whole by Forzza *et al.* (2010). Comparison of these lists might suggest that genera such as *Chamaecrista* Moench (1794: 272) and *Turnera* Linnaeus (1753: 271) are particularly under-represented in our database but, again, this is attributable to the inclusion of the *campos rupestres* in the circumscription of caatinga used in the Lista do Brasil. The genera for which species numbers for our list most closely match species numbers reported for Caatinga *s.l.* in Forzza *et al.* (2010) are woody taxa such as *Machaerium* Persoon (1807: 276), *Hyptis* Jacquin (1786: 101) and *Erythroxylum* Browne (1756: 278).

Concerning species distributions, our analysis suggests that plants in Caatinga have distributions which are more restricted than those of the Cerrado savannas, with relatively few species which can be considered widespread. Among the woody plants of our dataset only six out of 849 species were reported at 50% or more of the sites [Table 4]. In contrast, in their larger Cerrado metanalysis Ratter *et al.* (2003) found that 38 out of 951 woody species occurred in at least 50% of the sites surveyed. Pennington *et al.* (2009) argued that the woody species of the dry forests of South America are dispersal limited, and that this influences the ecological and evolutionary patterns of this whole ecosystem. Our findings, showing a lower proportion of widespread woody species in caatinga than in cerrado, agree with Pennington's argument. Furthermore, although far less complete, and subject to the biases discussed above, the data for non woody species show a similar pattern. None of the

recorded non woody species was reported from 50% or more of sites [Table 5], suggesting that herbaceous species in the caatinga are even more dispersal-limited.

*Quantifying and comparing the floristic differences between environment types within the Caatinga Phytogeographical Domain (objective 3)*

The CPD is one of the largest areas of seasonally dry tropical formations of South America and is exposed to a range of environmental factors, such as different soil types, geologies, and gradients in temperature and rainfall. But among all of these factors, two major types of environments are highlighted: crystalline and sedimentary terrains. Several authors have demonstrated that crystalline and sedimentary sites have distinct floras (Gomes *et al.* 2006, Queiroz 2006, Cardoso & Queiroz 2007, Araújo *et al.* 2011). We extended this analysis to the whole set of CPD environments for which floristic information was available and show that the picture is more complex. Taken as a whole, the data available to date support the differences between crystalline and sedimentary formations, but on a sub continental scale, these two environments seem to form, jointly with the inselbergs, the “floristic core” of Caatinga.

Aquatic communities were the most distinctive community within the CPD, as would be expected, since the aquatic environment is a completely different type of habitat, requiring specific adaptations and thus home to a specific flora which is adapted to it. It is worth noting that studies in Aquatic communities in Caatinga are very recent. The first paper on the topic which we could locate (França *et al.* 2003) was published less than ten years ago and only now, with more studies on aquatic plants available (Lima *et al.* 2011, Moura Júnior *et al.* 2011), an initial synthesis became possible.

Considering, the ordination and the group analysis we see that close to the core flora of Caatinga are both the Agreste ecotone to the Atlantic Forest and the riverine forests. Each of these had a relatively high number of species in common with the core Caatinga, but while the seasonality and water shortage is very harsh in the core Caatinga ecosystems, in Agreste region the climate is milder and the rainfall is usually more abundant (Porto *et al.* 2004). In general, the closer to the ocean or the greater the altitude the greater the rainfall, and this allows the presence of species of the Atlantic Domain in these ecotonal areas (Porto *et al.* 2004, Rodal *et al.* 2008). Although riverine forests may be subject to the same atmospheric climate as the core caatinga, their plant communities have a much better water supply in the soil, which may result in a number of common species between the climatically not so dry Agreste and pedologically not so dry riverine environments.

Because of the less marked seasonality, one could expect to encounter some floristic elements from Mata Atlantica in the Agreste environment (Porto *et al.* 2004; Rodal *et al.* 2008), but the close resemblance between Agreste and Riverine forest is notable here. Apparently these latter two environments have many species in common with the core CPD, but also share species not present in the core environments. In their classic paper on gallery forests in the Cerrado, Oliveira-Filho & Ratter (1995) showed that these riverine forests acted as an ecological corridor for moisture adapted Atlantic and Amazonian species to cross the seasonal cerrado savanna areas. Our results suggest that something similar could be happening in the CPD, with the transitional Agreste having some distinctive species not found in the Core Caatinga (probably coming from the Atlantic Forest) and the Riverine forest acting as an ecological corridor for these species. While plants adapted to wet environments could have problems to survive in the core Caatinga environments, the more humid riverine forests could offer a pathway for some of these plants to cross the semiarid region. We cannot test this hypothesis here but it could explain the pattern we observed in our data.

The inselberg surveys we compiled range from those in the Agreste region, in the transition to the Atlantic Forest, to those located within the Crystalline Caatinga. While inselbergs in drier areas include species very typical of the crystalline caatinga, those in more humid sites show species adapted to more humid conditions, as *Begonia* Linnaeus (1753: 1056), Orchidaceae and other taxa.

More distinctive floristic conjuncts were observed in the caatingas of Chapada Diamantina, Campo Maior and Arboreal Caatinga of northern Minas Gerais [Fig. 4; Fig. 5]. These were the most distinctive terrestrial ecosystems in our data and are known to be in three ecotonal areas. The Campo Maior is the area where the CPD has a complex transition to the Cerrado Domain and represents the northwestern most transitional site of the CPD (Velloso *et al.* 2002, Farias & Castro 2004). The Arboreal Caatinga of Minas Gerais represented the southwestern transition to the Cerrado and also had a distinct flora within the CPD [Fig. 4; Fig. 5]. This result supports those of Santos *et al.* (2012) who tested the influence of environment in structuring plant communities in the CPD and concluded that the Arboreal Caatinga is a particular subtype within the domain.

The Caatinga of the Chapada Diamantina formed a group together with the Arboreal Caatinga [Fig. 4] and was positioned between Arboreal Caatinga and the Caatinga in Campo Maior in the NMS ordination, a result consistent with the geographic position of the Chapada Diamantina highlands between these two ecotones. But the biogeographical picture may be much more complex, because the Chapada Diamantina is a region where caatinga, cerrado, wet forests and rocky grasslands meet in complex transitions (Juncá *et al.* 2005). How the transitions occur within the Chapada Diamantina and how the many subtypes of communities relate floristically to each other are points for future studies, but our data suggest that the caatinga in the Chapada Diamantina is floristically very different from the core CPD areas and approaches the floras of the Arboreal Caatingas, a result which may be more readily explained when more floristic studies (preferably not confined to woody plants) become available.

#### *Accounting the habit spectra of communities in the CPD (objective 4)*

A clear characteristic of the Caatinga Domain is that non-woody plants represent a considerable proportion of the plant diversity [Table 6; Fig. 6]. The contribution of non-woody plants (including non-woody climbers and self-sustaining non-woody plants) ranged from lowest values of 23% in a sedimentary caatinga and a transitional area to over 60% of species in the crystalline caatinga sites. When we compare these data with spectra in studies of life-forms (Costa *et al.* 2007, Araújo *et al.* 2011), it is clear that although non-woody plants constitute a considerable proportion of the species in both crystalline and sedimentary communities, crystalline caatinga sites generally have much larger proportions of non-woody plants. While in sedimentary sites woody plants tend to be the most prominent component (Araújo *et al.* 2011) [Table 6; Fig. 6]. Thus in crystalline areas, which is the most widespread environment type in the CPD, the majority of the studies focused only on woody plants (27 of 34 studies—79%), ignoring the rich non-woody component.

Moreover, only a small number of floristic surveys in crystalline caatinga report the habit of individual species, reducing the availability of habit data for the communities within the CPD. We recommend that further floristic studies should sample both woody and non-woody plants and report the habits (and when possible life-forms) of all species observed in order to achieve a better characterization of their studied plant communities. Even where one is doing phytosociological work focused primarily on the woody component it is recommended to devote some effort to random floristic collections, a suggestion already made in our manual of phytosociological methods for Brazil (Moro & Martins 2011).

Both epiphytes and hemiparasites were secondary elements in communities within the Caatinga Domain. But while hemiparasites are not especially diverse in other Brazilian phytogeographical domains (Moro, personal observation), epiphytes are a very species rich component of the neighbouring Atlantic Forest Domain, but not in Caatinga. The dearth of epiphytes is no doubt because Caatinga is a semiarid, highly seasonal domain, a harsh environment for epiphytes more used to humid forests with closed canopy.

The dearth of habit data for the Crystalline Caatinga in the literature almost certainly reduced the proportion of non-woody plants in the mean spectrum we calculated for the whole CPD. These proportions are likely to change if more crystalline sites (likely to be more rich in herbs) are added. Nevertheless, our result is of value as a conservative, first approximation of the important role that non-woody plants play in the biodiversity of the CPD and is the first attempt of which we are aware to calculate a mean habit spectrum for the Caatinga. Based on our data we expect that in general non-woody plants will be a more prominent component in Crystalline Caatinga than in Sedimentary Caatinga and show that despite the many studies focused only on woody plants, a considerable proportion of the known plant diversity of the CPD is represented in the non-woody stratum.

#### *Is the Caatinga Phytogeographical Domain well collected and how many species are out there? (objective 5)*

The Catalogue of Plants and Fungi of Brazil (Forzza *et al.* 2010) reported 4,320 species of Angiosperms, 93 Bryophytes and 25 ferns and two Gymnosperms in the Caatinga *sensu lato*, including species reported from enclaves of other biomes (e.g. wet forest) occurring within the Caatinga. We have compiled for the CPD (excluding cerrado, atlantic forest and campos rupestres enclaves inside Caatinga) over 1,700 species and estimated the number of species in the CPD to be 2,921 species. Forzza's and ours can be seen as estimates at either extreme of the true number of species present in the CPD. Forzza's number seems high because it uses a very broad definition of Caatinga, including in their account also enclaves of cerrado, atlantic forest and campos rupestres (renowned for their species richness and endemism) within the Caatinga Domain. Thus Forzza *et al.* (2010) give a good general list of species for this region of Brazil, but this exceeds the actual number of species in the CPD. Our data, on the



other hand, support a very conservative figure. The steep slope of most collection curves and richness estimators, for example, suggests that we can expect the observed number of species to grow when the sampling effort is increased.

The CPD is recognized to have a high environmental heterogeneity, both climatic and pedologic, that is thought to be reflected in its biodiversity (Araújo *et al.* 2005). From the map showing locations of published floristic and phytosociological lists [Fig. 2], it is clear that large areas of caatinga remain unsampled by floristic and phytosociological studies, and are thus as yet unavailable for inclusion in metanalyses. The 131 papers used to build this catalogue collectively contain records of more than 1700 native species, but this number is likely to increase, as all richness estimator indices show that the expected number of species is much higher than the observed number. We estimate that at least 40% of the plant diversity of the CPD has not been reported by site-based floristic and phytosociological surveys. In general, richness estimators tend to underestimate the actual richness. Because of this our figures can be seen as a conservative estimate of the true richness (Brose *et al.* 2003, Chao *et al.* 2006, Gotelli & Colwell 2011). Moreover, when we look at our rarefaction and richness estimation graphs [Fig. 7; 8] it is clear that the richness estimated by most indices is growing as the sampling effort increases. Thus it can be argued that our estimates are doubly conservative and thus a good lower bound to the CPD diversity.

The sedimentary caatinga was sampled by only 18 surveys, but these papers are generally based on relatively large collection efforts, some involving sampling an area for more than one year. On the other hand, we had 34 surveys in crystalline caatinga, but some of them were very short term surveys, many of them ignoring the herbs and collecting only woody plants. In fact, 22 of the crystalline caatinga surveys reported fewer than 30 species, probably influencing the low estimated number of species for crystalline caatinga as a whole. In total we collated 1122 plant records (for 396 species) from these 34 crystalline caatinga papers as compared to 1704 records (for 753 plant species) from the 18 surveys dealing with sedimentary areas. Thus although crystalline caatinga appears less rich than sedimentary caatinga, the relatively low numbers of observed and estimated species [see table 7] for crystalline sites are at least partly attributable to the lower sampling effort invested there as compared to sedimentary sites which in general had a larger sampling effort, with more time devoted to collect species. Moreover, 79% of the studies in crystalline areas sampled only woody plants [Table 1], while the majority of its biodiversity seems to be in the non woody component [Table 6; Fig. 6].

Site-based floristic work is an important precursor to biogeographic work, modelling studies, and to mapping the potential distribution of species (e.g. Oliveira-Filho & Fontes 2000, Ratter *et al.* 2003, Queiroz, 2006; Oliveira *et al.* 2013). Such studies are therefore not only desirable in their own right but as a foundation for further study and they often have the added advantage of augmenting the coverage of herbaria collections. Here we estimate the scale of the plant diversity of Caatinga and suggest (taking into consideration the negative bias of indices) that almost half of plant diversity in Caatinga is still not documented by site-based floristic and phytosociological studies. It is clear where we should direct the sampling effort in future studies: there are vast areas in Bahia state (especially in the south), and also in central Ceará, western Pernambuco and eastern Piauí for which no site-based floristic or phytosociological studies have been published. These are obvious places where botanists should focus in order to improve coverage of Caatinga [Fig. 2].

Determining which are the most problematic genera and families for identification in floristic and phytosociological studies (objective 6)

Some 14.1% of the records collated in our metanalysis had not been assigned to species level in the compiled surveys. The partial identifications, to genus or just to family level under which many records were published can provide valuable insights into the specific challenges facing botanists documenting the flora of the Caatinga [Tables 8, 9; Appendices 5, 6]. In general the genera providing most problems for generalist botanists to identify are also the richest genera. *Croton* Linnaeus (1753: 1004–1005), *Eugenia* Linnaeus (1753: 470–471), *Mimosa* Linnaeus (1753: 516–523), *Ipomoea* Linnaeus (1753: 159–162), *Cyperus* Linnaeus (1753: 44–47), *Erythroxylum* Browne (1756: 278) and *Solanum* Linnaeus (1753: 184–188), for example, are all represented in our study by at least 10 different species and by at least 10 further records which could not be identified to species level [Table 3; Table 8]. Some of these genera, such as *Eugenia* and *Erythroxylum* are also recognized as problematic for botanists engaged in studies in the Atlantic Forest (Caiafa & Martins 2007) but other problematic genera common in Atlantic Forest (e.g. *Ocotea* Aublet (1775: 780–781), *Myrcia* Candolle (1827: 406), *Miconia* Ruiz & Pavón (1794: 60)—Caiafa and Martins 2007) are not often found in the Caatinga, so pose relatively few problems for botanists there

[Appendix 5]. In contrast, species-rich genera of more open formations such as *Croton*, *Mimosa* and *Ipomoea* posed greater difficulties for generalist botanists in the CPD [Table 8; Appendix 5]. Similarly, at family level, the families presenting most problems for identification were usually represented in the list of richest families [Table 2; Table 9; Appendix 6], with Fabaceae, Euphorbiaceae, Myrtaceae, Bignoniaceae and Malvaceae having the ones with the largest number of unidentified records.

That comparison of the lists of most speciose families/genera [Table 2; Table 3] with those of the most problematic families/genera [Table 8; Table 9] should show a high degree of congruence is scarcely surprising, since the taxa with most species will be more frequently collected by botanists (e.g. *Croton* and *Mimosa* are in 1<sup>st</sup> and 3<sup>rd</sup> place respectively in each list). The anomalies between the lists are arguably even more informative with respect to which taxa are most challenging to identify. For example, *Senna* and *Chamaecrista* legume genera are very rich in species, but are identified to species level in most of the collections, perhaps reflecting the very substantial taxonomic work on Leguminosae of Northeastern Brazil in recent decades (e.g. Queiroz 2009). In contrast, *Eugenia* is 8<sup>th</sup> in terms of species diversity but second in terms of partial identifications, *Solanum* is 12<sup>th</sup> in terms of species diversity but 4<sup>th</sup> for partial identifications and *Cordia* Linnaeus (1753: 190–191), joint 18<sup>th</sup> in terms of species diversity takes 6<sup>th</sup> place for partial identifications. These latter genera present identification problems out of proportion to their documented diversity in the Caatinga, suggesting (i) a need for more taxonomic work on these groups in the CPD and (ii) the possibility that these many partial identifications mask as yet undocumented species diversity for these groups in the CPD (see Oliveira *et al.* 2013 for an example of a Caatinga species that remained decades unidentified in herbaria and floristic papers).

We consider that a joint effect of a lack of accessible taxonomic data sources is a major problem for generalist botanists in Northeastern Brazil. While a specialist generally feels comfortable in determining material from his/her group of speciality and in using very specific taxonomic keys, generalists tend to rely much more on comparisons with material deposited in herbaria and with photographs in plant guides to match their material to a species. But in Northeastern Brazil there are relatively few large herbaria and identifications of specimens in smaller herbaria are less reliable than those in larger, more visited (and corrected/updated) herbaria. Nevertheless access to taxonomic data for future studies is increasing rapidly. The Flora of Brazil website (Forzza *et al.* 2011, Thomas *et al.* 2012) offers together with an extensive list of accepted names (and the most common synonyms) high resolution images of many herbarium sheets confirmed by specialists. Moreover, free high quality electronic keys are already available to family level in the neotropics (Milliken *et al.* 2010) allowing botanists to assign a collection to the correct family and then check in the Flora of Brazil website the accepted names in that family. Once a complete Flora of Brazil is available the rate of identification to species level is expected to improve. Nevertheless, a key to family level (e.g. the Neotropikey—<http://www.kew.org/science/tropamerica/neotropikey.htm>) accompanied by an updated checklist of names and reliable identified images in the Flora of Brazil website (<http://floradobrasil.jbrj.gov.br>) are recent achievements. We expect these new resources to have a strong influence on the quality of future floristic and phytosociological data produced.

## Conclusions

Contrary to what had been assumed during the majority of the 20<sup>th</sup> century the Caatinga Phytogeographical Domain is a rich semiarid region. Knowledge of its flora is steadily improving and the number of floristic and phytosociological studies published annually is increasing. Nevertheless there are large areas of Caatinga which remain uncollected and some environment types within the CPD (e.g. the Caatinga in Chapada Diamantina and Campo Maior) for which there is remarkably little data. We show that floristic and phytosociological works can be synthesised to provide useful ecological and biogeographical insights into Caatinga biodiversity. We demonstrate that although a large amount of information is already available, there remain many gaps in the geographical coverage for published information. We estimate that over 40% of the species existing in the domain were not sampled in site-based floristic studies. This is in part due to their focus on woody plants. We have shown that for most sites in the CPD non woody plants comprise a considerable amount of the plant biodiversity (more than half of it in some sites). Thus new studies should focus on areas with little data available [Fig. 2] and should undertake sampling of both woody and non woody plants. We present here a synthesis of both the nomenclatural and ecological information available to the Caatinga Domain. This work offers a general synthesis of the CPD,

aggregating information widely from the literature. We have highlighted some of the gaps in our understanding of the Caatinga Domain, especially the lack of knowledge of non-woody plants.

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**APPENDIX 1**—Floristic and phytosociological lists used to build the catalogue of plants of the Caatinga Phytogeographical Domain and their bibliographical references.

Nº	State	Environment category	Authors	Year	Journal	Vol.	Pages
1	BA	Aquatic communities	França, F.; Melo, E.; Góes Neto, A.; Araújo, D.; Bezerra, M.G.; Ramos, H.M.; Castro, I.; Gomes, D.	2003	Acta Botanica Brasilica	17(4)	549–559
2	BA	Aquatic communities	França, F.; Melo, E.; Góes Neto, A.; Araújo, D.; Bezerra, M.G.; Ramos, H.M.; Castro, I.; Gomes, D.	2003	Acta Botanica Brasilica	17(4)	549–559
3	BA	Aquatic communities	França, F.; Melo, E.; Góes Neto, A.; Araújo, D.; Bezerra, M.G.; Ramos, H.M.; Castro, I.; Gomes, D.	2003	Acta Botanica Brasilica	17(4)	549–559
4	BA	Aquatic communities	França, F.; Melo, E.; Góes Neto, A.; Araújo, D.; Bezerra, M.G.; Ramos, H.M.; Castro, I.; Gomes, D.	2003	Acta Botanica Brasilica	17(4)	549–559
5	BA	Aquatic communities	França, F.; Melo, E.; Góes Neto, A.; Araújo, D.; Bezerra, M.G.; Ramos, H.M.; Castro, I.; Gomes, D.	2003	Acta Botanica Brasilica	17(4)	549–559
6	BA	Aquatic communities	França, F.; Melo, E.; Góes Neto, A.; Araújo, D.; Bezerra, M.G.; Ramos, H.M.; Castro, I.; Gomes, D.	2003	Acta Botanica Brasilica	17(4)	549–559
7	BA	Aquatic communities	Moura Júnior, E.G.; Abreu, M.C.; Severi, W.; Lira, G.A.S.T.	2011	Rodriguésia	62(4)	731–742
8	BA	Aquatic communities	Moura Júnior, E.G.; Abreu, M.C.; Severi, W.; Lira, G.A.S.T.	2011	Rodriguésia	62(4)	731–742
9	BA	Aquatic communities	Moura Júnior, E.G.; Abreu, M.C.; Severi, W.; Lira, G.A.S.T.	2011	Rodriguésia	62(4)	731–742
10	PE	Aquatic communities	Lima, L.F.; Silva, S.S.L.; Moura-Júnior, E.G.; Zickel, C.S.	2011	Rodriguésia	62(4)	771–783
11	PE	Aquatic communities	Lima, L.F.; Silva, S.S.L.; Moura-Júnior, E.G.; Zickel, C.S.	2011	Rodriguésia	62(4)	771–783
12	MG	Arboreal Caatinga	Ratter, J.A.; Askew, G.P.; Montgomery, R.F.; Gifford, D.R.	1978	Revista Brasileira de Botânica	1	47–58
13	MG	Arboreal Caatinga	Santos, R.M.; Barbosa, A.C.M.C.; Almeida, H.S.; Vieira, F.A.; Santos, P.F.; Carvalho, D.A.; Oliveira-Filho, A.T.	2011	Cerne	17(2)	247–258
14	MG	Arboreal Caatinga	Santos, R.M.; Vieira, F.A.; Fagundes, M.; Nunes, Y.R.F.; Gusmão, E.	2007	Revista Árvore	31(1)	135–144
15	MG	Arboreal Caatinga	Santos, R.M.; Vieira, F.A.; Fagundes, M.; Nunes, Y.R.F.; Gusmão, E.	2007	Revista Árvore	31(1)	135–144
16	MG	Arboreal Caatinga	Santos, R.M.; Vieira, F.A.; Fagundes, M.; Nunes, Y.R.F.; Gusmão, E.	2007	Revista Árvore	31(1)	135–144
17	MG	Arboreal Caatinga	Santos, R.M.; Vieira, F.A.; Fagundes, M.; Nunes, Y.R.F.; Gusmão, E.	2007	Revista Árvore	31(1)	135–144
18	MG	Arboreal Caatinga	Santos, R.M.; Vieira, F.A.; Fagundes, M.; Nunes, Y.R.F.; Gusmão, E.	2007	Revista Árvore	31(1)	135–144
19	MG	Arboreal Caatinga	Santos, R.M.; Vieira, F.A.; Fagundes, M.; Nunes, Y.R.F.; Gusmão, E.	2007	Revista Árvore	31(1)	135–144
20	MG	Arboreal Caatinga	Santos, R.M.; Vieira, F.A.; Santos, P.F.; Morais, V.M.; Medeiros, M.A.	2008	Revista Caatinga	21(4)	154–162
21	CE	Caatinga (unclassified subtype)	Campanha, M.M.; Araújo, F.S.; Menezes, M.O.T.; Silva, V.M.A.; Medeiros, H.R.	2011	Revista Caatinga	24(3)	94–101

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Nº	State	Environment category	Authors	Year	Journal	Vol.	Pages
22	CE	Caatinga (unclassified subtype)	Souza, J.T.; Mendes, P.G.A.; Sousa, J.R.; Silva, M.A.M.; Lima, A.S.; Souza, M.M.A.	2007	Cadernos de Cultura e Ciência	2(2)	1–10
23	PB	Caatinga (unclassified subtype)	Andrade, L.A.; Fabricante, J.R.; Oliveira, F.X.	2010	Acta Scientiarum. Biological Sciences	32(3)	249–255
24	PB	Caatinga (unclassified subtype)	Paes-Silva, A.P.; Chaves, I.B.; Sampaio, E.V.S.B.	2003	Agropecuária Técnica	24(1)	47–59
25	PB	Caatinga (unclassified subtype)	Queiroz, J.A.; Trovão, D.M.B.M.; Oliveira, A.B.; Oliveira, E.C.S.	2006	Revista de Biologia e Ciências da Terra	6(1)	251–259
26	PB	Caatinga (unclassified subtype)	Santos, A.C.J.; Melo, J.I.M.	2010	Revista Caatinga	23(2)	32–40
27	PE	Caatinga (unclassified subtype)	Albuquerque, S.G.; Soares, J.G.G.; Guimarães Filho, C. Oliveira, M.C. (includes Albuquerque et al 1999)	2004	Sitientibus Série Ciências Biológicas	4(1/2)	52–58
28	RN	Caatinga (unclassified subtype)	Andrade, L.A.; Fabricante, J.R.; Oliveira, F.X.	2009	Acta Botanica Brasilica	23(4)	935–943
29	RN	Caatinga (unclassified subtype)	Andrade, L.A.; Fabricante, J.R.; Oliveira, F.X.	2009	Acta Botanica Brasilica	23(4)	935–943
30	RN	Caatinga (unclassified subtype)	Benevides, D.S.; Maracajá, P.B.; Sizenando Filho, F.A.; Guerra, A.M.N.M.; Pereira, T.F.C.	2007	Revista Verde	2(1)	33–44
31	RN	Caatinga (unclassified subtype)	Cavalcanti, A.D.C.; Rodal, M.J.N.	2010	Revista Caatinga	23(2)	41–50
32	RN	Caatinga (unclassified subtype)	Cezar, A.F.; Sizenando Filho, F.A.; Mesquita, L.X.; Costa, Y.C.S.	2006	Revista Verde	1(2)	100–112
33	RN	Caatinga (unclassified subtype)	Costa, T.C.C.; Oliveira, M.A.J.; Accioly, L.J.O.; Silva, F.H.B.B.	2009	Revista Brasileira de Engenharia Agrícola e Ambiental	13	961–974
34	RN	Caatinga (unclassified subtype)	Freitas, R.A.C.; Sizenando Filho, F.A.; Maracajá, P.B.; Diniz Filho, E.T.; Lira, J.F.B.	2007	Revista Verde	2(1)	135–147
35	RN	Caatinga (unclassified subtype)	Lira, R.B.; Maracajá, P.B.; Miranda, M.A.S.; Sousa, D.D.; Melo, S.B.; Amorim, L.B.	2007	Agropecuária Científica no Semi-Árido	3	23–30
36	RN	Caatinga (unclassified subtype)	Maracajá, P.B.; Batista, C.H.F.; Sousa, A.H.; Vasconcelos, W.E.	2003	Revista de Biologia e Ciências da Terra	3(2)	?
37	RN	Caatinga (unclassified subtype)	Miranda, M.A.S.; Maracajá, P.B.; Sousa, D.D.; Lira, R.B.; Melo, S.B. Amorim, L.B.	2007	Agropecuária Científica no Semi-Árido	3	31–43
38	RN	Caatinga (unclassified subtype)	Moreira, A.R.P.; Maracaja, P.B.; Guerra, A.M.N.M.; Sizenando Filho, F.A.; Pereira, T.F.C.	2007	Revista Verde	2(1)	113–126
39	RN	Caatinga (unclassified subtype)	Pessoa, M.F.; Guerra, A.M.N.M.; Maracajá, P.B.; Lira, J.F.B.; Diniz Filho, E.T.	2008	Revista Caatinga	21(3)	40–48
40	RN	Caatinga (unclassified subtype)	Silva, J.S.; Linhares, P.C.F.; Sizenando Filho, F.A.; Mesquita, L.X.; Maracajá, P.B.	2008	Revista Verde	3(4)	47–57

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Nº	State	Environment category	Authors	Year	Journal	Vol.	Pages
41	RN	Caatinga (unclassified subtype)	Sizenando Filho, F.A.; Maracajá, P.B.; Diniz Filho, E.T.; Freitas, R.A.C.	2007	Revista de Biologia e Ciências da Terra	7(2)	?
42	PB	Caatinga in Agreste (Ecotone to the Atlantic Forest)	Andrade, L.A.; Oliveira, F.X.; Neves, C.M.L.; Felix, L.P.	2007	Revista Brasileira de Ciências Agrárias	2(2)	135–142
43	PB	Caatinga in Agreste (Ecotone to the Atlantic Forest)	Lourenço, C.E.L.; Barbosa, M.R.V.	2003	Revista Nordestina de Biologia	17(1/2)	23–58
44	PB	Caatinga in Agreste (Ecotone to the Atlantic Forest)	Pereira, I.M.; Andrade, L.A.; Sampaio, E.V.S.B.; Barbosa, M.R.V. (includes Pereira et al 2001; 2002)	2003	Biotropica	35(2)	154–165
45	PE	Caatinga in Agreste (Ecotone to the Atlantic Forest)	Alcoforado-Filho, F.G.; Sampaio, E.V.S.B.; Rodal, M.J.N.	2003	Acta Botanica Brasilica	17(2)	287–303
46	PE	Caatinga in Agreste (Ecotone to the Atlantic Forest)	Andrade, W.M.; Lima, E.A.; Rodal, M.J.N.; Encarnaç�o, C.R.F.; Pimentel, R.M.M.	2009	Revista de Geografia	26(2)	161–184
47	PE	Caatinga in Agreste (Ecotone to the Atlantic Forest)	Reis, A.M.S.; Ara�ujo, E.L.; Ferraz, E.M.N.; Moura, A.N. (includes Ara�ujo et al 2005)	2006	Revista Brasileira de Bot�nica	29(3)	497–508
48	PI	Caatinga in Campo Maior (Ecotone to the Cerrado)	Barros, J.S.; Castro, A.A.J.F.	2006	Interaç�es	8(13)	119–130
49	PI	Caatinga in Campo Maior (Ecotone to the Cerrado)	Farias; R.R.S.; Castro, A.A.J.F.	2004	Acta Botanica Brasilica	18(4)	949–963
50	BA	Caatinga in the Chapada Diamantina	Lima, P.C.F.; Lima, J.L.S.	1998	Acta Botanica Brasilica	12(3)	441–450
51	BA	Caatinga in the Chapada Diamantina	Ramalho, C.I.; Andrade, A.P.; F�elix, L.P.; Lacerda, A.V.; Maracaj�, P.B.	2009	Revista Caatinga	22(3)	182–190
52	BA	Caatinga in the Chapada Diamantina	Ramalho, C.I.; Andrade, A.P.; F�elix, L.P.; Lacerda, A.V.; Maracaj�, P.B.	2009	Revista Caatinga	22(3)	182–190
53	CE	Crystalline Caatinga	Ara�ujo, F.S.; Costa, R.C.; Lima, J.R.; Vasconcelos, S.F.; Gir�o, L.C.; Sobrinho, M.S.; Bruno, M.M.A.; Souza, S.S.G. <i>et al.</i>	2011	Rodrigu�esia	62(2)	341–366
54	CE	Crystalline Caatinga	Costa, R.C.; Ara�ujo, F.S.; Lima-Verde, L.W.	2007	Journal of Arid Environments	68	237–247
55	CE	Crystalline Caatinga	Santos, L.C.; Veloso, M.D.M.; Sizenando Filho, F.A.; Linhares, P.C.F.	2008	Revista Verde	3(2)	116–135
56	PB	Crystalline Caatinga	Almeida Neto, J.X.; Andrade, A.P.; Lacerda, A.V.; F�elix, L.P.; Bruno, R.L.A.	2009	Revista Caatinga	22(4)	187–194
57	PB	Crystalline Caatinga	Andrade, L.A.; Pereira, I.M.; Leite, U.T.; Barbosa, M.R.V.	2005	Cerne	11(3)	253–262
58	PB	Crystalline Caatinga	Andrade, M.V.M.; Andrade, A.P.; Silva, D.S.; Bruno, R.L.A.; Guedes, D.S.	2009	Revista Caatinga	22(1)	229–237
59	PB	Crystalline Caatinga	Araujo, K.D.; Parente, H.N.; �der-Silva, E.; Ramalho, C.I.; Dantas, R.T.; Andrade, A.P.; Silva, D.S.	2010	Revista Caatinga	23(1)	63–70

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Nº	State	Environment category	Authors	Year	Journal	Vol.	Pages
60	PB	Crystalline Caatinga	Barbosa, M.R.V.; Lima, I.B.; Lima, J.R.; Cunha, J.P.; Agra, M.F.; Thomas, W.W.	2007	Oecologia Brasiliensis	11(3)	313–322
61	PB	Crystalline Caatinga	Barbosa, M.R.V.; Lima, I.B.; Lima, J.R.; Cunha, J.P.; Agra, M.F.; Thomas, W.W.	2007	Oecologia Brasiliensis	11(3)	313–322
62	PB	Crystalline Caatinga	Dantas, J.G.; Holanda, A.C.; Souto, L.S.; Japiassu, A.; Holanda, E.M.	2010	Revista Verde	5(1)	134–142
63	PB	Crystalline Caatinga	Fabricante, J.R.; Andrade, L.A.	2007	Oecologia Brasiliensis	11(3)	341–349
64	PB	Crystalline Caatinga	Gomes, M.A.F.	1980	Vegetalia	14	1–27
65	PB	Crystalline Caatinga	Luna, R.G.; Coutinho, H.D.M.	2007	Revista Caatinga	20(2)	8–15
66	PB	Crystalline Caatinga	Santos, A.M.M.; Santos, B.A.	2008	Acta Botanica Brasilica	22(4)	1077–1084
67	PE	Crystalline Caatinga	Araújo, E.L.; Sampaio, E.V.S.B.; Rodal, M.J.N.	1995	Revista Brasileira de Biologia	55(4)	595–607
68	PE	Crystalline Caatinga	Araújo, E.L.; Sampaio, E.V.S.B.; Rodal, M.J.N.	1995	Revista Brasileira de Biologia	55(4)	595–607
69	PE	Crystalline Caatinga	Calixto Jr., J.T.; Drumond, M.A.	2011	Revista Caatinga	24(2)	67–74
70	PE	Crystalline Caatinga	Cantalice, J.R.B.; Silva, M.D.R.O.; Rodrigues, J.J.V.; Rodal, M.J.N.; Pessoa, L.M.	2008	Revista Caatinga	21(4)	201–211
71	PE	Crystalline Caatinga	Costa, K.C.; Lima, A.L.A.; Fernandes, C.H.M.; Silva, M.C.N.A.; Lins e Silva, A.C.B.; Rodal, M.J.N.	2009	Revista Brasileira de Ciências Agrárias	4(1)	48–54
72	PE	Crystalline Caatinga	Drumond, M.A.; Kiill, L.H.P.; Nascimento, C.E.S.	2002	Brasil Florestal	74	37–43
73	PE	Crystalline Caatinga	Ferraz, E.M.N.; Rodal, M.J.N.; Sampaio, E.V.S.B.	2003	Phytocoenologia	33(1)	71–92
74	PE	Crystalline Caatinga	Ferraz, E.M.N.; Rodal, M.J.N.; Sampaio, E.V.S.B.	2003	Phytocoenologia	33(1)	71–92
75	PE	Crystalline Caatinga	Ferraz, E.M.N.; Rodal, M.J.N.; Sampaio, E.V.S.B.; Pereira, R.C.A.	1998	Revista Brasileira de Botânica	21(1)	7–15
76	PE	Crystalline Caatinga	Ferraz, E.M.N.; Rodal, M.J.N.; Sampaio, E.V.S.B.; Pereira, R.C.A.	1998	Revista Brasileira de Botânica	21(1)	7–15
77	PE	Crystalline Caatinga	Pessoa, L.M.; Rodal, M.J.N.; Silva, A.C.B.L.; Costa, K.C.C.	2004	Revista Nordestina de Biologia	18(1)	27–53
78	PE	Crystalline Caatinga	Rodal, M.J.N.; Costa, K.C.C.; Lins e Silva, A.C.B.	2008	Hoehnea	35(2)	209–217
79	PE	Crystalline Caatinga	Rodal, M.J.N.; Martins, F.R.; Sampaio, E.V.S.B.	2008	Revista Caatinga	21(3)	192–205
80	PE	Crystalline Caatinga	Rodal, M.J.N.; Martins, F.R.; Sampaio, E.V.S.B.	2008	Revista Caatinga	21(3)	192–205
81	PE	Crystalline Caatinga	Rodal, M.J.N.; Martins, F.R.; Sampaio, E.V.S.B.	2008	Revista Caatinga	21(3)	192–205
82	PE	Crystalline Caatinga	Rodal, M.J.N.; Martins, F.R.; Sampaio, E.V.S.B.	2008	Revista Caatinga	21(3)	192–205
83	PE	Crystalline Caatinga	Santos, M.F.A.V.; Guerra, T.N.F.; Sotero, M.C.; Santos, J.I.N.	2009	Rodriguésia	60(2)	389–402

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Nº	State	Environment category	Authors	Year	Journal	Vol.	Pages
84	RN	Crystalline Caatinga	Amorim, I.L.; Sampaio, E.V.S.B.; Araújo, E.L.	2005	Acta Botanica Brasilica	19(3)	615–623
85	RN	Crystalline Caatinga	Santana, J.A.S.; Pimenta, A.S.; Souto, J.S.; Almeida, F.V.; Pacheco, M.V.	2009	Revista Verde	4(4)	83–89
86	RN	Crystalline Caatinga	Santos, L.C.; Moura, V.C.; Sizenando Filho, F.A.; Mesquita, L.X.; Costa, Y.C.S.	2006	Revista Verde	1(2)	86–99
87	BA	Inselberg	França, F.; Melo, E.; Santos, A.K.A.; Melo, J.A.N.; Marques, M.; Silva-Filho, M.F.B.; Moraes, L.; Machado, C.	2005	Hoehnea	32(1)	93–101
88	BA	Inselberg	França, F.; Melo, E.; Santos, C.C.	1997	Sitientibus	17	163–176
89	BA	Inselberg	França, F.; Melo, E.; Santos, C.C.	1997	Sitientibus	17	163–184
90	CE	Inselberg	Araújo, F.S.; Oliveira, R.F.; Lima-Verde, L.W.	2008	Rodriguésia	59(4)	659–671
91	PB	Inselberg	Fevereiro, P.C.A.; Fevereiro, V.P.B.	1980	Agropecuária Técnica	1(1)	126–131
92	PB	Inselberg	Porto, P.A.F.; Almeida, A.; Pessoa, W.J.; Trovão, D.; Félix, L.P.	2008	Revista Caatinga	21(2)	214–222
93	PB	Inselberg	Tölke, E.E.A.; Silva, J.B.; Pereira, A.R.L.; Melo, J.I.M.	2011	Biotemas	24(4)	39–48
94	PE	Inselberg	Gomes, P.; Alves, M.	2009	Edinburgh Journal of Botany	66(2)	329–346
95	PE	Inselberg	Gomes, P.; Alves, M.	2010	Revista Brasileira de Botânica	33(4)	661–676
96	PE	Inselberg	Gomes, P.; Alves, M.	2010	Revista Brasileira de Botânica	33(4)	661–676
97	PE	Inselberg	Gomes, P.; Costa, K.C.C.; Rodal, M.J.N.; Alves, M.	2011	Check List	7(2)	173–181
98	PB	Riverine forest	Andrade, L.A.; Fabricante, J.R.; Alves, A.S.	2008	Natureza & Conservação	6(2)	61–67
99	PB	Riverine forest	Lacerda, A.V.; Barbosa, F.M.; Barbosa, M.R.V.	2007	Oecologia Brasiliensis	11(3)	331–340
100	PB	Riverine forest	Lacerda, A.V.; Barbosa, F.M.; Soares, J.J.; Barbosa, M.R.V.	2010	Biota Neotropica	10(4)	275–284
101	PB	Riverine forest	Lacerda, A.V.; Barbosa, F.M.; Soares, J.J.; Barbosa, M.R.V.	2010	Biota Neotropica	10(4)	275–284
102	PB	Riverine forest	Lacerda, A.V.; Barbosa, F.M.; Soares, J.J.; Barbosa, M.R.V.	2010	Biota Neotropica	10(4)	275–284
103	PB	Riverine forest	Pegado, C.M.A.; Andrade, L.A.; Félix, L.P.; Pereira, I.M.	2006	Acta Botanica Brasilica	20(4)	887–898
104	PB	Riverine forest	Trovão, D.M.B.M.; Freire, A.M.; Melo, J.I.M.	2010	Revista Caatinga	23(2)	78–86
105	PE	Riverine forest	Ferraz, J.S.F.; Albuquerque, U.P.; Meunier, I.M.J.	2006	Acta Botanica Brasilica	20(1)	125–134
106	PE	Riverine forest	Nascimento, C.E.S.; Rodal, M.J.N.; Cavalcanti, A.C.	2003	Revista Brasileira de Botânica	26(3)	271–287
107	PE	Riverine forest	Souza, J.A.N.; Rodal, M.J.N.	2010	Revista Caatinga	23(4)	54–62
108	BA	Sedimentary Caatinga	Guedes, R.R.	1985	Rodriguésia	37(62)	5–8

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N°	State	Environment category	Authors	Year	Journal	Vol.	Pages
109	BA	Sedimentary Caatinga	Rocha, P.L.B.; Queiroz, L.P.; Pirani, J.R.	2004	Revista Brasileira de Botânica	27(4)	739–755
110	CE	Sedimentary Caatinga	Araújo, F.S.; Costa, R.C.; Lima, J.R.; Vasconcelos, S.F.; Girão, L.C.; Sobrinho, M.S.; Bruno, M.M.A.; Souza, S.S.G. <i>et al.</i>	2011	Rodriguésia	62(2)	341–366
111	CE	Sedimentary Caatinga	Araújo, F.S.; Costa, R.C.; Lima, J.R.; Vasconcelos, S.F.; Girão, L.C.; Sobrinho, M.S.; Bruno, M.M.A.; Souza, S.S.G. <i>et al.</i> (includes Lima et al 2009)	2011	Rodriguésia	62(2)	341–366
112	CE	Sedimentary Caatinga	Araújo, F.S.; Martins, F.R.; Shepherd, G.J.	1999	Revista Brasileira de Biologia	59(4)	663–678
113	CE	Sedimentary Caatinga	Araújo, F.S.; Sampaio, E.V.S.B.; Figueiredo, M.A.; Rodal, M.J.N.; Fernandes, A.G.	1998	Revista Brasileira de Botânica	21(2)	105–116
114	CE	Sedimentary Caatinga	Araújo, F.S.; Sampaio, E.V.S.B.; Rodal, M.J.N.; Figueiredo, M.A.	1998	Revista Brasileira de Biologia	58(1)	85–95
115	CE	Sedimentary Caatinga	Araújo, F.S.; Sampaio, E.V.S.B.; Rodal, M.J.N.; Figueiredo, M.A.	1998	Revista Brasileira de Biologia	58(1)	85–95
116	CE	Sedimentary Caatinga	Araújo, F.S.; Sampaio, E.V.S.B.; Rodal, M.J.N.; Figueiredo, M.A.	1998	Revista Brasileira de Biologia	58(1)	85–95
117	CE	Sedimentary Caatinga	Vasconcelos, S.F.; Araújo, F.S.; Lopes, A.V.	2010	Biodiversity & Conservation	19	2263–2289
118	PE	Sedimentary Caatinga	Andrade, K.V.S.A.; Rodal, M.J.N.; Lucena, M.F.A.; Gomes, A.P.S.	2004	Hoehnea	31(3)	337–348
119	PE	Sedimentary Caatinga	Figueiredo, L.S.; Rodal, M.J.N.; Melo, A.L.	2000	Naturalia	25	205–224
120	PE	Sedimentary Caatinga	Gomes, A.P.S.; Rodal, M.J.N.; Melo, A.L.	2006	Acta Botanica Brasilica	20(1)	37–48
121	PE	Sedimentary Caatinga	Rodal, M.J.N.; Andrade, K.V.A.; Sales, M.F.; Gomes, A.P.S.	1998	Revista Brasileira de Biologia	58(3)	517–526
122	PE	Sedimentary Caatinga	Rodal, M.J.N.; Nascimento, L.M.; Melo, A.L.	1999	Acta Botanica Brasilica	13(1)	15–28
123	PI	Sedimentary Caatinga	Emperaire, L.	1987	Bull. Ecol.	18(4)	431–438
124	PI	Sedimentary Caatinga	Mendes, M.R.A.; Castro, A.A.J.F.	2010	Check List	6(1)	39–44
125	PI	Sedimentary Caatinga	Oliveira, M.E.A.; Sampaio, E.V.S.B.; Castro, A.A.J.F.; Rodal M.J.N.	1997	Naturalia	22	131–150
126	CE	Transition crystalline/sedimentary	Lemos, J.R.; Meguro, M.	2010	Revista Brasileira de Biociências	8(1)	34–43
127	PE	Transition crystalline/sedimentary	Araújo, E.L.; Sampaio, E.V.S.B.; Rodal, M.J.N.	1995	Revista Brasileira de Biologia	55(4)	595–607
128	PE	Transition crystalline/sedimentary	Pinheiro, K.; Rodal, M.J.N.; Alves, M.	2010	Revista Caatinga	23(2)	68–77
129	PE	Transition crystalline/sedimentary	Silva, K.A.; Araújo, E.L.; Ferraz, E.M.N.	2009	Acta Botanica Brasilica	23(1)	100–110
130	PI	Transition crystalline/sedimentary	Lemos, J.R.	2004	Rodriguésia	55(85)	55–66
131	PI	Transition crystalline/sedimentary	Lemos, J.R.; Rodal, M.J.N.	2002	Acta Botanica Brasilica	16(1)	23–42

**APPENDIX 2**—Catalogue with all names reported in the 131 floristic and phytosociological papers compiled by this study. Numbers in brackets represent the number of records of each species with a given habit, Raunkiaer life-form or within a Brazilian state. Habitats: **Arb**—Arboreal Caatinga in Northern Minas Gerais; **Aqua**—aquatic ecosystems; **Agre**—Agreste ecotone between the Caatinga and Atlantic forest; **CMaior**—Caatinga in the Campo Maior Ecotone to the Cerrado; **Cryst**—Crystalline Caatinga; **Diam**—Caatinga in the Chapada Diamantina highlands; **Ins**—Inselbergs; **Riv**—Riverine forests; **Sed**—Sedimentary Caatinga; **Trans**—Transtional sites between Crystalline and Sedimentary Caatinga; **Unc**—Unclassified areas.

Reported Brazilian states: **BA**—Bahia; **CE**—Ceará; **MG**—Minas Gerais; **PB**—Paraíba; **PE**—Pernambuco; **PI**—Piauí; **RN**—Rio Grande do Norte.

The ecological data (e.g. habit, life-forms) associated with each species depend on the availability of such data in the original floristic/phytosociological papers.

## Lycophytes

### SELAGINELLACEAE (1 genus; 4 species)

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#### *Selaginella* (4 species)

*Selaginella convoluta* (Arn.) Spring **Habits:** herb(1). **Life forms:** hemicryptophyte(1). **States:** BA(1); PB(1); PE(5); RN(1). **Habitats:** Cryst, Ins, Unc.

*Selaginella potaroensis* Jenman **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

*Selaginella sellowii* Hieron. **States:** PE(1). **Habitats:** Cryst.

*Selaginella sulcata* (Desv. ex Poir.) Spring **States:** PE(1). **Habitats:** Agre.

## Pteridophytes

### ANEMIACEAE (1 genus; 1 species)

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#### *Anemia* (1 species)

*Anemia flexuosa* Sw. **Life forms:** chamaephyte(1). **States:** PE(2). **Habitats:** Ins.

### POLYPODIACEAE (3 genera; 4 species)

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#### *Microgramma* (2 species)

*Microgramma geminata* (Schrad.) R.M.Tryon & A.F.Tryon **Life forms:** phanerophyte(1). **States:** BA(2); PE(1). **Habitats:** Ins.

*Microgramma vacciniifolia* (Langsd. & Fisch.) Copel. **Life forms:** epiphyte(1); phanerophyte(1). **States:** BA(2); PE(1). **Habitats:** Ins.

#### *Pleopeltis* (1 species)

*Pleopeltis polypodioides* var. *burchellii* (Baker) A.R.Sm. [Synonyms: *Polypodium polypodioides* (L.) Watt] **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

#### *Serpocaulon* (1 species)

*Serpocaulon triseriale* (Sw.) A.R.Sm. [Synonyms: *Polypodium triseriale* Sw.] **States:** BA(1). **Habitats:** Ins.

### PTERIDACEAE (3 genera; 4 species)

---

**Ceratopteris** (1 species)

*Ceratopteris pteridoides* (Hook.) Hieron. **States:** BA(1). **Habitats:** Aqua.

**Doryopteris** (2 species)

*Doryopteris ornithopus* (Hook. & Baker) J. Sm. **Life forms:** cryptophyte-geo(1). **States:** BA(2). **Habitats:** Ins.

*Doryopteris pedata* (L.) Fée **Life forms:** chamaephyte(1). **States:** PE(2). **Habitats:** Ins.

**Hemionitis** (1 species)

*Hemionitis tomentosa* (Lam.) Raddi **States:** BA(1). **Habitats:** Ins.

**SALVINIACEAE** (2 genera; 5 species)

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**Azolla** (2 species)

*Azolla caroliniana* Willd. **States:** BA(1). **Habitats:** Aqua.

*Azolla filiculoides* Lam. **States:** BA(5). **Habitats:** Aqua.

**Salvinia** (3 species)

*Salvinia auriculata* Aubl. **States:** BA(3). **Habitats:** Aqua.

*Salvinia minima* Baker **States:** BA(4). **Habitats:** Aqua.

*Salvinia oblongifolia* Mart. **States:** BA(3). **Habitats:** Aqua.

**THELYPTERIDACEAE** (1 genus; 1 species)

---

**Thelypteris** (1 species)

*Thelypteris interrupta* (Willd.) K.Iwats. **States:** BA(3). **Habitats:** Aqua.

**Angiosperms**

**ACANTHACEAE** (7 genera; 14 species)

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**Anisacanthus** (1 species)

*Anisacanthus trilobus* Lindau **Habits:** shrub(1); subshrub(3). **Life forms:** chamaephyte(2). **States:** CE(3); PI(3). **Habitats:** Cryst, Sed, Trans.

**Dicliptera** (1 species)

*Dicliptera ciliaris* Juss. **Habits:** herb(2); subshrub(2). **Life forms:** chamaephyte(3). **States:** CE(5). **Habitats:** Cryst, Sed, Trans.

**Dyschoriste** (1 species)

*Dyschoriste maranhonis* (Nees) Kuntze **Life forms:** therophyte(1). **States:** PE(2). **Habitats:** Ins.

**Elytraria** (1 species)

*Elytraria imbricata* (Vahl) Pers. **Habits:** herb(1). **States:** PE(1). **Habitats:** Trans.

**Harpochilus** (2 species)

*Harpochilus neesianus* Mart. ex Nees **Habits:** shrub(3). **States:** BA(2); PE(2). **Habitats:** Sed.

*Harpochilus phaeocarpus* Nees **States:** BA(1). **Habitats:** Sed.

**Justicia** (3 species)

*Justicia aequilabris* (Nees) Lindau [Synonyms: *Justicia strobilacea* (Nees) Lindau] **Habits:** herb(1); shrub(5). **Life forms:** chamaephyte(1); phanerophyte(2). **States:** CE(6); PE(2). **Habitats:** Cryst, Sed, Trans.

*Justicia fragilis* Mart., This name has been misapplied in Ceará state. The Brazilian species known as *Justicia fragilis* is not that described by Wall. but to date it has not been possible to determine the correct name for this species. A new name may be required. (A.L Cortes pers. comm.). **Habits:** herb(1); subshrub(2). **Life forms:** chamaephyte(2). **States:** CE(4). **Habitats:** Sed.

*Justicia schomburgkiana* (Nees) V.A.W.Graham **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Cryst.

**Ruellia** (5 species)

*Ruellia asperula* (Mart. ex Ness) Lindau **Life forms:** chamaephyte. **States:** BA(1); CE(1); PE(6); PI(1). **Habitats:** Agre, Aqua, Cryst, Ins, Trans.

*Ruellia bahiensis* (Nees) Morong **Habits:** herb(1); subshrub(2). **Life forms:** chamaephyte(1). **States:** BA(2); CE(2); PE(2). **Habitats:** Agre, Aqua, Ins, Sed, Trans.

*Ruellia geminiflora* Kunth **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** PB(1); PE(2). **Habitats:** Agre, Cryst.

*Ruellia paniculata* L. **Habits:** shrub(4); subshrub(2). **Life forms:** chamaephyte(2). **States:** BA(2); CE(2); PE(4). **Habitats:** Aqua, Cryst, Riv, Sed, Trans.

*Ruellia villosa* (Nees) Lindau **Habits:** subshrub(2). **Life forms:** chamaephyte(2). **States:** CE(2). **Habitats:** Sed.

ACHARIACEAE (1 genus; 1 species)

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**Lindackeria** (1 species)

*Lindackeria ovata* (Benth.) Gilg **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(1). **States:** CE(4). **Habitats:** Sed.

AIZOACEAE (1 genus; 1 species)

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**Trianthera** (1 species)

*Trianthera portulacastrum* L. **States:** RN(1). **Habitats:** Cryst.

ALISMATACEAE (1 genus; 4 species)

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**Echinodorus** (4 species)

*Echinodorus glandulosus* Rataj **Habits:** herb(1). **States:** CE(1). **Habitats:** Trans.

*Echinodorus grandiflorus* (Cham. & Schltr.) Micheli **States:** BA(3). **Habitats:** Aqua.

*Echinodorus subalatus* (Mart.) Griseb. **Life forms:** hemicyptophyte(1). **States:** BA(1); CE(1). **Habitats:** Aqua, Cryst.

*Echinodorus tenellus* (Mart.) Buchenau **States:** BA(1). **Habitats:** Aqua.

ALSTROEMERIACEAE (2 genera; 4 species)

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**Alstroemeria** (3 species)

*Alstroemeria isabellana* Herb. [Synonyms: *Alstroemeria campaniflora* Hand.-Mazz.] **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

*Alstroemeria longistaminea* Mart. ex Schult. & Schult. **States:** PE(1). **Habitats:** Ins.

*Alstroemeria piauhyensis* Gardner **Life forms:** cryptophyte-geo(1). **States:** PI(1). **Habitats:** Sed.

**Bomarea** (1 species)

*Bomarea edulis* (Tussac) Herb. [Synonyms: *Bomarea salsilloides* (Mart.) M.Roem.] **Habits:** herb(3). **Life forms:** cryptophyte-geo(3). **States:** CE(1); PB(1); PE(5). **Habitats:** Agre, Ins, Sed.

AMARANTHACEAE (6 genera; 13 species)

---

**Alternanthera** (5 species)

*Alternanthera bettzichiana* (Regel) G.Nicholson [Synonyms: *Alternanthera amabilis* Lem.] **Habits:** herb(1). **States:** BA(1). **Habitats:** Sed.

*Alternanthera brasiliana* (L.) Kuntze **Habits:** herb(7). **Life forms:** therophyte(6). **States:** BA(2); CE(8); PB(1); PE(7). **Habitats:** Agre, Cryst, Ins, Sed, Trans, Unc, Cryst, Sed.

*Alternanthera pungens* Kunth **States:** PE(1). **Habitats:** Aqua.

*Alternanthera ramosissima* (Mart.) Chodat **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

*Alternanthera tenella* Colla [Synonyms: *Alternanthera ficoidea* (L.) P.Beauv.; *Alternanthera polygonoides* (L.) R.Br.]

**Habits:** herb(4); shrub(1). **Life forms:** hemicryptophyte(2); therophyte(3). **States:** BA(1); CE(1); PE(6); RN(1). **Habitats:** Aqua, Cryst, Trans.

**Amaranthus** (1 species)

*Amaranthus viridis* L. **Habits:** herb(2); subshrub(1). **Life forms:** therophyte(2). **States:** BA(1); PE(3). **Habitats:** Ins, Riv, Trans.

**Chamissoa** (1 species)

*Chamissoa altissima* (Jacq.) Kunth **States:** PB(1). **Habitats:** Cryst.

**Froelichia** (1 species)

*Froelichia humboldtiana* (Roem. & Schult.) Seub. [Synonyms: *Froelichia lanata* Moench] **Habits:** herb(3). **Life forms:** hemicryptophyte(1); therophyte(2). **States:** CE(3); PE(2); RN(2). **Habitats:** Cryst, Ins, Sed, Unc.

**Gomphrena** (3 species)

*Gomphrena demissa* Mart. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** BA(1); CE(1); PE(1); RN(1). **Habitats:** Aqua, Sed, Unc.

*Gomphrena desertorum* Mart. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Cryst.

*Gomphrena vaga* Mart. [Synonyms: *Gomphrena holosericea* (Mart.) Moq.] **Habits:** herb(5); shrub(1). **Life forms:** cryptophyte-geo(1); hemicryptophyte(2). **States:** BA(3); PB(1); PE(7). **Habitats:** Agre, Cryst, Ins, Sed, Trans.

**Pfaffia** (2 species)

*Pfaffia denudata* (Moq.) Kuntze **States:** BA(1). **Habitats:** Sed.

*Pfaffia glomerata* (Spreng.) Pedersen **States:** PB(1). **Habitats:** Agre.

AMARYLLIDACEAE (3 genera; 6 species)

---

**Habranthus** (2 species)

*Habranthus itabobinus* Ravenna **Life forms:** cryptophyte-geo(1). **States:** PE(2). **Habitats:** Ins.

*Habranthus ruber* Ravenna **States:** BA(1). **Observations:** This species is registered only from the south of Brazil by Flora do Brasil and this record probably represents a misidentification. **Habitats:** Ins.

**Hippeastrum** (2 species)

*Hippeastrum solandriflorum* (Lindl.) Herb. **Life forms:** cryptophyte-geo(1). **States:** PI(1). **Habitats:** Sed.

*Hippeastrum stylosum* Herb. **Life forms:** cryptophyte-geo(2). **States:** PE(3). **Habitats:** Ins.

**Zephyranthes** (2 species)

*Zephyranthes cearensis* (Herb.) Baker **Life forms:** cryptophyte-geo(1). **States:** CE(1). **Habitats:** Ins.

*Zephyranthes sylvatica* (Mart.) Baker **Life forms:** cryptophyte-geo(1). **States:** PI(1). **Habitats:** Sed.

ANACARDIACEAE (7 genera; 7 species)

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**Anacardium** (1 species)

*Anacardium occidentale* L. **Habits:** tree(3). **Life forms:** microphanerophyte(1). **States:** PE(5); PI(3). **Habitats:** CMaior, Ins, Sed.

**Apteroкарpos** (1 species)

*Apteroкарpos gardneri* (Engl.) Rizzini **Life forms:** phanerophyte(1). **States:** PI(1). **Habitats:** Sed.

**Astronium** (1 species)

*Astronium fraxinifolium* Schott **Habits:** tree(2). **States:** MG(1); PI(3). **Habitats:** Arb, CMaior, Trans.

**Cyrtocarpa** (1 species)

*Cyrtocarpa caatingae* J.D.Mitch. & Daly **States:** MG(1). **Habitats:** Arb.

**Myracrodruon** (1 species)

*Myracrodruon urundeuva* Allemão [Synonyms: *Astronium urundeuva* (Allemão) Engl.] **Habits:** tree(15). **Life forms:** phanerophyte(5). **States:** BA(4); CE(8); MG(11); PB(21); PE(26); PI(3); RN(8). **Habitats:** Agre, Arb, CMaior, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

**Schinopsis** (1 species)

*Schinopsis brasiliensis* Engl. **Habits:** tree(13). **Life forms:** phanerophyte(1). **States:** BA(3); CE(1); MG(10); PB(17); PE(16); RN(1). **Habitats:** Agre, Arb, Cryst, Diam, Riv, Sed, Trans, Unc, Riv.

*Schinopsis brasiliensis* var. *glabra* Engl. [Synonyms: *Schinopsis glabra* Burkl. ex Mey.] **Habits:** tree(1). **States:** PB(1); PE(4). **Habitats:** Cryst, Trans, Unc.

**Spondias** (1 species)

*Spondias tuberosa* Arruda **Habits:** tree(14). **Life forms:** phanerophyte(2). **States:** BA(6); CE(2); MG(7); PB(14); PE(18); PI(2); RN(2). **Habitats:** Agre, Arb, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

ANNONACEAE (5 genera; 11 species)

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**Annona** (4 species)

*Annona glabra* L. **States:** BA(1). **Habitats:** Diam.

*Annona leptopetala* (R.E.Fr.) H.Rainer [Synonyms: *Rollinia leptopetala* R.E.Fr.; *Rolliniopsis leptopetala* (R.E.Fr.) Saff.] **Habits:** shrub(7); tree(10); treelet(1). **Life forms:** nanophanerophyte(1); phanerophyte(3). **States:** BA(2); CE(10); PB(3); PE(10); PI(6). **Habitats:** Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

*Annona spinescens* Mart. **Habits:** tree(1). **States:** BA(1). **Habitats:** Sed.

*Annona sylvatica* A.St.-Hil. [Synonyms: *Rollinia sylvatica* (A.St.-Hil.) Mart.] **States:** MG(2). **Habitats:** Arb.

**Duguetia** (1 species)

*Duguetia riedeliana* R.E.Fr. **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed.

**Ephedranthus** (1 species)

*Ephedranthus pisocarpus* R.E.Fr. **Habits:** shrub(1); tree(5). **Life forms:** phanerophyte(2). **States:** CE(7); PI(6). **Habitats:** CMaior, Sed, Trans.

**Oxandra** (2 species)

*Oxandra reticulata* Maas **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.

*Oxandra sessiliflora* R.E.Fr. **States:** PI(1). **Habitats:** Sed.

**Xylopia** (3 species)

*Xylopia aromatica* (Lam.) Mart. **States:** BA(1). **Habitats:** Diam.

*Xylopia laevigata* (Mart.) R.E.Fr. **Habits:** tree(1). **States:** PI(1). **Habitats:** Trans.

*Xylopia sericea* A.St.-Hil. **Habits:** tree(1). **States:** PI(1). **Habitats:** Trans.

APIACEAE (1 genus; 1 species)

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**Spananthe** (1 species)

*Spananthe paniculata* Jacq. **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

APOCYNACEAE (17 genera; 43 species)

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**Allamanda** (2 species)

*Allamanda blanchetii* A.DC. **Habits:** climb.(1); liana(3); shrub(7). **Life forms:** hemicryptophyte(5). **States:** BA(1); CE(5); PB(3); PE(7); PI(4); RN(1). **Habitats:** CMAior, Cryst, Ins, Riv, Sed, Unc.

*Allamanda puberula* A.DC. **Habits:** shrub(2). **States:** BA(1); PI(2). **Habitats:** Sed, Trans.

**Asclepias** (1 species)

*Asclepias curassavica* L. **Habits:** herb(1); subshrub(1). **States:** CE(1); PE(1). **Habitats:** Sed, Trans.

**Aspidosperma** (10 species)

*Aspidosperma cuspa* (Kunth) S.F.Blake ex Pittier **Habits:** tree(2). **Life forms:** phanerophyte(1). **States:** CE(1); PI(4). **Habitats:** CMAior, Cryst.

*Aspidosperma cylindrocarpon* Müll.Arg. **States:** BA(1). **Habitats:** Diam.

*Aspidosperma discolor* A.DC. **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(1). **States:** CE(5); PB(1). **Habitats:** Agre, Sed.

*Aspidosperma multiflorum* A.DC. **Habits:** shrub(4); tree(4). **Life forms:** phanerophyte(2). **States:** CE(6); PI(9).

**Habitats:** CMAior, Sed, Trans.

*Aspidosperma polyneuron* Müll.Arg. **States:** MG(1). **Habitats:** Arb.

*Aspidosperma pyricollum* Müll.Arg. **States:** BA(1). **Habitats:** Ins.

*Aspidosperma pyrifolium* Mart. [Synonyms: *Aspidosperma refractum* Mart.] **Habits:** shrub(2); tree(19). **Life forms:** phanerophyte(4). **States:** BA(2); CE(6); MG(10); PB(27); PE(27); PI(5); RN(30). **Habitats:** Agre, Arb, CMAior, Cryst, Ins, Riv, Sed, Trans, Unc.

*Aspidosperma ramiflorum* Müll.Arg. **States:** BA(1). **Habitats:** Diam.

*Aspidosperma riedelii* Müll.Arg. **States:** PI(1). **Habitats:** Sed.

*Aspidosperma subincanum* Mart. **Habits:** tree(3). **Life forms:** phanerophyte(1). **States:** CE(6); PI(4). **Habitats:** CMAior, Sed.

**Blepharodon** (2 species)

*Blepharodon manicatum* (Decne.) Fontella **States:** PE(1). **Habitats:** Ins.

*Blepharodon pictum* (Vahl) W.D.Stevens [Synonyms: *Blepharodon nitidum* (Vell.) J.F. Macbr.] **Habits:** climber(1). **States:** PE(1). **Habitats:** Sed.

**Cynanchum** (2 species)

*Cynanchum montevidense* Spreng. [Synonyms: *Roulinia montevidensis* (Spreng.) Malme] **States:** BA(1). **Habitats:** Aqua.

*Cynanchum roulinioides* (E.Fourn.) Rapini **Habits:** liana(1). **States:** CE(1). **Habitats:** Trans.

**Ditassa** (4 species)

*Ditassa capillaris* E.Fourn. **Habits:** climber(2). **States:** BA(1); PE(2). **Habitats:** Ins, Sed.

*Ditassa glaziovii* E.Fourn., According to specialist A.Rapini this name was originally published with the spelling *Ditassa glaziovi*, but in the "Lista de species da Flora do Brasil (2010)" Rapini preferred the spelling *Ditassa glazioui*, while T. Konno used the spelling *D. glaziovii*. Here we follow the orthography used in IPNI (www.ipni.org), accessed June 2012. **Habits:** climber(1). **Life forms:** ?(1). **States:** PE(2). **Habitats:** Cryst, Ins.

*Ditassa hastata* Decne. **Life forms:** liana(1). **States:** BA(3); PE(1). **Habitats:** Ins.

*Ditassa oxyphylla* Turcz. **Habits:** climber(1). **Life forms:** phanerophyte(1). **States:** PE(3). **Habitats:** Ins, Sed.

**Mandevilla** (4 species)

*Mandevilla dardanoi* M.F.Sales, Kin.-Gouv. & A.O.Simões **Life forms:** phanerophyte(2). **States:** PE(3). **Habitats:** Ins.

*Mandevilla unififormis* (Vell.) K.Schum. **States:** BA(2). **Habitats:** Ins.

*Mandevilla scabra* (Hoffmanns. ex Roem. & Schult.) K.Schum. **Habits:** climber(1); liana(1). **Life forms:** chamaephyte(1); cryptophyte-geo(2). **States:** CE(1); PB(1); PE(4). **Habitats:** Ins, Sed, Agre.

*Mandevilla tenuifolia* (J.C.Mikan) Woodson **Habits:** climber(1); herb(2); liana(1). **Life forms:** cryptophyte-geo(4); therophyte(1). **States:** BA(1); CE(3); PB(2); PE(4). **Habitats:** Ins, Sed, Trans.

**Marsdenia** (4 species)

*Marsdenia altissima* (Jacq.) Dugand **Habits:** climber(1). **States:** PE(1). **Habitats:** Trans.

*Marsdenia dorotheae* Fontella & Morillo **Habits:** climber(1). **Life forms:** ?(1). **States:** PE(1). **Habitats:** Cryst.

*Marsdenia loniceroides* (Hook.) E.Fourn. **Life forms:** phanerophyte(2). **States:** BA(1); PE(3). **Habitats:** Ins.

*Marsdenia megalantha* Goyder & Morillo **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Ins.

**Matelea** (4 species)

*Matelea ganglinosa* (Vell.) Rapini [Synonyms: *Gonolobus cearensis* Malme; *Matelea maritima* subsp. *ganglinosa* (Vell.) Fontella] **States:** PE(1). **Habitats:** Ins.

*Matelea harleyi* Fontella & Morillo **Habits:** liana(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Cryst.

*Matelea maritima* (Vell.) Fontella **Life forms:** phanerophyte(1). **States:** BA(2); PB(2); PE(4). **Habitats:** Agre, Ins, Sed, Trans.

*Matelea nigra* (Decne.) Morillo & Fontella **States:** PE(1). **Habitats:** Ins.

**Petalostelma** (1 species)

*Petalostelma martianum* E.Fourn. **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

**Prestonia** (2 species)

*Prestonia bahiensis* Müll.Arg. **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Prestonia coalita* (Vell.) Woodson **States:** BA(2). **Habitats:** Ins.

**Schubertia** (1 species)

*Schubertia multiflora* Mart. **Life forms:** liana(1). **States:** PI(1). **Habitats:** Sed.

**Secondatia** (1 species)

*Secondatia floribunda* A.DC. [Synonyms: *Secondatia foliosa* A.DC.] **Habits:** liana(1); shrub(1). **Life forms:** phanerophyte(1). **States:** CE(3). **Habitats:** Sed.

**Skytanthus** (1 species)

*Skytanthus hancorniiifolius* (A.DC.) Miers **Habits:** climber(1). **States:** BA(1); PE(1). **Habitats:** Ins, Sed.

**Tabernaemontana** (2 species)

*Tabernaemontana catharinensis* A.DC. **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Tabernaemontana hystrix* Steud. **Habits:** treelet(1). **States:** PI(3). **Habitats:** CMAior.

**Tassadia** (1 species)

*Tassadia burchellii* E.Fourn. **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed.

**Temnadenia** (1 species)

*Temnadenia violacea* (Vell.) Miers **Habits:** climber(2). **States:** PE(2). **Habitats:** Sed.

**AQUIFOLIACEAE** (1 genus; 1 species)

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**Ilex** (1 species)

*Ilex brevicuspis* Reissek **States:** MG(3). **Habitats:** Arb.

**ARACEAE** (10 genera; 16 species)

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**Anthurium** (3 species)

*Anthurium affine* Schott **Habits:** epiphyte(1); herb(1). **Life forms:** chamaephyte(2); hemicryptophyte(1). **States:** BA(3); PE(6). **Habitats:** Agre, Ins, Sed.

*Anthurium gracile* (Rudge) Lindl. **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Anthurium petrophilum* K.Krause **Life forms:** chamaephyte(1). **States:** BA(1); PB(1). **Habitats:** Ins.

**Lemna** (2 species)

*Lemna aequinoctialis* Welw. **States:** BA(4). **Habitats:** Aqua.

*Lemna valdiviana* Phil. **States:** BA(6). **Habitats:** Aqua.

**Philodendron** (4 species)

*Philodendron acutatum* Schott **Life forms:** hemicryptophyte(1); phanerophyte(1). **States:** CE(1); PE(1). **Habitats:** Ins.

*Philodendron bipinnatifidum* Schott **States:** PE(1). **Habitats:** Ins.

*Philodendron imbe* Schott ex Endl. **States:** BA(2). **Habitats:** Ins.

**Observations:** According to specialist M.O. Pellegrini, the name *Philodendron imbe* has been misapplied to various species in Brazil, and Caatinga records of *P. imbe* are almost certainly a misuse of the name. A review by “Mayo & Sakuragui (2011) Typification and interpretation of *Philodendron imbe* Schott ex Kunth (Araceae). Taxon 60(6): 1764-1767”, calls attention to the fact that *Philodendron imbe* is rare or may even be extinct, and that the name has been misapplied to other species.

*Philodendron leal-costae* Mayo & G.M.Barroso **Life forms:** phanerophyte(1). **States:** BA(2); PE(1). **Habitats:** Ins.

**Pistia** (1 species)

*Pistia stratiotes* L. **Habits:** herb(1). **States:** BA(7); PI(1). **Observations:** Planta aquática listada no trabalho. **Habitats:** Aqua, Trans.

**Scaphispatha** (1 species)

*Scaphispatha gracilis* Brongn. ex Schott **Habits:** herb(1). **Life forms:** cryptophyte-geo(1). **States:** CE(1). **Habitats:** Sed.

**Spathicarpa** (1 species)

*Spathicarpa hastifolia* Hook. **Habits:** herb(1). **Life forms:** cryptophyte-geo(1). **States:** CE(1). **Habitats:** Sed.

**Taccarum** (1 species)

*Taccarum peregrinum* (Schott) Engl. **Habits:** herb(1). **Life forms:** cryptophyte(1); cryptophyte-geo(2). **States:** CE(2); PI(1). **Habitats:** Cryst, Sed.

**Wolffia** (1 species)

*Wolffia brasiliensis* Wedd. **States:** BA(5). **Habitats:** Aqua.

**Wolffiella** (1 species)

*Wolffiella welwitschii* (Hegelm.) Monod **States:** BA(5). **Habitats:** Aqua.

**Zomicarpa** (1 species)

*Zomicarpa riedelianum* Schott **Habits:** herb(1). **States:** PE(1). **Habitats:** Agre.

**ARALIACEAE** (1 genus; 2 species)

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**Aralia** (2 species)

*Aralia excelsa* (Griseb.) J.Wen [Synonyms: *Sciadodendron excelsum* Griseb.] **States:** MG(5). **Habitats:** Arb.

*Aralia warmingiana* (Marchal) J.Wen [Synonyms: *Coudenbergia warmingiana* (Marchal) Marchal] **Habits:** tree(2). **States:** PE(3). **Habitats:** Cryst.

**ARECACEAE** (3 genera; 5 species)

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**Astrocaryum** (1 species)

*Astrocaryum vulgare* Mart. **States:** PI(1). **Habitats:** CMaior.

**Copernicia** (1 species)

*Copernicia prunifera* (Mill.) H.E.Moore [Synonyms: *Copernicia cerifera* (Arruda) Mart.] **Habits:** tree(1). **States:** PB(1); PE(1); PI(1); RN(1). **Habitats:** CMaior, Riv, Unc.

**Syagrus** (3 species)

*Syagrus coronata* (Mart.) Becc. **States:** BA(5); PE(2); RN(1). **Habitats:** Diam, Ins, Trans, Unc.

*Syagrus oleracea* (Mart.) Becc. **Habits:** tree(1). **States:** MG(8); PE(2). **Habitats:** Arb, Cryst.

*Syagrus vagans* (Bondar) A.D.Hawkes **States:** BA(3). **Habitats:** Ins.

**ARISTOLOCHIACEAE** (1 genus; 1 species)

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**Aristolochia** (1 species)

*Aristolochia birostris* Duch. **Habits:** climber(3). **Life forms:** chamaephyte(2); liana(1); phanerophyte(1). **States:** BA(1); PB(2); PE(3). **Habitats:** Agre, Ins, Trans.

**ASTERACEAE** (48 genera; 66 species)

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**Acanthospermum** (1 species)

*Acanthospermum hispidum* DC. **Habits:** herb(1); subshrub(1). **Life forms:** therophyte(1). **States:** PB(1); PE(2). **Habitats:** Aqua, Ins, Trans.

**Achyrocline** (1 species)

*Achyrocline satureioides* (Lam.) DC. **Habits:** subshrub(1). **Life forms:** therophyte(1). **States:** PE(2). **Habitats:** Ins, Sed.

**Acmella** (1 species)

*Acmella uliginosa* (Sw.) Cass. **Habits:** herb(2). **Life forms:** therophyte(1). **States:** BA(1); CE(1); PE(1). **Habitats:** Aqua, Cryst, Riv.

**Acritopappus** (1 species)

*Acritopappus buiquensis* Bautista & D.J.N.Hind **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

**Ageratum** (1 species)

*Ageratum conyzoides* L. **Habits:** herb(2). **Life forms:** therophyte(3). **States:** BA(1); PB(1); PE(4). **Habitats:** Aqua, Cryst, Ins.

**Aspilia** (2 species)

*Aspilia attenuata* (Gardner) Baker **Habits:** herb(1). **Life forms:** therophyte(2). **States:** CE(2). **Habitats:** Cryst, Sed.

*Aspilia bonplandiana* (Gardner) S.F.Blake **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

**Baccharis** (2 species)

*Baccharis oxyodonta* DC. **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

*Baccharis trinervis* (Lam.) Pers. [Synonyms: *Baccharis trinervis* (Lam.) Pers. var. *rhexioides* (Kunth) Baker] **Habits:** herb(1). **States:** CE(1). **Habitats:** Sed.

**Blainvillea** (3 species)

*Blainvillea acmella* (L.) Philipson [Synonyms: *Blainvillea latifolia* (L.f.) DC.; *Blainvillea rhomboidea* Cass.; *Spilanthes acmella* (L.) Murray] **Habits:** herb(4); subshrub(2). **Life forms:** therophyte(4). **States:** CE(2); PE(3); PI(1). **Habitats:** Cryst, Sed, Trans.

*Blainvillea dichotoma* (Murray) Stewart **States:** BA(1). **Habitats:** Aqua.

*Blainvillea lanceolata* Baker, Accepted name according "The Plant List" database, but not recorded in "Lista do Brasil". This is a name with complex taxonomic history, and is probably a missapplied name to Brazilian material **Habits:** herb(3). **Life forms:** chamaephyte(1); therophyte(2). **States:** CE(4). **Habitats:** Cryst, Sed.

**Centratherum** (1 species)

*Centratherum punctatum* Cass. **Habits:** herb(6); subshrub(1). **Life forms:** hemicryptophyte(2); therophyte(2). **States:** BA(2); CE(1); PB(1); PE(7); RN(2). **Habitats:** Aqua, Cryst, Ins, Riv, Trans, Unc.

**Chresta** (1 species)

*Chresta martii* (DC.) H.Rob. [Synonyms: *Eremanthus martii* (DC.) Baker] **Habits:** herb(1). **States:** PI(1). **Habitats:** Trans.

**Conocliniopsis** (1 species)

*Conocliniopsis prasiifolia* (DC.) R.M.King & H.Rob. [Synonyms: *Eupatorium prasiifolium* (DC.) Griseb.] **Habits:** herb(4); shrub(2); subshrub(1). **Life forms:** hemicryptophyte(2); phanerophyte(1). **States:** BA(2); PB(1); PE(7). **Habitats:** Cryst, Ins, Riv, Sed, Trans.

**Conyza** (1 species)

*Conyza bonariensis* (L.) Cronquist **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PB(2). **Habitats:** Ins.

**Cyrtocymura** (2 species)

*Cyrtocymura harleyi* (H.Rob.) H.Rob. [Synonyms: *Vernonia harleyi* H.Rob.] **States:** BA(1). **Habitats:** Ins.

*Cyrtocymura scorpioides* (Lam.) H.Rob. [Synonyms: *Vernonia scorpioides* (Lam.) Pers.] **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

**Dasyphyllum** (1 species)

*Dasyphyllum sprengelianum* (Gardner) Cabrera [Synonyms: *Dasyphyllum sprengelianum* var. *inerme* (Gardner) Cabrera] **Habits:** tree(1). **Life forms:** microphanerophyte(1). **States:** PE(2). **Habitats:** Sed.

**Delilia** (1 species)

*Delilia biflora* (L.) Kuntze [Synonyms: *Elvira biflora* (L.) DC.] **Habits:** herb(5). **Life forms:** therophyte(6). **States:** BA(1); CE(2); PB(1); PE(8); RN(3). **Habitats:** Agre, Aqua, Cryst, Ins, Trans, Unc.

**Dissothrix** (1 species)

*Dissothrix imbricata* (Gardner) B.L.Rob. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

**Eclipta** (1 species)

*Eclipta prostrata* (L.) L. [Synonyms: *Eclipta alba* (L.) Hassk.] **Habits:** herb(1). **Life forms:** therophyte(1). **States:** BA(2); PE(4). **Habitats:** Aqua, Ins, Riv.

**Egletes** (1 species)

*Egletes viscosa* (L.) Less. **Habits:** herb(1). **States:** CE(1). **Habitats:** Trans.

**Emilia** (2 species)

*Emilia fosbergii* Nicolson **Habits:** herb(1); subshrub(1). **Life forms:** therophyte(1). **States:** PE(3). **Habitats:** Ins, Riv, Sed.

*Emilia sonchifolia* (L.) DC. ex Wight **Habits:** herb(2). **Life forms:** therophyte(4). **States:** PB(1); PE(3). **Habitats:** Ins, Trans.

**Enydra** (2 species)

*Enydra radicans* (Willd.) Lack **States:** BA(3). **Habitats:** Aqua.

*Enydra sessilifolia* (Ruiz & Pav.) Cabrera, Cited in some papers as *Enydra rivularis* Standley, the accepted name is *Enydra sessilifolia* (Ruiz & Pav.) Cabrera. But this species is not recorded in the "Lista do Brasil", suggesting it is misapplied to caatinga plants. [Synonyms: *Enydra rivularis* Gardner] **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

**Erechtites** (1 species)

*Erechtites hieracifolius* (L.) Raf. ex DC. **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

**Eremanthus** (1 species)

*Eremanthus capitatus* (Spreng.) MacLeish **Habits:** shrub(2). **Life forms:** microphanerophyte(1). **States:** PE(5). **Habitats:** Sed.

**Flaveria** (1 species)

*Flaveria bidentis* (L.) Kuntze **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(2). **Habitats:** Cryst.

**Galinsoga** (1 species)

*Galinsoga parviflora* Cav. **Habits:** herb(1). **States:** PB(1). **Habitats:** Ins.

**Gamochaeta** (1 species)

*Gamochaeta americana* (Mill.) Wedd. **States:** BA(1). **Habitats:** Aqua.

**Gochnatia** (2 species)

*Gochnatia blanchetiana* (DC.) Cabrera **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.

*Gochnatia oligocephala* (Gardner) Cabrera [Synonyms: *Gochnatia lucida* (Baker) Cabrera] **Habits:** shrub(1). **Life forms:** microphanerophyte(1); phanerophyte(1). **States:** BA(2); PE(5). **Habitats:** Ins, Sed.

**Helichrysum** (1 species)

*Helichrysum indicum* (L.) Grierson **Life forms:** therophyte(2). **States:** PE(2). **Habitats:** Ins.

**Isocarpha** (1 species)

*Isocarpha megacephala* Mattf. **Habits:** herb(1). **States:** CE(1). **Habitats:** Trans.

**Jaegeria** (1 species)

*Jaegeria hirta* (Lag.) Less. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.

**Lagascea** (1 species)

*Lagascea mollis* Cav. **Habits:** herb(3); shrub(1). **Life forms:** therophyte(3). **States:** CE(1); PE(3). **Habitats:** Cryst, Trans.

**Lepidaploa** (6 species)

*Lepidaploa arenaria* (Mart. ex DC.) H.Rob. [Synonyms: *Vernonia arenaria* Mart. ex DC.] **Habits:** subshrub(1). **Life forms:** phanerophyte(1); therophyte(1). **States:** CE(1); PE(1). **Habitats:** Ins, Sed.

*Lepidaploa chalybaea* (Mart. ex DC.) H.Rob. [Synonyms: *Vernonia chalybaea* Mart. ex DC.] **Habits:** herb(3); shrub(2); subshrub(1). **States:** CE(1); PB(1); PE(6). **Habitats:** Ins, Riv, Sed, Trans.

*Lepidaploa cotoneaster* (Willd. ex Spreng.) H.Rob. [Synonyms: *Vernonia cotoneaster* (Willd. ex Spreng.) Less.] **States:** PE(1). **Habitats:** Ins.

*Lepidaploa grisea* (Baker) H.Rob. [Synonyms: *Vernonia grisea* Backer] **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Ins.

*Lepidaploa lilacina* (Mart. ex DC.) H.Rob. [Synonyms: *Vernonia lilacina* Mart. ex DC.] **Habits:** subshrub(1). **States:** BA(1). **Habitats:** Sed.

*Lepidaploa remotiflora* (Rich.) H.Rob. [Synonyms: *Vernonia remotiflora* Rich.] **Habits:** herb(1). **States:** PI(1). **Habitats:** Trans.

**Lessingianthus** (2 species)

*Lessingianthus obscurus* (Less.) H.Rob. [Synonyms: *Vernonia obscura* Less.] **Habits:** shrub(2). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed.

*Lessingianthus rugulosus* (Sch.Bip.) H.Rob. [Synonyms: *Vernonia rugulosa* Sch.Bip.] **States:** CE(1). **Habitats:** Sed.

**Lourteigia** (1 species)

*Lourteigia ballotifolia* (Kunth) R.M.King & H.Rob. [Synonyms: *Eupatorium ballotifolium* Kunth, Some Caatinga floristic works cite the species *Eupatorium ballotifolium* Kunth for which the correct name is now *Lourteigia ballotifolia* (Kunth) R.M.King & H.Rob. However, this species does not occur in Brazil and the name has probably been misapplied to specimens of *Conocliniopsis prasiifolia* (DC.) R.M.King & H.Rob. (D.J.N.Hind pers. comm.)] **States:** BA(1). **Habitats:** Sed.

**Mattfeldanthus** (1 species)

*Mattfeldanthus andrade-limae* (G.M.Barroso) Dematt. [Synonyms: *Vernonia andrade-limae* G.M.Barroso] **Habits:** herb(1).  
**States:** CE(1). **Habitats:** Trans.

**Melanthera** (1 species)

*Melanthera latifolia* (Gardner) Cabrera **Habits:** herb(2). **Life forms:** therophyte(2). **States:** CE(2); PE(2). **Habitats:** Agre, Aqua, Cryst, Sed.

**Pectis** (3 species)

*Pectis congesta* (Gardner) Sch.Bip. **States:** PE(1). **Habitats:** Cryst.

*Pectis linifolia* L. **Habits:** herb(1). **States:** PB(1). **Habitats:** Ins.

*Pectis oligocephala* (Gardner) Sch.Bip. **States:** PB(1). **Habitats:** Cryst.

**Pithecoseris** (1 species)

*Pithecoseris pacourinoides* Mart. ex DC. **Habits:** herb(2). **Life forms:** hemicryptophyte(1); therophyte(3). **States:** CE(2); PB(2); PE(3); PI(1). **Habitats:** Ins, Sed.

**Platypodanthera** (1 species)

*Platypodanthera melissifolia* (DC.) R.M.King & H.Rob. **Habits:** herb(1). **Life forms:** therophyte(2). **States:** PE(4). **Habitats:** Ins, Sed.

**Porophyllum** (1 species)

*Porophyllum ruderale* (Jacq.) Cass. **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.

**Sonchus** (1 species)

*Sonchus oleraceus* L. **States:** BA(1). **Habitats:** Aqua.

**Tilesia** (1 species)

*Tilesia baccata* (L.f.) Pruski [Synonyms: *Wulffia baccata* (L.) Kuntze; *Wulffia stenoglossa* (DC.) Huber] **Habits:** shrub(1); subshrub(1). **States:** CE(1); PB(1); PE(1). **Habitats:** Agre, Sed.

**Trichogonia** (1 species)

*Trichogonia menthifolia* Gardner **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

**Trichogoniopsis** (1 species)

*Trichogoniopsis podocarpa* (DC.) R.M.King & H.Rob. [Synonyms: *Trichogonia podocarpa* Sch.Bip. ex Baker] **Habits:** herb(1). **States:** CE(1). **Habitats:** Sed.

**Tridax** (1 species)

*Tridax procumbens* L. **Habits:** herb(8). **Life forms:** therophyte(6). **States:** CE(2); PB(2); PE(6). **Habitats:** Cryst, Ins, Riv, Sed, Trans.

**Trixis** (1 species)

*Trixis vauthieri* DC. **States:** BA(3). **Habitats:** Ins.

**Unxia** (1 species)

*Unxia camphorata* L.f. [Synonyms: *Melampodium camphoratum* (L.f.) Baker] **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

**Verbesina** (1 species)

*Verbesina macrophylla* (Cass.) S.F.Blake **Habits:** shrub(1). **States:** PE(1). **Habitats:** Agre.

**Wedelia** (3 species)

*Wedelia alagoensis* Baker **Habits:** shrub(1); subshrub(1). **States:** BA(1); PE(2). **Habitats:** Aqua, Sed.

*Wedelia hookeriana* Gardner **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

*Wedelia villosa* Gardner **Habits:** shrub(3); subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(6). **Habitats:** Sed, Trans.



**BALANOPHORACEAE** (1 genus; 1 species)

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**Langsdorffia** (1 species)

*Langsdorffia hypogaea* Mart. **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

**BEGONIACEAE** (1 genus; 5 species)

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**Begonia** (5 species)

*Begonia fischeri* Schrank **States:** BA(1). **Habitats:** Aqua.

*Begonia larorum* L.B.Sm. & Wassh. **States:** BA(1). **Habitats:** Ins.

*Begonia lealii* Brade **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Begonia reniformis* Dryand. [Synonyms: *Begonia vitifolia* Schott] **Habits:** shrub(1). **States:** PE(2). **Habitats:** Agre.

*Begonia saxicola* A.DC. [Synonyms: *Begonia eglerti* Brade] **Habits:** herb(1); rupicolous(1). **Life forms:** phanerophyte(2). **States:** PB(1); PE(4). **Habitats:** Agre, Ins.

**BIGNONIACEAE** (17 genera; 52 species)

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**Adenocalymma** (4 species)

*Adenocalymma axillare* (K.Schum.) L.G.Lohmann [Synonyms: *Memora axillaris* K.Schum.] **Habits:** shrub(1). **States:** PI(2). **Habitats:** Sed, Trans.

*Adenocalymma comosum* (Cham.) DC. **Life forms:** liana(1). **States:** BA(1). **Habitats:** Ins.

*Adenocalymma involucreatum* (Bureau & K.Schum.) L.G.Lohmann [Synonyms: *Memora involucreata* Bureau & K.Schum.] **Habits:** liana(1); shrub(1). **States:** PI(2). **Habitats:** Trans.

*Adenocalymma scabriusculum* Mart. ex DC. **Habits:** liana(1). **States:** PI(1). **Habitats:** Trans.

**Amphilophium** (1 species)

*Amphilophium crucigerum* (L.) L.G.Lohmann [Synonyms: *Pithecoctenium crucigerum* (L.) A.H. Gentry; *Pithecoctenium echinatum* (Jacq.) Baill.] **Habits:** climber(2); liana(1). **Life forms:** phanerophyte(2). **States:** CE(4); PE(2). **Habitats:** Agre, Ins, Sed.

**Anemopaegma** (4 species)

*Anemopaegma acutifolium* DC. **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Observations:** Cited as *Anemopaegma ataidei* A.H.Gentry, which is a nomen nudum.. **Habitats:** Sed.

*Anemopaegma goyazense* K.Schum. **States:** BA(1). **Habitats:** Sed.

*Anemopaegma laeve* DC. **Habits:** climber(4). **Life forms:** chamaephyte(1). **States:** PE(4). **Habitats:** Sed, Trans.

*Anemopaegma velutinum* Mart. ex DC. **Habits:** liana(1). **States:** PI(2). **Habitats:** Sed.

**Bignonia** (3 species)

*Bignonia binata* Thunb. [Synonyms: *Clytostoma binatum* (Thunb.) Sandwith; *Clytostoma binatum* (Thunb.) Sandwith] **Habits:** climber(1). **States:** PB(1); PE(1). **Habitats:** Agre, Sed.

*Bignonia convolvuloides* (Bureau & K.Schum.) L.G.Lohmann [Synonyms: *Clytostoma convolvuloides* Bureau & K.Schum.] **Habits:** liana(1). **States:** BA(1); CE(1). **Habitats:** Ins, Trans.

*Bignonia ramentacea* (Mart. ex DC.) L.G.Lohmann [Synonyms: *Clytostoma ramentaceum* (Mart. ex DC.) Bureau & K.Schum.] **Habits:** liana(1). **States:** CE(1). **Habitats:** Trans.

**Cuspidaria** (1 species)

*Cuspidaria argentea* (Wawra) Sandwith **Habits:** climber(1). **Life forms:** phanerophyte(1). **States:** PE(1); PI(1). **Habitats:** Sed.

**Dolichandra** (2 species)

*Dolichandra quadrivalvis* (Jacq.) L.G.Lohmann [Synonyms: *Melloa populifolia* (DC.) Britton; *Melloa quadrivalvis* (Jacq.) A.H.Gentry] **Habits:** liana(2); shrub(1). **States:** CE(2); PE(1); PI(1). **Habitats:** CMaior, Cryst, Riv, Trans.

*Dolichandra unguis-cati* (L.) L.G.Lohmann [Synonyms: *Macfadyena unguis-cati* (L.) A.H.Gentry] **Habits:** shrub(1). **States:** PB(1); RN(3). **Habitats:** Cryst, Ins, Unc.

#### Fridericia (13 species)

*Fridericia bahiensis* (Schauer ex DC.) L.G.Lohmann [Synonyms: *Arrabidaea bahiensis* (Schauer ex DC.) Sandwith & Moldenke] **Habits:** liana(1). **States:** PI(1). **Habitats:** Trans.

*Fridericia caudigera* (S.Moore) L.G.Lohmann [Synonyms: *Arrabidaea caudigera* (S.Moore) A.H.Gentry] **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Cryst.

*Fridericia chica* (Bonpl.) L.G.Lohmann [Synonyms: *Arrabidaea chica* (Bonpl.) Verl.] **Habits:** climber(2); liana(1). **Life forms:** phanerophyte(1). **States:** CE(5). **Habitats:** Sed.

*Fridericia conjugata* (Vell.) L.G.Lohmann [Synonyms: *Arrabidaea conjugata* (Vell.) Mart.] **States:** BA(2). **Habitats:** Ins.

*Fridericia crassa* (Bureau & K.Schum.) L.G.Lohmann [Synonyms: *Arrabidaea crassa* (Bureau & K.Schum.) Sprague] **Habits:** liana(1). **States:** PI(1). **Habitats:** Trans.

*Fridericia dichotoma* (Jacq.) L.G.Lohmann [Synonyms: *Arrabidaea corallina* (Jacq.) Sandwith] **Habits:** climber(4); liana(4). **Life forms:** phanerophyte(1). **States:** BA(1); CE(2); PE(5); PI(3). **Habitats:** CMaior, Cryst, Ins, Sed, Trans.

*Fridericia dispar* (Bureau ex K.Schum.) L.G.Lohmann [Synonyms: *Arrabidaea dispar* Bureau ex K.Schum.] **Habits:** climber(2); liana(5). **Life forms:** phanerophyte(1). **States:** CE(7); PI(8). **Habitats:** CMaior, Sed, Trans.

*Fridericia limae* (A.H.Gentry) L.G.Lohmann [Synonyms: *Arrabidaea limae* A.H.Gentry] **Habits:** climber(2); liana(1). **States:** PE(2); PI(2). **Habitats:** Sed.

*Fridericia parviflora* (Mart. ex DC.) L.G.Lohmann [Synonyms: *Arrabidaea parviflora* (Mart. ex DC.) Bureau & K.Schum.] **Habits:** liana(1). **States:** CE(1). **Habitats:** Trans.

*Fridericia platyphylla* (Cham.) L.G.Lohmann [Synonyms: *Arrabidaea brachypoda* (DC.) Bureau] **Habits:** liana(2). **States:** PI(6). **Habitats:** CMaior, Sed.

*Fridericia pulchella* (Cham.) L.G.Lohmann [Synonyms: *Mansoa schwackei* Bureau & K.Schum.] **Habits:** climber(1). **States:** CE(1). **Habitats:** Sed.

*Fridericia subverticillata* (Bureau & K.Schum.) L.G.Lohman [Synonyms: *Arrabidaea subverticillata* Bureau & K. Schum.] **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Cryst.

*Fridericia tuberculata* (DC.) L.G.Lohmann [Synonyms: *Arrabidaea tuberculata* DC.] **States:** BA(1). **Habitats:** Sed.

#### Godmania (1 species)

*Godmania dardanoi* (J.C.Gomes) A.H.Gentry **Habits:** tree(2). **Life forms:** phanerophyte(1). **States:** BA(1); PI(3). **Habitats:** Sed.

#### Handroanthus (6 species)

*Handroanthus chrysotrichus* (Mart. ex DC.) Mattos [Synonyms: *Tabebuia chrysotricha* (Mart. ex DC.) Standl.] **Habits:** tree(1). **States:** MG(6); PE(1). **Habitats:** Arb, Sed.

*Handroanthus heptaphyllus* Mattos [Synonyms: *Tabebuia heptaphylla* (Vell.) Toledo] **Habits:** tree(1). **States:** BA(1). **Habitats:** Sed.

*Handroanthus impetiginosus* (Mart. ex DC.) Mattos [Synonyms: *Tabebuia impetiginosa* (Mart. ex DC.) Standl.] **Habits:** tree(10). **Life forms:** phanerophyte(4). **States:** BA(4); CE(3); MG(4); PB(4); PE(9); PI(5); RN(6). **Habitats:** Agre, Arb, CMaior, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

*Handroanthus ochraceus* (Cham.) Mattos [Synonyms: *Tabebuia ochracea* (Cham.) Standl.] **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(2); MG(3). **Habitats:** Arb, Sed.

*Handroanthus serratifolius* (Vahl) S.Grose [Synonyms: *Tabebuia serratifolia* (Vahl) G.Nicholson] **Habits:** tree(3). **Life forms:** phanerophyte(1). **States:** CE(2); PB(3); PI(6). **Habitats:** Agre, CMaior, Sed, Trans.

*Handroanthus spongiosus* (Rizzini) S.Grose [Synonyms: *Tabebuia spongiosa* Rizzini] **Habits:** tree(2). **States:** BA(1); MG(1); PE(3); PI(1). **Habitats:** Arb, Cryst, Diam, Riv, Trans.

#### Jacaranda (5 species)

*Jacaranda brasiliana* (Lam.) Pers. **Habits:** shrub(1); tree(1). **States:** PI(3). **Habitats:** CMaior, Trans.

*Jacaranda grandifoliolata* A.H.Gentry **States:** PB(1). **Habitats:** Agre.

*Jacaranda jasmimoides* (Thunb.) Sandwith **Habits:** climber(1); shrub(5); tree(1). **Life forms:** phanerophyte(3). **States:** BA(1); CE(7); PE(2); PI(4). **Habitats:** Agre, Ins, Sed, Trans.

*Jacaranda praetermissa* Sandwith **Life forms:** phanerophyte(1). **States:** PI(1). **Habitats:** Sed.

*Jacaranda rugosa* A.H.Gentry **Habits:** shrub(1). **Life forms:** microphanerophyte(1). **States:** PE(4). **Habitats:** Ins, Sed.

#### Mansoa (3 species)

*Mansoa angustidens* (DC.) Bureau & K.Schum. **Habits:** climber(1). **States:** PE(1). **Habitats:** Trans.  
*Mansoa difficilis* (Cham.) Bureau & K.Schum. **Habits:** climber(1). **Life forms:** liana(1). **States:** PE(1); PI(1). **Habitats:** Sed.  
*Mansoa hirsuta* DC. **Habits:** liana(3). **Life forms:** liana(1). **States:** CE(1); PI(4). **Habitats:** Sed, Trans.

**Neojobertia** (1 species)

*Neojobertia candolleana* (Mart. ex DC.) Bureau & K.Schum. [Synonyms: *Memora candolleana* (Mart. ex DC.) Miers]  
**Habits:** climber(2); liana(1). **States:** CE(3); PI(1). **Habitats:** Sed, Trans, Sed.

**Pyrostegia** (1 species)

*Pyrostegia venusta* (Ker Gawl.) Miers **Habits:** climber(2). **Life forms:** phanerophyte(1). **States:** CE(1); PB(1); PE(2).  
**Habitats:** Agre, Ins, Sed.

**Stizophyllum** (1 species)

*Stizophyllum perforatum* (Cham.) Miers **Habits:** liana(1). **States:** PI(1). **Habitats:** CMAior.

**Tabebuia** (3 species)

*Tabebuia aurea* (Silva Manso) Benth. & Hook.f. ex S.Moore [Synonyms: *Tabebuia caraiba* (Mart.) Bureau] **Habits:** tree(1).  
**States:** BA(1); PB(6); PE(3); PI(1); RN(3). **Habitats:** Unc, Ins, Riv, Unc, CMAior, Cryst, Diam, Riv, Unc.  
*Tabebuia reticulata* A.H.Gentry **States:** MG(1). **Habitats:** Arb.  
*Tabebuia roseoalba* (Ridl.) Sandwith **States:** MG(10). **Habitats:** Arb.

**Tanaecium** (2 species)

*Tanaecium cyrtanthum* (Mart. ex DC.) Bureau & K.Schum. **Habits:** liana(1). **States:** CE(1). **Habitats:** Trans.  
*Tanaecium pyramidatum* (Rich.) L.G.Lohmann [Synonyms: *Paragonia pyramidata* (Rich.) Bureau; *Paragonia pyramidata* (Rich.) Bureau var. *pyramidata*] **States:** PB(1). **Habitats:** Agre.

**Zeyheria** (1 species)

*Zeyheria tuberculosa* (Vell.) Bureau ex Verl. **States:** MG(4). **Habitats:** Arb.

**BIXACEAE** (1 genus; 2 species)

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**Cochlospermum** (2 species)

*Cochlospermum regium* (Mart. ex Schrank) Pilg. [Synonyms: *Cochlospermum insigne* A.St.-Hil.] **Habits:** tree(2). **States:** PB(3); PE(1); RN(1). **Habitats:** Cryst, Ins, Riv, Unc.  
*Cochlospermum vitifolium* (Willd.) Spreng. **Habits:** tree(3); treelet(1). **Life forms:** phanerophyte(5). **States:** CE(6); PB(1); PI(4); RN(1). **Habitats:** CMAior, Cryst, Ins, Sed, Trans, Unc.

**BORAGINACEAE** (5 genera; 32 species)

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**Cordia** (14 species)

*Cordia alliodora* (Ruiz & Pav.) Cham. **States:** PB(3). **Habitats:** Agre, Unc.  
*Cordia collococca* L. **States:** PE(1). **Habitats:** Cryst.  
*Cordia discolor* Cham. [Synonyms: *Cordia salzmanni* DC.] **States:** PB(1); RN(2). **Habitats:** Unc.  
*Cordia glazioviana* (Taub.) Gottschling & J.S.Mill. [Synonyms: *Auxemma glazioviana* Taub.] **Life forms:** phanerophyte(1).  
**States:** CE(3); RN(4). **Habitats:** Cryst, Unc.  
*Cordia incognita* Gottschling & J.S.Mill. [Synonyms: *Patagonula bahiensis* Moric.] **Habits:** ?(1). **States:** PI(1). **Habitats:** Trans.  
*Cordia insignis* Cham. **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1); PB(1). **Habitats:** Cryst, Ins.  
*Cordia latiloba* I.M.Johnst. **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** BA(2); PE(1). **Habitats:** Ins, Cryst.  
*Cordia magnoliifolia* Cham. **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.  
*Cordia ochracea* DC. **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Ins.

*Cordia oncocalyx* Allemão [Synonyms: *Auxemma oncocalyx* (Allemão) Baill.] **Habits:** tree(1). **Life forms:** phanerophyte(2). **States:** CE(5). **Habitats:** Cryst, Unc.

*Cordia panicularis* Rudge **Habits:** shrub(2). **States:** PI(2). **Habitats:** Trans.

*Cordia rufescens* A.DC. [Synonyms: *Cordia piauihiensis* Fresen.] **Habits:** shrub(8). **Life forms:** phanerophyte(3). **States:** CE(9); PE(1); PI(8). **Habitats:** CMAior, Sed, Trans.

*Cordia superba* Cham. **Life forms:** phanerophyte(1). **States:** BA(2). **Habitats:** Aqua, Ins.

*Cordia trichotoma* (Vell.) Arráb. ex Steud. **Habits:** shrub(1); tree(6). **Life forms:** phanerophyte(1). **States:** CE(4); PB(4); PE(2); PI(2). **Habitats:** Cryst, Riv, Sed, Trans, Unc.

#### **Euploca** (2 species)

*Euploca procumbens* (Mill.) Diane & Hilger [Synonyms: *Heliotropium procumbens* Mill.] **Habits:** herb(4). **Life forms:** therophyte(1). **States:** BA(3); PE(5). **Habitats:** Aqua, Riv, Sed, Trans.

*Euploca ternata* (Vahl) J.I.M.Melo & Semir [Synonyms: *Heliotropium ternatum* Vahl] **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PB(1); PE(1). **Habitats:** Cryst.

#### **Heliotropium** (4 species)

*Heliotropium angiospermum* Murray **Life forms:** therophyte(3). **States:** BA(1); PB(1); PE(6). **Habitats:** Agre, Aqua, Ins, Riv, Trans.

*Heliotropium indicum* L. **Habits:** herb(1). **States:** BA(1); PB(1); PE(3). **Habitats:** Aqua, Cryst, Sed.

*Heliotropium phlycoides* Cham. **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

*Heliotropium transalpinum* Vell. [Synonyms: *Heliotropium tiaridioides* Cham.] **Habits:** herb(1). **Life forms:** hemicryptophyte(1). **States:** PE(1); PI(1). **Habitats:** Cryst, Trans.

#### **Tournefortia** (5 species)

*Tournefortia bicolor* Sw. **Life forms:** phanerophyte(1). **States:** BA(1). **Habitats:** Ins.

*Tournefortia paniculata* Cham. **States:** PB(1). **Habitats:** Cryst.

*Tournefortia rubicunda* Salzm. ex A.DC. **Habits:** climber(1); shrub(2); tree(1). **Life forms:** liana(1). **States:** PB(2); PE(5); PI(1). **Habitats:** Agre, Cryst, Ins, Riv, Sed.

*Tournefortia salzmannii* DC. **Habits:** climber(1); shrub(1). **States:** PB(1); PE(1). **Habitats:** Ins, Trans.

*Tournefortia villosa* Salzm. ex DC. **Life forms:** phanerophyte(1). **States:** BA(1); PB(1). **Habitats:** Ins.

#### **Varronia** (7 species)

*Varronia curassavica* Jacq. [Synonyms: *Cordia curassavica* (Jacq.) Roem. & Schult.; *Cordia verbenacea* DC.] **Habits:** shrub(2). **States:** CE(1); PE(5). **Habitats:** Ins, Riv, Sed.

*Varronia dardani* (Taroda) J.S.Mill. **Habits:** shrub(1). **States:** PB(1). **Habitats:** Ins.

*Varronia globosa* Jacq. [Synonyms: *Cordia globosa* (Jacq.) Kunth] **Habits:** shrub(5); tree(1). **Life forms:** phanerophyte(2). **States:** BA(2); CE(2); PB(8); PE(15); RN(2). **Habitats:** Agre, Cryst, Ins, Riv, Sed, Trans, Unc.

*Varronia leucocephala* (Moric.) J.S.Mill. [Synonyms: *Cordia leucocephala* Moric.] **Habits:** shrub(8); subshrub(2). **Life forms:** phanerophyte(1). **States:** BA(1); CE(2); PB(3); PE(17); PI(1). **Habitats:** Cryst, Ins, Riv, Sed, Trans.

*Varronia leucomalloides* (Taroda) J.S.Mill. [Synonyms: *Cordia leucomalloides* Taroda] **Habits:** shrub(2). **Life forms:** phanerophyte(1). **States:** CE(4). **Habitats:** Sed.

*Varronia multispicata* (Cham.) Borhidi [Synonyms: *Cordia bahiensis* DC.; *Cordia multispicata* Cham.] **Life forms:** phanerophyte(1). **States:** PB(2). **Habitats:** Cryst, Ins.

*Varronia nivea* (Fresen.) Borhidi **Habits:** shrub(1). **States:** BA(1). **Habitats:** Diam.

#### **BRASSICACEAE** (1 genus; 1 species)

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#### **Lepidium** (1 species)

*Lepidium bonariense* L. **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

#### **BROMELIACEAE** (10 genera; 31 species)

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#### **Aechmea** (3 species)

*Aechmea aquilega* (Salisb.) Griseb. **Life forms:** hemicryptophyte(1). **States:** BA(2). **Habitats:** Ins, Sed.

*Aechmea leptantha* (Harms) Leme & J.A. Siqueira [Synonyms: *Portea leptantha* Harms] **Habits:** herb(1). **Life forms:** hemicyptophyte(2). **States:** PE(4). **Habitats:** Agre, Ins.

*Aechmea lingulata* (L.) Baker **States:** BA(3). **Habitats:** Ins.

**Billbergia** (1 species)

*Billbergia porteana* Brong. ex Beer **Habits:** epiphyte(1). **States:** BA(3); PE(1). **Habitats:** Ins, Sed.

**Bromelia** (4 species)

*Bromelia antiacantha* Bertol. **Habits:** herb(1). **States:** BA(1). **Habitats:** Sed.

*Bromelia auriculata* L.B.Sm. **Habits:** herb(1). **Life forms:** chamaephyte(1). **States:** CE(2). **Habitats:** Sed.

*Bromelia karatas* L. [Synonyms: *Bromelia plumieri* (E.Morren) L.B. Sm.] **Habits:** herb(5). **Life forms:** chamaephyte(3); hemicyptophyte(3). **States:** CE(5); PB(1); PE(3); PI(1). **Habitats:** Agre, Cryst, Ins, Sed.

*Bromelia laciniosa* Mart. ex Schult. & Schult.f. **Habits:** herb(5). **Life forms:** chamaephyte(1). **States:** BA(1); CE(1); PB(5); PE(2); PI(1); RN(1). **Habitats:** Cryst, Sed, Trans, Unc.

**Cryptanthus** (1 species)

*Cryptanthus bahianus* L.B.Sm. **States:** PE(1). **Habitats:** Agre.

**Dyckia** (2 species)

*Dyckia densiflora* Schult. & Schult.f. **States:** BA(1). **Habitats:** Ins.

*Dyckia limae* L.B.Sm. **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

**Encholirium** (3 species)

*Encholirium erectiflorum* L.B.Sm. **Habits:** herb(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Encholirium spectabile* Mart. ex Schult. & Schult.f. **Habits:** herb(4); rupicolous(1). **Life forms:** chamaephyte(4); hemicyptophyte(2). **States:** BA(2); CE(2); PB(3); PE(6); PI(1). **Habitats:** Ins, Riv, Trans.

*Encholirium subsecundum* (Baker) Mez **States:** BA(2). **Habitats:** Ins.

**Hohenbergia** (4 species)

*Hohenbergia catingae* Ule **Habits:** herb(1). **Life forms:** chamaephyte(1); hemicyptophyte(2). **States:** BA(2); PE(2). **Habitats:** Ins, Sed, Trans.

*Hohenbergia leopoldo-horstii* E.Gross **States:** BA(2). **Habitats:** Ins.

*Hohenbergia ridleyi* (Baker) Mez **Life forms:** hemicyptophyte(2). **States:** PE(2). **Habitats:** Ins.

*Hohenbergia utriculosa* Ule **States:** BA(1). **Habitats:** Sed.

**Neoglaziovia** (1 species)

*Neoglaziovia variegata* (Arruda) Mez **Habits:** epiphyte(1); herb(7); shrub(1). **Life forms:** chamaephyte(2). **States:** BA(3); PB(3); PE(10); PI(3). **Habitats:** Cryst, Ins, Sed, Trans, Unc.

**Orthophytum** (3 species)

*Orthophytum disjunctum* L.B.Sm. **Life forms:** hemicyptophyte(2). **States:** PE(3). **Habitats:** Ins.

*Orthophytum glabrum* (Mez) Mez **States:** BA(1). **Habitats:** Ins.

*Orthophytum saxicola* Ule **States:** BA(1). **Habitats:** Ins.

**Tillandsia** (9 species)

*Tillandsia didisticha* (E.Morren) Baker **States:** PE(1). **Habitats:** Ins.

*Tillandsia gardneri* Lindl. **Habits:** epiphyte(1). **Life forms:** phanerophyte(1). **States:** BA(2); PB(1); PE(2). **Habitats:** Ins, Sed.

*Tillandsia loliacea* Mart. ex Schult. & Schult.f. **Habits:** epiphyte(2); herb(1). **Life forms:** ?(1); epiphyte(1). **States:** BA(2); CE(1); PE(3); PI(1). **Habitats:** Cryst, Ins, Sed, Trans.

*Tillandsia polystachia* (L.) L. **States:** PE(1). **Habitats:** Ins.

*Tillandsia recurvata* (L.) L. **Habits:** epiphyte(5); herb(1). **Life forms:** ?(1); chamaephyte(1); epiphyte(1); phanerophyte(1). **States:** BA(4); PB(3); PE(8). **Habitats:** Cryst, Ins, Sed.

*Tillandsia streptocarpa* Baker **Habits:** epiphyte(3); herb(1). **Life forms:** ?(1); epiphyte(1). **States:** BA(4); CE(1); PE(4); PI(1). **Habitats:** Cryst, Ins, Sed, Trans.

*Tillandsia stricta* Sol. **Life forms:** phanerophyte(1). **States:** PE(2). **Habitats:** Ins.

*Tillandsia tenuifolia* L. **Habits:** epiphyte(1). **States:** BA(1); PE(2). **Habitats:** Ins, Sed.

*Tillandsia usneoides* (L.) L. **Habits:** epiphyte(1). **Life forms:** phanerophyte(1). **States:** BA(2); PE(2). **Habitats:** Ins, Sed.

**BURSERACEAE** (1 genus; 1 species)

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**Commiphora** (1 species)

*Commiphora leptophloeos* (Mart.) J.B.Gillett [Synonyms: *Bursera leptophloeos* Mart.] **Habits:** tree(21). **Life forms:** phanerophyte(6). **States:** BA(4); CE(10); MG(8); PB(24); PE(24); PI(3); RN(16). **Habitats:** Agre, Arb, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

**CABOMBACEAE** (1 genus; 1 species)

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**Cabomba** (1 species)

*Cabomba aquatica* Aubl. **States:** BA(1). **Habitats:** Aqua.

**CACTACEAE** (10 genera; 28 species)

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**Arrojadoa** (2 species)

*Arrojadoa penicillata* (Gürke) Britton & Rose **Habits:** succulent(1). **States:** BA(3). **Habitats:** Ins, Sed.

*Arrojadoa rhodantha* (Gürke) Britton & Rose **Habits:** climber(1); shrub(1); succulent(1). **Life forms:** chamaephyte(1). **States:** PB(2); PE(4); PI(2). **Habitats:** Cryst, Riv, Sed, Trans.

**Brasiliopuntia** (1 species)

*Brasiliopuntia brasiliensis* (Willd.) A.Berger [Synonyms: *Opuntia brasiliensis* (Willd.) Haw.] **Habits:** tree(1). **States:** PE(2). **Habitats:** Agre.

**Cereus** (3 species)

*Cereus albicaulis* (Britton & Rose) Luetzelb. [Synonyms: *Acanthocereus albicaulis* Britton & Rose] **Habits:** climber(1); shrub(3); succulent(1). **Life forms:** phanerophyte(4). **States:** BA(1); CE(1); PE(2); PI(6). **Habitats:** Ins, Sed, Trans.

*Cereus jamacaru* DC. **Habits:** shrub(4); succulent(2); tree(15). **Life forms:** ?(1); phanerophyte(7); succulent(1). **States:** BA(6); CE(12); MG(5); PB(21); PE(27); PI(6); RN(5). **Habitats:** Agre, Arb, CMAior, Cryst, Diam, Ins, Riv, Sed, Unc.

*Cereus saddianus* (Rizzini & Mattos) P.J.Braun **States:** RN(1). **Habitats:** Unc.

**Epiphyllum** (1 species)

*Epiphyllum phyllanthus* (L.) Haw. **States:** BA(1). **Habitats:** Ins.

**Harrisia** (1 species)

*Harrisia adscendens* (Gürke) Britton & Rose **Habits:** shrub(1); succulent(2). **Life forms:** ?(1). **States:** PE(6). **Habitats:** Cryst, Ins, Riv, Sed.

**Melocactus** (6 species)

*Melocactus bahiensis* (Britton & Rose) Luetzelb. **Habits:** herb(1); succulent(1). **Life forms:** chamaephyte(2). **States:** CE(1); PB(3); PE(4). **Habitats:** Cryst, Ins, Sed, Trans, Unc.

*Melocactus deinacanthus* Buining & Brederoo **Habits:** shrub(1). **States:** PB(1). **Habitats:** Unc.

*Melocactus ernestii* Vaupel **Habits:** rupicolous(1). **Life forms:** succulent(1). **States:** BA(2); PB(1). **Habitats:** Ins.

*Melocactus oreas* Miq. **Habits:** succulent(1). **Life forms:** ?(1). **States:** PE(4). **Habitats:** Cryst, Ins.

*Melocactus salvadorensis* Werderm. **States:** BA(3). **Habitats:** Ins.

*Melocactus zehntneri* (Britton & Rose) Luetzelb. **Habits:** herb(2). **Life forms:** chamaephyte(1). **States:** PE(1); PI(2). **Habitats:** Sed, Trans.

**Pereskia** (2 species)

*Pereskia bahiensis* Gürke **States:** MG(2). **Habitats:** Arb.

*Pereskia grandifolia* Haw. **States:** BA(1). **Habitats:** Diam.

**Pilosocereus** (8 species)

*Pilosocereus catingicola* (Gürke) Byles & Rowley **Habits:** shrub(1). **States:** BA(1); RN(1). **Habitats:** Diam, Unc.

*Pilosocereus chrysostele* (Vaupel) Byles & G.D.Rowley [Synonyms: *Cereus chrysostele* Vaupel] **Habits:** tree(1). **States:** PB(1). **Habitats:** Unc.

*Pilosocereus glaucescens* (Labour.) Byles & G.D.Rowley, This is a doubtful name. *Pilosocereus glaucescens* (Linke) Byles & G. D. Rowley is a name of uncertain application which should not be used (Taylor and Zappi, 2004) **States:** PB(5); PE(2). **Habitats:** Agre, Riv, Unc, Cryst.

*Pilosocereus gounellei* (F.A.C.Weber) Byles & Rowley **Habits:** cactus(1); rupicolous(1); shrub(5); subshrub(1); succulent(1); tree(1). **Life forms:** ?(1); phanerophyte(2). **States:** BA(4); CE(1); PB(23); PE(14); PI(4); RN(13). **Habitats:** Agre, CMajor, Cryst, Ins, Riv, Sed, Trans, Unc, Riv, Sed.

*Pilosocereus pachycladus* F.Ritter **Habits:** tree(1). **States:** PB(9); PE(16); PI(2). **Habitats:** Agre, Cryst, Ins, Sed, Unc, Agre, Ins, Riv, Agre, Sed.

*Pilosocereus pentaedrophorus* (Cels) Byles & Rowley **Habits:** shrub(1). **States:** BA(3). **Habitats:** Diam, Ins.

*Pilosocereus piauhyensis* (Gürke) Byles & G.D.Rowley **Habits:** cactus(1). **Life forms:** phanerophyte(3). **States:** CE(2); PB(3); PI(1); RN(2). **Habitats:** Cryst, Ins, Sed, Unc.

*Pilosocereus tuberculatus* (Werderm.) Byles & G.D.Rowley **Habits:** shrub(1); succulent(2); tree(1). **States:** BA(2); PE(4); PI(2). **Habitats:** Cryst, Sed.

**Rhipsalis** (2 species)

*Rhipsalis baccifera* (J.M.Muell.) Stearn **States:** PB(1). **Habitats:** Agre.

*Rhipsalis lindbergiana* K.Schum. **Life forms:** epiphyte(1); phanerophyte(2). **States:** BA(1); PE(2). **Habitats:** Ins.

**Tacinga** (2 species)

*Tacinga inamoena* (K.Schum.) N.P.Taylor & Stuppy [Synonyms: *Opuntia inamoena* K. Schum.] **Habits:** herb(7); shrub(1); succulent(3). **Life forms:** ?(1); chamaephyte(5). **States:** BA(2); CE(2); PB(6); PE(10); PI(2); RN(1). **Habitats:** Cryst, Ins, Riv, Sed, Trans, Unc.

*Tacinga palmadora* (Britton & Rose) N.P.Taylor & Stuppy [Synonyms: *Opuntia palmadora* Britton & Rose] **Habits:** cactus(1); shrub(4); succulent(2). **Life forms:** ?(1). **States:** BA(3); PB(11); PE(16). **Habitats:** Ins, Agre, Cryst, Diam, Ins, Sed, Trans, Unc.

**CAMPANULACEAE** (1 genus; 1 species)

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**Lobelia** (1 species)

*Lobelia xalapensis* Kunth **States:** BA(1). **Habitats:** Aqua.

**CANNABACEAE** (2 genera; 3 species)

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**Celtis** (2 species)

*Celtis iguanaea* (Jacq.) Sarg. [Synonyms: *Celtis glycyarpa* Mart. ex Miq.; *Celtis membranacea* (Wedd.) Miq.] **Habits:** tree(2). **States:** BA(2); MG(6); PE(5). **Habitats:** Arb, Ins, Riv.

*Celtis pubescens* (Kunth) Spreng. [Synonyms: *Celtis brasiliensis* (Gardner) Planch.] **Habits:** tree(1). **States:** MG(1); PE(1). **Habitats:** Arb, Sed.

**Trema** (1 species)

*Trema micrantha* (L.) Blume **Habits:** shrub(2); tree(1). **Life forms:** phanerophyte(4). **States:** BA(2); CE(2); PE(2); PI(1). **Habitats:** Ins, Sed, Trans.

**CAPPARACEAE** (9 genera; 17 species)

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**Cleome** (5 species)

*Cleome dendroides* Schult. & Schult.f. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Cryst.

*Cleome latifolia* Vahl ex DC. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Cryst.

*Cleome microcarpa* Ule **Habits:** herb(2); shrub(1). **Life forms:** therophyte(1). **States:** CE(1); PE(1); PI(1). **Habitats:** Cryst, Sed, Trans.

*Cleome rosea* Vahl ex DC. **Habits:** herb(3). **Life forms:** therophyte(2). **States:** PE(3). **Habitats:** Trans.

*Cleome siliculifera* Eichler **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Cryst.

#### Colicodendron (1 species)

*Colicodendron yco* Mart. [Synonyms: *Capparis yco* (Mart.) Eichler] **Habits:** shrub(2); tree(1). **States:** BA(5); PE(4).

**Habitats:** Cryst, Diam, Ins, Sed, Trans.

#### Crateva (1 species)

*Crateva tapia* L. **Habits:** tree(2). **Life forms:** phanerophyte(2). **States:** CE(1); PE(2); PI(1). **Habitats:** Cryst, Riv, Sed.

#### Cynophalla (2 species)

*Cynophalla flexuosa* (L.) J.Presl [Synonyms: *Capparis flexuosa* (L.) L.] **Habits:** shrub(6); tree(10). **Life forms:** phanerophyte(3). **States:** BA(2); CE(4); PB(20); PE(19); PI(1); RN(10). **Habitats:** Agre, Cryst, Ins, Riv, Sed, Trans, Unc.

*Cynophalla hastata* (Jacq.) J.Presl [Synonyms: *Capparis cynophallophora* L.; *Capparis hastata* Jacq.] **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(1). **States:** CE(1); PB(1); PE(4); PI(1). **Habitats:** Cryst, Ins, Riv, Sed, Trans, Unc.

#### Dactylaena (2 species)

*Dactylaena micrantha* Schrad. ex Schult.f. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Trans.

*Dactylaena microphylla* Eichler **States:** BA(1). **Habitats:** Ins.

#### Hemiscola (2 species)

*Hemiscola aculeata* (L.) Raf. [Synonyms: *Cleome aculeata* L.; *Cleome affinis* DC.] **Life forms:** therophyte(1). **States:** BA(1); PB(1). **Habitats:** Ins, Sed.

*Hemiscola diffusa* (Banks ex DC.) Iltis [Synonyms: *Cleome diffusa* Banks ex DC.] **Habits:** herb(5). **Life forms:** therophyte(3). **States:** CE(1); PE(5). **Habitats:** Cryst, Ins, Sed, Trans.

#### Neocalyptrocalyx (1 species)

*Neocalyptrocalyx longifolium* (Mart.) Cornejo & Iltis [Synonyms: *Capparis jacobinae* Moric. ex Eichler] **Habits:** shrub(3); tree(7). **States:** BA(3); PB(7); PE(12). **Habitats:** Agre, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

#### Physostemon (2 species)

*Physostemon guianense* (Aubl.) Malme [Synonyms: *Cleome guianensis* Aubl.] **Habits:** herb(4). **Life forms:** therophyte(4). **States:** BA(1); PE(6); PI(1). **Habitats:** Aqua, Cryst, Sed, Trans.

*Physostemon lanceolatum* Mart. & Zucc. [Synonyms: *Cleome lanceolata* (Mart. & Zucc.) Iltis] **Life forms:** therophyte therophyte. **States:** PE(4). **Habitats:** Cryst, Ins.

#### Tarenaya (1 species)

*Tarenaya spinosa* (Jacq.) Raf. [Synonyms: *Cleome spinosa* Jacq.] **Habits:** shrub(2). **States:** BA(3); PB(2); PE(1); PI(1). **Habitats:** Aqua, Riv, Trans, Unc.

#### CARICACEAE (1 genus; 1 species)

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#### Jacaratia (1 species)

*Jacaratia corumbensis* Kuntze **Habits:** shrub(1). **States:** CE(1). **Habitats:** Trans.

#### CARYOPHYLLACEAE (1 genus; 1 species)

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#### Spergularia (1 species)

*Spergularia marina* (L.) Griseb. **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Riv.

#### CELASTRACEAE (4 genera; 10 species)



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**Fraunhofer** (1 species)

*Fraunhofer multiflora* Mart. **States:** BA(1); MG(3); PE(1). **Habitats:** Arb, Cryst, Diam.

**Hippocratea** (1 species)

*Hippocratea volubilis* L. [Synonyms: *Hippocratea ovata* Lam.] **Life forms:** phanerophyte(1). **States:** PB(1); PE(2). **Habitats:** Agre, Ins.

**Maytenus** (7 species)

*Maytenus acanthophylla* Reissek **States:** BA(1). **Habitats:** Ins.

*Maytenus boaria* Molina [Synonyms: *Celastrus maytenus* Willd.] **States:** PI(1). **Habitats:** CMAior.

*Maytenus catingarum* Reissek **States:** PI(1). **Habitats:** Sed.

*Maytenus horrida* Reissek **States:** MG(1). **Habitats:** Arb.

*Maytenus imbricata* Reissek **Habits:** shrub(2). **Life forms:** microphanerophyte(1). **States:** BA(1); PE(4). **Habitats:** Sed.

*Maytenus obtusifolia* Mart. [Synonyms: *Maytenus impressa* Reissek] **Habits:** tree(1). **States:** CE(1). **Habitats:** Trans.

*Maytenus rigida* Mart. **Habits:** shrub(2); tree(7). **Life forms:** phanerophyte(1). **States:** BA(6); PB(12); PE(6). **Habitats:** Agre, Cryst, Diam, Ins, Riv, Sed, Unc.

**Pristimera** (1 species)

*Pristimera sclerophylla* Lombardi **Habits:** liana(1). **States:** CE(1). **Habitats:** Trans.

**CHRYSOBALANACEAE** (2 genera; 4 species)

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**Hirtella** (2 species)

*Hirtella ciliata* Mart. & Zucc. **Habits:** shrub(1). **Life forms:** microphanerophyte(1). **States:** PE(3). **Habitats:** Sed.

*Hirtella racemosa* Lam. **Habits:** shrub(1). **States:** PB(1); PE(3). **Habitats:** Agre, Ins, Sed.

**Licania** (2 species)

*Licania rigida* Benth. **Habits:** tree(2). **States:** CE(1); PE(1); RN(2). **Habitats:** Riv, Trans, Unc.

*Licania sclerophylla* (Hook.f.) Fritsch **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Cryst.

**CLUSIACEAE** (1 genus; 4 species)

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**Clusia** (4 species)

*Clusia hilariana* Schldtl. **States:** PB(1). **Habitats:** Agre.

*Clusia melchiorii* Gleason [Synonyms: *Clusia intermedia* G.Mariz] **States:** PE(1). **Habitats:** Ins.

*Clusia nemorosa* G.Mey. **Habits:** shrub(1). **Life forms:** microphanerophyte(1); phanerophyte(1). **States:** PB(1); PE(3). **Habitats:** Ins, Sed.

*Clusia paralicola* G.Mariz **Habits:** tree(1). **States:** PE(2). **Habitats:** Agre.

**COMBRETACEAE** (3 genera; 13 species)

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**Buchenavia** (2 species)

*Buchenavia callistachya* Ducke **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Buchenavia tetraphylla* (Aubl.) R.A.Howard [Synonyms: *Buchenavia capitata* (Vahl) Eichler] **Habits:** tree(4). **Life forms:** microphanerophyte(1). **States:** CE(3); PE(4); PI(4). **Habitats:** CMAior, Sed.

## Combretum (9 species)

*Combretum duarceanum* Cambess. **Life forms:** phanerophyte. **States:** MG(5); PE(1); PI(4). **Habitats:** Arb, CMaior.

*Combretum glaucocarpum* Mart. [Synonyms: *Thiloa glaucocarpa* (Mart.) Eichler] **Habits:** shrub(1); tree(5). **Life forms:** phanerophyte(2). **States:** BA(1); CE(7); PB(2); PE(3); PI(2). **Habitats:** Agre, Cryst, Diam, Sed, Trans.

*Combretum hilarianum* D.Dietr. **Habits:** climber(4). **States:** PB(3); PE(4). **Habitats:** Cryst, Sed, Trans.

*Combretum lanceolatum* Pohl ex Eichler **Habits:** liana(1); shrub(2). **Life forms:** phanerophyte(1). **States:** CE(2); PI(3). **Habitats:** CMaior, Sed, Trans.

*Combretum laxum* Jacq. **Habits:** shrub(2). **States:** PB(2). **Habitats:** Riv.

*Combretum leprosum* Mart. **Habits:** shrub(11). **Life forms:** phanerophyte(5). **States:** CE(11); MG(6); PB(15); PE(1); PI(7); RN(24). **Habitats:** Arb, CMaior, Cryst, Ins, Riv, Sed, Unc.

*Combretum mellifluum* Eichler **Habits:** shrub(2). **Life forms:** phanerophyte(2). **States:** CE(1); PI(5). **Habitats:** CMaior, Sed.

*Combretum monetaria* Mart. **States:** PE(2). **Habitats:** Cryst.

*Combretum pisonioides* Taub. **Habits:** tree(5). **States:** BA(1); PB(9); PE(1). **Habitats:** Agre, Diam, Riv, Trans.

## Terminalia (2 species)

*Terminalia actinophylla* Mart. **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** PI(4). **Habitats:** CMaior, Sed.

*Terminalia fagifolia* Mart. [Synonyms: *Terminalia fagifolia* var. *parvifolia* Eichler] **States:** BA(1); MG(2); PI(1). **Habitats:** Arb, CMaior, Diam.

## COMMELINACEAE (6 genera; 12 species)

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### Aneilema (1 species)

*Aneilema brasiliense* C.B.Clarke **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.

### Callisia (2 species)

*Callisia filiformis* (M.Martens & Galeotti) D.R.Hunt **Habits:** herb(2). **Life forms:** therophyte(5). **States:** BA(3); CE(3); PB(1); PE(2). **Habitats:** Aqua, Cryst, Ins, Cryst.

*Callisia repens* L. **Habits:** herb(2). **Life forms:** therophyte(4). **States:** PB(1); PE(4). **Habitats:** Ins, Trans.

### Commelina (5 species)

*Commelina benghalensis* L. **Life forms:** therophyte(1). **States:** PB(1). **Habitats:** Ins.

*Commelina diffusa* Burm.f. **Life forms:** therophyte(1). **States:** PB(1). **Habitats:** Ins.

*Commelina erecta* L. **Habits:** herb(1). **States:** BA(5); PB(1); PE(2). **Habitats:** Ins, Aqua, Cryst, Ins, Sed.

*Commelina obliqua* Vahl **Habits:** herb(7). **Life forms:** hemicryptophyte(1); therophyte(5). **States:** PB(1); PE(13). **Habitats:** Agre, Cryst, Ins, Trans.

*Commelina virginica* L., *Commelina virginica* is endemic to North America and does not occur in Brazil. The name has been misapplied to Caatinga specimens which probably represent *Commelina erecta* L., a common species in Brazil, although there are also other species with which it might be confused (M. Pelligrini, pers. comm.) **Life forms:** hemicryptophyte(1). **States:** CE(1). **Habitats:** Cryst.

### Dichorisandra (2 species)

*Dichorisandra hexandra* (Aubl.) Kuntze ex Hand.-Mazz. **Habits:** herb(3). **Life forms:** chamaephyte(1); therophyte(1). **States:** CE(2); PB(2); PE(2). **Habitats:** Agre, Ins, Sed.

*Dichorisandra penduliflora* Kunth **States:** BA(2). **Habitats:** Ins.

### Murdannia (1 species)

*Murdannia nudiflora* (L.) Brenan [Synonyms: *Commelina nudiflora* L.] **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1); PB(1). **Habitats:** Cryst.

### Tradescantia (1 species)

*Tradescantia ambigua* Mart. **Habits:** herb(1). **Life forms:** hemicryptophyte(1). **States:** PB(2). **Habitats:** Ins.

## CONNARACEAE (1 genus; 1 species)

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**Rourea** (1 species)

*Rourea martiana* Baker **States:** BA(2). **Habitats:** Ins.

**CONVOLVULACEAE** (7 genera; 66 species)

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**Aniseia** (1 species)

*Aniseia martinicensis* var. *ambigua* Hallier f. [Synonyms: *Aniseia nitens* Choisy ex Meisn.] **States:** BA(1). **Habitats:** Sed.

**Evolvulus** (16 species)

*Evolvulus anagalloides* Meisn. **Habits:** subshrub(1). **States:** BA(1). **Habitats:** Sed.

*Evolvulus barbatus* Meisn. **Habits:** climber(1). **States:** PE(1). **Habitats:** Trans.

*Evolvulus cressoides* Mart. **States:** PB(1). **Habitats:** Cryst.

*Evolvulus elaeagnifolius* Dammer **Habits:** liana(2). **Life forms:** chamaephyte(2). **States:** CE(2). **Habitats:** Sed.

*Evolvulus elegans* Moric. **Habits:** herb(1). **States:** BA(1); PE(1). **Habitats:** Sed.

*Evolvulus ericaefolius* Mart. ex Schrank **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.

*Evolvulus filipes* Mart. [Synonyms: *Evolvulus exilis* Meisn.] **Habits:** climber(1); herb(2). **Life forms:** therophyte(3). **States:** BA(1); CE(3); PB(1); PE(3); RN(1). **Habitats:** Agre, Aqua, Cryst, Ins, Sed, Trans.

*Evolvulus frankenioides* Moric. **Habits:** herb(2); subshrub(2). **Life forms:** chamaephyte(2). **States:** PE(4). **Habitats:** Sed, Trans.

*Evolvulus glomeratus* Nees & Mart. **States:** BA(2). **Habitats:** Ins, Sed.

*Evolvulus gypsophiloides* Moric. [Synonyms: *Evolvulus gypsophiloides* var. *brevifolius* Meisn.] **States:** PB(1). **Habitats:** Cryst.

*Evolvulus latifolius* Ker Gawl. **Habits:** herb(1). **Life forms:** hemicryptophyte(1). **States:** CE(1); PB(1). **Habitats:** Agre, Sed.

*Evolvulus macroblepharis* Mart. **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Evolvulus ovatus* Fernald **Habits:** herb(2). **Life forms:** therophyte(3). **States:** CE(3); RN(2). **Habitats:** Cryst, Sed, Unc.

*Evolvulus phyllanthoides* Moric. **Habits:** herb(1). **States:** CE(1). **Habitats:** Sed.

*Evolvulus pterocaulon* Moric. **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** BA(1); CE(1). **Habitats:** Sed.

*Evolvulus sericeus* Sw. **Habits:** climber(1). **States:** BA(1); PE(1). **Habitats:** Sed.

**Ipomoea** (28 species)

*Ipomoea alba* L. **States:** PE(1). **Habitats:** Ins.

*Ipomoea aristolochiifolia* G.Don **Habits:** climber(1). **Life forms:** cryptophyte-geo(1). **States:** PE(2). **Habitats:** Agre, Trans.

*Ipomoea asarifolia* (Desr.) Roem. & Schult. **Habits:** climber(1); herb(2); subshrub(1). **Life forms:** chamaephyte(1). **States:** BA(3); CE(1); PB(1); PE(2); PI(1). **Habitats:** Agre, Aqua, Riv, Sed.

*Ipomoea bahiensis* Willd. ex Roem. & Schult. **Habits:** liana(2). **Life forms:** chamaephyte(2). **States:** CE(3); PE(1); RN(2). **Habitats:** Cryst, Ins, Sed, Trans, Unc.

*Ipomoea batatoides* Choisy **States:** BA(2). **Habitats:** Aqua.

*Ipomoea brasiliana* (Choisy) Meisn. **Habits:** climber(7); liana(3). **Life forms:** cryptophyte-geo(2); liana(1); phanerophyte(1). **States:** CE(5); PB(1); PE(6); PI(3). **Habitats:** Agre, Ins, Sed, Trans.

*Ipomoea carnea* Jacq. **Habits:** shrub(1). **States:** BA(3); PE(1). **Habitats:** Aqua, Riv.

*Ipomoea hederifolia* L. **Habits:** liana(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Cryst.

*Ipomoea indica* (Burm.f.) Merr. [Synonyms: *Ipomoea acuminata* (Vahl) Roem. & Schult.] **States:** PE(1). **Habitats:** Ins.

*Ipomoea marcellia* Meisn. **Habits:** climber(2). **States:** PB(1); PE(1). **Habitats:** Ins, Trans.

*Ipomoea megapotamica* Choisy **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Ipomoea nil* (L.) Roth **Habits:** climber(3); liana(2). **Life forms:** therophyte(2). **States:** BA(1); CE(2); PB(1); PE(3). **Habitats:** Cryst, Ins, Sed, Trans.

*Ipomoea pes-caprae* (L.) R.Br. **Habits:** climber(1). **States:** PB(1). **Habitats:** Ins.

*Ipomoea phyllomega* (Vell.) House **Habits:** climber(1). **States:** PB(1). **Habitats:** Ins.

*Ipomoea polyrhizos* (Silva Manso) Choisy **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst. **Observations:** According to specialist R.S.Bianchini, this name is based only on a drawing and is of doubtful validity.

*Ipomoea procurrens* Meisn. **Habits:** climber(1). **States:** PB(1). **Habitats:** Ins.

*Ipomoea purpurea* (L.) Roth **States:** PE(1). **Habitats:** Ins.

*Ipomoea rosea* Choisy **Habits:** climber(3); liana(2). **Life forms:** chamaephyte(5). **States:** CE(4); PE(4). **Habitats:** Cryst, Ins, Sed, Trans.

*Ipomoea sericophylla* Meisn. **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Cryst.

*Ipomoea setifera* Poir. **Habits:** vine(1). **States:** BA(1). **Habitats:** Sed.

*Ipomoea setosa* Ker Gawl. **States:** BA(1). **Habitats:** Aqua.

*Ipomoea subincana* (Choisy) Meisn. **Habits:** climber(2); liana(2). **Life forms:** chamaephyte(1); cryptophyte-geo(1). **States:** CE(2); PE(4). **Habitats:** Ins, Sed, Trans.

*Ipomoea subrevoluta* Choisy **States:** BA(2). **Habitats:** Aqua.

*Ipomoea trifida* (Kunth) G.Don **Habits:** climber(1). **States:** PE(1). **Habitats:** Agre.

**Observations:** According to specialist R.S.Bianchini this species is not recorded for Brazil (though it may have been introduced as an ornamental). This record is most likely the result of a misidentification.

*Ipomoea triloba* L. **Habits:** climber(1). **States:** PE(1). **Habitats:** Trans.

*Ipomoea verbasciformis* (Meisn.) O'Donell **Habits:** liana(1). **States:** CE(1). **Habitats:** Trans.

*Ipomoea verbascoidea* Choisy **Habits:** climber(1). **States:** PE(1). **Habitats:** Sed.

**Observations:** According to specialist R.S.Bianchini this species is an African species not recorded for Brazil. This record is most likely the result of a misidentification.

*Ipomoea wrightii* A.Gray **States:** BA(1). **Habitats:** Aqua.

#### Jacquemontia (13 species)

*Jacquemontia bahiensis* O'Donell **Habits:** climber(1). **States:** BA(2); PE(1). **Habitats:** Sed.

*Jacquemontia cearensis* Huber **Habits:** climber(1). **States:** PE(1). **Habitats:** Sed.

*Jacquemontia densiflora* (Meisn.) Hallier f. **Habits:** liana(1). **States:** PB(1); PE(2); PI(1). **Habitats:** Aqua, Cryst, Ins, Trans.

*Jacquemontia evolvuloides* (Moric.) Meisn. **Habits:** climber(2). **States:** PB(1); PE(2); RN(3). **Habitats:** Cryst, Ins, Sed, Unc.

*Jacquemontia ferruginea* Choisy **States:** BA(1). **Habitats:** Ins.

*Jacquemontia glaucescens* Choisy **Habits:** climber(1). **States:** PE(1). **Habitats:** Trans.

*Jacquemontia gracillima* (Choisy) Hallier f. [Synonyms: *Aniseia gracillima* Choisy] **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1); RN(1). **Habitats:** Cryst.

*Jacquemontia heterantha* (Nees & Mart.) Hallier f. [Synonyms: *Aniseia heterantha* Choisy] **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.

*Jacquemontia multiflora* (Choisy) Hallier f. **Habits:** climber(1). **States:** PB(1). **Habitats:** Ins.

*Jacquemontia nodiflora* (Desv.) G.Don [Synonyms: *Jacquemontia confusa* Meisn.] **Habits:** climber(3); liana(1). **Life forms:** chamaephyte(1). **States:** BA(1); CE(1); PE(3). **Habitats:** Sed, Trans.

*Jacquemontia pentantha* (Jacq.) G.Don **Habits:** liana(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Jacquemontia sphaerostigma* (Cav.) Rusby [Synonyms: *Jacquemontia hirsuta* Choisy] **States:** PE(1). **Habitats:** Agre.

*Jacquemontia velutina* Choisy **Habits:** liana(1). **Life forms:** hemicyptophyte(1). **States:** CE(2). **Habitats:** Cryst, Trans.

#### Merremia (5 species)

*Merremia aegyptia* (L.) Urb. **Habits:** climber(4); liana(1). **Life forms:** therophyte(3). **States:** CE(1); PB(1); PE(5); RN(2). **Habitats:** Agre, Cryst, Ins, Trans, Unc.

*Merremia cissoides* (Lam.) Hallier f. **States:** PE(1). **Habitats:** Ins.

*Merremia dissecta* (Jacq.) Hallier f. **States:** PE(1). **Habitats:** Ins.

*Merremia macrocalyx* (Ruiz & Pav.) O'Donell **Habits:** climber(1). **Life forms:** cryptophyte-geo(2). **States:** PB(1); PE(3). **Habitats:** Ins, Unc.

*Merremia umbellata* (L.) Hallier f. **States:** BA(1). **Habitats:** Aqua.

#### Operculina (2 species)

*Operculina alata* (Ham.) Urb. **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Cryst.

*Operculina macrocarpa* (L.) Urb. **States:** PE(1). **Habitats:** Ins.

#### Turbina (1 species)

*Turbina cordata* (Choisy) D.F.Austin & Staples [Synonyms: *Ipomoea martii* Meisn.] **Habits:** climber(1). **States:** BA(1); CE(2); PI(1). **Habitats:** Sed.

#### COSTACEAE (1 genus; 1 species)

*Costus* (1 species)

*Costus spiralis* (Jacq.) Roscoe **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

CUCURBITACEAE (4 genera; 4 species)

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**Apodanthera** (1 species)

*Apodanthera glaziovii* Cogn. **States:** PE(1). **Habitats:** Agre.

**Cayaponia** (1 species)

*Cayaponia racemosa* (Mill.) Cogn. **Life forms:** chamaephyte(1). **States:** CE(3). **Habitats:** Cryst, Sed, Ins.

**Ceratosanthes** (1 species)

*Ceratosanthes trifoliata* Cogn. **Habits:** climber(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Trans.

**Cyclanthera** (1 species)

*Cyclanthera elegans* Cogn. **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

CYPERACEAE (12 genera; 52 species)

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**Bulbostylis** (3 species)

*Bulbostylis capillaris* (L.) C.B. Clarke **Habits:** herb(2). **Life forms:** therophyte(2). **States:** BA(1); PE(2). **Habitats:** Ins, Trans.

*Bulbostylis hirtella* (Schrad.) Urb. **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Ins.

*Bulbostylis scabra* (J.Presl & C.Presl) C.B. Clarke **Life forms:** therophyte(2). **States:** PE(4). **Habitats:** Ins.

**Cyperus** (20 species)

*Cyperus aggregatus* (Willd.) Endl. [Synonyms: *Cyperus cayennensis* Willd. ex Link; *Cyperus retrorsus* Chapm.] **Habits:** herb(1). **Life forms:** hemicryptophyte(1). **States:** BA(2); CE(2); PE(1). **Habitats:** Aqua, Ins, Sed.

*Cyperus alternifolius* L. [Synonyms: *Cyperus alternifolius* subsp. *flabelliformis* Kük.] **States:** PE(1). **Habitats:** Ins.

*Cyperus berroi* (C.B. Clarke) Barros **States:** PE(1). **Habitats:** Ins.

*Cyperus compressus* L. **States:** PE(1). **Habitats:** Aqua.

*Cyperus cuspidatus* Kunth **Habits:** herb(2). **Life forms:** cryptophyte-geo(2); therophyte(2). **States:** PE(6). **Habitats:** Cryst, Ins.

*Cyperus distans* L. **States:** PE(1). **Habitats:** Aqua.

*Cyperus eragrostis* Lam. **States:** PE(1). **Habitats:** Ins.

*Cyperus esculentus* L. **States:** BA(2). **Habitats:** Aqua.

*Cyperus haspan* L. **States:** BA(3). **Habitats:** Aqua.

*Cyperus hermaphroditus* (Jacq.) Standl. **States:** BA(1). **Habitats:** Aqua.

*Cyperus iria* L. **States:** BA(1). **Habitats:** Aqua.

*Cyperus laxis* Lam. [Synonyms: *Cyperus diffusus* Vahl] **Habits:** herb(3). **Life forms:** hemicryptophyte(1); therophyte(1).

**States:** BA(1); CE(2); PE(2). **Habitats:** Ins, Sed, Trans.

*Cyperus luzulae* (L.) Retz. **Life forms:** therophyte(1). **States:** PB(1). **Habitats:** Ins.

*Cyperus odoratus* L. [Synonyms: *Cyperus ferax* Rich.] **Life forms:** therophyte(1). **States:** BA(8); PB(1); PE(2). **Habitats:** Aqua, Ins.

*Cyperus reflexus* Vahl **Habits:** herb(1). **States:** BA(1). **Habitats:** Sed.

*Cyperus rotundus* L. **States:** PE(1). **Habitats:** Ins.

*Cyperus schomburgkianus* Nees **Life forms:** therophyte(2). **States:** CE(1); PB(1); PE(1). **Habitats:** Ins.

*Cyperus surinamensis* Rottb. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** BA(5); CE(1); PE(1). **Habitats:** Aqua, Cryst, Ins.

*Cyperus uncinulatus* Schrad. ex Nees **Habits:** herb(4). **Life forms:** therophyte(6). **States:** BA(1); CE(3); PB(1); PE(9).

**Habitats:** Agre, Cryst, Ins, Trans, Unc.

*Cyperus virens* Michx. **States:** BA(2). **Habitats:** Aqua.

**Eleocharis** (4 species)

*Eleocharis flavescens* (Poir.) Urb. **States:** PE(1). **Habitats:** Ins.

*Eleocharis interstincta* (Vahl) Roem. & Schult. **States:** BA(1); PE(1). **Habitats:** Aqua, Ins.

*Eleocharis minima* Kunth **States:** BA(2). **Habitats:** Aqua.

*Eleocharis montana* (Kunth) Roem. & Schult. [Synonyms: *Eleocharis nodulosa* (Roth) Schult.] **States:** BA(3). **Habitats:** Aqua.

**Fimbristylis** (2 species)

*Fimbristylis dichotoma* (L.) Vahl [Synonyms: *Fimbristylis diphylla* (Retz.) Vahl] **States:** BA(2); PE(1). **Habitats:** Aqua, Ins.

*Fimbristylis dipsacea* (Rottb.) C.B.Clarke **Life forms:** therophyte(1). **States:** PB(1). **Habitats:** Ins.

**Fuirena** (1 species)

*Fuirena umbellata* Rottb. **States:** PE(1). **Habitats:** Ins.

**Kyllinga** (3 species)

*Kyllinga brevifolia* Rottb. **States:** PE(1). **Habitats:** Ins.

*Kyllinga odorata* Vahl **States:** PE(1). **Habitats:** Ins.

*Kyllinga squamulata* Thonn. ex Vahl **States:** PE(1). **Habitats:** Ins.

**Lipocarpha** (2 species)

*Lipocarpha micrantha* (Vahl) G.C.Tucker **Life forms:** therophyte(1). **States:** PE(3). **Habitats:** Ins.

*Lipocarpha salzmanniana* Steud. **States:** PE(1). **Habitats:** Ins.

**Oxycaryum** (1 species)

*Oxycaryum cubense* (Poepp. & Kunth) Lye **States:** BA(8). **Habitats:** Aqua.

**Pycreus** (7 species)

*Pycreus capillifolius* (A.Rich.) C.B.Clarke **States:** PE(2). **Habitats:** Ins.

*Pycreus flavescens* (L.) Rchb. **States:** PE(1). **Habitats:** Ins.

*Pycreus lanceolatus* (Poir.) C.B.Clarke [Synonyms: *Cyperus lanceolatus* Poir.; *Pycreus propinquus* Nees] **States:** BA(1). **Habitats:** Aqua.

*Pycreus macrostachyos* (Lam.) J.Raynal **States:** BA(1). **Habitats:** Aqua.

*Pycreus pelophilus* (Ridl.) C.B.Clarke **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Trans.

*Pycreus piceus* Liebm. **States:** PE(1). **Habitats:** Ins.

*Pycreus polystachyos* (Rottb.) P.Beauv. [Synonyms: *Cyperus polystachyos* Rottb.] **States:** BA(1); PE(1). **Habitats:** Aqua, Ins.

**Rhynchospora** (5 species)

*Rhynchospora barbata* (Vahl) Kunth **Life forms:** therophyte(1). **States:** PB(1). **Habitats:** Ins.

*Rhynchospora cephalotes* (L.) Vahl **States:** PE(1). **Habitats:** Ins.

*Rhynchospora contracta* (Nees) J.Raynal **Life forms:** therophyte(1). **States:** BA(3); PB(1); PE(2). **Habitats:** Aqua, Ins.

*Rhynchospora holoschoenoides* (Rich.) Herter **States:** PE(1). **Habitats:** Ins.

*Rhynchospora riparia* (Nees) Boeckeler **States:** PE(1). **Habitats:** Ins.

**Scleria** (3 species)

*Scleria interrupta* Rich. **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

*Scleria reticularis* Michx. ex Willd. **States:** PE(1). **Habitats:** Ins.

*Scleria secans* (L.) Urb. **States:** PE(1). **Habitats:** Ins.

**Trilepis** (1 species)

*Trilepis lhotzkiana* Nees ex Arn. **States:** BA(2). **Habitats:** Ins.

**DILLENACEAE** (2 genera; 2 species)

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**Curatella** (1 species)

*Curatella americana* L. **Habits:** treelet(1). **States:** PI(4). **Habitats:** CMajor.

**Davilla** (1 species)

*Davilla cearensis* Huber **Habits:** liana(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

**DIOSCOREACEAE** (1 genus; 10 species)

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**Dioscorea** (10 species)

- Dioscorea adenantha* Uline **Life forms:** cryptophyte(1). **States:** PB(1). **Habitats:** Ins.  
*Dioscorea coronata* Hauman **Life forms:** cryptophyte-geo(1). **States:** PE(3). **Habitats:** Agre, Ins.  
*Dioscorea dodecaneura* Vell. **Life forms:** cryptophyte-geo(1). **States:** PE(1). **Habitats:** Ins.  
*Dioscorea glandulosa* (Griseb.) Kunth **Life forms:** chamaephyte(1). **States:** PI(1). **Habitats:** Sed.  
*Dioscorea hassleriana* Chodat **States:** BA(1). **Habitats:** Ins.  
*Dioscorea leptostachya* Gardner **Habits:** herb(1). **States:** PI(1). **Habitats:** Sed.  
*Dioscorea ovata* Vell. [Synonyms: *Dioscorea adenocarpa* Mart. ex Griseb.] **Habits:** climber(3); liana(1). **Life forms:** cryptophyte-geo(1); therophyte(2). **States:** CE(1); PE(4). **Habitats:** Ins, Sed, Trans.  
*Dioscorea piperifolia* Humb. & Bonpl. ex Willd. **States:** PE(1). **Habitats:** Ins.  
*Dioscorea polygonoides* Humb. & Bonpl. ex Willd. **Habits:** climber(2). **States:** PE(3). **Habitats:** Agre, Sed.  
*Dioscorea sincorensis* R.Knuth **States:** BA(1). **Habitats:** Ins.

**DROSERACEAE** (1 genus; 1 species)

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**Drosera** (1 species)

- Drosera montana* A.St.-Hil. **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

**ERIOCAULACEAE** (1 genus; 4 species)

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**Paepalanthus** (4 species)

- Paepalanthus bifidus* (Schrad.) Kunth **States:** PE(1). **Habitats:** Ins.  
*Paepalanthus lamarckii* Kunth **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.  
*Paepalanthus myocephalus* (Mart.) Körn. **Life forms:** therophyte(3). **States:** PB(1); PE(2). **Habitats:** Ins.  
*Paepalanthus parvus* Ruhland **States:** PE(1). **Habitats:** Ins.

**ERYTHROXYLACEAE** (1 genus; 24 species)

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**Erythroxylum** (24 species)

- Erythroxylum amplifolium* (Mart.) O.E.Schulz **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.  
*Erythroxylum barbatum* O.E.Schulz **Habits:** shrub(3). **Life forms:** phanerophyte(2). **States:** CE(7). **Habitats:** Sed.  
*Erythroxylum betulaceum* Mart. **Habits:** shrub(3). **States:** CE(1); MG(2); PI(3). **Habitats:** Arb, Sed, Trans.  
*Erythroxylum bezerrae* Plowman **Habits:** shrub(2). **Life forms:** phanerophyte(2). **States:** CE(3). **Habitats:** Sed.  
*Erythroxylum caatingae* Plowman **Habits:** shrub(5). **Life forms:** microphanerophyte(1). **States:** BA(2); CE(1); PE(4); PI(2). **Habitats:** Ins, Sed, Trans.  
*Erythroxylum citrifolium* A.St.-Hil. **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.  
*Erythroxylum deciduum* A.St.-Hil. **States:** MG(3). **Habitats:** Arb.  
*Erythroxylum flaccidum* Salzm. ex Peyr. **States:** PE(1). **Habitats:** Ins.  
*Erythroxylum laetevirens* O.E.Schulz **Habits:** shrub(3). **Life forms:** phanerophyte(3). **States:** CE(7); PI(2). **Habitats:** Sed.  
*Erythroxylum ligustrinum* DC. **Habits:** tree(2). **States:** BA(2). **Habitats:** Diam.  
*Erythroxylum loefgrenii* Diogo **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.  
*Erythroxylum maracasense* Plowman **Habits:** shrub(2). **States:** PI(2). **Habitats:** Trans.  
*Erythroxylum nummularia* Peyr. **Habits:** shrub(1). **Life forms:** microphanerophyte(1); phanerophyte(1). **States:** CE(1); PE(1). **Habitats:** Sed.  
*Erythroxylum ochranthum* Mart. **States:** PE(1). **Habitats:** Ins.  
*Erythroxylum paufferense* Plowman **States:** PB(2). **Habitats:** Agre, Unc.  
*Erythroxylum pulchrum* A.St.-Hil. **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Erythroxylum pungens* O.E.Schulz **Habits:** shrub(2); tree(1). **Life forms:** phanerophyte(1). **States:** PE(7); PI(1); RN(2). **Habitats:** Cryst, Riv, Sed, Trans.

*Erythroxylum revolutum* Mart. **Habits:** shrub(3); subshrub(1); tree(3). **Life forms:** microphanerophyte(1); phanerophyte(2). **States:** BA(1); PB(4); PE(8). **Habitats:** Cryst, Ins, Riv, Sed.

*Erythroxylum simonis* Plowman **States:** PB(3). **Habitats:** Agre, Riv.

*Erythroxylum stipulosum* Plowman **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed.

*Erythroxylum suberosum* A.St.-Hil. **Life forms:** phanerophyte(1). **States:** PE(3). **Habitats:** Ins, Sed.

*Erythroxylum subracemosum* Turcz. **Life forms:** phanerophyte(1). **States:** PB(1); PI(1). **Habitats:** Agre, Sed.

*Erythroxylum subtundum* A.St.-Hil. **Habits:** shrub(1). **States:** PE(2). **Habitats:** Agre.

*Erythroxylum vacciniifolium* Mart. **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(2); PE(1); PI(1). **Habitats:** Ins, Sed.

## EUPHORBIACEAE (19 genera; 103 species)

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### Acalypha (4 species)

*Acalypha brasiliensis* Müll.Arg. **Life forms:** phanerophyte(2). **States:** BA(3); PE(2). **Habitats:** Ins.

*Acalypha multicaulis* Müll.Arg. **Habits:** herb(1); shrub(3); subshrub(2). **Life forms:** chamaephyte(1). **States:** CE(1); PB(1); PE(10). **Habitats:** Agre, Cryst, Ins, Riv, Sed.

*Acalypha poiretii* Spreng. **Habits:** herb(2). **Life forms:** therophyte(2). **States:** PE(2). **Habitats:** Trans.

*Acalypha villosa* Jacq. [Synonyms: *Acalypha subvillosa* Müll.Arg.] **Habits:** herb(1). **States:** CE(1). **Habitats:** Sed.

### Astraea (2 species)

*Astraea comosa* (Müll.Arg.) B.W.van Ee [Synonyms: *Croton comosus* Müll.Arg.] **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** PB(1); PE(1). **Habitats:** Agre, Ins.

*Astraea lobata* (L.) Klotzsch [Synonyms: *Croton lobatus* L.] **Habits:** herb(5); shrub(1); subshrub(1). **Life forms:** therophyte(5). **States:** BA(1); PB(1); PE(12). **Habitats:** Cryst, Ins, Riv, Sed, Trans, Unc.

### Bernardia (1 species)

*Bernardia sidoides* (Klotzsch) Müll.Arg. **Habits:** herb(5). **Life forms:** therophyte(5). **States:** CE(1); PE(10). **Habitats:** Agre, Cryst, Ins, Trans, Unc.

### Bia (1 species)

*Bia lessertiana* Baill. [Synonyms: *Tragia lessertiana* (Baill.) Müll.Arg.] **Habits:** liana(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

### Caperonia (1 species)

*Caperonia palustris* (L.) A.St.-Hil. **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.

### Cnidoscolus (7 species)

*Cnidoscolus bahianus* (Ule) Pax & K.Hoffm. **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(1). **States:** BA(3); PE(9). **Habitats:** Cryst, Diam, Ins, Sed, Trans.

*Cnidoscolus loefgrenii* (Pax & K.Hoffm.) Pax & K.Hoffm. **Habits:** herb(1). **Life forms:** hemicytrophite(1). **States:** PB(1); PE(4). **Habitats:** Cryst, Ins, Cryst, Riv.

*Cnidoscolus oligandrus* (Müll.Arg.) Pax **States:** MG(4); PE(1). **Habitats:** Sed, Arb.

*Cnidoscolus pubescens* Pohl [Synonyms: *Cnidoscolus obtusifolius* Pohl ex Baill.] **Habits:** shrub(1); subshrub(1); tree(1). **States:** MG(5); PE(4). **Habitats:** Agre, Arb, Sed.

*Cnidoscolus quercifolius* Pohl [Synonyms: *Cnidoscolus phyllacanthus* (Müll. Arg.) Fern.Casas] **Habits:** tree(10). **Life forms:** phanerophyte(1). **States:** BA(1); PB(7); PE(15); PI(1); RN(14). **Habitats:** Cryst, Riv, Sed, Trans, Unc.

*Cnidoscolus urens* (L.) Arthur **Habits:** shrub(7); subshrub(2). **Life forms:** phanerophyte(4). **States:** BA(4); CE(2); PB(4); PE(12); PI(2); RN(2). **Habitats:** Agre, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

*Cnidoscolus vitifolius* (Mill.) Pohl [Synonyms: *Jatropha vitifolia* Mill.] **Habits:** shrub(9). **Life forms:** phanerophyte(2). **States:** BA(1); CE(8); PE(3); PI(2). **Habitats:** Sed, Trans.

### Croton (37 species)

*Croton adamantinus* Müll.Arg. **Habits:** shrub(2). **States:** PE(3); PI(1). **Habitats:** Ins, Sed, Trans.



*Croton adenocalyx* Baill. **Habits:** shrub(2). **Life forms:** phanerophyte(2). **States:** CE(2); PB(1). **Habitats:** Cryst, Riv.

*Croton adenodontus* (Müll.Arg) Müll.Arg **Habits:** shrub(3). **States:** PE(1); PI(2). **Habitats:** Sed, Trans.

*Croton alagoensis* Müll. Arg., According specialist D.S. Carneiro-Torres this is almost certainly the same species as *Croton blanchetianus* Baill. **Life forms:** phanerophyte(1). **States:** PB(1). **Habitats:** Ins.

*Croton argyrophyloides* Müll.Arg. **Habits:** shrub(5); tree(1). **Life forms:** phanerophyte(2). **States:** BA(1); CE(6); PB(1); PE(1); PI(2); RN(1). **Habitats:** Cryst, Diam, Sed, Trans, Unc.

*Croton argyrophyllus* Kunth [Synonyms: *Croton micans* Müll. Arg.] **Habits:** shrub(4). **States:** PE(7). **Habitats:** Agre, Ins, Sed.

*Croton betaceus* Baill. **Habits:** shrub(3). **Life forms:** phanerophyte(1). **States:** CE(4); PE(1). **Habitats:** Sed.

*Croton blanchetianus* Baill. **Habits:** shrub(11). **Life forms:** phanerophyte(4). **States:** CE(7); PB(5); PE(7); RN(1). **Habitats:** Agre, Cryst, Riv, Sed, Trans, Unc.

*Croton campestris* A.St.-Hil., *Croton campestris* is a species known to occur in the Brazilian semi-arid though the name has often been misapplied to herbarium specimens of *Croton heliotropiifolius* Kunth (D.S. Carneiro-Torres, pers. comm.) **Habits:** shrub(4). **Life forms:** phanerophyte(1). **States:** BA(1); PB(4); PE(2); PI(5); RN(5). **Habitats:** Agre, CMAior, Cryst, Ins, Riv, Trans, Unc.

*Croton celtidifolius* Baill. **Life forms:** phanerophyte(1). **States:** PI(1). **Habitats:** Sed.

*Croton compressus* Lam. **States:** PB(1). **Habitats:** Agre.

*Croton cordiifolius* Baill. **Habits:** shrub(2). **Life forms:** phanerophyte(2). **States:** CE(2). **Habitats:** Sed.

*Croton echioides* Baill. **Habits:** shrub(3). **Life forms:** phanerophyte(1). **States:** BA(2); CE(1); PB(4). **Habitats:** Cryst, Ins, Riv, Sed.

*Croton gardnerianus* Baill. **Habits:** shrub(1). **States:** CE(2); PE(1). **Habitats:** Ins, Sed.

*Croton glandulosus* L. **Habits:** herb(3); shrub(1); subshrub(1). **Life forms:** therophyte(5). **States:** CE(2); PB(1); PE(6); RN(2). **Habitats:** Cryst, Ins, Sed, Trans, Unc.

*Croton glutinosus* Müll.Arg. **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

*Croton grewiioides* Baill. **Habits:** herb(1); shrub(3). **Life forms:** phanerophyte(2). **States:** BA(2); CE(3); PE(3); PI(1). **Habitats:** Ins, Sed.

*Croton heliotropiifolius* Kunth [Synonyms: *Croton conduplicatus* Kunth; *Croton moritibensis* Baill.; *Croton rhamnifolioides* Pax & K. Hoffm.; *Croton rhamnifolius* Willd.; *Croton rhamnifolius* Willd. var. *moritibensis*] **Habits:** shrub(14); subshrub(3). **Life forms:** phanerophyte(5). **States:** BA(3); CE(7); PB(6); PE(22); RN(2). **Habitats:** Agre, Aqua, Cryst, Ins, Riv, Sed, Trans, Unc.

*Croton hemiargyreus* Müll.Arg. **States:** RN(15). **Habitats:** Unc.

*Croton hirtus* L'Hér. **Life forms:** therophyte(1). **States:** PE(5). **Habitats:** Cryst, Ins.

*Croton jacobinensis* Baill. **Habits:** shrub(2). **Life forms:** phanerophyte(1). **States:** CE(3); PE(2). **Habitats:** Agre, Ins, Sed.

*Croton lundianus* (Didr.) Müll.Arg. **Habits:** herb(2). **Life forms:** phanerophyte(1); therophyte(1). **States:** CE(2); PB(1); PI(1). **Habitats:** CMAior, Cryst, Ins.

*Croton mucronifolius* Müll.Arg. **States:** PE(1). **Habitats:** Cryst.

*Croton muscicarpa* Müll.Arg. **States:** PB(1). **Habitats:** Agre.

*Croton nepetifolius* Baill. **Habits:** shrub(2). **Life forms:** phanerophyte(1). **States:** CE(3); PB(2). **Habitats:** Agre, Sed, Unc.

*Croton odontadenius* Müll.Arg **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Observations:** Misapplied name. This species is known to occur in Southeastern Brazil and according to specialist D.S. Carneiro-Torres it is unlikely that this species occurs in the semiarid region of Brazil. **Habitats:** Sed.

*Croton pedicellatus* Kunth **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

*Croton piauhiensis* Müll.Arg. **States:** PI(1). **Habitats:** Sed.

*Croton pulegioides* Müll.Arg. **States:** PB(1); PE(1). **Habitats:** Agre, Ins.

*Croton rotlerifolius* Baill. **Habits:** tree(1). **States:** PB(1). **Habitats:** Ins.

*Croton rudolphianus* Müll.Arg. **Habits:** shrub(2). **Life forms:** phanerophyte(2). **States:** BA(2); CE(2). **Habitats:** Ins, Sed.

*Croton sincorensis* Mart. **States:** CE(1). **Habitats:** Cryst.

*Croton sonderianus* Müll.Arg. **Habits:** shrub(10). **States:** BA(2); CE(4); PB(21); PE(11); PI(2); RN(14). **Habitats:** Agre, Cryst, Riv, Sed, Trans, Unc.

*Croton tricolor* Klotzsch ex Baill. **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.

*Croton urticifolius* Lam. **Habits:** herb(1); shrub(3); subshrub(1). **Life forms:** phanerophyte(2); therophyte(1). **States:** CE(1); PB(3); PE(3); PI(2); RN(1). **Habitats:** Agre, Ins, Riv, Sed, Trans, Unc.

*Croton zehntneri* Pax & K.Hoffm. **Habits:** shrub(5). **Life forms:** phanerophyte(2). **States:** BA(1); CE(5); PE(1); PI(1). **Habitats:** Cryst, Diam, Sed, Trans.

#### Dalechampia (6 species)

*Dalechampia affinis* Müll.Arg. **Life forms:** liana(1). **States:** PI(1). **Habitats:** Sed.

*Dalechampia brasiliensis* Lam. **Habits:** climber(1). **Life forms:** liana(1). **States:** BA(3); PB(1). **Habitats:** Ins.

*Dalechampia fernandesii* G.L.Webster **Habits:** liana(1). **States:** CE(1). **Habitats:** Trans.

*Dalechampia pernambucensis* Baill. **Habits:** liana(2). **Life forms:** chamaephyte(1); therophyte(2). **States:** CE(4). **Habitats:** Cryst, Ins, Sed, Trans.

*Dalechampia scandens* L. **Habits:** climber(2); vine(1). **Life forms:** hemicryptophyte(1); therophyte(1). **States:** BA(1); PE(4). **Habitats:** Agre, Ins, Sed, Trans.

*Dalechampia schenckiana* Pax & K.Hoffm. **Habits:** climber(1). **States:** PE(1). **Habitats:** Sed.

#### Ditaxis (3 species)

*Ditaxis desertorum* (Müll.Arg.) Pax & K.Hoffm. **States:** BA(1). **Habitats:** Ins.

*Ditaxis gardneri* (Müll.Arg.) Pax & K.Hoffm. [Synonyms: *Argythamnia gardneri* Müll.Arg.] **Habits:** shrub(1). **States:** PI(1). **Habitats:** Trans.

*Ditaxis malpighiacea* (Ule) Pax & K.Hoffm. **Habits:** shrub(4). **States:** PB(3); PE(3). **Habitats:** Cryst, Riv, Trans.

#### Euphorbia (9 species)

*Euphorbia bahiensis* (Klotzsch & Garcke) Boiss. **Habits:** herb(1). **States:** PB(1). **Habitats:** Ins.

*Euphorbia comosa* Vell. **Habits:** subshrub(6). **Life forms:** chamaephyte(3); phanerophyte(2). **States:** BA(1); CE(2); PB(1); PE(6); PI(1). **Habitats:** Ins, Sed.

*Euphorbia heterophylla* L. [Synonyms: *Poinsettia heterophylla* (L.) Klotzsch & Garcke] **Habits:** herb(1). **Life forms:** therophyte(2). **States:** CE(2). **Habitats:** Cryst.

*Euphorbia hyssopifolia* L. [Synonyms: *Chamaesyce hyssopifolia* (L.) Small; *Euphorbia brasiliensis* Lam.] **Habits:** herb(6). **Life forms:** hemicryptophyte(1); therophyte(5). **States:** BA(3); CE(1); PB(2); PE(9); RN(2). **Habitats:** Aqua, Cryst, Ins, Sed, Trans, Unc.

*Euphorbia insulana* Vell. **Habits:** herb(2). **Life forms:** phanerophyte(2); therophyte(1). **States:** CE(1); PE(5). **Habitats:** Agre, Cryst, Ins, Trans.

*Euphorbia phosphorea* Mart. **Habits:** shrub(1). **States:** BA(2); PB(2). **Habitats:** Ins, Riv.

*Euphorbia prostrata* Aiton [Synonyms: *Chamaesyce prostrata* (Aiton) Small] **States:** PB(1). **Habitats:** Cryst.

*Euphorbia serpens* Kunth **States:** PE(1). **Habitats:** Ins.

*Euphorbia thymifolia* L. [Synonyms: *Chamaesyce thymifolia* (L.) Millsp.] **Habits:** herb(2). **States:** PE(4). **Habitats:** Cryst, Ins, Sed.

#### Jatropha (5 species)

*Jatropha curcas* L. **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.

*Jatropha martiusii* (Pohl) Baill. **Habits:** shrub(1). **States:** BA(1). **Habitats:** Diam.

*Jatropha mollissima* (Pohl) Baill. **Habits:** shrub(11); subshrub(1); tree(6). **Life forms:** phanerophyte(3). **States:** BA(3); CE(6); PB(20); PE(29); PI(1); RN(30). **Habitats:** Agre, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

*Jatropha mollissima* (Pohl) Baill. var. *mollissima* [Synonyms: *Jatropha pohliana* Müll. Arg.] **Habits:** shrub(1). **Life forms:** phanerophyte(2). **States:** BA(1); CE(1); PB(13); PE(1). **Habitats:** Agre, Cryst, Ins, Riv, Sed, Unc.

*Jatropha mutabilis* (Pohl) Baill. **Habits:** shrub(7); subshrub(1). **States:** BA(2); PB(1); PE(7); PI(2). **Habitats:** Cryst, Riv, Sed, Trans.

*Jatropha ribifolia* (Pohl) Baill. **Habits:** shrub(5); subshrub(1). **Life forms:** chamaephyte(1). **States:** BA(2); PB(3); PE(11). **Habitats:** Cryst, Diam, Ins, Riv, Sed, Trans.

#### Manihot (11 species)

*Manihot anomala* Pohl **Habits:** shrub(1). **Life forms:** phanerophyte(2). **States:** BA(1); CE(1); PI(1). **Habitats:** Ins, Sed.

*Manihot brachyandra* Pax & K.Hoffm. **Habits:** tree(1). **States:** BA(1). **Habitats:** Diam.

*Manihot caerulescens* Pohl **Habits:** shrub(2); tree(2). **States:** BA(1); CE(1); PI(3). **Habitats:** Sed, Trans.

*Manihot carthaginensis* subsp. *glaziovii* (Müll.Arg.) Allem [Synonyms: *Manihot glaziovii* Müll.Arg.] **Habits:** shrub(2); tree(3). **States:** BA(1); CE(4); PB(9); PE(4); RN(5). **Habitats:** Agre, Cryst, Diam, Riv, Trans, Unc.

*Manihot catingae* Ule **Habits:** tree(3). **States:** PB(5). **Habitats:** Cryst, Riv.

*Manihot dichotoma* Ule **Habits:** shrub(1); tree(3); treelet(1). **States:** PE(7). **Habitats:** Agre, Sed, Trans.

*Manihot epruinosa* Pax & K.Hoffm. **States:** PE(2). **Habitats:** Cryst, Ins.

*Manihot gabrielensis* Allem **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Manihot heptaphylla* Ule **Habits:** shrub(1). **States:** BA(1). **Habitats:** Sed.

*Manihot palmata* Müll.Arg. *Manihot palmata* is restricted to Southeastern Brazil so its use for the semi-arid of Brazil is probably a misapplication (M.L.L.Martins, pers. comm.) **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(4); PE(2). **Habitats:** Cryst, Sed.

*Manihot pseudoglaziovii* Pax & K.Hoffm. **Habits:** tree(2). **States:** BA(1); PB(1); PE(5). **Habitats:** Cryst, Diam.

#### Maprounea (1 species)

*Maprounea guianensis* Aubl. **Habits:** shrub(1); tree(3). **States:** CE(1); PB(2); PE(8). **Habitats:** Agre, Cryst, Riv, Trans, Unc.

**Microstachys** (2 species)

*Microstachys corniculata* (Vahl) Griseb. [Synonyms: *Sebastiania corniculata* (Vahl) Müll. Arg.] **Habits:** herb(2). **Life forms:** therophyte(2). **States:** CE(1); PE(2); RN(1). **Habitats:** Unc, Ins, Sed, Trans.

*Microstachys hispida* (Mart.) Govaerts **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

**Romanoa** (1 species)

*Romanoa tamnoides* (A.Juss.) Radcl.-Sm. **Life forms:** chamaephyte(1). **States:** PE(1). **Habitats:** Ins.

**Sapium** (4 species)

*Sapium argutum* (Müll.Arg.) Huber [Synonyms: *Sapium sceleratum* Ridl.] **Habits:** tree(2). **Life forms:** phanerophyte(2). **States:** CE(5); PB(1); PE(2). **Habitats:** Ins, Riv, Sed.

*Sapium glandulosum* (L.) Morong [Synonyms: *Sapium biglandulosum* (L.) Müll.Arg.; *Sapium glandulatum* (Vell.) Pax; *Sapium lanceolatum* (Müll. Arg.) Huber; *Sapium montevidense* Klotzsch ex Baill.] **Habits:** tree(6). **Life forms:** phanerophyte(2). **States:** BA(2); CE(4); MG(4); PB(7); PE(8); RN(1). **Habitats:** Sed, Agre, Arb, Cryst, Diam, Ins, Riv, Sed, Unc.

*Sapium obovatum* Klotzsch ex Müll.Arg. **Life forms:** phanerophyte(1). **States:** PI(1). **Habitats:** Sed.

*Sapium sellowianum* (Müll.Arg.) Klotzsch ex Baill. **States:** RN(1). **Habitats:** Unc.

**Sebastiania** (4 species)

*Sebastiania brasiliensis* Spreng. **Habits:** shrub(2); tree(1). **States:** CE(3); PE(1). **Habitats:** Sed, Trans.

*Sebastiania brevifolia* (Müll.Arg.) Müll.Arg. **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.

*Sebastiania commersoniana* (Baill.) L.B.Sm. & Downs **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.

*Sebastiania macrocarpa* Müll.Arg. **Habits:** tree(4). **Life forms:** phanerophyte(1). **States:** CE(2); PB(5). **Habitats:** Cryst, Riv.

**Stillingia** (2 species)

*Stillingia trapezoidea* Ule **Habits:** shrub(4). **Life forms:** phanerophyte(2). **States:** CE(1); PB(1); PE(2); PI(3). **Habitats:** Ins, Sed, Trans.

*Stillingia uleana* Pax ex K.Hoffm. **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.

**Tragia** (2 species)

*Tragia friesii* Pax & K.Hoffm. **States:** BA(1). **Habitats:** Ins.

*Tragia volubilis* L. **Habits:** climber(2). **Life forms:** hemicyptophyte(1). **States:** BA(2); CE(1); PB(1); PE(3). **Habitats:** Agre, Cryst, Ins, Trans.

**FABACEAE** (87 genera; 292 species)

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**Acosmium** (1 species)

*Acosmium diffusissimum* (Mohlenbr.) Yakovlev **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

**Aeschynomene** (8 species)

*Aeschynomene evenia* C.Wright & Sauvalle **States:** BA(5). **Habitats:** Aqua.

*Aeschynomene histrix* Poir. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.

*Aeschynomene marginata* Benth. **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Aeschynomene martii* Benth. **Habits:** shrub(2). **States:** BA(1); PE(1). **Habitats:** Sed.

*Aeschynomene mollicula* Kunth **Habits:** climber(1). **States:** PE(1). **Habitats:** Agre.

*Aeschynomene scabra* G.Don **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Ins.

*Aeschynomene sensitiva* Sw. **Life forms:** therophyte(1). **States:** PB(3); RN(1). **Habitats:** Ins, Riv, Unc.

*Aeschynomene viscidula* Michx. **Habits:** herb(1); subshrub(1). **Life forms:** chamaephyte(1). **States:** PE(2). **Habitats:** Sed, Trans.

**Albizia** (3 species)

*Albizia inundata* (Mart.) Barneby & J.W.Grimes **Habits:** tree(2). **States:** BA(1); CE(1); PB(1); PE(1). **Habitats:** Agre, Diam, Riv, Trans.

*Albizia niopoides* (Spruce ex Benth.) Burkart var. *niopoides* [Synonyms: *Albizia hassleri* (Chodat) Burkart] **States:** MG(1). **Habitats:** Arb.

*Albizia polycephala* (Benth.) Killip ex Record **Life forms:** phanerophyte(1). **States:** PB(1); PI(1). **Habitats:** Agre, Sed.

**Amburana** (1 species)

*Amburana cearensis* (Allemão) A.C.Sm. [Synonyms: *Torresea cearensis* Allemão] **Habits:** tree(10). **Life forms:** phanerophyte(3). **States:** BA(2); CE(7); PB(9); PE(6); PI(4); RN(8). **Habitats:** Agre, CMAior, Cryst, Diam, Riv, Sed, Trans, Unc.

**Anadenanthera** (2 species)

*Anadenanthera colubrina* (Vell.) Brenan **Habits:** tree(7). **Life forms:** phanerophyte(1). **States:** BA(1); CE(4); MG(10); PB(14); PE(21); PI(2); RN(7). **Habitats:** Agre, Arb, Cryst, Ins, Riv, Trans, Unc, CMAior, Cryst, Riv, Sed, Trans, Unc.

*Anadenanthera colubrina* var. *cebil* (Griseb.) Altschul [Synonyms: *Anadenanthera macrocarpa* (Benth.) Brenan; *Piptadenia macrocarpa* Benth.] **Habits:** shrub(1). **States:** BA(2); CE(1); PB(5); PE(1); PI(1); RN(4). **Habitats:** Cryst, Diam, Riv, Sed, Trans, Unc.

*Anadenanthera peregrina* var. *falcata* (Benth.) Altschul [Synonyms: *Piptadenia falcata* Benth.] **States:** MG(1). **Habitats:** Arb.

**Andira** (2 species)

*Andira surinamensis* (Bondt) Splitg. ex Amshoff **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Andira vermifuga* (Mart.) Benth. **Habits:** tree(1). **States:** PI(1). **Habitats:** Trans.

**Apuleia** (2 species)

*Apuleia grazielana* Afr.Fern. **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.

*Apuleia leiocarpa* (Vogel) J.F.Macbr. **Habits:** tree(1). **States:** MG(6); PE(1). **Habitats:** Arb, Sed.

**Arachis** (1 species)

*Arachis dardani* Krapov. & W.C.Greg. **Habits:** herb(1). **Life forms:** therophyte(2). **States:** CE(2). **Habitats:** Cryst.

**Bauhinia** (9 species)

*Bauhinia acuruana* Moric. **Habits:** shrub(11). **Life forms:** nanophanerophyte(1); phanerophyte(1). **States:** BA(2); CE(7); PE(8); PI(5). **Habitats:** Ins, Sed, Trans.

*Bauhinia catingae* Harms **States:** PB(1). **Habitats:** Cryst.

*Bauhinia cheilantha* (Bong.) Steud. **Habits:** shrub(14); tree(2). **Life forms:** phanerophyte(4). **States:** CE(9); PB(18); PE(22); PI(3); RN(14). **Habitats:** Agre, Cryst, Ins, Riv, Sed, Trans, Unc.

*Bauhinia dubia* G.Don **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(1). **States:** CE(1); PI(3). **Habitats:** CMAior, Sed.

*Bauhinia forficata* Link **Habits:** liana(1); shrub(1). **States:** CE(1); MG(9); PI(1). **Habitats:** Trans, Arb.

*Bauhinia pentandra* (Bong.) Vogel ex Steud. [Synonyms: *Bauhinia heterandra* Benth.] **Habits:** shrub(5); tree(1). **Life forms:** phanerophyte(3). **States:** BA(1); CE(2); PE(5); PI(3). **Habitats:** Cryst, Ins, Riv, Sed, Trans.

*Bauhinia pulchella* Benth. **Habits:** shrub(3); tree(1). **Life forms:** phanerophyte(2). **States:** CE(4); PI(5). **Habitats:** CMAior, Sed, Trans.

*Bauhinia subclavata* Benth. **Habits:** shrub(2). **Life forms:** phanerophyte(1). **States:** CE(4); PI(2). **Habitats:** Sed.

*Bauhinia unguolata* L. **Habits:** shrub(2); tree(1). **Life forms:** phanerophyte(2). **States:** CE(2); PI(4). **Habitats:** CMAior, Sed.

**Blanchetiodendron** (1 species)

*Blanchetiodendron blanchetii* (Benth.) Barneby & J.W.Grimes **States:** MG(4). **Habitats:** Arb.

**Bowdichia** (1 species)

*Bowdichia virgilioides* Kunth **Habits:** tree(2). **Life forms:** phanerophyte(1). **States:** CE(1); PE(1). **Habitats:** Sed.

**Calliandra** (8 species)

*Calliandra aeschynomenooides* Benth. **Habits:** shrub(1); tree(1). **States:** PE(2). **Habitats:** Sed.

*Calliandra depauperata* Benth. **Habits:** shrub(2). **States:** PE(1); PI(1). **Habitats:** Trans.

*Calliandra dysantha* Benth. **Habits:** shrub(1). **States:** PI(1). **Habitats:** Trans.

*Calliandra leptopoda* Benth. **Habits:** shrub(1). **States:** PI(1). **Habitats:** Trans.

*Calliandra macrocalyx* Harms **Habits:** tree(1). **States:** BA(1). **Habitats:** Sed.

*Calliandra parvifolia* (Hook. & Arn.) Speg. [Synonyms: *Calliandra myriophylla* Benth.] **States:** MG(1). **Habitats:** Arb.

*Calliandra sessilis* Benth. **States:** PI(1). **Habitats:** Sed.

*Calliandra umbellifera* Benth. **Habits:** shrub(2); treelet(1). **States:** CE(2); PI(2). **Habitats:** Sed, Trans.

**Canavalia** (1 species)

*Canavalia brasiliensis* Mart. ex Benth. **Habits:** climber(1); liana(1). **Life forms:** chamaephyte(1); phanerophyte(1). **States:** CE(2); PB(1); PE(2). **Habitats:** Cryst, Ins, Trans.

**Cassia** (1 species)

*Cassia ferruginea* (Schrad.) Schrad. ex DC. **Habits:** shrub(1). **States:** PB(1); PI(1). **Habitats:** Agre, Trans.

**Cenostigma** (1 species)

*Cenostigma macrophyllum* Tul. [Synonyms: *Cenostigma gardnerianum* Tul.] **Habits:** tree(1). **States:** CE(4); PI(5). **Habitats:** Sed, Trans, Sed.

**Centrolobium** (1 species)

*Centrolobium sclerophyllum* H.C.Lima **States:** MG(2). **Habitats:** Arb.

**Centrosema** (5 species)

*Centrosema brasilianum* (L.) Benth. **Habits:** liana(2); vine(1). **Life forms:** chamaephyte(1); hemicyptophyte(2). **States:** BA(5); CE(2); PB(2). **Habitats:** Aqua, Cryst, Ins, Sed.

*Centrosema pascuorum* Mart. ex Benth. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1); RN(1). **Habitats:** Cryst.

*Centrosema sagittatum* (Humb. & Bonpl. ex Willd.) Brandege **Habits:** climber(1). **States:** PB(1); PE(1). **Habitats:** Agre, Ins.

*Centrosema venosum* Mart. ex Benth. **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Ins.

*Centrosema virginianum* (L.) Benth. **Habits:** climber(2); herb(1); liana(1). **Life forms:** chamaephyte(1); therophyte(2). **States:** PE(5); PI(1). **Habitats:** Cryst, Ins, Sed, Trans.

**Chaetocalyx** (2 species)

*Chaetocalyx longiflora* Benth. ex A.Gray [Synonyms: *Chaetocalyx hebecarpa* Benth.] **Habits:** climber(1). **States:** PE(2). **Habitats:** Agre.

*Chaetocalyx scandens* (L.) Urb. **Habits:** climber(1). **Life forms:** hemicyptophyte(1); therophyte(1). **States:** BA(2); CE(2); PE(3). **Habitats:** Cryst, Ins, Sed, Trans.

**Chamaecrista** (24 species)

*Chamaecrista amiciella* (H.S.Irwin & Barneby) H.S.Irwin & Barn **States:** BA(1). **Habitats:** Ins.

*Chamaecrista barbata* (Nees & Mart.) H.S.Irwin & Barneby **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Chamaecrista belemii* (H.S.Irwin & Barneby) H.S.Irwin & Barneb **Habits:** shrub(2); subshrub(1). **Life forms:** chamaephyte(1). **States:** BA(2); CE(2). **Habitats:** Sed, Trans.

*Chamaecrista brevicalyx* (Benth.) H.S.Irwin & Barneby **Habits:** tree(1). **States:** PI(1). **Habitats:** Trans.

*Chamaecrista calycioides* (DC. ex Collad.) Greene **Habits:** herb(2). **Life forms:** chamaephyte(1); hemicyptophyte(1). **States:** CE(2); PE(1). **Habitats:** Cryst, Trans.

*Chamaecrista cytisoides* (DC. ex Collad.) H.S.Irwin & Barneby **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.

*Chamaecrista desvauxii* (Collad.) Killip [Synonyms: *Cassia desvauxii* Collad.] **Habits:** shrub(2); tree(1). **States:** BA(1); PE(1); PI(2). **Habitats:** Sed, Trans.

*Chamaecrista desvauxii* (Collad.) Killip var. *desvauxii* [Synonyms: *Cassia tetraphylla* Desv.; *Cassia tetraphylla* Desv. var. *tetraphylla*] **States:** BA(1); RN(1). **Habitats:** Cryst, Sed.

*Chamaecrista diphylla* (L.) Greene **Habits:** herb(1). **Life forms:** hemicyptophyte(1). **States:** CE(1). **Habitats:** Sed.

*Chamaecrista duckeana* (P.Bezerra & Afr.Fern.) H.S.Irwin & Bar **Habits:** subshrub(2). **Life forms:** chamaephyte(3). **States:** CE(3). **Habitats:** Cryst, Sed.

*Chamaecrista eitenorum* (H.S.Irwin & Barneby) H.S.Irwin & Barn **Habits:** tree(2). **Life forms:** phanerophyte(1). **States:** PI(4). **Habitats:** Sed, Trans, Sed.

*Chamaecrista fasciculata* (Michx.) Greene [Synonyms: *Cassia chamaecrista* L.] **States:** BA(1). **Habitats:** Sed.

*Chamaecrista flexuosa* (L.) Greene **Habits:** subshrub(3). **States:** BA(2); PE(3). **Habitats:** Ins, Sed.

*Chamaecrista glandulosa* (L.) Greene [Synonyms: *Cassia glandulosa* L.] **States:** BA(1). **Habitats:** Sed.

*Chamaecrista nictitans* (L.) Moench **Habits:** subshrub(6). **Life forms:** chamaephyte(3); therophyte(2). **States:** CE(3); PB(2); PE(5). **Habitats:** Agre, Cryst, Ins, Sed.

*Chamaecrista pilosa* (L.) Greene **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

*Chamaecrista ramosa* (Vogel) H.S.Irwin & Barneby **Habits:** subshrub(1). **Life forms:** chamaephyte(1); microphanerophyte(1). **States:** CE(1); PE(3). **Habitats:** Sed.

*Chamaecrista repens* (Vogel) H.S.Irwin & Barneby **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1); PB(1); PE(1). **Habitats:** Cryst, Sed.

*Chamaecrista rotundifolia* (Pers.) Greene **Habits:** herb(3). **Life forms:** ?(1); phanerophyte(1). **States:** CE(2); PB(1); PE(1). **Habitats:** Cryst, Ins, Sed, Trans.

*Chamaecrista serpens* (L.) Greene **Habits:** herb(1). **States:** PI(1). **Habitats:** Trans.

*Chamaecrista supplex* (Mart. ex Benth.) Britton & Rose ex Brit **Habits:** herb(1). **Life forms:** ?(1). **States:** CE(1). **Habitats:** Cryst.

*Chamaecrista swainsonii* (Benth.) H.S.Irwin & Barneby **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

*Chamaecrista tenuisepala* (Benth.) H.S.Irwin & Barneby **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Chamaecrista trichopoda* (Benth.) Britton & Rose ex Britton **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Trans.

*Chamaecrista zygophylloides* (Taub.) H.S.Irwin & Barneby **Habits:** shrub(1); subshrub(2). **Life forms:** chamaephyte(1). **States:** CE(1); PE(1); PI(1). **Habitats:** Sed, Trans.

#### Chloroleucon (5 species)

*Chloroleucon acacioides* (Ducke) Barneby & J.W.Grimes **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Chloroleucon dumosum* (Benth.) G.P.Lewis [Synonyms: *Pithecellobium dumosum* Benth.] **Habits:** shrub(1); tree(2). **States:** BA(1); CE(1); PE(2). **Habitats:** Riv, Sed, Trans.

*Chloroleucon foliolosum* (Benth.) G.P.Lewis [Synonyms: *Pithecellobium foliolosum* Benth.] **Habits:** shrub(3); tree(6). **States:** CE(1); MG(4); PB(7); PE(8); RN(1). **Habitats:** Arb, Cryst, Riv, Sed, Trans.

*Chloroleucon mangense* (Jacq.) Britton & Rose [Synonyms: *Pithecellobium parvifolium* (Sw.) Benth.] **States:** BA(1); PE(3). **Habitats:** Cryst, Diam, Trans.

*Chloroleucon tortum* (Mart.) Pittier **States:** MG(6). **Habitats:** Arb.

#### Copaifera (3 species)

*Copaifera coriacea* Mart. **Habits:** tree(3). **States:** BA(2); PI(3). **Habitats:** CMaior, Sed, Trans.

*Copaifera langsdorffii* Desf. **Habits:** tree(1). **States:** MG(2); PI(1). **Habitats:** Arb, Trans.

*Copaifera martii* Hayne **Habits:** tree(3). **Life forms:** phanerophyte(2). **States:** CE(7). **Habitats:** Sed.

#### Cranocarpus (1 species)

*Cranocarpus gracilis* Afr.Fern. & P.Bezerra **Habits:** subshrub(2). **Life forms:** chamaephyte(1). **States:** CE(3). **Habitats:** Sed.

#### Cratylia (2 species)

*Cratylia argentea* (Desv.) Kuntze [Synonyms: *Cratylia floribunda* Benth.] **Habits:** climber(1); liana(1). **States:** CE(2). **Habitats:** Sed, Trans.

*Cratylia mollis* Mart. ex Benth. **Habits:** liana(2); shrub(6). **Life forms:** phanerophyte(1). **States:** BA(3); CE(2); PE(3); PI(5). **Habitats:** Sed, Trans.

#### Crotalaria (5 species)

*Crotalaria bahiensis* Windler & S.G.Skinner **Habits:** shrub(1); subshrub(2). **States:** PB(1); PE(2). **Habitats:** Ins, Sed.

*Crotalaria holosericea* Nees & Mart. **Habits:** shrub(1). **Life forms:** chamaephyte(1); phanerophyte(3). **States:** BA(2); CE(2); PB(1); PE(1); PI(1). **Habitats:** Cryst, Ins, Sed.

*Crotalaria incana* L. **Habits:** subshrub(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Trans.

*Crotalaria lanceolata* E.Mey. **Life forms:** therophyte(2). **States:** PE(3). **Habitats:** Ins.

*Crotalaria vitellina* Ker Gawl. [Synonyms: *Crotalaria vitellina* Ker Gawl. var. *laeta*] **Habits:** herb(1). **Life forms:** phanerophyte(1); therophyte(1). **States:** CE(2); PB(1). **Habitats:** Ins, Sed.

#### Dalbergia (4 species)

*Dalbergia catigicola* Harms **Habits:** tree(2). **States:** PE(3). **Habitats:** Sed.

*Dalbergia cearensis* Ducke **Habits:** shrub(1); tree(8). **Life forms:** phanerophyte(1). **States:** BA(1); CE(8); MG(4); PE(2); PI(4). **Habitats:** Arb, Diam, Sed, Trans, Unc.

*Dalbergia frutescens* (Vell.) Britton [Synonyms: *Dalbergia variabilis* Vogel] **Habits:** shrub(1). **States:** CE(2); PI(1). **Habitats:** Sed, Trans.

*Dalbergia glaucescens* (Mart. ex Benth.) Benth. **Habits:** tree(1). **States:** BA(1). **Habitats:** Diam.

#### Desmanthus (1 species)

*Desmanthus virgatus* (L.) Willd. **Habits:** shrub(2). **States:** PB(4); PE(1); PI(1). **Habitats:** Cryst, Riv, Trans, Unc.

**Desmodium** (5 species)

*Desmodium distortum* (Aubl.) J.F. Macbr. **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Desmodium glabrum* (Mill.) DC. **Life forms:** hemicryptophyte(1). **States:** CE(1); PE(1). **Habitats:** Agre, Ins.

*Desmodium incanum* DC. **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Desmodium procumbens* (Mill.) Hitchc. [Synonyms: *Desmodium spirale* (Sw.) DC.] **Habits:** herb(1). **States:** PB(1); PE(1). **Habitats:** Agre, Cryst.

*Desmodium tortuosum* (Sw.) DC. **States:** BA(1). **Habitats:** Aqua.

**Dimorphandra** (1 species)

*Dimorphandra gardneriana* Tul. **Habits:** tree(1). **States:** PI(1). **Habitats:** Trans.

**Dioclea** (5 species)

*Dioclea grandiflora* Mart. ex Benth. **Habits:** climber(4); liana(5). **Life forms:** liana(1); phanerophyte(2). **States:** BA(2); CE(3); PB(3); PE(3); PI(4). **Habitats:** Agre, Cryst, Ins, Sed, Trans, Unc.

*Dioclea marginata* Benth. **Habits:** liana(1). **States:** BA(1). **Habitats:** Sed.

*Dioclea megacarpa* Rolfe **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed.

*Dioclea sclerocarpa* Ducke **Habits:** climber(1). **States:** CE(1). **Habitats:** Sed.

*Dioclea violacea* Mart. ex Benth. **Habits:** climber(2). **Life forms:** phanerophyte(1). **States:** CE(5); PB(1). **Habitats:** Ins, Sed.

**Diploptropis** (1 species)

*Diploptropis ferruginea* Benth. **States:** MG(2). **Habitats:** Arb.

**Dipteryx** (1 species)

*Dipteryx odorata* (Aubl.) Willd. **States:** RN(1). **Habitats:** Unc.

**Diptychandra** (1 species)

*Diptychandra aurantiaca* subsp. *epunctata* (Tul.) H.C. Lima et al. [Synonyms: *Diptychandra epunctata* Tul.] **Habits:** tree(1). **States:** PI(1). **Habitats:** Trans.

**Discolobium** (1 species)

*Discolobium hirtum* Benth. **Habits:** shrub(1). **States:** PI(1). **Habitats:** Trans.

**Enterolobium** (2 species)

*Enterolobium contortisiliquum* (Vell.) Morong **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** MG(2); PB(2); PE(1). **Habitats:** Agre, Arb, Ins, Trans.

*Enterolobium timbouva* Mart. **States:** MG(1). **Habitats:** Arb.

**Eriosema** (1 species)

*Eriosema glaziovii* Harms **Habits:** subshrub(1). **States:** PB(1). **Habitats:** Unc.

**Erythrina** (2 species)

*Erythrina velutina* Willd. **Habits:** ?(1); tree(5). **Life forms:** phanerophyte(2). **States:** BA(1); CE(3); MG(1); PB(12); PE(5); RN(1). **Habitats:** Agre, Arb, Cryst, Diam, Ins, Riv, Trans, Unc.

*Erythrina verna* Vell. [Synonyms: *Erythrina mulungu* Mart.] **States:** MG(1). **Habitats:** Arb.

**Erythrostemon** (1 species)

*Erythrostemon calycina* (Benth.) L.P. Queiroz [Synonyms: *Caesalpinia calycina* Benth.] **Habits:** shrub(1); subshrub(1). **States:** PE(2). **Habitats:** Sed.

**Galactia** (4 species)

*Galactia jussiaeana* Kunth **Habits:** liana(3). **Life forms:** phanerophyte(2). **States:** CE(2); PI(1). **Habitats:** Sed, Trans.

*Galactia remansoana* Harms **Habits:** vine(1). **States:** BA(1). **Habitats:** Sed.

*Galactia striata* (Jacq.) Urb. **Habits:** climber(2). **Life forms:** hemicryptophyte(1). **States:** CE(1); PB(1); PE(2). **Habitats:** Cryst, Sed, Trans.

*Galactia texana* (Scheele) A.Gray **Life forms:** hemicryptophyte(1). **States:** PI(1). **Observations:** According the Lista de Espécies da Flora do Brasil 2012, *Galactia texana* (Scheele) A.Gray do not occurs in Brazil. This is probably a misidentified species..  
**Habitats:** Sed.

**Geoffroea** (1 species)

*Geoffroea spinosa* Jacq. **Habits:** tree(3). **States:** PB(1); PE(5). **Habitats:** Riv.

**Goniorrhachis** (1 species)

*Goniorrhachis marginata* Taub. **States:** BA(2); MG(8). **Habitats:** Arb, Diam.

**Harpalyce** (1 species)

*Harpalyce brasiliiana* Benth. **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

**Hymenaea** (7 species)

*Hymenaea aurea* Y.T.Lee & Langenh. **Habits:** tree(2). **States:** PI(2). **Habitats:** Trans.

*Hymenaea courbaril* L. **Habits:** tree(8). **Life forms:** microphanerophyte(1). **States:** PB(2); PE(7); PI(6). **Habitats:** CMAior, Cryst, Riv, Sed, Trans.

*Hymenaea eriogyne* Benth. **Habits:** shrub(3); tree(3). **Life forms:** phanerophyte(2). **States:** BA(1); CE(8); PI(2). **Habitats:** Sed, Trans.

*Hymenaea maranhensis* Y.T.Lee & Langenh. **States:** PI(1). **Habitats:** CMAior.

*Hymenaea martiana* Hayne **Life forms:** phanerophyte(1). **States:** BA(1); PE(1). **Habitats:** Ins, Sed.

*Hymenaea stigonocarpa* Mart. ex Hayne **Life forms:** phanerophyte(1). **States:** MG(2); PI(2). **Habitats:** Arb, Sed, Trans.

*Hymenaea velutina* Ducke **Habits:** tree(4). **Life forms:** phanerophyte(2). **States:** CE(7). **Habitats:** Sed.

**Indigofera** (3 species)

*Indigofera blanchetiana* Benth. **States:** RN(1). **Habitats:** Unc.

*Indigofera microcarpa* Desv. **Habits:** ?(1). **States:** PE(2). **Habitats:** Aqua, Riv.

*Indigofera suffruticosa* Mill. **Habits:** shrub(2); subshrub(3). **Life forms:** chamaephyte(2). **States:** BA(2); CE(4); PB(1); PE(2); PI(1). **Habitats:** Ins, Riv, Sed, Trans.

**Inga** (4 species)

*Inga capitata* Desv. **States:** PB(1). **Habitats:** Agre.

*Inga ingoides* (Rich.) Willd. **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Inga striata* Benth. **States:** PB(1). **Habitats:** Riv.

*Inga vera* Willd. **Life forms:** phanerophyte(1). **States:** PE(4). **Habitats:** Ins, Riv.

**Leptolobium** (1 species)

*Leptolobium dasycarpum* Vogel [Synonyms: *Acosmium dasycarpum* (Vogel) Yakovlev; *Sweetia dasycarpa* (Vogel) Benth.] **States:** BA(1). **Habitats:** Diam.

**Leucochloron** (1 species)

*Leucochloron limae* Barneby & J.W.Grimes **States:** MG(4). **Habitats:** Arb.

**Libidibia** (1 species)

*Libidibia ferrea* (Mart. ex Tul.) L.P.Queiroz [Synonyms: *Caesalpinia ferrea* Mart. ex Tul.] **Habits:** shrub(1); tree(14); treelet(1).

**Life forms:** phanerophyte(3). **States:** CE(5); PB(15); PE(15); PI(4); RN(10). **Habitats:** Agre, CMAior, Cryst, Riv, Sed, Trans, Unc, Ins.

*Libidibia ferrea* var. *leiostachya* (Benth.) L.P.Queiroz [Synonyms: *Caesalpinia leiostachya* (Benth.) Ducke] **Habits:** tree(1). **States:** PB(2); PE(2). **Habitats:** Agre, Riv.

**Lonchocarpus** (6 species)

*Lonchocarpus araripensis* Benth. **Habits:** tree(3); treelet(1). **Life forms:** phanerophyte(2). **States:** CE(4); PE(1); PI(1). **Habitats:** Sed, Trans.

*Lonchocarpus campestris* Mart. ex Benth. **States:** PB(2). **Habitats:** Riv.

*Lonchocarpus costatus* Benth. [Synonyms: *Deguelia costata* (Benth.) A.M.G.Azevedo] **States:** MG(2). **Habitats:** Arb.

*Lonchocarpus obtusus* Benth. **Habits:** tree(3). **States:** PB(4). **Habitats:** Cryst, Riv.

*Lonchocarpus sericeus* (Poir.) Kunth ex DC. **Habits:** tree(5). **States:** PB(4); PE(2); PI(1). **Habitats:** Cryst, Riv, Trans.



*Lonchocarpus virgilioides* (Vogel) Benth. **States:** BA(1). **Habitats:** Ins.

**Luetzelburgia** (1 species)

*Luetzelburgia auriculata* (Allemão) Ducke **Habits:** tree(7). **Life forms:** phanerophyte(2). **States:** CE(2); PB(5); PE(2); PI(6). **Habitats:** CMAior, Cryst, Ins, Riv, Sed, Trans.

**Machaerium** (12 species)

*Machaerium aculeatum* Raddi **States:** MG(3); PB(1). **Habitats:** Arb, Agre.

*Machaerium acutifolium* Vogel **Habits:** tree(6). **Life forms:** phanerophyte(2). **States:** BA(1); CE(7); MG(4); PI(5). **Habitats:** Arb, CMAior, Diam, Sed, Trans.

*Machaerium amplum* Benth. **Habits:** tree(1). **States:** CE(1). **Habitats:** Sed.

*Machaerium brasiliense* Vogel **States:** MG(6). **Habitats:** Arb.

*Machaerium floridum* (Mart. ex Benth.) Ducke **States:** MG(1). **Habitats:** Arb.

*Machaerium hirtum* (Vell.) Stellfeld [Synonyms: *Machaerium angustifolium* Vogel] **States:** MG(3). **Habitats:** Arb.

*Machaerium opacum* Vogel **States:** MG(1). **Habitats:** Arb.

*Machaerium ovalifolium* Glaz. ex Rudd **Habits:** liana(1); shrub(1). **States:** CE(1); PI(2). **Habitats:** Sed.

*Machaerium scleroxylon* Tul. **States:** MG(5). **Habitats:** Arb.

*Machaerium stipitatum* (DC.) Vogel **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed.

*Machaerium vestitum* Vogel **States:** CE(1). **Habitats:** Sed.

*Machaerium villosum* Vogel **States:** MG(4). **Habitats:** Arb.

**Macroptilium** (5 species)

*Macroptilium bracteatum* (Nees & Mart.) Maréchal & Baudet **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Macroptilium gracile* (Poepp. ex Benth.) Urb. **Habits:** climber(1). **States:** PE(2). **Habitats:** Aqua, Trans.

*Macroptilium lathyroides* (L.) Urb. **States:** BA(2); RN(1). **Habitats:** Aqua, Unc.

*Macroptilium martii* (Benth.) Maréchal & Baudet **Habits:** climber(1); herb(3). **Life forms:** liana(1); therophyte(4). **States:** CE(2); PE(4); PI(2); RN(1). **Habitats:** Cryst, Ins, Sed, Trans, Unc.

*Macroptilium panduratum* (Mart. ex Benth.) Maréchal & Baudet **Habits:** herb(1). **States:** PI(1). **Habitats:** Trans.

**Martiodendron** (1 species)

*Martiodendron mediterraneum* (Mart. ex Benth.) R.C.Koeppen **Habits:** tree(1). **States:** PI(3). **Habitats:** CMAior.

**Mimosa** (28 species)

*Mimosa acutistipula* (Mart.) Benth. **Habits:** tree(4). **Life forms:** phanerophyte(2). **States:** CE(2); PB(1); PE(4); PI(2); RN(1). **Habitats:** Cryst, Sed, Trans, Unc.

*Mimosa adenophylla* Taub. **Habits:** subshrub(1). **States:** BA(1); PB(1); PE(1). **Habitats:** Cryst, Sed.

*Mimosa arenosa* (Willd.) Poir. [Synonyms: *Mimosa malacocentra* (Mart.) Benth] **Habits:** shrub(3); tree(3). **Life forms:** phanerophyte(2). **States:** BA(3); PB(5); PE(11); RN(1). **Habitats:** Agre, Aqua, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

*Mimosa bimucronata* (DC.) Kuntze **Habits:** tree(1). **States:** PE(3). **Habitats:** Riv.

*Mimosa borboremae* Harms **States:** PB(1). **Habitats:** Cryst.

*Mimosa caesalpinifolia* Benth. **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(2). **States:** CE(8); PI(3); RN(4). **Habitats:** CMAior, Cryst, Unc.

*Mimosa camporum* Benth. **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Ins.

*Mimosa gemmulata* Barneby **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.

*Mimosa guaranitica* Chodat & Hassl. **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.

*Mimosa honesta* Mart. **States:** PB(2). **Habitats:** Cryst, Riv.

*Mimosa invisiva* Mart. ex Colla **Habits:** shrub(4). **Life forms:** phanerophyte(2). **States:** BA(1); CE(3); PE(1). **Habitats:** Ins, Sed, Trans.

*Mimosa lepidophora* Rizzini **Habits:** tree(2). **States:** PI(2). **Habitats:** Trans.

*Mimosa lewisii* Barneby **Habits:** climber(1); shrub(2). **Life forms:** microphanerophyte(1). **States:** BA(1); PE(6). **Habitats:** Sed.

*Mimosa misera* Benth. **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

*Mimosa modesta* Mart. **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

*Mimosa niederleinii* Burkart **States:** PE(1). **Habitats:** Cryst.

*Mimosa nothopteris* Barneby **Habits:** treelet(1). **States:** PI(2). **Habitats:** CMAior.

*Mimosa ophthalmocentra* Mart. ex Benth. **Habits:** tree(6). **Life forms:** phanerophyte(1). **States:** PB(9); PE(6); PI(2); RN(1). **Habitats:** Agre, CMAior, Cryst, Ins, Riv, Trans, Unc.

*Mimosa paraibana* Barneby **Habits:** shrub(2). **Life forms:** phanerophyte(1). **States:** PB(4). **Habitats:** Cryst, Ins, Riv.

*Mimosa pigra* L. **Habits:** shrub(2). **States:** PE(4). **Habitats:** Riv.

*Mimosa pudica* L. **States:** BA(2); RN(1). **Habitats:** Aqua, Unc.

*Mimosa quadrivalvis* L. **Habits:** liana(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Mimosa quadrivalvis* var. *leptocarpa* (DC.) Barneby [Synonyms: *Schrankia leptocarpa* DC.] **Habits:** climber(1); subshrub(1). **Life forms:** phanerophyte(1). **States:** PB(2); PE(1); RN(1). **Habitats:** Agre, Ins, Unc.

*Mimosa sensitiva* L. **Habits:** climber(2); liana(1); shrub(1); tree(1). **Life forms:** chamaephyte(1); hemicyptophyte(1); therophyte(1). **States:** CE(2); PB(3); PE(2); PI(1). **Habitats:** Agre, Ins, Sed, Trans, Unc.

*Mimosa somnians* Humb. & Bonpl. ex Willd. **Habits:** shrub(1). **States:** PI(1). **Habitats:** Trans.

*Mimosa tenuiflora* (Willd.) Poir. [Synonyms: *Mimosa hostilis* (Mart.) Benth.; *Mimosa nigra* Huber] **Habits:** shrub(2); tree(13). **Life forms:** phanerophyte(4). **States:** BA(2); CE(6); MG(8); PB(24); PE(13); PI(2); RN(26). **Habitats:** Agre, Arb, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

*Mimosa ursina* Mart. **Habits:** herb(1); subshrub(1). **Life forms:** chamaephyte(1); phanerophyte(1). **States:** CE(2); PE(1). **Habitats:** Cryst, Ins, Sed.

*Mimosa verrucosa* Benth. **Habits:** tree(3). **Life forms:** phanerophyte(2). **States:** CE(3); PI(2). **Habitats:** Sed, Trans.

*Mimosa xiquexiquensis* Barneby **Habits:** subshrub(1). **States:** BA(1). **Habitats:** Sed.

**Myroxylon** (1 species)

*Myroxylon peruiferum* L.f. **Habits:** tree(1). **States:** PB(1). **Habitats:** Riv.

**Ormosia** (1 species)

*Ormosia fastigiata* Tul. **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

**Parapiptadenia** (2 species)

*Parapiptadenia blanchetii* (Benth.) Vaz & M.P.Lima **Habits:** tree(1). **States:** BA(1); PI(1). **Habitats:** Ins, Trans.

*Parapiptadenia zehntneri* (Harms) M.P.Lima & H.C.Lima [Synonyms: *Piptadenia zehntneri* Harms] **Habits:** shrub(1); tree(4). **States:** CE(2); PB(2); PE(9). **Habitats:** Cryst, Ins, Riv, Sed, Trans, Unc.

**Parkia** (1 species)

*Parkia platycephala* Benth. **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1); PI(1). **Habitats:** CMajor, Sed.

**Parkinsonia** (1 species)

*Parkinsonia aculeata* L. **Habits:** tree(1). **States:** PE(2). **Habitats:** Ins, Riv.

**Peltogyne** (2 species)

*Peltogyne confertiflora* (Mart. ex Hayne) Benth. **Habits:** tree(3). **Life forms:** phanerophyte(2). **States:** CE(3); PI(2). **Habitats:** Sed, Trans.

*Peltogyne pauciflora* Benth. [Synonyms: *Cynometra glaziovii* Taub.] **Habits:** tree(5). **States:** BA(4); PB(2); PE(3). **Habitats:** Ins, Riv, Sed.

**Peltophorum** (1 species)

*Peltophorum dubium* (Spreng.) Taub. **States:** BA(1); MG(3); RN(1). **Habitats:** Arb, Diam, Unc.

**Periandra** (2 species)

*Periandra coccinea* (Schrad.) Benth. **Habits:** liana(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Periandra mediterranea* (Vell.) Taub. **States:** BA(1). **Habitats:** Sed.

**Piptadenia** (4 species)

*Piptadenia gonoacantha* (Mart.) J.F.Macbr. **States:** MG(2). **Habitats:** Arb.

*Piptadenia macradenia* Benth. **States:** MG(1). **Habitats:** Arb.

*Piptadenia stipulacea* (Benth.) Ducke **Habits:** shrub(5); tree(11); treelet(1). **Life forms:** phanerophyte(5). **States:** CE(8); PB(18); PE(16); PI(3); RN(17). **Habitats:** Agre, Cryst, Ins, Riv, Sed, Trans, Unc.

*Piptadenia viridiflora* (Kunth) Benth. [Synonyms: *Piptadenia biuncifera* Benth.] **Habits:** tree(2). **Life forms:** phanerophyte(1). **States:** BA(1); CE(2); MG(6); PB(4); PE(1); RN(1). **Habitats:** Agre, Arb, Cryst, Diam, Sed, Unc.

**Pithecellobium** (2 species)

*Pithecellobium diversifolium* Benth. **Life forms:** phanerophyte phanerophyte. **States:** PB(4); PE(3). **Habitats:** Agre, Cryst, Riv.

*Pithecellobium roseum* (Vahl) Barneby & J.W.Grimes var. **roseum** [Synonyms: *Pithecellobium parviflorum* Pittier] **Habits:** tree(2). **States:** PE(3). **Observations:** Cited occasionally as *P. parviflorum* Benth., but the correct author is Pittier. Possibly a misidentification, as this is an Amazonian species.. **Habitats:** Agre, Riv.

**Pityrocarpa** (2 species)

*Pityrocarpa moniliformis* (Benth.) Luckow & R.W.Jobson [Synonyms: *Piptadenia moniliformis* Benth.] **Habits:** tree(10). **Life forms:** phanerophyte(3). **States:** BA(2); CE(9); PE(1); PI(4); RN(5). **Habitats:** Diam, Sed, Trans, Unc.

*Pityrocarpa obliqua* (Pers.) Brenan [Synonyms: *Piptadenia obliqua* (Pers.) J.F.Macbr.] **Habits:** tree(4); treelet(1). **Life forms:** microphanerophyte(1). **States:** BA(1); PE(8); PI(2); RN(1). **Habitats:** Cryst, Sed, Trans, Unc.

**Plathymania** (1 species)

*Plathymania reticulata* Benth. **Habits:** tree(2). **Life forms:** phanerophyte(1). **States:** CE(1); PI(1). **Habitats:** Sed, Trans.

**Platymiscium** (1 species)

*Platymiscium floribundum* Vogel **Habits:** tree(1). **States:** CE(1); MG(5). **Habitats:** Arb, Trans.

*Platymiscium floribundum* Vogel var. **floribundum** [Synonyms: *Platymiscium blanchetii* Benth.] **States:** MG(3). **Habitats:** Arb.

**Platypodium** (1 species)

*Platypodium elegans* Vogel **Habits:** shrub(3); tree(3). **Life forms:** phanerophyte(1). **States:** CE(4); PI(3). **Habitats:** Sed, Trans.

**Poecilanthe** (4 species)

*Poecilanthe falcata* (Vell.) Heringer **States:** MG(1). **Habitats:** Arb.

*Poecilanthe grandiflora* Benth. **Habits:** tree(1). **States:** CE(1). **Habitats:** Trans.

*Poecilanthe subcordata* Benth. **States:** BA(1). **Habitats:** Diam.

*Poecilanthe ulei* (Harms) Arroyo & Rudd **Habits:** tree(3). **States:** BA(2); PB(2). **Habitats:** Diam, Ins, Riv.

**Poeppigia** (1 species)

*Poeppigia procera* C.Presl **Habits:** tree(7). **Life forms:** phanerophyte(1). **States:** BA(4); CE(1); PE(5); PI(6). **Habitats:** Diam, Ins, Riv, Sed, Trans, Sed.

**Poincianella** (5 species)

*Poincianella bracteosa* (Tul.) L.P.Queiroz [Synonyms: *Caesalpinia bracteosa* Tul.] **Habits:** shrub(2); tree(3). **Life forms:** phanerophyte(3). **States:** CE(7); PE(2); PI(5); RN(6). **Habitats:** CMajor, Cryst, Sed, Trans, Unc.

*Poincianella gardneriana* (Benth.) L.P.Queiroz [Synonyms: *Caesalpinia gardneriana* Benth.] **Habits:** tree(3). **Life forms:** phanerophyte(2). **States:** CE(2); PE(5). **Habitats:** Cryst, Ins, Trans.

*Poincianella microphylla* (Mart. ex G.Don) L.P.Queiroz [Synonyms: *Caesalpinia microphylla* Mart. ex G.Don] **Life forms:** phanerophyte microphanerophyte. **States:** BA(2); MG(6); PE(14); PI(1). **Habitats:** Arb, Cryst, Diam, Riv, Sed, Trans.

*Poincianella pluviosa* (DC.) L.P.Queiroz [Synonyms: *Caesalpinia pluviosa* DC.] **States:** MG(4). **Habitats:** Arb.

*Poincianella pyramidalis* (Tul.) L.P.Queiroz [Synonyms: *Caesalpinia pyramidalis* Tul.] **Habits:** shrub(3); tree(11). **States:** BA(3); CE(1); PB(30); PE(19); RN(22). **Habitats:** Agre, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

**Pterocarpus** (4 species)

*Pterocarpus monophyllus* Klitg., L.P.Queiroz & G.P.Lewis **Habits:** tree(1). **States:** BA(2). **Habitats:** Sed.

*Pterocarpus rohrii* Vahl [Synonyms: *Pterocarpus violaceus* var. *angustifolia* Benth.; *Pterocarpus violaceus* Vogel] **States:** BA(1). **Habitats:** Diam.

*Pterocarpus villosus* (Mart. ex Benth.) Benth. **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(1). **States:** CE(1); PI(3). **Habitats:** Sed.

*Pterocarpus zehntneri* Harms **States:** MG(1). **Habitats:** Arb.

**Pterodon** (1 species)

*Pterodon abruptus* (Moric.) Benth. **Habits:** tree(3). **States:** BA(1); PI(5). **Habitats:** Diam, Sed, Trans.

**Pterogyne** (1 species)

*Pterogyne nitens* Tul. **States:** BA(1); MG(4). **Habitats:** Arb, Diam.

**Rhynchosia** (2 species)

*Rhynchosia minima* (L.) DC. **States:** BA(1); PE(1). **Habitats:** Aqua.

*Rhynchosia phaseoloides* (Sw.) DC. **Habits:** climber(1); subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(2); PB(1).

**Habitats:** Agre, Sed.

**Senegalia** (9 species)

*Senegalia bahiensis* (Benth.) Seigler & Ebinger [Synonyms: *Acacia bahiensis* Benth.] **Habits:** treelet(1). **States:** BA(2); MG(4); PE(3). **Habitats:** Agre, Arb, Ins, Sed.

*Senegalia langsdorffii* (Benth.) Seigler & Ebinger [Synonyms: *Acacia langsdorffii* Benth.] **Habits:** shrub(7); tree(2). **Life forms:** phanerophyte(3). **States:** BA(2); CE(9); MG(1); PI(3). **Habitats:** Arb, Diam, Ins, Sed, Trans.

*Senegalia martii* (Benth.) Seigler & Ebinger [Synonyms: *Acacia martii* Benth.] **States:** MG(2). **Habitats:** Arb.

*Senegalia martiusiana* (Steud.) Seigler & Ebinger [Synonyms: *Acacia adhaerens* Benth.] **States:** PI(1). **Habitats:** Sed.

*Senegalia monacantha* (Willd.) Seigler & Ebinger [Synonyms: *Acacia monacantha* Willd.] **States:** MG(1). **Habitats:** Arb.

*Senegalia piauiensis* (Benth.) Seigler & Ebinger [Synonyms: *Acacia piauiensis* Benth.] **Habits:** shrub(2); tree(2). **Life forms:** phanerophyte(1). **States:** BA(2); PE(5); PI(2). **Habitats:** Cryst, Diam, Sed, Trans.

*Senegalia polyphylla* (DC.) Britton & Rose [Synonyms: *Acacia glomerosa* Benth.; *Acacia polyphylla* DC.] **Habits:** shrub(1); tree(5). **Life forms:** phanerophyte(1). **States:** BA(1); CE(4); MG(2); PB(4); PE(4); RN(1). **Habitats:** Agre, Arb, Diam, Ins, Sed, Trans, Unc.

*Senegalia riparia* (Kunth) Britton & Rose ex Britton & Killip [Synonyms: *Acacia riparia* Kunth] **Habits:** shrub(1); tree(3). **States:** BA(1); CE(1); PB(1); PI(2); RN(1). **Habitats:** Diam, Ins, Sed, Trans, Unc.

*Senegalia tenuifolia* (L.) Britton & Rose [Synonyms: *Acacia clausenii* Benth.; *Acacia paniculata* Willd.; *Acacia tenuifolia* (L.) Willd.] **Habits:** shrub(3); tree(4). **Life forms:** phanerophyte(1). **States:** BA(2); CE(4); MG(1); PB(1); PE(4). **Habitats:** Agre, Arb, Cryst, Diam, Riv, Sed, Trans.

**Senna** (21 species)

*Senna acuruensis* (Benth.) H.S.Irwin & Barneby [Synonyms: *Cassia acuruensis* Benth.; *Senna acuruensis* (Benth.) H.S.Irwin & Barneby var. *acuruensis*] **Habits:** shrub(2). **Life forms:** phanerophyte(1). **States:** BA(2); PE(1); PI(5). **Habitats:** CMAior, Diam, Sed.

*Senna angulata* (Vogel) H.S.Irwin & Barneby [Synonyms: *Cassia angulata* Vogel] **States:** BA(1); PB(1). **Habitats:** Agre, Sed.

*Senna aversiflora* (Herb.) H.S.Irwin & Barneby **Life forms:** phanerophyte(2). **States:** PE(2). **Habitats:** Ins.

*Senna cana* (Nees & Mart.) H.S.Irwin & Barneby **Habits:** shrub(1); tree(2). **States:** BA(1); PE(5). **Habitats:** Diam, Sed.

*Senna catingae* (Harms) L.P.Queiroz **States:** BA(1). **Habitats:** Diam.

*Senna cearensis* Afr.Fern. [Synonyms: *Senna barnebyana* Afr.Fern.] **Habits:** shrub(6). **Life forms:** phanerophyte(3). **States:** CE(8); PI(3). **Habitats:** Sed, Trans.

*Senna gardneri* (Benth.) H.S.Irwin & Barneby **Habits:** shrub(6). **Life forms:** phanerophyte(2). **States:** BA(2); CE(3); PB(1); PI(4). **Habitats:** Ins, Sed, Trans.

*Senna georgica* H.S.Irwin & Barneby **States:** RN(1). **Habitats:** Unc.

*Senna lechriosperma* H.S.Irwin & Barneby **Habits:** shrub(2). **Life forms:** phanerophyte(2). **States:** CE(2). **Habitats:** Sed.

*Senna macranthera* (DC. ex Collad.) H.S.Irwin & Barneby **Habits:** shrub(2); tree(1). **Life forms:** phanerophyte(2). **States:** BA(2); CE(6); MG(2); PB(4); PE(11); PI(3); RN(2). **Habitats:** Cryst, Ins, Riv, Sed, Trans, Riv, Sed, Trans, Arb, Cryst, Ins, Sed, Trans, Unc, Sed, Riv.

*Senna martiana* (Benth.) H.S.Irwin & Barneby [Synonyms: *Cassia martiana* Benth.] **Habits:** shrub(3). **Life forms:** phanerophyte(2). **States:** PB(7); PE(2). **Habitats:** Cryst, Ins, Riv.

*Senna multijuga* (Rich.) H.S.Irwin & Barneby **States:** CE(1). **Habitats:** Unc.

*Senna obtusifolia* (L.) H.S.Irwin & Barneby **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1); PE(1); RN(2). **Habitats:** Aqua, Cryst, Unc.

*Senna occidentalis* (L.) Link **Habits:** shrub(2). **States:** PE(1); PI(1). **Habitats:** Sed, Trans.

*Senna rizzinii* H.S.Irwin & Barneby **Habits:** shrub(4); tree(4). **Life forms:** phanerophyte(1). **States:** BA(1); PB(1); PE(10); RN(1). **Habitats:** Cryst, Diam, Ins, Sed, Trans, Unc.

*Senna rugosa* (G.Don) H.S.Irwin & Barneby **Habits:** shrub(2). **Life forms:** phanerophyte(2). **States:** CE(2). **Habitats:** Sed.

*Senna spectabilis* (DC.) H.S.Irwin & Barneby **Habits:** shrub(4); tree(3). **Life forms:** phanerophyte(1). **States:** BA(3); CE(1); MG(5); PB(9); PE(11); PI(2); RN(1). **Habitats:** Agre, Arb, Cryst, Diam, Ins, Riv, Sed, Trans, Unc, Cryst, Riv, Trans.

*Senna splendida* (Vogel) H.S.Irwin & Barneby **Habits:** shrub(3); tree(2). **Life forms:** phanerophyte(1). **States:** BA(1); CE(2); PB(3); PE(4). **Habitats:** Agre, Diam, Riv, Sed, Trans, Sed.

*Senna trachypus* (Benth.) H.S.Irwin & Barneby **Habits:** shrub(7); subshrub(2); tree(1). **Life forms:** phanerophyte(4). **States:** CE(10); PE(2); PI(3). **Habitats:** Cryst, Sed, Trans.

*Senna uniflora* (Mill.) H.S.Irwin & Barneby **Habits:** herb(2); shrub(1). **Life forms:** hemicyptophyte(2). **States:** BA(3); PE(4); RN(2). **Habitats:** Aqua, Cryst, Trans, Unc.

*Senna velutina* (Vogel) H.S.Irwin & Barneby [Synonyms: *Cassia velutina* Vogel] **Habits:** shrub(1). **States:** PI(2). **Habitats:** Sed, Trans.

**Sesbania** (2 species)

*Sesbania exasperata* Kunth **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Riv.

*Sesbania virgata* (Cav.) Pers. [Synonyms: *Sesbania marginata* Benth.] **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Cryst.

**Stryphnodendron** (1 species)

*Stryphnodendron coriaceum* Benth. **States:** PI(1). **Habitats:** CMAior.

**Stylosanthes** (6 species)

*Stylosanthes angustifolia* Vogel **States:** RN(2). **Habitats:** Cryst, Unc.

*Stylosanthes capitata* Vogel **Habits:** herb(1); subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(2). **Habitats:** Sed.

*Stylosanthes guianensis* (Aubl.) Sw. **Habits:** herb(1). **States:** BA(2); PE(1). **Habitats:** Aqua, Riv.

*Stylosanthes humilis* Kunth **Habits:** herb(1). **Life forms:** therophyte(3). **States:** CE(3). **Habitats:** Cryst, Ins.

*Stylosanthes scabra* Vogel **Life forms:** therophyte(1). **States:** PB(1); PE(2). **Habitats:** Aqua, Cryst, Ins.

*Stylosanthes viscosa* (L.) Sw. **Habits:** herb(1). **States:** BA(3); PB(1); PE(2). **Habitats:** Cryst, Ins, Sed.

**Swartzia** (1 species)

*Swartzia flaemingii* Raddi **Habits:** tree(5). **Life forms:** phanerophyte(3). **States:** CE(8); PI(4). **Habitats:** Sed, Trans.

**Tachigali** (2 species)

*Tachigali aurea* Tul. [Synonyms: *Sclerolobium aureum* (Tul.) Benth.] **States:** PI(1). **Habitats:** CMAior.

*Tachigali densiflora* (Benth.) L.G.Silva & H.C.Lima [Synonyms: *Sclerolobium densiflorum* Benth.] **Habits:** shrub(1). **States:** PI(1). **Habitats:** Trans.

**Tephrosia** (2 species)

*Tephrosia cinerea* (L.) Pers. **States:** PE(1); RN(1). **Habitats:** Aqua, Unc.

*Tephrosia purpurea* (L.) Pers. **States:** PE(1). **Habitats:** Aqua.

**Trischidium** (2 species)

*Trischidium decipiens* (R.S.Cowan) H.E.Ireland [Synonyms: *Bocoa decipiens* R.S.Cowan] **Habits:** shrub(1). **States:** CE(1); PI(1). **Habitats:** Sed.

*Trischidium molle* (Benth.) H.E.Ireland [Synonyms: *Bocoa mollis* (Benth.) Cowan] **Habits:** shrub(10). **Life forms:** microphanerophyte(1). **States:** BA(3); CE(2); PE(8); PI(4). **Habitats:** Sed, Trans.

**Vachellia** (1 species)

*Vachellia farnesiana* (L.) Wight & Arn. [Synonyms: *Acacia farnesiana* (L.) Willd.] **Habits:** tree(1). **States:** PB(3); PE(1); RN(1). **Habitats:** Agre, Cryst, Riv, Unc.

**Vatairea** (1 species)

*Vatairea macrocarpa* (Benth.) Ducke **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

**Vigna** (2 species)

*Vigna halophila* (Piper) Maréchal et al. **States:** BA(1). **Habitats:** Ins.

*Vigna peduncularis* (Kunth) Fawc. & Rendle [Synonyms: *Phaseolus peduncularis* Kunth] **Habits:** climber(3). **Life forms:** liana(1); therophyte(2). **States:** PE(6); PI(1). **Habitats:** Agre, Ins, Sed, Trans.

**Zornia** (9 species)

*Zornia brasiliensis* Vogel **Habits:** herb(2). **Life forms:** therophyte(2). **States:** PE(2); RN(1). **Habitats:** Trans, Unc.

*Zornia curvata* Mohlenbr. **Habits:** herb(1). **States:** PB(1). **Habitats:** Ins.

*Zornia diphylla* (L.) Pers. **Habits:** tree(1). **Life forms:** therophyte(1). **States:** PB(1); PE(1). **Habitats:** Ins, Sed.

*Zornia gardneriana* Moric. **Habits:** herb(1). **States:** PI(1). **Habitats:** Trans.

*Zornia gemella* Vogel **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Trans.

*Zornia glabra* Desv. **States:** PB(1). **Habitats:** Cryst.

*Zornia myriadena* Benth. **Life forms:** therophyte(1). **States:** BA(1); PE(1). **Habitats:** Ins.

*Zornia reticulata* Sm. **States:** PB(1). **Habitats:** Cryst.

*Zornia sericea* Moric. **Habits:** herb(5). **Life forms:** therophyte(1). **States:** BA(1); CE(1); PE(4). **Habitats:** Ins, Sed, Trans.

**GENTIANACEAE** (1 genus; 1 species)

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**Schultesia** (1 species)

*Schultesia guianensis* (Aubl.) Malme **Life forms:** therophyte(2). **States:** CE(1); PE(2). **Habitats:** Ins.

**GESNERIACEAE** (2 genera; 3 species)

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**Paliavana** (1 species)

*Paliavana tenuiflora* Mansf. **Life forms:** phanerophyte(2). **States:** PE(3). **Habitats:** Ins.

**Sinningia** (2 species)

*Sinningia incarnata* (Aubl.) D.L.Denham **Life forms:** hemicytophyte(1). **States:** CE(1). **Habitats:** Ins.

*Sinningia nordestina* Chautems **Life forms:** therophyte(2). **States:** PE(3). **Habitats:** Ins.

**HYDROCHARITACEAE** (3 genera; 3 species)

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**Egeria** (1 species)

*Egeria densa* Planch. **States:** BA(3). **Habitats:** Aqua.

**Limnobium** (1 species)

*Limnobium laevigatum* (Humb. & Bonpl. ex Willd.) Heine **States:** BA(3). **Habitats:** Aqua.

**Najas** (1 species)

*Najas conferta* (A.Braun) A.Braun **States:** BA(1). **Habitats:** Aqua.

**HYDROLEACEAE** (1 genus; 1 species)

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**Hydrolea** (1 species)

*Hydrolea spinosa* L. **Habits:** subshrub(1). **States:** BA(7); CE(1); PE(1). **Habitats:** Aqua, Ins, Trans.

**HYPERICACEAE** (1 genus; 2 species)

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**Vismia** (2 species)

*Vismia guianensis* (Aubl.) Choisy **States:** PE(1). **Habitats:** Ins.

*Vismia micrantha* A.St.-Hil. **Habits:** shrub(1). **States:** BA(1). **Habitats:** Diam.

**HYPOXIDACEAE** (1 genus; 1 species)

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**Hypoxis** (1 species)

*Hypoxis decumbens* L. **States:** PE(1). **Habitats:** Ins.

IRIDACEAE (2 genera; 2 species)

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*Cipura* (1 species)

*Cipura paludosa* Aubl. **Habits:** herb(1). **Life forms:** cryptophyte-geo(1). **States:** PE(2). **Habitats:** Ins, Trans.

*Neomarica* (1 species)

*Neomarica gracilis* (Herb.) Sprague **States:** PE(1). **Habitats:** Ins.

KRAMERIAACEAE (1 genus; 1 species)

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*Krameria* (1 species)

*Krameria tomentosa* A.St.-Hil. **Habits:** ?(1); subshrub(1). **States:** BA(1); PE(1); PI(1). **Habitats:** Sed, Trans.

LAMIACEAE (11 genus; 26 species)

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*Aegiphila* (2 species)

*Aegiphila pernambucensis* Moldenke **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.

*Aegiphila smithii* Moldenke **States:** MG(2). **Habitats:** Arb.

*Amasonia* (1 species)

*Amasonia campestris* (Aubl.) Moldenke [Synonyms: *Amasonia coccinea* Liebm. & Moldenke] **Habits:** herb(1); subshrub(2). **Life forms:** chamaephyte(3). **States:** CE(3); PI(1). **Habitats:** Sed.

*Eriope* (1 species)

*Eriope hypenioides* Mart. ex Benth. **States:** BA(1). **Habitats:** Sed.

*Hypenia* (1 species)

*Hypenia salzmannii* (Benth.) Harley [Synonyms: *Hyptis salzmannii* Benth.] **Habits:** herb(2); subshrub(2). **Life forms:** therophyte(2). **States:** BA(1); CE(1); PE(2); PI(1). **Habitats:** Sed, Trans.

*Hyptidendron* (1 species)

*Hyptidendron amethystoides* (Benth.) Harley **Habits:** subshrub(1). **States:** CE(1). **Habitats:** Sed.

*Hyptis* (11 species)

*Hyptis atrorubens* Poit. **Habits:** herb(2). **Life forms:** therophyte(2). **States:** PE(3). **Habitats:** Cryst, Trans.

*Hyptis calida* Mart. ex Benth. **Life forms:** phanerophyte(2). **States:** PE(2). **Habitats:** Ins.

**Observations:** Subsequently recognised as distinct from *Hyptis* and given the new combination *Leptohyptis calida* (Mart. ex Benth.) R.M.Harley & J.F.B.Pastore.

*Hyptis dilatata* Benth. **States:** BA(1). **Habitats:** Sed.

*Hyptis fruticosa* Salzm. ex Benth. **Habits:** shrub(2); subshrub(1). **States:** BA(2); PE(5). **Habitats:** Ins, Sed.

**Observations:** Subsequently recognised as distinct from *Hyptis* and given the new combination *Eplingiella fruticosa* (Salzm. ex Benth.) Harley & J.F.B. Pastore.

*Hyptis martiusii* Benth. **Habits:** shrub(3); subshrub(1). **Life forms:** nanophanerophyte(1). **States:** BA(2); PE(6). **Habitats:** Diam, Sed.

**Observations:** Subsequently recognised as distinct from *Hyptis* and given the new combination *Medusantha martiusii* (Benth.) Harley & J.F.B. Pastore.

*Hyptis multiflora* Pohl **Habits:** subshrub(1). **States:** PI(1). **Habitats:** Trans.

**Observations:** Subsequently recognised as distinct from *Hyptis* and given the new combination *Medusantha multiflora* (Pohl ex Benth.) Harley & J.F.B. Pastore.

*Hyptis pectinata* (L.) Poit. **Life forms:** chamaephyte(1). **States:** PE(2). **Habitats:** Aqua, Ins.

**Observations:** Subsequently recognised as distinct from *Hyptis* and treated as *Mesosphaerum pectinatum* (L.) Kuntze.

*Hyptis platanifolia* Mart. ex Benth. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

**Observations:** Subsequently recognised as distinct from *Hyptis* and given the new combination *Gymneia platanifolia* (Pohl ex Benth.) Harley & J.F.B. Pastore.

*Hyptis sidifolia* (L'Hér.) Briq. **Life forms:** chamaephyte(1). **States:** PE(1). **Habitats:** Ins.

**Observations:** Subsequently recognised as distinct from *Hyptis* and given the new combination *Mesosphaerum sidifolium* (L'Hér.) Harley & J.F.B. Pastore.

*Hyptis simulans* Epling **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

**Observations:** Subsequently recognised as distinct from *Hyptis* and given the new combination *Medusantha simulans* (Epling) Harley & J.F.B. Pastore.

*Hyptis suaveolens* Poit. **Habits:** herb(4). **Life forms:** therophyte(3). **States:** BA(1); CE(3); PE(3); RN(3). **Habitats:** Aqua, Cryst, Sed, Trans, Unc.

**Observations:** Subsequently recognised as distinct from *Hyptis* and treated as *Mesosphaerum suaveolens* (L.) Kuntze.

**Leonotis** (1 species)

*Leonotis nepetifolia* (L.) R.Br. **Habits:** subshrub(2). **States:** PE(2). **Habitats:** Riv, Sed.

**Marsypianthes** (1 species)

*Marsypianthes chamaedrys* (Vahl) Kuntze **Habits:** herb(2). **Life forms:** therophyte(5). **States:** BA(1); CE(4); PB(1); PE(3); RN(3). **Habitats:** Aqua, Cryst, Ins, Sed, Unc.

**Ocimum** (1 species)

*Ocimum campechianum* Mill. **States:** BA(1). **Habitats:** Aqua.

**Rhaphiodon** (1 species)

*Rhaphiodon echinus* Schauer **Habits:** herb(2). **States:** BA(1); PB(1); PE(1). **Habitats:** Ins, Sed.

**Vitex** (5 species)

*Vitex cymosa* Bertero ex Spreng. **Habits:** tree(2). **States:** CE(2); MG(2); PI(3). **Habitats:** Arb, CMAior, Sed.

*Vitex gardneriana* Schauer **Habits:** shrub(4). **States:** PB(5); PE(1). **Habitats:** Riv.

*Vitex polygama* Cham. [Synonyms: *Vitex laciniosa* Turcz.] **States:** MG(2). **Habitats:** Arb.

*Vitex rufescens* A.Juss. [Synonyms: *Vitex regnelliana* Moldenke] **Life forms:** phanerophyte(1). **States:** PE(3). **Habitats:** Ins.

*Vitex schaueriana* Moldenke **Habits:** tree(2). **Life forms:** phanerophyte(2). **States:** CE(3); PB(1). **Habitats:** Cryst, Sed.

**LAURACEAE** (3 genera; 6 species)

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**Cassytha** (1 species)

*Cassytha filiformis* L. [Synonyms: *Cassytha americana* Nees] **Habits:** herb(1). **States:** PE(2). **Habitats:** Ins, Sed.

**Nectandra** (2 species)

*Nectandra membranacea* (Sw.) Griseb. **States:** BA(2). **Habitats:** Ins.

*Nectandra nitidula* Nees **States:** MG(2). **Habitats:** Arb.

**Ocotea** (3 species)

*Ocotea brachybotrya* (Meisn.) Mez **States:** PI(1). **Habitats:** CMAior.

*Ocotea duckei* Vattimo-Gil **Habits:** shrub(1). **States:** CE(1); PE(1). **Habitats:** Sed.

*Ocotea xanthocalyx* (Nees) Mez **Habits:** shrub(1). **Life forms:** microphanerophyte(1). **States:** PE(3). **Habitats:** Sed.

**LENTIBULARIACEAE** (1 genus; 5 species)

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**Utricularia** (5 species)



*Utricularia breviscapa* C.Wright ex Griseb. **States:** BA(1). **Habitats:** Aqua.  
*Utricularia foliosa* L. **States:** BA(1). **Habitats:** Aqua.  
*Utricularia gibba* L. **States:** BA(5). **Habitats:** Aqua.  
*Utricularia nigrescens* Sylvén **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.  
*Utricularia pusilla* Vahl **States:** PE(1). **Habitats:** Ins.

LIMNOCHARITACEAE (1 genus; 1 species)

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**Hydrocleis** (1 species)

*Hydrocleis nymphoides* (Willd.) Buchenau **States:** BA(4). **Habitats:** Aqua.

LINDERNIACEAE (1 genus; 1 species)

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**Micranthemum** (1 species)

*Micranthemum umbrosum* (Walter ex J.F.Gmel.) S.F.Blake **States:** BA(1). **Habitats:** Aqua.

LOASACEAE (2 genera; 2 species)

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**Aosa** (1 species)

*Aosa rupestris* (Gardner) Weigend [Synonyms: *Loasa rupestris* Gardner] **Life forms:** chamaephyte(1); phanerophyte(1);  
therophyte(1). **States:** BA(4); PB(1); PE(2). **Habitats:** Ins.

**Mentzelia** (1 species)

*Mentzelia aspera* L. [Synonyms: *Mentzelia fragilis* Huber] **Habits:** herb(2). **Life forms:** therophyte(1). **States:** CE(1); PE(2);  
RN(1). **Habitats:** Agre, Cryst, Trans.

LOGANIACEAE (2 genera; 3 species)

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**Spigelia** (1 species)

*Spigelia anthelmia* L. **Habits:** herb(1). **Life forms:** therophyte(2). **States:** CE(2). **Habitats:** Cryst.

**Strychnos** (2 species)

*Strychnos parvifolia* A.DC. **States:** BA(1); PB(1). **Habitats:** Agre, Ins.

*Strychnos rubiginosa* A.DC. **Habits:** climber(4); shrub(4); subshrub(1). **States:** CE(4); PE(5); PI(3). **Habitats:** Sed, Trans.

LORANTHACEAE (2 genera; 4 species)

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**Psittacanthus** (1 species)

*Psittacanthus cordatus* (Hoffmanns.) G.Don [Synonyms: *Psittacanthus bicalyculatus* (Mart.) Mart.] **Habits:** hemiparasite(2).  
**States:** BA(4); PE(1). **Habitats:** Ins, Sed.

**Struthanthus** (3 species)

*Struthanthus flexicaulis* Mart. **States:** BA(2). **Habitats:** Sed.

*Struthanthus polyrhizus* (Mart.) Mart. **Habits:** epiphyte(1); hemiparasite(1); herb(1). **States:** PE(3). **Habitats:** Sed.

*Struthanthus syringifolius* (Mart.) Mart. **Habits:** hemiparasite(3); herb(1). **States:** BA(1); PE(3). **Habitats:** Sed.

LYTHRACEAE (4 genera; 9 species)

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**Ammannia** (1 species)

*Ammannia latifolia* L. **States:** BA(4); PE(1). **Habitats:** Aqua.

**Cuphea** (6 species)

*Cuphea calophylla* Cham. & Schltld. **States:** PB(1). **Habitats:** Cryst.

*Cuphea campestris* Koehne **Habits:** herb(1). **Life forms:** therophyte(2). **States:** CE(2); PB(1); PE(2). **Habitats:** Cryst, Sed.

*Cuphea circaeoides* Sm. **Habits:** herb(2). **Life forms:** hemicytrophite(1); therophyte(2). **States:** CE(2); PE(1). **Habitats:** Cryst, Sed.

*Cuphea ericoides* Cham. & Schltld. **Life forms:** therophyte(1). **States:** PI(1). **Habitats:** Sed.

*Cuphea impatientifolia* A.St.-Hil. [Synonyms: *Cuphea prunellifolia* A.St.-Hil.] **States:** PE(1). **Habitats:** Agre.

*Cuphea racemosa* (L.f.) Spreng. **States:** PB(1). **Habitats:** Agre.

**Lafoensia** (1 species)

*Lafoensia glyptocarpa* Koehne **Habits:** subshrub(1). **Life forms:** microphanerophyte(1). **States:** PB(1); PE(3). **Habitats:** Agre, Sed.

**Pleurophora** (1 species)

*Pleurophora anomala* (A. St.-Hil.) Koehne **Life forms:** therophyte(1). **States:** BA(5); CE(1). **Habitats:** Aqua, Cryst.

MALPIGHIACEAE (14 genera; 38 species)

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**Banisteriopsis** (6 species)

*Banisteriopsis angustifolia* (A.Juss.) B.Gates **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Banisteriopsis laevifolia* (A.Juss.) B.Gates **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Banisteriopsis muricata* (Cav.) Cuatrec. **Habits:** climber(1). **States:** BA(1); PE(1). **Habitats:** Sed.

*Banisteriopsis oxyclada* (A.Juss.) B.Gates **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Banisteriopsis schizoptera* (A.Juss.) B.Gates **Habits:** climber(2). **States:** PE(2). **Habitats:** Sed.

*Banisteriopsis stellaris* (Griseb.) B.Gates [Synonyms: *Banisteriopsis stellaris* (Griseb.) B.Gates var. *latifolia*] **Habits:** climber(2); liana(3). **Life forms:** liana(1); phanerophyte(2). **States:** CE(3); PE(2); PI(3). **Habitats:** Sed.

**Barnebya** (1 species)

*Barnebya harleyi* W.R.Anderson & B.Gates **Life forms:** phanerophyte(1). **States:** BA(2); PI(1). **Habitats:** Ins, Sed.

**Bunchosia** (1 species)

*Bunchosia pernambucana* W.R.Anderson **Habits:** subshrub(2). **States:** PE(2). **Habitats:** Sed.

**Byrsonima** (7 species)

*Byrsonima correifolia* A.Juss. **Life forms:** phanerophyte(1). **States:** PI(2). **Habitats:** CMAior, Sed.

*Byrsonima crassifolia* (L.) Kunth **States:** PI(1); RN(1). **Habitats:** CMAior, Unc.

*Byrsonima cydoniifolia* A.Juss. **Habits:** shrub(1); tree(1). **States:** BA(1); PE(1). **Habitats:** Diam, Sed.

*Byrsonima gardneriana* A.Juss. **Habits:** tree(2). **Life forms:** phanerophyte(2). **States:** BA(3); CE(9); PE(4); PI(3). **Habitats:** Sed, Trans.

*Byrsonima nitidifolia* A.Juss. **States:** BA(1). **Habitats:** Ins.

*Byrsonima sericea* DC. **Habits:** treelet(1). **States:** PI(3). **Habitats:** CMAior.

*Byrsonima vacciniifolia* A.Juss. **Habits:** shrub(1); tree(1). **Life forms:** nanophanerophyte(1). **States:** BA(1); PE(3); PI(1). **Habitats:** Diam, Sed.

**Callaeum** (1 species)

*Callaeum psilophyllum* (A.Juss.) D.M.Johnson [Synonyms: *Mascagnia psilophylla* (A.Juss.) Griseb.] **Habits:** climber(1). **States:** PE(1). **Habitats:** Trans.

### Diplopterys (2 species)

*Diplopterys lutea* (Griseb.) W.R.Anderson & C.C.Davis [Synonyms: *Banisteriopsis lutea* (Griseb.) Cuatrec.] **States:** BA(1); PB(1). **Habitats:** Agre, Ins.

*Diplopterys pubipetala* (A.Juss.) W.R.Anderson & C.C.Davi [Synonyms: *Banisteriopsis pubipetala* (A.Juss.) Cuatrec.] **Habits:** climber(1). **States:** PE(1). **Habitats:** Sed.

### Galphimia (1 species)

*Galphimia brasiliensis* (L.) A.Juss. **States:** BA(1); PE(1). **Habitats:** Ins.

### Heteropterys (6 species)

*Heteropterys campestris* A.Juss. [Synonyms: *Heteropterys discolor* A.Juss.] **Habits:** shrub(1). **States:** PI(1). **Habitats:** Trans.

*Heteropterys chrysophylla* (Lam.) DC. **States:** BA(1). **Habitats:** Ins.

*Heteropterys dichromocalyx* W.R.Anderson **Habits:** shrub(1). **States:** PI(1). **Habitats:** Trans.

*Heteropterys grandiflora* A.Juss. **Habits:** liana(1). **States:** CE(1). **Habitats:** Trans.

*Heteropterys pteropetala* A.Juss. **Habits:** shrub(1). **States:** CE(1). **Habitats:** Trans.

*Heteropterys trichanthera* A.Juss. **Habits:** climber(1); shrub(2). **Life forms:** phanerophyte(2). **States:** BA(1); CE(2); PE(2). **Habitats:** Cryst, Diam, Ins, Sed.

### Janusia (3 species)

*Janusia anisandra* (A.Juss.) Griseb. **Habits:** climber(1). **States:** PE(1). **Habitats:** Sed.

*Janusia janusioides* (A.Juss.) W.R.Anderson **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Janusia schwannioides* W.R.Anderson **States:** BA(1). **Habitats:** Ins.

### Mascagnia (2 species)

*Mascagnia riparia* C.E.Anderson **Habits:** liana(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Cryst.

*Mascagnia sepium* (A.Juss.) Griseb. **Habits:** climber(1); shrub(1). **States:** CE(1); PE(1). **Habitats:** Agre, Trans.

### Peixotoa (1 species)

*Peixotoa jussieuana* A.Juss. **Habits:** climber(1); liana(4). **Life forms:** phanerophyte(2). **States:** CE(5); PI(5). **Habitats:** Sed, Trans.

### Ptilochaeta (1 species)

*Ptilochaeta bahiensis* Turcz. **Habits:** shrub(2); tree(1); treelet(1). **States:** CE(1); PE(4). **Habitats:** Agre, Sed, Trans.

### Stigmaphyllon (5 species)

*Stigmaphyllon auriculatum* (Cav.) A.Juss. **Habits:** climber(1). **Life forms:** phanerophyte(1). **States:** BA(1); CE(1); PE(1). **Habitats:** Cryst, Ins, Sed.

*Stigmaphyllon blanchetii* C.E.Anderson **Habits:** climber(1). **States:** PB(1). **Habitats:** Ins.

*Stigmaphyllon cavernulosum* C.E.Anderson **Habits:** liana(1). **States:** CE(1). **Habitats:** Trans.

*Stigmaphyllon paralias* A.Juss. **Habits:** climber(1); shrub(1); subshrub(1). **Life forms:** hemicyptophyte(1); phanerophyte(1). **States:** PB(1); PE(4); PI(1). **Habitats:** Ins, Sed.

*Stigmaphyllon rotundifolium* A.Juss. **Life forms:** phanerophyte(1). **States:** PB(1). **Habitats:** Ins.

### Thryallis (1 species)

*Thryallis longifolia* Mart. **States:** BA(2). **Habitats:** Ins.

### MALVACEAE (23 genera; 82 species)

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### Ayenia (1 species)

*Ayenia erecta* Mart. ex K.Schum. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(2). **Habitats:** Cryst, Trans.

### Bakeridesia (1 species)

*Bakeridesia andradelima* Monteiro **States:** PE(1). **Habitats:** Ins.

**Briquetia** (1 species)

*Briquetia spicata* (Kunth) Fryxell [Synonyms: *Pseudabutilon spicatum* (Kunth) R.E.Fr.] **Habits:** herb(2). **Life forms:** therophyte(2). **States:** CE(2); PE(1). **Habitats:** Agre, Cryst, Sed.

**Byttneria** (1 species)

*Byttneria filipes* Mart. ex K.Schum. **Habits:** shrub(1). **States:** PE(1). **Habitats:** Riv.

**Cavanillesia** (2 species)

*Cavanillesia hylogeiton* Ulbr. **States:** BA(1). **Habitats:** Diam.

*Cavanillesia umbellata* Ruiz & Pav. [Synonyms: *Cavanillesia arborea* (Willd.) K.Schum.] **States:** MG(6). **Habitats:** Arb.

**Ceiba** (4 species)

*Ceiba erianthos* (Cav.) K.Schum. **States:** BA(2). **Habitats:** Ins.

*Ceiba glaziovii* (Kuntze) K.Schum. [Synonyms: *Chorisia glaziovii* (Kuntze) E.Santos] **Habits:** tree(5). **States:** CE(1); PB(6); PE(4). **Habitats:** Agre, Cryst, Riv, Trans, Unc.

*Ceiba pubiflora* (A.St.-Hil.) K.Schum. **States:** MG(3). **Habitats:** Arb.

*Ceiba speciosa* (A.St.-Hil.) Ravenna **States:** MG(1). **Habitats:** Arb.

**Corchorus** (3 species)

*Corchorus argutus* Kunth **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(2). **Habitats:** Cryst, Unc.

*Corchorus hirtus* L. **Habits:** herb(4); subshrub(1). **Life forms:** therophyte(4). **States:** BA(2); CE(1); PE(8). **Habitats:** Agre, Aqua, Cryst, Trans.

*Corchorus orinocensis* Kunth **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

**Gaya** (4 species)

*Gaya aurea* A.St.-Hil. **Habits:** shrub(1). **States:** PE(1); RN(1). **Habitats:** Riv, Unc.

*Gaya gaudichaudiana* A.St.-Hil. **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

*Gaya gracilipes* K.Schum. **States:** BA(1). **Habitats:** Sed.

*Gaya monosperma* (K.Schum.) Krapov. [Synonyms: *Gaya elingulata* Krapov., Tressens & A.Fernández] **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** PE(1). **Habitats:** Cryst.

**Guazuma** (1 species)

*Guazuma ulmifolia* Lam. **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1); MG(2). **Habitats:** Arb, Cryst.

**Helicteres** (9 species)

*Helicteres baruensis* Jacq. [Synonyms: *Helicteres mollis* C.Presl] **Habits:** shrub(8). **Life forms:** phanerophyte(1). **States:** BA(2); CE(2); PB(2); PE(3); PI(3); RN(1). **Habitats:** Cryst, Diam, Riv, Sed, Trans, Unc.

*Helicteres brevispira* A.St.-Hil. **Habits:** shrub(1). **States:** PB(1). **Habitats:** Riv.

*Helicteres eichleri* K.Schum. **Habits:** shrub(2). **States:** BA(4); PB(3). **Habitats:** Agre, Diam, Ins, Riv.

*Helicteres guazumifolia* Kunth **States:** PB(1). **Habitats:** Cryst.

*Helicteres heptandra* L.B.Sm. **Habits:** shrub(4); subshrub(1). **Life forms:** phanerophyte(1). **States:** CE(4); PI(5).

**Habitats:** CMaior, Sed, Trans.

*Helicteres macropetala* A.St.-Hil. **Habits:** shrub(1). **States:** PE(3). **Habitats:** Agre.

*Helicteres muscosa* Mart. **Habits:** ?(1); shrub(5); subshrub(1). **Life forms:** phanerophyte(3). **States:** CE(7); PI(6). **Habitats:** Sed, Trans.

*Helicteres sacarolha* A.St.-Hil. et al. **States:** BA(1). **Habitats:** Sed.

*Helicteres velutina* K.Schum. **Habits:** shrub(4). **Life forms:** microphanerophyte(1). **States:** CE(1); PE(4). **Habitats:** Sed.

**Herissantia** (3 species)

*Herissantia crispa* (L.) Brizicky **Habits:** herb(2); shrub(2); subshrub(2). **Life forms:** chamaephyte(3). **States:** BA(1); CE(2); PE(8). **Habitats:** Agre, Cryst, Sed, Trans, Unc.

*Herissantia nemoralis* (A.St.-Hil.) Brizicky **States:** RN(1). **Habitats:** Unc.

*Herissantia tiubae* (K.Schum.) Brizicky [Synonyms: *Abutilon tiubae* K.Schum.] **Habits:** herb(1); shrub(3); subshrub(4). **Life forms:** chamaephyte(3). **States:** BA(1); CE(2); PE(11); PI(1). **Habitats:** Cryst, Ins, Riv, Sed, Trans.

### Luehea (4 species)

*Luehea candicans* Mart. & Zucc. **Habits:** shrub(1); tree(1). **States:** CE(2); PI(1). **Habitats:** Sed.

*Luehea candicans* var. *candicans* [Synonyms: *Luehea uniflora* A.St.-Hil.] **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed, Trans.

*Luehea divaricata* Mart. & Zucc. **States:** MG(2). **Habitats:** Arb.

*Luehea grandiflora* Mart. & Zucc. [Synonyms: *Luehea speciosa* Willd.] **Habits:** shrub(1); tree(1). **States:** BA(1); PI(2). **Habitats:** CMajor, Diam.

*Luehea paniculata* Mart. & Zucc. **States:** MG(2). **Habitats:** Arb.

### Malvastrum (2 species)

*Malvastrum coromandelianum* Garcke **States:** PE(1). **Habitats:** Cryst.

*Malvastrum tomentosum* (L.) S.R.Hill **States:** PE(1). **Habitats:** Trans.

*Malvastrum tomentosum* (L.) S.R.Hill subsp. *tomentosum* [Synonyms: *Malvastrum scabrum* Garcke] **Habits:** shrub(1). **States:** PE(2). **Habitats:** Agre, Trans.

### Melochia (4 species)

*Melochia arenosa* Benth. **Habits:** shrub(1). **States:** BA(1). **Habitats:** Diam.

*Melochia lanata* A.St.-Hil. **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Melochia pyramidata* L. **Habits:** shrub(3). **States:** BA(1); PB(5). **Habitats:** Aqua, Cryst, Riv.

*Melochia tomentosa* L. **Habits:** herb(2); shrub(2); subshrub(4). **Life forms:** chamaephyte(1); therophyte(1). **States:** BA(5); PB(5); PE(14); PI(1). **Habitats:** Agre, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

### Pachira (1 species)

*Pachira retusa* (Mart. & Zucc.) Fern.Alonso [Synonyms: *Bombacopsis retusa* A.Robyns] **Habits:** tree(1). **States:** BA(2). **Habitats:** Sed.

### Pavonia (6 species)

*Pavonia aschersoniana* Gürke **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Pavonia blanchetiana* Miq. **Habits:** shrub(2). **States:** PE(2). **Habitats:** Sed.

*Pavonia cancellata* (L.) Cav. [Synonyms: *Pavonia cancellata* var. *deltoides* (Mart.) A.St.-Hil. & Naudin] **Habits:** herb(1); subshrub(3). **Life forms:** chamaephyte(4); phanerophyte(1). **States:** CE(3); PB(1); PE(4); PI(1); RN(1). **Habitats:** Cryst, Ins, Sed, Trans, Unc.

*Pavonia glazioviana* Gürke [Synonyms: *Pavonia andrade-limae* Monteiro] **Habits:** shrub(5). **States:** BA(1); CE(4); PE(1); PI(4). **Habitats:** Sed, Trans.

*Pavonia humifusa* A.St.-Hil. **Habits:** subshrub(1). **States:** BA(1); PE(1). **Habitats:** Sed.

*Pavonia varians* Moric. **Habits:** subshrub(3). **States:** BA(1); PE(2). **Habitats:** Sed.

### Pseudobombax (3 species)

*Pseudobombax grandiflorum* (Cav.) A.Robyns **States:** PE(1); RN(1). **Habitats:** Cryst, Unc.

*Pseudobombax marginatum* (A.St.-Hil.) A. Robyns **Habits:** tree(8). **Life forms:** phanerophyte(2). **States:** CE(4); MG(4); PB(13); PE(4); PI(1); RN(1). **Habitats:** Agre, Arb, Cryst, Riv, Sed, Trans, Unc.

*Pseudobombax simplicifolium* A.Robyns **Habits:** tree(1). **States:** BA(1); MG(6); PB(1); PE(1). **Habitats:** Arb, Cryst, Diam.

### Sida (17 species)

*Sida acuta* Burm.f. **States:** PB(1). **Habitats:** Agre.

*Sida angustissima* A.St.-Hil. **States:** RN(1). **Habitats:** Unc.

*Sida anomala* A.St.-Hil. **States:** RN(1). **Habitats:** Unc.

*Sida blepharoprion* Ulbr. **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Sida castanocarpa* Krapov. **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.

*Sida ciliaris* L., *Sida ciliaris* does not occur in Brazil thus its use for a plant of the semi-arid is a misidentification (M. Bovini, pers. comm.) **Habits:** subshrub(2). **Life forms:** chamaephyte(2). **States:** CE(2); PB(1). **Habitats:** Cryst, Sed.

*Sida cordifolia* L. **Habits:** herb(1); shrub(3); subshrub(3). **Life forms:** therophyte(2). **States:** CE(1); PE(7); PI(1); RN(1). **Habitats:** Cryst, Sed, Trans, Unc.

*Sida galheirensis* Ulbr. **Habits:** herb(3); shrub(3); subshrub(4). **Life forms:** chamaephyte(1). **States:** BA(4); CE(3); PB(2); PE(10). **Habitats:** Cryst, Ins, Sed, Trans.

*Sida glomerata* Cav. **Habits:** herb(1); subshrub(2). **Life forms:** chamaephyte(1). **States:** CE(1); PE(2); PI(1). **Habitats:** Agre, Sed, Trans.  
*Sida jussiaeana* DC. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.  
*Sida linifolia* Cav. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(2). **Habitats:** Ins, Sed.  
*Sida regnellii* R.E.Fr. **Habits:** shrub(2). **States:** PE(2). **Habitats:** Trans.  
*Sida rhombifolia* L. **States:** RN(1). **Habitats:** Unc.  
*Sida rubifolia* A.St.-Hil. **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.  
*Sida salviifolia* C.Presl **Habits:** shrub(1). **States:** CE(1). **Habitats:** Trans.  
*Sida spinosa* L. **Habits:** shrub(1). **States:** BA(1); PE(3); RN(1). **Habitats:** Aqua, Trans, Unc.  
*Sida ulei* Ulbr. [Synonyms: *Sida salzmannii* Mont.] **Life forms:** chamaephyte(1). **States:** PI(1). **Habitats:** Sed.

**Sidastrum** (3 species)

*Sidastrum micranthum* (A.St.-Hil.) Fryxell **Habits:** shrub(1). **States:** CE(1). **Habitats:** Trans.  
*Sidastrum multiflorum* (Jacq.) Fryxell [Synonyms: *Sida acuminata* DC.] **Habits:** subshrub(1). **States:** BA(1); PE(2). **Habitats:** Agre, Ins.  
*Sidastrum paniculatum* (L.) Fryxell [Synonyms: *Sida paniculata* L.] **Habits:** subshrub(3). **Life forms:** chamaephyte(1). **States:** BA(2); PB(3); PE(2). **Habitats:** Agre, Ins, Sed.

**Sterculia** (1 species)

*Sterculia striata* A.St.-Hil. & Naudin **States:** MG(7). **Habitats:** Arb.

**Triumfetta** (1 species)

*Triumfetta semitriloba* Jacq. **States:** PB(1). **Habitats:** Agre.

**Waltheria** (8 species)

*Waltheria albicans* Turcz. **Habits:** shrub(1). **States:** PE(1). **Habitats:** Trans.  
*Waltheria americana* L. [Synonyms: *Waltheria indica* L.] **Habits:** herb(2); shrub(2); subshrub(3). **Life forms:** chamaephyte(2); phanerophyte(1); therophyte(1). **States:** BA(2); CE(3); PB(1); PE(9); RN(3). **Habitats:** Aqua, Cryst, Ins, Sed, Trans, Unc.  
*Waltheria brachypetala* Turcz. **Habits:** shrub(1); subshrub(1). **Life forms:** chamaephyte(1). **States:** BA(1); CE(2). **Habitats:** Sed.  
*Waltheria bracteosa* A.St.-Hil. & Naudin **States:** RN(1). **Habitats:** Unc.  
*Waltheria ferruginea* A.St.-Hil. **Habits:** shrub(3); subshrub(3). **Life forms:** phanerophyte(1). **States:** BA(1); CE(4); PE(4); PI(1). **Habitats:** Sed.  
*Waltheria maritima* A.St.-Hil. **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Ins.  
*Waltheria martiana* Benth. ex J.G.Saunders [Synonyms: *Waltheria macropoda* Turcz.] **Habits:** herb(3); subshrub(1). **Life forms:** chamaephyte(4); therophyte(1). **States:** CE(2); PE(3). **Habitats:** Cryst, Trans.  
*Waltheria rotundifolia* Schrank **Habits:** herb(2); shrub(1). **Life forms:** chamaephyte(1); therophyte(1). **States:** PE(4). **Habitats:** Cryst, Trans.

**Wissadula** (2 species)

*Wissadula amplissima* (L.) R.E.Fr. **Habits:** shrub(1). **Life forms:** therophyte(1). **States:** CE(2). **Habitats:** Cryst, Trans.  
*Wissadula contracta* (Link) R.E.Fr. **Habits:** herb(2); shrub(1); subshrub(1). **Life forms:** hemicryptophyte(1); therophyte(2). **States:** CE(3); PE(3). **Habitats:** Agre, Cryst, Sed, Trans.

**MARANTACEAE** (2 genera; 2 species)

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**Calathea** (1 species)

*Calathea villosa* (Lodd.) Lindl. **Habits:** herb(2). **Life forms:** cryptophyte-geo(2). **States:** CE(2); PB(1). **Habitats:** Agre, Sed.

**Maranta** (1 species)

*Maranta divaricata* Roscoe **Life forms:** hemicryptophyte(1). **States:** PB(1). **Habitats:** Ins.

**MARCGRAVIACEAE** (1 genus; 1 species)

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**Schwartzia** (1 species)

*Schwartzia brasiliensis* (Choisy) Bedell ex Gir.-Cañas [Synonyms: *Norantea brasiliensis* Choisy] **States:** PE(1). **Habitats:** Ins.

**MELASTOMATACEAE** (5 genera; 8 species)

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**Clidemia** (1 species)

*Clidemia hirta* (L.) D.Don **Habits:** ?(1); shrub(1). **Life forms:** therophyte(2). **States:** PE(3); PI(1). **Habitats:** Ins, Sed, Trans.

**Miconia** (1 species)

*Miconia albicans* (Sw.) Triana **Habits:** tree(1). **States:** PI(1). **Habitats:** Trans.

**Mouriri** (1 species)

*Mouriri pusa* Gardner **Habits:** tree(1). **States:** BA(2). **Habitats:** Sed.

**Pterolepis** (2 species)

*Pterolepis polygonoides* (DC.) Triana **Life forms:** therophyte(1). **States:** PE(2). **Habitats:** Ins.

*Pterolepis trichotoma* (Rottb.) Cogn. **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

**Tibouchina** (3 species)

*Tibouchina heteromalla* (D.Don) Cogn. [Synonyms: *Tibouchina grandifolia* Cogn.; *Tibouchina multiflora* (Gardner) Cogn.]

**Habits:** shrub(1); subshrub(1). **Life forms:** phanerophyte(2). **States:** PB(1); PE(4). **Habitats:** Ins, Sed.

*Tibouchina lithophila* Wurdack **Life forms:** phanerophyte(1). **States:** BA(1). **Habitats:** Ins.

*Tibouchina mutabilis* (Vell.) Cogn. **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

**MELIACEAE** (3 genera; 5 species)

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**Cabralea** (1 species)

*Cabralea canjerana* (Vell.) Mart. **States:** MG(2). **Habitats:** Arb.

**Cedrela** (2 species)

*Cedrela fissilis* Vell. **States:** MG(5). **Habitats:** Arb.

*Cedrela odorata* L. **Habits:** tree(1). **States:** CE(1); PE(2). **Habitats:** Agre, Unc.

**Trichilia** (2 species)

*Trichilia elegans* A.Juss. **Habits:** shrub(3). **Life forms:** phanerophyte(2). **States:** CE(4). **Habitats:** Sed.

*Trichilia hirta* L. [Synonyms: *Trichilia cathartica* Mart.] **Habits:** shrub(1). **States:** BA(1); MG(6); PI(1). **Habitats:** Arb, Ins, Trans.

**MENISPERMACEAE** (1 genus; 2 species)

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**Cissampelos** (2 species)

*Cissampelos andromorpha* DC. **States:** BA(1). **Habitats:** Ins.

*Cissampelos parriera* Vell., An illegitimate name. This name should not be used anymore. **Habits:** ?(1). **States:** PE(1).

**Habitats:** Riv.

**MENYANTHACEAE** (1 genus; 1 species)

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**Nymphoides** (1 species)

*Nymphoides indica* (L.) Kuntze **States:** BA(1). **Habitats:** Aqua.

**MOLLUGINACEAE** (2 genera; 2 species)

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**Glischrothamnus** (1 species)

*Glischrothamnus ulei* Pilg. **Habits:** subshrub(1). **States:** BA(1). **Habitats:** Sed.

**Mollugo** (1 species)

*Mollugo verticillata* L. **Habits:** herb(10). **Life forms:** therophyte(6). **States:** BA(2); CE(1); PB(3); PE(12); PI(1). **Habitats:** Aqua, Cryst, Ins, Riv, Sed, Trans.

**MORACEAE** (4 genera; 7 species)

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**Brosimum** (1 species)

*Brosimum gaudichaudii* Trécul **Habits:** shrub(1); tree(3). **Life forms:** phanerophyte(1). **States:** CE(4); PI(5). **Habitats:** CMAior, Sed, Trans.

**Dorstenia** (1 species)

*Dorstenia asaroides* Gardner ex Hook. **States:** PE(1). **Habitats:** Agre.

**Ficus** (4 species)

*Ficus arpazusa* Casar. **States:** PB(1). **Habitats:** Agre.

*Ficus christianii* Carauta [Synonyms: *Ficus gameleira* Standl.] **States:** MG(1). **Habitats:** Arb.

*Ficus cyclophylla* (Miq.) Miq. **States:** BA(1). **Habitats:** Ins.

*Ficus elliotiana* S.Moore **States:** BA(1). **Habitats:** Ins.

**Maclura** (1 species)

*Maclura tinctoria* (L.) D.Don ex Steud. [Synonyms: *Chlorophora tinctoria* (L.) Gaudich.] **States:** BA(2); MG(5); PB(1). **Habitats:** Agre, Arb, Ins.

**MYRSINACEAE** (3 genera; 3 species)

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**Anagallis** (1 species)

*Anagallis minima* E.H.L.Krause **Life forms:** therophyte(2). **States:** PE(2). **Habitats:** Ins.

**Cybianthus** (1 species)

*Cybianthus penduliflorus* Mart. **Habits:** ?(1). **States:** PI(1). **Habitats:** Trans.

**Myrsine** (1 species)

*Myrsine guianensis* (Aubl.) Kuntze **States:** PB(1). **Habitats:** Agre.

**MYRTACEAE** (6 genera; 42 species)

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**Campomanesia** (6 species)

*Campomanesia aromatica* (Aubl.) Griseb. **Habits:** shrub(6); treelet(1). **Life forms:** microphanerophyte(1); phanerophyte(2). **States:** CE(5); PE(7). **Habitats:** Ins, Sed, Trans.

*Campomanesia dichotoma* (O.Berg) Mattos **States:** PB(1). **Habitats:** Agre.



*Campomanesia eugenioides* (Cambess.) D.Legrand **States:** BA(2); PE(1). **Habitats:** Ins.  
*Campomanesia pubescens* (DC.) O.Berg **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.  
*Campomanesia velutina* (Cambess.) O.Berg **Habits:** shrub(1). **States:** CE(2). **Habitats:** Sed.  
*Campomanesia viatoris* Landrum **Habits:** shrub(1). **States:** PE(1). **Habitats:** Trans.

#### **Eugenia** (19 species)

*Eugenia aurata* O.Berg **Habits:** shrub(1). **States:** CE(5). **Habitats:** Sed.  
*Eugenia azuruensis* O.Berg **Life forms:** phanerophyte(1). **States:** PI(1). **Habitats:** Sed.  
*Eugenia biflora* (L.) DC. **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.  
*Eugenia candolleana* DC. **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.  
*Eugenia crenata* Vell. **States:** BA(1). **Habitats:** Diam.  
*Eugenia dichroma* O.Berg **Habits:** ?(1). **States:** PI(1). **Habitats:** Trans.  
*Eugenia dysenterica* DC. **Habits:** shrub(1); tree(2). **Life forms:** phanerophyte(2). **States:** BA(1); CE(5). **Habitats:** Diam, Sed.  
*Eugenia flavescens* DC. **Habits:** shrub(2); tree(2). **Life forms:** phanerophyte(3). **States:** CE(4); PE(1); PI(3). **Habitats:** Trans, Sed.  
*Eugenia florida* DC. **States:** MG(9). **Habitats:** Arb.  
*Eugenia ligustrina* (Sw.) Willd. **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.  
*Eugenia luschnathiana* (O.Berg) Klotzsch ex B.D.Jacks. **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.  
*Eugenia mansoi* O.Berg **States:** BA(1). **Habitats:** Ins.  
*Eugenia pseudopsidium* Jacq. **Habits:** shrub(1). **Life forms:** microphanerophyte(1). **States:** PE(3). **Habitats:** Sed.  
*Eugenia puniceifolia* (Kunth) DC. [Synonyms: *Eugenia ciarensis* O.Berg.; *Eugenia diantha* O.Berg; *Eugenia flava* O.Berg] **Habits:** shrub(6); tree(4). **Life forms:** microphanerophyte(1); phanerophyte(2). **States:** CE(7); PE(5); PI(5). **Habitats:** Sed, Trans.  
*Eugenia pyriformis* Cambess. [Synonyms: *Eugenia uvalha* Cambess.; *Eugenia vauthiereana* O.Berg] **Habits:** shrub(2); tree(3). **Life forms:** phanerophyte(1). **States:** CE(2); PB(4); PE(2). **Habitats:** Agre, Riv, Sed.  
*Eugenia rosea* DC. **States:** BA(2). **Habitats:** Ins.  
*Eugenia stictopetala* DC. [Synonyms: *Eugenia piauiensis* O.Berg; *Eugenia tapacumensis* O.Berg] **Habits:** ?(1); shrub(3); tree(4). **Life forms:** phanerophyte(3). **States:** CE(8); PE(2); PI(4). **Habitats:** Sed, Trans.  
*Eugenia uniflora* L. **States:** MG(2). **Habitats:** Arb.  
*Eugenia vattimoana* Mattos **States:** CE(1). **Habitats:** Sed.

#### **Myrcia** (6 species)

*Myrcia aegiphiloides* Mattos **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.  
*Myrcia guianensis* (Aubl.) DC. [Synonyms: *Myrcia obtecta* (O.Berg) Kiaersk.] **Habits:** shrub(2). **Life forms:** phanerophyte(1). **States:** CE(3). **Habitats:** Sed.  
*Myrcia multiflora* (Lam.) DC. **Habits:** shrub(2). **Life forms:** microphanerophyte(1); phanerophyte(1). **States:** CE(1); PE(3). **Habitats:** Sed.  
*Myrcia oblongata* DC. **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.  
*Myrcia splendens* (Sw.) DC. [Synonyms: *Myrcia acutata* O.Berg; *Myrcia acutiloba* O.Berg; *Myrcia alagoensis* O.Berg] **Habits:** ?(1). **States:** PB(1); PI(1). **Habitats:** Agre, Trans.  
*Myrcia tomentosa* (Aubl.) DC. **Habits:** shrub(1). **States:** PB(1); PE(1). **Habitats:** Agre, Sed.

#### **Myrciaria** (1 species)

*Myrciaria ferruginea* O.Berg **Habits:** tree(2). **States:** PI(2). **Habitats:** Trans.

#### **Plinia** (1 species)

*Plinia cauliflora* (Mart.) Kausel [Synonyms: *Myrciaria cauliflora* (Mart.) O.Berg] **States:** PB(1). **Habitats:** Agre.

#### **Psidium** (9 species)

*Psidium acutangulum* DC. [Synonyms: *Psidium persoonii* McVaugh] **Habits:** shrub(2). **States:** PE(2). **Habitats:** Sed.  
*Psidium appendiculatum* Kiaersk. **Habits:** shrub(1). **States:** BA(2); CE(1). **Habitats:** Ins, Sed.  
*Psidium guineense* Sw. [Synonyms: *Psidium albidum* Miq.; *Psidium araca* Raddi] **States:** PB(1); PE(1). **Habitats:** Agre, Ins.  
*Psidium myrsinites* DC. **Habits:** treelet(1). **States:** PI(3). **Habitats:** CMAior.  
*Psidium myrtilloides* O.Berg [Synonyms: *Psidium myrsinoides* O.Berg; *Psidium myrsinoides* O.Berg] **Habits:** shrub(3). **States:** PE(4). **Habitats:** Sed.  
*Psidium oligospermum* DC. **States:** PB(1). **Habitats:** Agre.  
*Psidium riparium* Mart. ex DC. **Habits:** shrub(1). **States:** PB(1); PE(1). **Habitats:** Agre, Sed.  
*Psidium salutare* (Kunth) O.Berg [Synonyms: *Psidium luridum* (Spreng.) Burret] **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.

*Psidium sartorianum* (O.Berg) Nied. **Habits:** shrub(1). **States:** CE(2). **Habitats:** Sed.

NYCTAGINACEAE (5 genera; 10 species)

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**Boerhavia** (2 species)

*Boerhavia coccinea* Mill., A widespread ruderal species whose native status is uncertain, *Boerhavia coccinea* may in fact be an exotic species of unknown origin (C.F.C Sá, pers. comm.). **Habits:** herb(3). **Life forms:** hemicryptophyte(1); therophyte(2).

**States:** CE(1); PE(3); RN(1). **Habitats:** Agre, Cryst, Trans.

*Boerhavia diffusa* L., A widespread ruderal species whose native status is uncertain, *Boerhavia diffusa* may in fact be an exotic species of unknown origin (C.F.C Sá, pers. comm.) **Habits:** herb(2). **Life forms:** chamaephyte(1); therophyte(1). **States:** CE(1); PB(3); PE(1). **Habitats:** Cryst, Ins, Riv.

**Bougainvillea** (1 species)

*Bougainvillea praecox* Griseb. **States:** MG(3). **Habitats:** Arb.

**Guapira** (5 species)

*Guapira campestris* (Netto) Lundell [Synonyms: *Pisonia campestris* Netto] **Habits:** tree(1). **States:** PI(2). **Habitats:** Sed, Trans.

*Guapira graciliflora* (Mart. ex Schmidt) Lundell **Habits:** shrub(5); tree(1). **Life forms:** phanerophyte(3). **States:** BA(1); CE(10). **Habitats:** Cryst, Diam, Sed.

*Guapira noxia* (Netto) Lundell **Habits:** tree(4). **Life forms:** phanerophyte(1). **States:** PE(6); RN(1). **Habitats:** Agre, Cryst, Unc.

*Guapira opposita* (Vell.) Reitz [Synonyms: *Guapira laxiflora* (Choisy) Lundell; *Pisonia minor* Choisy] **States:** MG(3); PB(3); PE(1); RN(1). **Habitats:** Agre, Arb, Ins, Riv, Unc.

*Guapira tomentosa* (Casar.) Lundell [Synonyms: *Pisonia tomentosa* Casar.] **States:** BA(3); PE(2); RN(5). **Habitats:** Diam, Ins, Unc.

**Neea** (1 species)

*Neea obovata* Spruce ex Heimerl **Habits:** tree(1). **States:** CE(1). **Habitats:** Sed.

**Pisonia** (1 species)

*Pisonia laxa* Netto. **Observations:** The name *Guapira laxa* (Netto) Furlan has been in use in many floristic surveys in Northeastern Brazil, but to date it is a *nomen nudum*. A. Furlan died before publishing this name. Botanist A.M. Giulietti says she intends to validate this name, but to date if one needs to cite this species one should use *Pisonia laxa* Netto until the new combination is validated under *Guapira*. **Habits:** shrub(2); tree(11). **States:** CE(2); PB(4); PE(8); PI(2). **Habitats:** Agre, Cryst, Riv, Sed, Trans.

NYMPHAEACEAE (1 genus; 2 species)

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**Nymphaea** (2 species)

*Nymphaea amazonum* Mart. & Zucc. **States:** BA(1). **Habitats:** Aqua.

*Nymphaea ampla* (Salisb.) DC. **States:** BA(6). **Habitats:** Aqua.

OCHNACEAE (1 genus; 5 species)

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**Ouratea** (5 species)

*Ouratea blanchetiana* (Planch.) Engl. **Habits:** shrub(1). **Life forms:** nanophanerophyte(1). **States:** PE(3). **Habitats:** Sed.

*Ouratea cearensis* (Tiegh.) Sastre **Habits:** shrub(1); tree(1). **States:** CE(1); PI(1). **Habitats:** CMAior, Sed.

*Ouratea discophora* Ducke **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Ouratea glaucescens* (A.St.-Hil.) Engl. **Habits:** tree(1). **States:** BA(2). **Habitats:** Sed.

*Ouratea parvifolia* (A.St.-Hil.) Engl. **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed.

OLACACEAE (1 genus; 2 species)

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**Ximenia** (2 species)

*Ximenia americana* L. **Habits:** shrub(6); tree(5). **Life forms:** phanerophyte(2). **States:** BA(3); CE(4); PB(6); PE(1); PI(8); RN(3).  
**Habitats:** Agre, CMaior, Cryst, Diam, Riv, Sed, Trans, Unc.

*Ximenia coriacea* Engl. **States:** CE(2). **Habitats:** Cryst.

**ONAGRACEAE** (1 genus; 7 species)

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**Ludwigia** (7 species)

*Ludwigia affinis* (DC.) H.Hara **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Riv.

*Ludwigia erecta* (L.) H.Hara **Habits:** herb(1); subshrub(1). **Life forms:** therophyte(1). **States:** BA(1); CE(1); PE(2).  
**Habitats:** Aqua, Cryst, Riv.

*Ludwigia filiformis* (Micheli) Ramamoorthy **States:** BA(2). **Habitats:** Aqua.

*Ludwigia helminthorrhiza* (Mart.) H.Hara **States:** BA(1). **Habitats:** Aqua.

*Ludwigia hyssopifolia* (G.Don) Exell **Habits:** herb(1). **States:** CE(1). **Habitats:** Trans.

*Ludwigia inclinata* (L.f.) M.Gómez **States:** BA(3). **Habitats:** Aqua.

*Ludwigia leptocarpa* (Nutt.) H.Hara **Life forms:** therophyte(1). **States:** BA(2); PE(1). **Habitats:** Aqua, Ins.

**OPILIACEAE** (1 genus; 1 species)

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**Agonandra** (1 species)

*Agonandra brasiliensis* Miers ex Benth. & Hook.f. **Habits:** shrub(1); tree(3). **Life forms:** phanerophyte(3). **States:** CE(6); PI(5).  
**Habitats:** CMaior, Sed.

**ORCHIDACEAE** (17 genera; 34 species)

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**Acianthera** (1 species)

*Acianthera ochreate* (Lindl.) Pridgeon & M.W.Chase [Synonyms: *Pleurothallis ochreate* Lindl.] **Life forms:** hemicryptophyte(1);  
phanerophyte(2). **States:** PB(1); PE(3). **Habitats:** Ins.

**Brassavola** (1 species)

*Brassavola tuberculata* Hook. **Habits:** rupicolous(1). **Life forms:** chamaephyte(1). **States:** BA(1); PB(1); PE(1). **Habitats:** Ins.

**Campylocentrum** (1 species)

*Campylocentrum crassirhizum* Hoehne **Life forms:** chamaephyte(2). **States:** PE(2). **Habitats:** Ins.

**Catasetum** (2 species)

*Catasetum barbatum* (Lindl.) Lindl. **Habits:** epiphyte(1). **Life forms:** cryptophyte-geo(1). **States:** PE(2). **Habitats:** Ins, Sed.

*Catasetum uncatum* Rolfe **States:** BA(2). **Habitats:** Ins.

**Cattleya** (1 species)

*Cattleya aelandiae* Lindl. **Life forms:** chamaephyte(1). **States:** BA(1). **Habitats:** Ins.

**Cyrtopodium** (7 species)

*Cyrtopodium aliciae* Lindl. & Rehb.f **Habits:** herb(1). **States:** PE(1). **Habitats:** Agre.

*Cyrtopodium andersonii* (Lamb. ex Andrews) R.Br. **States:** PB(1). **Habitats:** Agre.

**Observations:** According to specialist C. Van den Berg this record represents a misidentification and the species in question is probably *Cyrtopodium flavum* Link & Otto ex Rehb.f.

*Cyrtopodium flavum* Link & Otto ex Rchb.f. [Synonyms: *Cyrtopodium polyphyllum* (Vell.) Pabst ex F.Barros] **Life forms:** cryptophyte-geo(2). **States:** PE(3). **Habitats:** Ins.

*Cyrtopodium gigas* (Vell.) Hoehne **States:** BA(1). **Habitats:** Ins.

**Observations:** According to specialist C. Van den Berg this record represents a misidentification and the species in question is probably *Cyrtopodium saintlegerianum* Rchb.f.

*Cyrtopodium holstii* L.C.Menezes **Habits:** rupicolous(1). **States:** PB(1); PE(1). **Habitats:** Agre, Ins.

*Cyrtopodium intermedium* Brade **Habits:** herb(1). **States:** PE(2). **Habitats:** Ins, Sed.

*Cyrtopodium poecilum* Rchb.f. & Warm. **Life forms:** hemicryptophyte(1). **States:** PB(1). **Habitats:** Ins.

#### Encyclia (2 species)

*Encyclia dichroma* (Lindl.) Schltr. **Life forms:** chamaephyte(1). **States:** BA(2). **Habitats:** Ins.

**Observations:** According to specialist C. Van den Berg this record represents a misidentification and the species in question is probably *Encyclia ghillanyi* Pabst.

*Encyclia oncioides* (Lindl.) Schltr. **States:** PE(1). **Habitats:** Ins.

#### Epidendrum (4 species)

*Epidendrum cinnabarinum* Salzm. **States:** PE(1). **Habitats:** Ins.

*Epidendrum difforme* Jacq. **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Epidendrum rigidum* Jacq. **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Epidendrum secundum* Jacq. **States:** PE(1). **Habitats:** Ins.

#### Habenaria (6 species)

*Habenaria hexaptera* Lindl. **Life forms:** chamaephyte(1). **States:** PB(1). **Habitats:** Ins.

*Habenaria obtusa* Lindl. **Life forms:** chamaephyte(1). **States:** PB(1); PE(1). **Habitats:** Ins.

*Habenaria petalodes* Lindl. **Life forms:** chamaephyte(1). **States:** PB(1). **Habitats:** Ins.

*Habenaria pratensis* (Salzm. ex Lindl.) Rchb.f. **Life forms:** cryptophyte-geo(2). **States:** PE(2). **Habitats:** Ins.

*Habenaria repens* Nutt. **States:** BA(3). **Habitats:** Aqua.

*Habenaria trifida* Kunth **Life forms:** cryptophyte-geo(1). **States:** PE(2). **Habitats:** Ins.

#### Oncidium (1 species)

*Oncidium baueri* Lindl. **Life forms:** cryptophyte-geo(1). **States:** PE(1). **Habitats:** Ins.

#### Polystachya (1 species)

*Polystachya estrellensis* Rchb.f. **Life forms:** cryptophyte-geo(2). **States:** PE(2). **Habitats:** Ins.

#### Prescottia (1 species)

*Prescottia phleoides* Lindl. **Life forms:** cryptophyte-geo(2); hemicryptophyte(1). **States:** PB(1); PE(2). **Habitats:** Ins.

#### Rodriguezia (1 species)

*Rodriguezia bahiensis* Rchb.f. **Life forms:** cryptophyte-geo(1). **States:** PE(1). **Habitats:** Ins.

#### Sarcoglottis (1 species)

*Sarcoglottis acaulis* (Sm.) Schltr. **States:** PE(1). **Habitats:** Agre.

#### Scaphyglottis (1 species)

*Scaphyglottis fusiformis* (Griseb.) Schultes **States:** PE(1). **Habitats:** Ins.

#### Sobralia (1 species)

*Sobralia liliastrum* Salzm. ex Lindl. **States:** PE(1). **Habitats:** Ins.

#### Vanilla (2 species)

*Vanilla chamissonis* Klotzsch **Habits:** climber(1). **States:** PE(1). **Habitats:** Agre.

*Vanilla palmarum* (Salzm. ex Lindl.) Lindl. **Habits:** epiphyte(1). **States:** BA(2); PE(1). **Habitats:** Ins, Sed.

#### OROBANCHACEAE (1 genus; 1 species)

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**Melasma** (1 species)

*Melasma melampyroides* (Rich.) Pennell [Synonyms: *Alectra aspera* (Cham. & Schldl.) L.O.Williams] **Life forms:** therophyte(1). **States:** BA(1); PE(1). **Habitats:** Aqua, Ins.

**OXALIDACEAE** (1 genus; 10 species)

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**Oxalis** (10 species)

*Oxalis cratensis* Oliv. ex Hook. **Life forms:** therophyte(1). **States:** PE(2). **Habitats:** Ins, Trans.

*Oxalis divaricata* Mart. ex Zucc. [Synonyms: *Oxalis euphorbioides* A.St.-Hil.; *Oxalis noronhae* Oliv.] **Habits:** herb(3); subshrub(3). **Life forms:** chamaephyte(3); phanerophyte(1); therophyte(2). **States:** CE(3); PB(2); PE(3). **Habitats:** Agre, Cryst, Ins, Sed.

*Oxalis eriocarpa* DC. **Habits:** herb(1). **States:** PI(1). **Habitats:** Trans.

*Oxalis frutescens* L. **Habits:** subshrub(2). **Life forms:** chamaephyte(2). **States:** CE(2); PE(2). **Habitats:** Sed, Ins, Sed.

*Oxalis glaucescens* Norlind **Life forms:** therophyte. **States:** PE(2). **Habitats:** Trans.

*Oxalis hedysarifolia* Raddi **Life forms:** therophyte(1). **States:** PE(2). **Habitats:** Ins.

*Oxalis psoraleoides* Kunth **States:** BA(1); PE(1). **Habitats:** Diam, Trans.

*Oxalis refracta* A.St.-Hil. **States:** PB(1). **Habitats:** Agre.

*Oxalis sepium* A.St.-Hil. **Habits:** herb(1). **States:** PI(1). **Habitats:** Trans.

*Oxalis triangularis* A.St.-Hil. **Habits:** herb(1). **States:** CE(1). **Habitats:** Trans.

**PASSIFLORACEAE** (1 genus; 6 species)

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**Passiflora** (6 species)

*Passiflora alata* Curtis **States:** PE(1). **Habitats:** Ins.

*Passiflora cincinnata* Mast. **Habits:** climber(2); liana(1). **Life forms:** liana(1); phanerophyte(1). **States:** BA(2); CE(1); PE(3); PI(1). **Habitats:** Ins, Sed, Trans.

*Passiflora edmundoi* Sacco **Life forms:** liana(1). **States:** PI(1). **Habitats:** Sed.

*Passiflora foetida* L. **Habits:** climber(4); liana(2). **Life forms:** chamaephyte(3); therophyte(2). **States:** BA(1); CE(3); PE(6); PI(1). **Habitats:** Cryst, Ins, Sed, Trans.

*Passiflora galbana* Mast. **Habits:** climber(1). **States:** PE(2). **Habitats:** Ins, Sed.

*Passiflora luetzelburgii* Harms **Habits:** climber(5). **States:** PB(1); PE(4). **Habitats:** Ins, Sed.

**PHYLLANTHACEAE** (2 genera; 7 species)

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**Flueggea** (1 species)

*Flueggea flexuosa* Müll.Arg **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

**Phyllanthus** (6 species)

*Phyllanthus caroliniensis* Walter **Habits:** herb(1). **Life forms:** therophyte(2). **States:** CE(2). **Habitats:** Cryst.

*Phyllanthus chacoensis* Morong **Habits:** tree(1). **States:** PE(1). **Habitats:** Riv.

*Phyllanthus heteradenius* Müll.Arg. **Habits:** herb(4). **Life forms:** therophyte(4). **States:** PE(5). **Habitats:** Cryst, Trans.

*Phyllanthus niruri* L. [Synonyms: *Phyllanthus lathyroides* Kunth] **Habits:** herb(5). **Life forms:** phanerophyte(1); therophyte(7). **States:** CE(1); PB(1); PE(10). **Habitats:** Agre, Cryst, Ins, Sed, Trans, Unc.

*Phyllanthus orbiculatus* Rich. **Habits:** herb(2). **Life forms:** therophyte(2). **States:** CE(3). **Habitats:** Cryst, Sed.

*Phyllanthus tenellus* Roxb. **States:** PB(1). **Habitats:** Cryst.

**PHYTOLACCACEAE** (2 genera; 6 species)

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**Microtea** (5 species)

*Microtea glochidiata* Moq. **Life forms:** therophyte(1). **States:** PB(1). **Habitats:** Ins.

*Microtea longebracteata* H. Walter **States:** BA(1). **Habitats:** Aqua.

*Microtea maypurensis* (Kunth) G. Don **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

*Microtea paniculata* Moq. **Habits:** herb(7). **Life forms:** therophyte(4). **States:** CE(1); PE(9). **Habitats:** Cryst, Ins, Sed, Trans.

*Microtea scabrida* Urb. **States:** PE(1). **Habitats:** Unc.

**Rivina** (1 species)

*Rivina humilis* L. [Synonyms: *Rivina brasiliensis* Nocca] **Habits:** herb(1). **Life forms:** phanerophyte(1). **States:** BA(1); PB(2); PE(1). **Habitats:** Agre, Ins, Riv.

**PICRAMNIACEAE** (1 genus; 2 species)

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**Picramnia** (2 species)

*Picramnia andrade-limae* Pirani **States:** PB(1). **Habitats:** Agre.

*Picramnia bahiensis* Turcz. **Habits:** shrub(1). **States:** BA(1). **Habitats:** Diam.

**PIPERACEAE** (2 genera; 3 species)

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**Peperomia** (2 species)

*Peperomia blanda* (Jacq.) Kunth **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

*Peperomia circinnata* Link **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

**Piper** (1 species)

*Piper nigrum* L. **States:** PE(1). **Habitats:** Ins.

**PLANTAGINACEAE** (6 genera; 13 species)

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**Angelonia** (6 species)

*Angelonia biflora* Benth. **Habits:** herb(1). **Life forms:** hemicryptophyte(1). **States:** CE(2). **Habitats:** Cryst, Trans.

*Angelonia blanchetii* Benth. **Habits:** herb(1). **States:** BA(1). **Habitats:** Sed.

*Angelonia campestris* Nees & Mart. **Habits:** herb(1). **States:** BA(1); PE(1). **Habitats:** Ins, Riv.

*Angelonia cornigera* Hook. f. **Habits:** herb(5). **Life forms:** therophyte(3). **States:** CE(2); PE(4). **Habitats:** Sed, Trans.

*Angelonia pubescens* Benth. **Life forms:** therophyte(2). **States:** CE(1); PE(1). **Habitats:** Cryst, Ins.

*Angelonia salicariifolia* Bonpl. [Synonyms: *Angelonia gardneri* Hook.] **Habits:** herb(1). **States:** BA(1); PB(1); PE(2).

**Habitats:** Agre, Aqua, Riv.

**Bacopa** (2 species)

*Bacopa aquatica* Aubl. **States:** BA(1). **Habitats:** Aqua.

*Bacopa stricta* (Schrad.) Wettst. ex Edwall **States:** BA(1). **Habitats:** Aqua.

**Dizygostemon** (1 species)

*Dizygostemon floribundum* (Benth.) Radlk. ex Wettst. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

**Scoparia** (1 species)

*Scoparia dulcis* L. **Habits:** herb(1); subshrub(1). **Life forms:** chamaephyte(2); therophyte(1). **States:** BA(1); CE(2); PB(1); PI(1).

**Habitats:** Aqua, Cryst, Ins, Trans.

**Stemodia** (2 species)

*Stemodia maritima* L. **Habits:** ?(1). **States:** PE(2). **Habitats:** Aqua, Riv.

*Stemodia pratensis* (Aubl.) C. C. Cowan, *Stemodia pratensis* does not occur in Brazil but the name has been misapplied to the caatinga species *Stemodia foliosa* Benth. (V. C. Souza, pers. comm.) **Life forms:** phanerophyte(1). **States:** BA(2). **Habitats:** Aqua, Ins.

**Tetraulacium** (1 species)

*Tetraulacium veroniciforme* Turcz. **Habits:** herb(2). **Life forms:** therophyte(2). **States:** PE(2); RN(1). **Habitats:** Trans, Unc.

**PLUMBAGINACEAE** (1 genus; 1 species)

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**Plumbago** (1 species)

*Plumbago scandens* L. **Habits:** climber(1); herb(2); subshrub(3). **Life forms:** chamaephyte(1). **States:** BA(2); CE(2); PB(2); PE(5); PI(1). **Habitats:** Agre, Cryst, Ins, Riv, Sed, Trans.

**POACEAE** (33 genera; 61 species)

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**Andropogon** (1 species)

*Andropogon selloanus* (Hack.) Hack. **States:** PE(1). **Habitats:** Ins.

**Anthephora** (1 species)

*Anthephora hermaphrodita* (L.) Kuntze **Life forms:** therophyte(1). **States:** BA(1); PE(1); RN(1). **Habitats:** Aqua, Ins, Unc.

**Aristida** (2 species)

*Aristida elliptica* (Nees) Kunth **States:** PE(1). **Habitats:** Cryst.

*Aristida setifolia* Kunth **Life forms:** therophyte(1). **States:** CE(1); PE(1); RN(3). **Habitats:** Cryst, Ins, Unc.

**Axonopus** (4 species)

*Axonopus aureus* P.Beauv. **States:** PE(1). **Habitats:** Ins.

*Axonopus capillaris* (Lam.) Chase **Habits:** herb(2). **Life forms:** therophyte(2). **States:** PE(2). **Habitats:** Trans.

*Axonopus polydactylus* (Steud.) Dedecca **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

*Axonopus purpusii* (Mez) Chase **States:** RN(1). **Habitats:** Unc.

**Cenchrus** (1 species)

*Cenchrus brownii* Roem. & Schult. **States:** PE(1). **Habitats:** Agre.

**Chaetium** (1 species)

*Chaetium festucoides* Nees **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

**Chloris** (3 species)

*Chloris barbata* Sw. **States:** BA(2); PE(1). **Habitats:** Aqua.

*Chloris exilis* Renvoize **States:** BA(1). **Habitats:** Aqua.

*Chloris orthonoton* Döll **Life forms:** therophyte(1). **States:** PB(1). **Habitats:** Ins.

**Cymbopogon** (1 species)

*Cymbopogon citratus* (DC.) Stapf **Habits:** herb(1). **States:** PB(1). **Habitats:** Unc.

**Cynodon** (1 species)

*Cynodon dactylon* (L.) Pers. **Habits:** herb(1). **States:** PI(1). **Habitats:** Trans.

**Dactyloctenium** (1 species)

*Dactyloctenium aegyptium* (L.) Willd. **Habits:** herb(2). **Life forms:** therophyte(2). **States:** BA(1); PE(5); RN(2). **Habitats:** Agre, Aqua, Cryst, Ins, Trans, Unc.

**Digitaria** (3 species)

*Digitaria ciliaris* (Retz.) Koeler **Life forms:** therophyte(1). **States:** CE(1); PE(1). **Habitats:** Aqua, Ins.

*Digitaria insularis* (L.) Fedde **Life forms:** therophyte(1). **States:** PB(1). **Habitats:** Ins.

*Digitaria sanguinalis* (L.) Scop. **Habits:** herb(2). **Life forms:** therophyte(2). **States:** PE(2); RN(2). **Habitats:** Cryst, Trans, Unc.

**Echinochloa** (1 species)

*Echinochloa colona* (L.) Link **States:** BA(6). **Habitats:** Aqua.

**Echinolaena** (1 species)

*Echinolaena inflexa* (Poir.) Chase **States:** PE(1). **Habitats:** Ins.

**Enteropogon** (1 species)

*Enteropogon mollis* (Nees) Clayton [Synonyms: *Chloris rupestris* (Ridl.) Hitchc.; *Gymnopogon rupestris* Ridl.] **Habits:** herb(4). **Life forms:** cryptophyte-geo(1); therophyte(3). **States:** BA(1); PE(7). **Habitats:** Agre, Cryst, Ins, Trans, Unc.

**Eragrostis** (5 species)

*Eragrostis acutiflora* (Kunth) Nees **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Trans.

*Eragrostis ciliaris* (L.) R.Br. **Habits:** herb(4). **Life forms:** therophyte(3). **States:** CE(1); PE(4). **Habitats:** Cryst, Trans, Unc.

*Eragrostis rufescens* Schrad. ex Schult. **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

*Eragrostis tenella* (L.) P.Beauv. ex Roem. & Schult. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Trans.

*Eragrostis unioloides* (Retz.) Nees ex Steud. **Habits:** herb(2). **Life forms:** therophyte(2). **States:** PE(2). **Habitats:** Trans.

**Hymenachne** (1 species)

*Hymenachne amplexicaulis* (Rudge) Nees **States:** BA(4). **Habitats:** Aqua.

**Ichnanthus** (2 species)

*Ichnanthus bambusiflorus* (Trin.) Döll **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Ichnanthus dasycoleus* Tutin **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

**Lasiacis** (2 species)

*Lasiacis anomala* Hitchc. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

*Lasiacis ligulata* Hitchc. & Chase **Life forms:** therophyte(1). **States:** PB(1); PE(1). **Habitats:** Agre, Ins.

**Leptochloa** (2 species)

*Leptochloa fusca* subsp. *fascicularis* (Lam.) N.Snow [Synonyms: *Leptochloa fascicularis* (Lam.) A.Gray] **States:** BA(1); PE(1). **Habitats:** Aqua.

*Leptochloa panicea* subsp. *brachiata* (Steud.) N.Snow [Synonyms: *Leptochloa filiformis* (Pers.) P. Beauv., Apparently an exotic grass species, or perhaps a misidentification of a native grass species.] **Habits:** herb(2). **Life forms:** hemicryptophyte(1); therophyte(1). **States:** PE(2). **Habitats:** Cryst.

**Luziola** (1 species)

*Luziola brasiliana* Moric. **States:** BA(1). **Habitats:** Aqua.

**Panicum** (4 species)

*Panicum polygonatum* Schrad. [Synonyms: *Panicum boliviense* Schrad.] **States:** BA(4). **Habitats:** Aqua.

*Panicum sellowii* Nees **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

*Panicum trichoides* Sw. **Habits:** herb(7). **Life forms:** hemicryptophyte(1); therophyte(9). **States:** CE(5); PE(10); RN(1). **Habitats:** Agre, Cryst, Ins, Sed, Trans, Unc.

*Panicum venezuelae* Hack. **States:** PE(1). **Habitats:** Agre.

**Pappophorum** (1 species)

*Pappophorum pappiferum* (Lam.) Kuntze **States:** BA(2). **Habitats:** Ins.

**Paspalidium** (1 species)

*Paspalidium geminatum* (Forssk.) Stapf **States:** BA(1); PE(1). **Habitats:** Aqua.

**Paspalum** (8 species)



*Paspalum conjugatum* P.J.Bergius **States:** PE(1). **Habitats:** Ins.  
*Paspalum fimbriatum* Kunth **Habits:** herb(2). **Life forms:** therophyte(2). **States:** PE(4). **Habitats:** Cryst.  
*Paspalum melanospermum* Desv. ex Poir. [Synonyms: *Paspalum foveolatum* Steud.] **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.  
*Paspalum oligostachyum* Salzm. ex Steud. **States:** PE(1). **Habitats:** Ins.  
*Paspalum parviflorum* Rhode ex Flügge **States:** PE(1). **Habitats:** Ins.  
*Paspalum plicatulum* Michx. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.  
*Paspalum repens* P.J.Bergius **States:** BA(3). **Habitats:** Aqua.  
*Paspalum scutatum* Nees ex Trin. **Life forms:** therophyte(1). **States:** CE(1); PE(2); RN(1). **Habitats:** Cryst, Unc.

**Sacciolepis** (1 species)

*Sacciolepis vilvoidea* (Trin.) Chase **States:** PE(1). **Habitats:** Ins.

**Schizachyrium** (1 species)

*Schizachyrium brevifolium* (Sw.) Nees ex Buse **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

**Setaria** (4 species)

*Setaria parviflora* (Poir.) Kerguelen [Synonyms: *Setaria geniculata* (Lam.) P.Beauv.] **Habits:** herb(2). **Life forms:** therophyte(2). **States:** CE(1); PB(1); PE(3); RN(1). **Habitats:** Cryst, Ins, Sed, Unc, Sed.

*Setaria pauciflora* Linden ex Herrm., The use of *Setaria pauciflora* for plants of the semiarid of Brazil is almost certainly a misapplication of the name but the true identity of the material thus determined has not yet been established (R.S. Rodrigues, pers. comm.) **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

*Setaria setosa* (Sw.) P.Beauv. [Synonyms: *Setaria rariflora* J.C.Mikan ex Trin.] **Habits:** herb(2). **Life forms:** therophyte(1). **States:** BA(1); CE(2). **Habitats:** Sed, Ins.

*Setaria tenax* (Rich.) Desv. **Habits:** herb(2). **Life forms:** therophyte(1). **States:** CE(1); PE(1). **Habitats:** Cryst, Sed.

**Sporobolus** (1 species)

*Sporobolus pyramidatus* (Lam.) Hitchc. **Life forms:** therophyte(1). **States:** PB(1); PE(1). **Habitats:** Ins.

**Steirachne** (1 species)

*Steirachne diandra* Ekman **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Sed.

**Streptostachys** (1 species)

*Streptostachys asperifolia* Desv. [Synonyms: *Panicum asperifolium* (Desv.) Hitchc.] **Habits:** herb(4). **Life forms:** therophyte(2). **States:** CE(4); PE(1). **Habitats:** Sed.

**Trachypogon** (1 species)

*Trachypogon spicatus* (L.f.) Kuntze **States:** PE(1). **Habitats:** Ins.

**Tragus** (1 species)

*Tragus berteronianus* Schult. **Habits:** herb(5). **Life forms:** hemicryptophyte(1); therophyte(3). **States:** PE(9). **Habitats:** Cryst, Ins, Sed, Trans.

**Tripogon** (1 species)

*Tripogon spicatus* (Nees) Ekman **Habits:** herb(2). **Life forms:** therophyte(2). **States:** PE(2). **Habitats:** Cryst.

**POLYGALACEAE** (4 genera; 18 species)

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**Bredemeyera** (3 species)

*Bredemeyera brevifolia* (Benth.) Klotzsch ex A.W.Benn. **Habits:** climber(1). **States:** CE(3). **Habitats:** Sed.

*Bredemeyera floribunda* Willd. **Habits:** climber(1); liana(2). **Life forms:** phanerophyte(2). **States:** CE(4); PI(1). **Habitats:** CMajor, Sed.

*Bredemeyera kunthiana* (A.St.-Hil.) Klotzsch ex A.W.Benn. **Habits:** shrub(1). **States:** BA(1). **Habitats:** Diam.

**Monnina** (1 species)

*Monnina insignis* A.W.Benn. **States:** BA(1). **Habitats:** Sed.

**Polygala** (12 species)

*Polygala bracteata* A.W.Benn. **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Cryst.

**Observations:** According to specialist J.F.Pastore, *P. bracteata* is endemic to Goiás state. This record probably represents a misidentification.

*Polygala galioides* Poir. **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

*Polygala glochidiata* Kunth **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

*Polygala gracilis* Kunth **Habits:** herb(1). **Life forms:** therophyte(2). **States:** CE(1); PB(1). **Habitats:** Ins, Sed.

**Observations:** According to specialist J.F.Pastore, this record probably represents a misidentification of *Polygala boliviensis* A.W.Benn.

*Polygala lancifolia* A.St.-Hil. & Moq. **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst. **Observations:** According to specialist J.F.Pastore, *P. lancifolia* is a species characteristic of the Atlantic rainforest and does not occur in the Caatinga.

*Polygala longicaulis* Kunth **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

*Polygala mollis* Kunth **Habits:** herb(1). **States:** BA(1). **Habitats:** Sed.

**Observations:** This taxon was subsequently recognised as distinct from *Polygala* and given the new combination *Asemeia mollis* (Kunth) J.F.B.Pastore & J.R.Abbott. However, according to specialist J.F.Pastore the record of *P. mollis* probably represents a misidentification of *Asemeia ovata* (Poir.) J.F.B. Pastore & Abbott (= *Polygala ovata* Poir.).

*Polygala paniculata* L. **Habits:** herb(2). **Life forms:** therophyte(3). **States:** CE(2); PB(1); PE(3). **Habitats:** Agre, Cryst, Ins, Sed.

*Polygala pseudohebeclada* Chodat **States:** BA(1). **Habitats:** Sed.

**Observations:** This taxon was subsequently recognised as distinct from *Polygala* and given the new combination *Asemeia pseudohebeclada* (Chodat) J.F.B.Pastore & J.R.Abbott.

*Polygala roubienna* A.St.-Hil. & Moq. **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

**Observations:** According to specialist J.F.Pastore, *P. roubienna* is a species endemic to the Serra dos Órgãos mountains in SE Brazil and its use in Caatinga almost certainly represents a misidentification.

*Polygala spectabilis* DC. **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

**Observations:** Subsequently recognised as distinct from *Polygala* and given the new combination *Caamembeca spectabilis* (DC.) J.F.B.Pastore.

*Polygala violacea* Aubl. [Synonyms: *Polygala brizoides* A. St.-Hil. & Moq.] **Habits:** herb(2). **Life forms:** therophyte(3).

**States:** CE(1); PB(1); PE(4); PI(1). **Habitats:** Trans, Cryst, Ins, Unc.

**Observations:** Subsequently recognised as distinct from *Polygala* and given the new combination *Asemeia violacea* (Aubl.) J.F.B.Pastore & J.R.Abbott.

**Securidaca** (2 species)

*Securidaca diversifolia* (L.) S.F.Blake **Life forms:** phanerophyte(1). **States:** BA(2); PE(1). **Habitats:** Ins.

*Securidaca volubilis* L. **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.

**POLYGONACEAE** (4 genera; 10 species)

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**Coccoloba** (3 species)

*Coccoloba conduplicata* Maguire **Habits:** tree(1). **States:** BA(1). **Habitats:** Diam.

*Coccoloba mollis* Casar. **States:** PB(1). **Habitats:** Agre.

*Coccoloba schwackeana* Lindau **Life forms:** phanerophyte(1). **States:** BA(3); MG(4). **Habitats:** Arb, Ins.

**Polygonum** (2 species)

*Polygonum ferrugineum* Wedd. **States:** BA(6). **Habitats:** Aqua.

*Polygonum hispidum* Kunth **Habits:** subshrub(1). **States:** BA(2); PE(1). **Habitats:** Aqua, Riv.

**Ruprechtia** (2 species)

*Ruprechtia laxiflora* Meisn. **Habits:** tree(1). **States:** BA(2); PE(3). **Habitats:** Cryst, Ins, Sed.

*Ruprechtia ramiflora* (Jacq.) C.A.Mey. **Habits:** tree(1). **States:** BA(2). **Habitats:** Sed.

**Triplaris** (3 species)

*Triplaris gardneriana* Wedd. [Synonyms: *Triplaris pachau* Mart.; *Triplaris tomentosa* Wedd.] **Habits:** ?(1); tree(6). **States:** BA(1); CE(1); MG(1); PB(5); PE(2); PI(1); RN(1). **Habitats:** Arb, Cryst, Diam, Riv, Trans, Unc.

*Triplaris physocalyx* Brandbyge **States:** BA(1). **Habitats:** Diam.

*Triplaris weigeltiana* (Rchb.) Kuntze [Synonyms: *Triplaris surinamensis* Cham.] **States:** PI(1). **Habitats:** CMAior.

**PONTEDERIACEAE** (2 genera; 4 species)

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**Eichhornia** (3 species)

*Eichhornia azurea* (Sw.) Kunth **States:** BA(3). **Habitats:** Aqua.

*Eichhornia crassipes* (Mart.) Solms **States:** BA(6); PE(2). **Habitats:** Aqua.

*Eichhornia paniculata* (Spreng.) Solms **Life forms:** therophyte(1). **States:** BA(3); PB(1). **Habitats:** Aqua, Ins.

**Heteranthera** (1 species)

*Heteranthera limosa* (Sw.) Willd. **Habits:** herb(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Cryst.

**PORTULACACEAE** (2 genera; 10 species)

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**Portulaca** (8 species)

*Portulaca elatior* Mart. ex Rohrb. **Habits:** herb(1). **Life forms:** therophyte(2). **States:** BA(2); PE(13); PI(1). **Habitats:** Cryst, Ins, Cryst, Ins, Riv, Sed, Trans.

*Portulaca grandiflora* Hook. **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

*Portulaca halimoides* L. **Life forms:** hemicryptophyte(2); phanerophyte(1). **States:** BA(4); CE(2); PB(1). **Habitats:** Cryst, Ins.

*Portulaca hirsutissima* Cambess. **States:** BA(1); PE(1). **Habitats:** Ins, Sed.

*Portulaca mucronata* Link [Synonyms: *Portulaca marginata* Kunth] **Habits:** herb(3). **Life forms:** therophyte(2). **States:** BA(2); PE(3). **Habitats:** Aqua, Ins, Trans.

*Portulaca oleracea* L. **Habits:** herb(4). **Life forms:** hemicryptophyte(1); therophyte(3). **States:** PE(8). **Habitats:** Agre, Cryst, Trans, Unc.

*Portulaca pilosa* L. **Habits:** herb(2). **Life forms:** therophyte(2). **States:** CE(1); PB(1); PI(1). **Habitats:** Cryst, Ins, Sed.

*Portulaca umbraticola* Kunth **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Trans.

**Talinum** (2 species)

*Talinum paniculatum* (Jacq.) Gaertn. **Habits:** herb(2). **Life forms:** therophyte(4). **States:** BA(1); CE(2); PB(1); PE(2).

**Habitats:** Agre, Cryst, Ins, Sed.

*Talinum triangulare* (Jacq.) Willd. **Habits:** herb(4). **Life forms:** therophyte(3). **States:** CE(2); PB(2); PE(2). **Habitats:** Agre, Cryst, Ins, Sed, Trans.

**RANUNCULACEAE** (1 genus; 1 species)

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**Clematis** (1 species)

*Clematis dioica* L. **Habits:** climber(1). **States:** PB(1). **Habitats:** Ins.

**RHAMNACEAE** (6 genera; 10 species)

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**Alvimiantha** (1 species)

*Alvimiantha tricamerata* Grey-Wilson **States:** PB(1). **Habitats:** Cryst.

**Colubrina** (2 species)

*Colubrina cordifolia* Reissek **Habits:** shrub(6). **Life forms:** phanerophyte(2). **States:** CE(8); PI(3). **Habitats:** Sed, Trans.

*Colubrina glandulosa* Perkins **Habits:** tree(1). **States:** PI(1). **Habitats:** Sed.

**Crumenaria** (1 species)

*Crumenaria decumbens* Mart. **Habits:** herb(1). **Life forms:** therophyte(4). **States:** CE(2); PB(2); PE(1); RN(1). **Habitats:** Cryst, Ins, Trans.

**Gouania** (2 species)

*Gouania colurnifolia* Reissek **States:** PE(1). **Habitats:** Ins.

*Gouania lupuloides* (L.) Urb. **Habits:** climber(1). **States:** PE(1). **Habitats:** Agre.

**Rhamnidium** (2 species)

*Rhamnidium elaeocarpum* Reissek **States:** MG(1). **Habitats:** Arb.

*Rhamnidium molle* Reissek **Habits:** tree(3). **States:** PB(5); PE(4). **Habitats:** Agre, Cryst, Ins, Riv.

**Ziziphus** (2 species)

*Ziziphus cotinifolia* Reissek **Habits:** tree(4). **Life forms:** phanerophyte(1). **States:** CE(1); PB(4); PE(1); PI(2). **Habitats:** CMAior, Cryst, Riv, Sed, Trans.

*Ziziphus joazeiro* Mart. **Habits:** tree(13). **Life forms:** phanerophyte(3). **States:** BA(4); CE(4); MG(1); PB(19); PE(16); PI(1); RN(5). **Habitats:** Agre, Arb, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

**RUBIACEAE** (24 genera; 51 species)

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**Alibertia** (2 species)

*Alibertia edulis* (Rich.) A.Rich. **Habits:** treelet(1). **Life forms:** phanerophyte(1). **States:** PI(4). **Habitats:** CMAior, Sed.

*Alibertia macrantha* Standl. **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

**Alseis** (1 species)

*Alseis floribunda* Schott **Habits:** tree(3). **States:** BA(2); PE(2). **Habitats:** Agre, Diam.

**Borreria** (6 species)

*Borreria alata* (Aubl.) DC. [Synonyms: *Spermacoce alata* Aubl.] **Life forms:** therophyte(2). **States:** PE(2). **Habitats:** Ins.

*Borreria brownii* (Rusby) Standl. [Synonyms: *Spermacoce vegeta* (Standl. & Steyererm.) C.D.Adams ex W.C.Burger & C.M.Taylor] **Habits:** herb(1). **Life forms:** hemicryptophyte(1); therophyte(1). **States:** CE(2). **Habitats:** Cryst, Sed.

*Borreria capitata* (Ruiz & Pav.) DC. [Synonyms: *Spermacoce capitata* Ruiz & Pav.] **Habits:** herb(1). **Life forms:** therophyte(1). **States:** CE(1); PB(1); PE(1). **Habitats:** Cryst, Ins, Sed.

*Borreria ocymoides* (Burm.f.) DC. **States:** PE(1). **Habitats:** Unc.

*Borreria scabiosoides* Cham. & Schltdl. [Synonyms: *Spermacoce scabiosoides* (Cham. & Schltdl.) Kuntze] **Life forms:** therophyte. **States:** CE(1); PE(1). **Habitats:** Trans.

*Borreria verticillata* (L.) G.Mey. [Synonyms: *Spermacoce verticillata* L.] **Habits:** subshrub(1). **Life forms:** therophyte(1). **States:** BA(3); PB(2). **Habitats:** Agre, Aqua, Ins, Sed.

**Chiococca** (1 species)

*Chiococca alba* (L.) Hitchc. **States:** PB(1); PE(1). **Habitats:** Agre, Ins.

**Chomelia** (2 species)

*Chomelia martiana* Müll.Arg. **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Chomelia obtusa* Cham. & Schltdl. **Habits:** shrub(3). **States:** CE(2); PI(4). **Habitats:** CMAior, Sed.

**Cordia** (4 species)

*Cordia concolor* (Cham.) Kuntze [Synonyms: *Alibertia concolor* (Cham.) K.Schum.] **Habits:** shrub(1). **States:** BA(2); PE(1). **Habitats:** Ins, Sed.

*Cordia elliptica* (Cham.) Kuntze [Synonyms: *Alibertia elliptica* (Cham.) K.Schum.] **States:** PI(1). **Habitats:** Sed.

*Cordia rigida* (K.Schum.) Kuntze [Synonyms: *Alibertia rigida* K.Schum.] **Habits:** subshrub(1). **States:** PE(2). **Habitats:** Ins, Sed.

*Cordia sessilis* (Vell.) Kuntze [Synonyms: *Alibertia sessilis* (Vell.) K.Schum.] **Habits:** subshrub(1). **States:** BA(2); CE(1). **Habitats:** Ins, Sed.

**Coutarea** (1 species)

*Coutarea hexandra* (Jacq.) K.Schum. **Habits:** shrub(1); tree(3). **Life forms:** microphanerophyte(1); phanerophyte(1). **States:** BA(2); MG(3); PB(4); PE(7); PI(3). **Habitats:** Agre, Arb, CMAior, Cryst, Diam, Ins, Riv, Sed, Unc.

**Declieuxia** (1 species)

*Declieuxia fruticosa* (Willd. ex Roem. & Schult.) Kuntze **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

**Diodella** (4 species)

*Diodella apiculata* (Willd. ex Roem. & Schult.) Delprete [Synonyms: *Diodia apiculata* (Willd. ex Roem. & Schult.) K. Schum.; *Diodia rigida* Cham. & Schltdl.] **Habits:** herb(4); subshrub(1). **Life forms:** chamaephyte(1); hemicryptophyte(1); therophyte(2). **States:** CE(2); PE(7). **Habitats:** Ins, Cryst, Sed, Trans.

*Diodella gardneri* (K.Schum.) Bacigalupo & E.L.Cabral [Synonyms: *Diodia barbeyana* Huber] **Habits:** herb(2). **Life forms:** therophyte(2). **States:** BA(1); CE(2). **Habitats:** Sed.

*Diodella radula* (Willd. ex Roem. & Schult.) Delprete [Synonyms: *Diodia radula* (Willd. ex Roem. & Schult.) Cham. & Schltdl.] **States:** PE(1). **Habitats:** Ins.

*Diodella teres* (Walter) Small [Synonyms: *Diodia prostrata* Sw.; *Diodia teres* Walter] **Habits:** herb(3). **Life forms:** therophyte(1). **States:** CE(2); PE(3); PI(1). **Habitats:** Cryst, Sed, Trans, Unc.

**Emmeorhiza** (1 species)

*Emmeorhiza umbellata* (Spreng.) K.Schum. **Life forms:** phanerophyte(2). **States:** PE(2). **Habitats:** Ins.

**Faramea** (1 species)

*Faramea montevidensis* (Cham. & Schltdl.) DC. **States:** BA(1). **Habitats:** Ins.

**Genipa** (1 species)

*Genipa americana* L. **States:** PB(1). **Habitats:** Cryst.

**Guettarda** (4 species)

*Guettarda angelica* Mart. ex Müll.Arg. **Habits:** shrub(5); tree(1). **States:** BA(2); MG(2); PB(4); PE(3); PI(1). **Habitats:** Arb, Cryst, Ins, Riv, Sed, Trans.

*Guettarda platypoda* DC. **Habits:** shrub(1). **States:** BA(1); PB(3); PE(1). **Habitats:** Agre, Diam, Ins, Riv.

*Guettarda sericea* Müll.Arg. **Habits:** shrub(1). **States:** PB(4). **Habitats:** Agre, Ins.

*Guettarda viburnoides* Cham. & Schltdl. **Habits:** shrub(2); treelet(1). **Life forms:** phanerophyte(1). **States:** CE(2); PI(4). **Habitats:** CMAior, Sed.

**Leptoscela** (1 species)

*Leptoscela ruellioides* Hook.f. **Habits:** herb(1). **Life forms:** phanerophyte(1). **States:** BA(2); PB(1); PE(1). **Habitats:** Cryst, Ins, Sed.

**Machaonia** (1 species)

*Machaonia spinosa* Cham. & Schltdl. **Habits:** shrub(1). **States:** PE(1). **Habitats:** Riv.

**Manettia** (1 species)

*Manettia cordifolia* Mart. **Habits:** climber(1). **Life forms:** phanerophyte(1). **States:** PB(2); PE(1). **Habitats:** Agre, Ins.

**Margaritopsis** (2 species)

*Margaritopsis carrascoana* (Delprete & E.B.Souza) C.M.Taylor **Habits:** subshrub(2). **Life forms:** chamaephyte(2). **States:** CE(2). **Habitats:** Sed.

*Margaritopsis chaenotricha* (DC.) C.M.Taylor [Synonyms: *Psychotria chaenotricha* DC.] **States:** PB(1). **Habitats:** Agre.

### Mitracarpus (5 species)

*Mitracarpus frigidus* (Willd. ex Roem. & Schult.) K.Schum. **Life forms:** chamaephyte(2). **States:** PE(3). **Habitats:** Ins, Unc.

*Mitracarpus hirtus* (L.) DC. [Synonyms: *Mitracarpus villosus* (Sw.) DC.] **Habits:** herb(1). **Life forms:** therophyte(1).

**States:** BA(1); CE(1); PE(1). **Habitats:** Cryst, Sed.

*Mitracarpus parvulus* K.Schum. **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

*Mitracarpus salzmannianus* DC. [Synonyms: *Mitracarpus scabrellus* Benth.] **Habits:** herb(3). **Life forms:** therophyte(3).

**States:** PE(5). **Habitats:** Cryst, Trans.

*Mitracarpus scaberulus* Urb. **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Ins.

### Palicourea (1 species)

*Palicourea marcovii* A.St.-Hil. **States:** RN(1). **Habitats:** Unc.

### Randia (2 species)

*Randia armata* (Sw.) DC. [Synonyms: *Basanacantha spinosa* var. *pubescens* (Kunth) K.Schum.; *Basanacantha spinosa* (Jacq.) K.Schum.; *Randia nitida* (Kunth) DC.] **Habits:** shrub(2); subshrub(1); tree(2). **Life forms:** phanerophyte(1). **States:** BA(3); CE(2); MG(9); PB(2); PE(3); PI(1); RN(1). **Habitats:** Agre, Arb, CMAior, Diam, Ins, Riv, Sed, Trans, Unc.

*Randia ferox* (Cham. & Schltdl.) DC. **Habits:** tree(1). **States:** PB(1). **Habitats:** Riv.

### Richardia (3 species)

*Richardia brasiliensis* Gomes **Habits:** herb(1). **States:** PE(1). **Habitats:** Sed.

*Richardia grandiflora* (Cham. & Schltdl.) Steud. **Habits:** herb(6); subshrub(2). **Life forms:** chamaephyte(2); therophyte(2).

**States:** CE(2); PB(2); PE(6); RN(2). **Habitats:** Agre, Aqua, Cryst, Ins, Sed, Trans, Unc.

*Richardia scabra* L. **Life forms:** hemicryptophyte(1). **States:** PI(1). **Habitats:** Sed.

### Spermacoce (1 species)

*Spermacoce spiralis* (K.Schum.) Bacigalupo & E.L.Cabral **Habits:** herb(1). **Life forms:** hemicryptophyte(1). **States:** CE(1).

**Habitats:** Cryst.

### Staelia (2 species)

*Staelia aurea* K.Schum. **Habits:** subshrub(1). **States:** PE(1). **Habitats:** Sed.

*Staelia virgata* (Link ex Roem. & Schult.) K.Schum. **Life forms:** therophyte(1). **States:** CE(1); PE(3). **Habitats:** Cryst, Trans.

### Tocoyena (3 species)

*Tocoyena formosa* (Cham. & Schltdl.) K.Schum. [Synonyms: *Tocoyena formosa* (Cham. & Schltdl.) K.Schum. subsp. *formosa*] **Habits:** shrub(5); tree(5). **Life forms:** phanerophyte(4). **States:** BA(2); CE(4); PB(10); PE(6); PI(2). **Habitats:** Agre, Cryst, Ins, Riv, Sed, Trans, Sed.

*Tocoyena hispidula* Standl. **Habits:** shrub(1). **States:** PI(2). **Habitats:** CMAior.

*Tocoyena sellowiana* (Cham. & Schltdl.) K.Schum. **Habits:** tree(3). **States:** PB(3); PI(1). **Habitats:** CMAior, Riv.

### RUTACEAE (5 genera; 12 species)

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#### Balfourodendron (1 species)

*Balfourodendron molle* (Miq.) Pirani [Synonyms: *Esenbeckia mollis* Miq.] **Habits:** shrub(2); tree(2). **States:** BA(2); MG(2); PE(4).

**Habitats:** Arb, Diam, Sed.

#### Esenbeckia (1 species)

*Esenbeckia febrifuga* (A.St.-Hil.) A. Juss. ex Mart. **Life forms:** phanerophyte(2). **States:** PE(2). **Habitats:** Ins.

#### Galipea (1 species)

*Galipea trifoliata* Aubl. **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed.

#### Pilocarpus (2 species)

*Pilocarpus jaborandi* Holmes **Habits:** tree(2). **States:** PI(3). **Habitats:** Sed, Trans.

*Pilocarpus spicatus* A.St.-Hil. **Habits:** tree(1); treelet(1). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed, Trans.

**Zanthoxylum** (7 species)

*Zanthoxylum fagara* (L.) Sarg. [Synonyms: *Zanthoxylum hyemale* A.St.-Hil.] **States:** PB(1). **Habitats:** Riv.

*Zanthoxylum hamadryadicum* Pirani **Habits:** shrub(1); tree(3). **States:** CE(2); PI(2). **Habitats:** Sed, Trans.

*Zanthoxylum huberi* P.G.Waterman **States:** PB(1). **Habitats:** Riv.

*Zanthoxylum petiolare* A.St.-Hil. & Tul. **States:** PB(1). **Habitats:** Agre.

*Zanthoxylum rhoifolium* Lam. [Synonyms: *Fagara rhoifolia* (Lam.) Engl.] **Life forms:** phanerophyte(2). **States:** BA(2); PB(1); PE(2); PI(1). **Habitats:** Agre, Cryst, Ins, Sed.

*Zanthoxylum riedelianum* Engl. **States:** MG(4). **Habitats:** Arb.

*Zanthoxylum stelligerum* Turcz. **Habits:** shrub(5); tree(2). **Life forms:** nanophanerophyte(1); phanerophyte(2). **States:** CE(3); PE(5); PI(4). **Habitats:** Sed, Trans.

**SALICACEAE** (3 genera; 12 species)

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**Casearia** (10 species)

*Casearia aculeata* Jacq. [Synonyms: *Casearia ramiflora* Vahl] **States:** PB(1). **Habitats:** Agre.

*Casearia commersoniana* Cambess. **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.

*Casearia decandra* Jacq. **States:** PB(1). **Habitats:** Agre.

*Casearia eichleriana* Sleumer **States:** PI(1). **Habitats:** Sed.

*Casearia grandiflora* Cambess. **Habits:** tree(1). **States:** PI(1). **Habitats:** Trans.

*Casearia guianensis* (Aubl.) Urb. **States:** PB(3). **Habitats:** Riv.

*Casearia luetzelburgii* Sleumer **States:** BA(1). **Habitats:** Ins.

*Casearia resinifera* Spruce ex Eichler **States:** PB(1). **Habitats:** Agre.

*Casearia sylvestris* Sw. **Habits:** shrub(2). **Life forms:** phanerophyte(1). **States:** CE(2); PE(3). **Habitats:** Ins, Sed.

*Casearia ulmifolia* Vahl ex Vent. **Habits:** shrub(1). **States:** PI(4). **Habitats:** CMaior.

**Prockia** (1 species)

*Prockia crucis* P.Browne ex L. **Life forms:** phanerophyte. **States:** PB(2); PE(3). **Habitats:** Agre, Cryst, Riv, Sed.

**Xylosma** (1 species)

*Xylosma ciliatifolia* (Clos) Eichler **Habits:** shrub(1); tree(2). **Life forms:** phanerophyte(2). **States:** CE(5). **Habitats:** Sed.

**SANTALACEAE** (1 genus; 6 species)

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**Phoradendron** (6 species)

*Phoradendron linearifolium* Eichler **Habits:** hemiparasite(1). **States:** BA(1). **Habitats:** Sed.

*Phoradendron mucronatum* (DC.) Krug & Urb. **Habits:** hemiparasite(1). **States:** PE(1). **Habitats:** Riv.

*Phoradendron piperoides* (Kunth) Trel. **Habits:** epiphyte(1). **States:** PE(1). **Habitats:** Sed.

*Phoradendron quadrangulare* (Kunth) Griseb. [Synonyms: *Phoradendron piauhyanum* Trel.] **Habits:** hemiparasite(1). **States:** PB(1); PE(2). **Habitats:** Agre, Ins, Sed.

*Phoradendron rubrum* (L.) Griseb. **States:** BA(1). **Habitats:** Sed.

*Phoradendron tunaeforme* (DC.) Eichler **Habits:** hemiparasite(1). **States:** PE(1). **Habitats:** Sed.

**SAPINDACEAE** (13 genera; 31 species)

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**Allophylus** (5 species)

*Allophylus edulis* (A.St.-Hil. et al.) Hieron. ex Niederl. **Habits:** tree(1). **States:** MG(3); PI(1). **Habitats:** Trans, Arb.

*Allophylus laevigatus* (Turcz.) Radlk. **States:** PB(2). **Habitats:** Agre.

*Allophylus quercifolius* (Mart.) Radlk. **Habits:** tree(9). **States:** PB(5); PE(10). **Habitats:** Agre, Cryst, Riv, Sed, Trans.

*Allophylus racemosus* Sw. **States:** MG(1). **Habitats:** Arb.

*Allophylus sericeus* (Cambess.) Radlk. **Habits:** shrub(1); tree(1). **Life forms:** phanerophyte(1). **States:** CE(5). **Habitats:** Sed.

**Averrhoidium** (1 species)

*Averrhoidium gardnerianum* Baill. **States:** BA(2). **Habitats:** Ins.

**Cardiospermum** (4 species)

*Cardiospermum anomalum* Cambess. **Habits:** climber(1); subshrub(1). **States:** PE(2); PI(1). **Habitats:** Sed.

*Cardiospermum corindum* L. **Habits:** climber(5); herb(1); liana(3). **Life forms:** chamaephyte(3); liana(1). **States:** BA(2); CE(2); PB(1); PE(6); PI(2). **Habitats:** Cryst, Ins, Sed, Trans, Unc.

*Cardiospermum halicacabum* L. **Habits:** climber(2); liana(1). **Life forms:** phanerophyte(2). **States:** PE(4); PI(1). **Habitats:** Ins, Riv, Sed, Trans.

*Cardiospermum oliveirae* Ferrucci **States:** BA(1); PE(1). **Habitats:** Ins.

**Cupania** (3 species)

*Cupania impressinervia* Acev.-Rodr. [Synonyms: *Cupania revoluta* Radlk.] **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** PB(1); PE(3). **Habitats:** Agre, Ins, Sed.

*Cupania racemosa* (Vell.) Radlk. **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

*Cupania vernalis* Cambess. **States:** MG(1). **Habitats:** Arb.

**Dilodendron** (1 species)

*Dilodendron bipinnatum* Radlk. **States:** MG(2). **Habitats:** Arb.

**Dodonaea** (1 species)

*Dodonaea viscosa* Jacq. **Habits:** shrub(1). **States:** PE(1). **Habitats:** Sed.

**Magonia** (1 species)

*Magonia pubescens* A.St.-Hil. [Synonyms: *Magonia glabrata* A.St.-Hil.] **Habits:** tree(4). **Life forms:** phanerophyte(3). **States:** BA(1); CE(2); PB(1); PI(6). **Habitats:** CMAior, Diam, Riv, Sed, Trans.

**Matayba** (1 species)

*Matayba guianensis* Aubl. **Habits:** tree(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

**Paullinia** (3 species)

*Paullinia cearensis* Somner & Ferrucci **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** CE(2). **Habitats:** Sed.

*Paullinia elegans* Cambess. **Habits:** climber(1); liana(1). **Life forms:** phanerophyte(1). **States:** CE(4); PB(1). **Habitats:** Riv, Sed.

*Paullinia pinnata* L. **Habits:** climber(1); liana(1). **Life forms:** phanerophyte(2). **States:** CE(1); PE(3). **Habitats:** Ins, Riv, Trans.

**Sapindus** (1 species)

*Sapindus saponaria* L. **Habits:** tree(2). **Life forms:** phanerophyte(1). **States:** CE(1); PE(2). **Habitats:** Riv, Sed.

**Serjania** (7 species)

*Serjania caracasana* (Jacq.) Willd. **Life forms:** liana(1). **States:** PI(1). **Habitats:** Sed.

*Serjania comata* Radlk. **Habits:** liana(1). **States:** BA(1). **Habitats:** Sed.

*Serjania glabrata* Kunth **Habits:** climber(6); liana(2). **Life forms:** phanerophyte(1). **States:** CE(2); PB(2); PE(6). **Habitats:** Agre, Ins, Riv, Sed, Trans.

*Serjania hebecarpa* Benth. **Habits:** climber(1). **Life forms:** phanerophyte(1). **States:** CE(1); PB(1). **Habitats:** Ins, Sed.

*Serjania lethalis* A.St.-Hil. **Habits:** climber(3); liana(1). **Life forms:** phanerophyte(1). **States:** CE(2); PE(2). **Habitats:** Sed.

*Serjania marginata* Casar. **Habits:** climber(1). **States:** PE(1). **Habitats:** Sed.

*Serjania pernambucensis* Radlk. **Habits:** climber(1). **States:** PE(1). **Habitats:** Sed.

**Talisia** (1 species)

*Talisia esculenta* (Cambess.) Radlk. **Habits:** tree(3). **Life forms:** phanerophyte(1). **States:** CE(2); MG(2); PB(1); PI(1). **Habitats:** Agre, Arb, Sed, Trans.



Urvillea (2 species)

*Urvillea laevis* Radlk. **Habits:** liana(1). **Life forms:** phanerophyte(1). **States:** BA(1); CE(1). **Habitats:** Ins, Sed.

*Urvillea ulmacea* Kunth **States:** BA(1). **Habitats:** Sed.

SAPOTACEAE (4 genera; 8 species)

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Chrysophyllum (3 species)

*Chrysophyllum arenarium* Allemão **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Chrysophyllum marginatum* (Hook. & Arn.) Radlk. [Synonyms: *Chrysophyllum ebenaceum* Mart.] **Habits:** shrub(1). **States:** CE(3). **Habitats:** Sed.

*Chrysophyllum rufum* Mart. **Life forms:** phanerophyte(1). **States:** PE(1). **Habitats:** Ins.

Manilkara (3 species)

*Manilkara rufula* (Miq.) H.J.Lam **Habits:** tree(1). **Life forms:** microphanerophyte(1). **States:** PE(3). **Habitats:** Sed.

*Manilkara salzmannii* (A.DC.) H.J.Lam **States:** PB(1). **Habitats:** Agre.

*Manilkara triflora* (Allemão) Monach. **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.

Pouteria (1 species)

*Pouteria gardneriana* (A.DC.) Radlk. **Habits:** tree(1). **States:** PI(1). **Habitats:** Trans.

Sideroxylon (1 species)

*Sideroxylon obtusifolium* (Roem. & Schult.) T.D.Penn. [Synonyms: *Bumelia sartorum* Mart.] **Habits:** shrub(1); tree(10). **States:** BA(3); PB(13); PE(8); RN(4). **Habitats:** Cryst, Ins, Riv, Sed, Unc.

SCHOEPFIACEAE (1 genus; 1 species)

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Schoepfia (1 species)

*Schoepfia brasiliensis* A.DC. [Synonyms: *Schoepfia obliquifolia* Turcz.] **Habits:** tree(1). **Life forms:** microphanerophyte(1). **States:** BA(2); PB(3); PE(3). **Habitats:** Agre, Ins, Sed.

SCROPHULARIACEAE (1 genus; 1 species)

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Ameroglossum (1 species)

*Ameroglossum pernambucense* Eb. Fisch. et al. **Life forms:** chamaephyte(1); phanerophyte(1). **States:** PB(1); PE(2). **Habitats:** Ins.

SIMAROUBACEAE (2 genera; 4 species)

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Simaba (2 species)

*Simaba ferruginea* A.St.-Hil. **Habits:** tree(1). **States:** BA(2). **Habitats:** Sed.

*Simaba floribunda* A.St.-Hil. [Synonyms: *Simaba cuneata* A.St.-Hil. & Tul.] **Habits:** tree(2); treelet(1). **Life forms:** microphanerophyte(1). **States:** PE(6). **Habitats:** Sed.

Simarouba (2 species)

*Simarouba amara* Aubl. **Habits:** tree(1). **Life forms:** microphanerophyte(1). **States:** PE(2). **Habitats:** Sed.

*Simarouba versicolor* A.St.-Hil. **Habits:** tree(1). **States:** PI(2). **Habitats:** CMAior.

SMILACACEAE (1 genus; 2 species)

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**Smilax** (2 species)

*Smilax brasiliensis* Spreng. **Life forms:** hemicryptophyte(1). **States:** PB(1). **Habitats:** Ins.

*Smilax campestris* Griseb. **Life forms:** liana(1). **States:** BA(1). **Habitats:** Ins.

SOLANACEAE (8 genera; 23 species)

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**Brunfelsia** (2 species)

*Brunfelsia cuneifolia* J.A.Schmidt **Habits:** shrub(1). **States:** CE(1). **Habitats:** Sed.

*Brunfelsia uniflora* (Pohl) D.Don **Habits:** shrub(2). **States:** CE(1); PB(1). **Habitats:** Riv, Trans.

**Capsicum** (1 species)

*Capsicum parvifolium* Sendtn. **Habits:** shrub(5). **Life forms:** phanerophyte(2). **States:** BA(1); PB(5); PE(1); PI(1).

**Habitats:** Cryst, Diam, Ins, Riv, Sed.

**Cestrum** (1 species)

*Cestrum axillare* Vell. [Synonyms: *Cestrum laevigatum* Schltld.] **States:** PB(1). **Habitats:** Agre.

**Lycium** (1 species)

*Lycium martii* Sendtn. **Habits:** tree(1). **States:** PE(1). **Habitats:** Riv.

**Nicotiana** (1 species)

*Nicotiana glauca* Graham **Habits:** shrub(3); subshrub(1). **States:** BA(2); PB(5); PE(2). **Habitats:** Ins, Riv, Sed.

**Physalis** (2 species)

*Physalis angulata* L. **Habits:** herb(1); subshrub(1). **States:** PB(1); PE(1); PI(1); RN(1). **Habitats:** Aqua, Cryst, Trans, Unc.

*Physalis pubescens* L. [Synonyms: *Physalis neesiana* Sendtn.] **Habits:** herb(1). **Life forms:** therophyte(1). **States:** BA(1); PB(1); PE(2). **Habitats:** Aqua, Cryst, Ins, Trans.

**Schwenckia** (1 species)

*Schwenckia americana* Rooyen ex L. **Life forms:** therophyte(1). **States:** BA(1); PE(3). **Habitats:** Ins, Unc, Trans.

**Solanum** (14 species)

*Solanum agrarium* Sendtn. **Habits:** shrub(1). **States:** PB(1); PE(1). **Habitats:** Cryst, Trans.

*Solanum americanum* Mill. **Habits:** shrub(1). **States:** CE(2); PE(1). **Habitats:** Ins, Sed.

*Solanum asperum* Rich. **Life forms:** phanerophyte(1). **States:** PB(1); PE(1). **Habitats:** Agre, Ins.

*Solanum bahianum* S.Knapp **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1). **Habitats:** Sed.

*Solanum capsicoides* Allemão **Life forms:** phanerophyte(1). **States:** PB(1). **Habitats:** Ins.

*Solanum crinitum* Lam. **Habits:** shrub(2). **Life forms:** phanerophyte(2). **States:** CE(2); PI(1). **Habitats:** Sed.

*Solanum flaccidum* Vell. **Habits:** herb(1); subshrub(1). **States:** PE(2). **Habitats:** Sed.

*Solanum jabrense* Agra & M.Nee **States:** PB(1). **Habitats:** Cryst.

*Solanum megalonyx* Sendtn. **States:** BA(2). **Habitats:** Ins.

*Solanum paludosum* Moric. **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** CE(1); PB(1). **Habitats:** Ins, Trans.

*Solanum paniculatum* L. **Habits:** shrub(7). **States:** BA(3); CE(3); PB(5); PE(3); PI(1). **Habitats:** Aqua, Ins, Riv, Sed, Trans, Unc.

*Solanum rhytidoandrum* Sendtn. [Synonyms: *Solanum baturitense* Huber] **Habits:** shrub(8). **States:** CE(3); PB(3); PE(3); PI(2).

**Habitats:** Cryst, Ins, Riv, Sed, Trans.

*Solanum stipulaceum* Willd. ex Roem. & Schult. **Habits:** herb(1); shrub(3). **States:** BA(1); CE(1); PE(4). **Habitats:** Ins, Sed.

*Solanum thomasiifolium* Sendtn. **Habits:** shrub(1). **States:** PE(2). **Habitats:** Ins, Sed.

TRIGONIACEAE (1 genus; 2 species)

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**Trigonía** (2 species)

*Trigonía bahiensis* E.F.Guim. & Miguel **Habits:** climber(1). **States:** CE(1). **Habitats:** Sed.

*Trigonía nivea* Cambess. **Habits:** liana(1); shrub(1). **Life forms:** phanerophyte(1). **States:** BA(3); CE(2); PE(1). **Habitats:** Diam, Ins, Sed.

**TURNERACEAE** (2 genera; 16 species)

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**Piriqueta** (5 species)

*Piriqueta cistoides* subsp. *caroliniana* (Walt.) Arbo [Synonyms: *Piriqueta caroliniana* var. *jacobinae* Urb.] **States:** BA(1). **Habitats:** Sed.

*Piriqueta duarteana* (Cambess.) Urb. **Habits:** herb(2); shrub(1). **States:** BA(2); PE(3); PI(1). **Habitats:** Ins, Sed, Trans, Sed.

*Piriqueta guianensis* N.E.Br. **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Cryst.

*Piriqueta racemosa* (Jacq.) Sweet **Habits:** herb(2). **Life forms:** chamaephyte(1); therophyte(1). **States:** BA(1); PE(3).

**Habitats:** Aqua, Cryst.

*Piriqueta sidifolia* (Cambess.) Urb. **Habits:** shrub(1); subshrub(2). **Life forms:** chamaephyte(1). **States:** CE(2); PI(1).

**Habitats:** Sed.

**Turnera** (11 species)

*Turnera blanchetiana* Urb. **Habits:** herb(1); shrub(4). **Life forms:** phanerophyte(2). **States:** CE(5); PE(1); PI(4). **Habitats:** Ins, Sed, Trans.

*Turnera calyptrocarpa* Urb. **Habits:** herb(1); subshrub(1). **States:** BA(3); CE(1); PI(1). **Habitats:** Ins, Trans.

*Turnera cearensis* Urb. **Habits:** subshrub(1). **States:** PB(1). **Habitats:** Ins.

*Turnera chamaedrifolia* Cambess. **States:** BA(3). **Habitats:** Ins, Sed.

*Turnera coerulea* DC. **Habits:** subshrub(2). **Life forms:** chamaephyte(2). **States:** CE(2). **Habitats:** Sed.

*Turnera diffusa* Willd. ex Schult. [Synonyms: *Turnera microphylla* Desv. ex Ham.] **Habits:** herb(1); shrub(1); subshrub(2). **Life forms:** nanophanerophyte(1). **States:** BA(1); PE(6). **Habitats:** Sed.

*Turnera macrophylla* Urb. **States:** PE(1). **Habitats:** Cryst.

*Turnera opifera* Mart. **Habits:** subshrub(1). **States:** BA(1). **Habitats:** Sed.

*Turnera pumilea* L. **Habits:** subshrub(1). **Life forms:** chamaephyte(2). **States:** CE(2); PE(4). **Habitats:** Cryst, Unc.

*Turnera subulata* Sm. **Habits:** climber(1); subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1); PB(1). **Habitats:** Cryst, Ins.

*Turnera ulmifolia* L., According to specialist M.M. Arbo, all varieties of *Turnera ulmifolia* that occurred in Brazil were elevated to species and this name should no longer be used for any Brazilian material. **Habits:** herb(1); subshrub(1). **Life forms:** therophyte(2). **States:** PB(1); PE(3); PI(1); RN(1). **Habitats:** Trans, Ins, Riv, Trans, Unc.

**TYPHACEAE** (1 genus; 1 species)

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**Typha** (1 species)

*Typha domingensis* Pers. **States:** BA(4). **Habitats:** Aqua.

**ULMACEAE** (1 genus; 1 species)

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**Phyllostylon** (1 species)

*Phyllostylon brasiliense* Capan. ex Benth. & Hook.f. **States:** PE(2). **Habitats:** Cryst.

**URTICACEAE** (3 genera; 4 species)

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**Cecropia** (2 species)

*Cecropia pachystachya* Trécul **Life forms:** phanerophyte(1). **States:** BA(3); PE(1). **Habitats:** Ins.

*Cecropia peltata* L. **Habits:** tree(1). **States:** PI(1). **Habitats:** Trans.

**Laportea** (1 species)

*Laportea aestuans* (L.) Chew **Habits:** herb(1). **Life forms:** therophyte(2). **States:** BA(1); CE(1). **Habitats:** Cryst, Ins.

**Pilea** (1 species)

*Pilea hyalina* Fenzl **Habits:** herb(1). **Life forms:** therophyte(3). **States:** PE(5). **Habitats:** Agre, Ins, Trans.

**VELLOZIACEAE** (1 genus; 1 species)

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**Vellozia** (1 species)

*Vellozia plicata* Mart. [Synonyms: *Nanuzia plicata* (Mart.) L.B.Sm. & Ayensu] **Habits:** herb(1). **States:** BA(3); PE(1); PI(1). **Habitats:** Ins, Trans.

**VERBENACEAE** (5 genera; 23 species)

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**Duranta** (1 species)

*Duranta erecta* L. [Synonyms: *Duranta repens* L.] **Habits:** shrub(1). **States:** PB(1); PE(1). **Habitats:** Agre, Trans.

**Lantana** (5 species)

*Lantana caatingensis* Moldenke **Habits:** shrub(1). **States:** BA(1). **Habitats:** Sed.

*Lantana camara* L. [Synonyms: *Lantana mista* L.] **Habits:** shrub(15); subshrub(4). **Life forms:** phanerophyte(8). **States:** BA(3); CE(8); PB(10); PE(17); PI(3); RN(2). **Habitats:** Agre, Cryst, Diam, Ins, Riv, Sed, Trans, Unc.

*Lantana canescens* Kunth **Life forms:** phanerophyte(1). **States:** BA(1); PI(1). **Habitats:** Sed.

*Lantana fucata* Lindl. **Habits:** shrub(1); subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(2). **Habitats:** Sed, Trans.

*Lantana montevidensis* (Spreng.) Briq. [Synonyms: *Lantana sellowiana* Link & Otto] **Life forms:** phanerophyte(1). **States:** PB(1). **Observations:** According to specialist T.R.S. Silva this species occurs in the Pampas and in the Atlantic Forest in the South of Brazil. It is unlikely that this species also occurs in the semiarid of Northeastern Brazil and it is almost certainly a missidentification..

**Habitats:** Ins.

**Lippia** (11 species)

*Lippia alba* (Mill.) N.E.Br. **Habits:** shrub(1). **Life forms:** phanerophyte(1). **States:** PE(3). **Habitats:** Aqua, Ins, Riv.

*Lippia gracilis* Schauer **Habits:** shrub(7). **Life forms:** chamaephyte(1); phanerophyte(1). **States:** CE(1); PB(5); PE(4). **Habitats:** Cryst, Ins, Riv, Sed.

*Lippia lasiocalycina* Cham. **States:** BA(2). **Habitats:** Ins.

*Lippia magentea* T.Silva **Habits:** subshrub(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Lippia microphylla* Cham. **States:** PE(2). **Habitats:** Cryst.

*Lippia organoides* Kunth [Synonyms: *Lippia rigida* Schauer] **Habits:** subshrub(1). **Life forms:** microphanerophyte(1). **States:** PE(4). **Habitats:** Cryst, Sed.

*Lippia pohliana* Schauer **States:** BA(2). **Habitats:** Ins.

*Lippia riedeliana* Schauer **States:** PE(1). **Habitats:** Sed.

*Lippia schomburgkiana* Schauer **Habits:** shrub(2). **States:** PE(3). **Habitats:** Sed.

*Lippia sidoides* Cham. **Habits:** shrub(1). **States:** CE(1). **Habitats:** Trans.

*Lippia thymoides* Mart. & Schauer **Habits:** shrub(1). **States:** BA(2). **Habitats:** Diam, Sed.

**Priva** (1 species)

*Priva bahiensis* A.DC. **States:** BA(2). **Habitats:** Aqua, Ins.

**Stachytarpheta** (5 species)

*Stachytarpheta angustifolia* (Mill.) Vahl [Synonyms: *Stachytarpheta elatior* Schrad. ex Schult.] **Life forms:** phanerophyte(1). **States:** BA(4); PB(1); PE(1). **Habitats:** Aqua, Ins.

*Stachytarpheta cayennensis* (Rich.) Vahl [Synonyms: *Stachytarpheta dichotoma* (Ruiz & Pav.) Vahl] **Habits:** herb(1). **Life forms:** therophyte(1). **States:** BA(1); CE(1); PE(1). **Habitats:** Cryst, Sed.

*Stachytarpheta coccinea* Schauer **Habits:** shrub(1). **Life forms:** therophyte(1). **States:** CE(2). **Habitats:** Cryst, Sed.

*Stachytarpheta microphylla* Walp. [Synonyms: *Stachytarpheta sanguinea* Mart.] **Habits:** herb(1). **Life forms:** therophyte(1). **States:** PE(1); RN(1). **Habitats:** Cryst, Trans.

*Stachytarpheta sessilis* Moldenke **Life forms:** therophyte(1). **States:** CE(1). **Habitats:** Cryst.

VIOLACEAE (2 genera; 2 species)

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Hybanthus (1 species)

*Hybanthus calceolaria* (L.) Oken [Synonyms: *Hybanthus ipecacuanha* (L.) Baill.] **Habits:** herb(3). **Life forms:** hemicryptophyte(2). **States:** CE(3); PE(3); RN(1). **Habitats:** Cryst, Ins, Sed, Unc.

Noisettia (1 species)

*Noisettia orchidiflora* (Rudge) Ging. [Synonyms: *Noisettia longifolia* Kunth] **States:** PE(1). **Habitats:** Cryst.

VITACEAE (1 genus; 9 species)

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Cissus (9 species)

*Cissus albida* Cambess. **Habits:** climber(1). **States:** CE(1). **Habitats:** Sed.

*Cissus decidua* Lombardi **Habits:** climber(3). **States:** PB(1); PE(3). **Habitats:** Ins, Trans.

*Cissus erosa* Rich. **Habits:** climber(1). **States:** PB(1); PE(1). **Habitats:** Ins.

*Cissus gongyloides* (Baker) Planch. **Habits:** liana(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Cryst.

*Cissus simsiana* Schult. & Schult.f. **Habits:** climber(1). **Life forms:** ?(1); chamaephyte(1); phanerophyte(2). **States:** BA(2); CE(1); PE(5). **Habitats:** Cryst, Ins.

*Cissus subrhomboidea* (Baker) Planch. **Life forms:** therophyte(1). **States:** PE(1). **Habitats:** Ins.

*Cissus ternata* (Baker) Planch. A doubtful name which should not be used in floristic studies anymore. The type of *Cissus ternata* was destroyed and the species in question may be *Cissus decidua* Lombardi or another Brazilian species but this cannot now be ascertained (J.A. Lombardi, pers. comm.). **States:** BA(1). **Observations:** Typus destroyed. Status uncertain. Maybe a synonym.. **Habitats:** Sed.

*Cissus tinctoria* Mart. **Habits:** liana(1). **Life forms:** chamaephyte(1). **States:** CE(1). **Habitats:** Sed.

*Cissus verticillata* (L.) Nicolson & C.E.Jarvis [Synonyms: *Cissus sicyoides* L.] **Habits:** liana(2). **States:** CE(2). **Habitats:** Trans.

VOCHYSIACEAE (3 genera; 6 species)

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Callisthene (3 species)

*Callisthene fasciculata* Mart. **Habits:** treelet(1). **Life forms:** chamaephyte(1). **States:** CE(1); MG(1); PI(4). **Habitats:** Arb, CMaior, Ins.

*Callisthene major* Mart. & Zucc. [Synonyms: *Callisthene blanchetii* Warm.] **States:** PB(1). **Habitats:** Cryst.

*Callisthene microphylla* Warm. **Habits:** tree(2). **Life forms:** phanerophyte(1). **States:** CE(1); PE(1); PI(2). **Habitats:** Ins, Sed, Trans.

Qualea (2 species)

*Qualea grandiflora* Mart. **Habits:** tree(1). **States:** PI(4). **Habitats:** CMaior.

*Qualea parviflora* Mart. **Habits:** tree(2). **States:** PI(5). **Habitats:** CMaior, Trans.

Salvertia (1 species)

*Salvertia convallariodora* A.St.-Hil. **States:** PI(1). **Habitats:** CMaior.

XYRIDACEAE (1 genus; 1 species)

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**Xyris** (1 species)

*Xyris jupicai* Rich. **States:** PE(1). **Habitats:** Ins.

**ZYGOPHYLLACEAE** (1 genus; 2 species)

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**Kallstroemia** (2 species)

*Kallstroemia maxima* (L.) Hook. & Arn. **Habits:** herb(1). **States:** PE(1). **Habitats:** Riv.

*Kallstroemia tribuloides* (Mart.) Steud. **Life forms:** therophyte. **States:** PE(3). **Habitats:** Sed.

APPENDIX 3—List of exotic species reported in the 131 papers compiled for this catalogue.

<p><b>AGAVACEAE</b></p> <p><i>Agave sisalana</i> Perrine</p> <p><b>APIACEAE</b></p> <p><i>Foeniculum vulgare</i> Mill.</p> <p><b>APOCYNACEAE</b></p> <p><i>Calotropis procera</i> (Aiton) W.T.Aiton</p> <p><b>ARACEAE</b></p> <p><i>Alocasia macrorrhizos</i> (L.) G.Don</p> <p><b>ASPARAGACEAE</b></p> <p><i>Sansevieria hyacinthoides</i> (L.) Druce (Synonyms: <i>Sansevieria guineensis</i> (L.) Willd.)</p> <p><b>ASTERACEAE</b></p> <p><i>Bidens bipinnata</i> L. <i>Bidens pilosa</i> L. <i>Calypocarpus biaristatus</i> (DC.) H.Rob.</p> <p><b>CUCURBITACEAE</b></p> <p><i>Momordica charantia</i> L.</p> <p><b>EUPHORBIACEAE</b></p> <p><i>Euphorbia tirucalli</i> L. <i>Jatropha gossypifolia</i> L.</p> <p><b>FABACEAE</b></p> <p><i>Cajanus cajan</i> (L.) Huth. <i>Crotalaria retusa</i> L. <i>Pithecellobium dulce</i> (Roxb.) Benth. <i>Prosopis juliflora</i> (Sw.) DC.</p>	<p><b>MARANTACEAE</b></p> <p><i>Maranta arundinacea</i> L.</p> <p><b>MELIACEAE</b></p> <p><i>Melia azedarach</i> L.</p> <p><b>ORCHIDACEAE</b></p> <p><i>Oeceoclades maculata</i> (Lindl.) Lindl.</p> <p><b>PAPAVERACEAE</b></p> <p><i>Argemone mexicana</i> L.</p> <p><b>POACEAE</b></p> <p><i>Aristida adscensionis</i> L. <i>Cenchrus ciliaris</i> L. <i>Eragrostis pilosa</i> (L.) P.Beauv. <i>Megathyrsus maximus</i> (Jacq.) B.K.Simon &amp; S.W.L.Jacobs (Synonyms: <i>Panicum maximum</i> Hochst. ex A.Rich.) <i>Melinis minutiflora</i> P.Beauv. <i>Melinis repens</i> (Willd.) Zizka (Synonyms: <i>Rhynchelytrum repens</i> (Willd.) C.E.Hubb.) <i>Pennisetum pedicellatum</i> Trin. <i>Urochloa fusca</i> (Sw.) B.F.Hansen &amp; Wunderlin <i>Urochloa mollis</i> (Sw.) Morrone &amp; Zuloaga (Synonyms: <i>Brachiaria mollis</i> (Sw.) Parodi) <i>Urochloa mutica</i> (Forssk.) T.Q.Nguyen <i>Urochloa plantaginea</i> (Link) R.D.Webster (Synonyms: <i>Brachiaria plantaginea</i> (Link) Hitchc.)</p> <p><b>SOLANACEAE</b></p> <p><i>Brugmansia arborea</i> (L.) Steud. <i>Datura stramonium</i> L.</p>
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APPENDIX 4—List of *nomina nuda* and names used in error to refer to plants in the Caatinga Phytogeographical Domain.

Family	<i>Nomina nuda</i> and names used in error	Notes
Amaranthaceae	<i>Gomphrena</i> aff. <i>leucocarpa</i> Mart.	Name used in error. Perhaps an error for <i>Gomphrena leucocephala</i> Mart.
Anacardiaceae	<i>Hermogenodendron concinnum</i> (Schott) Santin	This is a nomen nudum and this genus is not validly published. According to J.R.Pirani the valid name <i>Astronium concinnum</i> Schott should have been used instead.
Apocynaceae	<i>Marsdenia carunceroides</i> (Hook.) Faurn.	Name used in error. probably referable to <i>Marsdenia loniceroides</i> (Hook.) E.Fourn.
Araceae	<i>Scaphispatha hastifolia</i> Hook.	Name used in error. According to specialist E.G.Gonçalves, probably an amalgam of <i>Spathicarpa hastifolia</i> Hook., which is a species of Southern Brazil, and <i>Scaphispatha gracilis</i> Brongn. ex Schott, which occurs in the transition of Caatinga to Cerrado.
Asteraceae	<i>Blainvillea ligulata</i> (L.f.) DC.	Name used in error. Maybe a misspelling of <i>Blainvillea latifolia</i> (L.f.) DC., which is a synonym of <i>B. acmella</i> (L.) Philipson.
Bignoniaceae	<i>Anemopaegma ataidei</i> A.H.Gentry	Nomen nudum. The name <i>Anemopaegma ataidei</i> A.H.Gentry has been cited for Caatinga, but Gentry died before publishing the species.
Bignoniaceae	<i>Cuspidaria cratensis</i> A.H. Gentry	Nomen nudum. The name <i>Cuspidaria cratensis</i> A.H. Gentry has been cited for Caatinga, but Gentry died before publishing the species.
Bignoniaceae	<i>Cuspidaria laterifolia</i> (Mart.) A. DC.	Probably a misspelling of the name <i>Cuspidaria lateriflora</i> (Mart.) DC.
Bignoniaceae	<i>Cuspidaria morii</i> A.H. Gentry	Nomen nudum. The name <i>Cuspidaria morii</i> A.H. Gentry has been cited for Caatinga, but Gentry died before publishing the species.
Bignoniaceae	<i>Mansoa asperulum</i> (Bur. & K.Sch.) Gentry	Nomen nudum. The name <i>Mansoa asperulum</i> (Bur. & K.Sch.) Gentry has been cited for Caatinga, but Gentry died before publishing the species.
Bignoniaceae	<i>Proterantha glandulosa</i> A.H. Gentry	Nomen nudum. According to specialist L.G. Lohmann, this is a distinctive species that Gentry left as a nude name when he died. Even the genus he intended to create was left nude and thus should not be used in floristic studies.
Capparaceae	<i>Cleome auriculata</i> L.	Name used in error. Maybe a misspelling of <i>Cleome aculeata</i> L.
Capparaceae	<i>Cleome termitifolia</i> (Mart. & Zucc.) H.H. Iltis	Name used in error. Probably this is a misspelling of <i>Cleome tenuifolia</i> (Mart. & Zucc.) Iltis, which is a synonym of <i>Physostemon tenuifolium</i> Mart. & Zucc.
Capparaceae	<i>Colicodendron jacobinae</i> (Moric.) Hutch.	Name published in error. We didn't find any reference for this name in any major botanical databases nor with specialists consulted.
Cleomaceae	<i>Cleome pernambucensis</i> Iltis & Costa, Silva	Nomen nudum still waiting to be published.
Dioscoreaceae	<i>Dioscorea adenoptera</i> Mart. ex Griseb.	Name used in error. Probably a misspelling of <i>Dioscorea adenocarpa</i> Mart. ex Griseb., now <i>Dioscorea ovata</i> Vell.
Euphorbiaceae	<i>Argyhamnia volubilis</i> L.	Name used in error. We didn't find any reference for this name in any major botanical databases.
Euphorbiaceae	<i>Chamaesyce alsinifolia</i> Boiss.	Name used in error. Probably a misspelling of <i>Chamaesyce alsiniflora</i> (Baill.) D.C.Hassall.
Euphorbiaceae	<i>Manihot brachypoda</i> Müll.Arg.	Name used in error. Maybe the authors intended to write <i>Manihot brachyloba</i> Müll. Arg.
Fabaceae	<i>Acacia polyphylla</i> var. <i>parviflora</i> (Benth.) L. Rico	<i>Acacia polyphylla</i> DC. (= <i>Senegalia polyphylla</i> (DC.) Britton & Rose) is a valid name, but the variety <i>Acacia polyphylla</i> var. <i>parviflora</i> (Benth.) L. Rico has not been published. Rico says she intends to publish this variety, but the publication will probably be done under <i>Senegalia</i> and this name will remain <i>nudum</i> .
Fabaceae	<i>Bauhinia platysepala</i> Burch.	Name used in error. Almost certainly <i>Bauhinia platypetala</i> Burch. ex Benth.

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APPENDIX 4. (Continued)

Family	Nomina nuda and names used in error	Notes
Fabaceae	<i>Caesalpinia roton</i> Mart. ex Tul	Name used in error. We didn't find any reference for this name in any major botanical databases.
Fabaceae	<i>Chamaecrista metians</i> Moench.	Name used in error. Probably a misspelling of <i>Chamaecrista nictitans</i> (L.) Moench.
Fabaceae	<i>Chamaecrista repens</i> var. <i>multiflora</i> (Benth.) H.S. Irwin & Bameby	<i>Chamaecrista repens</i> (Vogel) H.S. Irwin & Bameby is a valid name of a plant that occurs in Caatinga, but this variety is probably a misspelling of <i>Chamaecrista repens</i> var. <i>multijuga</i> (Benth.) H.S. Irwin & Bameby.
Fabaceae	<i>Deguelia nitidula</i> (Benth.) Az.-Tozzi	Up to 2011 (the year we finished our synthesis) the name <i>Deguelia nitidula</i> was not yet published. We contacted A. Azevedo Tozzi and R. Camargo and they say the name will be published soon. If necessary, the name <i>Lonchocarpus nitidulus</i> Benth. is available, but will be put under synonym of <i>Deguelia nitidula</i> (Benth.) A.M.G. Azevedo & R.A. Camargo when Tozzi and Camargo's paper is released.
Fabaceae	<i>Mimosa stipulacea</i> Ducke	Name used in error. The name <i>Mimosa stipulacea</i> Roxb. (not <i>M. stipulacea</i> Ducke) do exists, but this species is from Asia and is not in question here.
Lythraceae	<i>Cuphea silvestris</i> Vahl	Name used in error. According specialist Shirley Graham, there is no reference to this name in any major monography of the genus, nor in the electronic databanks.
Malpighiaceae	<i>Byrsionima lutea</i> (Griseb.) Cuatrec.	Name used in error. Maybe the authors wanted to refer to <i>Banisteriopsis lutea</i> (Griseb.) Cuatrec.
Malvaceae	<i>Malvestarum scaberrum</i> Jacq.	Name used in error. Maybe the authors wanted to refer to <i>Malvastrum scabrum</i> (Cav.) A. Gray, which is a synonym of <i>Malvastrum tomentosum</i> (L.) S.R. Hill subsp. <i>tomentosum</i> .
Malvaceae	<i>Physaloides stoloniferum</i> (Salzm.) H. C. Monteiro	Name used in error. This is not a valid name. Probably the authors intended to refer to <i>Physalistrum stoloniferum</i> (Salzm. ex Turcz.) Monteiro.
Malvaceae	<i>Pseudomalachra guianensis</i> (K. Schum.) H. Monteiro	Name used in error. We didn't find any reference for this name in any major botanical databases nor with specialists consulted.
Melastomataceae	<i>Mouriri surinamensis</i> Aubl.	Name used in error. We didn't find any reference for this name or any similar in any major botanical databases nor with specialists consulted.
Myrtaceae	<i>Eugenia personii</i> McVaugh	Name used in error. Maybe the authors intended to write <i>Psidium personii</i> McVaugh, but <i>P. personii</i> is recorded mainly in the Amazon region.
Myrtaceae	<i>Myrcia bellata</i> O.Berg	Name used in error. Probably a misspelling of <i>Myrcia bullata</i> O.Berg, but <i>Myrcia bullata</i> is recorded mainly from Southeastern Brazil.
Myrtaceae	<i>Myrcia myrsinoides</i> Berg	Name used in error. Probably the authors wanted to refer to <i>Psidium myrsinoides</i> O.Berg, which is now under <i>Psidium myrtoides</i> O.Berg.
Nyctaginaceae	<i>Guaphra laxa</i> (Netto) Furlan	A quite common nomen nudum based on <i>Pisonia laxa</i> Netto, cited in 16 botanical surveys. A.M. Giulietti, who was supervisor of A. Furlan, intends to validate this name (pers. comm.), but before using it one should verify whether it was already published. Otherwise the name <i>Pisonia laxa</i> Netto should be used instead.
Polygonaceae	<i>Coccoloba terniflora</i> Lind.	Name used in error. Probably the authors intended refer to <i>Coccoloba tenuiflora</i> Lindau, but this species is not registered for Caatinga in the "Flora do Brasil" checklist.
Solanaceae	<i>Solanum chytidoandrum</i> Lam.	Name used in error. Maybe a misspelling of <i>Solanum rhytidandrum</i> Sendtn.
Turneraceae	<i>Turnera ulmifolia</i> var. <i>guianensis</i> Aubl.	Name used in error. Although <i>Turnera ulmifolia</i> L. is a valid name, this variety has not been published and is thus a <i>nomen nudum</i> . It should also be noted that all varieties of <i>Turnera ulmifolia</i> that occurred in Brazil were elevated to species and <i>Turnera ulmifolia</i> should no longer be used for any Brazilian material.

**Appendix 5**—Number of unidentified records in each genus reported in floristic or phytosociological papers in the Caatinga Phytogeographical Domain.

<i>Genus</i>	Number of unidentified records	<i>Genus</i>	Number of unidentified records
<i>Abutilon</i>	3	<i>Machaerium</i>	6
<i>Acacia</i>	7	<i>Macroptilium</i>	1
<i>Acalypha</i>	3	<i>Malachra</i>	1
<i>Acisanthera</i>	1	<i>Malva</i>	1
<i>Actinostemon</i>	3	<i>Mandevilla</i>	3
<i>Adenocalymma</i>	4	<i>Manihot</i>	14
<i>Aegiphila</i>	2	<i>Manilkara</i>	1
<i>Aeschynomene</i>	5	<i>Mansoa</i>	2
<i>Ageratum</i>	1	<i>Maprounea</i>	3
<i>Albizia</i>	6	<i>Maranta</i>	2
<i>Alibertia</i>	8	<i>Marsdenia</i>	3
<i>Allophylus</i>	2	<i>Marsilea</i>	1
<i>Alstroemeria</i>	1	<i>Mascagnia</i>	1
<i>Alternanthera</i>	6	<i>Matelea</i>	1
<i>Amaranthus</i>	1	<i>Maytenus</i>	9
<i>Anadenanthera</i>	1	<i>Melampodium</i>	1
<i>Andira</i>	3	<i>Melocactus</i>	1
<i>Andropogon</i>	1	<i>Memora</i>	1
<i>Anemia</i>	1	<i>Meriania</i>	1
<i>Anemopaegma</i>	4	<i>Merremia</i>	1
<i>Angelonia</i>	5	<i>Microstachys</i>	1
<i>Aniseia</i>	2	<i>Microtea</i>	3
<i>Annona</i>	6	<i>Mimosa</i>	30
<i>Anthurium</i>	2	<i>Mitracarpus</i>	6
<i>Argythamnia</i>	2	<i>Mouriri</i>	1
<i>Aristida</i>	2	<i>Myrcia</i>	8
<i>Aristolochia</i>	3	<i>Myrciaria</i>	3
<i>Arrabidaea</i>	10	<i>Nemastylis</i>	1
<i>Aspidosperma</i>	4	<i>Ocimum</i>	1
<i>Aspilia</i>	1	<i>Ocotea</i>	1
<i>Axonopus</i>	1	<i>Oncidium</i>	1
<i>Ayenia</i>	1	<i>Opuntia</i>	1
<i>Banara</i>	2	<i>Oryctanthus</i>	1
<i>Banisteriopsis</i>	10	<i>Ouratea</i>	2
<i>Bauhinia</i>	6	<i>Oxalis</i>	5
<i>Begonia</i>	2	<i>Oxandra</i>	1
<i>Bidens</i>	2	<i>Paepalanthus</i>	1
<i>Bignonia</i>	3	<i>Panicum</i>	7
<i>Blainvillea</i>	1	<i>Paspalum</i>	4
<i>Bombax</i>	1	<i>Passiflora</i>	1
<i>Borreria</i>	5	<i>Pavonia</i>	4
<i>Brassica</i>	2	<i>Peltogyne</i>	1
<i>Bromelia</i>	3	<i>Peperomia</i>	1

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**Appendix 5. (Continued)**

<i>Genus</i>	Number of unidentified records	<i>Genus</i>	Number of unidentified records
<i>Bulbostylis</i>	1	<i>Pereskia</i>	4
<i>Byrsonima</i>	5	<i>Petalostelma</i>	2
<i>Caesalpinia</i>	3	<i>Pfaffia</i>	1
<i>Calathea</i>	1	<i>Phaseolus</i>	1
<i>Calliandra</i>	4	<i>Philodendron</i>	1
<i>Callisia</i>	3	<i>Phoradendron</i>	6
<i>Callisthene</i>	1	<i>Phthirusa</i>	1
<i>Campomanesia</i>	6	<i>Phyllanthus</i>	5
<i>Capparis</i>	1	<i>Physaloides</i>	1
<i>Capsicum</i>	2	<i>Pilosocereus</i>	3
<i>Cardiospermum</i>	2	<i>Piper</i>	2
<i>Carica</i>	1	<i>Piptadenia</i>	1
<i>Casearia</i>	4	<i>Piriqueta</i>	8
<i>Cassia</i>	2	<i>Pisonia</i>	8
<i>Cassytha</i>	1	<i>Pithecellobium</i>	3
<i>Cayaponia</i>	3	<i>Pleurothallis</i>	1
<i>Celtis</i>	5	<i>Plinia</i>	2
<i>Centratherum</i>	1	<i>Polygala</i>	2
<i>Cestrum</i>	2	<i>Portulaca</i>	8
<i>Chamaecrista</i>	5	<i>Pouteria</i>	3
<i>Chamaesyce</i>	1	<i>Pseudechinolaena</i>	1
<i>Cheilanthes</i>	1	<i>Pseuderanthemum</i>	2
<i>Chloroleucon</i>	1	<i>Pseudobombax</i>	3
<i>Chomelia</i>	2	<i>Pseudomalachra</i>	3
<i>Chorisia</i>	1	<i>Psidium</i>	6
<i>Chrysophyllum</i>	4	<i>Pterandra</i>	1
<i>Cipura</i>	1	<i>Ptilochaeta</i>	1
<i>Cissampelos</i>	5	<i>Pyrostegia</i>	1
<i>Cissus</i>	3	<i>Rechsteineria</i>	2
<i>Cleome</i>	3	<i>Rhamnidium</i>	2
<i>Clusia</i>	2	<i>Rhipsalis</i>	2
<i>Cnidoscopus</i>	4	<i>Rhynchospora</i>	1
<i>Coccoloba</i>	5	<i>Riccia</i>	2
<i>Cochlospermum</i>	1	<i>Richardia</i>	1
<i>Colicodendron</i>	1	<i>Rudgea</i>	1
<i>Combretum</i>	5	<i>Ruellia</i>	5
<i>Commelina</i>	6	<i>Samolus</i>	2
<i>Copaifera</i>	2	<i>Sapium</i>	12
<i>Corchorus</i>	2	<i>Schinus</i>	1
<i>Cordia</i>	15	<i>Schoepfia</i>	2
<i>Crotalaria</i>	2	<i>Schubertia</i>	2
<i>Croton</i>	49	<i>Schwenckia</i>	1
<i>Cucumis</i>	2	<i>Scoparia</i>	1
<i>Cupania</i>	1	<i>Sebastiania</i>	4

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**Appendix 5. (Continued)**

<i>Genus</i>	Number of unidentified records	<i>Genus</i>	Number of unidentified records
<i>Cuphea</i>	9	<i>Securidaca</i>	3
<i>Cuspidaria</i>	8	<i>Selaginella</i>	1
<i>Cyperus</i>	11	<i>Senna</i>	7
<i>Cyrtopodium</i>	3	<i>Serjania</i>	6
<i>Dalbergia</i>	1	<i>Sesbania</i>	1
<i>Dalechampia</i>	4	<i>Setaria</i>	2
<i>Declieuxia</i>	1	<i>Sida</i>	14
<i>Desmodium</i>	5	<i>Smilax</i>	2
<i>Dichorisandra</i>	2	<i>Solanum</i>	20
<i>Digitaria</i>	5	<i>Sparattanthelium</i>	1
<i>Dioclea</i>	3	<i>Spermacoce</i>	1
<i>Diodia</i>	3	<i>Spigelia</i>	2
<i>Dioscorea</i>	7	<i>Spondias</i>	1
<i>Diospyros</i>	1	<i>Stachytarpheta</i>	2
<i>Ditassa</i>	1	<i>Stigmaphyllon</i>	2
<i>Dorstenia</i>	1	<i>Stilpnopappus</i>	2
<i>Dyschoriste</i>	1	<i>Struthanthus</i>	4
<i>Ebertia</i>	1	<i>Stylosanthes</i>	1
<i>Eclipta</i>	1	<i>Syngonanthus</i>	1
<i>Eleocharis</i>	3	<i>Tabebuia</i>	7
<i>Elytraria</i>	1	<i>Talinum</i>	3
<i>Emilia</i>	1	<i>Tecoma</i>	1
<i>Encholirium</i>	1	<i>Terminalia</i>	2
<i>Encyclia</i>	1	<i>Tetrastylis</i>	2
<i>Eriope</i>	2	<i>Tetraulacium</i>	1
<i>Eriotheca</i>	1	<i>Tibouchina</i>	3
<i>Erythroxylum</i>	12	<i>Tillandsia</i>	2
<i>Esenbeckia</i>	1	<i>Tournefortia</i>	4
<i>Eucalyptus</i>	1	<i>Tradescantia</i>	1
<i>Eugenia</i>	30	<i>Tragia</i>	2
<i>Eupatoriopsis</i>	1	<i>Trichilia</i>	2
<i>Eupatorium</i>	2	<i>Trichogonia</i>	1
<i>Euphorbia</i>	1	<i>Trimezia</i>	1
<i>Evolvulus</i>	7	<i>Triplaris</i>	1
<i>Fagara</i>	2	<i>Triumfetta</i>	2
<i>Faramea</i>	1	<i>Turnera</i>	4
<i>Ficus</i>	3	<i>Urvillea</i>	1
<i>Fimbristylis</i>	2	<i>Vallisneria</i>	1
<i>Froelichia</i>	1	<i>Vanilla</i>	1
<i>Gomphrena</i>	6	<i>Vernonia</i>	5
<i>Gouania</i>	1	<i>Vitex</i>	4
<i>Guapira</i>	8	<i>Vriesea</i>	1
<i>Guazuma</i>	1	<i>Waltheria</i>	4
<i>Guettarda</i>	1	<i>Wedelia</i>	1

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**Appendix 5. (Continued)**

<i>Genus</i>	Number of unidentified records	<i>Genus</i>	Number of unidentified records
<i>Gymnanthes</i>	5	<i>Wilbrandia</i>	5
<i>Habenaria</i>	1	<i>Wissadula</i>	1
<i>Heisteria</i>	2	<i>Xylosma</i>	2
<i>Helicteres</i>	4	<i>Zanthoxylum</i>	1
<i>Heliotropium</i>	2	<i>Zephyranthes</i>	1
<i>Herbertia</i>	1	<i>Undetermined Amaranthaceae</i>	1
<i>Herissantia</i>	2	<i>Undetermined Anacardiaceae</i>	2
<i>Heteropterys</i>	6	<i>Undetermined Apocynaceae</i>	4
<i>Hippeastrum</i>	5	<i>Undetermined Asteraceae</i>	9
<i>Hippocratea</i>	1	<i>Undetermined Bignoniaceae</i>	9
<i>Hybanthus</i>	1	<i>Undetermined Bigoniaceae</i>	1
<i>Hydrolea</i>	1	<i>Undetermined Convolvulaceae</i>	1
<i>Hymenaea</i>	1	<i>Undetermined Cucurbitaceae</i>	3
<i>Hyptis</i>	3	<i>Undetermined Cyperaceae</i>	3
<i>Ichnanthus</i>	1	<i>Undetermined Erythroxylaceae</i>	1
<i>Indigofera</i>	2	<i>Undetermined Euphorbiaceae</i>	3
<i>Ipomoea</i>	17	<i>Undetermined Fabaceae</i>	18
<i>Jacquemontia</i>	8	<i>Undetermined Flacourtiaceae</i>	1
<i>Jatropha</i>	7	<i>Undetermined Lamiaceae</i>	3
<i>Justicia</i>	1	<i>Undetermined Liliaceae</i>	1
<i>Kyllinga</i>	1	<i>Undetermined Lythraceae</i>	4
<i>Lantana</i>	5	<i>Undetermined Malpigiaceae</i>	8
<i>Laportea</i>	1	<i>Undetermined Malvaceae</i>	2
<i>Lasiacis</i>	1	<i>Undetermined Myrtaceae</i>	14
<i>Leandra</i>	1	<i>Undetermined Poaceae</i>	3
<i>Lemna</i>	1	<i>Undetermined Polygonaceae</i>	2
<i>Licania</i>	1	<i>Undetermined Rubiaceae</i>	8
<i>Lippia</i>	9	<i>Undetermined Sapotaceae</i>	1
<i>Lonchocarpus</i>	3	<i>Undetermined Solanaceae</i>	1
<i>Lophothecium</i>	1	<i>Undetermined Turneraceae</i>	1
<i>Ludwigia</i>	3	<i>Undetermined Ulmaceae</i>	1
<i>Luehea</i>	1	<i>Undetermined Urticaceae</i>	2
<i>Luetzelburgia</i>	2	<i>Undetermined Verbenaceae</i>	2
<i>Macfadyena</i>	1	<i>Records not assigned to any family</i>	56
<i>Total number of unidentified records</i>		1138	

**Appendix 6**—Number of unidentified records in each family reported in floristic or phytosociological papers in the Caatinga Phytogeographical Domain

Family	Number of unidentified records	Family	Number of unidentified records
Acanthaceae	11	Malpighiaceae	34
Alstroemeriaceae	1	Malvaceae	52
Amaranthaceae	16	Marantaceae	3
Amaryllidaceae	7	Marsileaceae	1
Anacardiaceae	4	Melastomataceae	7
Anemiaceae	1	Meliaceae	2
Annonaceae	7	Menispermaceae	5
Apocynaceae	20	Moraceae	4
Araceae	4	Myrtaceae	70
Aristolochiaceae	3	Nyctaginaceae	16
Asparagaceae	1	Ochnaceae	2
Asteraceae	30	Olacaceae	2
Begoniaceae	2	Onagraceae	3
Bignoniaceae	52	Orchidaceae	8
Bixaceae	1	Oxalidaceae	5
Boraginaceae	21	Passifloraceae	3
Brassicaceae	2	Phyllanthaceae	5
Bromeliaceae	7	Phytolaccaceae	3
Cactaceae	11	Piperaceae	3
Cannabaceae	5	Plantaginaceae	7
Capparaceae	5	Poaceae	28
Caricaceae	1	Polygalaceae	5
Celastraceae	10	Polygonaceae	8
Chrysobalanaceae	1	Portulacaceae	11
Clusiaceae	2	Pteridaceae	1
Combretaceae	7	Rhamnaceae	3
Commelinaceae	12	Ricciaceae	2
Convolvulaceae	36	Rubiaceae	38
Cucurbitaceae	13	Rutaceae	4
Cyperaceae	22	Salicaceae	9
Dioscoreaceae	7	Santalaceae	6
Ebenaceae	1	Sapindaceae	12
Eriocaulaceae	2	Sapotaceae	9
Erythroxylaceae	13	Schoepfiaceae	2
Euphorbiaceae	118	Selaginellaceae	1
Fabaceae	134	Smilacaceae	2
Gesneriaceae	2	Solanaceae	27
Hernandiaceae	1	Theophrastaceae	2
Hydrocharitaceae	1	Turneraceae	13
Hydroleaceae	1	Ulmaceae	1
Iridaceae	4	Urticaceae	3
Lamiaceae	15	Verbenaceae	18
Lauraceae	2	Violaceae	1
Loganiaceae	2	Vitaceae	3
Loranthaceae	6	Vochysiaceae	1
Lythraceae	13	Records not assigned to any family	56
Total number of unidentified records		1138	